COMMONWEALTH of VIRGINIA

Program Year 2017
Virginia Agricultural Cost-Share (VACS) BMP Manual

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

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Guidance Adopted April 20, 2016 (DCR-VSWCB-035)

Daphne W. Jamison
Board Chair

Clyde E. Cristman
DCR Director

Virginia Agricultural Cost-share, Tax Credit and CREP BMPs

Practice Code	Practice Name	Revision Date	Tax Credit	VACS Cost-Share	Requires NM Plan	Wildlife Focused	Ag BMP Loan*	CREP
CCI-CNT	Implementing Long Term High Residue Minimum Soil Disturbance System	3/2016	^	X	X			
CCI-FRB-1	Continuing Conservation Initiative Forested Riparian Buffer	3/2016	^	X				
CCI-HRB-1	Continuing Conservation Initiative Herbaceous Riparian Buffer	3/2016	^	X				
CCI-SE-1	Continuing Conservation Initiative Stream Exclusion	3/2016	^	X				
CP-21	CREP Filter Strip (Rental only)	3/2016						X
CP-22	CREP Riparian Forest Buffer (Rental only)	3/2016						X
CP-23	CREP Wetland Restoration (Rental only)	3/2016						X
CP-29	CREP Wildlife Habitat Buffer (Rental only)	3/2016						X
CRFR-3	CREP Riparian Forest Buffer	3/2016	X					X
CRLF-1	CREP Buffer Length Recording	3/2016						X
CRSL-6	CREP Stream Exclusion	3/2016	X					X
CRWP-2	CREP Streambank Protection – Fencing	3/2016	X					X
CRWQ-1	CREP Grass Filter Strips	3/2016	X					X
CRWQ-6B	CREP Wetland Restoration	3/2016	X					X
CRWQ-11	CREP Agricultural Sinkhole Protection	3/2016	X					X
FR-1	Aforestation of Erodible Crop and Pastureland	3/2016	X	X				
FR-3	Woodland Buffer Filter Area	3/2016	X	X				
FR-4	Woodland Erosion Stabilization	3/2016	X	X				
LE-2	Livestock Exclusion with Reduced Setback	3/2016	X	X				
NM-1A	Nutrient Management Plan Writing and Revisions (Annual)	3/2016	%	X				
NM-3C	Split Application of Nitrogen to Corn using Pre-sidedress Nitrate Test to Determine Need for Sidedress Nitrogen	3/2016	X	X#	X			
NM-4	Late Winter Split Application of Nitrogen on Small Grain	3/2016	X	X#	X			
NM-5	Precision Nutrient Management on Cropland	3/2016	X	X#	X			
RMP-1	Resource Management Plan Development	3/2016	%	X	X			
RMP-2	Resource Management Plan Implementation	3/2016	%	X	X			
SE-1	Vegetative Stabilization of Marsh Fringe Areas	3/2016	X	X				
SE-2	Agricultural Shoreline Stabilization	3/2016	X					
SL-1	Long Term Vegetative Cover on Cropland	3/2016	X	X				
SL-3	Strip Cropping Systems	3/2016	X	X	X			

Practice Code	Practice Name	Revision Date	Tax Credit	VACS Cost-Share	Requires NM Plan	Wildlife Focused	Ag BMP Loan*	CREP
SL-3B	Buffer Strip Cropping	3/2016	X	X	X			
SL-4	Terrace Systems and Residue Management	3/2016	X	X	X		X	
SL-5	Diversion	3/2016	X	X			X	
SL-6	Stream Exclusion with Grazing Land Management	3/2016	X	X			X	
SL-6A	Small Acreage Grazing System	3/2016	X		X			
SL-6B	Alternative Water System	3/2016	X				X	
SL-7	Extension of CREP Watering Systems	3/2016	X	X				
SL-8	Protective Cover for Specialty Cropland	3/2016	X	X#				
SL-8B	Small Grain and Mixed Cover Crop for Nutrient Management and Residue Management	3/2016	X	X#	X++			
SL-8H	Harvestable Cover Crop	3/2016	X	X#	X			
SL-9	Grazing Land Management	3/2016	X	X	X			
SL-11	Permanent Vegetative Cover on Critical Areas	3/2016	X	X				
SL-11B	Farm Road, Animal Travel Lane, Heavy Use Area Stabilization	3/2016	X				X	
SL-15A	Continuous High Residue Minimal Soil Disturbance Tillage System	3/2016	X	X#	X			
SL-15B	Continuous No-Till Forage Production System	3/2016	X	X#	X			
WP-1	Sediment Retention, Erosion or Water Control Structures	3/2016	X	X			X	
WP-2	Stream Protection	3/2016	X	X			X	
WP-2A	Streambank Stabilization	3/2016	X	X			X	
WP-2B	Stream Crossings & Hardened Access	3/2016	X				X	
WP-2C	Stream Channel Stabilization	3/2016	X				X	
WP-2D	Maintenance of Stream Exclusion Fencing	3/2016	X					
WP-3	Sod Waterways	3/2016	X	X				
WP-4	Animal Waste Control Facility	3/2016	X	X	X		X	
WP-4B	Dairy Loafing Lot Management System	3/2016	X	X	X		X	
WP-4C	Composting Facilities	3/2016	X	X	X		X	
WP-4D	Soil Test in Support of Nutrient Management Plan	3/2016	X		X			
WP-4E	Animal Waste Structure Pumping Equipment	3/2016	X				X	
WP-4F	Animal Mortality Incinerator Facility	3/2016	X	X	X			
WP-5	Stormwater Retention Pond	3/2016	X				X	
WP-6	Agricultural Chemical & Fertilizer Handling Facility	3/2016	X	X	X		X	
WP-7	Surface Water Runoff Impoundment for Water Quality	3/2016	X				X	
WP-8	Relocation of Confined Feeding Operations From Environmentally Sensitive Areas	3/2016	X				X	
WQ-1	Grass Filter Strips	3/2016	X	X				

Practice Code	Practice Name	Revision Date	Tax Credit	VACS Cost-Share	Requires NM Plan	Wildlife Focused	Ag BMP Loan*	CREP
WQ-4	Legume Based Cover Crop	3/2016	X	X#				
WQ-5	Water Table Control Structure	3/2016	X	X			X	
WQ-6	Constructed Wetlands	3/2016	X		@		X	
WQ-6B	Wetland Restoration	3/2016	X				X	
WQ-7	Irrigation Water Recycling System	3/2016	X				X	
WQ-8	Fuel Storage Treatment	3/2016	X				X	
WQ-9	Capping/Plugging of Abandoned Wells	3/2016	X					
WQ-10	Integrated Pest Management	3/2016	X					
WQ-11	Agricultural Sinkhole Protection	3/2016	X	X				
WQ-12	Roof Runoff Management	3/2016	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.								
LE-1T	Livestock Exclusion with Riparian Buffers	6/2015	X					
LE-2T	Livestock Exclusion with Reduced Setback	6/2014	X					
SL-6AT	Small Acreage Grazing System	3/2015	X					
SL-6T	Stream Exclusion with Grazing Land Management	9/2015	X					
SL-7T	Support for Extension of CREP Watering Systems	6/2015	X					
SL-10T	Pasture Management for TMDL Implementation	6/2015						
WP-2T	Stream Protection	6/2015	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.

++ Nutrient Management Plan required after the 1st year of participation in this practice.

@ Only if wetland is constructed to treat animal waste runoff

Revised March, 2016

2017 Cost-Share Program Schedule

July 1, 2016	2017 Cost-Share Program begins.
June/July 2016	CDCs inform districts of program allocations.
July 2016	Districts may begin practice approval after Secondary Considerations have been approved.
July 31, 2016	Last date to submit suggestions & issues to the Agricultural BMP Technical Advisory Committee (TAC) for consideration for Program Year 2018.
August, 2016	Technical Advisory Committee sets Program of Work for the upcoming year
September 30, 2016	**End of First Quarter**. Quarterly reports due including requests for disbursements in 2nd quarter due to CDCs by 10/17/2016.
December 31, 2016	**End of Second Quarter**. Quarterly reports due including requests for disbursements in 3rd quarter due to CDCs by 1/17/2017.
March 31, 2017	**End of Third Quarter**. Quarterly reports due including request for disbursements in 4th quarter due to CDCs by 4/17/2017.
March, 2017	Matrix of TAC suggested Changes for Program Year 2018 to Soil and Water Conservation Board for approval
May, 2017	Review and update of secondary considerations and submit to CDC by June 30, 2017.
June 30, 2017	**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) Carry Over with an approved carry over date (only if practice is on the approved list and under construction). All completed projects must be paid by June 30, 2017. Final 2017 Cost-Share Program quarterly reports are due to CDCs by 7/17/2017.

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	CCI-HRB-1-1
CCI-SE-1	Stream Exclusion	CCI-SE-1
FR-1	Aforestation of Erodible Crop and Pastureland	FR-1-1
FR-3	Woodland Buffer Filter Area	FR-3-1
FR-4	Woodland Erosion Stabilization	FR-4-1
LE-2	Livestock Exclusion with Reduced Setback	LE-2-1
NM-1A	Nutrient Management Plan Writing and Revisions	NM-1A-1
NM-3C	Split Application of Nitrogen on Corn using Pre-Sidedress Nitrate Test to	

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NM-4	Late Winter Split Application of Nitrogen on Small Grain	NM-4-1
NM-5	Precision Nutrient Management on Cropland	NM-5
RMP-1	Resource Management Plan Development	RMP-1-1
RMP-2	Resource Management Plan Implementation	RMP-2-1
SE-1	Vegetative Stabilization of Marsh Fringe Areas	SE-1-1
SL-1	Long Term Vegetative Cover on Cropland (State)	SL-1-1
SL-3	Stripcropping Systems	SL-3-1
SL-3B	Buffer Stripcropping	SL-3B-1
SL-4	Terrace System	SL-4-1
SL-5	Diversion	SL-5-1
SL-6	Stream Exclusion with Grazing Land Management	SL-6-1
SL-7	Cost Share Program Support for Extension of CREP Watering Systems	SL-7-1
SL-8	Protective Cover for Specialty Crops	SL-8-1
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WP-1	Sediment Retention, Erosion or Water Control Structures	WP-1-1
WP-2	Stream Protection	WP-2-1
WP-2A	Streambank Stabilization	WP-2A-1
WP-3	Sod Waterway	WP-3-1
WP-4	Animal Waste Control Facility	WP-4-1
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WP-4C	Composter Facility	WP-4C-1
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CP-29	CREP Wildlife Habitat Buffer (Rental Only)	CP-29-1
CRFR-3	CREP Riparian Forest Buffer	CRFR-3-1
CRLF-1	CREP Buffer Length Recording	CRLF-1-1
CRSL-6	CREP Grazing Land Protection	CRSL-6-1
CRWP-2	CREP Streambank Protection – Fencing	CRWP-2-1
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SECTION I

POLICY AND PROCEDURES ON SWCD COST-SHARE AND TECHNICAL ASSISTANCE FUNDING ALLOCATIONS

POLICY AND PROCEDURES ON SOIL AND WATER CONSERVATION DISTRICT COST-SHARE AND TECHNICAL ASSISTANCE FUNDING ALLOCATIONS (FISCAL YEAR 2017)

VIRGINIA SOIL AND WATER CONSERVATION BOARD

(Approved by Board May 24, 2016)

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 2017 or FY17). 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 Grant Agreement guiding the distribution and disbursement of these funds will be for a two-year grant period, FY17 and FY18. A separate Board Policy governs the FY17 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 2017 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 Items 364 B and D of Chapter 780 of the 2016 Virginia Acts of Assembly (the 2016 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 364:

> B.1. Notwithstanding § 10.1-2129 A., Code of Virginia, $61,708,800 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, $1,650,000 shall be appropriated to the department for the following specified statewide uses: $800,000 shall be used for the Commonwealth's match for participation in the Federal Conservation Enhancement Program (CREP), up to $500,000 may be utilized to develop a financial tracking and reporting module as part of the Agricultural Best Management Practices Database and to make necessary database revisions, $250,000 shall be transferred to the Department of Forestry for water quality grants, and $100,000 shall be utilized as cost-share for the development of nutrient management plans for golf courses. The Department of Forestry shall submit a report by August 15, 2017, to the Department of Conservation and Recreation specifying uses of funds received. Pursuant to paragraph B of Item 363, $8,244,210 is designated for deposit to the reserve within the Virginia Water Quality Improvement Fund.
>
> 2. Of the remaining amount, $51,814,590 is authorized for transfer to the Virginia Natural Resources Commitment Fund, a subfund 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: $25,990,198 for Agricultural Best Management Practices Cost-Share Assistance where of this amount $15,594,119 shall be used for matching grants for Agricultural Best Management Practices on lands in the Commonwealth exclusively or partly within the Chesapeake Bay watershed, $10,396,079 shall be used for matching grants for Agricultural Best Management Practices on lands in the Commonwealth exclusively outside the Chesapeake Bay watershed, and $6,217,751 shall be appropriated for Technical Assistance for Virginia Soil and Water Conservation Districts.
>
> 3. Of the remaining amount, $19,606,641 shall be appropriated for the implementation of previously approved livestock stream exclusion practices. Of this amount, $9,803,321 shall be used for practices on lands in the Commonwealth exclusively or partly within the Chesapeake Bay watershed, and $9,803,320 shall be used for practices on lands in the Commonwealth exclusively outside the Chesapeake Bay watershed.
>
> 4. This appropriation meets the mandatory deposit requirements associated with the FY 2015 excess general fund revenue collections and discretionary year-end general fund balances.
>
> D.1 Out of this appropriation, $10,000,000 the first year and $10,000,000 the second year from nongeneral funds to be deposited to the Virginia Natural Resources Commitment Fund, a subfund of the Virginia Water Quality Improvement Fund, as established in § 10.1-2128.1, Code of Virginia. 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 eight percent, or $1,200,000, whichever is greater, shall be appropriated to Virginia Soil and Water Conservation Districts for technical assistance to farmers implementing agricultural best management practices, and $8,800,000 for Agricultural Best Management Practices Cost-Share Assistance. Of the amount deposited for Cost-Share Assistance, distributions between watersheds shall be in accordance with the allocation percentages set out in § 10.1-2128.1 B., Code of Virginia.

E.1. 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.

2. Notwithstanding the provisions of §§ 10.1-2128, 10.1-2129 and 10.1-2128.1, Code of Virginia, it is the intent of the General Assembly that the Department of Conservation and Recreation use interest earnings from the Water Quality Improvement Fund and the Virginia Natural Resources Commitment Fund to support one position to administer grants from the fund.

In addition to the authorities set out in the 2016 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.

B. Beginning on July 1, 2008, and continuing in each subsequent fiscal year until July 1, 2018, out of such amounts as may be appropriated and deposited to the Subfund, distributions shall be made in each fiscal year for the following purposes:

1. Eight percent of the total amount distributed to the Virginia Agricultural Best Management Practices Cost-Share Program shall be distributed to soil and water conservation districts to provide technical assistance for the implementation of such agricultural best management practices. Each soil and water conservation district in the Commonwealth shall receive a share according to a method employed by the Director of the Department of Conservation and Recreation in consultation with the Virginia Soil and Water Conservation Board, that accounts for the percentage of the available agricultural best management practices funding that will be received by the district from the Subfund;

2. Fifty-five percent of the total amount distributed to the Virginia Agricultural Best Management Practices Cost-Share Program 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

3. Thirty-seven percent of the total amount distributed to the Virginia Agricultural Best Management Practices Cost-Share Program shall be used for matching grants for agricultural best management practices on lands in the Commonwealth exclusively outside of the Chesapeake Bay watershed.

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 BMP Tracking Program, 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 BMP tracking program to serve as a ranking tool and provide some guidance for ranking applications that would implement different BMPs. This tool is designed to assist SWCDs with the ranking of their cost share practice applications. The CEF uses eleven different components, including soil loss data that is inputted by the SWCD, 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 like BMPs as well as different 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) and 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. RMP – Resource Management Plans
   2. SL-6 – Stream Exclusion Special Earmark
   3. Central Service Adjustments
   4. 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**)

Review of Appropriation Act Language (Allocation Steps A and B)

For FY17, $61,708,800 in new funding is being deposited to the Water Quality Improvement Fund in accordance with Item 364 B. of the 2016 Appropriation Act (See Part 2, Authority). Of this amount, distributions are directed as follows:

TABLE 1: FY17 Appropriation Act Distributions for WQIF Surplus (Item 364 B.)

Water Quality Program	Program Distributions
WQIF (Total Surplus Deposit)	$61,708,800
WQIF (Total WQIF Reserve and Special General Fund deposit)	$0
• Earmark for Nutrient Management Plans for Golf Courses*	$100,000
• Earmark for Department of Forestry for Water Quality Grants*	$250,000
• Earmark for Financial Tracking Module	$500,000
• Earmark for Commonwealth's match to federal Conservation Reserve Enhancement Program (CREP)*	$800,000
• Deposit to WQIF Reserve	$8,244,210
• Transfers to the Virginia Natural Resources Commitment Fund	$51,814,590
o Technical Assistance for Virginia Soil and Water Conservation Districts	$6,217,751
o Agricultural Best Management Practices Cost-Share Assistance	$45,596,839

* Earmarks are available for "statewide uses".

For FY17, $60,014,590 in new funding (Item 364 B. and D. – see Part 2, Authority) is available for allocations to the Districts for cost-share and technical assistance.

TABLE 2: FY17 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)	$51,814,590	$45,596,839	$6,217,751**
WQIF (Reserve and special GF deposit)	$0	$0	$0
Recordation Fee*	$8,200,000*	$7,000,000	$1,200,000
Fund and Subfund Interest	$0	$0	$0
TOTAL	$60,014,590	$52,596,839	$7,417,751

* The 2016 Appropriation Act (Item 364 D. – 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 the shortfall to continue into FY17, a conservative approach is being taken towards allocations and only $8,200,000 is being utilized for budgeting purposes.

** The 2016 Appropriation Act (Item 364 B. – see Part 2, Authority) utilizes 12% for the formulation of Technical Assistance Amounts to be allocated from the Surplus Deposit.

Allocation of Funding to the CB and to OCB Areas (Allocation Step C)

Unless otherwise specified in the Appropriation Act, Sub-section 10.1-2128.1. B. of the Code of Virginia specifies that after technical assistance is removed that:

- Fifty-five percent of the total amount distributed to the Virginia Agricultural Best Management Practices Cost-Share Program shall be used for matching grants for agricultural best management practices on lands in the Commonwealth exclusively or partly within the CB watershed; and

- Thirty-seven percent of the total amount distributed to the Virginia Agricultural Best Management Practices Cost-Share Program shall be used for matching grants for agricultural best management practices on lands in the Commonwealth exclusively outside of the CB watershed.

This equates to a multiplier applied to the Cost-share Portion of Total of:

0.597826087 for CB [55/ (55+37)]; and
0.402173913 for OCB [37/ (55+37)]

For FY17, the multipliers are applied to the Recordation cost-share amounts. The 2016 Appropriation Act specifies the distributions for the WQIF Surplus Deposit. Distributions within the CB and OCB shall be as follows:

TABLE 3: FY17 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*
Surplus	$51,814,590	$45,596,839	$25,397,440	$20,199,399
Special Reserve and GF Deposit	$0	$0	$0	$0
Recordation Fee	$8,200,000	$7,000,000	$4,184,783	$2,815,217
TOTAL	$60,014,590	$52,596,839	$29,582,223	$23,014,616

* Amounts rounded to the nearest dollar.

Spending Plan: Allocation of Appropriated Funds (Allocation Step D)

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: FY17 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 (WQIF Reserve and Special GF Deposit)	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 or Partly Within the OCB (WQIF Reserve and Special GF Deposit)	Cost-share Portion Allocated to Lands Exclusively OCB (Recordation Fee)	Totals
Total Available	$25,397,440	$0	$4,184,783	$20,199,399	$0	$2,815,217	$52,596,839
Spending Plan Distribution:							
RMP	$0	$0	$0	$0	$0	$0	$0
SL-6*	$9,803,321	$0	$4,184,783	$9,803,320	$0	$2,815,217	$26,606,641
Central Service Adjustments	$0	$0	$0	$0	$0	$0	$0
VACS	$15,594,119	$0	$0	$10,396,079	$0	$0	$25,990,198

* The 2016 Appropriation Act (Item 364 B. – see Part 2, Authority) specifies the amount to be allocated to SL-6s.

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 FY14, FY15, and FY16 funds are authorized to be carried forward to FY17, and no new earmark is being made. These funds may be utilized to contract for plan development and implementation. 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 364 G of the 2016 Appropriation Act.

> G. 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)

In the FY14 and the FY15 Policies, Districts were authorized to provide 100% reimbursement for the stream exclusion practice SL-6 (100% cost-share rate and no cap) and it was stipulated that all participant enrollments received during this two-year period would be honored as cost-share funds become available. In FY16 a producer match for new applications was reinstated for SL-6 that will be maintained in FY17; an 80% cost-share rate with a $70,000 cap.

In order to work towards a reduction in the remaining FY15 SL-6 "Pending" applications, two actions are being taken in FY17.

1) In order to retire those "Pending" applications from FY15, $26,606,641 is being allocated in FY17 to SL-6s; $13,988,104 in the CB and $12,618,537 in the OCB. Technical Assistance shall accompany this funding. Any producer with a "Pending" application that has not initiated construction or negotiated and signed contract(s) to install the practice by the end of ninety (90) days after being offered cost-share funds, shall be cancelled by the District. Any funds remaining after the FY15 "Pending" applications have been retired or cancelled, shall stay in the District and be applied to existing FY15 "Pending" applications within that District so long as unfunded SL-6 Pending practice applications exist within the District, (FY15 CEF rankings shall be utilized to prioritize projects funded.) In the event that SL-6 allocation balances remain in a District upon retirement or cancellation of FY14 and FY15 SL-6 "Pending" applications, and such funding cannot be used within the District for other remaining FY15 "Pending" applications, such funding shall be transferred on or before the end of FY18 to other Districts (in accordance with financial processes) within the same basin to be applied to "Pending" applications that may remain. Technical Assistance shall accompany SL-6 cost-share transfers.

2) Districts are free to utilize their 2017 VACS cost-share allocation to fund SL-6 "Pending" practices from FY15. It is left to the Districts to determine whether they target the retirement of FY15 SL-6 commitments prior to satisfying new FY17 SL-6 commitments with their regular FY17 cost-share allocation. Each year's eligible applications may only be compared to other projects from the same year and not between years so that CEF scores can be compared accurately. Any producer with a "Pending" application that has not initiated construction or negotiated and signed contract(s) to install the practice by the end of ninety (90) days after being offered cost-share funds, shall be cancelled by the District. This approach will allow Districts to work through their backlog of SL-6 "Pending" applications in a fair, consistent, and effective method statewide.

Also, at the end of FY16 and FY17, should any additional funding be available from unallocated recordation fee revenue, the Department may apply these funds towards addressing FY15 SL-6 "Pending" applications as well.

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 FY17, charges for nongeneral funds are $178,208 from 0200 funds, as such, 0900 funds would not be subject to reductions. However, if a portion of these expenses did 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)

For FY17, after the other noted distributions have been met in the spending plan (SEE TABLE 4), there is $25,990,198 available for distribution as VACS cost-share. (Table 4 outlines the drainage basin split and fund sources.) Specific allocations to Districts in FY17 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) report for submission to the Environmental Protection Agency that typically includes an updated Nonpoint Source Assessment. Although the 2016 Nonpoint Source Assessment is under development, the 2014 Nonpoint Source Assessment still 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 pollutant load simulation model and data developed by the Department 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 [For the purposes of the FY17 Policy, the land use has been updated although other components of the 2016 Nonpoint Source Assessment are not yet available.]
- Census of Agriculture data
- Virginia Agriculture Statistics
- 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
- Slope and manure application schedules by manure types

Additional technical information regarding modeling processes are set out in Department documents titled:
2014 NPS Assessment and Prioritization Primer
Nonpoint Source Assessment and Prioritization: 2010 Prioritization Documentation

The computer model estimates and ranks the pollutant loads of nitrogen, phosphorus, and sediment in each of the 1,247 6th-order hydrologic units of the National Watershed Boundary Dataset (NWBD). Each of the three per hectare agricultural pollutant loads are sorted Low to High and assigned their sort order for each HU. The rank score of a HU is the sum of these three values. For example:

Hydrologic Unit (HU) – (VAHU6)	Pollutant Load –Nitrogen (NSEQ)	Pollutant Load – Phosphorus (PSEQ)	Pollutant Load – Sediment (SSEQ)	Sum (NSEQ + PSEQ + SSEQ)	Agricultural Pollutant Potential Rank
JL15	1226	1238	1227	3691	High (H)
JU78	973	853	888	2714	Medium (M)
JR02	589	406	855	1850	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 FY17 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).

For FY17 (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	254	20.369	16.517	2716 - 3691
M	373	29.912	27.917	1852 - 2714
L	620	49.719	55.566	3 - 1850
Total	1247	100.000	100.000	

NOTE: Since the installation and distribution of BMPs implemented is part of the calculation of the agricultural NPS 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 then 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 each. 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 depicting the statewide distribution of H, M, and L HUs by District and Drainage Basin.

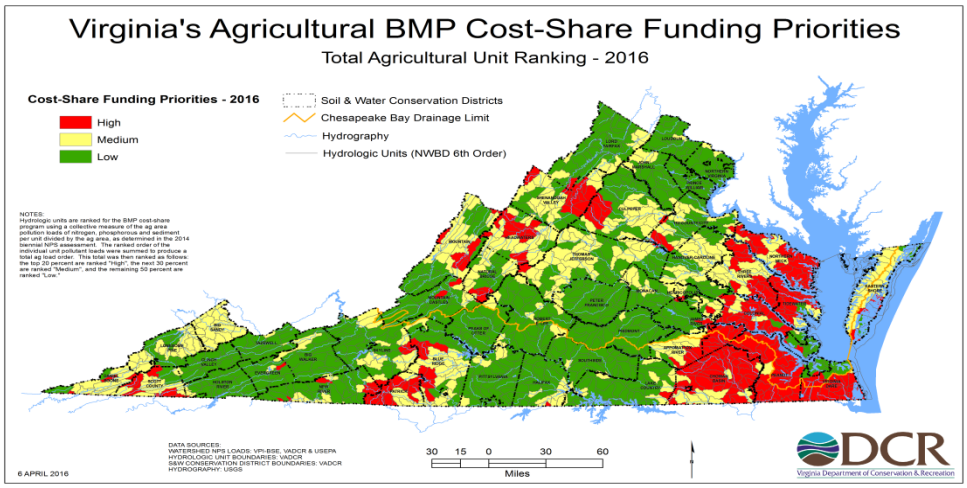

FIGURE 1: Virginia's Agricultural BMP Cost-share Funding Priorities

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 FY17, 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: FY16 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 (Reserve and Special GF Deposit)	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 or Partly Within the OCB (Reserve and Special GF Deposit)	Cost-share Portion Allocated to Lands Exclusively OCB (Recordation Fee)	Totals
VACS (after spending plan distributions – see TABLE 4)	$15,594,119	$0	$0	$10,396,079	$0	$0	$25,990,198
H (50%)	$7,797,059	$0	$0	$5,198,039	$0	$0	$12,995,098
M (30%)	$4,678,236	$0	$0	$3,118,824	$0	$0	$7,797,060
L (20%)	$3,118,824	$0	$0	$2,079,216	$0	$0	$5,198,040

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, Special GF Deposit, 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 FY17 District VACS and SL-6 cost-share allocations by drainage basin and under the cost-share total column, provides the cumulative cost-share allocations to each of the Districts. Columns are included that show the FY17 District cost-share allocations being allocated to FY15 SL-6 "Pending" allocations in the CB and OCB (See Discussion in Step D2).

TABLE 7: FY17 District Cost-share Allocations by Drainage Basin

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
SWCD	VACS CB Total	VACS OCB Total	SL-6 CB Allocation	SL-6 OCB Allocation	FY17 CB Cost-Share Total (VACS and SL-6)	FY17 OCB Cost-Share Total (VACS and SL-6)	FY17 Cost-Share Total (VACS and SL-6)
APPOMATTOX RIVER	$22,075	$340,374	$0	$0	$22,075	$340,374	$362,449
BIG SANDY	$0	$53,288	$0	$0	$0	$53,288	$53,288
BIG WALKER	$0	$234,870	$0	$997,242	$0	$1,232,112	$1,232,112
BLUE RIDGE	$7,300	$848,253	$0	$1,832,050	$7,300	$2,680,303	$2,687,603
CHOWAN BASIN	$0	$2,038,472	$0	$50,000	$0	$2,088,472	$2,088,472
CLINCH VALLEY	$0	$139,080	$0	$681,083	$0	$820,163	$820,163
COLONIAL	$635,967	$0	$0	$0	$635,967	$0	$635,967
CULPEPER	$1,550,190	$0	$3,889,572	$0	$5,439,762	$0	$5,439,762
DANIEL BOONE	$0	$409,993	$0	$296,335	$0	$706,328	$706,328
EASTERN SHORE	$353,646	$340,820	$0	$0	$353,646	$340,820	$694,466
EVERGREEN	$0	$119,426	$0	$246,479	$0	$365,905	$365,905
HALIFAX	$0	$247,860	$0	$0	$0	$247,860	$247,860
HANOVER-CAROLINE	$415,129	$0	$0	$0	$415,129	$0	$415,129
HEADWATERS	$1,580,025	$0	$172,190	$0	$1,752,215	$0	$1,752,215
HENRICOPOLIS	$97,069	$0	$0	$0	$97,069	$0	$97,069
HOLSTON RIVER	$0	$183,758	$0	$323,129	$0	$506,887	$506,887
JAMES RIVER	$250,359	$188,925	$0	$0	$250,359	$188,925	$439,284
JOHN MARSHALL	$481,894	$0	$803,421	$0	$1,285,315	$0	$1,285,315
LAKE COUNTRY	$0	$297,120	$0	$0	$0	$297,120	$297,120
LONESOME PINE	$0	$96,117	$0	$0	$0	$96,117	$96,117
LORD FAIRFAX	$779,975	$0	$520,652	$0	$1,300,627	$0	$1,300,627
LOUDOUN	$322,214	$0	$143,192	$0	$465,406	$0	$465,406
MONACAN	$178,455	$0	$623,672	$0	$802,127	$0	$802,127
MOUNTAIN	$316,400	$0	$0	$0	$316,400	$0	$316,400
MOUNTAIN CASTLES	$155,606	$23,894	$0	$0	$155,606	$23,894	$179,500
NATURAL BRIDGE	$384,713	$0	$0	$0	$384,713	$0	$384,713
NEW RIVER	$0	$537,754	$0	$251,898	$0	$789,652	$789,652
NORTHERN NECK	$1,665,046	$0	$0	$0	$1,665,046	$0	$1,665,046
NORTHERN VIRGINIA	$13,328	$0	$0	$0	$13,328	$0	$13,328

PATRICK	$0	$415,771	$0	$145,000	$0	$560,771	$560,771
PEAKS OF OTTER	$31,572	$161,273	$632,652	$5,681,759	$664,224	$5,843,032	$6,507,256
PEANUT	$1,075,397	$1,042,106	$0	$0	$1,075,397	$1,042,106	$2,117,503
PETER FRANCISCO	$173,050	$0	$201,379	$0	$374,429	$0	$374,429
PIEDMONT	$238,028	$22,659	$111,011	$0	$349,039	$22,659	$371,698
PITTSYLVANIA	$0	$304,621	$0	$241,448	$0	$546,069	$546,069
PRINCE WILLIAM	$73,240	$0	$143,835	$0	$217,075	$0	$217,075
ROBERT E. LEE	$218,300	$178,172	$3,554,168	$491,065	$3,772,468	$669,237	$4,441,705
SCOTT COUNTY	$0	$460,886	$0	$537,508	$0	$998,394	$998,394
SHENANDOAH VALLEY	$1,570,822	$0	$239,558	$0	$1,810,380	$0	$1,810,380
SKYLINE	$559	$612,921	$0	$246,544	$559	$859,465	$860,024
SOUTHSIDE	$106	$174,712	$0	$0	$106	$174,712	$174,818
TAZEWELL	$0	$112,014	$0	$596,997	$0	$709,011	$709,011
THOMAS JEFFERSON	$781,200	$0	$2,908,023	$0	$3,689,223	$0	$3,689,223
THREE RIVERS	$1,096,189	$0	$0	$0	$1,096,189	$0	$1,096,189
TIDEWATER	$678,912	$0	$0	$0	$678,912	$0	$678,912
TRI-COUNTY/CITY	$370,279	$0	$44,779	$0	$415,058	$0	$415,058
VIRGINIA DARE	$77,074	$810,940	$0	$0	$77,074	$810,940	$888,014
Grand Total	$15,594,119	$10,396,079	$13,988,104	$12,618,537	$29,582,223	$23,014,616	$52,596,839

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. Written correspondence from the affected Districts will be required to document their approval of the recommended transaction. Written correspondence regarding reallocations/transfers shall be routed to the Comptroller to update the Department's records. For amounts already distributed to Districts, funds shall be reverted back to the Department 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.

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. Otherwise, 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 2014 agricultural non-point source ranking of the National Watershed Boundary Database (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 must 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 these priority considerations listed below shall not receive funding:

- The project is located in one of the District's highest ranked hydrologic units unless the project is for animal waste management practices and actions to protect groundwater, gully erosion, or critical areas utilizing one of the following practices:
    - Animal Waste Control Facilities (WP-4)
    - Loafing Lot Management System (WP-4B)
    - Composter Facilities (WP-4C)
    - Permanent Vegetative Cover on Critical Areas (SL-11)
    - Stream Protection (WP-2)
    - Vegetative Stabilization of Marsh Fringe Area (SE-1)
    - Nutrient Management Plan Writing (NM-1A)
    - Water Table Control Structure (WQ-5)
    - Sod Waterway (WP-3)
    - Small Grain Cover Crop for Nutrient Management (SL-8B)

Stream Exclusion with Grazing Land Management (SL-6)
Grass Filter Strips (WQ-1)
Sediment Retention, Erosion or Water Control Structure (WP-1)
Precision Nutrient Management (NM-5)

- The project is located within or upstream of an identified TMDL stream segment and the project will assist in reducing the identified pollutant.
- The project is located on fields that are at least 1/3 HEL (Highly Erodible Land) soils.
- The project is for a specified BMP(s) within an approved state resource management plan.

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 should be easily understood by any potential participant. Districts should focus on describing the Board's desired local water quality improvements. Secondary considerations should be narrative statements 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 2017 Virginia Agricultural Cost Share (VACS) BMP Manual*.

One key secondary consideration that shall be considered by each District when comparing projects for cost-share funding as a component of their decision process, is the CEF. A CEF is calculated by the Agricultural BMP Tracking program 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 like BMPs as well as different 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.

Additionally, for Districts within the CB, Districts shall give priority to BMPs addressed within the Virginia Chesapeake Bay Watershed Implementation Plan and 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).

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 2017 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 2017 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 completed and certified BMPs. Department personnel will generate a disbursement

letter based upon the projected needs and Agricultural BMP Tracking Program data showing approved and completed practices.

8. Cost-share Funding Caps:

For FY17, the VACS applicant cost-share limit or "cap" is $50,000/applicant/year. This cap is automatically monitored for any applicant across Districts based upon data available from within the Agricultural BMP Tracking program.

- Except that WP-4 and/or WP-4B either as a single large practice or as an aggregation of smaller practices may be approved to receive up to $70,000 in cost-share funds in any given program year. For any single or aggregation of WP-4 and/or WP-4B practices that receive greater than $50,000 in cost share funds but less than $70,000, the unused cap amount may not be used to fund any other additional practices.
- 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 Agricultural BMP Tracking program. 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 SL-6, RMP-1, and RMP-2 practices.
- SL-6 is also subject to the $70,000 cap for new applications in FY17 and participants receiving cost-share funds for new SL-6 applications in the amount of $70,000 shall not be eligible for any additional cost-share funds for any other cost-share practices.
    - Examples:
    - If SL6 payment is equal to $70,000 then no additional VACS is allowed.
    - If SL6 is $60,000, then $10,000 would remain available for WP-4 and/or WP-4B but $0 for other VACS practices.
    - If SL6 is $40,000, then $10,000 would remain available for agronomic practices or up to $30,000 for WP-4 and/or WP-4B.
- 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.

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.

NOTE: The Department marketed the SL-6 program at 100% in FY14 and FY15. All participant enrollments received during that two-year period shall be honored as cost-share funds become available. However, any producer with a "Pending" application that has not initiated construction or negotiated and signed contract(s) to install the practice by the end of ninety (90) days after being offered cost-share funds, shall be cancelled by the District.

9. Reallocation of Cost-Share:

The end of the third quarter formal reallocation of unobligated VACS allocations that has been incorporated into prior policies shall be waived given the large amounts of cost-share that will be allocated to Districts in FY17. It is recognized that it may take a period of time to obligate such funds, as well as their remains a significant backlog of SL-6 funding that requires funding. It is the desire of the Board to keep these funds working through FY17 and FY18 in the District that they have been allocated to, or subsequently transferred

to, provided that the District continues to have pending practices. Should SL-6 funding be available for transfer, the Board shall distribute it to unfunded SL-6 practices based on a synthesized list of CEF ranked needs for which funding estimates are available in the Agricultural BMP Cost-Share Tracking Program.

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. FY13 technical assistance fund allocations approved in the amount $1,843,154 represents a base allocation for FY17 for technical assistance. This base (or constant) represents the FY13 level at which Districts delivered services. The base amount of $1,843,154 is subtracted from the total technical assistance available in FY17 ($7,417,751) and results in a technical assistance balance of $5,574,597. This remaining balance is distributed proportionally to the allocation of Total FY17 cost-share (VACS and SL-6) to Districts. Results for FY17 (Total Technical assistance allocations by District) are presented in **TABLE 9**. In future years, should technical assistance amounts available fall below the $1,843,154 base level, total technical assistance to Districts would be proportionally reduced.

TABLE 9: FY16 Technical Assistance Computations and District Allocations

SWCD	FY17 Cost-Share Total (VACS and SL-6)*	Proportional Multiplier	FY17 TA Addition to the FY13 TA Base*	FY13 TA Base	FY17 Total Technical Assistance Allocated
APPOMATTOX RIVER	$362,449	0.006891079	$38,415	$25,899	$64,314
BIG SANDY	$53,288	0.001013141	$5,648	$8,723	$14,371
BIG WALKER	$1,232,112	0.023425590	$130,588	$34,600	$165,188
BLUE RIDGE	$2,687,603	0.051098185	$284,852	$50,000	$334,852
CHOWAN BASIN	$2,088,472	0.039707177	$221,352	$30,369	$251,721
CLINCH VALLEY	$820,163	0.015593390	$86,927	$70,000	$156,927
COLONIAL	$635,967	0.012091354	$67,404	$40,000	$107,404
CULPEPER	$5,439,762	0.103423744	$576,546	$105,000	$681,546
DANIEL BOONE	$706,328	0.013429096	$74,862	$49,800	$124,662
EASTERN SHORE	$694,466	0.013203569	$73,605	$51,000	$124,605
EVERGREEN	$365,905	0.006956787	$38,781	$19,300	$58,081
HALIFAX	$247,860	0.004712450	$26,270	$32,600	$58,870
HANOVER-CAROLINE	$415,129	0.007892661	$43,998	$74,250	$118,248
HEADWATERS	$1,752,215	0.033314074	$185,713	$38,297	$224,010
HENRICOPOLIS	$97,069	0.001845529	$10,288	$7,570	$17,858
HOLSTON RIVER	$506,887	0.009637214	$53,724	$69,000	$122,724
JAMES RIVER	$439,284	0.008351909	$46,559	$16,372	$62,931
JOHN MARSHALL	$1,285,315	0.024437115	$136,227	$32,000	$168,227
LAKE COUNTRY	$297,120	0.005649009	$31,491	$17,000	$48,491
LONESOME PINE	$96,117	0.001827429	$10,187	$27,329	$37,516
LORD FAIRFAX	$1,300,627	0.024728235	$137,850	$100,000	$237,850
LOUDOUN	$465,406	0.008848555	$49,327	$46,000	$95,327
MONACAN	$802,127	0.015250479	$85,015	$16,000	$101,015
MOUNTAIN	$316,400	0.006015571	$33,534	$0	$33,534
MOUNTAIN CASTLES	$179,500	0.003412753	$19,025	$35,000	$54,025
NATURAL BRIDGE	$384,713	0.007314375	$40,775	$32,221	$72,996
NEW RIVER	$789,652	0.015013298	$83,693	$50,000	$133,693

NORTHERN NECK	$1,665,046	0.031656769	$176,474	$100,742	$277,216
NORTHERN VIRGINIA	$13,328	0.000253399	$1,413	$0	$1,413
PATRICK	$560,771	0.010661686	$59,435	$13,500	$72,935
PEAKS OF OTTER	$6,507,256	0.123719526	$689,686	$28,742	$718,428
PEANUT	$2,117,503	0.040259130	$224,428	$69,000	$293,428
PETER FRANCISCO	$374,429	0.007118850	$39,685	$23,601	$63,286
PIEDMONT	$371,698	0.007066927	$39,395	$23,790	$63,185
PITTSYLVANIA	$546,069	0.010382164	$57,876	$29,300	$87,176
PRINCE WILLIAM	$217,075	0.004127149	$23,007	$6,343	$29,350
ROBERT E. LEE	$4,441,705	0.084448136	$470,764	$11,930	$482,694
SCOTT COUNTY	$998,394	0.018982015	$105,817	$45,800	$151,617
SHENANDOAH VALLEY	$1,810,380	0.034419939	$191,877	$45,600	$237,477
SKYLINE	$860,024	0.016351249	$91,152	$55,433	$146,585
SOUTHSIDE	$174,818	0.003323736	$18,528	$24,790	$43,318
TAZEWELL	$709,011	0.013480107	$75,146	$30,122	$105,268
THOMAS JEFFERSON	$3,689,223	0.070141534	$391,011	$97,399	$488,410
THREE RIVERS	$1,096,189	0.020841347	$116,182	$70,375	$186,557
TIDEWATER	$678,912	0.012907848	$71,956	$27,595	$99,551
TRI-COUNTY/CITY	$415,058	0.007891311	$43,991	$25,200	$69,191
VIRGINIA DARE	$888,014	0.016883410	$94,118	$35,562	$129,680
Grand Total	$52,596,839	1.000000000	$5,574,597	$1,843,154	$7,417,751

- Rounded to the nearest dollar.

NOTE: In 2017, the Department, pursuant to the Virginia Soil and Water Conservation Board's Policy on Soil and Water Conservation District Administration and Operations Funding Allocations for FY17 and the associated Grant Agreement will analyze base-budget technical assistance information submitted on the Grant Agreement's Attachment D (Itemized District Budget Request Form) to see if District base technical assistance needs further adjustments. Absent a re-benchmarking, technical assistance in future years would be distributed in the manner established within this Policy. Until funds are available for re-benchmarking, FY13 technical assistance shall remain the base.

FY17 Technical Assistance allocations (See **TABLE 9**) shall be disbursed to Districts over a two-year period (FY17 and FY18) in accordance with the following procedures. During the first quarter of FY17, after the Fourth Quarter FY16 reports have been submitted (including the District's End of Year Cash Balance Report, Carry Over Report, and SL-6 Pending Reports) to the Department and the Grant Agreement has been executed and the original signed Agreement returned to the Department, 12.5 percent of the "FY17 TA Addition to the FY13 TA Base" allocations shall be awarded; with an additional 12.5 percent awarded in each of the second, third, and fourth quarters of FY17 and the first, second, third, and fourth quarters of FY18 provided updates to the BMP cost-share tracking database are being made monthly to the satisfaction of the Department. Additionally, 25 percent of the "FY13 TA Base" allocations shall be awarded during the first quarter of FY17; with an additional 25 percent awarded in each of the second, third, and fourth quarters of FY17. 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. Districts may request from the Department an acceleration of the payment of Technical Assistance. The Department, upon review of the request, may approve such request on a case-by-case basis.

Should funding be transferred between Districts, Technical Assistance Funds noted in the column "FY17 TA Addition to the FY13 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:

FY17 cost-share funds issued to Districts that remain unobligated at the close of FY18 will remain in the District's account(s). FY19 cost-share distributions to a District shall be reduced by the amount of unobligated cost-share and the resulting balance shall become available during FY19 reallocation or through other addendum agreements. FY17 Technical Assistance shall be subject to reallocation with the transfer of funds between Districts. However, it is unadvisable for any District to accumulate more than twelve 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 FY17 or FY18, 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 Regulatory Town Hall under the Virginia Soil and Water Conservation Board at http://townhall.virginia.gov/L/GDocs.cfm.

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 2016) adopted May 21, 2015 and amended December 9, 2015 and will remain in effect until rescinded or superseded.

Daphne W. Jamison	Clyde E. Cristman	May 24, 2016
Daphne W. Jamison Chair	Clyde E. Cristman DCR Director	Date

Attachment A

Computer Model Estimates and Ranks Based on the 2014 305(b) Report Data of the Agricultural Pollutant Loads of Nitrogen (N), Phosphorus (P), and Sediment (S) in Each of the 1,247 6th-order Hydrologic Units (HU)

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

2014 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 #
JL15	36.6868	10.0737	2.9902	1226	1238	1227	3691	H	1
CU58	43.5172	10.8547	2.0921	1237	1245	1175	3657	H	2
CU56	51.7140	12.6344	1.9408	1247	1247	1147	3641	H	3
CU60	47.3024	11.8840	1.9503	1244	1246	1149	3639	H	4
PS39	32.7513	7.4586	2.6559	1208	1214	1213	3635	H	5
PS38	33.3349	7.4442	2.4324	1211	1213	1202	3626	H	6
JL36	34.4100	8.8314	2.0602	1219	1231	1171	3621	H	7
JL37	30.8718	8.1378	2.3571	1198	1224	1197	3619	H	8
CU55	33.7357	8.0821	2.0569	1213	1222	1169	3604	H	9
JL32	28.2200	7.3436	2.3121	1186	1210	1194	3590	H	10
CB14	30.0289	7.2235	2.1805	1192	1208	1185	3585	H	11
JL14	40.5952	10.2315	1.6298	1234	1241	1074	3549	H	12
CU44	38.0830	8.6120	1.6523	1229	1229	1082	3540	H	13
JL30	24.7059	6.6057	2.2813	1153	1184	1189	3526	H	14
PS37	31.8683	6.7394	1.8690	1202	1189	1135	3526	H	15
AS10	46.3600	10.1919	1.5262	1243	1239	1041	3523	H	16
CU45	34.3882	8.3592	1.6304	1218	1226	1075	3519	H	17
CU57	32.4461	7.7426	1.7036	1205	1216	1096	3517	H	18
CU59	41.8758	10.4282	1.5000	1236	1242	1023	3501	H	19
CL04	31.0637	7.8658	1.6158	1199	1218	1068	3485	H	20
AS11	41.2201	8.8525	1.4748	1235	1232	1010	3477	H	21
PS41	36.1546	6.8047	1.5830	1225	1191	1060	3476	H	22
JL39	29.0397	7.4244	1.6134	1189	1211	1067	3467	H	23
CB13	26.2107	6.2910	1.8396	1170	1167	1129	3466	H	24
JL33	27.9733	7.0976	1.6366	1184	1202	1076	3462	H	25
CB01	26.7656	6.5893	1.6722	1176	1181	1089	3446	H	26
CB03	26.5308	6.6801	1.6268	1173	1187	1072	3432	H	27
YO62	25.7538	6.1322	1.7234	1167	1162	1100	3429	H	28

2014 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 #
PL73	24.2161	6.0223	1.7538	1147	1158	1107	3412	H	29
PL69	19.4447	5.6533	2.2685	1076	1135	1188	3399	H	30
AS15	44.0760	9.8274	1.3205	1240	1236	922	3398	H	31
RA72	27.4756	6.5500	1.5156	1183	1179	1035	3397	H	32
AS19	38.1916	7.9575	1.3529	1230	1220	944	3394	H	33
TC35	18.5686	4.8594	5.7906	1057	1090	1247	3394	H	34
AS16	37.2377	7.8828	1.3534	1228	1219	945	3392	H	35
CM26	17.6498	5.8165	2.2185	1034	1149	1187	3370	H	36
AS13	34.9237	7.1368	1.3297	1221	1203	930	3354	H	37
CU18	21.6248	5.2353	1.8184	1113	1114	1123	3350	H	38
CU34	22.9887	5.7067	1.6251	1136	1141	1070	3347	H	39
CL05	35.7308	8.4846	1.2657	1224	1227	892	3343	H	40
RA68	24.6562	6.0646	1.4993	1151	1160	1022	3333	H	41
RA69	26.6118	6.6636	1.4011	1174	1186	972	3332	H	42
RA71	21.3725	4.7255	1.8286	1109	1084	1126	3319	H	43
JL46	28.1984	7.0779	1.3271	1185	1200	928	3313	H	44
JL11	24.7116	6.2154	1.4355	1154	1165	992	3311	H	45
PS35	34.8266	6.9544	1.2651	1220	1197	889	3306	H	46
RU03	19.1307	3.2596	2.8775	1068	1015	1223	3306	H	47
AS08	45.2977	10.2077	1.1604	1241	1240	820	3301	H	48
JL10	27.1883	6.6401	1.3253	1181	1185	926	3292	H	49
AS17	34.0494	7.0822	1.2493	1216	1201	874	3291	H	50
CM32	24.2372	6.5203	1.3776	1148	1177	962	3287	H	51
CU31	26.1979	6.0295	1.3758	1169	1159	959	3287	H	52
CB05	25.3458	5.8356	1.4017	1162	1150	974	3286	H	53
JL34	19.4916	4.3915	1.8963	1078	1067	1139	3284	H	54
RA70	21.2035	4.5806	1.7003	1108	1079	1095	3282	H	55
RA73	22.0134	5.4511	1.5115	1121	1126	1030	3277	H	56
RD19	17.7657	3.1517	2.9342	1038	1014	1225	3277	H	57
JL35	18.0396	4.4077	2.0084	1048	1069	1158	3275	H	58
JU77	16.2412	3.9113	3.2861	998	1038	1235	3271	H	59
JL26	17.9702	4.3418	2.0093	1046	1061	1159	3266	H	60
PS40	33.1735	6.8134	1.2147	1210	1193	854	3257	H	61
RA33	20.0649	2.7835	2.1083	1092	987	1177	3256	H	62
CU61	33.0781	8.0541	1.1578	1209	1221	818	3248	H	63
RA24	20.9545	2.8819	1.9198	1102	994	1143	3239	H	64

2014 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 #
TP16	17.3484	2.9468	2.6427	1028	1000	1211	3239	H	65
JL12	26.6205	6.7912	1.2480	1175	1190	872	3237	H	66
CB02	21.8278	5.0268	1.4797	1116	1103	1013	3232	H	67
TP15	20.4710	2.0926	3.1639	1097	900	1231	3228	H	68
PS36	30.0506	5.7651	1.2589	1193	1144	882	3219	H	69
AS14	33.4972	6.5699	1.1660	1212	1180	822	3214	H	70
RA31	22.4477	3.0060	1.6545	1125	1005	1083	3213	H	71
CB11	22.1205	5.5850	1.3757	1122	1131	958	3211	H	72
RA59	21.1052	5.1526	1.4265	1106	1110	987	3203	H	73
JU59	16.6387	2.7602	2.6175	1009	983	1210	3202	H	74
RA67	24.7266	5.9338	1.2612	1155	1153	884	3192	H	75
CL03	27.0830	6.4251	1.1941	1178	1171	841	3190	H	76
CU35	22.5533	5.2812	1.3537	1129	1115	946	3190	H	77
AS03	18.9093	4.3258	1.5915	1064	1060	1065	3189	H	78
RD16	16.3959	2.4278	2.9838	1002	960	1226	3188	H	79
CU64	25.6433	6.4012	1.1980	1166	1170	844	3180	H	80
CB04	25.0720	6.1337	1.2163	1160	1163	856	3179	H	81
CL02	26.9951	6.4307	1.1757	1177	1172	825	3174	H	82
JU64	15.5081	3.4632	2.0783	977	1020	1174	3171	H	83
JL27	15.9729	3.5328	1.9586	992	1026	1152	3170	H	84
RA53	17.0297	4.4967	1.6388	1019	1074	1077	3170	H	85
JL08	21.9831	5.3008	1.3403	1119	1117	933	3169	H	86
PS27	23.1263	3.9251	1.4216	1138	1040	986	3164	H	87
RD03	17.0337	2.2899	2.5301	1020	936	1207	3163	H	88
CU43	19.7075	5.3463	1.3761	1081	1121	960	3162	H	89
JL29	28.5189	6.8339	1.0960	1187	1194	774	3155	H	90
JL42	25.7942	6.6051	1.1365	1168	1183	802	3153	H	91
TP19	13.7721	3.2756	4.9226	889	1016	1246	3151	H	92
CU63	28.5265	6.8112	1.0898	1188	1192	768	3148	H	93
YO61	23.2824	5.7833	1.2338	1140	1145	863	3148	H	94
NE35	17.1402	2.2758	2.3067	1022	930	1193	3145	H	95
CB12	27.1735	6.4545	1.1116	1180	1174	786	3140	H	96
RD21	15.6425	2.3815	2.3816	984	951	1200	3135	H	97
YA04	15.4956	2.3023	2.8304	976	937	1221	3134	H	98
JL52	48.2242	10.4332	0.9612	1245	1243	645	3133	H	99
CU50	25.4866	6.3987	1.1296	1163	1169	800	3132	H	100

2014 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 #
CU52	23.5784	5.9204	1.1819	1142	1152	832	3126	H	101
JL25	20.6782	5.0596	1.3201	1099	1104	921	3124	H	102
TH45	13.8898	2.7886	3.3065	897	988	1236	3121	H	103
JL41	24.9139	6.2525	1.1193	1157	1166	794	3117	H	104
AS20	34.1583	6.9619	1.0097	1217	1198	697	3112	H	105
RA32	19.0110	2.4248	1.6574	1067	958	1085	3110	H	106
CU48	21.7060	5.8009	1.1996	1115	1148	846	3109	H	107
RU20	16.7268	2.3796	1.9395	1012	950	1146	3108	H	108
JU35	15.3319	2.5551	2.0407	970	968	1166	3104	H	109
JL51	39.4865	8.5597	0.9524	1232	1228	641	3101	H	110
RA74	22.8138	5.8008	1.1527	1133	1147	815	3095	H	111
PS42	29.4982	5.7525	1.0810	1190	1143	760	3093	H	112
PL67	19.5774	5.1066	1.2850	1079	1107	904	3090	H	113
CU38	16.8902	2.6947	1.7077	1016	975	1097	3088	H	114
RD02	16.6756	2.1848	2.0580	1010	908	1170	3088	H	115
RD20	15.3564	2.2118	2.3677	971	917	1198	3086	H	116
YO68	22.6190	5.4346	1.1771	1130	1125	826	3081	H	117
YO37	19.3722	5.0194	1.2813	1075	1102	902	3079	H	118
RA25	21.5983	2.6983	1.4299	1111	977	989	3077	H	119
RU01	14.3170	2.4239	2.3555	919	957	1196	3072	H	120
YA03	17.1521	1.9694	2.0425	1023	879	1167	3069	H	121
JL40	25.5285	6.4811	1.0426	1165	1176	725	3066	H	122
CU41	17.2309	4.6134	1.3638	1027	1081	953	3061	H	123
PS50	13.6246	3.6361	1.9683	877	1030	1153	3060	H	124
YO60	22.3563	5.6791	1.1280	1124	1137	799	3060	H	125
AS06	48.7417	10.5567	0.8874	1246	1244	567	3057	H	126
AS12	33.7523	7.1794	0.9434	1215	1206	634	3055	H	127
AS18	32.6820	6.4441	0.9871	1206	1173	675	3054	H	128
CU16	15.0160	2.7274	1.7732	958	980	1113	3051	H	129
CU67	22.4548	5.6930	1.1063	1126	1140	783	3049	H	130
CM19	15.8215	2.5910	1.6830	987	969	1092	3048	H	131
CU68	23.8147	5.9712	1.0695	1144	1156	747	3047	H	132
PS04	16.9090	2.8336	1.5205	1018	992	1037	3047	H	133
CM28	17.3534	4.0452	1.3951	1029	1045	971	3045	H	134
YO65	20.4152	4.9793	1.2099	1095	1099	850	3044	H	135
RA57	19.8762	4.9235	1.2182	1088	1094	858	3040	H	136

2014 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 #
JL24	20.9649	5.1110	1.1691	1103	1108	824	3035	H	137
CM20	19.3172	4.2398	1.3009	1071	1052	911	3034	H	138
CU29	22.5318	5.4162	1.1037	1128	1124	780	3032	H	139
CU47	16.8402	5.0100	1.3035	1015	1101	912	3028	H	140
YO66	19.4547	4.7962	1.2279	1077	1089	861	3027	H	141
JL48	37.1732	8.1269	0.8923	1227	1223	575	3025	H	142
YO59	17.6889	4.4609	1.3130	1035	1071	917	3023	H	143
CU66	25.5258	6.3955	1.0040	1164	1168	689	3021	H	144
JL49	32.6945	7.4262	0.9103	1207	1212	600	3019	H	145
RD10	14.9350	1.9693	2.1980	953	878	1186	3017	H	146
AO15	35.5723	9.4110	0.8808	1223	1234	558	3015	H	147
JL07	22.9409	5.5286	1.0756	1134	1129	752	3015	H	148
CU25	18.7713	4.3823	1.2614	1061	1064	885	3010	H	149
JL13	22.7329	5.4074	1.0774	1131	1123	754	3008	H	150
CU53	25.2118	6.2021	0.9960	1161	1164	681	3006	H	151
CU69	24.5343	5.9629	1.0132	1150	1155	701	3006	H	152
PL72	18.1403	4.5095	1.2562	1052	1076	877	3005	H	153
CB10	20.1265	4.8746	1.1563	1093	1091	817	3001	H	154
TC33	12.0414	4.3138	2.5109	736	1059	1206	3001	H	155
JL43	23.0270	5.6878	1.0407	1137	1139	721	2997	H	156
JL47	27.4699	6.7173	0.9342	1182	1188	625	2995	H	157
JU86	14.6281	2.3172	1.7620	938	943	1112	2993	H	158
CB08	23.8328	5.5947	1.0225	1145	1132	711	2988	H	159
NE04	12.8292	2.8115	2.1507	815	991	1180	2986	H	160
JL44	32.0540	7.2058	0.8912	1203	1207	571	2981	H	161
JL31	18.0739	4.0320	1.2629	1050	1043	887	2980	H	162
RD15	14.8116	1.9174	2.0102	950	868	1160	2978	H	163
RA60	20.4626	5.0038	1.1047	1096	1100	781	2977	H	164
CU39	18.9348	4.3604	1.2023	1065	1063	847	2975	H	165
RD04	13.9991	2.0477	2.1249	901	893	1179	2973	H	166
CB09	21.8848	5.1665	1.0627	1117	1111	744	2972	H	167
YO63	19.6486	4.9708	1.1141	1080	1098	791	2969	H	168
TH23	13.2902	3.4883	1.6610	858	1022	1087	2967	H	169
CU24	17.8878	4.2602	1.2463	1041	1054	871	2966	H	170
AS01	45.4316	9.9045	0.8175	1242	1237	475	2954	H	171
CM25	15.0458	2.4181	1.5233	960	956	1038	2954	H	172

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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 #
CU42	17.9440	4.5662	1.1790	1044	1078	828	2950	H	173
JU60	15.0810	2.2599	1.5776	961	927	1059	2947	H	174
CU65	24.9315	6.1304	0.9343	1158	1161	626	2945	H	175
TC26	13.2054	2.0823	2.2901	852	898	1191	2941	H	176
PS12	14.7718	2.6452	1.4911	947	973	1018	2938	H	177
RU21	14.2870	2.2722	1.6748	918	929	1090	2937	H	178
NE36	19.7505	1.5682	1.8934	1083	715	1137	2935	H	179
AS07	43.6122	9.5585	0.8029	1238	1235	455	2928	H	180
YO18	14.5820	1.9203	1.7971	935	870	1116	2921	H	181
RD01	15.8791	1.8857	1.6406	990	850	1079	2919	H	182
AO13	27.1480	7.1379	0.8608	1179	1204	531	2914	H	183
CU28	18.7606	4.2967	1.1198	1060	1057	795	2912	H	184
JU06	12.5135	1.9927	3.3631	792	882	1238	2912	H	185
RA55	19.7874	4.9301	1.0503	1086	1095	731	2912	H	186
AO21	30.2954	8.1956	0.8247	1195	1225	487	2907	H	187
JL09	23.1464	5.2850	0.9638	1139	1116	649	2904	H	188
PL66	15.2246	3.6921	1.2863	965	1033	905	2903	H	189
CU33	20.8168	5.2279	1.0019	1100	1113	686	2899	H	190
NE18	13.3543	2.0096	1.9551	864	885	1150	2899	H	191
YO64	19.8880	4.7931	1.0392	1090	1088	720	2898	H	192
AS09	40.4181	8.7578	0.7914	1233	1230	434	2897	H	193
CU49	21.6023	5.5790	0.9688	1112	1130	655	2897	H	194
PU05	16.6145	1.8436	1.5495	1008	836	1051	2895	H	195
RD08	15.5902	1.7955	1.6973	981	816	1093	2890	H	196
JU62	13.4015	2.4333	1.5840	867	961	1061	2889	H	197
CL01	30.0645	6.8906	0.8302	1194	1195	495	2884	H	198
CB15	29.5730	7.1485	0.8234	1191	1205	486	2882	H	199
AS05	30.6085	6.9937	0.8226	1197	1199	483	2879	H	200
PU06	12.3835	2.3721	1.9927	775	947	1157	2879	H	201
TH41	13.5853	1.8650	2.0174	875	843	1161	2879	H	202
PS06	13.6441	2.4259	1.5150	878	959	1034	2871	H	203
AS02	35.4947	7.8221	0.7839	1222	1217	421	2860	H	204
RA43	13.0627	2.1110	1.8177	837	901	1122	2860	H	205
CU30	26.5098	5.9885	0.8590	1172	1157	530	2859	H	206
PS24	19.7523	2.5183	1.1465	1084	966	808	2858	H	207
YO20	13.2632	1.9772	1.8084	856	880	1119	2855	H	208

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JU33	13.8243	1.7804	1.9877	891	807	1155	2853	H	209
PS03	16.1892	2.9756	1.2114	996	1002	853	2851	H	210
RD71	12.3704	2.0655	2.1600	772	897	1181	2850	H	211
CM23	15.2365	2.3613	1.3451	966	945	938	2849	H	212
JL53	33.7445	7.3311	0.7861	1214	1209	426	2849	H	213
PS62	18.5002	3.6096	1.0795	1055	1029	756	2840	H	214
JU49	13.1045	1.9299	1.8187	840	873	1124	2837	H	215
JM21	16.3989	2.2431	1.2706	1003	925	896	2824	H	216
RA26	20.8251	2.3974	1.0875	1101	953	767	2821	H	217
CU54	22.4650	5.5072	0.8856	1127	1127	564	2818	H	218
CU32	24.8117	5.7969	0.8439	1156	1146	512	2814	H	219
JU34	14.0263	1.7340	1.7797	902	792	1114	2808	H	220
PL71	18.8554	4.7280	0.9709	1063	1085	658	2806	H	221
JU38	14.0419	2.0908	1.4491	904	899	998	2801	H	222
PS05	17.8817	2.6425	1.1121	1040	972	789	2801	H	223
RA56	19.3278	5.0652	0.9335	1073	1105	623	2801	H	224
YO35	16.5769	4.1613	1.0658	1007	1048	746	2801	H	225
RD11	14.1186	1.6225	1.9101	910	746	1141	2797	H	226
JL22	18.0862	4.4590	0.9815	1051	1070	669	2790	H	227
CM31	15.6132	4.2534	1.0751	983	1053	751	2787	H	228
JA45	15.5726	3.6530	1.0964	980	1032	775	2787	H	229
TP17	10.9163	2.3164	3.4412	600	941	1241	2782	H	230
RA65	19.7285	4.9342	0.9124	1082	1096	603	2781	H	231
YO22	13.8639	1.8095	1.5672	895	824	1056	2775	H	232
CU17	17.6086	2.7105	1.0818	1032	978	763	2773	H	233
PS49	11.5803	2.9342	1.6560	684	999	1084	2767	H	234
PS07	16.5409	2.6089	1.1061	1006	970	782	2758	H	235
JL04	18.9771	4.7765	0.9098	1066	1087	599	2752	H	236
TC24	13.8876	1.8910	1.4539	896	854	1001	2751	H	237
CU70	21.5101	5.1302	0.8537	1110	1109	525	2744	H	238
TC31	13.5430	1.6920	1.7115	874	771	1098	2743	H	239
YO54	18.0219	4.2676	0.9491	1047	1055	638	2740	H	240
TP09	11.6062	1.8302	2.7508	687	831	1217	2735	H	241
CB07	20.0037	4.6162	0.8829	1091	1082	560	2733	H	242
JL45	30.3013	6.8983	0.7156	1196	1196	341	2733	H	243
TH09	13.4561	1.8713	1.4887	870	844	1015	2729	H	244

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CU40	16.9015	4.0435	0.9791	1017	1044	667	2728	H	245
YO33	16.1624	3.8301	1.0118	995	1034	699	2728	H	246
RU02	12.3651	1.8398	1.8125	770	834	1120	2724	H	247
RU23	13.6749	1.9044	1.4177	882	859	983	2724	H	248
CU46	22.7783	5.6187	0.8025	1132	1134	454	2720	H	249
AS04	43.6551	9.3832	0.6209	1239	1233	247	2719	H	250
PS02	15.0018	2.7779	1.1005	957	985	777	2719	H	251
RA58	17.9667	4.5533	0.9091	1045	1077	596	2718	H	252
RD22	13.1860	1.6067	1.8672	850	734	1134	2718	H	253
JM85	15.9063	2.0245	1.1853	991	889	836	2716	H	254
JU78	15.3759	1.8899	1.2650	973	853	888	2714	M	255
TC34	11.3338	1.8772	2.6817	652	845	1215	2712	M	256
NE10	14.3695	1.4122	2.2962	923	596	1192	2711	M	257
NE75	12.6326	1.9123	1.5357	800	864	1046	2710	M	258
CU15	15.1153	2.3034	1.1432	962	938	806	2706	M	259
CU37	14.7000	2.1953	1.1987	944	912	845	2701	M	260
RA66	20.9741	5.3302	0.8188	1104	1119	477	2700	M	261
RU29	14.6949	1.8938	1.2756	943	856	898	2697	M	262
CU62	24.3151	5.9476	0.7633	1149	1154	393	2696	M	263
JU84	12.1227	1.8021	1.8387	749	819	1128	2696	M	264
PL63	12.7613	2.4118	1.3263	811	955	927	2693	M	265
CM27	17.7054	3.8458	0.9304	1037	1035	620	2692	M	266
YO42	13.8540	3.0721	1.1118	894	1010	788	2692	M	267
CU36	20.3849	4.8963	0.8344	1094	1092	501	2687	M	268
CU51	24.0986	5.8930	0.7612	1146	1151	390	2687	M	269
JL28	14.3439	3.0317	1.0801	922	1006	757	2685	M	270
JM33	12.9613	1.9151	1.4375	826	866	993	2685	M	271
YO58	17.7048	4.3864	0.9015	1036	1065	584	2685	M	272
JL05	18.5558	4.4004	0.8816	1056	1068	559	2683	M	273
CB19	31.6159	7.5892	0.6430	1201	1215	265	2681	M	274
PS44	15.2893	3.3605	1.0093	967	1018	695	2680	M	275
RA62	19.3145	5.0819	0.8373	1070	1106	504	2680	M	276
TC27	13.1096	1.7365	1.5256	842	796	1040	2678	M	277
TP14	15.3709	1.3357	2.0363	972	534	1164	2670	M	278
TH44	11.5329	1.7960	2.0444	680	817	1168	2665	M	279
PS01	19.8808	2.2142	0.9640	1089	918	650	2657	M	280

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JL06	17.2264	4.2910	0.8917	1026	1056	573	2655	M	281
PS56	14.6711	2.2794	1.1104	939	931	785	2655	M	282
PS55	12.3893	2.2867	1.3515	778	932	942	2652	M	283
CU23	14.3386	2.2892	1.1169	921	935	793	2649	M	284
BS03	9.6662	2.9990	3.4133	404	1004	1240	2648	M	285
TC32	11.6263	1.7797	1.9427	690	806	1148	2644	M	286
BS21	9.9951	2.3313	3.7691	453	944	1244	2641	M	287
CM21	19.3411	4.3884	0.8331	1074	1066	499	2639	M	288
TC25	12.4299	1.7069	1.6292	782	781	1073	2636	M	289
JL23	18.2036	4.2992	0.8527	1054	1058	522	2634	M	290
RD70	13.7785	1.8821	1.2685	890	849	894	2633	M	291
TP05	12.8282	1.8407	1.4189	814	835	984	2633	M	292
YO48	13.7012	3.1015	1.0548	885	1011	734	2630	M	293
RU57	13.2279	1.6770	1.4697	854	767	1008	2629	M	294
JU61	12.2779	2.2249	1.3417	765	922	936	2623	M	295
PS08	16.1092	2.2887	1.0097	994	933	696	2623	M	296
JU07	12.1113	1.7963	1.5648	747	818	1055	2620	M	297
AO18	24.9677	6.5911	0.6548	1159	1182	278	2619	M	298
BS01	11.5281	1.6111	2.4450	679	736	1204	2619	M	299
PL65	12.7940	3.1376	1.1143	812	1013	792	2617	M	300
RD18	11.3052	1.9070	1.7566	644	862	1110	2616	M	301
CB38	24.6749	6.4753	0.6624	1152	1175	287	2614	M	302
RD12	13.3418	1.5744	1.5122	862	719	1031	2612	M	303
RU33	13.1545	1.7811	1.3632	849	808	951	2608	M	304
RD73	12.7252	1.8058	1.4030	808	821	975	2604	M	305
RA61	19.8534	4.7388	0.7878	1087	1086	429	2602	M	306
BS19	10.2308	1.9626	3.1410	495	876	1230	2601	M	307
CB46	26.4331	6.5385	0.6212	1171	1178	251	2600	M	308
NE11	14.5307	1.3932	1.6590	933	580	1086	2599	M	309
BS27	9.7440	2.3169	3.4773	413	942	1243	2598	M	310
CM24	14.3772	2.1956	1.0813	924	913	761	2598	M	311
YO55	17.2167	4.1910	0.8518	1025	1050	521	2596	M	312
JM39	12.1651	1.7025	1.5914	751	775	1064	2590	M	313
PS61	13.0856	2.3781	1.1388	838	949	803	2590	M	314
RA44	11.8938	1.6657	1.7562	720	762	1108	2590	M	315
JM22	16.3751	1.9055	1.0435	1001	860	727	2588	M	316

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PL68	17.8489	4.5067	0.8148	1039	1075	472	2586	M	317
CM30	14.9613	3.8622	0.9038	955	1036	588	2579	M	318
PL23	11.8979	1.5385	2.0331	721	692	1163	2576	M	319
YO53	12.9964	2.9125	1.0617	831	997	742	2570	M	320
JU75	11.9268	1.7660	1.5307	724	803	1042	2569	M	321
RU22	12.6962	1.8063	1.3519	804	822	943	2569	M	322
TP04	9.5503	2.3771	3.2318	381	948	1234	2563	M	323
YO45	13.0314	2.5346	1.0810	832	967	759	2558	M	324
RD76	12.2301	1.7029	1.4936	760	777	1019	2556	M	325
PS10	31.5244	2.6383	0.7529	1200	971	381	2552	M	326
YO32	14.5048	3.4986	0.9096	931	1023	598	2552	M	327
JU36	13.5105	1.6459	1.3227	872	753	924	2549	M	328
JL20	16.7519	3.9140	0.8305	1013	1039	496	2548	M	329
RD06	12.9137	1.5779	1.4624	821	721	1006	2548	M	330
PS15	12.9617	1.8277	1.2602	827	830	883	2540	M	331
JM41	13.0423	1.7881	1.2654	833	813	891	2537	M	332
RA54	14.7763	3.9425	0.8713	948	1041	548	2537	M	333
JU31	11.7501	1.6402	1.6503	703	750	1081	2534	M	334
JU09	12.2950	1.4552	1.8485	767	630	1131	2528	M	335
TH25	14.6106	2.2415	0.9745	936	924	660	2520	M	336
RD13	10.8110	1.6562	2.1226	581	759	1178	2518	M	337
JU79	12.2205	1.9191	1.2654	758	869	890	2517	M	338
JU83	11.0663	1.8818	1.5402	619	848	1049	2516	M	339
CU21	11.2447	2.0229	1.4136	640	888	981	2509	M	340
YA01	9.2522	2.8395	2.1605	331	993	1182	2506	M	341
BS06	8.8783	2.7627	3.3278	284	984	1237	2505	M	342
PS17	10.5332	2.4336	1.4585	538	962	1003	2503	M	343
PL70	22.2597	5.6732	0.6177	1123	1136	242	2501	M	344
BS34	9.0075	2.3895	4.2756	302	952	1245	2499	M	345
RU90	11.8721	1.7145	1.4521	716	784	999	2499	M	346
YO52	14.6793	3.3148	0.8690	940	1017	542	2499	M	347
RD40	10.6014	1.7565	1.9393	548	802	1145	2495	M	348
RD23	11.9872	1.4592	1.8383	730	636	1127	2493	M	349
BS20	9.8349	1.8273	3.1232	433	829	1229	2491	M	350
JR15	12.3921	1.4461	1.6650	779	624	1088	2491	M	351
TH43	18.1824	1.3031	1.3340	1053	504	932	2489	M	352

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NE48	17.4750	1.4881	1.1389	1031	652	804	2487	M	353
BS26	9.0505	2.2890	3.4458	308	934	1242	2484	M	354
CM29	19.2513	4.9641	0.6940	1069	1097	318	2484	M	355
PU07	9.9162	2.9112	1.5247	447	996	1039	2482	M	356
PS66	9.9873	2.1947	1.7805	452	911	1115	2478	M	357
RU31	14.1917	1.7303	1.0948	914	790	773	2477	M	358
JU30	11.8131	1.5024	1.7350	709	661	1103	2473	M	359
RD74	12.1685	1.6528	1.3763	753	757	961	2471	M	360
JU63	11.2039	1.9574	1.3699	635	875	957	2467	M	361
RD05	13.1372	1.6521	1.2372	846	756	864	2466	M	362
CB30	18.6806	4.9142	0.6899	1059	1093	312	2464	M	363
NE53	11.4128	1.6378	1.5438	660	749	1050	2459	M	364
YO51	13.3191	2.7824	0.9244	860	986	613	2459	M	365
RL24	10.5803	2.1222	1.4870	542	902	1014	2458	M	366
RA15	11.7246	1.6011	1.5046	698	731	1025	2454	M	367
RU46	11.6907	1.5568	1.5387	695	710	1048	2453	M	368
TP02	10.4021	1.7314	1.8954	523	791	1138	2452	M	369
JU82	10.7984	1.7537	1.6256	579	801	1071	2451	M	370
TP12	13.1474	1.3346	1.6240	848	531	1069	2448	M	371
RU32	14.0634	1.7841	1.0429	906	811	726	2443	M	372
BS18	9.0401	2.2065	2.8223	307	915	1220	2442	M	373
JU65	10.7973	1.8517	1.5040	578	840	1024	2442	M	374
YA02	11.8128	1.9148	1.2424	708	865	869	2442	M	375
PS23	13.9581	2.1888	0.9429	898	909	633	2440	M	376
JL01	17.9266	4.1309	0.7263	1043	1047	349	2439	M	377
CB33	21.6976	5.6807	0.5687	1114	1138	186	2438	M	378
JU32	11.4216	1.4577	1.8554	662	634	1133	2429	M	379
CB06	18.5843	4.4907	0.6753	1058	1073	295	2426	M	380
CB44	22.9656	5.6100	0.5407	1135	1133	157	2425	M	381
TP07	10.0428	1.6166	2.8914	460	741	1224	2425	M	382
AO11	21.9928	5.7494	0.5361	1120	1142	152	2414	M	383
CB39	21.0053	5.5190	0.5655	1105	1128	181	2414	M	384
JL21	17.1553	3.8955	0.7295	1024	1037	352	2413	M	385
YO49	12.9107	2.7908	0.9133	820	989	604	2413	M	386
RA64	18.0599	4.3451	0.6812	1049	1062	300	2411	M	387
TC30	11.5117	1.5101	1.5899	676	672	1063	2411	M	388

2014 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 #
YO19	12.5526	1.6849	1.1925	797	769	840	2406	M	389
BS25	9.8245	1.6510	2.7832	430	755	1219	2404	M	390
CB45	21.9337	5.3577	0.5378	1118	1122	153	2393	M	391
PS51	12.9655	2.7424	0.8986	828	981	579	2388	M	392
TP13	14.5242	1.2092	1.5625	932	401	1054	2387	M	393
PS33	13.2995	2.2178	0.9140	859	921	605	2385	M	394
PS09	18.7757	2.9044	0.6980	1062	995	326	2383	M	395
YO56	14.6275	3.5002	0.7839	937	1024	422	2383	M	396
CB41	19.7582	5.1958	0.5658	1085	1112	183	2380	M	397
TC22	11.1606	1.5318	1.5853	627	687	1062	2376	M	398
BS04	8.6204	2.1786	2.6806	252	907	1214	2373	M	399
YO57	14.7566	3.5730	0.7692	945	1027	399	2371	M	400
PS59	11.5453	2.1917	1.1020	682	910	778	2370	M	401
BS08	8.4335	2.1975	3.0054	227	914	1228	2369	M	402
BS15	8.0678	2.4008	3.2187	182	954	1233	2369	M	403
PS21	23.6404	1.7238	0.7927	1143	789	437	2369	M	404
NE15	14.1174	1.2535	1.4624	909	448	1007	2364	M	405
CB35	20.5531	5.3450	0.5159	1098	1120	140	2358	M	406
RA37	15.0266	1.4068	1.1317	959	593	801	2353	M	407
AO14	21.1852	5.3050	0.4940	1107	1118	127	2352	M	408
RU35	13.2744	1.7760	1.0033	857	804	688	2349	M	409
PS11	32.4094	2.6653	0.5491	1204	974	170	2348	M	410
BS07	7.5883	2.6962	3.3784	132	976	1239	2347	M	411
RD17	11.4185	1.6128	1.3610	661	737	948	2346	M	412
JM19	13.6988	1.6733	1.0093	884	765	694	2343	M	413
CU20	12.0778	1.9209	1.0453	742	871	729	2342	M	414
YO03	13.2437	1.7437	1.0021	855	799	687	2341	M	415
NE54	11.8322	1.6979	1.2101	711	774	851	2336	M	416
NE37	13.5980	1.1383	1.8277	876	333	1125	2334	M	417
JU26	13.1942	2.2583	0.8774	851	926	556	2333	M	418
JM49	12.4538	1.4893	1.2661	785	653	893	2331	M	419
CB17	10.6041	1.9656	1.2786	550	877	901	2328	M	420
JU69	10.2000	1.7495	1.5342	484	800	1043	2327	M	421
PS13	10.2967	2.1420	1.2889	511	904	907	2322	M	422
CU22	13.0608	2.0265	0.9075	836	890	593	2319	M	423
YO36	15.5968	3.5806	0.6870	982	1028	309	2319	M	424

2014 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 #
RU24	11.9552	1.6663	1.1801	726	763	829	2318	M	425
PS54	14.4592	2.9825	0.7546	928	1003	385	2316	M	426
JM20	12.1858	1.6444	1.1469	754	752	809	2315	M	427
RA29	15.6962	1.5439	0.9411	985	698	631	2314	M	428
PS45	11.7729	1.7875	1.1233	704	812	797	2313	M	429
PL06	12.4148	1.4908	1.2492	781	655	873	2309	M	430
JM61	12.4769	1.8480	0.9973	788	837	683	2308	M	431
CU11	12.9561	1.8510	0.9597	824	839	644	2307	M	432
PS43	14.1440	2.8050	0.7728	912	990	403	2305	M	433
BS35	8.1375	1.9853	3.1657	191	881	1232	2304	M	434
JR03	11.5382	1.5649	1.2954	681	713	909	2303	M	435
YO46	12.4443	2.7120	0.8654	784	979	537	2300	M	436
RD25	10.9717	1.3873	1.8077	608	573	1118	2299	M	437
BS16	8.4035	1.9074	2.6473	223	863	1212	2298	M	438
RD14	10.0040	1.5099	2.0706	454	671	1173	2298	M	439
YO40	11.6931	1.5716	1.2571	696	718	880	2294	M	440
TP06	11.0434	1.3975	1.6751	615	586	1091	2292	M	441
JU03	11.7150	1.3905	1.4902	697	577	1017	2291	M	442
JU25	11.0034	1.8057	1.2174	612	820	857	2289	M	443
RU28	9.3743	1.7041	1.9884	354	779	1156	2289	M	444
YO02	14.4894	1.8089	0.8556	930	823	528	2281	M	445
CB42	17.8977	4.5967	0.5414	1042	1080	158	2280	M	446
RU89	11.0227	1.5546	1.3673	613	708	956	2277	M	447
YO69	17.6343	4.2088	0.5753	1033	1051	191	2275	M	448
JR06	12.0659	1.3448	1.4440	741	537	996	2274	M	449
RA38	15.8512	1.8228	0.8039	989	828	457	2274	M	450
AO10	17.4556	4.6492	0.5423	1030	1083	160	2273	M	451
PS48	10.5926	1.3675	2.0684	544	556	1172	2272	M	452
YO13	13.2074	1.7346	0.9340	853	793	624	2270	M	453
NE77	13.0431	1.8860	0.8995	834	851	582	2267	M	454
PS60	9.3570	2.4715	1.3658	349	963	955	2267	M	455
PS26	13.8325	2.1761	0.8117	892	906	467	2265	M	456
BS32	8.1748	1.9068	2.4052	198	861	1201	2260	M	457
BS13	7.9830	1.9242	2.7455	171	872	1216	2259	M	458
JA40	14.0704	2.9180	0.7279	907	998	350	2255	M	459
TP10	14.2020	1.0911	1.5360	915	291	1047	2253	M	460

2014 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 #
NE21	11.8436	1.5850	1.1512	713	725	813	2251	M	461
TH05	8.6180	1.8811	1.9387	251	847	1144	2242	M	462
PL61	7.5264	2.1660	2.5869	127	905	1208	2240	M	463
TP01	7.9681	1.9011	2.6131	169	858	1209	2236	M	464
YO50	13.4401	3.0587	0.7350	869	1008	358	2235	M	465
RU48	10.5170	1.4778	1.5553	534	646	1052	2232	M	466
RU77	13.3384	1.5352	0.9895	861	690	679	2230	M	467
JU71	9.9596	1.6946	1.4623	451	773	1005	2229	M	468
CM15	10.9899	1.7176	1.1810	610	787	831	2228	M	469
RA40	16.7879	1.5342	0.8549	1014	688	526	2228	M	470
BS09	8.4462	1.7776	2.2897	230	805	1190	2225	M	471
PS19	12.0798	2.0269	0.9035	743	891	586	2220	M	472
YO47	14.1276	3.0476	0.6824	911	1007	302	2220	M	473
BS11	7.6421	1.8867	2.7805	136	852	1218	2206	M	474
NE65	15.8375	0.9723	1.4728	988	208	1009	2205	M	475
BS12	8.1741	1.7821	2.3681	196	809	1199	2204	M	476
JM46	12.0584	1.3523	1.3153	739	546	919	2204	M	477
CB43	15.8212	4.0591	0.5509	986	1046	171	2203	M	478
JM75	11.1602	1.7930	1.0817	626	815	762	2203	M	479
YO04	12.4758	1.5440	1.0318	787	699	716	2202	M	480
NE08	10.9681	1.2818	1.8024	607	474	1117	2198	M	481
CB31	16.4579	4.4622	0.4764	1004	1072	116	2192	M	482
BS17	7.5744	1.8500	2.8692	130	838	1222	2190	M	483
JR04	11.7461	1.4858	1.1902	702	650	838	2190	M	484
NE78	11.4618	1.5482	1.1528	670	704	816	2190	M	485
PS22	10.6270	2.2084	1.0261	555	916	715	2186	M	486
JR05	12.0932	1.4012	1.2106	744	589	852	2185	M	487
JU58	10.1731	1.5141	1.5071	479	676	1028	2183	M	488
RU30	12.5251	1.6529	0.9389	794	758	630	2182	M	489
BS14	8.0191	1.7399	2.4865	176	798	1205	2179	M	490
CU27	12.0934	2.0003	0.8712	745	884	547	2176	M	491
JM47	12.1655	1.5307	1.0595	752	684	739	2175	M	492
RU76	13.4602	1.4861	0.9665	871	651	653	2175	M	493
JM25	15.3944	1.8197	0.7464	974	825	374	2173	M	494
RA23	12.1432	1.5302	1.0597	750	682	740	2172	M	495
PL62	9.5021	1.9161	1.3318	373	867	931	2171	M	496

2014 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 #
RA42	12.3705	1.5059	1.0498	773	665	730	2168	M	497
JA20	10.6151	2.0579	1.0368	552	896	719	2167	M	498
PU01	10.7391	1.5597	1.2583	572	711	881	2164	M	499
TP03	8.2056	1.7027	2.1699	203	776	1184	2163	M	500
NE07	12.3842	1.0866	1.7260	776	285	1101	2162	M	501
RD26	10.6772	1.2913	1.7456	562	485	1106	2153	M	502
RU10	10.2600	1.5018	1.4301	501	660	990	2151	M	503
NE55	11.3233	1.4456	1.2563	649	623	878	2150	M	504
YO12	13.1329	1.6153	0.8836	845	738	562	2145	M	505
AO08	13.7717	3.5247	0.6072	888	1025	231	2144	M	506
RD49	12.1038	1.4792	1.0733	746	648	750	2144	M	507
TP11	10.0872	1.3307	1.9552	464	528	1151	2143	M	508
JM62	9.8616	1.6076	1.3842	441	735	964	2140	M	509
AO09	13.7184	3.6385	0.5992	886	1031	222	2139	M	510
RD09	12.4097	1.4650	1.0241	780	639	714	2133	M	511
AO23	4.8640	2.2172	2.0925	33	920	1176	2129	M	512
BS05	7.8020	1.7134	2.3519	151	783	1195	2129	M	513
JM13	10.0647	1.4556	1.5144	462	631	1033	2126	M	514
JR21	12.7408	1.4188	1.0219	810	605	710	2125	M	515
CB32	16.3332	4.1736	0.4002	999	1049	72	2120	M	516
CM03	13.3538	1.6159	0.8406	863	740	507	2110	M	517
RD75	12.1191	1.4996	1.0098	748	659	698	2105	M	518
CB36	15.3190	3.9965	0.4417	969	1042	90	2101	M	519
YO27	13.1107	2.7588	0.6496	843	982	273	2098	M	520
PS84	14.6872	1.5398	0.8068	941	694	462	2097	M	521
BS23	8.5563	1.5078	2.1663	242	668	1183	2093	M	522
CB18	10.3435	2.0193	1.0058	516	886	691	2093	M	523
RD28	10.6235	1.3065	1.5064	554	508	1027	2089	M	524
BS31	9.4922	1.5833	1.4411	369	724	995	2088	M	525
JR11	11.4874	1.3481	1.2526	672	540	876	2088	M	526
JU23	10.5960	1.3841	1.3906	545	570	968	2083	M	527
CM22	13.6759	1.8214	0.7414	883	827	363	2073	M	528
RA63	15.2191	3.1274	0.4469	964	1012	96	2072	M	529
RA36	15.5285	1.4363	0.8164	978	619	474	2071	M	530
YO31	14.7715	3.4711	0.4463	946	1021	95	2062	M	531
YO29	13.1075	2.9599	0.5935	841	1001	218	2060	M	532

2014 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 #
RD72	12.2839	1.5422	0.9074	766	697	591	2054	M	533
JL16	12.3872	1.7169	0.8265	777	786	490	2053	M	534
RD07	12.6335	1.3733	1.0064	801	560	692	2053	M	535
JR13	10.6721	1.3119	1.4106	561	513	978	2052	M	536
RU94	9.4658	1.5707	1.3860	365	717	965	2047	M	537
JM37	14.2502	1.7826	0.6940	917	810	317	2044	M	538
PS29	16.4600	2.2661	0.4649	1005	928	110	2043	M	539
NE42	9.8986	1.7151	1.1488	445	785	811	2041	M	540
JM40	11.9874	1.4918	0.9652	731	656	651	2038	M	541
RA39	15.4092	1.7352	0.6449	975	794	269	2038	M	542
RU93	11.4887	1.5465	0.9702	673	701	656	2030	M	543
RU86	11.3388	1.4990	1.0334	653	658	717	2028	M	544
RA35	11.1845	1.4772	1.0732	631	645	749	2025	M	545
RA41	12.9480	1.5981	0.8147	823	730	471	2024	M	546
NE58	11.3207	1.2058	1.4030	648	399	976	2023	M	547
CM17	12.4375	1.6762	0.8157	783	766	473	2022	M	548
JM02	14.9620	1.6895	0.6718	956	770	293	2019	M	549
NE38	11.0886	1.3466	1.2263	621	538	860	2019	M	550
BS22	8.9071	1.4071	1.8885	288	594	1136	2018	M	551
PS63	11.9563	1.8531	0.7991	727	842	449	2018	M	552
TH40	9.3392	1.3835	1.7427	345	568	1105	2018	M	553
JM15	10.2331	1.4388	1.2762	496	622	899	2017	M	554
JU05	10.8989	1.3758	1.2292	593	561	862	2016	M	555
PU02	19.3192	1.0328	1.0207	1072	238	706	2016	M	556
RD29	9.6399	1.3131	1.7287	399	515	1102	2016	M	557
NE74	10.4047	1.2996	1.4210	525	498	985	2008	M	558
BS24	9.0742	1.4275	1.6490	310	613	1080	2003	M	559
JU04	11.5913	1.4086	1.0351	685	595	718	1998	M	560
PS28	14.8580	2.3041	0.4611	951	939	108	1998	M	561
PS52	11.4467	2.2169	0.7736	666	919	405	1990	M	562
PS87	23.3607	1.3094	0.7099	1141	509	337	1987	M	563
PS46	10.0923	1.3140	1.4588	465	516	1004	1985	M	564
RU08	10.2407	1.4200	1.2568	499	607	879	1985	M	565
CU19	11.3268	1.7379	0.8647	651	797	536	1984	M	566
JM24	14.4289	1.1516	1.0241	926	345	713	1984	M	567
YO39	11.6467	1.4705	0.9621	692	642	648	1982	M	568

2014 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 #
JU39	9.0801	1.4809	1.4977	312	649	1020	1981	M	569
RA27	12.3792	1.6782	0.7873	774	768	428	1970	M	570
JR07	10.7036	1.2715	1.3461	567	463	939	1969	M	571
RD42	13.8345	1.5392	0.7544	893	693	383	1969	M	572
YO11	12.8647	1.7356	0.7320	817	795	356	1968	M	573
JU68	10.5991	1.6156	0.9888	546	739	677	1962	M	574
RA52	10.5746	2.3103	0.8198	540	940	480	1960	M	575
RA01	10.6427	1.2846	1.3219	556	475	923	1954	M	576
JR08	10.8272	1.2756	1.2722	584	471	897	1952	M	577
PS82	12.2241	1.5132	0.8474	759	675	518	1952	M	578
RL02	8.7398	1.4600	1.5343	268	637	1044	1949	M	579
PL07	14.9207	1.1567	0.9619	952	349	647	1948	M	580
PL59	11.3233	1.2343	1.2412	650	427	867	1944	M	581
JU70	8.9633	1.5063	1.4173	295	666	982	1943	M	582
AO04	12.5315	3.4344	0.4966	795	1019	128	1942	M	583
CU26	13.3816	1.8522	0.6090	865	841	235	1941	M	584
JR14	11.1072	1.1265	1.4539	622	319	1000	1941	M	585
RU05	8.7560	1.3430	1.8406	270	535	1130	1935	M	586
RU47	10.5769	1.3522	1.2065	541	545	849	1935	M	587
PL09	14.1813	1.2524	0.8962	913	445	576	1934	M	588
CU09	11.9063	1.6221	0.8098	722	745	464	1931	M	589
NE82	9.8081	1.3775	1.3489	426	564	940	1930	M	590
JM34	11.9685	1.6207	0.8040	728	743	458	1929	M	591
PS31	13.7495	2.5133	0.4037	887	965	77	1929	M	592
YO14	12.9018	1.5304	0.7872	818	683	427	1928	M	593
BS10	7.5523	1.4947	1.8506	129	657	1132	1918	M	594
JM78	10.9097	1.3996	1.0448	596	588	728	1912	M	595
JU08	9.5930	1.4122	1.3293	385	598	929	1912	M	596
PS20	12.4703	2.0431	0.6077	786	892	232	1910	M	597
JU56	8.6506	1.4133	1.5579	256	599	1053	1908	M	598
JM84	14.6887	1.6425	0.5888	942	751	211	1904	M	599
PL58	8.4237	1.3259	1.9851	225	524	1154	1903	M	600
YO15	11.8782	1.5153	0.8435	717	677	509	1903	M	601
JM60	10.0164	1.4152	1.1975	457	602	843	1902	M	602
JR01	11.7797	1.2243	1.0995	705	420	776	1901	M	603
RA21	13.6538	1.7116	0.6100	881	782	238	1901	M	604

2014 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 #
TH22	10.1653	1.4145	1.1602	478	601	819	1898	M	605
RA19	15.5303	1.3486	0.7452	979	541	373	1893	M	606
YO09	11.1775	1.5471	0.8831	630	702	561	1893	M	607
JR16	12.2744	1.4027	0.8676	763	590	538	1891	M	608
PL16	11.9818	1.2560	1.0234	729	450	712	1891	M	609
YO10	11.8837	1.5799	0.7996	718	723	450	1891	M	610
RA45	9.6336	1.5696	1.1026	395	716	779	1890	M	611
JM23	9.6411	1.3292	1.3780	400	526	963	1889	M	612
JM01	14.4490	1.3938	0.7508	927	581	380	1888	M	613
YO43	10.2284	1.3782	1.1662	493	565	823	1881	M	614
BS29	7.4206	1.4679	1.8155	115	641	1121	1877	M	615
RU37	11.1775	1.2955	1.0805	629	490	758	1877	M	616
JU02	10.9142	1.5054	0.9204	599	664	611	1874	M	617
JR10	12.9857	1.4575	0.7749	830	633	406	1869	M	618
YO17	11.0679	1.4306	0.9374	620	615	629	1864	M	619
JM48	12.4793	1.3347	0.8681	790	533	540	1863	M	620
PS85	16.3562	1.3952	0.6581	1000	583	280	1863	M	621
JM76	11.6001	1.7035	0.7685	686	778	398	1862	M	622
RD31	11.4981	1.4374	0.8862	674	620	565	1859	M	623
TH11	9.4685	1.3502	1.3575	367	543	947	1857	M	624
JM36	12.9048	1.4122	0.7929	819	597	438	1854	M	625
NE49	13.9794	1.1587	0.9105	899	352	601	1852	M	626
TH39	9.5260	1.2917	1.4266	377	487	988	1852	M	627
JR02	10.8833	1.2107	1.2154	589	406	855	1850	L	628
PL38	13.5249	1.7237	0.5689	873	788	187	1848	L	629
JM18	13.6465	1.4267	0.7324	879	611	357	1847	L	630
YO01	12.9602	1.5352	0.7023	825	689	330	1844	L	631
PS53	10.9400	2.2414	0.6909	602	923	313	1838	L	632
RD69	10.2039	1.4311	1.0571	486	616	736	1838	L	633
RL04	8.1412	1.4268	1.5089	192	612	1029	1833	L	634
YO05	12.9759	1.5891	0.6530	829	727	277	1833	L	635
PL22	11.7435	0.9099	1.3943	701	158	970	1829	L	636
YO67	9.1200	1.4143	1.3063	315	600	914	1829	L	637
YO23	10.4742	1.4376	0.9888	529	621	678	1828	L	638
RU12	9.4828	1.2875	1.4117	368	479	980	1827	L	639
JU51	8.8121	1.3862	1.4038	277	572	977	1826	L	640

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NE85	7.5856	1.3654	1.8969	131	553	1140	1824	L	641
RD30	10.2220	1.2132	1.3229	491	408	925	1824	L	642
TH24	16.2024	0.9927	0.9169	997	218	608	1823	L	643
YO25	12.2744	1.4720	0.7827	762	644	417	1823	L	644
NE01	7.8950	1.3624	1.7563	159	550	1109	1818	L	645
RU11	9.4389	1.2932	1.3890	362	488	967	1817	L	646
CB16	10.1606	1.8326	0.8410	474	832	508	1814	L	647
CM18	11.3813	1.6251	0.7770	656	747	410	1813	L	648
RD51	11.9181	1.3725	0.8581	723	559	529	1811	L	649
RA20	13.9826	1.4200	0.6836	900	606	303	1809	L	650
JR09	12.0595	1.4628	0.7878	740	638	430	1808	L	651
RD34	10.9117	1.2743	1.0636	597	465	745	1807	L	652
JR18	12.5509	1.3241	0.8253	796	522	488	1806	L	653
RA30	13.3893	1.2218	0.8536	866	416	524	1806	L	654
RD41	8.7812	1.4473	1.2869	275	625	906	1806	L	655
CB26	6.3724	1.6201	1.4539	60	742	1002	1804	L	656
JM17	10.1646	1.3691	1.0905	477	557	769	1803	L	657
JU44	12.8626	1.6634	0.6019	816	761	226	1803	L	658
PS57	12.6217	1.5511	0.6767	799	706	296	1801	L	659
NE16	8.9666	1.2308	1.6393	297	423	1078	1798	L	660
PL20	11.8470	1.5200	0.7724	714	678	402	1794	L	661
PL31	16.7008	1.2359	0.7222	1011	430	347	1788	L	662
RA06	11.5668	1.3713	0.8697	683	558	544	1785	L	663
RA28	10.1985	1.3665	1.0696	482	554	748	1784	L	664
NE33	10.6829	1.0835	1.3421	565	281	937	1783	L	665
NE12	8.9356	1.2395	1.5730	291	432	1058	1781	L	666
RA10	10.9028	1.2628	1.0507	594	454	733	1781	L	667
RL01	9.6004	1.3235	1.2426	390	521	870	1781	L	668
JM45	10.2705	1.3839	1.0211	504	569	707	1780	L	669
JU72	8.1370	1.3925	1.4775	190	578	1012	1780	L	670
YO06	12.6813	1.5027	0.6930	803	662	315	1780	L	671
TC01	11.4311	0.9718	1.2889	663	207	908	1778	L	672
RU73	10.2198	1.3346	1.0778	490	532	755	1777	L	673
PS58	10.4512	1.5399	0.8745	527	695	552	1774	L	674
CU14	11.9296	1.5750	0.7016	725	720	328	1773	L	675
NE02	8.1922	1.2698	1.7597	200	461	1111	1772	L	676

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AO02	10.3507	3.0705	0.6184	518	1009	243	1770	L	677
RD48	11.3567	1.3097	0.9115	655	510	602	1767	L	678
RA50	12.0523	2.3633	0.4141	737	946	79	1762	L	679
JU41	10.7632	1.4542	0.8769	574	629	555	1758	L	680
RD46	11.2209	1.3341	0.9069	636	530	590	1756	L	681
RD64	11.1990	1.2485	0.9763	634	441	666	1741	L	682
JM59	12.3671	1.4783	0.6962	771	647	322	1740	L	683
RL10	10.9822	1.4283	0.8465	609	614	515	1738	L	684
NE19	9.1786	1.1883	1.5058	323	387	1026	1736	L	685
PS25	12.6981	1.5892	0.5834	805	728	202	1735	L	686
JM72	9.5598	1.5230	0.9828	382	679	670	1731	L	687
CM14	11.8912	1.5476	0.6862	719	703	306	1728	L	688
TP18	9.6936	1.1865	1.3405	407	385	934	1726	L	689
JM28	10.4827	1.4314	0.8920	533	617	574	1724	L	690
JU57	8.2253	1.2981	1.4981	206	493	1021	1720	L	691
RL07	11.5162	1.3629	0.8270	677	551	491	1719	L	692
RD33	8.9514	1.2802	1.3636	293	473	952	1718	L	693
NE14	9.1320	1.1843	1.4889	317	383	1016	1716	L	694
CM02	10.7912	1.4173	0.8646	576	604	535	1715	L	695
JR17	11.2339	1.2408	0.9528	638	434	642	1714	L	696
NE87	8.6592	1.2043	1.5698	258	398	1057	1713	L	697
PL34	14.3830	1.3104	0.6484	925	511	271	1707	L	698
CM08	10.9134	1.4221	0.8333	598	608	500	1706	L	699
JU27	11.0355	1.5780	0.7433	614	722	367	1703	L	700
TC11	11.3180	0.9497	1.2377	647	191	865	1703	L	701
JA25	10.8911	1.8361	0.6512	592	833	274	1699	L	702
NE52	9.3548	1.3052	1.1968	348	505	842	1695	L	703
JA24	11.6261	1.8947	0.5194	689	857	143	1689	L	704
RD65	10.9496	1.2358	0.9674	604	429	654	1687	L	705
TH19	9.6978	1.4521	0.9654	408	627	652	1687	L	706
CU13	10.6022	1.5507	0.7903	549	705	432	1686	L	707
NE84	6.7928	1.2705	1.9160	81	462	1142	1685	L	708
RD45	10.8218	1.2743	0.9467	583	466	636	1685	L	709
CM13	11.4391	1.6589	0.6368	665	760	259	1684	L	710
PL29	10.1388	0.8885	1.6057	472	146	1066	1684	L	711
JA04	10.9587	1.2881	0.9082	605	481	595	1681	L	712

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JU66	9.8426	1.1340	1.3197	436	325	920	1681	L	713
YO08	11.2771	1.5525	0.7041	642	707	332	1681	L	714
RA16	12.7370	1.2676	0.7783	809	458	413	1680	L	715
JM83	10.8853	1.5132	0.7790	590	674	414	1678	L	716
JM16	11.8644	1.3169	0.7976	715	518	444	1677	L	717
JM68	11.7380	2.0531	0.4234	700	895	82	1677	L	718
PL60	7.3499	1.1946	2.0363	107	392	1165	1664	L	719
RD27	10.1052	1.1854	1.1503	467	384	812	1663	L	720
RU04	9.6914	1.1992	1.2249	406	394	859	1659	L	721
JU76	10.6469	1.1764	1.0409	558	373	722	1653	L	722
JL17	10.2644	1.9985	0.6444	502	883	267	1652	L	723
TH36	7.7671	1.3056	1.4487	148	506	997	1651	L	724
RD24	10.3239	1.0633	1.2520	514	261	875	1650	L	725
JA44	10.3720	2.1274	0.6011	520	903	224	1647	L	726
TC06	14.0627	0.7478	0.9761	905	76	665	1646	L	727
JU52	8.7661	1.2419	1.3412	272	436	935	1643	L	728
JU55	9.0175	1.3008	1.1820	304	501	833	1638	L	729
JA03	10.7939	1.3647	0.8393	577	552	506	1635	L	730
CU03	11.4605	1.3126	0.8004	669	514	451	1634	L	731
BS33	8.5101	1.1585	1.5353	237	351	1045	1633	L	732
RA08	10.2707	1.1714	1.0827	505	363	764	1632	L	733
TC19	7.7854	1.2914	1.4397	149	486	994	1629	L	734
RU74	10.8448	1.2318	0.9268	587	424	617	1628	L	735
NE40	10.1096	1.2909	0.9854	468	484	674	1626	L	736
RU92	11.4317	1.3962	0.7492	664	585	377	1626	L	737
YO26	10.0149	2.0216	0.6588	456	887	281	1624	L	738
NE13	12.4792	0.7874	1.0584	789	96	737	1622	L	739
JR19	11.8389	1.2531	0.8066	712	447	461	1620	L	740
PL64	8.1164	1.5416	1.0587	186	696	738	1620	L	741
TH37	8.3108	1.2991	1.2960	214	496	910	1620	L	742
PL13	15.9948	1.1752	0.6253	993	371	254	1618	L	743
JA01	11.8024	1.3590	0.7399	706	549	362	1617	L	744
RD58	11.3818	1.2973	0.8126	657	491	469	1617	L	745
BS30	8.8199	1.1605	1.4107	278	353	979	1610	L	746
TC16	11.3438	0.9161	1.1118	654	167	787	1608	L	747
YO41	9.8915	1.5315	0.8188	444	685	478	1607	L	748

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PL42	14.7836	1.2744	0.5669	949	468	185	1602	L	749
RD62	10.8903	1.1971	0.9261	591	393	616	1600	L	750
RL22	8.8952	1.4254	1.0165	287	610	703	1600	L	751
YO24	12.2114	1.5113	0.5468	757	673	168	1598	L	752
JM67	10.9281	1.7050	0.5910	601	780	215	1596	L	753
PL32	12.2758	1.3944	0.6186	764	582	244	1590	L	754
RD67	12.0531	1.2986	0.7299	738	495	354	1587	L	755
RU60	11.4582	1.2616	0.8115	668	453	466	1587	L	756
RU59	10.3738	1.3201	0.8695	521	520	543	1584	L	757
JM05	9.3294	1.2747	1.0945	341	469	772	1582	L	758
RU65	12.5228	1.3551	0.6128	793	547	241	1581	L	759
RU13	9.3945	1.1395	1.2624	356	335	886	1577	L	760
RA47	9.5438	1.5379	0.8380	378	691	505	1574	L	761
RA18	15.3037	1.2754	0.5037	968	470	135	1573	L	762
JR12	11.4498	1.2329	0.8195	667	426	479	1572	L	763
NE50	9.2765	1.3014	1.0551	335	502	735	1572	L	764
PL10	13.1190	1.2434	0.6644	844	438	289	1571	L	765
PU04	9.7693	1.3767	0.9075	417	562	592	1571	L	766
RD66	10.9902	1.2154	0.8727	611	410	549	1570	L	767
CU04	12.1947	1.4591	0.5617	755	635	179	1569	L	768
JL55	8.0534	1.6486	0.9443	179	754	635	1568	L	769
PL53	8.1302	1.0872	1.7002	188	286	1094	1568	L	770
RD68	10.5196	1.2220	0.9202	536	417	610	1563	L	771
NE56	12.9222	0.9575	0.8681	822	201	539	1562	L	772
JM77	10.2720	1.5087	0.7545	506	670	384	1560	L	773
RU34	10.7755	1.1888	0.9081	575	388	594	1557	L	774
TC23	9.7903	1.2736	0.9841	420	464	673	1557	L	775
YO16	11.1595	1.3670	0.7489	625	555	376	1556	L	776
YO38	9.9575	1.6063	0.7450	450	733	372	1555	L	777
JM50	11.3061	1.2994	0.7761	646	497	409	1552	L	778
CU12	11.5102	1.5083	0.5856	675	669	207	1551	L	779
RD61	10.0319	1.3060	0.9024	458	507	585	1550	L	780
JU42	14.0726	0.7639	0.8749	908	84	553	1545	L	781
PL35	11.3061	1.1348	0.8884	645	329	570	1544	L	782
PL54	4.3631	1.1149	2.4338	31	310	1203	1544	L	783
JL50	6.7362	1.8200	0.9496	77	826	639	1542	L	784

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JM79	11.0599	1.3961	0.7155	618	584	340	1542	L	785
RD35	10.2015	1.1817	0.9876	485	379	676	1540	L	786
JA13	10.5195	1.5678	0.6673	535	714	290	1539	L	787
NE17	10.2911	0.9940	1.1452	510	219	807	1536	L	788
RA34	12.3324	1.2884	0.6605	769	483	283	1535	L	789
RU36	10.0086	1.2693	0.9300	455	460	619	1534	L	790
JM32	10.9053	1.2483	0.8317	595	440	498	1533	L	791
TH27	8.5329	1.1466	1.3611	239	343	949	1531	L	792
RA04	10.3110	1.2536	0.8875	513	449	568	1530	L	793
RD59	10.7027	1.2531	0.8437	566	446	510	1522	L	794
PL15	13.0525	1.0650	0.7849	835	262	424	1521	L	795
JR20	11.1945	1.2846	0.7773	633	476	411	1520	L	796
RD50	11.5280	1.3000	0.7178	678	499	343	1520	L	797
YO44	10.2396	1.2855	0.8705	497	477	546	1520	L	798
TC20	6.8544	1.2948	1.3492	89	489	941	1519	L	799
PL44	12.3009	1.0543	0.8315	768	251	497	1516	L	800
PL08	14.9407	1.0950	0.6427	954	295	264	1513	L	801
RA22	10.2748	1.3029	0.8350	507	503	503	1513	L	802
RU14	9.5775	1.1676	1.0927	383	360	770	1513	L	803
PL46	9.6351	0.9628	1.3056	396	203	913	1512	L	804
CM16	10.6791	1.4246	0.7121	563	609	339	1511	L	805
PS64	10.8034	1.5611	0.5942	580	712	219	1511	L	806
CM12	10.6554	1.4044	0.7356	560	591	359	1510	L	807
PS16	11.8227	1.5450	0.4545	710	700	100	1510	L	808
PS30	12.2512	1.4564	0.4724	761	632	114	1507	L	809
NE51	8.5965	1.2979	1.0860	244	492	765	1501	L	810
RU79	10.1916	1.1644	0.9747	480	358	661	1499	L	811
JA02	9.8552	1.3251	0.8640	438	523	534	1495	L	812
JL54	8.0005	1.6218	0.8962	174	744	577	1495	L	813
TC29	17.0983	0.7601	0.7632	1021	81	392	1494	L	814
NE39	8.6034	1.0686	1.4013	247	266	973	1486	L	815
PS14	9.7821	1.9309	0.5770	418	874	194	1486	L	816
RA17	15.1407	1.2606	0.3813	963	452	68	1483	L	817
TC17	6.7565	1.1704	1.5193	80	362	1036	1478	L	818
PS83	14.4861	1.1909	0.5380	929	389	154	1472	L	819
PS65	9.8086	1.6373	0.6641	427	748	288	1463	L	820

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PU03	10.2272	1.3877	0.7612	492	574	391	1457	L	821
NE06	8.4519	1.0721	1.3623	232	273	950	1455	L	822
PS69	7.6722	1.4161	1.0218	142	603	709	1454	L	823
PS67	11.4000	1.3844	0.6006	659	571	223	1453	L	824
PS32	10.2849	2.0490	0.3214	509	894	49	1452	L	825
CU06	12.0234	1.5049	0.3309	734	663	50	1447	L	826
JM27	9.5141	1.1941	0.9909	375	391	680	1446	L	827
JM82	9.8199	1.3986	0.7841	429	587	423	1439	L	828
JU85	8.1123	1.2189	1.1869	184	413	837	1434	L	829
PL18	13.1468	1.1866	0.5808	847	386	201	1434	L	830
RU91	11.2922	1.2877	0.6874	643	480	310	1433	L	831
NE63	8.4439	1.0502	1.3651	229	249	954	1432	L	832
RD53	9.2076	1.2022	1.0216	326	395	708	1429	L	833
NE09	7.6866	1.0720	1.4772	145	272	1011	1428	L	834
TC18	8.9223	1.1460	1.1223	290	341	796	1427	L	835
JA38	9.5240	1.4522	0.7838	376	628	420	1424	L	836
PL43	11.6194	1.1691	0.7485	688	361	375	1424	L	837
PL47	8.1604	0.8602	1.7181	194	129	1099	1422	L	838
JU29	10.6008	1.5300	0.5766	547	681	193	1421	L	839
RD57	10.2831	1.2364	0.8224	508	431	482	1421	L	840
TH38	8.6444	1.1400	1.1806	255	336	830	1421	L	841
PL37	14.5762	1.1718	0.4812	934	364	119	1417	L	842
JU73	10.2111	1.0297	1.0068	488	235	693	1416	L	843
RD54	10.1535	1.2744	0.8176	473	467	476	1416	L	844
PS34	10.3469	1.8808	0.3446	517	846	52	1415	L	845
RU72	10.9587	1.1787	0.7878	606	377	431	1414	L	846
RA49	9.4633	1.6709	0.6608	363	764	284	1411	L	847
RU26	7.6582	1.3486	1.0422	141	542	724	1407	L	848
RU66	9.8839	1.1342	0.9477	443	327	637	1407	L	849
PL30	9.9334	0.7761	1.2386	448	91	866	1405	L	850
JU53	9.4289	1.2273	0.9321	361	421	622	1404	L	851
JM43	10.1996	1.2874	0.7952	483	478	442	1403	L	852
RA07	14.0325	1.0059	0.6516	903	224	275	1402	L	853
JM63	10.9428	1.5317	0.4667	603	686	111	1400	L	854
NE60	9.7602	1.1614	0.9349	416	354	628	1398	L	855
NE64	14.2427	0.7279	0.7778	916	70	412	1398	L	856

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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 #
NE88	8.4828	1.0484	1.3087	234	248	915	1397	L	857
PU15	9.2416	1.1770	1.0043	330	376	690	1396	L	858
PS71	9.6373	1.5553	0.6610	397	709	285	1391	L	859
TH33	13.4235	0.7520	0.7981	868	77	446	1391	L	860
PL33	12.6531	1.1558	0.6124	802	348	240	1390	L	861
RU75	10.1962	1.2643	0.8020	481	455	453	1389	L	862
RU53	12.5079	0.8598	0.8108	791	128	465	1384	L	863
PL17	11.8107	1.3317	0.5170	707	529	141	1377	L	864
JU54	8.7310	1.0943	1.1519	267	294	814	1375	L	865
RA51	9.5939	1.7893	0.5572	386	814	175	1375	L	866
JM81	10.6215	1.2981	0.6972	553	494	324	1371	L	867
PL25	9.7272	0.8301	1.2030	410	112	848	1370	L	868
NE26	11.2318	1.2576	0.6554	637	451	279	1367	L	869
RU71	9.5947	1.1267	0.9742	387	320	659	1366	L	870
JM14	9.3706	1.1766	0.9521	351	374	640	1365	L	871
TH06	8.8620	1.1450	1.0622	280	339	743	1362	L	872
TH30	8.2545	1.1746	1.1097	210	368	784	1362	L	873
PL41	8.2203	0.9149	1.4337	205	164	991	1360	L	874
RU87	11.6770	1.2673	0.5884	693	457	210	1360	L	875
RA13	13.1045	0.6079	0.8255	839	31	489	1359	L	876
JA18	10.4022	1.6929	0.3740	524	772	62	1358	L	877
JR22	10.7047	1.2100	0.7563	568	403	387	1358	L	878
TH04	9.1206	1.4519	0.7820	316	626	416	1358	L	879
PL48	6.5283	0.9436	1.7413	67	185	1104	1356	L	880
CB25	6.4907	1.3186	1.0872	66	519	766	1351	L	881
JA17	9.3285	1.4709	0.7421	339	643	366	1348	L	882
TC09	11.3925	0.7573	0.9161	658	79	607	1344	L	883
PL14	10.1249	1.1822	0.8279	469	381	492	1342	L	884
NE05	9.1804	1.0093	1.1122	324	226	790	1340	L	885
JA19	9.9422	1.6053	0.5386	449	732	156	1337	L	886
JL58	8.1632	1.3926	0.8846	195	579	563	1337	L	887
TC07	11.6339	0.6218	0.9189	691	35	609	1335	L	888
CB34	8.6819	2.4922	0.4622	260	964	109	1333	L	889
PS73	9.1813	1.0998	1.0206	325	303	705	1333	L	890
PL04	12.5703	0.9447	0.7157	798	186	342	1326	L	891
RU67	10.4707	1.1583	0.7985	528	350	448	1326	L	892

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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 #
RL03	8.6313	1.1446	1.0505	254	338	732	1324	L	893
JM64	10.6431	1.3800	0.5799	557	566	200	1323	L	894
JA14	11.2505	1.3771	0.4768	641	563	117	1321	L	895
RU62	10.4761	1.2230	0.7448	531	418	371	1320	L	896
PL19	12.7100	1.1747	0.5172	806	369	142	1317	L	897
JA27	10.0787	1.4676	0.5898	463	640	213	1316	L	898
NE76	39.2426	0.6627	0.2942	1231	47	38	1316	L	899
NE03	7.6575	0.9703	1.3939	140	206	969	1315	L	900
JM04	7.8207	1.1305	1.1825	154	324	834	1312	L	901
JA26	9.4670	1.5282	0.6418	366	680	262	1308	L	902
JU80	10.6513	1.1124	0.7938	559	308	440	1307	L	903
PL57	4.0318	0.8318	2.0283	29	114	1162	1305	L	904
JA21	9.8567	1.5884	0.5115	439	726	138	1303	L	905
RU88	11.0547	1.1929	0.6736	617	390	294	1301	L	906
RL05	6.2617	1.1520	1.2703	57	346	895	1298	L	907
YA06	9.0771	1.1615	0.9417	311	355	632	1298	L	908
CU10	10.7054	1.4064	0.5028	569	592	133	1294	L	909
NE79	8.4302	1.0101	1.1825	226	228	835	1289	L	910
RD43	9.2798	1.1767	0.8977	336	375	578	1289	L	911
PL11	14.3341	1.0043	0.5237	920	222	146	1288	L	912
PS76	8.3944	1.4346	0.7982	221	618	447	1286	L	913
PL51	7.5932	0.9425	1.3876	133	183	966	1282	L	914
PL36	13.6512	1.0719	0.4891	880	270	123	1273	L	915
JU12	8.8704	1.0700	1.0419	282	267	723	1272	L	916
JM80	9.5474	1.2513	0.7980	380	443	445	1268	L	917
RU25	8.3376	1.1800	0.9830	217	378	671	1266	L	918
RU78	10.4136	1.1370	0.7756	526	331	408	1265	L	919
JM30	8.0742	1.0549	1.1785	183	253	827	1263	L	920
JM06	9.3543	1.0595	0.9703	347	258	657	1262	L	921
PS86	12.7120	1.0090	0.6048	807	225	228	1260	L	922
RD39	7.5200	1.0121	1.2838	126	229	903	1258	L	923
YA07	9.6293	1.0545	0.9224	394	252	612	1258	L	924
RL06	6.4771	1.0904	1.2768	64	289	900	1253	L	925
JM69	9.8034	1.4898	0.5520	424	654	172	1250	L	926
JM66	10.3646	1.5070	0.3699	519	667	61	1247	L	927
BS28	7.4401	1.0895	1.1919	116	288	839	1243	L	928

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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 #
RD52	9.7934	1.1424	0.8228	422	337	484	1243	L	929
RU38	8.4600	1.1064	1.0195	233	304	704	1241	L	930
NE68	10.0472	1.3150	0.6212	461	517	249	1227	L	931
RA09	9.2139	0.9560	1.0124	327	199	700	1226	L	932
JA32	9.8640	1.5901	0.3484	442	729	54	1225	L	933
TC15	6.0706	1.0536	1.3134	50	250	918	1218	L	934
JM44	11.1365	1.1539	0.6208	624	347	246	1217	L	935
JM65	10.8324	1.3511	0.4022	585	544	75	1204	L	936
RD32	8.9396	1.1837	0.8554	292	382	527	1201	L	937
JA28	10.4780	1.3903	0.4427	532	576	91	1199	L	938
PL03	11.7365	0.8639	0.7419	699	132	364	1195	L	939
PS72	9.1405	1.1506	0.8627	318	344	533	1195	L	940
PL52	6.2072	0.8074	1.5143	52	102	1032	1186	L	941
JM35	10.7255	1.3007	0.4718	571	500	113	1184	L	942
JM38	9.7865	1.2086	0.7387	419	400	360	1179	L	943
PL56	8.3268	0.9903	1.0613	215	214	741	1170	L	944
YA05	8.4464	1.0763	0.9753	231	276	662	1169	L	945
BS02	8.0145	0.9305	1.1657	175	171	821	1167	L	946
JU01	9.3504	1.1185	0.8350	346	316	502	1164	L	947
PL45	12.0170	0.9671	0.6036	732	205	227	1164	L	948
RL17	8.7141	1.0734	0.9313	265	275	621	1161	L	949
RA05	9.1066	1.0631	0.9002	314	260	583	1157	L	950
CB28	8.5518	1.8924	0.3622	241	855	58	1154	L	951
JM26	9.1649	1.1174	0.8469	321	315	517	1153	L	952
CM11	11.1365	1.1731	0.5432	623	366	163	1152	L	953
RL23	8.8850	1.2124	0.8041	285	407	459	1151	L	954
CU05	11.1862	1.2687	0.3629	632	459	59	1150	L	955
JU81	7.9097	1.0994	0.9978	160	301	684	1145	L	956
JM03	8.5397	1.0891	0.9249	240	287	615	1142	L	957
YO21	9.6830	1.2789	0.6420	405	472	263	1140	L	958
RU16	7.8413	1.0769	1.0152	156	277	702	1135	L	959
TC10	6.9666	1.0136	1.1486	94	231	810	1135	L	960
RA03	8.8938	0.9413	0.9811	286	180	668	1134	L	961
JM74	10.1029	1.2160	0.6302	466	411	256	1133	L	962
PU13	9.5923	1.1370	0.7807	384	332	415	1131	L	963
JU74	9.5978	0.8943	0.9045	389	150	589	1128	L	964

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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 #
RD55	9.4119	1.1064	0.8075	358	305	463	1126	L	965
TC12	10.8165	0.7035	0.8230	582	58	485	1125	L	966
PS70	7.6450	1.2468	0.8688	138	439	541	1118	L	967
CB24	8.2068	1.3809	0.7221	204	567	346	1117	L	968
TH08	9.4642	1.0980	0.7948	364	298	441	1103	L	969
CM10	10.7141	1.1749	0.5429	570	370	162	1102	L	970
JU17	10.2494	1.2417	0.5452	500	435	165	1100	L	971
TH12	12.0271	0.7285	0.6699	735	71	291	1097	L	972
PL39	10.7428	1.2402	0.4363	573	433	87	1093	L	973
JU28	10.3312	1.2673	0.4861	515	456	121	1092	L	974
PL55	7.1123	0.9975	1.0929	98	220	771	1089	L	975
CU07	10.5910	1.1818	0.5449	543	380	164	1087	L	976
JU67	8.6178	1.2428	0.7645	250	437	395	1082	L	977
RA11	9.6446	0.9154	0.8449	403	165	513	1081	L	978
TH17	7.9522	1.1138	0.9143	166	309	606	1081	L	979
RU68	9.6274	1.1159	0.7440	393	312	368	1073	L	980
JA37	9.2560	1.3438	0.5772	332	536	196	1064	L	981
PL05	12.0229	0.8753	0.5771	733	136	195	1064	L	982
RD47	10.2062	1.0782	0.6810	487	278	299	1064	L	983
PS77	8.4395	1.3112	0.6968	228	512	323	1063	L	984
TC08	10.2646	0.8002	0.8059	503	100	460	1063	L	985
JA39	8.7806	1.3296	0.6406	274	527	261	1062	L	986
JA33	9.6417	1.3568	0.4570	401	548	105	1054	L	987
PL49	7.4489	0.7230	1.2418	118	68	868	1054	L	988
JU50	7.5362	1.0339	0.9964	128	239	682	1049	L	989
PU18	11.6812	1.0706	0.4346	694	268	86	1048	L	990
NE66	12.1953	0.7397	0.5934	756	73	217	1046	L	991
JA34	9.7512	1.3879	0.3566	414	575	56	1045	L	992
JM57	9.3357	1.2101	0.6793	343	404	297	1044	L	993
TH35	8.8113	0.9925	0.8734	276	217	550	1043	L	994
JM56	9.4137	1.2882	0.5780	359	482	198	1039	L	995
RD44	9.7593	1.1342	0.6798	415	326	298	1039	L	996
RD56	9.5948	1.1170	0.7050	388	314	334	1036	L	997
NE72	8.8633	1.2319	0.6992	281	425	327	1033	L	998
NE59	11.2346	1.1632	0.0034	639	357	31	1027	L	999
JA30	10.6798	1.2202	0.3187	564	414	48	1026	L	1000

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NE86	7.7948	0.8366	1.0766	150	119	753	1022	L	1001
TH32	7.4088	1.0673	0.9613	111	264	646	1021	L	1002
PL12	9.8467	0.9497	0.7561	437	190	386	1013	L	1003
TC03	6.8634	0.8457	1.1246	90	123	798	1011	L	1004
JU11	7.9397	0.9107	0.9984	165	160	685	1010	L	1005
RU83	10.2161	1.1280	0.5774	489	321	197	1007	L	1006
JM42	10.2299	1.0674	0.6202	494	265	245	1004	L	1007
NE71	6.7273	0.8367	1.1393	75	120	805	1000	L	1008
RA46	8.4921	0.9376	0.9035	235	176	587	998	L	1009
RU80	9.6263	1.1342	0.6526	392	328	276	996	L	1010
TH31	7.9821	0.9547	0.9344	170	198	627	995	L	1011
RU69	9.6255	1.0929	0.6867	391	293	307	991	L	1012
PL24	5.5310	0.6244	1.3128	38	36	916	990	L	1013
PU19	11.4743	1.0444	0.3851	671	247	70	988	L	1014
NE41	8.7004	1.1219	0.7756	262	317	407	986	L	1015
RU63	10.3978	1.0848	0.5580	522	283	176	981	L	1016
TH26	7.7262	0.9143	0.9753	147	161	663	971	L	1017
JU43	9.8398	1.2097	0.5011	435	402	132	969	L	1018
RU84	7.9637	1.0437	0.8753	168	246	554	968	L	1019
RD60	9.0987	1.1247	0.7086	313	318	336	967	L	1020
JM10	8.7778	0.8340	0.8916	273	117	572	962	L	1021
RD63	10.0330	1.0721	0.6054	459	274	229	962	L	1022
PU08	8.6530	1.0250	0.8133	257	234	470	961	L	1023
TH07	11.1709	0.7128	0.6483	628	63	270	961	L	1024
RD37	8.6058	1.0572	0.8037	248	256	456	960	L	1025
PS68	9.1770	1.1728	0.6397	322	365	260	947	L	1026
JM73	10.1253	1.1763	0.4559	470	372	104	946	L	1027
YO07	10.1638	1.1390	0.5030	476	334	134	944	L	1028
JM58	9.5139	1.2522	0.4919	374	444	125	943	L	1029
JU37	6.5377	0.9831	0.9760	68	211	664	943	L	1030
TH13	12.8106	0.5295	0.4549	813	28	102	943	L	1031
JM70	9.4278	1.3279	0.3358	360	525	51	936	L	1032
JA31	9.7912	1.2236	0.4453	421	419	94	934	L	1033
TH29	8.0617	0.9455	0.8869	181	187	566	934	L	1034
JA22	9.4032	1.1078	0.6430	357	306	266	929	L	1035
TC02	9.3286	0.7255	0.8482	340	69	519	928	L	1036

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JA36	8.2724	1.2357	0.6617	212	428	286	926	L	1037
RU09	8.2925	0.9427	0.8533	213	184	523	920	L	1038
NE20	7.7229	0.9375	0.9093	146	175	597	918	L	1039
RD36	8.8356	1.0157	0.7697	279	232	401	912	L	1040
TH10	7.8439	0.9359	0.8990	157	174	581	912	L	1041
PL40	10.8375	1.0404	0.4035	586	243	76	905	L	1042
JL03	6.9498	1.2302	0.7576	92	422	388	902	L	1043
TH42	10.1608	0.6360	0.7543	475	40	382	897	L	1044
RU58	8.9873	1.0094	0.7446	299	227	370	896	L	1045
JM29	8.1941	0.9143	0.8617	201	162	532	895	L	1046
CB23	9.3322	1.2498	0.4584	342	442	106	890	L	1047
JA23	9.0543	1.2174	0.5473	309	412	169	890	L	1048
CM06	8.0566	1.0716	0.7931	180	269	439	888	L	1049
JA15	9.3727	1.1362	0.5841	353	330	204	887	L	1050
RD77	7.6775	0.9513	0.8700	144	195	545	884	L	1051
JU10	8.9149	0.8304	0.8221	289	113	481	883	L	1052
TH15	10.6144	0.7871	0.6098	551	95	237	883	L	1053
TH18	10.5413	0.7745	0.6245	539	89	253	881	L	1054
JM53	9.1528	1.2205	0.5216	319	415	145	879	L	1055
JA29	9.8088	1.2106	0.3044	428	405	42	875	L	1056
TC21	8.1771	1.0377	0.7913	199	241	433	873	L	1057
RL12	8.1553	1.0607	0.7831	193	259	418	870	L	1058
RU70	9.8276	1.0551	0.5665	432	254	184	870	L	1059
NE22	8.7160	1.0392	0.7399	266	242	361	869	L	1060
TH20	9.9162	0.7759	0.7017	446	90	329	865	L	1061
PU16	10.4750	1.0811	0.3552	530	279	55	864	L	1062
RA14	8.1741	0.8778	0.8465	197	137	516	850	L	1063
JM51	8.6124	1.0907	0.6867	249	290	308	847	L	1064
RD38	8.6849	1.0123	0.7291	261	230	351	842	L	1065
JM31	9.5455	1.1152	0.5332	379	311	150	840	L	1066
RL16	7.6424	1.1096	0.7654	137	307	396	840	L	1067
RL15	5.3017	0.8623	0.9833	35	131	672	838	L	1068
PL26	9.2929	0.6660	0.8008	337	48	452	837	L	1069
JU40	7.4101	1.0840	0.7919	112	282	436	830	L	1070
RU50	10.3087	1.0720	0.3140	512	271	46	829	L	1071
TH28	8.9840	0.9499	0.7114	298	192	338	828	L	1072

2014 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 #
RA12	9.3708	0.8971	0.6947	352	153	319	824	L	1073
NE44	8.0000	1.1165	0.7068	173	313	335	821	L	1074
RU40	8.3479	0.9505	0.7695	219	193	400	812	L	1075
RU42	11.0482	0.7187	0.5002	616	65	131	812	L	1076
TC13	8.7638	0.6479	0.8288	271	45	493	809	L	1077
CB22	9.1581	1.2133	0.4007	320	409	73	802	L	1078
JA41	9.0208	1.2035	0.4548	305	396	101	802	L	1079
JU14	7.0007	0.9037	0.8743	95	155	551	801	L	1080
JM52	9.2392	1.1618	0.4691	329	356	112	797	L	1081
RU19	6.3333	0.9415	0.8796	59	181	557	797	L	1082
CU08	9.7999	1.0995	0.3822	423	302	69	794	L	1083
JU22	8.0245	1.0421	0.7443	178	244	369	791	L	1084
JU18	9.7315	1.1450	0.2965	411	340	39	790	L	1085
RU64	9.8264	1.0241	0.4934	431	233	126	790	L	1086
JM12	8.6714	1.0321	0.6714	259	237	292	788	L	1087
PS79	10.8758	0.8849	0.3483	588	142	53	783	L	1088
JU20	7.6499	0.8902	0.8292	139	147	494	780	L	1089
JU21	6.8331	0.7475	0.9280	87	75	618	780	L	1090
JL18	7.9113	1.1644	0.6348	161	359	258	778	L	1091
TH02	9.8366	0.8345	0.6016	434	118	225	777	L	1092
PL27	6.8203	0.6461	0.9561	84	44	643	771	L	1093
TH16	10.1349	0.7191	0.6084	471	66	233	770	L	1094
JA08	9.8589	1.0435	0.4171	440	245	80	765	L	1095
JA16	9.2958	1.1739	0.3654	338	367	60	765	L	1096
RL20	8.3953	1.1281	0.5922	222	322	216	760	L	1097
RA48	7.1438	1.0046	0.7918	100	223	435	758	L	1098
JA09	8.7560	1.0952	0.5704	269	296	188	753	L	1099
PL02	9.6380	0.9145	0.5761	398	163	192	753	L	1100
PU10	8.5653	0.9509	0.6930	243	194	316	753	L	1101
JA06	9.6421	1.0553	0.4439	402	255	93	750	L	1102
PS75	10.5220	0.8749	0.4008	537	135	74	746	L	1103
RL11	8.6285	1.0339	0.6212	253	240	250	743	L	1104
TC28	9.4940	0.6331	0.7033	370	38	331	739	L	1105
JA35	8.3360	1.0983	0.5964	216	300	220	736	L	1106
JL38	8.5254	1.1462	0.5384	238	342	155	735	L	1107
CU02	7.6270	1.0665	0.7047	135	263	333	731	L	1108

2014 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 #
JA10	9.2729	1.0952	0.4541	334	297	99	730	L	1109
JU45	9.0312	1.0853	0.5124	306	284	139	729	L	1110
RL21	6.9309	1.0315	0.7584	91	236	389	716	L	1111
NE81	5.8417	0.7855	0.8884	45	94	569	708	L	1112
JU47	9.4979	1.0918	0.3073	371	292	44	707	L	1113
NE73	5.6208	0.6484	0.9248	40	46	614	700	L	1114
RU54	10.2400	0.9021	0.3143	498	154	47	699	L	1115
RU18	6.7286	0.8936	0.8118	76	149	468	693	L	1116
JA07	8.7138	1.0834	0.5243	264	280	147	691	L	1117
PU09	8.9880	0.9753	0.5632	300	209	180	689	L	1118
JA05	9.3641	1.0584	0.4199	350	257	81	688	L	1119
NE32	8.9999	0.7351	0.6895	301	72	311	684	L	1120
RL14	8.1123	0.9669	0.6603	185	204	282	671	L	1121
PL01	7.9895	0.8961	0.7203	172	152	344	668	L	1122
PL28	5.0102	0.8173	0.8511	34	105	520	659	L	1123
JU13	7.4534	0.9255	0.7419	119	170	365	654	L	1124
PU12	8.9638	0.9163	0.5725	296	168	189	653	L	1125
JM71	8.8721	1.0980	0.3763	283	299	64	646	L	1126
RL08	4.2098	0.7962	0.8464	30	99	514	643	L	1127
CM01	7.3742	0.9396	0.7306	109	178	355	642	L	1128
PL50	3.4559	0.6211	0.8988	28	34	580	642	L	1129
JM11	7.5175	0.7687	0.7856	125	86	425	636	L	1130
PL21	8.2496	0.7426	0.7242	208	74	348	630	L	1131
TH21	9.3828	0.6161	0.6109	355	33	239	627	L	1132
AO03	5.7256	1.3472	0.3104	42	539	45	626	L	1133
CM04	7.1907	0.9402	0.7212	102	179	345	626	L	1134
RU15	6.8372	0.8868	0.7644	88	144	394	626	L	1135
JA12	6.6619	0.8822	0.7731	73	139	404	616	L	1136
RU82	7.0011	0.9156	0.7295	96	166	353	615	L	1137
RU39	9.2252	0.9538	0.4381	328	197	88	613	L	1138
RU07	9.8055	0.8932	0.0069	425	148	33	606	L	1139
RL18	7.8169	0.9424	0.6447	153	182	268	603	L	1140
CM09	8.1291	0.9581	0.5897	187	202	212	601	L	1141
PS78	7.8022	0.9486	0.6348	152	189	257	598	L	1142
JM55	7.9599	0.9912	0.5901	167	216	214	597	L	1143
PS81	9.2682	0.8852	0.4783	333	143	118	594	L	1144

2014 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 #
JU24	5.5045	0.6407	0.8439	37	42	511	590	L	1145
RU49	9.4987	0.9337	0.2976	372	172	40	584	L	1146
PS74	8.6013	0.9469	0.5297	245	188	149	582	L	1147
RU45	8.4997	0.9908	0.4971	236	215	129	580	L	1148
CM05	7.6743	0.9071	0.6491	143	157	272	572	L	1149
JM54	8.3427	0.9979	0.4989	218	221	130	569	L	1150
TC04	6.4440	0.7099	0.7958	63	61	443	567	L	1151
PS18	7.9212	1.2041	0.0000	163	397	1	561	L	1152
NE62	6.6420	0.8208	0.7492	71	109	378	558	L	1153
YO28	6.7422	0.9388	0.6819	79	177	301	557	L	1154
JL19	7.9288	0.9888	0.5596	164	213	177	554	L	1155
NE70	6.7420	0.9060	0.6958	78	156	320	554	L	1156
JU15	7.4726	0.8572	0.6860	120	127	305	552	L	1157
NE43	6.5762	0.8104	0.7496	69	103	379	551	L	1158
RA02	8.1999	0.7889	0.6234	202	97	252	551	L	1159
NE27	7.1200	0.9843	0.6062	99	212	230	541	L	1160
TH14	9.7361	0.6305	0.4317	412	37	85	534	L	1161
JU19	7.3273	0.8139	0.6921	106	104	314	524	L	1162
CB21	7.4460	1.1284	0.4073	117	323	78	518	L	1163
JM08	8.3603	0.8184	0.5743	220	106	190	516	L	1164
RL09	4.4699	0.7062	0.7836	32	60	419	511	L	1165
RL13	7.8237	0.9338	0.5558	155	173	173	501	L	1166
PU17	7.4182	0.6949	0.6960	114	54	321	489	L	1167
NE83	6.0455	0.6339	0.7679	48	39	397	484	L	1168
RU41	8.6021	0.9234	0.3808	246	169	67	482	L	1169
TC14	6.2363	0.8061	0.6976	54	101	325	480	L	1170
JA43	7.3723	0.9518	0.5456	108	196	167	471	L	1171
RU06	8.9536	0.8873	0.0049	294	145	32	471	L	1172
TC05	6.2533	0.8279	0.6854	55	111	304	470	L	1173
PU20	9.7215	0.5959	0.0032	409	30	30	469	L	1174
RU61	8.4047	0.8818	0.4553	224	138	103	465	L	1175
TH01	9.0091	0.8570	0.2397	303	126	35	464	L	1176
RU81	7.6218	0.8326	0.5877	134	115	208	457	L	1177
RU52	8.2633	0.9103	0.4311	211	159	84	454	L	1178
NE31	9.3364	0.6415	0.3807	344	43	66	453	L	1179
JM86	8.2518	0.7138	0.5602	209	64	178	451	L	1180

2014 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	8.1312	0.8562	0.5043	189	125	136	450	L	1181
CM07	6.9595	0.8948	0.5787	93	151	199	443	L	1182
NE61	8.7043	0.6961	0.4604	263	55	107	425	L	1183
NE30	8.0212	0.7631	0.5418	177	82	159	418	L	1184
RU85	7.4771	0.8208	0.5656	121	108	182	411	L	1185
RU56	6.7946	0.7809	0.6087	82	93	234	409	L	1186
NE34	6.6485	0.7722	0.6209	72	88	248	408	L	1187
NE67	6.4888	0.7913	0.6092	65	98	236	399	L	1188
YO30	6.2260	0.8745	0.5842	53	134	205	392	L	1189
JU46	8.2319	0.8824	0.3064	207	140	43	390	L	1190
CU01	7.5066	0.9789	0.3616	122	210	57	389	L	1191
JM09	6.5989	0.7591	0.5981	70	80	221	371	L	1192
NE57	6.8236	0.7206	0.5881	85	67	209	361	L	1193
JA11	6.8142	0.8560	0.5357	83	124	151	358	L	1194
NE69	7.4122	0.9573	0.2704	113	200	36	349	L	1195
RU44	7.8890	0.8447	0.3805	158	122	65	345	L	1196
JA42	7.0402	0.8368	0.4893	97	121	124	342	L	1197
NE47	6.3117	0.7526	0.5846	58	78	206	342	L	1198
RU17	7.3751	0.8245	0.4760	110	110	115	335	L	1199
JM07	5.9073	0.6094	0.6275	46	32	255	333	L	1200
NE80	6.0707	0.8736	0.5281	51	133	148	332	L	1201
NE45	7.2365	0.8621	0.4295	104	130	83	317	L	1202
NE46	7.2234	0.7669	0.4881	103	85	122	310	L	1203
NE23	5.7624	0.7124	0.5838	43	62	203	308	L	1204
PU14	7.9133	0.8329	0.0029	162	116	29	307	L	1205
RU27	5.7026	0.7702	0.5565	41	87	174	302	L	1206
TH34	6.3851	0.8197	0.4841	62	107	120	289	L	1207
JL02	7.1441	0.6375	0.5196	101	41	144	286	L	1208
PS47	6.3774	0.7062	0.5452	61	59	166	286	L	1209
YO34	5.8030	0.8832	0.4523	44	141	98	283	L	1210
RU43	7.5067	0.7807	0.3042	123	92	41	256	L	1211
NE24	5.3956	0.6821	0.5428	36	53	161	250	L	1212
NE25	7.3066	0.6723	0.4429	105	50	92	247	L	1213
NE29	5.5822	0.6815	0.5112	39	52	137	228	L	1214
NE28	7.5073	0.5811	0.3758	124	29	63	216	L	1215
TH03	6.8314	0.7635	0.2887	86	83	37	206	L	1216

2014 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 #
PS80	6.0208	0.7005	0.4494	47	56	97	200	L	1217
RU51	6.0669	0.6684	0.4412	49	49	89	187	L	1218
JU48	6.2592	0.7031	0.3920	56	57	71	184	L	1219
RU55	6.6754	0.6750	0.1565	74	51	34	159	L	1220
RL19	2.8094	0.1275	0.0000	27	27	1	55	L	1221
TP08	0.0000	0.0000	0.0000	26	1	1	28	L	1222
AO01	0.0000	0.0000	0.0000	1	1	1	3	L	1223
AO05	0.0000	0.0000	0.0000	1	1	1	3	L	1224
AO06	0.0000	0.0000	0.0000	1	1	1	3	L	1225
AO07	0.0000	0.0000	0.0000	1	1	1	3	L	1226
AO12	0.0000	0.0000	0.0000	1	1	1	3	L	1227
AO16	0.0000	0.0000	0.0000	1	1	1	3	L	1228
AO17	0.0000	0.0000	0.0000	1	1	1	3	L	1229
AO19	0.0000	0.0000	0.0000	1	1	1	3	L	1230
AO20	0.0000	0.0000	0.0000	1	1	1	3	L	1231
AO22	0.0000	0.0000	0.0000	1	1	1	3	L	1232
AO24	0.0000	0.0000	0.0000	1	1	1	3	L	1233
AO25	0.0000	0.0000	0.0000	1	1	1	3	L	1234
AO26	0.0000	0.0000	0.0000	1	1	1	3	L	1235
CB20	0.0000	0.0000	0.0000	1	1	1	3	L	1236
CB27	0.0000	0.0000	0.0000	1	1	1	3	L	1237
CB29	0.0000	0.0000	0.0000	1	1	1	3	L	1238
CB37	0.0000	0.0000	0.0000	1	1	1	3	L	1239
CB40	0.0000	0.0000	0.0000	1	1	1	3	L	1240
CB47	0.0000	0.0000	0.0000	1	1	1	3	L	1241
JL56	0.0000	0.0000	0.0000	1	1	1	3	L	1242
JL57	0.0000	0.0000	0.0000	1	1	1	3	L	1243
JL59	0.0000	0.0000	0.0000	1	1	1	3	L	1244
JU16	0.0000	0.0000	0.0000	1	1	1	3	L	1245
PL74	0.0000	0.0000	0.0000	1	1	1	3	L	1246
TH46	0.0000	0.0000	0.0000	1	1	1	3	L	1247

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	H	38352.2180	0.08229
CB	1	TIDEWATER	M	6401.8589	0.00639
CB	1	TIDEWATER	L	3508.7238	0.00237
CB	2	THOMAS JEFFERSON	H	748.3607	0.00161
CB	2	THOMAS JEFFERSON	M	115989.7660	0.11583
CB	2	THOMAS JEFFERSON	L	107480.5878	0.07272
CB	3	SOUTHSIDE	H	0.0000	0.00000
CB	3	SOUTHSIDE	M	0.0000	0.00000
CB	3	SOUTHSIDE	L	50.4652	0.00003
CB	4	NATURAL BRIDGE	H	8790.2930	0.01886
CB	4	NATURAL BRIDGE	M	26926.8570	0.02689
CB	4	NATURAL BRIDGE	L	53012.4044	0.03587
CB	5	PIEDMONT	H	0.0000	0.00000
CB	5	PIEDMONT	M	1272.7961	0.00127
CB	5	PIEDMONT	L	109987.7300	0.07441
CB	6	BLUE RIDGE	H	0.0000	0.00000
CB	6	BLUE RIDGE	M	0.0000	0.00000
CB	6	BLUE RIDGE	L	3459.5746	0.00234
CB	7	CULPEPER	H	34094.9968	0.07315
CB	7	CULPEPER	M	141966.4970	0.14177
CB	7	CULPEPER	L	150023.8043	0.10150
CB	8	NORTHERN NECK	H	87314.7200	0.18734
CB	8	NORTHERN NECK	M	43739.9546	0.04368
CB	8	NORTHERN NECK	L	0.0000	0.00000
CB	9	SHENANDOAH VALLEY	H	52826.0914	0.11334
CB	9	SHENANDOAH VALLEY	M	120710.9631	0.12055
CB	9	SHENANDOAH VALLEY	L	58358.7461	0.03948
CB	10	ROBERT E. LEE	H	0.0000	0.00000
CB	10	ROBERT E. LEE	M	8866.6750	0.00885
CB	10	ROBERT E. LEE	L	83824.7809	0.05671
CB	12	JAMES RIVER	H	12186.4637	0.02615
CB	12	JAMES RIVER	M	3423.7707	0.00342
CB	12	JAMES RIVER	L	14452.0962	0.00978

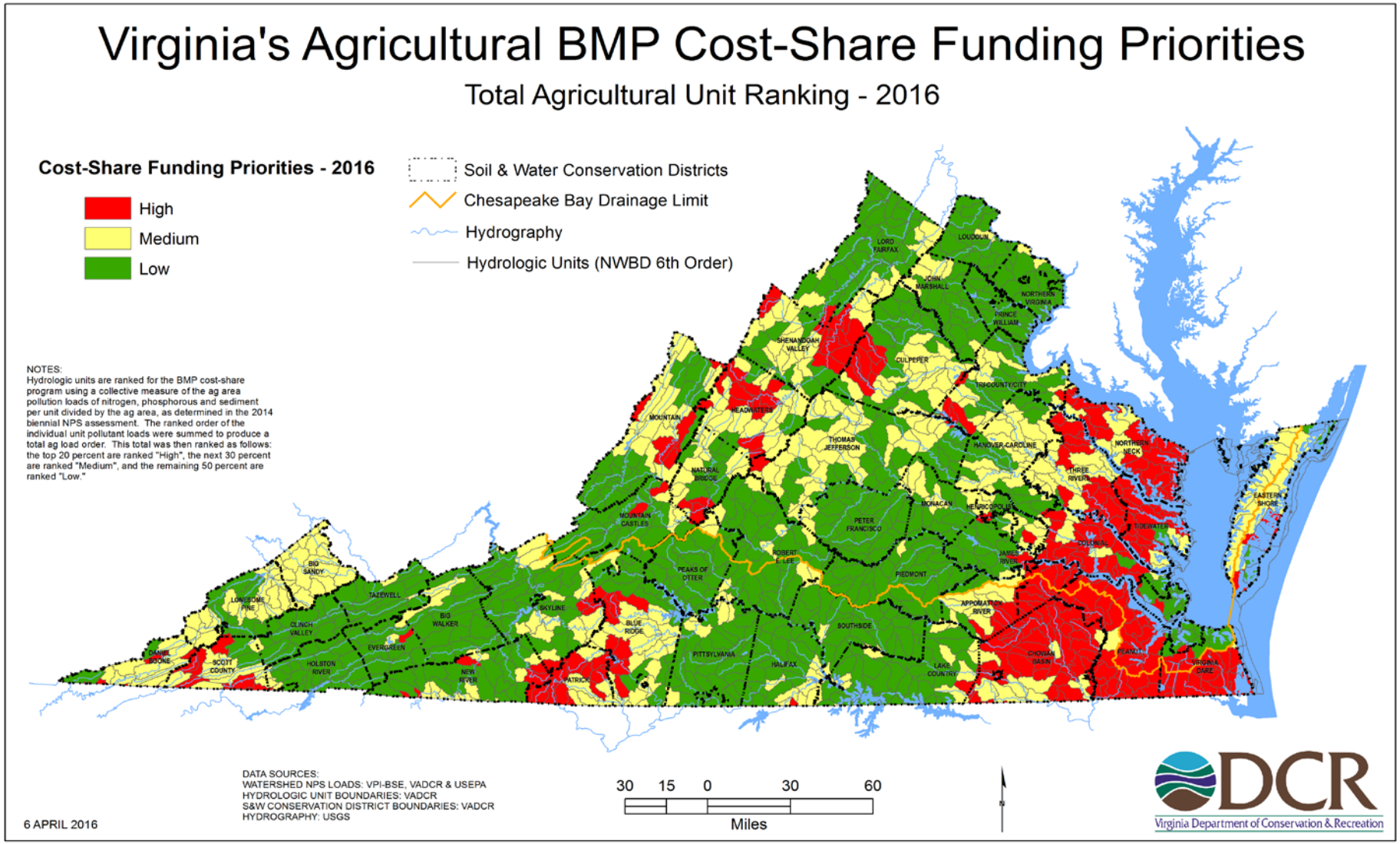
CB	13	LORD FAIRFAX	H	5017.3688	0.01077
CB	13	LORD FAIRFAX	M	49057.4476	0.04899
CB	13	LORD FAIRFAX	L	221248.1529	0.14969
CB	14	SKYLINE	H	0.0000	0.00000
CB	14	SKYLINE	M	0.0000	0.00000
CB	14	SKYLINE	L	264.8723	0.00018
CB	15	PEANUT	H	64273.0014	0.13790
CB	15	PEANUT	M	0.0000	0.00000
CB	15	PEANUT	L	78.7270	0.00005
CB	16	MOUNTAIN	H	5287.8826	0.01135
CB	16	MOUNTAIN	M	31570.0622	0.03153
CB	16	MOUNTAIN	L	38125.1745	0.02579
CB	17	TRI-COUNTY/CITY	H	8797.7315	0.01888
CB	17	TRI-COUNTY/CITY	M	29447.8333	0.02941
CB	17	TRI-COUNTY/CITY	L	40531.3480	0.02742
CB	18	COLONIAL	H	35566.8105	0.07631
CB	18	COLONIAL	M	7346.6334	0.00734
CB	18	COLONIAL	L	3148.0162	0.00213
CB	20	EASTERN SHORE	H	0.0000	0.00000
CB	20	EASTERN SHORE	M	75690.8603	0.07559
CB	20	EASTERN SHORE	L	13.1213	0.00001
CB	21	NORTHERN VIRGINIA	H	0.0000	0.00000
CB	21	NORTHERN VIRGINIA	M	424.7741	0.00042
CB	21	NORTHERN VIRGINIA	L	5375.7289	0.00364
CB	22	VIRGINIA DARE	H	4509.4994	0.00968
CB	22	VIRGINIA DARE	M	0.0000	0.00000
CB	22	VIRGINIA DARE	L	774.1566	0.00052
CB	30	HANOVER-CAROLINE	H	261.7587	0.00056
CB	30	HANOVER-CAROLINE	M	69092.3005	0.06900
CB	30	HANOVER-CAROLINE	L	41685.6924	0.02820
CB	32	JOHN MARSHALL	H	0.0000	0.00000
CB	32	JOHN MARSHALL	M	40895.5282	0.04084
CB	32	JOHN MARSHALL	L	137832.2374	0.09325
CB	34	PEAKS OF OTTER	H	0.0000	0.00000
CB	34	PEAKS OF OTTER	M	3737.5682	0.00373
CB	34	PEAKS OF OTTER	L	6687.4136	0.00452
CB	35	PRINCE WILLIAM	H	0.0000	0.00000
CB	35	PRINCE WILLIAM	M	0.0000	0.00000
CB	35	PRINCE WILLIAM	L	34709.7925	0.02348
CB	36	LOUDOUN	H	0.0000	0.00000
CB	36	LOUDOUN	M	2529.7414	0.00253
CB	36	LOUDOUN	L	147102.1914	0.09952
CB	38	MONACAN	H	119.2036	0.00026

CB	38	MONACAN	M	18247.8025	0.01822
CB	38	MONACAN	L	43225.5984	0.02924
CB	39	PETER FRANCISCO	H	0.0000	0.00000
CB	39	PETER FRANCISCO	M	2324.9329	0.00232
CB	39	PETER FRANCISCO	L	76863.9099	0.05200
CB	40	HENRICOPOLIS	H	2312.6842	0.00496
CB	40	HENRICOPOLIS	M	10787.4852	0.01077
CB	40	HENRICOPOLIS	L	3782.7143	0.00256
CB	41	HEADWATERS	H	57580.6972	0.12354
CB	41	HEADWATERS	M	118802.3381	0.11864
CB	41	HEADWATERS	L	29250.1453	0.01979
CB	42	APPOMATTOX RIVER	H	0.0000	0.00000
CB	42	APPOMATTOX RIVER	M	2078.9529	0.00208
CB	42	APPOMATTOX RIVER	L	5858.9924	0.00396
CB	43	THREE RIVERS	H	47079.8906	0.10101
CB	43	THREE RIVERS	M	65058.0771	0.06497
CB	43	THREE RIVERS	L	2199.2627	0.00149
CB	45	MOUNTAIN CASTLES	H	957.1972	0.00205
CB	45	MOUNTAIN CASTLES	M	4969.2405	0.00496
CB	45	MOUNTAIN CASTLES	L	55153.2457	0.03731
OCB	3	SOUTHSIDE	H	0.0000	0.00000
OCB	3	SOUTHSIDE	M	6398.6221	0.01130
OCB	3	SOUTHSIDE	L	109899.3575	0.06708
OCB	5	PIEDMONT	H	0.0000	0.00000
OCB	5	PIEDMONT	M	348.8941	0.00062
OCB	5	PIEDMONT	L	16341.1817	0.00997
OCB	6	BLUE RIDGE	H	28460.9648	0.06181
OCB	6	BLUE RIDGE	M	85834.6537	0.15161
OCB	6	BLUE RIDGE	L	42629.5466	0.02602
OCB	10	ROBERT E. LEE	H	0.0000	0.00000
OCB	10	ROBERT E. LEE	M	13457.1647	0.02377
OCB	10	ROBERT E. LEE	L	81985.4289	0.05004
OCB	11	NEW RIVER	H	18449.2432	0.04007
OCB	11	NEW RIVER	M	31467.0385	0.05558
OCB	11	NEW RIVER	L	123028.1566	0.07509
OCB	12	JAMES RIVER	H	16734.2685	0.03635
OCB	12	JAMES RIVER	M	0.0000	0.00000
OCB	12	JAMES RIVER	L	0.0000	0.00000
OCB	14	SKYLINE	H	4836.5653	0.01050
OCB	14	SKYLINE	M	64795.0839	0.11445
OCB	14	SKYLINE	L	158689.4350	0.09685
OCB	15	PEANUT	H	87930.7491	0.19098
OCB	15	PEANUT	M	8966.7386	0.01584

OCB	15	PEANUT	L		
OCB	19	CHOWAN BASIN	H	154580.9460	0.33574
OCB	19	CHOWAN BASIN	M	53243.0969	0.09404
OCB	19	CHOWAN BASIN	L	0.0000	0.00000
OCB	20	EASTERN SHORE	H	6203.0979	0.01347
OCB	20	EASTERN SHORE	M	48721.7148	0.08606
OCB	20	EASTERN SHORE	L	1886.5761	0.00115
OCB	22	VIRGINIA DARE	H	71802.6776	0.15595
OCB	22	VIRGINIA DARE	M	56.2659	0.00010
OCB	22	VIRGINIA DARE	L	0.0000	0.00000
OCB	23	HOLSTON RIVER	H	404.3139	0.00088
OCB	23	HOLSTON RIVER	M	5210.2666	0.00920
OCB	23	HOLSTON RIVER	L	118589.4157	0.07238
OCB	24	DANIEL BOONE	H	4808.8443	0.01044
OCB	24	DANIEL BOONE	M	61704.1210	0.10899
OCB	24	DANIEL BOONE	L	12443.8802	0.00759
OCB	25	CLINCH VALLEY	H	0.0000	0.00000
OCB	25	CLINCH VALLEY	M	1894.2690	0.00335
OCB	25	CLINCH VALLEY	L	101374.4766	0.06187
OCB	26	SCOTT COUNTY	H	17684.6189	0.03841
OCB	26	SCOTT COUNTY	M	43149.2772	0.07621
OCB	26	SCOTT COUNTY	L	18545.5909	0.01132
OCB	27	LONESOME PINE	H	178.1739	0.00039
OCB	27	LONESOME PINE	M	13844.1931	0.02445
OCB	27	LONESOME PINE	L	14059.2429	0.00858
OCB	28	EVERGREEN	H	919.8251	0.00200
OCB	28	EVERGREEN	M	2387.4063	0.00422
OCB	28	EVERGREEN	L	75561.8929	0.04612
OCB	29	TAZEWELL	H	0.0000	0.00000
OCB	29	TAZEWELL	M	695.6403	0.00123
OCB	29	TAZEWELL	L	85249.0677	0.05203
OCB	31	PITTSYLVANIA	H	0.0000	0.00000
OCB	31	PITTSYLVANIA	M	19323.2085	0.03413
OCB	31	PITTSYLVANIA	L	156164.2903	0.09531
OCB	33	HALIFAX	H	817.1969	0.00177
OCB	33	HALIFAX	M	21842.5856	0.03858
OCB	33	HALIFAX	L	93229.4707	0.05690
OCB	34	PEAKS OF OTTER	H	0.0000	0.00000
OCB	34	PEAKS OF OTTER	M	32.6920	0.00006
OCB	34	PEAKS OF OTTER	L	126943.6533	0.07748
OCB	37	BIG WALKER	H	0.0000	0.00000
OCB	37	BIG WALKER	M	6265.2258	0.01107
OCB	37	BIG WALKER	L	157884.0528	0.09636

OCB	42	APPOMATTOX RIVER	H	15788.2606	0.03429
OCB	42	APPOMATTOX RIVER	M	28482.1099	0.05031
OCB	42	APPOMATTOX RIVER	L	4120.5326	0.00251
OCB	44	PATRICK	H	29191.7700	0.06340
OCB	44	PATRICK	M	15648.8144	0.02764
OCB	44	PATRICK	L	0.0000	0.00000
OCB	45	MOUNTAIN CASTLES	H	0.0000	0.00000
OCB	45	MOUNTAIN CASTLES	M	0.0000	0.00000
OCB	45	MOUNTAIN CASTLES	L	18828.4909	0.01149
OCB	46	LAKE COUNTRY	H	1632.1563	0.00354
OCB	46	LAKE COUNTRY	M	22717.4786	0.04013
OCB	46	LAKE COUNTRY	L	120998.8538	0.07385
OCB	47	BIG SANDY	H	0.0000	0.00000
OCB	47	BIG SANDY	M	9673.4123	0.01709
OCB	47	BIG SANDY	L	0.0000	0.00000

Attachment D



SECTION II

VIRGINIA AGRICULTURAL BMP PROGRAM GUIDELINES

VIRGINIA AGRICULTURAL BMP COST-SHARE PROGRAM (VACS) 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 and/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.

District service areas approved by the state 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 what district a given parcel resides in based upon tax parcel maps, boundary surveys, or other bonafide documentation. In 2016 DCR reviewed county boundaries and tax parcel boundaries and has 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 Ag. BMP Tracking program to determine the district that will administer the Ag. 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 cost-share 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.

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 carry out the approved BMP for the specified life span, the applicant is responsible regardless of changes in the control of the land. This includes 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 life span 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.

History

The VACS 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. The cost-share program for many years provided funds for demonstration of BMPs and the education of agricultural operators about innovative management and conservation methods.

The VACS 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 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 the 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.

Priority Practices

In December of 2004 the Chesapeake Bay Commission (CBC) published a booklet entitled "Cost Effective Strategies for the Bay". Analysis of BMP applicability, practice cost-effectiveness, and the availability of land to implement the BMPs, 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 at that time. Since the identification of this initial list of priority BMPs, livestock exclusion practices (SL-6, WP-2, SL-7, LE-2 and CCI-SE-1), additional cover and land use change practices (CCI-CNT and FR-1), as well as riparian buffer practices (FR-3, WQ-1, CCI-HRB-1 and CCI-FRB-1) were added to the list of priority practices.

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 Funding Sources and Interest Income Earned

The primary source of funding for the cost-share 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 VNRCF 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 Appropriations Act language for implementation of agricultural BMPs and may be used to determine the total annual program funding.

Other funds from state and federal sources may support VACS and may include monies from federal grants. Some Districts also administer other grant programs or locally funded agricultural incentive programs to encourage owners and managers 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.

VACS cost-share 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 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 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 cost-share 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-32**. Districts should approve/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.

CDCs 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 Agricultural BMP Tracking program data showing approved and completed practices.

Reallocation of VACS Cost-share Funds

Due to the large number of SL-6 Pending cost-share applications and a desire to fund those applications as rapidly as is possible there will be no mid-year (April 1) reallocation of cost-share funds in fiscal year 2017. However a full accounting of all cost-share allocation funds will be conducted at the end of the fiscal year.

Technical Assistance Funding

Technical Assistance funds are made available to Districts by the Department for VACS Program implementation by District technical staff. Fiscal Year 2017 Technical Assistance allocations shall be disbursed to Districts in accordance with Section I-10.

Participant Recruitment and BMP Approval

The Virginia Agricultural BMP Cost-Share 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. This begins with the establishment of local District criteria for conducting recruitment. All of these criteria presume that a clear water quality problem exists on the agricultural operation requesting the cost-share funds and needs to be corrected.

Recruitment guidelines are important for several reasons. Selection of criteria, which address local water quality, will ensure that the water quality benefits from this program are maximized. Since the District Board is responsible for approving cost-share, clearly understood priorities will make this approval process much easier and minimize possible misunderstandings.

All Districts should recruit participants from hydrologic units in descending priority beginning with the highest priority first. It is each District's decision when its recruitment focus needs to shift to the next lower priority hydrologic unit or when its recruitment focus needs to shift to address a specific site related water quality problem that can be resolved utilizing available BMPs. Cost-share requests from outside the priority hydrologic unit(s) may be funded on an exception basis by a District when the practice request meets the applicable priority and secondary considerations.

Participants are to be recruited based upon those factors, which most influence their existing land uses impact upon water quality. The objective of the program is to solve water quality problems by fixing the worst problems first on a field by field basis. The 2014 agricultural non-point source ranking of the National Watershed Boundary Database (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. These rankings are excerpted from the Virginia Department of Conservation and Recreation's Agricultural Non-Point Source Pollution 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 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, soil saturation, and slope."

In summary, Districts should always strive to prioritize the recruitment of applicants and the implementation of BMPs that will reduce the greatest amount of nutrient, sediment, and other identified contaminates while utilizing the least amount of cost-share funds to address site-specific water quality problems in high priority watersheds.

The decision by the District Board regarding recruitment guidelines should be incorporated into the annual plan of work. For the upcoming fiscal year, these policies will be developed during the fourth quarter of the existing fiscal year.

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

Districts may find it valuable to hold several open meetings for the public to participate in developing these criteria. They should, at least assure that their traditional clientele of program participants are made aware of changes in guidance and how it will impact them.

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 the priority and their 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 Board consideration for funding. Any application that does not meet at least one of these priority considerations set out in Section I-7. and discussed below should not receive funding:

1. Priority consideration must be given first to those candidates in the highest ranked hydrologic units. See Page **II-33 - II-41** for NWBD list and rankings. Multi-county districts may select a priority hydrologic unit from each county for recruitment. Descending priority would be given to those in lower ranked units.

   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 watersheds with all program cost-share funds.

   The exceptions would be for animal waste management practices and actions to protect groundwater, gully erosion, or critical areas*.

   *The following practices are exceptions:

   Nutrient Management Plan Writing (NM-1A)
   Precision Nutrient Management on Cropland (NM-5)
   Vegetative Stabilization of Marsh Fringe Area (SE-1)
   Stream Exclusion with Grazing Land Management (SL-6)
   Small Grain and mixed Cover Crop for Nutrient Management (SL-8B)
   Long term Vegetative Cover on Critical Areas (SL-11)
   Sediment Retention, Erosion or Water Control Structure (WP-1)
   Stream Protection (WP-2)
   Sod Waterway (WP-3)
   Animal Waste Control Facilities (WP-4)
   Dairy Loafing Lot Management System (WP-4B)
   Composter Facilities (WP-4C)
   Grass Filter Strips (WQ-1)
   Water Table Control Structure (WQ-5)

2. Candidates for cost share or tax credit approvals that are located within or upstream of an identified impaired stream segment shall be prioritized for funding of practices that reduce the identified pollutant. VAHU6 hydrologic units completely within an existing

AG NPS Stream Impairments and partially within an existing AG NPS Stream Impairment are identified-from the GIS layer within the Ag BMP Tracking Program.

3. Participants applying for BMP funding on fields that are at least 1/3 HEL (Highly Erodible Land) soils.

4. Applications for cost-share or tax credit approval to implement BMPs that are included in an approved VA Resource Management Plan will also receive priority consideration.

Conservation Efficiency Factor

A Conservation Efficiency Factor (CEF) is calculated by the Agricultural BMP Tracking program as a priority tool to assist Districts with the ranking of their cost share practice requests, the lower the CEF value the higher the conservation efficiency of the project. The CEF uses ten different components, including 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 like BMPs as well as different 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 contaminate. 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 contaminates, 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. In general, the lower the CEF the higher the priority for consideration to fund should be.

CEF calculations have been updated for fiscal year 2017; CEF now uses the 2014 impaired waters list in lieu of a TMDL layer used previously. The internal calculation of an installation's cost efficiency is a contributing component of the final CEF calculation and now includes animal units excluded rather than a count of systems implemented and a consideration of the acres benefitted.

All Districts shall consider the Conservation Efficiency Factor (CEF) when comparing projects for cost-share funding as a component of their decision process.

Secondary Considerations (Local Water Quality Considerations)

The list of criteria adopted, as "secondary considerations" by each Board may be as extensive as each District deems appropriate. Some Districts may choose to develop separate guidelines for each priority hydrologic unit. Districts shall utilize their 2015 secondary considerations to approve cost-share funding for existing 2015 SL-6 Pending lack of funding cost-share applications.

Secondary considerations (SC) that identify the local District Board's water quality improvement focus will be developed and approved by the District Board. These secondary considerations should be easily understood by any potential participant. Districts should focus on describing the Boards' desired local water quality improvements. Secondary considerations should be narrative statements 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 will 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.

Districts shall clearly and fully record their secondary or local water quality considerations so that the decisions for funding applications made by applying the considerations are easily understood by all potential applicants. The secondary considerations adopted by a District must be submitted to the DCR 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, recruitment by staff may begin in accordance with the expressed priorities.

Districts may select some combination of these or other factors with development of local water quality considerations that will be followed to determine program participants:

1. Fields with a high leaching index or other major impacts upon groundwater (such as sinkholes) will be prioritized to receive funding.
2. Land with an existing conservation plan, which meets or exceeds the NRCS minimum standards for a conservation plan, will be prioritized to receive funding.
3. Applications with the lowest Conservation Efficiency Factor (CEF) when compared to other applications for the same practice will be prioritized to receive funding.
4. Applications with highest percentage of a total conservation plan to be implemented in a given year will be prioritized to receive funding.
5. Applications with the largest number of acres of conservation plan to be implemented will be prioritized to receive funding.
6. Applicants with a history of successful participation (defined as completing previously approved practices within the time frame identified by the District or has maintained previously installed practices within specifications throughout its lifespan, etc) in conservation programs.
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) will be prioritized to receive funding.

8. Applications to implement practices that will reduce contaminated runoff into source water for public drinking water will be prioritized to receive funding.
9. Applications that will protect identified Healthy Waters (based upon INSTAR data) will be prioritized to receive funding.

Additionally, for Districts within the Chesapeake Bay basin, Districts shall give priority to BMPs addressed within the Virginia Chesapeake Bay Watershed Implementation Plan and for Districts Outside of the-Chesapeake Bay basin, priority shall be given to BMPs in the highest priority agricultural NPS watersheds (as ranked by the Department; high, medium, and low).

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, riparian buffers, wetland restoration, stream bank protection through fencing, development of alternate water sources for livestock, stream bank and channel stabilization, sediment and erosion control and capture** all provide important mitigating factors in watersheds that have identified healthy streams but also see the impact that Virginia's working lands experience daily.

Cost-Share Funding Restrictions

- For program year 2017, programmatic caps shall be administered in accordance with Section I.8.

The Agricultural BMP Tracking Program provides the District the ability to monitor participant cost-share approval and payment during the program year, both within and across District boundaries. Districts are advised to make use of the "Participants Contracts" function to monitor the amount of cost-share that have been approved both with your District and across Districts to insure participants are not overpaid based on Statewide Caps.

Eligible Practices

All practices listed on pages **II-65 through II-69 a**re available to all Districts. 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.

Requests for practices must be guided by a conservation plan for the site if required by the VACS guidelines. Cost-share funds are intended to provide an incentive for the implementation of BMPs and/or their continuation in future years. Authorized practices must be projects that meet standards and specifications as described in the technical specifications of this manual. The language of the VACS practice specification must be followed. If there is any question as to the applicability of a particular BMP, the conservation technical staff should assure that the Purpose and Description section of the specification is appropriate to improve the specific natural resource concern identified on the agricultural operation. BMPs initiated prior to submitting a cost share/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 a qualified technical authority that shall have previously held the appropriate NRCS engineering job approval authority for the components being certified as meeting VACS practice specifications before issuance of the cost share payment. If a 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. Above all, it is important that the number of hours and value of those hours is appropriate to the labor needed to accomplish the BMP installation. The relationship between the labor suppliers, be they 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. 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.

State Environmental Law Compliance

The passage of state environmental laws has placed new emphasis on the implementation of Best Management Practices. To avoid overlap or policy conflicts, the following list denotes program eligibility for state sponsored cost-share assistance. For operations that fulfill all other VACS program eligibility requirements:

- Problems identified with a founded Agricultural Stewardship Act (ASA) complaint – **Are eligibl**e as long as the producer elects to develop a conservation 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 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 actions required or voluntary, 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 exclusion shall not apply to the Resource Management Plan Program.

Agricultural Act of 2014 (Federal Farm Bill) Compliance

The passage of the federal Food Security Act of 1985 (Farm Bill), the Rural Investment and Security Act of 2002 and 2008, and the Agricultural Act of 2014 place a continuing emphasis on the implementation of Best Management Practices. To avoid overlap or policy conflicts, the following list denotes program eligibility for state-sponsored cost-share assistance.

Land identified as being in violation of "Sodbuster" provisions – **Are Not Eligible** if not carrying out an approved plan to return to sod condition or not eligible if used on converted woodland.

Land identified as being in violation of "Swampbuster" provisions – **Are Not Eligible.**

Land enrolled under the Wetlands Reserve Program (WRP) – **Are Not Eligible.**

Land enrolled under the continuous Conservation Reserve Program (CRP) – **Is eligible** for establishment only.

Individuals who are in violation of wetland conservation provisions of the Farm Bill – **Are Not Eligible** for Virginia cost-share assistance.

Land identified as highly erodible (HEL) – **Is eligible.**

Land enrolled under federal programs – **Is eligible** as long as NRCS, FSA or other federal agency policies and procedures are met.

Individuals who are in violation of the Farm Bill are prohibited from receiving VACS cost-share funds. Those producers who, for one reason or another, have not participated in United States Department of Agriculture (USDA) programs and have not had a HEL determination made are not considered in violation. If an individual has received a HEL determination and has not had a plan approved, the individual is not eligible for Virginia cost-share assistance. 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-FSA or NRCS to be out of compliance with the conservation provisions of the 1985, 1990, 1996, 2002, 2008, or 2014 Farm Bills, the language below is appropriate to use when notifying that individual of his or her state cost-share status.

The _____ Soil and Water Conservation District Board has been notified by the _____ County FSA (or NRCS) office that your farm operation is determined to be out of compliance with the requirements of the federal Farm Bill and as a result you now have an ineligible status with USDA. The Virginia Agricultural BMP Cost-Share Program cooperates with USDA cost-share programs. As a result, Virginia Agricultural BMP Cost-Share Program policy prohibits individuals who are in violation of the Farm Bill from receiving state cost-share funds. 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. Please contact the District office if you need technical assistance in regaining eligible status with USDA or have any questions.

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

cc: FSA CED
NRCS DC

Conservation Plan Requirements

The VACS program supports and encourages conservation planning, including Resource Management Planning, on all agricultural land in Virginia. However, recognizing the level of BMP implementation that will be required to reduce agricultural nonpoint source pollution throughout the state, the VACS program exempts certain high priority 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, and NM-4), Cover Crop practices, (SL-8, 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 (CCI-CNT, CCI-FRB-1, CCI-HRB-1, and CCI-SE-1).

However, language in the Code of Virginia (§ 58.1-339.3) requires that a participant have a soil conservation plan approved by the local Soil and Water Conservation District to receive an Agricultural BMP Tax Credit. Additionally, when the participant seeks combined funding for a practice from federal programs and USDA a plan is required. Forestry practices also require a plan, which meets the Department of Forestry minimum criteria for a Cost-Share Plan.

When a conservation plan is required, all stages of the planning process must be in place prior to cost-share payment for an approved completed practice. The development of plans that provide more erosion control or address additional water quality issues are always encouraged. Districts are responsible for completing and retaining the Virginia Historic Resources survey and DCR Natural Heritage, Rare, Threatened and Endangered search documentation for acreages affected by the practice(s). This will assure that implementation of publicly funded BMPs will not impact cultural resources or Rare, Threatened, and Endangered (RT&E) species.

Plans written for any federal Farm Bills, Chesapeake Bay Preservation Act, Virginia Forest Stewardship Program, and Agricultural Stewardship Act are eligible provided the minimum

erosion control level is met as well as other specified program requirements. Resource Management Plans are required to meet "T", and may be used as conservation plans for the purposes of the VACS. Existing plans that do not meet the required criteria, must be revised to meet this minimum standard and be approved by the District Board.

Conservation Planning Module

DCR has developed a conservation planning module as part of the Ag. BMP Tracking Program. The module was developed with significant input from a stakeholders group that defined the desired functionality and capabilities. District conservation technicians will need to be certified to utilize the DCR conservation planning module. Training sessions will be presented both on line and in the classroom, all training sessions must be completed before conservation plans may be developed on the module.

Nutrient management plans are required as a prerequisite for animal waste practices and certain other identified agronomic practices (see the Virginia BMP Table 1 in the front of this manual) it identifies all practices that require NM plans. The plan must be consistent with requirements for nutrient management plan content and procedures as stipulated in the current Nutrient Management Training Certification Regulations. Consult the appropriate DCR specification for specific plan requirements. Nutrient management plans must be completed before a practice installation is certified and payment is made. With the exception of requests for animal waste practices (i.e.WP-4, 4B, 4C, 4E, & 4F), a conservation plan and an associated nutrient management plan is only required for the field or site to be treated with the collected manures or compost, however more comprehensive conservation planning is always encouraged. If an animal waste practice is requested, a conservation plan needs to address the erosion control, waste management, and the nutrient management for all of the acreage that will receive animal waste applications.

DCR Agricultural Engineering 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) Program. See the glossary in this manual for a definition of EJAA.

DCR now has a Professional Engineer to serve as the State Engineer for agricultural BMP practices. With the addition of this professional staff, DCR developed a process 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 said practice components. As a result, they should contact the DCR Agricultural Engineer/technician servicing their District for further instructions on what requirements will be needed to complete the practice.**

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 below DCR EJAA chart 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.

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
LE-2	Livestock Exclusion with Reduced Setback	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
		516	Livestock Pipeline	EJAA
		642	Water Well	EJAA

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-4	Terrace Systems	600	Terrace	EJAA
SL-5	Diversion	362	Diversion	EJAA
SL-6	Stream Exclusion with Grazing Land Management Protection	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
		516	Livestock Pipeline	EJAA
		642	Water Well	EJAA
SL-7	VACS Support for Extension of CREP Watering System	561	Heavy Use Area Protection	EJAA
		575	Trails and Walkways	EJAA
		578	Stream Crossing	EJAA
		614	Watering Facility	EJAA
		516	Livestock Pipeline	EJAA
SL-9	Grazing Land Management	516	Livestock Pipeline	EJAA
		614	Watering Facility	EJAA
		561	Heavy Use Area Protection	EJAA
WP-1	Sediment Retention, Erosion or Water Control Structure	350	Sediment Basin	PE
		362	Diversion	EJAA
		410	Grade Stabilization Structure	PE
		638	Water and Sediment Control Basin	PE
WP-2	Stream Protection	575	Trails and Walkways	EJAA
		578	Stream Crossing	EJAA

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
WP-2A	Streambank Stabilization	575	Trails and Walkways	EJAA
		578	Stream Crossing	EJAA
		580	Streambank & Shoreline Protection	PE
WP-3	Sod Waterways	412	Grassed Waterway	EJAA
WP-4	Animal Waste Control Facility	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
		633	Waste Recycling	PE
		634	Waste Transfer	PE
		412	Grassed Waterway	EJAA
		575	Trails and Walkways	EJAA
		620	Underground Outlet	EJAA
WP-4B	Loafing Lot Management System	367	Roofs and Covers	PE
		313	Waste Storage Facility	PE
		561	Heavy Use Area Protection	EJAA
		362	Diversion	EJAA
		516	Livestock Pipeline	EJAA
		574	Spring Development	EJAA
		575	Trails and Walkways	EJAA
		614	Watering Facility	EJAA
		633	Waste Recycling	PE
		533	Pumping Plant	EJAA
		558	Roof Runoff Structure	EJAA
		620	Underground Outlet	EJAA
		634	Waste Transfer	PE
		642	Water Well	EJAA

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
WP-4C	Composting Facilities	313	Waste Storage Facility	PE
		316	Animal Mortality Facility	PE
		317	Composting Facility	PE
		633	Waste Recycling	PE
		367	Roofs and Covers	PE
		558	Roof Runoff Structure	EJAA
		620	Underground Outlet	EJAA
		634	Waste Transfer	PE
WP-4F	Animal Mortality Incinerator Facility	316	Animal Mortality Facility	PE
		633	Waste Recycling	PE
		558	Roof Runoff Structure	EJAA
		620	Underground Outlet	EJAA
		317	Composting Facility	PE
		367	Roofs and Covers	PE
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	500	Obstruction Removal	EJAA
		362	Diversion	EJAA
WQ-12	Roof Runoff Management System	362	Diversion	EJAA
		558	Roof Runoff Structure	EJAA
		561	Heavy Use Area Protection	EJAA
		412	Grassed Waterway	EJAA
		468	Lined Waterway or Outlet	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 being promoted more commonly 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 values. 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 thus 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.

One point that merits clarification is that 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, and the valuation of the land does not take into account any BMPs that may be in place on it. 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. Thus, 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 in many cases a BMP tax credit for his out-of-pocket expenses for 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 ten years 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 is extended from 10 years into perpetuity, and becomes the responsibility of the easement holder to monitor as part of their easement compliance monitoring provided these are requirements of the easement.

2015 SL-6 Pending Applications for 100% Reimbursement

Districts may utilize their 2017 VACS cost-share allocation to fund SL-6 Pending practices from fiscal year 2015. Each year's eligible SL-6 Pending applications may only be compared to other projects from the same fiscal year and not between fiscal years so that CEF scores may be compared accurately. During FY 2017 any approved 2015 SL-6 Pending 100% percent reimbursement application that has not initiated construction or negotiated and signed contract(s) to install the practice by the end of ninety (90) days after being offered cost-share funds will be cancelled by the District.

Cost-Share Rates

Practices paid on a percentage basis can be funded solely with state funds or in combination with other cost-share assistance programs (piggy-back funding). These can include (but are not limited to) the Environmental Quality Incentive Program (EQIP), the Emergency Watershed Protection (EWP) program, or 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.

Percentage based cost-share payments should be calculated to reimburse the participant for 75% of the approved eligible cost. Flat rate payments (example, $ per acre) are anticipated to be equivalent to 75% of the cost of implementing a practice. Cost-share payments shall be made based upon the lesser of actual or estimated eligible cost. Unless explicitly allowed for within this manual (see BMP specification rates sections).

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 of seventy-five percent (75%) or as allowed in the VACS BMP specification. Other sources of funding including funding from local and private funds may provide additional reimbursement. 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 local workgroups approved current commercial rates (seed, lime, fertilizer, machinery, and labor), District approved unit cost, or statewide average cost, to establish estimates for eligible practice components.

Participant Notification

Districts **must** notify each applicant of the maximum dollar amount approved as well as the cost-share rate for the practice. This will prevent an over allocation of funds by establishing an approved maximum cost-share payment based on the estimated cost. 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 and funded 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 available funding must also include a copy of the DCR practice specifications to insure they are aware of all aspects of their commitments.

Payments over 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.

3. District Board action may approve additional cost-share funds up to the specified practice cost-share rate as allowed for 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 75% of the total eligible costs or the specified cost-share rate for the practice as provided in this manual.

4. 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 and appropriate changes should be made and noted on the request application and the tracking program.

Payment

Any application must meet appropriate technical responsibility 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 on Part III of the Virginia BMP Incentives Contract. NRCS has determined that their 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 may include engineering cost for structural practices. Engineering cost may include survey, design, and/or post construction certification and as built drawings. 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 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 (except for NM-1A, RMP-1and RMP-2 – which requires a 1099-Misc) to any cost-share program participant who receives $600 or more in cost-share payment(s) per their federal taxpayer identification number or social security number during the calendar year. If the payment for an NM-1A, RMP-1 or RMP-2 practice is redirected at the participant's request to a certified nutrient management or resource management planner the appropriate 1099-Misc should go to the entity receiving the cost-share funds (see NM-1A, RMP-1 and RMP-2 specifications). 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 (SWCD) nor the Virginia Department of Conservation and Recreation (DCR) provides tax advice; the program participant may wish to consult with an independent tax advisor regarding any potential tax consequences.

Government Owned/Managed Land

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.

Documentation

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

- Districts must complete their data input to the Tracking program according to the program schedule published in the front of this manual.

- Conservation plans and practice design sheets should be kept with individual case files according to District policy.

- 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.

Any state cost-share request that includes at least one subcontractor's scope of work that is anticipated to exceed a billable expense in excess of $30,000 must comply with the approved bid procedures (see page **II-70**) before cost-share funds can be expended. Use of the Virginia Agricultural BMP Cost-Share Bid Solicitation Sheet is mandatory for all such requests.

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 rates. Participant must sign DCR Incentives Program Contract Parts I, and III. Part III includes the participant's certification that the practice is completed according to specifications.

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 FSA form 848's in the participant's folder and should reference the signed 848 on the DCR contract Part II (statement of technical need) and on the DCR contract Part III (participant and technical practice certification signature areas).

FSA will keep all billings and expense records. Copies of appropriate FSA forms (CRP-1, and appropriate 848(s)), the Conservation Plan of Operations, and a copy of DCR form 199-071 or Parts I, II and III of the Virginia BMP Incentives Program Contract will provide sufficient documentation for District files.

Data Reporting

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

DCR database management staff will officially collect data for all practices quarterly. All necessary data must be entered into the Tracking Program by the identified cost-share program schedule for each quarter and the close of the program year. Districts are to submit an estimated funding need based upon data entered into the Agricultural BMP Tracking Program for the coming quarter to their Conservation District Coordinators (CDCs) before quarterly disbursement letters can be generated.

Procedural Guidance to Protect District Directors and Staff from a Potential Conflict of Interest

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 who question whether certain conduct would violate COIA may 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 and the variety of potential violations that may arise. For example, a potential conflict of interest exists when an SWCD 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 cost-share or tax credits are approved for the application. 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 and/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 decision/ recommendation making associated with the subject application. Such action 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 decisions/ recommendations rendered pertaining to the subject application.

Authority for Officers and Employees of SWCDs to Participate in the VACS Program

In accordance with enacted versions of House Bill 238 and Senate Bill 652 (2016 Session), § 2.2-3110 of the *Code of Virginia*, in the State and Local Government Conflict of Interests Act, is amended to provide an exception to the prohibition against officers and employees having contracts with their employing agencies, thus allowing contracts entered into by an officer or employee of a soil and water conservation district to participate in the Virginia Agricultural Best Management Practices Cost-Share Program. The exception does not apply to subcontracts or other agreements entered into to provide services for implementation of a cost-share contract established under the Program. Thus, a district director or employee cannot lawfully enter into a contract with a program participant to provide services for the cost-share practice. Under the bills, the exception applies to cost-share contracts entered into on and after as well as prior to July 1, 2016.

Other COIA requirements remain in place. For example, district directors or employees seeking cost-share are still prohibited from participating in the transaction (i.e., the processing, discussion, or approval) of their cost share application and must disqualify themselves as discussed above. Other contracts (such as services contracts with the district) remain prohibited unless there is a statutory exception as stated above.

Completion Dates and Approved Practices under Construction during the next Program Year

The District must set a completion date for approved practices and inform the applicant of that date. Practices not completed by that date should be canceled; however the District board may extend the completion date if justified (i.e. substantially under construction with an identified completion date). Practices canceled for **lack of completion effort** should not be eligible for funding in future program years.

Districts shall set and enforce completion dates for approved practices in order to re-authorize funds from canceled practices for other applications. All efforts should be made to complete approved practices by the deadline or end of the program year. **Approved practices not started and under construction are to be canceled.** (This does not apply to SL-6 Pending practices.) When mitigating circumstances influence a participant's ability to complete an approved practice, cancelled practices may be reconsidered by the Board in a new program year. Structural practices under construction or awaiting final vegetative establishment should be maintained in the BMP Tracking program, in the program year that the practice received approval.

Practices will be monitored by District staff until completion of the practice.

The following BMPs may need more than one program year to complete and should be maintained in the BMP Tracking Program until certified as complete:

FR-1 – Reforestation of Erodible Crop and Pastureland
FR-3 – Woodland Buffer Filter Area
FR-4 – Woodland Erosion Stabilization
LE-2 – Livestock Exclusion with Reduced Setback
NM-5 - Precision Nutrient Management on Cropland
NM-3C – Split Application of Nitrogen on Corn Using Pre-Sidedress Nitrate Test
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-4 – Terrace
SL-5 – Diversion
SL-6 – Stream Exclusion with Grazing Land Protection
SL-7 – Extension of CREP Watering Systems
SL-9 – Grazing Land Management
SL-11 – Critical Area Treatment
WP-1 – Sediment Retention, Erosion or Water Control Structure
WP-2 – Stream Protection
WP-2A – Stream bank Stabilization
WP-3 – Sod Waterway
WP-4 – Animal Waste Control Facility
WP-4B – Dairy Loafing Lot Management System
WP-4C – Composter Facility
WP-6 – Agricultural Chemical & Fertilizer Handling Facility
WQ-5 – Water Table Control Structure
WQ-11 – Agricultural Sinkhole Protection

When a program year ends, the District must assess on a BMP by BMP basis, which approved practices will be carried-over for completion in the next program year and which practices will be canceled. Practices actively under construction should be carried over if eligible. Approved practices that have not been initiated should be canceled. Completion and certification of carried over practices should be achieved as quickly as possible during the one year carry over period**. Approved practices not completed by the close of the carry over year (following the year of approval) should be canceled.** It is the responsibility of each District to monitor progress with approved BMPs and communicate the preceding expectations to all affected program participants.

An Extreme Act of Nature (EAN) for SL-8B Practices only - Definition and Process

As defined by the Virginia Agricultural Best Management Practices Cost-Share program (VACS) 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 drought disaster

designation or weather records that document excessive rainfall, floods, tornados or other such events.

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, cover crops must satisfy the required performance criteria. The performance criteria for cover crops state "A good stand and good growth of winter cover must be obtained in sufficient time to protect the area in the fall and winter. [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]. The EAN planting date extension will only apply to SL-8B practice. 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 late 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.

A program applicant must request in writing that the BOD consider an EAN planting date extension for their approved SL-8B practice. Any extension granted by the BOD must be resolved on a case-by case basis as conditions affecting specific growing sites may vary significantly. The BOD's actions for the extension of the planting and performance criteria dates must be supported by documentation that includes at least:

1) Documentation of the Governor's request for a drought disaster designation and the disaster declaration must directly impact the germination or growth of cover crops.
   OR,
2) In the case of a FSA disaster declaration, the growing site must be located in one of the primary counties to be considered for the planting extension, and the disaster declaration must directly impact the germination or growth of cover crops.
   OR,
3) Documentation from another credible source, referencing the unusual EAN circumstances, **AND** additional documentation from a professionally recognized climatology expert referencing the unusual EAN circumstances.

Such documentation supporting actions taken by the BOD must be included in the participant's folder and included in the minutes of the BOD meeting. Cover crops that are granted planting date extensions must still meet the required performance criteria to receive practice payments. Compliance with the performance criteria through the District technical employee's best professional judgment is intended to insure Virginia taxpayers do not pay for cover crop plantings that do not provide water quality benefits.

For a farmer with an approved SL-8B (annual cover crop practice); if the BOD determines that EAN circumstances exist during the recognized planting period such that the participant could not reasonably fulfill planting deadline requirements, the participant may decide not to plant the cover crop practice. Alternatively, the farmer may choose to plant the cover crop prior to the extended deadline, but if the cover crop fails to meet the practice performance criteria, under both circumstances, he or she will not be paid for such acreage. Alternatively, a participant receiving an EAN extension on their annual cover crop practice, but deciding not to plant will not suffer prejudice against his future cost-share applications.

Practice Failures

Practice failures or damage that results from other than weather related causes are not eligible for cost-share assistance unless specifically authorized in the practice specification.

Maintenance of the practice is the responsibility of the applicant for the life span of the practice. Practices that are damaged or destroyed before certification are also the responsibility of the applicant and only the original authorized cost-shared 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 an extreme act of nature during the life span requirement, the participant may request additional cost-share assistance in future sign-up periods. Should this be necessary District staff are advised not to re-enter the environmental benefits in the measurements tab of the Agricultural BMP Tracking Program, the units benefitted should be entered as one (1) to avoid double counting of previously entered measures. No practice request should have two applications within the same program year. Any practice failure receiving additional funding should be noted in the comment section of the tracking program. Re-application for practice failure can be authorized only once for the specific practice on the specified coverage (except where not eligible as stated in specifications). Re-application will be subject to the life span requirement of the second application request. If the practice fails for the second time after certification and payment, reestablishment will be at the participants' expense and must be maintained for the specified life span.

If no financial help for repairs is available due to a lack of funds or prioritization excludes the practice, the applicant is still obligated for maintaining the practice for the original life span required. Repairs should not be delayed to wait upon approval of additional cost-share funds.

Where ownership or leasehold of the 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. The terms of any sales agreement, lease agreement, or other transaction document for any property with a cost-shared practice present should address this responsibility and be legally effective to transfer it to the new property owner/lessee. 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" (see page **II-29**) transferring legal responsibility for maintenance of the practice to the new property owner/lessee or (2) a pro-rated return of cost-share funds.

Participants found, at any time of year, to have practices not meeting specifications or practices 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 the 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 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 Virginia 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.

Commonwealth of Virginia
Agricultural Best Management Practice Maintenance
AGREEMENT TRANSFERRING 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 manager) 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 SWCD personnel access to his property for the purpose of verifying maintenance of the BMP.
2. The _____ _____ SWCD 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: _____

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 SWCD made a $12,000 cost-share payment for a SL-6 BMP to Farmer Green on October 10, 2004. 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; Glossary Page **VIII–4**). 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
- Cost Share to Landowner: $12,000
  $12,000 divided by 120 months = $100/month
- Repayment Calculation: 120 months – 30 months = 90 months
- Landowner re-payment to DISTRICT: 90 months X $100/mo = $9000.00 (District will deposit funds to appropriate cost-share account)

In the case of the death of the applicant this requirement may be waived (requires an official action of the District Board that 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 some unforeseen hardship that he/she cannot repay the cost-share funds then the following process may be initiated.

<u>Hardship Process (including highly unusual situations)</u>

This process may be utilized in highly unusual situations where a participant requests that the Soil and Water Conservation District Board of Directors forgive repayment of cost-share funds and/or tax credit (as applicable) due to failure of a BMP and the SWCD Board has determined that due to highly unusual circumstances beyond the participants control, that it is reasonable to forgive repayment of cost-share funds/tax credit normally associated with a practice failure. The unusual circumstances must be of a severity such as a life-threatening illness, bankruptcy, or some other highly unusual situation. This process may not be used to provide relief associated to planting dates or lack of cover for cover crop practices or other modifications to practice specifications.

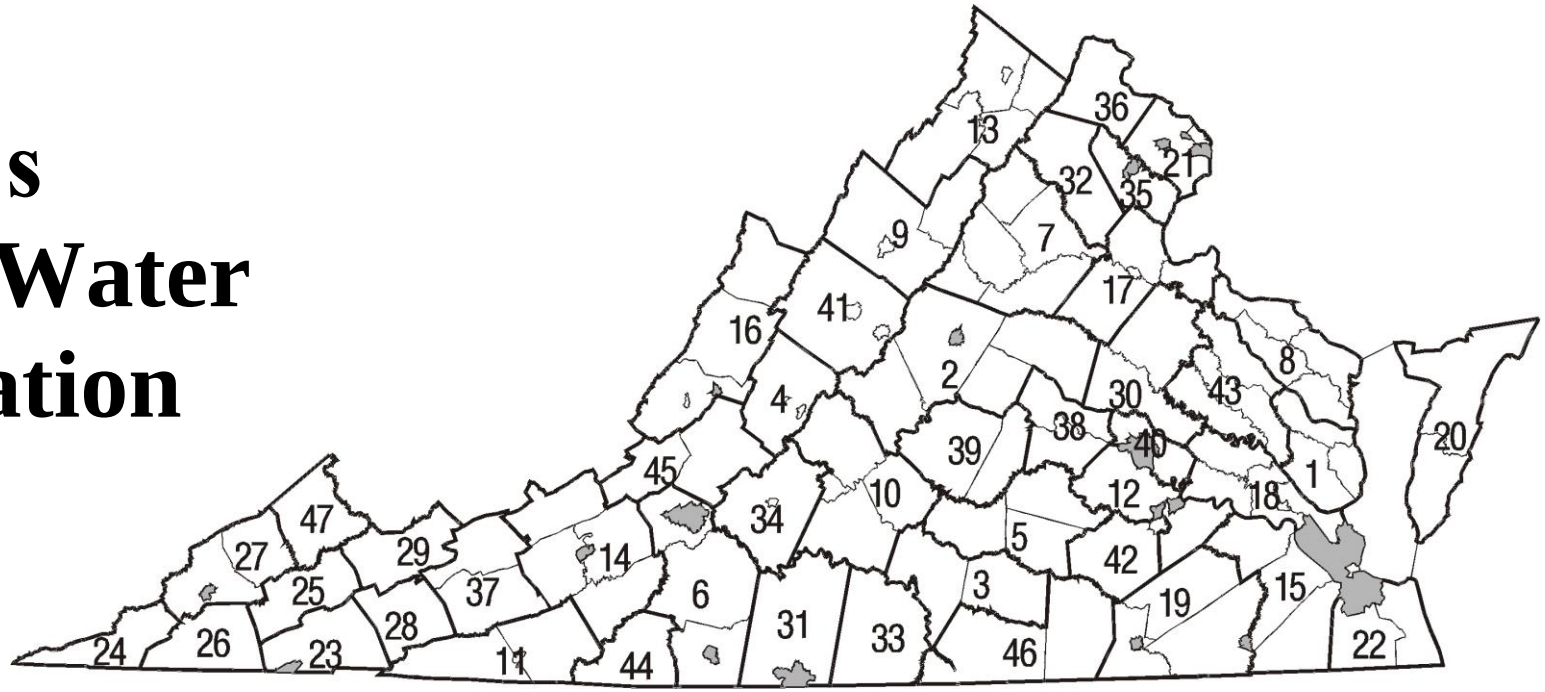
If appropriate in "hardship" cases, the District Board may make alternative recommendations for DCR's consideration. All requests for hardship shall be submitted in writing to the DCR Agricultural Incentives Program Manager, and copied to the appropriate Conservation District Coordinator (CDC). If appropriate in "hardship" cases the district Board may suggest alternative recommendations for DCR's consideration. When a District requests consideration of a hardship case, DCR will convene an ad hoc committee composed of at least three members; the

regional CDC, the DCR Agricultural Incentives Program Manager, and another manager. The District may act as an advocate for the program participant or the participant may present his own case including 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/tax credit amount due to the District and/or the Department of Taxation. 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 DCR Conservation District Coordinator must be copied on all correspondence and be kept informed of any related activities.

Questions concerning any aspect of the cost-share program that are not addressed in this manual should be directed to either the regional DCR 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) 228-3513
2	Thomas Jefferson (Charlottesville)	(434) 975-0224	14	Skyline	(540) 381-0071	26	Scott County	(276) 386-9241	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) 463-7124	16	Mountain (Covington)	(540) 839-4616	28	Evergreen	(276) 783-7280	40	Henricopolis	(804) 501-5175
5	Piedmont	(434) 392-3782	17	Tri-County/City (Fredericksburg)	(540) 656-2401	29	Tazewell	(276) 988-9588	41	Headwaters (Staunton, Waynesboro)	(540) 248-0148
6	Blue Ridge (Roanoke)	(540) 483-5341	18	Colonial (Williamsburg)	(757) 645-4895	30	Hanover-Caroline	(804) 537-5225	42	Appomattox River (Petersburg)	(804) 469-7297
7	Culpeper	(540) 825-8591	19	Chowan Basin	(434) 634-2115	31	Pittsylvania	(434) 432-8146	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) 433-2853	21	Northern Virginia	(703) 324-1460	33	Halifax	(434) 476-7923	45	Mountain Castles	(540) 977-2698
10	Robert E. Lee (Lynchburg)	(434) 352-2819	22	Virginia Dare (Chesapeake, Virginia Beach)	(757) 385-4775	34	Peaks of Otter	(540) 587-7645	46	Lake Country	(434) 738-0150
11	New River (Galax)	(276) 236-7191	23	Holston River	(276) 628-8187	35	Prince William	(571) 379-7514	47	Big Sandy	(276) 935-7750
12	James River	(804) 732-6550	24	Daniel Boone	(276) 346-1658	36	Loudoun	(571) 918-4530			

Note: Cities within DISTRICTs are listed in parentheses after the appropriate district.

AGRICULTURAL NON POINT SOURCE ASSESSMENT RANKINGS BY 6th ORDER UNITS (VAHU6) OF THE NATIONAL WATERSHED BOUNDARY DATASET (NWBD)

Units are ranked below by a sum of their sorted order for all three agricultural NPS pollutant loads.

AG Rank of H = High Priority Unit, M = Medium Priority Unit, L = Low Priority Unit

CHESAPEAKE BAY DRAINAGE

Basin: Chesapeake Bay-Small Coastal

VAHU6	AG Rank
CB01	H
CB02	H
CB03	H
CB04	H
CB05	H
CB06	M
CB07	H
CB08	H
CB09	H
CB10	H
CB11	H
CB12	H
CB13	H
CB14	H
CB15	H
CB16	L
CB17	M
CB18	M
CB19	M
CB20	L
CB21	L
CB22	L
CB23	L
CB24	L
CB25	L
CB26	L
CB27	L
CB28	L
CB29	L
CB30	M
CB31	M
CB32	M
CB33	M
CB34	L
CB35	M
CB36	M
CB37	L
CB38	M
CB39	M
CB40	L
CB41	M
CB42	M

Basin: Chesapeake Bay-Small Coastal

VAHU6	AG Rank
CB43	M
CB44	M
CB45	M
CB46	M
CB47	L

Basin: James River

VAHU6	AG Rank
JA01	L
JA02	L
JA03	L
JA04	L
JA05	L
JA06	L
JA07	L
JA08	L
JA09	L
JA10	L
JA11	L
JA12	L
JA13	L
JA14	L
JA15	L
JA16	L
JA17	L
JA18	L
JA19	L
JA20	M
JA21	L
JA22	L
JA23	L
JA24	L
JA25	L
JA26	L
JA27	L
JA28	L
JA29	L
JA30	L
JA31	L
JA32	L
JA33	L
JA34	L
JA35	L
JA36	L
JA37	L
JA38	L

Basin: James River

VAHU6	AG Rank
JA39	L
JA40	M
JA41	L
JA42	L
JA43	L
JA44	L
JA45	H
JL01	M
JL02	L
JL03	L
JL04	H
JL05	M
JL06	M
JL07	H
JL08	H
JL09	H
JL10	H
JL11	H
JL12	H
JL13	H
JL14	H
JL15	H
JL16	M
JL17	L
JL18	L
JL19	L
JL20	M
JL21	M
JL22	H
JL23	M
JL24	H
JL25	H
JL26	H
JL27	H
JL28	M
JL29	H
JL30	H
JL31	H
JL32	H
JL33	H
JL34	H
JL35	H
JL36	H
JL37	H
JL38	L
JL39	H
JL40	H
JL41	H
JL42	H

Basin: James River

VAHU6	AG Rank
JL43	H
JL44	H
JL45	H
JL46	H
JL47	H
JL48	H
JL49	H
JL50	L
JL51	H
JL52	H
JL53	H
JL54	L
JL55	L
JL56	L
JL57	L
JL58	L
JL59	L
JM01	M
JM02	M
JM03	L
JM04	L
JM05	L
JM06	L
JM07	L
JM08	L
JM09	L
JM10	L
JM11	L
JM12	L
JM13	M
JM14	L
JM15	M
JM16	L
JM17	L
JM18	L
JM19	M
JM20	M
JM21	H
JM22	M
JM23	M
JM24	M
JM25	M
JM26	L
JM27	L
JM28	L
JM29	L
JM30	L
JM31	L
JM32	L
JM33	M
JM34	M
JM35	L
JM36	M
JM37	M

Basin: James River

VAHU6	AG Rank
JM38	L
JM39	M
JM40	M
JM41	M
JM42	L
JM43	L
JM44	L
JM45	L
JM46	M
JM47	M
JM48	M
JM49	M
JM50	L
JM51	L
JM52	L
JM53	L
JM54	L
JM55	L
JM56	L
JM57	L
JM58	L
JM59	L
JM60	M
JM61	M
JM62	M
JM63	L
JM64	L
JM65	L
JM66	L
JM67	L
JM68	L
JM69	L
JM70	L
JM71	L
JM72	L
JM73	L
JM74	L
JM75	M
JM76	M
JM77	L
JM78	M
JM79	L
JM80	L
JM81	L
JM82	L
JM83	L
JM84	M
JM85	H
JM86	L
JR01	M
JR02	L
JR03	M
JR04	M
JR05	M

Basin: James River

VAHU6	AG Rank
JR06	M
JR07	M
JR08	M
JR09	L
JR10	M
JR11	M
JR12	L
JR13	M
JR14	M
JR15	M
JR16	M
JR17	L
JR18	L
JR19	L
JR20	L
JR21	M
JR22	L
JU01	L
JU02	M
JU03	M
JU04	M
JU05	M
JU06	H
JU07	M
JU08	M
JU09	M
JU10	L
JU11	L
JU12	L
JU13	L
JU14	L
JU15	L
JU16	L
JU17	L
JU18	L
JU19	L
JU20	L
JU21	L
JU22	L
JU23	M
JU24	L
JU25	M
JU26	M
JU27	L
JU28	L
JU29	L
JU30	M
JU31	M
JU32	M
JU33	H
JU34	H
JU35	H
JU36	M
JU37	L

Basin: James River

VAHU6	AG Rank
JU38	H
JU39	M
JU40	L
JU41	L
JU42	L
JU43	L
JU44	L
JU45	L
JU46	L
JU47	L
JU48	L
JU49	H
JU50	L
JU51	L
JU52	L
JU53	L
JU54	L
JU55	L
JU56	M
JU57	L
JU58	M
JU59	H
JU60	H
JU61	M
JU62	H
JU63	M
JU64	H
JU65	M
JU66	L
JU67	L
JU68	M
JU69	M
JU70	M
JU71	M
JU72	L
JU73	L
JU74	L
JU75	M
JU76	L
JU77	H
JU78	M
JU79	M
JU80	L
JU81	L
JU82	M
JU83	M
JU84	M
JU85	L
JU86	H

Basin: Potomac River

VAHU6	AG Rank
PL01	L

Basin: Potomac River

VAHU6	AG Rank
PL02	L
PL03	L
PL04	L
PL05	L
PL06	M
PL07	M
PL08	L
PL09	M
PL10	L
PL11	L
PL12	L
PL13	L
PL14	L
PL15	L
PL16	M
PL17	L
PL18	L
PL19	L
PL20	L
PL21	L
PL22	L
PL23	M
PL24	L
PL25	L
PL26	L
PL27	L
PL28	L
PL29	L
PL30	L
PL31	L
PL32	L
PL33	L
PL34	L
PL35	L
PL36	L
PL37	L
PL38	L
PL39	L
PL40	L
PL41	L
PL42	L
PL43	L
PL44	L
PL45	L
PL46	L
PL47	L
PL48	L
PL49	L
PL50	L
PL51	L
PL52	L
PL53	L
PL54	L
PL55	L

Basin: Potomac River

VAHU6	AG Rank
PL56	L
PL57	L
PL58	M
PL59	M
PL60	L
PL61	M
PL62	M
PL63	M
PL64	L
PL65	M
PL66	H
PL67	H
PL68	M
PL69	H
PL70	M
PL71	H
PL72	H
PL73	H
PL74	L
PS01	M
PS02	H
PS03	H
PS04	H
PS05	H
PS06	H
PS07	H
PS08	M
PS09	M
PS10	M
PS11	M
PS12	H
PS13	M
PS14	L
PS15	M
PS16	L
PS17	M
PS18	L
PS19	M
PS20	M
PS21	M
PS22	M
PS23	M
PS24	H
PS25	L
PS26	M
PS27	H
PS28	M
PS29	M
PS30	L
PS31	M
PS32	L
PS33	M
PS34	L
PS35	H

Basin: Potomac River

VAHU6	AG Rank
PS36	H
PS37	H
PS38	H
PS39	H
PS40	H
PS41	H
PS42	H
PS43	M
PS44	M
PS45	M
PS46	M
PS47	L
PS48	M
PS49	H
PS50	H
PS51	M
PS52	M
PS53	L
PS54	M
PS55	M
PS56	M
PS57	L
PS58	L
PS59	M
PS60	M
PS61	M
PS62	H
PS63	M
PS64	L
PS65	L
PS66	M
PS67	L
PS68	L
PS69	L
PS70	L
PS71	L
PS72	L
PS73	L
PS74	L
PS75	L
PS76	L
PS77	L
PS78	L
PS79	L
PS80	L
PS81	L
PS82	M
PS83	L
PS84	M
PS85	M
PS86	L
PS87	M
PU01	M
PU02	M

Basin: Potomac River

VAHU6	AG Rank
PU03	L
PU04	L
PU05	H
PU06	H
PU07	M
PU08	L
PU09	L
PU10	L
PU11	L
PU12	L
PU13	L
PU14	L
PU15	L
PU16	L
PU17	L
PU18	L
PU19	L
PU20	L

Basin: Rappahannock River

VAHU6	AG Rank
RA01	M
RA02	L
RA03	L
RA04	L
RA05	L
RA06	L
RA07	L
RA08	L
RA09	L
RA10	L
RA11	L
RA12	L
RA13	L
RA14	L
RA15	M
RA16	L
RA17	L
RA18	L
RA19	M
RA20	L
RA21	M
RA22	L
RA23	M
RA24	H
RA25	H
RA26	H
RA27	M
RA28	L
RA29	M
RA30	L
RA31	H

Basin: Rappahannock River

VAHU6	AG Rank
RA32	H
RA33	H
RA34	L
RA35	M
RA36	M
RA37	M
RA38	M
RA39	M
RA40	M
RA41	M
RA42	M
RA43	H
RA44	M
RA45	M
RA46	L
RA47	L
RA48	L
RA49	L
RA50	L
RA51	L
RA52	M
RA53	H
RA54	M
RA55	H
RA56	H
RA57	H
RA58	H
RA59	H
RA60	H
RA61	M
RA62	M
RA63	M
RA64	M
RA65	H
RA66	M
RA67	H
RA68	H
RA69	H
RA70	H
RA71	H
RA72	H
RA73	H
RA74	H

Basin: York River

VAHU6	AG Rank
YO01	L
YO02	M
YO03	M
YO04	M
YO05	L
YO06	L

Basin: York River

VAHU6	AG Rank
YO07	L
YO08	L
YO09	M
YO10	M
YO11	M
YO12	M
YO13	M
YO14	M
YO15	M
YO16	L
YO17	M
YO18	H
YO19	M
YO20	H
YO21	L
YO22	H
YO23	L
YO24	L
YO25	L
YO26	L
YO27	M
YO28	L
YO29	M
YO30	L
YO31	M
YO32	M
YO33	H
YO34	L
YO35	H
YO36	M
YO37	H
YO38	L
YO39	M
YO40	M
YO41	L
YO42	M
YO43	M
YO44	L
YO45	M
YO46	M
YO47	M
YO48	M
YO49	M
YO50	M
YO51	M
YO52	M
YO53	M
YO54	H
YO55	M
YO56	M
YO57	M
YO58	M
YO59	H
YO60	H

Basin: York River

VAHU6	AG Rank
YO61	H
YO62	H
YO63	H
YO64	H
YO65	H
YO66	H
YO67	L
YO68	H
YO69	M

OUTSIDE CHESAPEAKE BAY DRAINAGE

Basin: Albemarle Sound Coastal

VAHU6	AG Rank
AS01	H
AS02	H
AS03	H
AS04	H
AS05	H
AS06	H
AS07	H
AS08	H
AS09	H
AS10	H
AS11	H
AS12	H
AS13	H
AS14	H
AS15	H
AS16	H
AS17	H
AS18	H
AS19	H
AS20	H

Basin: Atlantic Ocean Coastal

VAHU6	AG Rank
AO01	L
AO02	L
AO03	L
AO04	M
AO05	L
AO06	L
AO07	L
AO08	M
AO09	M
AO10	M
AO11	M

Basin: Atlantic Ocean Coastal

VAHU6	AG Rank
AO12	L
AO13	H
AO14	M
AO15	H
AO16	L
AO17	L
AO18	M
AO19	L
AO20	L
AO21	H
AO22	L
AO23	M
AO24	L
AO25	L
AO26	L

Basin: Big Sandy River

VAHU6	AG Rank
BS01	M
BS02	L
BS03	M
BS04	M
BS05	M
BS06	M
BS07	M
BS08	M
BS09	M
BS10	M
BS11	M
BS12	M
BS13	M
BS14	M
BS15	M
BS16	M
BS17	M
BS18	M
BS19	M
BS20	M
BS21	M
BS22	M
BS23	M
BS24	M
BS25	M
BS26	M
BS27	M
BS28	L
BS29	M
BS30	L
BS31	M
BS32	M
BS33	L
BS34	M

Basin: Big Sandy River

VAHU6	AG Rank
BS35	M

Basin: Chowan River

VAHU6	AG Rank
CL01	H
CL02	H
CL03	H
CL04	H
CL05	H
CM01	L
CM02	L
CM03	M
CM04	L
CM05	L
CM06	L
CM07	L
CM08	L
CM09	L
CM10	L
CM11	L
CM12	L
CM13	L
CM14	L
CM15	M
CM16	L
CM17	M
CM18	L
CM19	H
CM20	H
CM21	M
CM22	M
CM23	H
CM24	M
CM25	H
CM26	H
CM27	M
CM28	H
CM29	M
CM30	M
CM31	H
CM32	H
CU01	L
CU02	L
CU03	L
CU04	L
CU05	L
CU06	L
CU07	L
CU08	L
CU09	M
CU10	L
CU11	M
CU12	L

Basin: Chowan River

VAHU6	AG Rank
CU13	L
CU14	L
CU15	M
CU16	H
CU17	H
CU18	H
CU19	M
CU20	M
CU21	M
CU22	M
CU23	M
CU24	H
CU25	H
CU26	M
CU27	M
CU28	H
CU29	H
CU30	H
CU31	H
CU32	H
CU33	H
CU34	H
CU35	H
CU36	M
CU37	M
CU38	H
CU39	H
CU40	H
CU41	H
CU42	H
CU43	H
CU44	H
CU45	H
CU46	H
CU47	H
CU48	H
CU49	H
CU50	H
CU51	M
CU52	H
CU53	H
CU54	H
CU55	H
CU56	H
CU57	H
CU58	H
CU59	H
CU60	H
CU61	H
CU62	M
CU63	H
CU64	H
CU65	H
CU66	H

Basin: Chowan River

VAHU6	AG Rank
CU67	H
CU68	H
CU69	H
CU70	H

Basin: Clinch / Powell Rivers

VAHU6	AG Rank
TC01	L
TC02	L
TC03	L
TC04	L
TC05	L
TC06	L
TC07	L
TC08	L
TC09	L
TC10	L
TC11	L
TC12	L
TC13	L
TC14	L
TC15	L
TC16	L
TC17	L
TC18	L
TC19	L
TC20	L
TC21	L
TC22	M
TC23	L
TC24	H
TC25	M
TC26	H
TC27	M
TC28	L
TC29	L
TC30	M
TC31	H
TC32	M
TC33	H
TC34	M
TC35	H
TP01	M
TP02	M
TP03	M
TP04	M
TP05	M
TP06	M
TP07	M
TP08	L
TP09	H
TP10	M

Basin: Clinch / Powell Rivers

VAHU6	AG Rank
TP11	M
TP12	M
TP13	M
TP14	M
TP15	H
TP16	H
TP17	H
TP18	L
TP19	H

Basin: Holston River

VAHU6	AG Rank
TH01	L
TH02	L
TH03	L
TH04	L
TH05	M
TH06	L
TH07	L
TH08	L
TH09	H
TH10	L
TH11	M
TH12	L
TH13	L
TH14	L
TH15	L
TH16	L
TH17	L
TH18	L
TH19	L
TH20	L
TH21	L
TH22	M
TH23	H
TH24	L
TH25	M
TH26	L
TH27	L
TH28	L
TH29	L
TH30	L
TH31	L
TH32	L
TH33	L
TH34	L
TH35	L
TH36	L
TH37	L
TH38	L
TH39	M
TH40	M

Basin: Holston River

VAHU6	AG Rank
TH41	H
TH42	L
TH43	M
TH44	M
TH45	H
TH46	L

Basin: New River

VAHU6	AG Rank
NE01	L
NE02	L
NE03	L
NE04	H
NE05	L
NE06	L
NE07	M
NE08	M
NE09	L
NE10	M
NE11	M
NE12	L
NE13	L
NE14	L
NE15	M
NE16	L
NE17	L
NE18	H
NE19	L
NE20	L
NE21	M
NE22	L
NE23	L
NE24	L
NE25	L
NE26	L
NE27	L
NE28	L
NE29	L
NE30	L
NE31	L
NE32	L
NE33	L
NE34	L
NE35	H
NE36	H
NE37	M
NE38	M
NE39	L
NE40	L
NE41	L
NE42	M
NE43	L
NE44	L

Basin: New River

VAHU6	AG Rank
NE45	L
NE46	L
NE47	L
NE48	M
NE49	M
NE50	L
NE51	L
NE52	L
NE53	M
NE54	M
NE55	M
NE56	L
NE57	L
NE58	M
NE59	L
NE60	L
NE61	L
NE62	L
NE63	L
NE64	L
NE65	M
NE66	L
NE67	L
NE68	L
NE69	L
NE70	L
NE71	L
NE72	L
NE73	L
NE74	M
NE75	M
NE76	L
NE77	M
NE78	M
NE79	L
NE80	L
NE81	L
NE82	M
NE83	L
NE84	L
NE85	L
NE86	L
NE87	L
NE88	L

Basin: Roanoke River

VAHU6	AG Rank
RD01	H
RD02	H
RD03	H
RD04	H
RD05	M
RD06	M

Basin: Roanoke River

VAHU6	AG Rank
RD07	M
RD08	H
RD09	M
RD10	H
RD11	H
RD12	M
RD13	M
RD14	M
RD15	H
RD16	H
RD17	M
RD18	M
RD19	H
RD20	H
RD21	H
RD22	H
RD23	M
RD24	L
RD25	M
RD26	M
RD27	L
RD28	M
RD29	M
RD30	L
RD31	M
RD32	L
RD33	L
RD34	L
RD35	L
RD36	L
RD37	L
RD38	L
RD39	L
RD40	M
RD41	L
RD42	M
RD43	L
RD44	L
RD45	L
RD46	L
RD47	L
RD48	L
RD49	M
RD50	L
RD51	L
RD52	L
RD53	L
RD54	L
RD55	L
RD56	L
RD57	L
RD58	L
RD59	L
RD60	L

Basin: Roanoke River

VAHU6	AG Rank
RD61	L
RD62	L
RD63	L
RD64	L
RD65	L
RD66	L
RD67	L
RD68	L
RD69	L
RD70	M
RD71	H
RD72	M
RD73	M
RD74	M
RD75	M
RD76	M
RD77	L
RL01	L
RL02	M
RL03	L
RL04	L
RL05	L
RL06	L
RL07	L
RL08	L
RL09	L
RL10	L
RL11	L
RL12	L
RL13	L
RL14	L
RL15	L
RL16	L
RL17	L
RL18	L
RL19	L
RL20	L
RL21	L
RL22	L
RL23	L
RL24	M
RU01	H
RU02	H
RU03	H
RU04	L
RU05	M
RU06	L
RU07	L
RU08	M
RU09	L
RU10	M
RU11	L
RU12	L
RU13	L

Basin: Roanoke River

VAHU6	AG Rank
RU14	L
RU15	L
RU16	L
RU17	L
RU18	L
RU19	L
RU20	H
RU21	H
RU22	M
RU23	H
RU24	M
RU25	L
RU26	L
RU27	L
RU28	M
RU29	M
RU30	M
RU31	M
RU32	M
RU33	M
RU34	L
RU35	M
RU36	L
RU37	M
RU38	L
RU39	L
RU40	L
RU41	L
RU42	L
RU43	L
RU44	L
RU45	L
RU46	M
RU47	M
RU48	M
RU49	L
RU50	L
RU51	L
RU52	L
RU53	L
RU54	L
RU55	L
RU56	L
RU57	M
RU58	L
RU59	L
RU60	L
RU61	L
RU62	L
RU63	L
RU64	L
RU65	L
RU66	L
RU67	L

Basin: Roanoke River

VAHU6	AG Rank
RU68	L
RU69	L
RU70	L
RU71	L
RU72	L
RU73	L
RU74	L
RU75	L
RU76	M
RU77	M
RU78	L
RU79	L
RU80	L
RU81	L
RU82	L
RU83	L
RU84	L
RU85	L
RU86	M
RU87	L
RU88	L
RU89	M
RU90	M
RU91	L
RU92	L
RU93	M
RU94	M

Basin: Yadkin River

VAHU6	AG Rank
YA01	M
YA02	M
YA03	H
YA04	H
YA05	L
YA06	L
YA07	L

SWCDs should use the BMP Tracking Program Mapping System to review Impairment Type data.

1. To access the mapping system, select "Map" under "Main" in the dashboard.
2. To find a particular hydrologic unit, point to "Tools", then click on "Attribute Search".
3. In the "Layers" pull-down, select Priority Hydrologic Units. In the "Attribute" pull-down select VAHU6. Type the VAHU6 code of interest in the "Value" box and click the "Search" button.
4. In the Results Tab, click on the magnifier glass to zoom to that hydrologic unit
5. Click on the Map Layers tab and turn on (check mark) the layers "All Hydrologic Units" and "Impairment Type". Ensure that "Priority Hydrologic Units" and "TMDL Implementation Areas" are turned off as they will obscure the needed layers.

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 so as to nest 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 some 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 new Federal Standards for the Delineation of Hydrologic Unit Boundaries beginning in 2001. The new standards are for creating seamless 5th and 6th order hydrologic units for the entire nation. The digital product resulting from the delineation and capture of these new units is the National Watershed Boundary Dataset (NWBD).

As part of the NWBD development process in Virginia, 6th order units were delineated by DCR so as to preserve as much of the intent of the 1995 pre-NWBD Virginia hydrologic unit boundaries as possible. The hydrologic unit product arising from compliance with the Oct. 1, 2004 NWBD standards contains 1,247 6th order units and 315 5th order units in Virginia. Sixth order 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 new 4-character internal coding scheme for the 5th (VAHU5) and 6th (VAHU6) order units of the NWBD. This 4-character code replaces the 3-character code of the previous system. The first two characters of the new 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.

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	Pre-NWBD Hydrologic Unit Codes
PL01-PL74	POTOMAC RIVER, LOWER	A01-A34
PU01-PU20	POTOMAC RIVER, UPPER	B01-B09
PS01-PS87	POTOMAC RIVER-SHENANDOAH RIVER	B10-B58
CB01-CB47	CHESAPEAKE BAY/CHESAPEAKE BAY COASTALS	C01-C16 and R01
AO01-AO26	ATLANTIC OCEAN COASTAL	D01-D07
RA01-RA74	RAPPAHANNOCK RIVER	E01-E26
YO01-YO69	YORK RIVER	F01-F27
JL01-JL59	JAMES RIVER, LOWER (TIDAL)	G01-G15
JM01-JM86	JAMES RIVER, MIDDLE (PIEDMONT)	H01-H22, H33-H39
JR01-JR22	JAMES RIVER- RIVANNA RIVER	H23-H32
JU01-JU86	JAMES RIVER, UPPER (MOUNTAIN)	I01-I38

NWBD Hydrologic Unit Codes (VAHU6)	DRAINAGE	Pre-NWBD Hydrologic Unit Codes
JA01-JA45	JAMES RIVER- APPOMATTOX RIVER	J01-J17
CM01-CM32	CHOWAN RIVER-MEHERRIN RIVER	K01-K13
CU01-CU70	CHOWAN RIVER, UPPER	K14-K36
CL01-CL05	CHOWAN RIVER, LOWER	K37-K38
AS01-AS20	ALBEMARLE SOUND	K39-K42
RU01-RU94	ROANOKE RIVER, UPPER	L01-L41
RD01-RD77	ROANOKE RIVER- DAN RIVER	L42-L74
RL01-RL24	ROANOKE RIVER, LOWER	L75-L82
YA01-YA07	YADKIN RIVER-ARARAT RIVER	M01-M03
NE01-NE88	NEW RIVER	N01-N37
TH01-TH46	TENNESSEE-HOLSTON RIVER	O01-O14
TC01-TC35	TENNESSEE-CLINCH RIVER	P01-P16
TP01-TP19	TENNESSEE-POWELL RIVER	P17-P24
BS01-BS35	BIG SANDY RIVER	Q01-Q14

Hydrologic Unit Reporting

Since 1995 Virginia has been reporting BMP implementation utilizing the Hydrologic Unit Codes (HUCs) of the pre-NWBD 14-digit hydrologic unit system above. Virginia state agencies and federal funding agencies now use the NWBD hydrologic unit codes (VAHU6).

A table identifying the VAHU6 codes that exist within each county in Virginia starts on page **II-44** of this manual. A similar table identifying the VAHU6 codes for Virginia cities starts on **II-51**. To assist in making HUC determinations, Districts may download city and county maps with the 6th order NWBD hydrologic unit boundaries on them. The instructions for downloading these maps are available at the DCR Hydrologic Unit Geography web page (above). Each map contains the 6th order NWBD hydrologic unit boundaries and VAHU6 codes overlaid on USGS 1:100,000 topographic maps. These maps must be opened (after downloading) with Adobe Reader version 6.0 or later. If needed, you can download a free copy of Adobe Reader at: http://www.adobe.com/products/acrobat/readstep2.html. Maps should be stored on your local hard drive and used to identify the appropriate VAHU6 code for reporting purposes. Any BMP tracking program entry now includes the appropriate VAHU6 code.

The Virginia non-point source assessment has traditionally been 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 2014 NPS Assessment agricultural rankings by VAHU6 are provided in the table starting on **II-33**, along with impaired steam segments occurrences, to assist Districts in targeting and ranking VACS applications.

NWBD Hydrologic Unit Codes (VAHU6) and County Codes (FIPS)

COUNTY	FIPS	VAHU6 Codes
ACCOMACK	1	AO01, AO02, AO03, AO04, AO05, AO08, AO09, AO10, AO11, AO12, AO13, AO14, AO15, AO16, CB27, CB28, CB30, CB31, CB32, CB33, CB34, CB35, CB36, CB37, CB38, CB39, CB41, CB42, CB43
ALBEMARLE	3	JM36, JM39, JM40, JM41, JM42, JM43, JM44, JM45, JM46, JM47, JM48, JR01JR02, JR03, JR04, JR05, JR06, JR07, JR08, JR09, JR10, JR11, JR12, JR13JR14, JR15, JR16, JR17, JR18, JR19, JR20, RA28, YO01
ALLEGHANY	5	JU08, JU09, JU10, JU11, JU12, JU13, JU14, JU15, JU18, JU19, JU20, JU21JU22, JU23, JU24, JU34, JU35, JU36, JU37, JU38, JU47, JU50
AMELIA	7	JA15, JA16, JA17, JA19, JA20, JA21, JA23, JA24, JA25, JA26, JA27, JA28, JA29, JA30, JA31, JA32, JA33, JA34, JA36, JA37, JA39
AMHERST	9	JM01, JM03, JM04, JM05, JM06, JM07, JM08, JM11, JM13, JM14, JM15, JM17, JM25, JM26, JM27, JM28, JM29, JM30, JM31, JU79
APPOMATTOX	11	JA01, JA02, JA03, JA04, JA06, JM13, JM14, JM15, JM16, JM17, JM18, JM19, JM20, JM51, RU65, RU66, RU70, RU76, RU77
ARLINGTON	13	PL23, PL24, PL25, PL26
AUGUSTA	15	JM22, JU61, JU62, JU63, JU64, JU65, JU66, JU69, JU70, JU72, JU73, JU77, JU78, PS01, PS02, PS03, PS04, PS05, PS06, PS07, PS08, PS09, PS10, PS11, PS12, PS13, PS14, PS15, PS16, PS21, PS24, PS25, PS26, PS27, PS28, PS29, PS30, PS31
BATH	17	JU02, JU03, JU05, JU06, JU07, JU08, JU09, JU10, JU23, JU24, JU27, JU29, JU30, JU31, JU32, JU33, JU34, JU35, JU66
BEDFORD	19	JM01, JM02, JM03, JM07, JM09, JM10, RU14, RU16, RU17, RU18, RU19, RU27, RU28, RU38, RU39, RU40, RU41, RU42, RU43, RU44, RU45, RU49, RU50, RU51, RU52, RU53, RU54, RU55, RU56, RU57
BLAND	21	NE27, NE66, NE67, NE68, NE69, NE70, NE71, NE72, NE77, NE78, NE79, NE80, NE81, NE86, TH24, TH25, TH28
BOTETOURT	23	JU24, JU36, JU37, JU38, JU39, JU40, JU47, JU48, JU49, JU50, JU51, JU52, JU53, JU54, JU55, JU56, JU57, JU58, JU59, JU60, JU82, JU83, RU11, RU12, RU13, RU39
BRUNSWICK	25	CM11, CM12, CM13, CM14, CM15, CM16, CM17, CM18, CM19, CM22, CM23, CU04CU07, CU09, CU11, CU12, CU13, CU14, CU15, CU37, RL18, RL20, RL21, RL22, RL23, RL24
BUCHANAN	27	BS03, BS04, BS05, BS06, BS07, BS08, BS09, BS10, BS11, BS12, BS13, BS14, BS15, BS16, BS17, BS18, BS21, BS26, BS27, BS35, TC03

COUNTY	FIPS	VAHU6 Codes
BUCKINGHAM	29	JA03, JA05, JM19, JM20, JM34, JM35, JM42, JM43, JM45, JM50, JM51, JM52, JM53, JM54, JM55, JM56, JM57, JM58, JM63, JM64, JM65, JM66, JM67, JM68, JM69
CAMPBELL	31	JM10, JM11, JM12, JM13, JM14, JM16, RU38, RU45, RU46, RU48, RU55, RU56, RU57, RU58, RU59, RU60, RU61, RU63, RU64, RU65, RU66, RU67, RU68, RU69, RU70, RU71, RU72, RU74
CAROLINE	33	RA47, RA48, RA49, RA50, RA51, RA52, RA55, RA59, YO23, YO26, YO27, YO38, YO41, YO42, YO45, YO46, YO47, YO48, YO49, YO50, YO51, YO52, YO53, YO56
CARROLL	35	NE16, NE17, NE18, NE19, NE20, NE21, NE24, NE25, NE33, NE34, NE35, NE36, NE37, NE38, NE39, NE40, NE41, YA02, YA04, YA05, YA06, YA07
CHARLES CITY	36	JL05, JL06, JL07, JL09, JL10, JL11, JL13, JL15, JL21, JL22, JL23, JL24 JL25, JL28, JL29, JL30
CHARLOTTE	37	CM01, CM02, CM04, CM05, JA06, JA07, JA10, RU70, RU71, RU72, RU74, RU75, RU76, RU77, RU78, RU79, RU80, RU81, RU82, RU83, RU84, RU85, RU86, RU87, RU90, RU91
CHESTERFIELD	41	JA23, JA28, JA34, JA35, JA36, JA39, JA40, JA41, JA42, JA43, JA44, JA45, JL01, JL02, JL03, JL06, JL07, JM83, JM85, JM86
CLARKE	43	PS79, PS80, PS81, PS82, PS83, PS84, PS85, PS86, PS87, PU16, PU18, PU19
CRAIG	45	JU17, JU18, JU19, JU41, JU42, JU43, JU44, JU45, JU46, JU47, JU48, JU52, NE64, NE65
CULPEPER	47	RA05, RA07, RA08, RA10, RA14, RA15, RA16, RA18, RA19, RA20, RA21, RA22, RA23, RA34, RA35, RA36, RA37, RA38, RA39, RA42, RA44
CUMBERLAND	49	JA05, JA09, JA16, JA17, JA18, JA19, JM58, JM62, JM64, JM65, JM66, JM67, JM68, JM69, JM70, JM71, JM72, JM73
DICKENSON	51	BS17, BS18, BS19, BS20, BS21, BS22, BS23, BS24, BS25, BS26, BS27, BS29, BS30, BS31, BS32, BS33, BS34, BS35, TC15, TC17, TC21
DINWIDDIE	53	CU09, CU10, CU11, CU13, CU15, CU16, CU17, CU19, CU20, CU21, CU22, CU23, CU24, CU25, CU26, CU27, CU28, CU29, CU52, CU54, JA37, JA38, JA39, JA40
ESSEX	57	CB06, CB08, RA52, RA53, RA54, RA55, RA56, RA59, RA60, RA61, RA62, RA66, RA68, YO52, YO54, YO58

COUNTY	FIPS	VAHU6 Codes
FAIRFAX	59	PL18, PL21, PL22, PL23, PL24, PL25, PL26, PL27, PL28, PL29, PL30, PL42, PL44, PL45, PL46, PL47, PL48, PL50
FAUQUIER	61	PL06, PL07, PL08, PL09, PL10, PL13, PL31, PL32, PL33, PL35, PL36, PL37, PL38, PL39, PL40, PL43, PL56, RA01, RA03, RA04, RA05, RA06, RA07, RA17, RA18, RA22, RA23
FLOYD	63	NE35, NE36, NE38, NE40, NE48, NE49, NE50, NE51, NE52, NE53, NE54, NE55, RD17, RD18, RU01, RU02, RU03
FLUVANNA	65	JM45, JM48, JM49, JM50, JM58, JM59, JM60, JM62, JR17, JR18, JR19, JR20, JR21, JR22, YO02, YO03
FRANKLIN	67	RD17, RD18, RD19, RD20, RD21, RD22, RD23, RD24, RU16, RU18, RU19, RU20, RU21, RU22, RU23, RU24, RU25, RU26, RU27, RU29, RU30, RU31, RU32, RU33, RU34, RU35, RU36
FREDERICK	69	PS71, PS72, PS73, PS74, PS75, PS78, PS79, PS81, PU08, PU09, PU10, PU11, PU12, PU13, PU14, PU15, PU16, PU17, PU18, PU19, PU20
GILES	71	JU16, JU44, NE63, NE64, NE65, NE67, NE69, NE70, NE71, NE72, NE73, NE74, NE75, NE81, NE82, NE83, NE84, NE85
GLOUCESTER	73	CB09, CB10, CB13, CB14, CB15, CB16, CB19, YO64, YO65, YO66, YO68, YO69
GOOCHLAND	75	JM59, JM60, JM61, JM62, JM72, JM75, JM76, JM77, JM78, JM79, JM80, JM82, JM83, JM84, JM85, YO03, YO05, YO07, YO09
GRAYSON	77	NE01, NE02, NE03, NE04, NE05, NE06, NE07, NE08, NE09, NE10, NE11, NE12, NE13, NE14, NE15, NE16, NE17, NE18, NE22, TH01, TH04, YA01
GREENE	79	JR09, JR10, JR11, JR12, RA25, RA26, RA27
GREENSVILLE	81	CM17, CM19, CM20, CM21, CM22, CM23, CM24, CM25, CM26, CM27, CM28, CM29, CU15, CU17, CU34, CU37, CU38, CU39, CU40
HALIFAX	83	RD41, RD42, RD43, RD44, RD45, RD46, RD47, RD48, RD49, RD50, RD51, RD60, RD61, RD62, RD64, RD65, RD66, RD67, RD68, RD69, RD70, RD71, RD72, RD73, RD74, RD75, RD76, RD77, RL06, RU62, RU63, RU64, RU72, RU73, RU75, RU80, RU87, RU88, RU89, RU90, RU94

COUNTY	FIPS	VAHU6 Codes
HANOVER	85	JL16, JL17, JL19, JL20, JM79, JM84, YO07, YO08, YO09, YO10, YO11, YO23, YO24, YO25, YO26, YO27, YO28, YO29, YO30, YO31, YO33, YO34
HENRICO	87	JL01, JL03, JL04, JL05, JL06, JL16, JL17, JL18, JL19, JL20, JL21, JL22 JM84, JM85, JM86
HENRY	89	RD09, RD10, RD11, RD12, RD13, RD14, RD20, RD21, RD22, RD23, RD24, RD25, RD26, RD27, RD28, RD29, RD30, RD31, RD34, RD35, RU33, RU34
HIGHLAND	91	JU01, JU02, JU04, JU05, JU25, JU26, JU27, JU28, JU29, PU01, PU02, PU03, PU04, PU05, PU06
ISLE OF WIGHT	93	CU59, CU60, CU61, CU62, CU66, CU68, CU69, CU70, JL35, JL36, JL37, JL39, JL40, JL41, JL42, JL43, JL45, JL46, JL47
JAMES CITY	95	JL26, JL27, JL28, JL29, JL30, JL31, JL33, JL34, JL35, YO62, YO63, YO65, YO67, YO68
KING & QUEEN	97	CB06, CB07, CB08, CB09, RA60, RA61, YO52, YO53, YO54, YO55, YO57, YO58, YO59, YO60, YO61, YO63, YO64, YO65
KING GEORGE	99	PL60, PL61, PL62, PL63, PL64, PL65, PL66, RA48, RA49, RA51, RA52, RA54
KING WILLIAM	101	YO27, YO29, YO31, YO32, YO34, YO35, YO36, YO37, YO50, YO55, YO56, YO57, YO59, YO60, YO61, YO63
LANCASTER	103	CB02, CB04, CB05, RA67, RA68, RA69, RA70, RA71, RA72, RA73, RA74
LEE	105	TC31, TC32, TC33, TC34, TC35, TP06, TP07, TP08, TP09, TP10, TP11, TP12, TP14, TP15, TP13, TP16, TP17, TP18, TP19
LOUDOUN	107	PL01, PL02, PL03, PL04, PL05, PL07, PL08, PL09, PL10, PL11, PL12, PL13, PL14, PL15, PL16, PL17, PL18, PL19, PL20, PL21, PL23, PL42, PL44, PL45
LOUISA	109	JM59, JM77, JM79, JR18, JR21, YO01, YO02, YO03, YO04, YO05, YO06, YO07, YO08, YO09, YO10, YO12, YO13, YO14, YO15, YO19, YO20, YO21, YO23, YO24, YO25
LUNENBURG	111	CM01, CM02, CM03, CM04, CM05, CM06, CM07, CM08, CM09, CM10, CM11, CM16, CU01, CU02, CU03, CU04, CU07, CU12, JA11, JA12
MADISON	113	RA08, RA10, RA24, RA25, RA26, RA27, RA29, RA30, RA31, RA32, RA33, RA34, RA35, RA36

COUNTY	FIPS	VAHU6 Codes
MATHEWS	115	CB10, CB11, CB12, CB16, CB17, CB18
MECKLENBURG	117	CM02, CM03, CM08, CM09, CM11, CM12, CM13, RD75, RD76, RD77, RL01, RL02, RL03, RL04, RL05, RL06, RL07, RL08, RL09, RL10, RL11, RL12, RL13, RL14, RL15, RL16, RL17, RL18, RL19, RL20, RU90, RU91, RU92, RU93, RU94
MIDDLESEX	119	CB06, CB08, CB09, CB10, CB11, CB12, RA68, RA69, RA73, RA74
MONTGOMERY	121	JU41, NE52, NE53, NE55, NE56, NE57, NE58, NE59, NE60, NE62, RU01, RU02, RU03, RU04, RU05, RU06, RU07, RU08, RU09
NELSON	125	JM17, JM20, JM21, JM22, JM23, JM24, JM25, JM26, JM27, JM31, JM32, JM33, JM34, JM35, JM36, JM37, JM38, JM39, JM40, JM41, JM42, JR01, JU78
NEW KENT	127	JL20, JL22, JL23, JL24, JL25, JL26, JL27, JL28, YO33, YO34, YO36, YO37, YO62, YO63
NORTHAMPTON	131	AO13, AO14, AO15, AO16, AO18, AO19, AO20, AO21, AO22, CB43, CB44, CB45, CB46
NORTHUMBERLAND	133	CB01, CB02, CB03, CB04, CB05, PL71, PL72, PL73, PL74, RA63, RA64, RA67, RA70, RA71
NOTTOWAY	135	CU01, CU04, CU05, CU06, CU07, CU08, CU09, CU10, CU19, JA14, JA15, JA24, JA25, JA29, JA30, JA31, JA32, JA34, JA37
ORANGE	137	JR12, RA27, RA28, RA30, RA37, RA39, RA40, RA41, RA42, RA43, YO01, YO12, YO15, YO16, YO17, YO18, YO39
PAGE	139	PS35, PS36, PS37, PS38, PS39, PS40, PS41, PS42, PS43, PS44, PS45, PS76
PATRICK	141	NE36, RD01, RD02, RD03, RD04, RD05, RD06, RD07, RD08, RD09, RD10, RD12, RD15, RD16, RD17, RD18, RD19, RD20, RD22, YA03, YA04
PITTSYLVANIA	143	RD31, RD32, RD33, RD34, RD35, RD36, RD37, RD38, RD39, RD41, RD43, RD44, RD46, RD47, RD52, RD53, RD54, RD55, RD56, RD57, RD58, RD59, RD60, RD61, RD62, RD63, RD64, RU26, RU27, RU28, RU32, RU34, RU35, RU36, RU37, RU38, RU46, RU47, RU48, RU60, RU62, RU63
POWHATAN	145	JA19, JA21, JA22, JA23, JA41, JM71, JM72, JM73, JM74, JM75, JM78, JM80, JM81, JM82, JM83, JM85

COUNTY	FIPS	VAHU6 Codes
PRINCE EDWARD	147	CM04, CU01, CU05, JA03, JA04, JA05, JA06, JA07, JA08, JA09, JA10, JA11, JA12, JA13, JA14, JA15, JA16, JA17, JA24, RU77, RU78, RU81, RU83
PRINCE GEORGE	149	CU28, CU29, CU30, CU31, CU52, CU53, CU54, CU56, JA40, JA45, JL07, JL08, JL11, JL12, JL13, JL14, JL15
PRINCE WILLIAM	153	PL32, PL33, PL34, PL38, PL39, PL40, PL41, PL42, PL43, PL44, PL46, PL47, PL48, PL49, PL50, PL51, PL52, PL53, PL54, PL55
PULASKI	155	NE32, NE34, NE41, NE42, NE43, NE44, NE45, NE46, NE47, NE55, NE56, NE57, NE59, NE61, NE62, NE72
RAPPAHANNOCK	157	RA01, RA02, RA03, RA05, RA08, RA09, RA10, RA11, RA12, RA13, RA14, RA16
RICHMOND	159	CB02, PL68, PL71, PL72, RA56, RA57, RA58, RA62, RA63, RA64, RA65, RA66, RA67, RA68
ROANOKE	161	JU41, JU43, JU52, RU02, RU05, RU06, RU08, RU09, RU10, RU11, RU12, RU13
ROCKBRIDGE	163	JM01, JM04, JU39, JU58, JU59, JU60, JU65, JU66, JU67, JU68, JU70, JU71, JU72, JU73, JU74, JU75, JU76, JU78, JU79, JU80, JU81, JU82, JU83, JU84, JU85, JU86
ROCKINGHAM	165	PS11, PS14, PS15, PS16, PS17, PS18, PS19, PS20, PS21, PS22, PS23, PS24, PS25, PS26, PS31, PS32, PS33, PS34, PS35, PS36, PS37, PS38, PS49, PS50, PS51, PS52, PS53, PS54, PS55, PS56, PS57, PS58, PS59, PS60, PS61, PS62, PS63, PU07
RUSSELL	167	BS09, TC05, TC07, TC08, TC09, TC10, TC11, TC12, TC13, TC14, TC15, TC16, TC17, TC18, TC22, TC28, TH30, TH32, TH42, TH43
SCOTT	169	TC21, TC22, TC23, TC24, TC25, TC26, TC27, TC28, TC29, TC30, TC31, TC32, TC33, TC34, TH23, TH39, TH40,TH41, TH43, TH44, TH45, TH46
SHENANDOAH	171	PS54, PS57, PS58, PS62, PS63, PS64, PS65, PS66, PS67, PS68, PS69, PS70, PS71, PS72, PS74, PS75, PS76, PS77, PS78
SMYTH	173	NE06, NE22, NE28, TH01, TH02, TH03, TH04, TH08, TH09, TH10, TH11, TH12, TH13, TH24, TH25, TH26, TH27, TH28, TH29, TH30, TH31
SOUTHAMPTON	175	CL04, CM20, CM21, CM29, CM30, CM31, CM32, CU34, CU35, CU36, CU39, CU40, CU41, CU42, CU43, CU46, CU47, CU48, CU49, CU50, CU51, CU59, CU62, CU63, CU64, CU65, CU66, CU67, CU68, CU70

COUNTY	FIPS	VAHU6 Codes
SPOTSYLVANIA	177	RA43, RA44, RA45, RA46, RA47, RA48, YO15, YO16, YO17, YO18, YO20, YO21, YO22, YO23, YO38, YO39, YO40, YO41, YO42, YO43, YO44, YO45, YO46
STAFFORD	179	PL40, PL53, PL54, PL55, PL56, PL57, PL58, PL59, PL60, PL61, RA23, RA45, RA46, RA48
SURRY	181	CU53, CU55, CU56, CU57, CU58, CU59, CU60, CU61, CU63, JL12, JL14, JL15, JL30, JL32, JL33, JL35, JL36, JL37
SUSSEX	183	CU17, CU18, CU24, CU25, CU28, CU29, CU30, CU31, CU32, CU33, CU34, CU35, CU36, CU39, CU40, CU42, CU44, CU45, CU46, CU53, CU54, CU55, CU57, CU59, CU63, CU64
TAZEWELL	185	BS01, BS02, BS09, NE76, NE78, NE79, NE86, NE87, NE88, TC01, TC02, TC03, TC04, TC05, TC06, TC07, TC08, TC09, TH25, TH28, TH30
WARREN	187	PS45, PS46, PS47, PS48, PS70, PS75, PS77, PS78, PS79, PS80, PS81
WASHINGTON	191	NE01, TH02, TH03, TH04, TH05, TH06, TH07, TH13, TH14, TH15, TH16, TH17, TH18, TH19, TH20, TH21, TH22, TH23, TH29, TH30, TH31, TH32, TH33, TH34, TH35, TH36, TH37, TH38, TH39, TH40
WESTMORELAND	191	PL65, L66, PL67, PL68, PL69, PL70, PL71, PL74, RA54, RA56, RA57, RA58, RA63
WISE	195	BS24, BS28, BS29, BS30, BS31, BS32, BS33, TC17, TC18, TC19, TC20, TC21, TC22, TC23, TC24, TC31, TP01, TP02, TP03, TP04, TP05, TP06
WYTHE	197	NE21, NE22, NE23, NE24, NE25, NE26, NE27, NE28, NE29, NE30, NE31, NE32, NE34, NE41, NE44, NE45, NE72, TH08, TH09
YORK	199	CB21, CB22, JL28, JL31, JL34, JL35, JL38, YO65, YO66, YO67, YO68, YO69

NWBD Hydrologic Unit Numbers (VAHU6) and City Codes (FIPS)

CITY	FIPS	VAHU6 Codes
ALEXANDRIA	510	PL25, PL26, PL28
BEDFORD	515	RU53, RU54
BRISTOL	520	TH20, TH21, TH22
BUENA VISTA	530	JU81
CHARLOTTESVILLE	540	JR14, JR15
CHESAPEAKE	550	AS01, AS03, AS04, AS06, AS07, AS08, AS09, AS10, AS11, AS12, AS13, AS15, AS16, JL49, JL50, JL51, JL52, JL53, JL54, JL55
COLONIAL HEIGHTS	570	JA40, JA44
COVINGTON	580	JU11, JU20, JU21
DANVILLE	590	RD33, RD36, RD37, RD38, RD39, RD40, RD42
EMPORIA	595	CM19, CM20, CU39
FAIRFAX	600	PL22, PL29, PL30, PL46
FALLS CHURCH	610	PL25, PL26
FRANKLIN	620	CU49, CU51, CU68, CU70
FREDERICKSBURG	630	RA45, RA46
GALAX	640	NE15, NE16, NE17, NE20
HAMPTON	650	CB22, CB23, CB24, JL43, JL58, JL59
HARRISONBURG	660	PS22, PS23, PS26, PS33, PS56, PS59
HOPEWELL	670	JA45, JL07
LEXINGTON	678	JU76
LYNCHBURG	680	JM07, JM09, JM10, JM11
MANASSAS	683	PL34, PL41, PL44, PL46
MANASSAS PARK	685	PL44, PL46

CITY	FIPS	VAHU6 Codes
MARTINSVILLE	690	RD24, RD26
NEWPORT NEWS	700	CB21, CB22, CB23, JL35, JL37, JL38, JL43, JL49, JL58, JL59
NORFOLK	710	CB26, JL53, JL54, JL56, JL57, JL59
NORTON	720	TC19, TC20, TC21, TP02, TP05
PETERSBURG	730	CU26, CU52, CU53, JA40
POQUOSON	735	CB21, CB22, CB24
PORTSMOUTH	740	JL50, JL53, JL55, JL56, JL59
RADFORD	750	NE57, NE58
RICHMOND	760	JL01, JL02, JL18, JL19, JM85, JM86
ROANOKE	770	RU09, RU10, RU11, RU12, RU13, RU14, RU15
SALEM	775	RU09, RU10, RU14
STAUNTON	790	PS04, PS06, PS07, PS09
SUFFOLK	800	AS02, AS03, AS04, AS05, AS06, CL01, CL02, CL03, CL05, CU66, CU69, CU70, JL42, JL43, JL4, JL45, JL46, JL47, JL48, JL49, JL50, JL55, JL59
VIRGINIA BEACH	810	AO23, AO25, AS10, AS11, AS12, AS13, AS14, AS15, AS16, AS17, AS18, AS19, AS20, CB25, CB26, JL54
WAYNESBORO	820	PS10, PS30
WILLIAMSBURG	830	JL31, JL33, JL34, YO67
WINCHESTER	840	PU16, PU17, PU18

Location and Environmental Information

Since the 1989 BMP cost-share program, Districts have been asked to geo-locate, with a coordinate pair, all state cost-share practices. Having a coordinate pair 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 coordinate pair should be near the center of the area impacted by the BMP.

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 is possible so that the most accurate reflection of program accomplishments can be reported.

List of Conservation Districts/Localities
By Program Area

Chesapeake Bay Program Areas

DISTRICT	COUNTY/CITY
Colonial	Charles City
	James City
	New Kent
	York
	City of Williamsburg
Culpeper	Culpeper
	Greene
	Madison
	Orange
	Rappahannock
Eastern Shore *	Accomack
	Northampton
Hanover-Caroline	Caroline
	Hanover
Headwaters	Augusta
	City of Staunton
	City of Waynesboro
Henricopolis	Henrico
James River *	Chesterfield
	Prince George
John Marshall	Fauquier
Lord Fairfax	Clarke
	Frederick
	Shenandoah
	Warren
	City of Winchester
Loudoun	Loudoun
Monacan	Goochland
	Powhatan

Chesapeake Bay Program Areas

DISTRICT	COUNTY/CITY
Mountain	Alleghany Bath Highland City of Covington
Mountain Castles *	Botetourt Craig
Natural Bridge	Rockbridge City of Lexington City of Buena Vista
Northern Neck	Lancaster Northumberland Richmond Westmoreland
Northern Virginia	Fairfax
Peanut *	Isle of Wight Surry City of Suffolk
Peter Francisco	Buckingham Cumberland
Piedmont *	Amelia Nottoway Prince Edward
Prince William	Prince William
Robert E. Lee *	Amherst Appomattox City of Lynchburg
Shenandoah Valley	Page Rockingham /City of Harrisonburg

Chesapeake Bay Program Areas

DISTRICT	COUNTY/CITY
Thomas Jefferson	Albemarle City of Charlottesville Fluvanna Louisa Nelson
Three Rivers	Essex King & Queen King William
Tidewater	Gloucester Mathews Middlesex
Tri-County/City	King George Spotsylvania Stafford City of Fredericksburg

* A portion of the district is also outside of the-Chesapeake Bay Program Area.

Outside of the Chesapeake Bay Program Area

DISTRICT	COUNTY/CITY
Appomattox River **	Dinwiddie City of Petersburg
Big Sandy	Buchanan
Big Walker	Bland Wythe
Blue Ridge **	Franklin Henry City of Roanoke
Clinch Valley	Russell
Daniel Boone	Lee
Evergreen	Smyth
Halifax	Halifax
Holston River	Washington
Chowan Basin	Greensville Southampton Sussex
Lake Country	Brunswick Mecklenburg
Lonesome Pine	Dickenson Wise
New River	Carroll Grayson City of Galax
Patrick	Patrick
Peanut **	Isle of Wight Surry, City of Suffolk

Outside of the Chesapeake Bay Program Area

DISTRICT	COUNTY/CITY
Peaks of Otter **	Bedford City of Bedford
Pittsylvania	Pittsylvania
Robert E. Lee **	Campbell Appomattox
Southside	Charlotte Lunenburg
Scott County	Scott
Skyline	Giles Montgomery Pulaski Floyd
Tazewell	Tazewell
Virginia Dare **	City of Chesapeake City of Virginia Beach

** A portion of the district is also in the Chesapeake Bay Program Area.

BMPs Eligible to receive VACS Cost-Share

	BMP	DCR SPEC. #	Installed Units	State Rate
1.	Continuous Conservation Implementing Long Term High Residue Minimum Soil Disturbance Systems	CCI-CNT	Acre	$25/acre for the 5 year lifespan
2.	Continuous Conservation Forested Riparian Buffer	CCI-FRB-1	Acres	$100/acre for the 5 year lifespan
3.	Continuous Conservation Herbaceous Riparian Buffer	CCI-HRB-1	Acres	$50/acre for the 5 year lifespan
4.	Continuous Conservation Stream Exclusion	CCI-SE-1	Lin. Feet of stream bank protected	$1/lin. foot of stream bank protected for the 5 year lifespan
5.	Aforestation of Crop, Hay and Pasture land	FR-1	Acre	$25/Ac.+ 75% of components for 10 year contract $50/Ac. for 15 year contract
6.	Woodland Buffer Filter Area	FR-3	Acre	Pines $100/Ac. + 75% C-s of components Hardwoods $100/ac. + 75% C-s of components see spec. for 15 year contract rates
7.	Woodland Erosion Stabilization	FR-4	Acre	75%
8.	Livestock Exclusion with Reduced Set Back	LE-2	Lin. Feet of stream bank protected by each fence (35' or 10'setback)	50% on 10' setback fence; and alternative watering system; 80% reimbursement on 35' setback fence
9.	Nutrient Management Plan Writing and Revisions (Annual)	NM-1A	Acre	$2 Annually $4/ac. Annually
10.	Split application of N on corn using PSNT	NM-3C*	Acre	75% up to $6/Acre $8/Sample
11.	Late Winter Split Application of Nitrogen on Small Grain	NM-4*	Acre	75% up to $4.50/Acre $8/Sample
12.	Precision Nutrient Management on Cropland	NM-5*	Acres	75% up to $8/acre $8/Test
13.	Resource Management Plan Development	RMP-1	Acre	$10/acre
14.	Resource Management Plan Implementation	RMP-2	Acre	$5/acre

15.	Vegetative Stabilization of Marsh Fringe Areas	SE-1	Acre	50%
16.	Long-Term Vegetative Cover Establishment On Cropland	SL-1	Acre	$25/Ac. plus $5/Ac for each year up to 10 plus 75% of component cost
17.	Strip-cropping System	SL-3	Acre	$30/Ac +75% of the eligible component cost
18.	Buffer Stripcropping	SL-3B	Acre	$15/Ac
19.	Terrace Systems	SL-4	Linear Feet	75%
20.	Diversions	SL-5	Linear Feet	75%
21.	Stream Exclusion with Grazing Land Management	SL-6	Linear Feet of Stream bank protected	80%
22.	VACS Support for Extension of CREP Watering System	SL-7	Acreage of rotational grazing implemented	75%,
23.	Protective Cover for Specialty Cropland	SL-8*	Acre	$30/Acre*
24.	Small Grain and Mixed Cover Crop for Nutrient Management and Residue Management	SL-8B*	Acre	$15/Acre*, and $25/Acre* early bonus, and $8/Acre* select rye varieties bonus
25.	Harvestable Cover Crop	SL-8H*	Acre	$20/Acre *
26.	Grazing Land Management	SL-9	Acre	50%
27.	Permanent Vegetative Cover on Critical Areas	SL-11	Acre	75%
28.	High Residue Tillage System	SL-15A*	Acres	$70/Acre for the 5 year lifespan
29.	Continuous No-till Forage Production System	SL-15B*	Acres	$35/Acre
30.	Sediment Retention, Erosion or Water Control Structure	WP-1	# of Structures	75%

31.	Stream Protection	WP-2	Linear Feet of Stream bank protected	75%
32.	Stream bank Stabilization	WP-2A	Linear Feet of Stream bank protected	75%
33.	Sod Waterways	WP-3	Acres in Waterway	75%
34.	Animal Waste Control Facilities	WP-4	# of Systems	75%
35.	Dairy Loafing Lot Management System	WP-4B	# of Systems	75%
36.	Composting Facilities	WP-4C	# of Systems	75%
37.	Animal Mortality Incinerator Facility	WP-4F	# of Systems	75%
38.	Agricultural Chemical Handling Facility	WP-6	# of Structures	75%
39.	Grass Filter Strips	WQ-1	Acre	$175/Acre
40.	Legume Based Cover Crop	WQ-4*	Acre	$30/Acre*
41.	Water Table Control Structure	WQ-5	Acre	75%
42.	Agricultural Sinkhole Protection	WQ-11	Acre	75% for protection 75% for clean out not to exceed $4,000
43.	Roof Runoff Management	WQ-12	Sq. Ft.	75%

* Participant must refuse tax credit in writing before cost-share can be issued

Evaluation Worksheets

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 to 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 or 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 weighting 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 also a weight reflecting its significance to the district. The staff based on best professional

judgment and site specific evaluations enters the first weighting factor. The District Board fixes the second weighting 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 to 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 project requests to evaluate. Approval by the Board should be based upon achieving some minimum score. 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 # _____

Priority Considerations

(1) Agricultural non-point source pollution ranking of the ..... { }
NWBD 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 or upstream of an identified Total Maximum Daily Load (TMDL) stream segment shall be prioritized for funding of practices that reduce the identified pollutant.

Within or upstream of a TMDL area…….....{ }

(2 points if yes, 0 if no)

and addressing the contaminate 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) A Comprehensive conservation plan for the tract or farm exists,
(5 points if comprehensive plan already exist 3 if it is to be developed, 0 if no comprehensive planning is anticipated.

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

To be developed ..... { }

Total points toward priority 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, $\leq$ 2T = 2points, T = 3 points

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

Actual = _____

Total Score toward secondary considerations or district priorities = _____

Worksheet
Completed by: _____ Date: _____

COST-SHARE BMPs MEASURES

Practice Number	Practice Name	Units Requested	C-S Rate and Method	Units Installed / Buffer Width	S & R Reduction (TONS/Acre/YR)	Gross Reduction (TONS/YR)	Acres Benefited	Life Span	Tech. Responsibility	Other C-S	Able to Reapply
CCI-CNT	Continuous Conservation Initiative No Till Planting Systems	Acres	$5.00/Acre/Yr	Acres	X		Acreage treated	5 yrs	District	Yes	Yes
CCI-FRB-1	Continuous Conservation Initiative Forested Riparian Buffer	Acres	$100/acre Flat Rate (Must refuse Tax Credit)	Acres / 35‘	X		Acreage maintained in buffer (FRB)	5	District with DOF	No	Yes
CCI-HRB-1	Continuous Conservation Initiative Herbaceous Riparian Buffer	Acres	$50/acre Flat Rate (Must refuse Tax Credit)	Acres / 35’	X		Acreage maintained in buffer (Herbaceous)	5	District	No	Yes
CCI-SE-1	Continuous Conservation Initiative Stream Exclusion	Linear Ft. of Stream bank Protected	$1/lin. foot protected (Must refuse Tax Credit)	Lin Ft	X		Acres protected behind the fence	5	District	No	Yes
FR-1	Reforestation of Erodible Crop and Pastureland	Acres	$25/Acre for 10 year contract + 75% C-S on components ---------- $50/Acre for 15 year contract +75% C-S on components	Acres	X	X	Acreage planted in trees.	10 yrs or 15 years	DOF	Seeding-Yes Incentive-No	No
FR-3	Woodland Buffer Filter Area	Acres	Conifers, $100/acre for 10 year contract or $150/acre for 15 year contract Hardwoods,$100/acre for 10 year contract, $250/acre for 15 year contract + 75% Cost-share for eligible components	Acres / Average Width	X	X	Acreage planted to buffer.	10 yrs	DOF	Seeding-Yes Incentive-No	No
FR-4	Woodland Erosion Stabilization	Acres	75% of Cost	Acres	X	X	Acreage Treated	5 yrs	DOF	Yes	Yes
LE-2	Livestock Exclusion with Reduced setback	Linear Ft. of Stream bank Protected by 10’ setback and/or 35’	50% Cost-share for 10’ setback; fence and alternative watering system; 80% reimbursement for 35’ setback fence	Linear Ft. of stream bank protected by 10’ and 35’ fence _____ Average buffer (35’only) Width	X Acreage of pastureland	X Stream bank	Acreage where grazing is improved and stream bank is protected.	10 yrs	District	Yes	Yes

Practice Number	Practice Name	Units Requested	C-S Rate and Method	Units Installed / Buffer Width	S & R Reduction (TONS/Acre/YR)	Gross Reduction (TONS/YR)	Acres Benefited	Life Span	Tech. Responsibility	Other C-S	Able to Reapply
NM-1A	Nutrient Management Plan Writing and Revisions (Annual)	Acres	$2/Acre for Commercial/Imported Manure $4/Acres for On-Farm Generated Manure	Acres	N/A	N/A	Acreage Planned	1 year	Certified Nut. Man. Planners	No	Yes
NM-3C	Split Application of N to Corn using Pre-Sidedress Nitrate Test to Determine Need for Sidedress Nitrogen	Acres	75% of Application Charge up to $6/Acre $8/Sample	Acres	N/A	N/A	Acreage Treated	1 yr	District	Yes	Yes
NM-4	Late Winter Split Application of Nitrogen on Small Grain	Acres	75% of Application charge up to $4.50/Acre if needed $8.00/Sample	Acres	N/A	N/A	Acreage Treated	1 yr	District	Yes	Yes
NM-5	Precision Nutrient Management	Acres	75% up to $8/acre $8/test	Acres	N/A	N/A	Acres Planned	1 yr.	District	Yes	Yes
RMP-1	Resource Management Plan Development	Acres	$10/acre	Acres	N/A	X	Acres Planned	1 yr	District	No	Yes
RMP-2	Resource Management Plan Implementation	Acres	$5/acre	Acres	N/A	X	Acres Planned	1 yr	District	No	Yes
SE-1	Vegetative Stabilization of Marsh Fringe Areas	Acres	50% of Cost	Acres	X	X	Acres planted	5 yrs	DCR	No	No
SL-1	Long-Term Vegetative Cover on Cropland	Acres	$25/Acre Flat Rate- 75% Component Cost	Acres	X	X	Acreage in planted crop	5 yrs	District	No	No
SL-3	Stripcropping Systems	Acres	$30/Acre Flat Rate- 75% Component Cost	Acres	X	X	Acreage in strips *(Subsurface drainage installed)	5 yrs (*10 yrs)	District	AC-No Component Yes	No
SL-3B	Buffer Stripcropping	Acres	$15/Acre	Acres	X	X	Acreage in field from the top of the slope to the lowest buffer strip	5 yrs	District	No	No
SL-4	Terrace System	Linear Ft.	75% of Cost	Linear Ft.	X	X	Acreage in field where active erosion is reduced	10 yrs	District	Yes	No

Practice Number	Practice Name	Units Requested	C-S Rate and Method	Units Installed / Buffer Width	S & R Reduction (TONS/Acre/YR)	Gross Reduction (TONS/YR)	Acres Benefited	Life Span	Tech. Responsibility	Other C-S	Able to Reapply
SL-5	Diversion	Linear Ft.	75% of Cost	Linear Ft.	X	X	Acreage in field where the diversion reduces active erosion	10 yrs	District	Yes	No
SL-6	Stream Exclusion with Grazing Land Management	Linear Ft. of Stream bank Protected	80% of eligible cost	Linear Ft. of stream bank protected / Average Width	X Acreage of pastureland	X Stream bank	Acreage where grazing is improved and stream bank is protected.	10 yrs	District	Yes	Yes
SL-7	Support for Extension of CREP Watering Systems	Acres of rotational grazing	75% Not t6o Exceed based upon acres or width of CREP buffer restored	Acres	X	X	Acreage where rotational grazing is implemented	Life of the CREP contract	District	Yes	No
SL-8	Protective Cover for Specialty Crops	Acres	$30/Acre (Must refuse Tax Credit)	Acres	X		Acreage in planted crop	Annual	District	Yes	Yes
SL-8B	Small Grain and Mixed Cover Crop for Nutrient Management	Acres	$15/Acre with $25/Acre early bonus and $8/Acre Abruzzi rye bonus (Must refuse Tax Credit)	Acres	X		Acres planted	Annual	District	Yes	Yes
SL-8H	Harvestable Cover Crop	Acres.	$20/acre (Must refuse Tax Credit)	Acres	X		Acres planted	Annual	District	No	Yes
SL-9	Grazing Land Management	Acres	50% of Cost	Acres	X	X	Acres managed	Annual	District	No	No
SL-11	Permanent Vegetative Cover on Critical Areas	Acres	75% of Cost	Acres	X	X	Acreage treated	5 yrs	District	Yes	Yes
SL-15A	High Residue Tillage System	Acres	$70/Acre	Acres	X		Acres planted	5 yrs	District	No	No
SL-15B	Continuous No-Till Forage Production System	Acres.	$35/ acre	Acres	X		Acres planted	5 Years	District	Yes	No
WP-1	Sediment Retention, Erosion or Water Control Structures	# of Systems	75% of Cost	# of Systems		X Sediment trapped or Erosion Red	Acres of site	10 yrs	District	Yes	No

Practice Number	Practice Name	Units Requested	C-S Rate and Method	Units Installed / Buffer Width	S & R Reduction (TONS/Acre/YR)	Gross Reduction (TONS/YR)	Acres Benefited	Life Span	Tech. Responsibility	Other C-S	Able to Reapply
WP-2	Stream Protection	Linear Ft. of Stream bank Protected	75% of Cost	Linear Ft. / Average Width		X	Acreage of stream bank fenced out.	5 yrs	District	Yes	No
WP-2A	Stream bank Stabilization	Linear Ft. of Stream bank Protected	75% of Cost	Linear Ft.	X	X	Acreage of stream bank treated	5 yrs	District	Yes	No
WP-3	Sod Waterway	Acres	75% of Cost	Acres	X	X	Acreage in waterway	10 yrs	District	Yes	Yes
WP-4	Animal Waste Control Facility	# of Systems	75% of Cost	# of Systems	N/A	N/A	N/A	10 yrs	District	Yes	Yes
WP-4B	Dairy Loafing Lot Management System	# of Systems	75% of Cost	# of Systems	X	X	Acreage in planned system	10 yrs	District	Yes	Yes
WP-4C	Composting Facilities	# of Systems	75% of Cost	# of Systems	N/A	N/A	N/A	10 yrs	District	Yes	Yes
WP-4F	Animal Mortality Incinerator Facility	# of Systems	75% of Cost	# of Systems	N/A	N/A	N/A	10 Years	District	Yes	No
WP-6	Agricultural Chemical & Fertilizer Handling Facility	# of Structures	75% of Cost	# of structures	N/A	N/A	N/A	10 yrs	District	Yes	Yes
WQ-1	Grass Filter Strips	Acres	$175/acre	Acres / Average Width	X (Strip Area)	X(Filter Action)	Acreage of filter area plus contributing field acreage as determined by maximum slope length	5 yrs	District	No	No
WQ-4	Legume Based Cover Crop	Acres	$30/Acre (Must refuse Tax Credit)	Acres	X		Acreage in planted crop	1 year	District	No	Yes
WQ-5	Water Table Control Structure	# of Structures	75% of Cost	# of structures.	N/A	N/A	Watershed drainage acreage above structure	10 yrs	District	Yes	Yes

Practice Number	Practice Name	Units Requested	C-S Rate and Method	Units Installed	S & R Reduction (TONS/Acre/YR)	Gross Reduction (TONS/YR)	Acres Benefited	Life Span	Tech. Responsibility	Other C-S	Able to Reapply
WQ-11	Agricultural Sinkhole Protection	Acres	75% of Cost for protection 75% of Cost for clean out not to exceed $4000	Acres Average Width	X	X	Acreage protected around sinkhole and any area acreage draining into the sinkhole.	10 yrs.	District	Yes	No
WQ-12	Roof Runoff Management	Systems	75% of Cost	Sq. Ft. of roof treated		X	X	10 yrs	District	Yes	Yes

Revised Jan., 2016

Cost-Share Program Bid Procedures

The following procedures will be used when the estimated cost of any one subcontractor's scope of work is anticipated to exceed a billable expense in excess of $30,000.

Districts are to conduct sign-up and processing for technical needs determination as outlined at the beginning of this section. After the practice has been voted upon by the Board these procedures are to be used.

Step #1

Local Districts will notify the applicant that the request is eligible for cost-share assistance and that cost-share funds will be authorized pending the solicitation of a minimum of three bids or prices for installation of the component parts of the BMP that are anticipated to exceed $30,000. The scope of the bid should be carefully clarified with the participant so that equivalent estimates for installation can be acquired. The applicant will be sent a bid solicitation form set for use in obtaining bids (Virginia Agricultural BMP Cost-Share Bid Solicitation Sheet. The applicant will have approximately 60 days to obtain bids, complete the form, and return it to the District.

Applicants may contact known conservation or construction contractors in an attempt to obtain three (3) bids.

Step #2

The applicant will complete the bid solicitation sheet showing the name, address, telephone numbers, and employer identification number of each construction contractor, the landowner's (applicant) name, address, site location, type of BMP, and estimated start and completion date.

When a minimum of three (3) bids cannot be obtained from sources within a fifty (50) mile radius of the BMP location, the applicant will provide documentation for this in the comment section of the bid solicitation form.

Step #3

After the District receives the required bid solicitations, the District will notify the applicant that his cost-share request has been approved, and the specific amount of cost share that was authorized.

Step #4

The District will forward one copy of the bid solicitation sheet(s) to the DCR Conservation District Coordinator.

Step #5

The applicant will notify the successful bidder who can then execute a construction contract and begin installation. The applicant will reserve the right to reject all bids and cancel his cost-share request up until the contract has been signed.

In the event the applicant does not award the project to the lowest bidder, the applicant will provide suitable justification in writing to the District as to why the low bid was not accepted. This statement will be attached to the bid solicitation sheet and maintained in the District files. Any requested increase in authorized cost-share funding must be approved by the Board and recorded in the minutes of the meeting.

Step #6

The applicant will notify the District and the appropriate technical agency that the bid process is complete and of the anticipated construction start date.

COMMONWEALTH of VIRGINIA
Department of Conservation and Recreation

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.

Landowner Name: _____ / _____ **Soil and Water Conservation District**

Service(s) to be Purchased _____ **Date needed**:

_____

Specifications Prepared by: _____ **Quotes Secured by**:

_____

VENDOR QUOTED PRICES

Item No.	Description	Unit of Issue	Quantity	Vendor 1 Unit Price	Vendor 1 Total Price	Vendor 2 Unit Price	Vendor 2 Total Price	Vendor 3 Unit Price	Vendor 3 Total Price	Vendor 4 Unit Price	Vendor 4 Total Price
1											
2											
3											
4											
Grand Total											
Delivery Date											

Vendor No. 1 Date: _____ Time: _____
Vendor Name: _____ *FIN No. _____
(Federal Identification Number)
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Person Contacted & Title _____ Phone No. _____

Vendor No. 2 Date: _____ Time: _____
Vendor Name: _____ *FIN No. _____
(Federal Identification Number)
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Person Contacted & Title _____ Phone No. _____

Vendor No. 3 Date: _____ Time: _____
Vendor Name: _____ *FIN No. _____
(Federal Identification Number)
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Person Contacted & Title _____ Phone No. _____

Vendor No. 4 Date: _____ Time: _____
Vendor Name: _____ *FIN No. _____
(Federal Identification Number)
Mailing Address: _____
City: _____ State: _____ Zip Code: _____
Person Contacted & Title _____ Phone No. _____

***If services are being provided by an individual, his Social Security Number will be his FIN Number**

Comments: (Use if unable to obtain three bids or to justify not using low bidder.)
_____
_____

DISTRICT COPY

Spot-check Procedures

Overview

Spot checks are meant to determine practice viability and lifespan and are not intended as a technical inspection. Technical accuracy was determined at the time of certification by designated personnel assigned technical responsibility. 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 be spot-checked, but technical certification inspections can be carried out during the fiscal year as appropriate.

1. Spot-checks are conducted by District personnel under the guidance of DCR staff. Technical agencies involved (NRCS and DOF) should be notified that spot-checks are to occur but they are not required to present. Spot-checks are intended only to verify the practice's existence on the farm.

2. For structural practices, spot-checks 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 practice verification inspections or spot checks will be conducted by the District Conservation Specialist/Technician under the guidance of DCR staff to determine that the individual practice is still viable. Practices to be spot checked will be identified and inspected based upon Chesapeake Bay Program Office (CBPO) approved verification procedures.

4. Upon the completion of the spot-checks, District personnel must inform the appropriate technical agency that corrective action is needed and can begin, and must also inform the District Board at its next regularly scheduled meeting. A copy of all spot-check forms shall be sent to the Conservation District Coordinator. Copies of each form shall be maintained in the District files until further notified by DCR.

5. Spot check reports on practices receiving cost-share from other sources should be copied to the appropriate agency.

6. CDCs will consolidate all spot check information into a table indicating how many inspections were conducted how many practices were in compliance and how many practices require additional DISTRICT follow up. A copy of this report should be forwarded to the Agricultural Incentives Program Manager. The report will be used by the CDC to assure that those practices that need additional DISTRICT attention are followed up and all issues are resolved or a pro-rata return of cost share and tax credits are returned to the District.

Spot check reports [DCR 199-112 (6/89)] will be retained by the District and filed by program year. A copy of each spot check report will be made and forwarded to the CDC and to any other agency providing cost-share for that project.

Administrative Review

In conjunction with spot-checking, each assigned Conservation District Coordinator may ask to examine cooperator files to assure accordance with plans, policies and procedures. The assigned CDC may choose to examine only those cooperator files, which have been selected, for spot check or they may choose an overall sampling of no more than 10% of all cooperator files currently under the practice lifespan.

Virginia Agricultural BMP Cost-Share Program
Compliance Spot Check Report Form

Name of District

County/City _____ Date of Spot-check_____

Program Year Installed _____ Spot-checked by_____

Practice Name & Number _____ Farm Number_____

Applicant's Name _____ Field Number_____

Address _____ Extent Installed_____
(No. & Units)

Telephone _____

Certified By

Date Certified

Lifespan

Amount Paid

by District

by FSA

by DOF

by NRCS

Practice Status (Check One)

☐ Practice Installed, Functioning as Designed, and Properly Maintained

☐ Practice Installed, Not Maintained or Functioning (request participant perform needed maintenance)

☐ Improperly Installed (Refer to District Board for Action)
Practice Damaged or Destroyed and No Longer functioning (Refer to District Board for Action)

Remarks

DCR 199-112 (6/89)

Biosecurity Considerations

If you are in any questionable disease situations on a farm, please call before going to the farm. Remember, these are minimal guidelines, and some operations may have additional requirements.

Biosecurity for Poultry

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

Biosecurity as it pertains to poultry farm inspections is 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 spot-checking VA Agricultural BMP Cost Share Program practices:

Care should be taken to plan your visitations such that your vehicle or person does not become a vector to spread disease. Never plan to go directly from one poultry farm to another on the same day. Remember, these are minimal guidelines, and some operations may have additional requirements.

All poultry farms are biosecured areas and 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 grower and follow the steps below at all times.

- 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 is Virkon or Virkon-S. 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.

- For all 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 grower 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 carried in all NRCS field vehicles and is recommended as a minimum to be available to District employees.

Spray Tank	Mixing bucket
Large water container	EPA Approved disinfectant – Virkon-S®
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.

Biosecurity Procedures for Livestock

Due to the fact that humans can transport not only the Foot and Mouth Disease (FMD) virus, but many other viruses that affect livestock, we must take minimum biosecurity measures to reduce the risk of District employees acting as carriers from one livestock operation to another. These measures are consistent with biosecurity practices established by the Commissioner of Agriculture and Consumer Services for VDACS employees. All staff visiting any farm should take the following steps to minimize risks of disease transfer.

1. Contact with farm operators or managers must be attempted prior to visiting any farming operation. Biosecurity should be discussed with farm operators. If farms have more stringent biosecurity measures in place, staff should perform such measures as instructed.

2. Wear clean clothing or coveralls. Change and clean clothing or coveralls as needed after contact with animals or animal waste, especially before entering another farm.

3. Wear footwear suitable for scrubbing. Good quality, calf high rubber boots will make cleaning easier. Footwear should be scrubbed thoroughly with a brush and sanitizing solution before entering a farm and also before leaving, or alternatively, plastic disposable boots should be worn and left at the farm. It is recommended that staff carry a plastic garden-type sprayer filled with disinfectant and a long handled scrub brush to facilitate disinfection.

4. Vehicles should be kept clean inside and outside. This may be accomplished by avoiding possible areas of contamination on the farm. It is easier and more efficient to disinfect footwear than vehicles. Keep rubber floor mats in vehicles that can be effectively cleaned and disinfected. Tires of vehicles should be sprayed with disinfectant and scrubbed in the same manner as footwear.

These measures should be used when visiting farming operations with livestock that are susceptible to the FMD virus. This applies to beef, dairy, and swine operations as well as to operations that are primarily poultry, but may have some beef dairy, or swine present.

A disinfectant currently approved for use by EPA against FMD 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 is essential to the effectiveness of disinfectants.

- household vinegar (undiluted) is a 4% solution acetic acid)
- 3 parts household bleach (sodium hypochlorite) to 2 parts water
- 1.3 ounces Virkon-S® (broad spectrum) disinfectant to 1 gallon of water

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 (DEM), 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.

- The Virginia DEM will request a state Declaration of Emergency from the Governor once it is determined that a 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 prior to the state's declaration if an outbreak occurs in another state or concurrent with the state emergency declaration if an FMD outbreak occurs first in the Commonwealth.

Once a confirmed outbreak exists that may impact the Commonwealth, DCR recommend that Districts cease all farm inspections and visits until such time as the State Veterinarian, in coordination with the USDA Area Veterinarian-In-Charge, determines it safe to resume normal operations.

Additional Biosecurity Procedures to consider:

In areas of the state with an identified health issue by the State Veterinarian; Districts should consider footbaths as an important biosecurity tool. To be effective, 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. District may need to ask clients and provide signage to use the footbath if they are wearing footwear that has been worn unprotected in an animal production area in the last 5 days. Educating producers not to leave the farm as potential disease vectors. Encourage them not to wear clothes/footwear that has previous unprotected exposure in animal production area to offices or businesses where farmers may frequent as a responsible biosecurity measure.

Making an Easy Footbath – You will need:

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 Tek-trol® or One Stroke Environ®
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.

Agricultural BMP Technical Advisory Committee "Implementation Advisory Committee"

A committee has been appointed to advise the DCR staff on the implementation of the Agricultural BMP Program. This committee reviews proposed technical policy changes, brings new items to the committee members for consideration, and makes recommendations to the Virginia Soil and Water Conservation Board prior to their final approval for modifying the program. About three-fourths of the committee is composed of active farmers or agricultural industry representatives that are involved in most aspects of Virginia agriculture. The remaining members are agency personnel representing the agencies that are directly involved in the Virginia Agricultural BMP Cost-Share Program. The current members are listed below:

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Ad hoc technical review subcommittees will convene as needed to assist in development of new BMPs, program evaluation, and make recommendations to the full TAC. The subcommittees will assist in the evaluation of Innovative BMP Demonstration Project requests. The subcommittees will consist of appropriate DCR, VCE, NRCS, DOF, SWCD, VASWCD, and other agency representatives and willing TAC members as needed.

SECTION III

AGRICULTURAL BMP SPECIFICATIONS

POLICIES AND SPECIFICATIONS FOR IMPLEMENTING LONG TERM
HIGH RESIDUE MINIMUM SOIL DISTRUBANCE 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 high residue minimum soil disturbance 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 high residue minimum soil disturbance system 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 high residue minimum soil disturbance system reporting practice is designed to provide a financial incentive to assure that lands being managed under high residue minimum soil disturbance systems are reported to DCR. These no till systems are required to be effective and functioning as designed after the VACS program lifespan has expired and throughout the life span of this practice.

B. Policies and Specifications

1. Eligibility
   i. Eligible land must be managed under a high residue minimum soil disturbance high residue minimum soil disturbance 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, SWCDs 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. Producers must be fully implementing a current nutrient management plan prepared and signed by a certified nutrient management planner. The plan must include all agricultural production acreage contained within the tract that this BMP will be implemented on and must be on file with the local SWCD. Payments for long term high residue minimum soil disturbance implementation shall not be made until a current nutrient management plan is on file with the SWCD. SWCD 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.

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, 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 must be maintained for the lifespan of the practice.
   ii. This practice is subject to **annual** spot checks by SWCD staff throughout its lifespan.
   iii. This practice is subject to NRCS Standards 340 Cover Crop, 328 Conservation Crop Rotation, 590 Nutrient Management, 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 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 SWCD 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 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 SWCD 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: Forested Riparian Buffer

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 adjacent to and buffering cropland and pastureland 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. Replanting due to mortality losses will not receive additional state incentive payments under this practice.

8. 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.

9. 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.

10. This practice is subject to the specifications as outlined in "Forestry BMPs for Water Quality in Virginia", and NRCS 391 Riparian Forest Buffer Standard.

11. 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 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 SWCD throughout the lifespan of the practice and failure to maintain the practice may result in reimbursement of cost share and/or tax credits.

C. Rate(s)

The state cost share rate is a single payment of $100.00 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 SWCD 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: Herbaceous Riparian Buffer

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 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 SWCD throughout the lifespan of the practice and failure to maintain the practice may result in reimbursement of cost share and/or tax credits.

C. Rate(s)

The state cost share rate is a single payment 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 SWCD 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
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 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 water bodies and streams 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 from damage by domestic livestock. While no minimum fencing standards are required a fence shall exclude livestock from the stream 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. Incentive payments will be based solely upon the linear feet of the excluded stream bank. The payment for the stream bank excluded will not include any area where livestock have access.

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. In the event the fencing is damaged or destroyed it is the responsibility of the participant to repair or replace the with no additional CCI funding.

7. This practice is subject to spot checks from SWCD 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 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 SWCD throughout the lifespan of the practice and failure to maintain the practice may result in reimbursement of cost share and/or tax credits.

C. Rate(s)

The state cost share rate is a single payment of $1.00 per linear foot of stream bank protected paid up front.

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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: AFORESTATION 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 aforestation 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 75 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 specifications outlined in the DOF Virginia's Forestry Best Management Practices for Water Quality, Technical Manual and NRCS standards Tree & Shrub Establishment (612) and Tree/Shrub Site Prep (490).

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 SWCD 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 $25 per acre for a 10-year lifespan, or $50 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 law 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 cooperator receives cost-share, only the cooperator'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 SWCD 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: 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 75 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 specifications outlined in the DOF Virginia's Forestry Best Management Practices for Water Quality, Technical Manual and NRCS 391 Riparian Forest Buffer Standard.

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 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 SWCD 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 75% 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 (minimum of 110 stems per acre planted) $100 per acre for a 10 year lifespan, OR $250 per acre for a 15 year lifespan.

2. Eligible component costs 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 law 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 cooperator receives cost-share, only the cooperator'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 SWCD 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: 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 or "Forestry BMPs for Water Quality in Virginia".

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 SWCD 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 law 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 cooperator receives cost-share, only the cooperator'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 SWCD 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

LIVESTOCK EXCLUSION WITH REDUCED SETBACK
DCR Specifications for No. LE-2

This document specifies terms and conditions for the Virginia Agricultural BMP Cost Share Program's stream exclusion with reduced setback best management practice that are applicable to all contracts entered into with respect to that practice.

A. Description and Purpose

This practice will promote structural and/or management practice(s) that will enhance or protect vegetative cover to reduce runoff of nutrients and some sediments from existing pastureland and therefore reduces NPS pollution associated with grazing livestock.

The purpose of this practice is to provide alternative livestock watering systems and fencing that will improve water quality by eliminating direct access to surface waters and by improving pasture management by establishing rotational grazing to control erosion. When cost-share funds for establishing rotational grazing are provided participants must develop and implement a rotational grazing plan. **Stream exclusion fencing is a required component of this practice.**

B. Policies and Specifications

1. The majority of the water quality improvement achieved by implementing this practice is associated with excluding livestock from surface waters. The least cost alternative that best resolves the resource concern must be utilized.

2. A written management plan, to include a rotational grazing component, operations and maintenance plan must be prepared and followed in accordance with NRCS FOTG. Factors to be addressed should include water sources, environmental impact of runoff, soil fertility maintenance, access lanes, fencing needs, wetlands, minimum cover or grazing heights, carrying capacity of the land and rotational schedules.

3. Flash grazing (allowing livestock to graze the excluded riparian area) is not allowed as a management alternative during the lifespan of this practice. Grazing (including flash grazing) is not allowed in the protected riparian area during the lifespan of this practice. When both sides of the stream are under the same ownership livestock must be excluded from both sides of the stream.

4. To supply water, cost-share and tax credit are authorized for:
   i. Development of springs or seeps, including fencing of the area, where needed, to protect the development from pollution by livestock.
   ii. Construction or deepening of wells if it is the only technically feasible alternative for a water source.
   iii. Construction or repair of dugouts, dams, pits, or ponds (if the only 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, troughs, and artificial watersheds.

v. A water supply system can be 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. Cost sharing is authorized in connection with wells for pipe installed in the well (including the casing), pumps, pumping equipment, and well houses. Districts may approve 50% 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 SWCD's Board.

vii. Pumps and equipment associated with a portable and permanent watering system. 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.

5. To establish pasture management, state cost-share and tax credit are authorized for:

i. Permanent stream exclusion fence that 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. Stream exclusion fencing selection must meet the minimum NRCS permanent fence standard for the livestock being excluded.

ii. Permanent or temporary fencing, for grazing distribution, and fencing to restrict stream access in connection with newly developed watering facilities.

iii. Interior fencing, watering facilities and/or intensive rotational grazing systems that distribute grazing to improve water quality are allowed when combined with the livestock exclusion component of this practice on an adjacent stream or sensitive feature.

iv. Stream crossings for grazing distribution, as long as the crossing restricts access to the stream.

v. Fence chargers used to electrify permanent or temporary fencing.

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 capable of being moved

in a timely manner from one location to another within the acreage for which the system is designed.

7. 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.
   iii. For the purpose of providing water for the farm or ranch headquarters.

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

9. The participant is responsible to inspect and maintain fencing. In the event the fencing is damaged or destroyed it is the responsibility of the participant to repair or replace fencing to original location and condition with no additional cost share funding. Participants may not simultaneously receive any incentives associated with the WP-2D practice when implementing this practice.

10. State cost-share and tax credit for implementing this practice are limited to pastureland that borders a live stream. Exception to the (live stream requirement) may be granted in cases of severe environmental degradation occurring in and around features such as, seeps, ponds, wetlands, or sinkholes, etc.

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

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

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

14. This practice is subject to NRCS Standards 528 Prescribed Grazing, 382 Fence, 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, 642 Water Well.

15. 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 SWCD 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 cost-share rate based on 50% of the lesser of the estimated or actual cost of all eligible components has been established for this practice.
   Exception: A cost-share rate based on 80% reimbursement of the estimated or actual cost is available for any permanent water body exclusion fence that is placed at a minimum of 35 feet away from the water body. To be eligible for the 80% reimbursement rate, the entire water body must be fenced at the 35-ft minimum buffer width. 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 law 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 cooperator receives cost-share, only the cooperator'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 SWCD 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 March, 2016

Name of Practice:
NUTRIENT MANAGEMENT PLAN (NMP) WRITING and REVISIONS (Annual)
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 and revision of nutrient management plans is needed to assure that implemented plans are accurate and up to date to minimize the impact of nutrients used in crop, pasture, 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, revision of nutrient management plans. Participants are provided an incentive to annually revise plans to accurately reflect in field conditions so that farmers can maintain eligibility for other cost-share practices.

B. Policies and Specifications

Plans receiving cost share funding for writing 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. An **amended** Nutrient Management Plan is a current NMP that has been updated to accurately match current field crops and/or pasture management practices.
ii. A verified nutrient management plan does not need modification as the planner and farmer have discussed the plan and verify that the plan accurately matches current field crops or pasture management practices. NMPs do not have to be changed in the second and third years so long as the planner verifies that he has met with the farmer and that the plan accurately matches current field crops and/or pasture management practices.
iii. A **revised** Nutrient Management Plan is an expired NMP that has been rewritten to accurately match actual field crops and management practices.
iv. **Cropland** is defined in the Nutrient Management Training and Certification Regulations as land used for the production of grain, oilseeds, silage, or industrial crops.
v. **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.
vi. **Pasture** is defined as land that supports the grazing of animals for forages.

2. Eligibility

i. This practice applies to crop, hay 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 Board of Directors approval date.

iii. Nutrient management plans developed for farms having or requiring VPA or VPDES animal waste permits qualify for cost-share at the rates listed. These plans must include special instructions required to meet VPA or VPDES permit requirements and must be approved by DCR as required by the VPA or VPDES permit. Cost-share payment cannot be made until the plan is approved by DCR. Nutrient Management Plans written as part of a VPA or VPDES permit must address requirements of applicable regulations to the operation in addition to meeting requirements stated in this section.

iv. For this practice, the nutrient management plan must include all agricultural production acres within the FSA Tract for which the plan is being written. Cost-Share payment will be made after a copy of the new, amended, verified or revised plan is delivered to the appropriate Soil and Water Conservation District.

v. 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 (4 VAC 50-85-140 D. 2 & 3).

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

vii. New plans shall be written for a period of one to three years. Plans shall be amended or 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)
d. The acreage receiving mechanically applied on-farm generated animal manure or a combination of mechanically applied on-farm generated animal manure and commercial fertilizer and the acreage receiving only commercial fertilizer and/or imported animal manure , must be submitted to the SWCD before cost share reimbursement for writing the plan can be disbursed.

viii. Plans must be developed based on soil analyses taken within a three year period prior to plan development and must be performed by Virginia Tech, A&L Eastern Laboratories-Richmond, Brookside Laboratories, Spectrum Analytical, Inc., Waters Agricultural Laboratories or other soil testing laboratories approved by DCR.

ix. 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.

x. In order to be eligible for cost-share, nutrient management plans must be prepared by a private planner who holds a current Nutrient Management Planner Certificate issued by the Virginia Department of Conservation and Recreation. Nutrient Management Plans must be written to comply with all requirements set forth in the Nutrient Management Training and Certification Regulations, (4 VAC 50-85-10 et seq.) and the criteria set forth in the Virginia Nutrient Management Standards and Criteria, revised July 2014.

3. <u>Ineligible</u>

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.

ii. Any amended or revised 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 SWCD.

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

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

2. The cost share rate is **$4.00 per acre** for all acres on a Tract. Eligible acres include crop, hay, or pasture fields that receive the participant's mechanically applied **on-farm generated** animal manure, or a combination of the participant's mechanically applied on-farm generated manure and commercial fertilizer. Any Tract that receives mechanically applied on-farm generated animal manure or a combination of mechanically applied on farm generated animal manure and commercial fertilizer during the planning period should be paid **$4.00**/acre for those acres that are newly planned, modified or revised.

3. Participants must provide the SWCD 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 SWCD to receive the annual payment.

4. If the participant redirects the cost-share payment to their private certified nutrient management planner, the SWCD must send the appropriate IRS 1099 Tax form to the designated entity that received the cost share funds. Any entity that will receive a 1099 form must submit a completed W-9 for to the Soil and Water Conservation District that issues the cost-share payment.

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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

<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 _____Soil and Water

Conservation District (SWCD) to pay <u>any and all</u> 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 Soil and Water Conservation District (SWCD) 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: SPLIT APPLICATION OF NITROGEN ON CORN USING PRE-SIDEDRESS NITRATE TEST TO DETERMINE NEED FOR SIDEDRESS NITROGEN WHEN ORGANIC NITROGEN SOURCES HAVE BEEN PREVIOUSLY APPLIED
DCR Specification for No. NM-3C

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's, "Split Application of Nitrogen on Corn Using Pre-sidedress Nitrate Test (PSNT) 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 encourage the split application of nitrogen on corn. For fields receiving only nitrogen fertilizer; split applications will be based upon soil sample results and the Nutrient Management Plan (NMP). All secondary or split applications will be applied at a growth stage (15" to 24" tall) when the plant is entering the highest demand for nitrogen.

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

B. Policies and Specifications

1. Eligibility:
   i. Eligibility for this practice is limited to the length of the plan recommending the sidedress practice.
   ii. Farmer must provide a written verification (such as a work order or bill) to the district within two weeks of the sidedress application when the application has been contracted out.
   iii. The total number of corn acres specified by the nutrient management plan to be side dressed will determine the maximum acres to qualify, with payment being made only to those acres which actually received a secondary application of nitrogen.
   iv. Producers must be fully implementing a current nutrient management plan prepared and signed by a certified nutrient management planner that specifies manure or biosolids applications and PSNT as appropriate. Cost-Share payments shall not be made until a current nutrient management plan is on file with the SWCD. The NMP must include all agricultural production acres in the tract that contains the corn acreage. A copy of the current nutrient management plan and the nutrient application record keeping form (located in the glossary and forms section of this manual) shall be maintained in the participant's practice folder.
   v. SWCD 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, should not represent more than 20 acres on average.

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

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

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

6. Total nitrogen to be applied to the cornfield must be consistent with the nutrient management plan or determined by using a PSNT consistent with procedures contained in the Nutrient Management Training and Certification Regulations, 4 VAC 50-85 et. seq.

7. This is an annual practice.

C. Rate(s)

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

2. For participants who certify in writing ***(see language on last page of this specification)*** that they will not utilize the tax credit set forth above with regard to the implementation of this practice and who are not receiving payment for a split application of nutrients to corn from any other source on the same acreage, a state cost share payment rate of 75% of the application charge up to a maximum amount of $6.00 per acre for the sidedress application, based on the contracted split application acreage. Producers applying their own split applications will receive $6 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 SWCD 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

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

I, _____ hereby certify that I will not claim the tax credit which is available for participation in the Split Application of Nitrogen to Corn Using Pre-Sidedress Nitrate Test to Determine Sidedress Nitrogen, NM-3C practice, and therefore I am eligible for cost-share funding available under that practice for participants who do not wish to utilize the tax credit. I understand that any cost-share funds received must be returned should I claim the tax credit.

Signed: _____

Date: _____

POLICIES AND SPECIFICATIONS FOR 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 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 prepared and signed by a certified nutrient management planner that specifies split applications of nitrogen as appropriate. The plan must be on file with the local SWCD. Cost-Share payments shall not be made until a current nutrient management plan is on file with the SWCD. SWCD 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. The plan must include all agricultural production acres in the tract that contains the small grain acreage. A copy of the current nutrient management plan and the nutrient application field record sheet shall be maintained in the participant's practice folder.
   - 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 SWCD 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 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*.

   iv. 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 law currently provides a tax credit for implementation of certain BMP practices. The current tax credit rate, which is subject to change in accordance with the Code of Virginia, is 25% of the total eligible cost not to exceed $17,500.00.

2. For participants who certify in writing ***(see language on next page)*** that they will not utilize the tax credit set forth above with regard to the implementation of this practice and who are not receiving payment for a 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 SWCD 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

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

I, _____ hereby certify that I will not claim the tax credit which is available for participation in the Late Winter Split Application of Nitrogen on Small Grain, NM-4 practice, and therefore I am eligible for cost-share funding available under that practice for participants who do not wish to utilize the tax credit. I understand that any cost-share funds received must be returned should I claim the tax credit.

Signed: _____

Date: _____

Name of Practice: Precision Nutrient Management on Cropland

DCR Specification for NM-5

A. Description and Purpose

This practice will encourage the use of precision nutrient management practice components that support a higher intensity of nutrient management in the field than existing standard nutrient management practices. This practice is limited to row crop production systems.

This practice supports multiple enhanced nutrient management components such as; zone soil fertility samples, soil (pre-sidedress) nitrate tests (PSNT), corn stalk nitrate sampling (CSNT), and variable rate nitrogen and phosphorous, applications based upon the soil test results of zone (subfield) sampling. It also supports all variable rate nitrogen and phosphorous application technologies. This practice may be used on fields that apply nutrients based upon the soil test results whether they have organic nutrient applications or not, with the exception of Biosolids Applications.

Multiple split applications of nitrogen only applies to corn and cotton crops. This practice does not apply to the late winter split application of nitrogen on small grains. The variable rates of nitrogen and phosphorus listed below (in B. 2.) apply to all row crops. Other macro-micro nutrients may be applied concurrently.

B. Policies and Specifications

1. This is an annual practice. Results from any test supported by the implementation of this practice shall be used to determine the nutrient application rates for the current or following crop as appropriate.

2. At least two of the following identified components must be implemented to receive any cost-share payment. Furthermore at least one of those components implemented must be variable rate nitrogen or phosphorous application, or multiple split applications of nitrogen on corn and cotton only.
   i. Zone soil fertility samples,
   ii. Soil (pre-sidedress) nitrate test (PSNT)
   iii. Corn stalk nitrate sampling (CSNT),
   iv. Variable rate nitrogen and/or phosphorous applications based upon the soil test results of (subfield) sampling; other macro-micro nutrients may be applied concurrently
   v. Variable rate of nitrogen application on any row crops
   vi. Multiple (more than one) split applications of nitrogen on corn and cotton only

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

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

5. Producers must be fully implementing their current nutrient management plan prepared and signed by a certified nutrient management planner. Where this practice is recommended or applied there must be a note to that effect in the narrative or elsewhere in the nutrient management plan indicating that the soils and/or tissue samples were sampled in an appropriate manner. Cost share payments will not be made until a copy of the nutrient management plan and work orders, or applied field maps or invoices are presented to the SWCD. The nutrient management plan must include all production acres of the farm. A copy of the current nutrient application, record keeping and work orders shall be maintained by the producer for the purposes of verification.

6. The total number of acres that qualify for this practice will be based upon the total acres that were sampled in zones (zone are no larger than 20 acres and based upon soil type), or grids (grid size may be of 1 to 4 acres in size), or had mid-season testing such as soil (Pre-sidedress) Nitrate Testing (PSNT), Corn Stalk Nitrate Testing (CSNT), or received Variable Rate or Zone applications of nitrogen, and/or phosphorus, based upon the zone or grid soil sampling.

7. The producer **must** provide written verification (such as results of laboratory test, a work order or bill; or as-applied application map of field) to the district (SWCD) within forty-five days of the variable rate nitrogen and/or phosphorous application to verify that the recommendations of the soil samples were followed.

8. The producer **must** sign up for this practice before April 1st of each year that the practice will be utilized and provide the SWCD verification of work orders or bills within forty-five days of the sample analysis.

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

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

C. <u>Rates</u>

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

2. For participants who certify in writing ***(see language on last page of this specification)*** that they will not utilize the tax credit set forth above with regard to the

implementation of this practice and who are not receiving payment for precision application of nutrients 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 $8.00 per acre per year, for the acres receiving the variable rate nitrogen and/or phosphorous applications or multiple split applications of nitrogen on corn or cotton.

3. Costs for corn stalk nitrate test (CSNT), pre-side dress nitrate test (PSNT) or fall soil nitrate test sample collection and analysis by a commercial laboratory that are used to implement this practice will be reimbursed at a flat rate of $8.00 per sample up to 1 PSNT per field and 3 CSNT per field. No per sample cost-share is available for zone soil fertility testing.
   i. Many commercial applicators include zone soil fertility sampling in their variable rate application charge.
   ii. Virginia Tech. will analyze soil fertility samples at no cost.

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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.

March, 2016

Certification from an Agricultural Best Management Practice Participant that

a Tax Credit will not be Utilized

I, _____ hereby certify that I will not claim the tax credit which is available for participation in the Precision Nutrient Management for Cropland , NM-5 practice, and therefore I am eligible for cost-share funding available under that practice for participants who do not wish to utilize the tax credit. I understand that any cost-share funds received must be returned should I claim the tax credit.

Signed: _____

Date: _____

Name of Practice:
RESOURCE MANAGEMENT PLAN (RMP) 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 SWCD.
      b. An invoice for planning services provided by the certified RMP developer must be provided to the SWCD.
   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.

2. Payment for any single RMP-1 practice instance must not exceed $6,500.00.

3. The SWCD must provide an Internal Revenue Service Form 1099-G to any cost-share program participant who receives $600 or more in cost-share payment(s) per their federal taxpayer identification number or social security number during the calendar year. If the payment for this practice is redirected at the participant's request to a certified RMP developer, an IRS 1099-Misc tax form should go to the entity

receiving the cost-share funds. SWCDs must also file the appropriate IRS Form 1099 and Form 1096 with the Internal Revenue Service in accordance with IRS regulations.

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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 March, 2016

ASSIGNMENT OF RESOURCE MANAGEMENT PLAN DEVELOPMENT (RMP-1)
COST-SHARE PAYMENT AUTHORIZATION

I _____, do hereby direct
Name

the _____Soil and Water

Conservation District (SWCD) to pay <u>any and all</u> cost-share funds disbursed under the

RESOURCE MANAGEMENT PLAN DEVELOPMENT (RMP-1) 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 Soil and Water Conservation District (SWCD) 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 (RMP) 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 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 apply for, or 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. This practice applies to crop, hay, and pasture lands that are included in an approved RMP that receives a Certificate of Resource Management Plan Implementation.
   iii. 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.
   iv. Before a cost-share payment can be made, a current copy of the Certificate of RMP Implementation must be on file with the SWCD.
   v. 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.
   vi. 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.
   vii. 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.

5. RMP-2 is not eligible for carryover.

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

1. The cost share rate is $5.00 per acre for all eligible acres within a management unit.

2. Payment for any single RMP-2 practice instance must not exceed $3,250.00

3. The SWCD must provide an Internal Revenue Service Form 1099-G to any cost-share program participant who receives $600 or more in cost-share payment(s) per their federal taxpayer identification number or social security number during the calendar year. If the payment for this practice is redirected at the participant's request to a certified RMP developer, an IRS 1099-Misc tax form should go to the entity receiving the cost-share funds. SWCDs must also file the appropriate IRS Form 1099 and Form 1096 with the Internal Revenue Service in accordance with IRS regulations.

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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 March, 2016

ASSIGNMENT OF RESOURCE MANAGEMENT PLAN IMPLEMENTATION (RMP-2)
COST-SHARE PAYMENT AUTHORIZATION

I _____, do hereby direct
Name

the _____Soil and Water

Conservation District (SWCD) to pay <u>any and all</u> cost-share funds disbursed under the

RESOURCE MANAGEMENT PLAN IMPLEMENTATION (RMP-2) 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 Soil and Water Conservation District (SWCD) 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: 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 & 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 SWCD 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 law 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 cooperator receives cost-share, only the cooperator'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 SWCD 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: 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 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.

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

B. Policies and Specifications

1. Soil loss rates must be computed for all applications for use in establishing priority considerations and reflect at minimum a 3-year cropping history.

2. This practice is not intended to be used to reseed or improve hay or pastureland.

3. 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.

4. State cost-share and tax credit will be provided only one time per field, while that field is under the same ownership.

5. 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.

6. State Cost-share is allowable only for BMP installations that are not receiving cost-share from other sources.

7. Cost-sharing and tax credit are not authorized for obstruction removal, fencing, or watering facilities.

8. Fertility - Lime and fertilizer will be applied for establishment purposes in accordance with current soil test recommendations (at VPI cooperative extension establishment rates for the appropriate sod species) and are eligible components for cost-share. 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 the Department of Conservation and Recreation Nutrient

Management Handbook.

9. Cost-sharing and tax credit are not authorized for the planting of pure stands of alfalfa.

10. This practice is subject to NRCS Standard 512 Forage and Biomass Planting.

11. All practice components implemented must be maintained for a minimum of 5 years and a maximum 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 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 SWCD throughout the lifespan of the practice and failure to maintain the practice may result in reimbursement of cost share and/or tax credits.

C. Rate(s)

The state cost-share rate is $25 per acre, an additional $10 per acre per year for the lifespan above 5 years and 75% of the eligible component costs.

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. Labor

2. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia law 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 cooperator receives cost-share, only the cooperator'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 SWCD 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: STRIP CROPPING SYSTEMS
DCR Specifications for No. SL-3

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's 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 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 stripcropping systems.

3. Nutrient Management Plan. Producers must be fully implementing a current nutrient management plan prepared and signed by a certified nutrient management planner. The plan must include all agricultural production acreage contained within the tract that this BMP will be implemented on and must be on file with the local SWCD. Cost-Share payments shall not be made until a current nutrient management plan is on file with the SWCD. Any nutrients applied before March 1st must be in accordance with a certified nutriment management plan.

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, cultural 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 SWCD 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 percent of the total eligible costs. Cost-share is authorized for operations not receiving cost-share payments from other sources for the same practice components (i.e. flat rate, tile, or obstruction removal) on the same acreage.

2. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia law 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 cooperator receives cost-share, only the cooperator'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 SWCD 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: BUFFER STRIP CROPPING
DCR Specifications for No. SL-3B

This document specifies terms and conditions for the Department of Conservation and Recreation's buffer strip cropping 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. Producers must be fully implementing a current nutrient management plan prepared and signed by a certified nutrient management planner. The plan must include all agricultural production acreage contained within the tract that this BMP will be implemented on and must be on file with the local SWCD. Cost-share payments shall not be made until a current nutrient management plan is on file with the SWCD. Any nutrients applied before March 1st must be in accordance with a certified nutriment management plan.

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 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 SWCD 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 law 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 cooperator receives cost-share, only the cooperator'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 SWCD 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: 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. Producers must be fully implementing a current nutrient management plan prepared and signed by a certified nutrient management planner. The plan must include all agricultural production acreage contained within the tract that this BMP will be implemented on and must be on file with the local SWCD. Cost-Share payments shall not be made until a current nutrient management plan is on file with the SWCD.

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 SWCD 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 law 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 cooperator receives cost-share, only the cooperator'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 SWCD 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: 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 SWCD 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 law 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 cooperator receives cost-share, only the cooperator'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 SWCD 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.
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Revised March, 2016

Name of Practice: STREAM EXCLUSION WITH GRAZING LAND MANAGEMENT
DCR Specifications for No. SL-6

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 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. 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. 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. 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, to include a rotational grazing component if more than three new grazing units are created by the installation of interior fencing, and operation and maintenance plans must be prepared and followed in accordance with NRCS FOTG. Factors to be addressed in the management plan should include water sources, environmental impact of winter-feeding pad location, runoff from the feeding pad area, soil fertility maintenance, access lanes, fencing needs, wetlands, minimum cover or grazing heights, carrying capacity of the land and rotational schedules.

4. Grazing (including flash grazing) is not allowed in the protected riparian area during the lifespan of this practice. When both sides of the stream are under the same ownership livestock must be excluded from both sides of the stream.

5. To protect stream banks, state cost-share and tax credit are authorized for:

i. Fencing to restrict stream access in connection with newly developed watering facilities. The stream exclusion fence must be placed a minimum of 35 feet away from the stream, except as designed in areas immediately adjacent to livestock crossings and controlled hardened accesses.

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 SWCD's Board.

ii. Pumps and equipment associated with portable and permanent watering systems. Pumps may operate on purchased electrical current or alternative energy sources such as solar, battery, mechanical or hydraulic energy. The 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.

b. Connection to existing water supply

c. Development of springs, seeps, or stream pickups, including fencing of the area, where needed, to protect the development from pollution by livestock;

d. Ponds (if the only cost effective and technically feasible alternative for water source) including fencing of the area, where needed, to protect the development from pollution by livestock

e. Pumps and equipment associated with permanent watering systems.

ii. Watering facilities including:

a. troughs,

b. tanks/storage facilities/cisterns,

c. hydrants

iii. Pipelines to convey water to watering facilities.

iv. Stream crossings for limited water access as long as the fencing adjacent to the crossing restricts access to the excluded area.

v. Portable water supply system components such as troughs, pipe, etc. that are:

a. Commercially available or farmer constructed,

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

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

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

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

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

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

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

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

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

15. This practice is subject to NRCS Standards, 382 Fence, 390 Riparian Herbaceous Cover, 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, 642 Water Well.

16. 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 SWCD 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 shall not exceed 80% of the eligible actual or estimated cost, whichever is less.

2. The maximum state cost-share payment for this practice will be $70,000. Multiple SL-6s may be funded in the same program year up to the $70,000 cap. Participants receiving $70,000 in cost-share funds for SL-6 practices shall not be

eligible for any additional cost-share funds for any other cost-share practices in the same program year.

3. Examples:
   i. If total SL-6 payments are equal to $70,000 then no additional VACS for any other cost-share practices is allowed.
   ii. If SL-6 payments are $60,000, then $10,000 would remain available for additional SL-6s, or $10,000 would remain available for WP-4 and/or WP-4B but $0 for other VACS practices.
   iii. If SL-6 payments are $40,000, then $10,000 would remain available for other VACS practices, or $30,000 for additional SL-6s, or WP-4 and/or WP-4B practices.

4. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia law 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.

5. 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 SWCD 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. March, 2016

Needs Determination Worksheet for Winter-Feeding Pad
for _____ project
(To be completed by the conservationist; Use additional sheets as necessary)

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

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

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

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

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

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

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

Pasture acres _____ Hay acres _____ Cropland _____

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

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

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

Completed by:

_____	_____	_____
Signature	Date	Title

Name of Practice: EXTENSION OF CREP WATERING SYSTEMS
DCR Specifications for No. SL-7
Only implemented in conjunction with CREP CRSL-6

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

A. Description and Purpose

This practice is designed to provide additional funding to Conservation Reserve Enhancement Program (CREP) projects to encourage full enrollment in all of Virginia's CREP areas. This practice must be planned, in conjunction with a new CREP CP-22 contract. This practice cannot be used with a CREP CP-21, CP-23 or CP-29.

After utilizing all available CREP cost-share funds, additional VACS cost-share funds may be authorized to extend the watering system installed with CREP funds, and 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.

B. Policies and Specifications

1. Rotational grazing **must** be planned, installed and implemented in grazing units served by the CREP watering system and the extended watering system for which SL-7 funds were received. The existing CREP livestock exclusion must be maintained for life of this practice.

2. An applicant may not apply for or receive cost share funds for SL-6 and SL-7 practices both funded by the Virginia Agricultural Best Management Practices Cost Share Program on the same fields.

3. A written management plan, including a rotational grazing component and operations and maintenance plan must be prepared and followed in accordance with NRCS FOTG. 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.

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

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

   i. Installing pipelines, watering facilities, hardened pads around watering facilities, storage facilities, cisterns, and troughs (portable or fixed). 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 spot check by the Districts throughout the life of the practice and failure to comply may result in forfeiture of funds.

12. This practice is subject to NRCS Standards 528 Prescribed Grazing, 382 Fence, 512 Forage and Biomass Planting, 561 Heavy Use Area Protection, 575 Trails and Walkways, 578 Stream Crossing, 614 Watering Facility, 516 Livestock Pipeline, and 472 Access Control.

13. The system shall be maintained for the lifespan of the CREP contract or a minimum of 10 calendar years, whichever is greater. 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 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.

C. Rate(s)

1. The state cost-share payment will not exceed 75% of the total eligible cost. The maximum state payment for this practice is not to exceed $50,000 per landowner per year.

2. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia law 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 cooperator receives cost-share, only the cooperator'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 SWCD 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: PROTECTIVE COVER FOR SPECIALTY CROPLAND
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 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 cropland when it is not being used after harvest of a specialty crop. Cost-share or tax credit are provided to establish vegetative cover on specialty cropland.

The purpose is to 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:

i. Tetraploid Rye (pure strain only).....2.0 bu./acre
ii Winter Rye.....1.5 bu. /acre
iii. Winter Barley.....2.5 bu. /acre
iv. Winter Annual ryegrass .....20 lbs. /acre
v. Winter Wheat.....1.5 bu. /acre
vi. Winter hardy Oats .....2.0 bu. /acre
vii. 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
viii. Triticale.....1.5 bu. /acre
ix. Forage Radish .....6-8 lbs. /acre
1) mixture with grass or legume†.....4 lbs. /acre
x. 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 certify in writing that they will not utilize the tax credit set forth below with regard to the implementation of this practice and 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 law 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 SWCD 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

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

I, _____ hereby certify that I will not claim the tax credit which is available for participation in the Protective Cover for Specialty Cropland, SL-8 practice, and therefore I am eligible for cost-share funding available under that practice for participants who do not wish to utilize the tax credit. I understand that any cost-share funds received must be returned should I claim the tax credit.

Signed: _____

Date: _____

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 and 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.

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. 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. This practice may be implemented one time without the participant providing a copy of a current nutrient management plan that is being implemented on all of the appropriate agricultural acres contained within the tract to the SWCD.
   i. After implementing this practice one time producers must be fully implementing a current nutrient management plan prepared and signed by a certified nutrient management planner. The plan must include all agricultural production acreage contained within the tract that this BMP will be implemented on and must be on file with the local SWCD.
   ii. Cost-Share payments shall not be made until a current nutrient management plan is on file with the SWCD.

3. A good stand and good growth of winter cover must be obtained in sufficient time to protect the area in the fall and winter. (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)

4. 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.

5. 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.

6. 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.**

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

i.	Rye (Tetraploid).....	2 bu./acre
ii	Winter Rye (not tetraploid)	2 bu./acre
iii.	Winter Barley.....	2 bu./acre
iv.	Winter Hardy Oats	2 bu./acre
v.	Winter Wheat or Triticale	2 bu./acre
vi.	Winter Annual ryegrass	20 lbs./acre
vii.	Small grain mixtures.....	1 bu./acre with
	a) legume†	10 lbs./acre or,
	b) Diakon (forage or tillage) radish.....	6 lb./ acre or,
	c) canola or rape	4 lbs./acre
viii.	Diakon (forage or tillage) Radish	6-8 lbs./acre°
	mixture with annual rye grass	10 lbs./acre
ix.	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.

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

		Early Planting date	Standard Planting date
i.	Cities of Chesapeake & VA Beach.....	**November 10**	**November 30**
ii.	Coastal Plain…….	**October 25**	**November 15**
iii.	Piedmont……	**October 10**	**November 1**
iv.	Mountain and Valley.....	**October 5**	**October 25**

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

10. 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. Rate(s)

1. For participants who certify in writing that they will not utilize the tax credit set forth below with regard to the implementation of this practice and who are not receiving payment for cover crops from another source on the same acreage, a state cost share payment rate of **$15** per acre; is available. 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 law 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 **$25** per acre early planting bonus is payable for cover crops planted on or before the early planting date specified for their physiographic region. SWCDs 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.

4. A **$8** per acre bonus payment is available for all applicants that plant pure stands of Rye from the following list on or before either planting date.

i. The following list of rye cultivars are approved for the **$8**/acre bonus payment.

6250 Abruzzi	Abruzzi
Virginia Abruzzi	Early Grazer
Graze Master	Grazer
Pastar	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 SWCD 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

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

I, _____ hereby certify that I will not claim the tax credit which is available for participation in the Small grain and Mixed Cover Crop for Nutrient and Residue Management SL-8B practice, and therefore am requesting cost-share funding available under that practice for participants who do not wish to utilize the tax credit. I understand that any cost-share funds received must be returned should I claim the tax credit.

Signed: _____

Date: _____

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

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 of 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. Producers must be fully implementing a current nutrient management plan prepared and signed by a certified nutrient management planer that specifies cover crops as appropriate. The plan must include all appropriate agricultural production acres contained within the tract that contains the cover crop acreage and must be on file with the local SWCD. Any cost share payments shall not be made until a current nutrient management plan is on file with the SWCD.

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. Cost-share payments for this practice are limited to no more than **600 acres** per applicant per SWCD per year.

6. If available as set forth in Section C. 1. of this specification, cost-share is provided as a flat rate per acre incentive to encourage proper establishment of vegetative cover

and to offset a portion of the cost of seed and the seeding operation.

7. A good stand and good growth of winter cover must be obtained in sufficient time to protect the area in the fall and winter, or a minimum of sixty percent (60%) of the land area must maintain sufficient cover to intercept rain drops and reduce the impact of wind generated erosion. (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).

8. 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.

9. 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.

10. 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.

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

i.	Tetraploid rye (pure stand only)	2 bu./acre
ii	Winter Rye (not tetraploid)	2 bu./acre
iii.	Winter Annual ryegrass	20 lbs./acre
iv.	Winter Hardy Oats or Barley	2 bu./acre
v.	Winter Wheat or Triticale.....	2 bu./acre
vi.	Small grain mixtures.....	1 bu./acre with
	a) legume†	10 lbs./acre or,
	b) Daikon, (forage or tillage) radish	6 lb./ acre or,
	c) canola or rape	4 lbs./acre
vii.	Daikon, (forage or tillage radish)	6-8 lbs./acre°
	mixture with annual rye grass	10 lbs./acre
viii.	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.

12. Seeding of all seed types must be planted by the dates listed below:
    i. Cities of Chesapeake and VA Beach…….**November 10**
    ii. Coastal Plain……...**October 25**
    iii. Piedmont……**October 10**
    iv. Mountain and Valley……..**October 5**

13. 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.

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

15. 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 certify in writing that they will not utilize the tax credit set forth above with regard to the implementation of this practice and who are not receiving payment for cover crops from another source on the same acreage, a state cost-share payment rate of **$20** per acre is available. SWCDs 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. (See suggested language included with this specification.)

2. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia law 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 SWCD 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

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

I, _____ hereby certify that I will not claim the tax credit which is available for participation in the Harvestable Cover Crop, SL-8H practice, and therefore I am eligible for cost-share funding available under that practice for participants who do not wish to utilize the tax credit. I understand that any cost-share funds received must be returned should I claim the tax credit.

Signed: _____

Date: _____

Name of Practice: GRAZING LAND MANAGEMENT
DCR Specification for No. SL- 9

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 to native plants (e.g. switchgrass or other native warm season grasses), and which are managed using agronomic practices for livestock.

A. Description & 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 & Specifications

All fields that receive cost share 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 for the life of this practice. Cost share payments shall not be made until a current nutrient management plan is on file with the SWCD.
   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 shall be replanted in accordance to NRCS standard 512 Forage and Biomass Planting. Replanting will be at the participant's expense.

3. To better maintain viable and productive forage cover on grazing paddocks cost share is authorized for:

i. Fencing, both temporary and permanent, to divide large pastures into smaller grazing paddocks for more even grazing distribution.

ii. Fence chargers used to electrify permanent or temporary grazing paddock fencing.

iii. Installing additional pipelines, and troughs to better utilize and manage available grazing land.

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

4. 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.

5. State cost share and tax credit will be provided only one time per field.

6. This practice is subject to the requirements of NRCS standards, 382 Fence, 512 Forage and Biomass Planting, 516 Pipeline, 528 Prescribed Grazing, 561 Heavy Use Area Protection, 590 Nutrient Management Plan and 614 Watering facilities.

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 SWCD 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 will not exceed 50% of the total eligible cost. The maximum state payment for this practice is not to exceed $50,000 per landowner per year.

2. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia law 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 cooperator receives cost-share, only the cooperator'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 SWCD 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

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 similar measures that are determined to be practical for the solution of the problem.
   ii. Only if the measures will significantly reduce erosion and maintain, or improve the quality of water in a stream, lake, pond, or other water source.
   iii. For 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. Soil loss rates must be computed for all applications for use in establishing priority considerations.

4. This practice is subject to NRCS Standard 342 Critical Area Planting.

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 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 SWCD 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 law 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 cooperator receives cost-share, only the cooperator'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 SWCD 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: 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 with the use of no-till planting.

To encourage the conversion of minimum and conventional tillage fields to a continuous high residue minimal soil disturbance tillage system.

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. All eligible fields must have a cropping history two out of the past five years.
   iii. Multi year multi-crop rotations that include at least two crops of small grain 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 (for this practice).

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

3. Producers must be fully implementing a current nutrient management plan prepared and signed by a certified nutrient management planner. Cost-Share payments shall not be made until a current nutrient management plan is on file with the SWCD. SWCD 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. The plan must include all agricultural production acreage contained within the tract that this BMP will be implemented on and must be on file with the local SWCD.

4. All crops must be planted using no-till methods.

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

6. 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.

7. Biomass requirements for all crop rotations must maintain a minimum of 60% residue cover on the enrolled acres for the lifespan of the practice.

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

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 SWCD 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 law 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 cooperator receives cost-share, only the cooperator's eligible out-of-pocket share of the project cost is used to determine the tax credit.

3. For participants who certify in writing ***(see language on next page)*** that they will not utilize the tax credit set forth above with regard to the implementation of this practice and who are not receiving payment for a 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.

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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

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

I, _____ hereby certify that I will not claim the tax credit which is available for participation in the Continuous High Residue Minimal Soil Disturbance Tillage System, SL-15A practice, and therefore I am eligible for cost-share funding available under that practice for participants who do not wish to utilize the tax credit. I understand that any cost-share funds received must be returned should I claim the tax credit.

Signed: _____

Date: _____

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. Producers must be fully implementing a current nutrient management plan prepared and signed by a certified nutrient management planner. Cost-Share payments shall not be made until a current nutrient management plan is on file with the SWCD. SWCD 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. The plan must include all agricultural production acres contained within the tract. A copy of the current nutrient management plan and a nutrient application record keeping form certified and signed as true and accurate by the farmer shall be on file with the SWCD before payment can be issued and maintained in the participant's practice folder. Annual nutrient application record keeping forms for these fields must be provided to the district or the practice will out of compliance.

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 SWCD 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 law 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 cooperator receives cost-share, only the cooperator's eligible out-of-pocket share of the project cost is used to determine the tax credit.

3. For participants who certify in writing ***(see language on page SL-15B-4)*** that they will not utilize the tax credit set forth above with regard to the implementation of this practice and who are not receiving payment for a 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 SWCD 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

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

I, _____ hereby certify that I will not claim the tax credit which is available for participation in the Continuous No-Till Forage Production System, SL-15B practice, and therefore I am eligible for cost-share funding available under that practice for participants who do not wish to utilize the tax credit. I understand that any cost-share funds received must be returned should I claim the tax credit.

Signed: _____

Date: _____

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, 410 Grade Stabilization Structure, and 638 Water and Sediment Control Basin.

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 SWCD 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 law 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 cooperator receives cost-share, only the cooperator'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 SWCD 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
DCR Specifications for NO. WP-2

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 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. 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. Grazing (including flash grazing) is not allowed in the protected riparian area during the lifespan of this practice. When both sides of the stream are under the same ownership livestock must be excluded from both sides of the stream.

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

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 and environmental consideration 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 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 SWCD 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 law 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 cooperator receives cost-share, only the cooperator'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 SWCD 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: 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. 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 **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 SWCD 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 law 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 cooperator receives cost-share, only the cooperator'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 SWCD 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: SOD WATERWAYS
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. Also, cost-share is authorized for subsurface drains or stone lined centers that are necessary for proper functioning of the waterways.

2. 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.

3. 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.

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

5. This practice is subject to NRCS Standard 412 Grassed Waterways.

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 SWCD 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 law 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 cooperator receives cost-share, only the cooperator'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 SWCD 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 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 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. 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. An approved market and a plan for manure storage, transport and sales which have been approved by the District.

2. Practice Development
   i. Before cost-share or tax credit can be approved for construction of a winter-feeding facility with dry stacking capabilities all other means of reducing the environmental impacts of animal waste from the existing winter-feeding operation must be considered. Lack of space for relocation, economic inefficiency or other factors may be considered. 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 livestock must be excluded from all streams in the tract before cost share or tax credit is provided.
   ii. 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.

iii. The applicant is also required to sign a Dry Manure Storage Structure Agreement DCR-DSWC 199-86 (1/97) or similar SWCD agreement which addresses the minimum criteria prior to receiving any funds.

3. Cost-share and tax credit is authorized:

i. For 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.

(a) Permanently installed equipment needed as an integral part of the system.

(b) Fencing and vegetative cover (including mulching needed to protect the facility). Fencing can be included for livestock or poultry exclusion from live and intermittent streams in concentrated holding and winter-feedin***g*** areas.

(c) Leveling and filling to permit the installation of an effective system.

ii. Only if the storage and diversion 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. Cost share can be authorized for individual components of animal waste systems, such as fencing, only if:

(a) NRCS 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. Tax credit can be authorized for individual components of animal waste systems, such as fencing, only if NRCS determines that the component stands alone as a measure that will significantly improve water quality.

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

vi. Cost-share funds only for six (6) months storage of 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.

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 or other portable equipment for unloading facilities.
      (c) Buildings or modifications of buildings.
      (d) Spreading animal wastes on the land, including distribution system using irrigation pipelines.
   iii. For the portion of the cost of animal waste structures installed under or attached to buildings that serve as part of the building or its foundation.
   iv. For animal waste facilities that do not meet local or State regulations.
   v. For installation primarily for the operator's convenience.
   vi. 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.
   vii. Enlargements cannot receive additional cost-share for WP-4 unless the original cost-shared WP-4 practice has been in place for 10 years per location.

5. All applicants must have:

   i. A nutrient management plan developed in accordance with requirements for nutrient management plan content and procedures as stipulated in the 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 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.
   ii. A manure test for nutrient analysis (once during the first twelve months of operation of the facility).

6. All appropriate local and state permits must be obtained before cost-share payments are authorized.

7. This practice is subject to NRCS standards Comprehensive Nutrient Management Plan (CNMP), which include NRCS Standards 313 Waste Storage Structure, 342 Critical Area Planting, 359 Waste Treatment Lagoon, 362 Diversion, 367 Roofs

and Covers, 382 Fence, 412 Grassed Waterway, 558 Roof Run Off Management, 561 Heavy Use Protection, 575 Trails and Walkways, 590 Nutrient Management, 620 Underground Outlet, 633 Waste Recycling and 634 Waste Transfer.

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 SWCD 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 $70,000 per landowner per year.

2. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia law 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 cooperator receives cost-share, only the cooperator'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 SWCD 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

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 or Market plan approved by the District. 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. A Nutrient Management or Market plan must be developed and approved prior to the approval of the cost-share payment.

3. Any changes in the farming operation that affect the ability to comply with the Nutrient Management or Market Plan will be reported to the District so that a new Plan may be developed or other actions taken to retain compliance with program guidelines.

4. 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.

5. The structure must be maintained in strict accordance with the NRCS maintenance guidelines.

6. 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 Market 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.

7. Employees or agents of Federal, State and local conservation agencies will be allowed to spot-check the facility at any time during the minimum 10-year life span 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

DCR 199-86 (1/90) Revised June 2004

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.

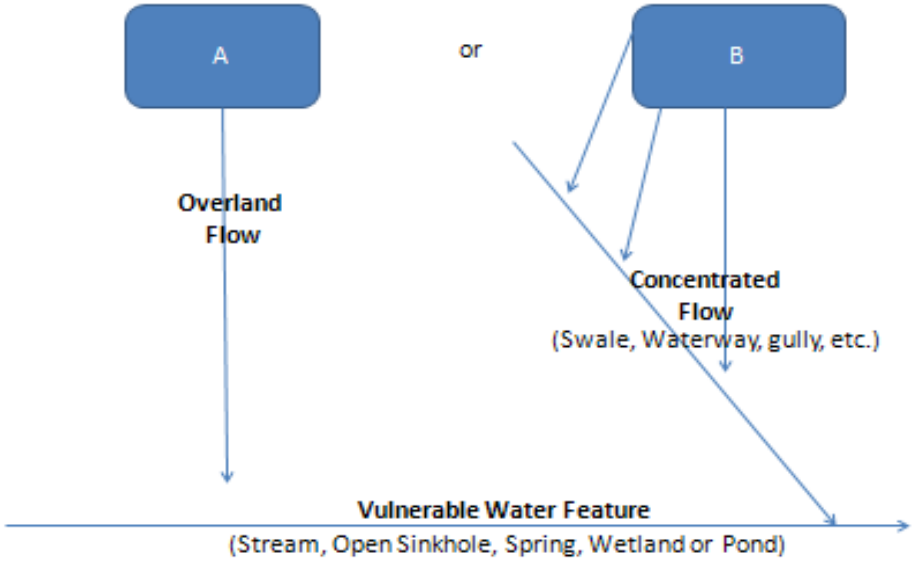
Karst features - Includes sinkholes, limestone rock outcrops, and fractured limestone that are direct conduits to ground water.

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



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 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 SWCD.

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 one acre per twenty to twenty-five (1,000 lb. EAU) cattle 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 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. For Structural Design Specifications for Loose Housing Structures refer to NRCS Standard 313 Waste Storage Facility.

12. This practice is subject to NRCS Standards; 342 Critical Area Planting, 362 Diversion, 367 Roofs and Covers, 382 Fence, 516 Livestock Pipeline, 533 Pumping Plant, 558 Roof Runoff Structure, 561 Heavy Use Area Protection, 574 Spring Development, 575 Trails and Walkways, 590 Nutrient Management, 614 Watering Facility, 620 Underground Outlet, 633 Waste Recycling, 634 Waste Transfer and 642 water well.

13. 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 SWCD 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 cost share payment is $70,000 per year for the construction of a system to manage concentrated livestock traffic.

2. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia law 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 SWCD 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

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.

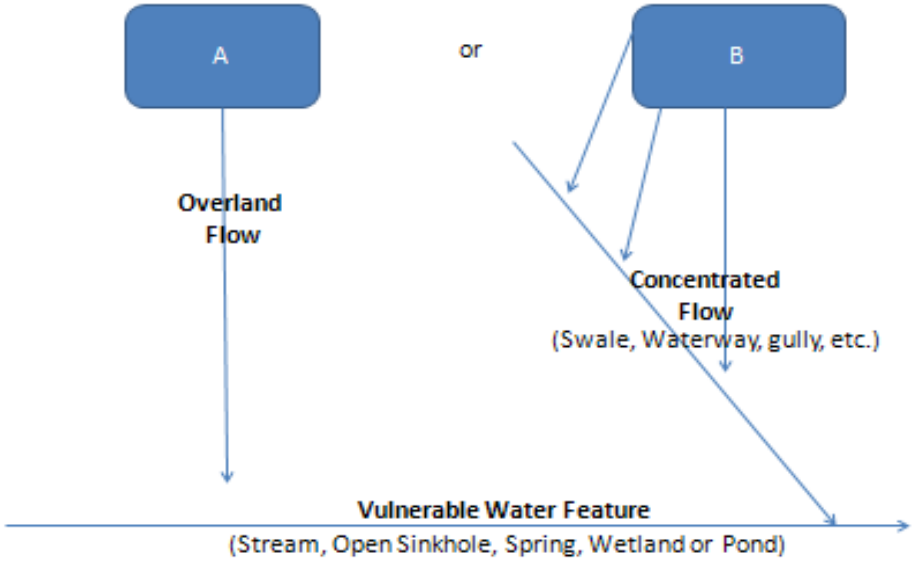
Karst features - Includes sinkholes, limestone rock outcrops, and fractured limestone that are direct conduits to ground water.

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



Name of Practice: COMPOSTING 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 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. A nutrient management plan developed in accordance with requirements for nutrient management plan content and procedures as stipulated in the 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 facilities.
   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. This practice is subject to NRCS Standards 313 Waste Storage Facility, 316 Animal Mortality Facility, 317 Composting Facility, 367 Roofs and Covers, 382 Fence, 558 Roof Runoff Structure, 590 Nutrient Management, 620 Underground Outlet, 633 Waste Recycling, and 634 Waste Transfer.

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 SWCD 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. The maximum state payment is $50,000 per year for the construction or purchase of composting facilities.

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 cooperator receives Cost-Share, only the percent of the total cost of the project that the cooperator contributed is used to determine the Tax Credit.

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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 MORTALITY INCINERATOR FACILITY
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 other than catastrophic disease.

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 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 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 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 NPS 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. 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, 590 Nutrient Management, 620 Underground Outlet, 633 Waste Utilization and 634 Waste Transfer .

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 SWCD 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. The maximum state payment is $50,000 per year (unless further limited by the local SWCD practice caps) for the construction or purchase of incinerators.

2. Tax Credit Rate. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia law 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 SWCD 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 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 & 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 in not authorized for pumping and handling equipment that may be used in the application of chemicals and fertilizers.

3. Producers must be fully implementing a current nutrient management plan prepared and signed by a Virginia certified nutrient management planner. The plan must include all agricultural production acreage contained within the tract that this BMP will be implemented on and must be on file with the local SWCD. Cost-Share payments shall not be made until a current nutrient management plan is on file with the SWCD

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 SWCD 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 state cost-share payment will not exceed $50,000.

2. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia law 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 cooperator receives cost-share, only the cooperator'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 SWCD 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: 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 for establishing 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. 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.

2 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.

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. State cost-share and tax credit will be provided only one time per filter strip, while that land is under the same ownership.

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 except when using wildlife option.

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, 572 Spoil Spreading and Leveling.

11. 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 SWCD 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 minimum 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 law 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 cooperator receives cost-share, only the cooperator'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 SWCD 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

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. Cost-share or tax credit is authorized as an incentive on a per acre basis to add this practice within an established rotation.

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 2005).

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. Soil loss rates must be computed for all applications for use in ranking practice applications, with those applications that reduce the most soil loss for the least cost receiving cost share approval first.

6. 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
		.....Except October 12 for **the Coastal Plain**
OR		
Crimson clover	(10 lbs/acre)	.....with any single grain or single grass below
1) Annual ryegrass		.....10.0 lb./acre
2) Rye		.....1.0 bu./acre
3) Barley		.....1.0 bu./acre
4) Oats		.....1.0 bu./acre
OR		
Ladino Clover	(2 lbs/acre)	..... with either
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	15-20 lbs/acre	with any single grain or single grass below
1) Annual ryegrass		.....10.0 lb./acre
2) Rye		.....1.0 bu./acre
3) Barley		.....1.0 bu./acre
4) Oats		.....1.0 bu./acre
OR		
Austrian Winter Pea	15-20 lbs/acre	with either
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	10 lbs/acre	with any single grain or single grass below
1) Annual ryegrass		.....10.0 lb./acre
2) Rye		.....1.0 bu./acre
3) Barley		.....1.0 bu./acre
4) Oats		.....1.0 bu./acre
OR		
Hairy Vetch	10 lbs/acre	with either
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

7. Legume cover crop must be left on surface intact to serve as mulch for the no-till planting of grain crops.

8. 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 (10/2005) 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.

9. This practice must be implemented on the fields consistent with NRCS Standards 340 Cover Crops and 590 Nutrient Management. 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. Rate(s)

1. For participants who certify in writing that they will not utilize the tax credit set forth below with regard to the implementation of this practice and 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 law 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 SWCD 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

Nitrogen Reduction Form for WQ-4 Certification

District Name: _____

Printed Applicants Name:_____

Applicants Address: _____

Fields	Acreage	Nitrogen Reduction (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)

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

I, _____ hereby certify that I will not claim the tax credit which is available for participation in the Legume Based Cover Crop, WQ-4 practice, and therefore I am eligible for cost-share funding available under that practice for participants who do not wish to utilize the tax credit. I understand that any cost-share funds received must be returned should I claim the tax credit.

Signed: _____

Date: _____

Name of Practice: WATER TABLE CONTROL STRUCTURE
DCR Specifications for 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 SWCD 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 law 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 cooperator receives cost-share, only the cooperator'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 SWCD 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 life span requirements of this standard.

6. All land disturbance activity will be adequately stabilized with appropriate vegetation as part of this clean up 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 SWCD 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 to protect the sinkhole has been established. Cost-share may be from state funds or a combination of state and other sources.

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 law 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 cooperator receives cost-share, only the cooperator'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 SWCD 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: 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. 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. 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 and is polluting surface or ground water. This practice is for retro-fit of an existing agricultural structure only. 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, 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.

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 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 SWCD 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 law 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 cooperator receives cost-share, only the cooperator'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 SWCD 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

SECTION IV

VIRGINIA AGRICULTURAL BMP TAX CREDIT PROGRAM

VIRGINIA AGRICULTURAL BEST MANAGEMENT PRACTICE TAX CREDIT PROGRAM

Overview

The goal of the Agricultural (Ag.) 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 that 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 cost-share and/or 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 cost not to exceed $17,500.00. If a cooperator receives a cost-share payment, only the cooperators 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 Agricultural BMP Cost-share Program. The Virginia Agricultural Best Management Practices Tax Credit Program shall operate following the guidelines of the agricultural BMP cost share program in general, except as otherwise expressly provided in this document. Implementers should follow all aspects of the Virginia Agricultural BMP Cost-Share Program (VACS) manual, unless specifically stated otherwise in these guidelines. This guidance is intended to address any differences between the two.

The applicable Code of Virginia Section as amended follows:

§ 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.).

BMP Sign-up

Districts will conduct sign-up for the tax credit program on a continuous basis. Sign-up will be recorded in the Virginia Ag. BMP Tracking Program. **Applicants must have a District approved soil conservation plan to meet the Code requirements to receive an Ag. BMP Tax Credit**. Other types of professionally developed conservation planning documents as appropriate and as itemized below are acceptable 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. Since the Code language requires that the BMP be completed within the taxable year in which the tax credit is claimed it is important that Districts assure that the tax credit approved date and practice completion date entered into

the Tracking Program occur within the same calendar (taxable year).

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 conservation plans are acceptable as long as the plan includes the practice to be installed and an installation schedule for the specific practice.

- Soil Erosion Plans (NRCS standards, including plans for EQIP, WHIP, Food Security Act, Conservation Reserve Program)
- Nutrient Management Plans (DCR standards)
- Pest Management Plan(VCE standards)
- Department of Forestry Cost-Share Plan (VDOF standards)
- Ag Stewardship Plan (VDACS standards)
- Chesapeake Bay Preservation Act Plan for agricultural lands (DEQ standards)

Conservation plans should be written by an individual certified to write that type of conservation plan, and should meet current conservation planning standards. Comprehensive conservation planning for the tract is always encouraged. For those localities that are within the Chesapeake Bay Preservation Act area, agricultural lands as defined by local governments….

> "…shall have a soil and water quality conservation assessment conducted that evaluates the effectiveness of existing practices pertaining to soil erosion and sediment control, nutrient management, and management of pesticides, and, where necessary, results in a plan that outlines additional practices needed to ensure that water quality protection is being accomplished consistent with the Act and this chapter." [Chesapeake Bay Preservation Area Designation and Management Regulations].

At a minimum, a conservation plan must contain the BMP and an implementation schedule for the specific field or site. A private planner, technical service provider or other professional conservation staff of an appropriate federal, state or local agency can prepare the plan.

Pre-approval of Tax credits BMPs

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 should approve BMPs for tax credits based on the total estimated cost of the BMP before installation. Any cost over runs that may impact the amount of the approved tax credit may be approved as a separate action after the BMP is certified.

Definition of Applicants

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 (after January 1, 2007)* 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 listed in the Virginia Agricultural Best Management Practices Cost-share Program guidelines section of this manual will administer the program to the landowner.

District service areas approved by the state 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 what district a given parcel resides in based upon tax parcel maps, boundary surveys, or other bonafide documentation. In 2016 DCR reviewed county boundaries and tax parcel boundaries and has adjusted some county boundaries to better follow legal tax parcel maps. For the purposes of this tax credit program only, Districts are urged to utilize the county boundary layer available in the Ag. BMP Tracking program to determine the district that will administer the Ag. 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

§ 58.1-339.3.E. states that 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. To register the tax matters representative the tax entity must submit a Virginia Department of Taxation Form PTE with the commissioner of taxation. The form may be obtained from the Department of Taxation downloaded from the Department of Taxation web site or copied.

Form PTE Virginia Pass-Through Credit Allocation

- Use this form to allocate a tax credit to the taxpayers listed in Section II.
- All businesses should be registered with the Virginia Department of Taxation before completing Form PTE. If you are not registered, complete Form R-1.
- The information in Section II may be submitted as an attachment provided that the attachment lists only the required information.
- Any pass-through 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, 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.
- Please ensure that the information provided on this form is accurate. Documentation will be required for any changes.

Mail Form to:

Virginia Department of Taxation
Tax Credit Administration Unit
PO Box 715
Richmond, VA 23218-0715

Or

Fax to: **804-786-2800**

For Assistance, Call **804-786-2992**

You must attach 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 Filing Form) Name	C) If Subsidiary, Enter Parent FEIN

D) Type of Filer	E) Form Type	F) Disregarded Entity	G) Tax Year	H) Amount Granted/Allocated	I) Certificate Number, If Applicable
☐ Fiscal ☐ Calendar	☐ Original ☐ Amended	☐ Yes ☐ No		.00	

J.) Credit Type - Check One

- ☐ (AB) Agricultural Best Management
- ☐ (BR) Barge & Rail Usage
- ☐ (CO) Community of Opportunity Program
- ☐ (EZ) Enterprise Zone (nonrefundable)
- ☐ (WV) Farm Wineries & Vineyards
- ☐ (GJ) Green Job Creation
- ☐ (HR) Historic Rehabilitation
- ☐ (IT) International Trade Facility
- ☐ (LV) Livable Home
- ☐ (NA) Neighborhood Assistance
- ☐ (PV) Port Volume Increase
- ☐ (ED) Qualified Business
- ☐ (RM) Recyclable Materials
- ☐ (RD) Research & Development
- ☐ (RB) Riparian Buffer
- ☐ (WR) Worker Retraining
- ☐ (OT) Other _____

Section II - Credit Allocation

Taxpayer Information

	SSN/FEIN	Name	Street Address or P. O. Box	City, State ZIP	Amount
1					.00
2					.00
3					.00
4					.00
5					.00
6					.00
				Total Must equal the amount shown in Section I, H.	.00

Section III - Authorized Signature

Authorized Signature or Representative	Title	Date

Print Name	Telephone Number	FAX Number

Email Address

Va. Dept. of Taxation 2601430 PTE W (Rev. 08/11)

When an applicant agrees to carry out the approved BMP for the specified life span, the applicant is responsible regardless of changes in the control of the land. This includes 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 should encourage landowner participation over tenant participation in their information and promotional campaigns.

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. In the case of the death of the applicant this requirement may be waived. To waive the requirement of the lifespan of the practice in the case of a death requires an official action of the District Board that must be recorded in the minutes. The Board must notify the Department of Taxation and the Department of Conservation and Recreation in writing of this action, providing the year the tax credit was approved, as well as the contract number, instance number, and DCR specification code that the tax credit was authorized for.

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 & 3), a copy of a map showing field location and exact acreage, 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 has expired. Districts must file their copy of all tax credit related forms by program year. Conservation plans and practice design sheets should be kept with individual case files according to cost-share program policy. Minimum document retention for authorized tax credit application forms will be three (3) years beyond the life span of the practice if the practice is installed. Canceled applications may be discarded after the initial (3) year period if not needed for future reference by the District.

DCR Agricultural Engineering 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) Program. See the glossary in this manual for a definition of EJAA.

DCR now has a Professional Engineer to serve as the State Engineer for agricultural BMP practices. With the addition of this professional staff, DCR developed a process 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 or tax credit practice, they are not authorized by DCR to proceed to construction of said practice components. As a result, they should contact the DCR Agricultural Engineer/technician servicing their District for further instructions on what requirements will be needed to complete the practice.**

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 below DCR EJAA chart 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.

<u>Tax Credit Practice Components Requiring EJAA or PE Review and Approval</u>

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	575	Trails and Walkways	EJAA
		561	Heavy Use Area Protection	EJAA
SL-6B	Alternative Water System	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
		516	Livestock Pipeline	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
WP-2B	Stream Crossings & 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

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
WP-4E	Animal Waste Structure Pumping Equipment	634	Waste Transfer	PE
		533	Pumping Plant	EJAA
WP-5	Stormwater Retention Pond	350	Sediment Basin	PE
		362	Diversion	EJAA
		378	Pond	PE
WP-7	Surface Water Runoff Impoundment for Water Quality	378	Pond	PE
		362	Diversion	EJAA
		350	Sediment Basin	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

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
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
		436	Irrigation Reservoir	PE
		449	Irrigation Water Management	EJAA
		430	Irrigation Pipeline	EJAA
		436	Irrigation Reservoir	PE
		441	Irrigation System-Micro-irrigation	EJAA
		442	Sprinkler System	EJAA
		466	Land Smoothing	EJAA
		447	Irrigation System, Tail water Recovery	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 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 BMP tracking program to reflect changes in program data reporting for each program year. The Ag.BMP 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. Instructions for the data reporting of tax credit BMPs are the same as for cost-shared BMPs**.**

For computer records, the Agricultural BMP Tracking Program and database has been established on a remote server accessed through the Internet. The data files generated by SWCDs using the LOGI reporting software should be archived by the District and maintained as needed.

Inspections and Spot Checks

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 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. 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. 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.

Practice Failure

Practice failures or damage that results from other than weather related causes are not eligible for additional tax credit.

Practice maintenance is the responsibility of the applicant for the life span of the practice. 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. Re-application 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). Re-applications will be subject to the life span requirement of the second application request.

Where ownership of the 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 tax credit directly to the Department of Taxation. The terms of any sales agreement lease agreement, or other transaction document for any property with a tax credit practice present should address this responsibility and be legally effective to transfer it to the new property owner/lessee. Upon the transfer of ownership or leasehold of the property,

the original applicant must present to the SWCD either an executed copy of the, “Agricultural Best Management Practice Maintenance Agreement Transferring Responsibility for Best Management Practice” (see page IV-12 of this manual) transferring legal responsibility for maintenance of the practice to the new property owner/lessee or (2) a pro-rated return of tax credit funds directly to the Department of Taxation.

Commonwealth of Virginia
Agricultural Best Management Practice Maintenance
AGREEMENT TRANSFERRING 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 manager) 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 SWCD personnel access to his property for the purpose of verifying maintenance of the BMP.
2. The _____ _____ SWCD 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: _____

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 return of tax credit funds required will be calculated on a straight-line prorated basis. All or part of the tax credit 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 SWCD 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 (see Glossary Page X – 4). This practice is spot checked in August of 2007 and it is discovered that the land was sold in June ’07 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 SWCD 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 and the calculated re-payment amount. The SWCD will then 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 participants name address, social security or tax identification number and year that the tax credit was utilized with a courtesy copy to the SWCD for verification.

In the case of the death of the applicant this requirement may be waived (this requires an official action of the District Board that must be recorded in the minutes; see Hardship process in the Agricultural BMP Cost-share Program Policies and Procedures Manual.

If appropriate in “hardship cases”, the District board may make alternative recommendations for DCR’s consideration. All requests for hardships shall be submitted in writing to the Agricultural Incentives Program Manager, and copied to the appropriate Conservation District Coordinator (CDC). When a District requests DCR’s consideration of a hardship case, DCR will convene an ad hoc committee composed of at least; the regional CDC, the Agricultural Incentives Program Manager, and another manager. The District may act as an advocate for the program participant or the participant may present his own case including documentation certifying the existence of a hardship that provides a clear reason why the participant should be relieved of his responsibility to repay the cost-shared amount requested by the

District. The ad hoc committee will render its decision whether or not to grant a hardship exemption in writing to the District citing its reasoning and referencing the documentation provided. Participants will have 60 days from the date of notification to refund to the Department of Taxation the tax credit funds. The local DCR Conservation District Coordinator (CDC) must be copied on all correspondence and kept informed of any related activities.

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 twenty-five percent of the participants out of pocket 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 increased tax credit amount as a separate action. SWCD Directors must vote on all actions taken and record the outcome in the minutes of the meeting that such action is approved.

After the practice has been completed and certified, the local District board must have approved the appropriate tax credit amount based on the original total estimated cost or total actual cost, whichever is less. Any tax credit amount granted above the amount approved prior to BMP installation, due to cost overruns above the total estimated cost, must be legitimate cost and must be approved by the District Board and recorded in the meeting minutes.

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 on page III - 11.

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-6, Stream Exclusion with 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: (SWCD name)

District Director Signature: _____ Date: _____

Neither the local Soil and Water Conservation District (SWCD) 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.

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 SWCD. SWCDs should approve appropriately written Nutrient Management Plans if required. 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

§ 58.1-334. Tax credit for purchase of conservation tillage equipment.

This code section was amended for taxable years beginning on or after January 1, 2005 to read:

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 that 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.

Tax Credit for Purchase of Precision Agricultural Equipment

§ 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.

Implementation Guidance from the July 17, 1996 Soil and Water Conservation Board meeting in a section entitled;

"Equipment certification
It will be the responsibility of the purchaser to determine if the equipment can meet these specifications. The Virginia Soil and Water Conservation Board will not be producing an approved equipment list or reviewing each request. Nor is it the responsibility of the district or any other agency staff to determine or advise the purchaser if his equipment qualifies similarly it will be the responsibility of the individual to pursue the development of a nutrient management plan."

DCR's guidance to Districts is that the SWCD is only required by code language to approve a nutrient management plan for the Precision Ag. Tax Credit.

TAX CREDIT BMPs

Practice Number	Practice Name	Available for Cost-Share	Units Installed / Average Buffer Width	S&R Erosion Reduction TONS/AC/YR)	Gross Erosion Reduction (TONS/YR)	Units Benefited	Acres Benefited	Life Span	Tech. Respon.
CRSL-6°	CREP Stream Exclusion with Grazing Land Management	Yes	Lin. Ft. of Stream bank Protected / Av. Buffer Width	X	X	Acres	Acreage of stream bank protected and grazing improved	Length of CREP contract	SWCD
CRWP-2	CREP Stream Protection	Yes	Lin. Ft. of Stream bank Protected / Av. Buffer Width	X	X	Linear Feet	Acres of stream bank protected	Length of CREP contract	SWCD
CRWQ-1	CREP Grass Filter Strip	Yes	Acres / Av. Width	X (from strip area)	X (filter action)	Acres	Acres Planted plus contributing field acreage	Length of CREP contract	SWCD
CRWQ-6B	CREP Wetland Restoration	Yes	Acres	X	X	Acres	Acres converted back to wetlands	Length of CREP contract	SWCD
CRWQ-11	CREP Agricultural Sinkhole Protection	Yes	Acres	X	X	Acres	Acres Protected around sinkhole(s) and area draining into sinkhole(s)	Length of CREP contract	SWCD
FR-1	Reforestation of Erodible Crop and Pastureland	Yes	Acres /	X		Ac.	Acreage planted in trees.	10 or 15 yrs.	SWCD
FR-3	Woodland Buffer Filter Area	Yes	Acres / Av. Buffer Width	X		Ac.	Acreage planted to buffer.	10 or 15 yrs.	SWCD
FR-4	Woodland Erosion Stabilization	Yes	Acres	X	X	Ac.	Acreage Treated	5 years	SWCD

Practice Number	Practice Name	Available for Cost-Share	Units Installed / Average Buffer Width	S&R Erosion Reduction TONS/AC/YR)	Gross Erosion Reduction (TONS/YR)	Units Benefited	Acres Benefited	Life Span	Tech. Respon.
LE-2	Livestock Exclusion with Reduced Setback	Yes	Lin. Ft. of Stream bank Protected w/10' fence AND Lin. Ft. of Stream bank Protected w/35' fence	X	X	Ac.	Acreage where grazing is improved and the stream bank is protected behind 10'& 35' setback fence.	10 yrs.	SWCD
NM-3C	Split Application of Nitrogen on Corn using Pre-sidedress Nitrate Test to Determine Need for Sidedress Nitrogen	Only if participant refuses tax credit in writing	Acres			Ac.	Acreage Treated	1 year	SWCD
NM-4	Late Winter Split Application of Nitrogen on Small Grain	Only if participant refuses tax credit in writing	Acres			Ac.	Acreage Treated	1 year	SWCD
NM-5	Precision Nutrient Management on Cropland	Yes	Acres and/or Tests	N/A	N/A	Ac.	Acres receiving variable rate application and/or number of Test	1Year	SWCD
SE-1	Vegetative Stabilization of Marsh Fringe Areas	Yes	Acres		X	Ac.	Acreage Treated	5 years	SWCD
SE-2	Shoreline Stabilization	No	Acres		X	Ac.	Acreage Treated	10 yrs.	SWCD
SL-1 (State)	Long Term Vegetative Cover on Cropland	Yes	Acres	X		Ac.	Acreage in planted crop	5 yrs to 10 yrs	SWCD
SL-3	Strip cropping Systems	Yes	Acres	X	X	Ac.	Acreage in strips *(only if Subsurface drainage installed)	5 years (*10 yrs)	SWCD
SL-3B	Buffer Stripcropping	Yes	Acres	X	X	Ac.	Acreage in field from the top of the slope to the lowest buffer strip.	5 years	SWCD

Practice Number	Practice Name	Available for Cost-Share	Units Installed / Average Buffer Width	S&R Erosion Reduction TONS/AC/YR)	Gross Erosion Reduction (TONS/YR)	Units Benefited	Acres Benefited	Life Span	Tech. Respon.
SL-4	Terrace System	Yes	Ft.	X	X	Ac.	Acreage in field where active erosion is reduced	10 years	SWCD
SL-5	Diversion	Yes	Ft.	X	X	Ac.	Acreage in field where the diversion reduces active erosion	10 years	SWCD
SL-6	Stream Exclusion with Grazing Land Management (No tax credit available when 100% reimbursed)	Yes	Lin. Ft. of Stream bank Protected / Av. Buffer Width	X	X	Ac.	Acreage where grazing is improved and the stream bank is protected.	10 years	SWCD
SL-6A	Small Acreage Grazing Systems	No	Lin. Ft. of Stream bank Protected / Av. Buffer Width	X	X	X	Acreage where grazing is improved and stream bank is protected.	10 years	SWCD
SL-6B	Alternative Water System	No	Acres	X		Acres	Acreage where grazing is improved	10 years	SWCD
SL-7	VACS Support for Extension of CREP Watering System(s)	Yes	Acres	X		Acres	Acreage where grazing is improved	10 years	SWCD
SL-8	Protective Cover for Specialty Crops	Only if participant refuses tax credit in writing	Acres	X		Acres	Acreage in planted cover crop	1 year	SWCD

Practice Number	Practice Name	Available for Cost-Share	Units Installed / Average Buffer Width	S&R Erosion Reduction TONS/AC/YR)	Gross Erosion Reduction (TONS/YR)	Units Benefited	Acres Benefited	Life Span	Tech. Respon.
SL-8B	Small Grain Cover Crop for Nutrient Management	Only if participant refuses tax credit in writing	Acres	X		Acres	Acreage in planted cover crop	1 year	SWCD
SL-8H	Harvestable Cover Crop	Only if participant refuses tax credit in writing	Acres	X		Acres	Acreage in contract	1 year	SWCD
SL-9	Grazing Land Management	Yes	Acres	X	X	Acres	Acreage treated	1 year	SWCD
SL-11	Permanent Vegetative Cover on Critical Areas	Yes	Acres	X	X	Ares	Acreage treated	5 years	SWCD
SL-11B	Farm Road, Heavy Traffic, Animal Travel lane Stabilization	No	Acres	X	X	Acres	Acreage treated	5 years	SWCD
SL-15A	Continuous No-till System	Only if participant refuses tax credit in writing	Acres	X		Acres	Acreage treated	5 years	SWCD
SL-15B	Continuous No-till Forage Production System	Only if participant refuses tax credit in writing	Acres	X		Acres	Acreage treated	5 years	SWCD
WP-1	Sediment Retention, Erosion or Water Control Structures	Yes	# of Systems	X	X (Sediment trapped or Erosion Reduced)	Acres	Acres of site	10 years	SWCD

Practice Number	Practice Name	Available for Cost-Share	Units Installed / Average Buffer Width	S&R Erosion Reduction TONS/AC/YR)	Gross Erosion Reduction (TONS/YR)	Units Benefited	Acres Benefited	Life Span	Tech. Respon.
WP-2	Stream bank Protection	Yes	Ft. / Av. Buffer Width		X	Acres	Acreage of stream bank treated	5 years	SWCD
WP-2A	Stream bank Stabilization	Yes	Ft.	X	X	Acres	Acreage of stream bank treated	5 years	SWCD
WP-2B	Stream Crossings & Hardened Access	No	# of Structures		X	Acres	Acreage of field accessing structures	5 years	SWCD
WP-2C	Stream Channel Stabilization	No	Acres of Channel Stabilized.		X	Acres	Area of stream channel stabilized	5 years	SWCD
WP-2D	Maintenance of Stream Exclusion Fencing	No	Ft. / Av Buffer Width		X	Acres	Acreage between stream and fence	5 years	SWCD
WP-3	Sod Waterway	Yes	Ac.	X	X	Acres	Acreage in waterway	10 years	SWCD
WP-4	Animal Waste Control Facility	Yes	# of Systems	N/A	N/A	N/A	N/A	10 years	SWCD
WP-4B	Dairy Loafing Lot Management System	Yes	# of Systems	X	X	Acres	Acreage in planned system	10 years	SWCD
WP-4C	Composting Facility	Yes (swine & poultry)	# of Systems	N/A	N/A	N/A	N/A	10 years	SWCD
WP-4D	Soil Test in Support of Nutrient Management Plan	No	# of soil test	N/A	N/A	Acres	Acres being soil tested.	Life of nut. mgt. plan	SWCD
WP-4E	Pumps to Empty Animal Waste Structures	No	# of each	N/A	N/A	# of pumps	N/A	10 years	SWCD

Practice Number	Practice Name	Available for Cost-Share	Units Installed / Average Buffer Width	S&R Erosion Reduction TONS/AC/YR)	Gross Erosion Reduction (TONS/YR)	Units Benefited	Acres Benefited	Life Span	Tech. Respon.
WP-4F	Animal Mortality Incinerator Facility	Yes	# of Facilities	N/A	N/A	N/A	N/A	10 years	SWCD
WP-5	Storm water Retention Pond	No	# of Structures	N/A	N/A	# of Structures	Watershed drainage acreage above structure	10 years	SWCD
WP-6	Agricultural Chemical & Fertilizer Handling Facility	Yes	# of Structures	N/A	N/A	N/A	N/A	10 years	SWCD
WP-7	Surface Water Runoff Impoundment for Water Quality	No	# of Structures	X	X	Acres	Watershed drainage acreage above structure	10 yrs	SWCD
WP-8	Relocation of Confined Feeding Operations From Environmental Sensitive Areas	No	# of Structures	X	X	Acres	Acreage of operation that was relocated	10 years	SWCD
WQ-1	Grass Filter Strips	Yes	Acres / Av. Buffer Width	X (Strip Area)	X (Filter Action)	Acres	Acreage of filter area plus contributing field acreage as determined by maximum slope length	5 years	SWCD
WQ-4	Legume Cover Crop	Only if participant refuses tax credit in writing	Acres	X		Acres	Acreage in planted cover crop	Annual	SWCD

Practice Number	Practice Name	Available for Cost-Share	Units Installed / Average Buffer Width	S&R Erosion Reduction TONS/AC/YR)	Gross Erosion Reduction (TONS/YR)	Units Benefited	Acres Benefited	Life Span	Tech. Respon.
WQ-5	Water Table Control Structure	Yes	# of Structures	N/A	N/A	Acres	Watershed drainage acreage above structure	10 years	SWCD
WQ-6	Constructed Wetlands	No	Acres		X	Acres	Watershed drainage acreage above structure	10 years	SWCD
WQ-6B	Wetland Restoration	No	Acres	X	X	Acres	Acreage converted back to wetlands	10 years	SWCD
WQ-7	Plasticulture Irrigation Water Recycling System	No	# of Systems Installed	X	X	Acres	Watershed drainage acreage above system	10 years	SWCD
WQ-9	Capping/Plugging of Abandoned Wells	No	# of Wells Capped of Plugged	N/A	N/A	Wells	N/A	10 years	SWCD
WQ-10	Integrated Pest Management	No	Acres	N/A	N/A	Acres	Acres being scouted	1 year	SWCD
WQ-11	Agricultural Sinkhole Protection	Yes	Acres			Acres	Acreage protected around sinkhole and any area draining into the sinkhole	10 years	SWCD
WQ-12	Roof Runoff Management	Yes	Linear feet of gutter / N/A	N/A	N/A	Sq. ft. of roof guttered	Acreage Treated	10 years	SWCD

*If a CREP buffer is not planted but left to naturally re-generate based upon DOF recommendations, the number of acres of buffer should be reported.
° No tax credit is available for CRFR-3 and CRSL-6 when 100% cost-share payment is provided by federal and/or state cost-share payments.

Revised March, 2016

Name of Practice: AGRICULTURAL 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 estuaries, bays and the ocean.

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. Tax Credit is authorized:
   i. For land shaping to achieve a stable slope.
   ii. For the construction of bulkheads, riprap revetments, groins, break waters, and gabion systems.
   iii. For the establishment of vegetation.
   iv. For engineering and design assistance.

2. To qualify for tax credit, all designs must be reviewed by the Shoreline Erosion Advisory Service (SEAS) and meet the intent of the SEAS program.

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 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 SWCD 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 law 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 cooperator receives Cost-Share, only the cooperator'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 SWCD 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: SMALL ACREAGE GRAZING SYSTEMS
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 and 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 SWCD.

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. A nutrient management plan must be developed to comply with all requirements as set forth in the Nutrient Management Training and Certification Regulations, 4 VAC 5-15-10 et seq. and the criteria as set forth in the Virginia Nutrient Management Standards and Criteria, revised October 2005.

11. 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.

12. 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).

13. This practice is subject to the requirements of applicable NRCS Standards. These may include 561 Heavy Use Area Protection, 590 Nutrient Management 342 Critical Area Planting, 362 Diversion, 376 Roofs and Covers, 575 Trails and Walkways, 382 Fence, 391 Riparian Herbaceous Cover, 393 Filter Strip, 412 Grassed Waterway, 516 Livestock Pipeline, 528 Prescribed Grazing, 574 Spring Development, 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 SWCD 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 law 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 cooperator receives cost-share payment(s) from another source(s), only the percent of the total cost of the project that the cooperator contributed is used to determine the Tax Credit.

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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: 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 SWCD'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, 533 Pumping Plant, 512 Forage and Biomass Planting, 528 Prescribed Grazing, 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.

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 SWCD 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 law 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 SWCD 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: 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 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. 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).

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 SWCD 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 law 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. The Tax Credit rate is 25% of the total eligible cost not to exceed $17,500.00. If a cooperator receives cost-share, only the cooperators 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 SWCD 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 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 SWCD 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 law 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. The Tax Credit rate is 25% of the total eligible cost not to exceed $17,500.00. If a cooperator receives cost-share, only the cooperators 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 SWCD 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 SWCD 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 law 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. The Tax Credit rate is 25% of the total eligible cost not to exceed $17,500.00. If a cooperator receives cost-share, only the cooperators 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 SWCD 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: MAINTENANCE OF STREAM EXCLUSION FENCING
DCR Specifications for NO. WP-2D

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

A. Description and Purpose

To maintain fencing along streams to reduce erosion, sedimentation, and the pollution of water from livestock access to streams, and to provide an incentive to maintain stream-exclusion fencing damaged by flooding.

B. Policies and Specifications

1. Tax credit is authorized:
   i. For the repair or replacement of permanent fencing to deny livestock access to the stream.
   ii. For wire, posts, fence chargers, and couplers to reestablish permanent stream fencing.

2. Tax credit is not authorized for:
   i. Temporary fencing.
   ii. Interior cross fencing that does not exclude livestock from the stream.

3. TMDL areas will be given priority consideration.

4. This practice is subject to NRCS Standards 382 Fence and 472 Access Control.

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 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 SWCD 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 law 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. The Tax Credit rate is 25% of the total eligible cost not to exceed $17,500.00. If a cooperator receives cost-share, only the cooperators 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 SWCD 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: SOIL TEST IN SUPPORT OF A NUTRIENT MANAGEMENT PLAN
DCR Specification for No. WP-4D

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's soil test in support of a nutrient management plan best management practice, that are applicable to all contracts, entered into with respect to that practice.

A. Description and Purpose

A chemical analysis of the soil is available to assess the need for applications of nitrogen, phosphorus and potassium to promote crop growth.

To improve water quality by avoiding the application of excess nutrients while achieving optimum plant or crop production.

B. Policies and Specifications

1. Tax Credit is authorized:
   i. For the cost of soil tests to determine soil nutrient levels not to exceed $8.00 per test.
   ii. For the development of a nutrient management plan not to exceed $3.00 per acre in the plan.

2. Soil samples must be to update a current nutrient management plan or prepare a new plan. Payments for samples will be limited to the criteria listed in part 3 of this section, that is, a onetime payment for samples used to develop a new plan and a onetime payment for samples used to update an existing plan or an expired plan.

3. Applicant must sign a statement indicating that the nutrient management plan is understood and will be followed.

4. Nutrient management plans must be prepared by nutrient management planners certified by the Virginia Department of Conservation and Recreation. The normal life of a nutrient management plan is 1 to 3 years; tax credit is only authorized one time per field every third year.

5. This practice shall be maintained for the minimum life of the nutrient management plan. Only one (1) tax credit will be authorized for the development of a new plan per tract, and one (1) tax credit for updating an existing plan or an expired plan per tract. A single plan may contain several tracts. 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.

C. Rate(s)

1. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia law 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 cooperator receives Cost-Share, only the cooperator'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 SWCD 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

Example

Nutrient Management Statement

I have reviewed and understand the requirements of my Nutrient Management Plan developed on (*date*). I agree to follow the provisions recommended in the plan and will contact a Virginia Department of Conservation and Recreation certified Nutrient Management Planner to revise this plan if the conditions for which it was developed change.

_____ _____

Cooperator Date

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. Applicant must have a nutrient management plan prepared by a DCR certified nutrient management planner.

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 Manure 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 SWCD 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 law 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. The Tax Credit rate is 25% of the total eligible cost not to exceed $17,500.00. If a cooperator receives cost-share, only the cooperators 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 SWCD 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: 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 SWCD 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 law 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 cooperator receives Cost-Share, only the cooperator'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 SWCD 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 382 Fence, 378 Pond, 393 Filter Strip, 362 Diversion, 350 Sediment Basin, and 342 Critical Area Planting, 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 SWCD 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 law 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 cooperator receives Cost-Share, only the cooperator'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 SWCD 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: 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. For 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. For the construction of new facilities of equal volume.
   iii. For the construction of access to the relocated facility.
   iv. For 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 SWCD. 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. 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, 560Access Road, 561 Heavy Use Area Protection, 574 Spring Development, 587 Structure for Water Control, 590 Nutrient Management, 614 Watering Facility, 633 Waste Utilization, and 642 Water Well.

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 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 SWCD 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 law 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. The Tax Credit rate is 25% of the total eligible cost not to exceed $17,500.00. If a cooperator receives Cost-Share, only the percent of the total cost of the project that the cooperator contributed is used to determine the Tax Credit.

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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: 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, a nutrient management plan must be developed.

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, 590 Nutrient Management Plan, 634 Manure 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 SWCD 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 law 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. The Tax Credit rate is 25% of the total eligible cost not to exceed $17,500.00. If a cooperator receives cost-share from any source, only the cooperator'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 SWCD 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, 2014

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, 657 Wetland Restoration, 659 Wetland Enhancement, and 644 Wetland Wildlife Habitat Management.

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 SWCD 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 law 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. The Tax Credit rate is 25% of the total eligible cost not to exceed $17,500.00. If a cooperator receives cost-share from any source, only the cooperator'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 SWCD 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, 436 Irrigation Storage Reservoir, 449 Irrigation Water Management, 430 Irrigation Pipeline, 436 Irrigation Storage Reservoir, 441 Irrigation System, Micro irrigation, 442 Irrigation System Sprinkler, 441 Irrigation System, Micro-Irrigation, 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.

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 SWCD 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 law 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. The Tax Credit rate is 25% of the total eligible cost not to exceed $17,500.00. If a cooperator receives any cost-share, only the cooperator'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 SWCD 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: 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 were 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 SWCD 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 law 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. The Tax Credit rate is 25% of the total eligible cost not to exceed $17,500.00. If a cooperator receives cost-share from any source, only the cooperator'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 SWCD 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 law 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. The Tax Credit rate is 25% of the total eligible cost not to exceed $17,500.00. If a cooperator receives cost-share from any source, only the cooperator'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 SWCD 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 law 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. The Tax Credit rate is 25% of the total eligible cost not to exceed $17,500.00. Tax credit is limited to two years per field. If a cooperator receives cost-share from any source, only the cooperator'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 SWCD 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, 2014

SECTION V

AGRICULTURAL VOLUNTARY REPORTING PROGRAM

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 BMP tracking program to reflect changes in program data reporting for each program year. The Ag.BMP 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.

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.)
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 AFORESTATION 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 aforestation 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 DOF Virginia's Forestry Best Management Practices for Water Quality, Technical Manual and 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 SWCD throughout the lifespan of the practice.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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 Forested Riparian Buffer
DCR Specifications for No VFR-3

This document specifies terms and conditions for the Virginia Department of Conservation and Recreation's voluntary 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 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 "Forestry BMPs for Water Quality in Virginia", and 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 SWCD throughout the lifespan of the practice.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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 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 SWCD throughout the lifespan of the practice.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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 TO DETERMINE NEED FOR SIDEDRESS NITROGEN WHEN ORGANIC NITROGEN SOURCES HAVE BEEN PREVIOUSLY APPLIED
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 prepared and signed by a certified nutrient management planner that specifies manure or biosolids applications and PSNT as appropriate. A copy of the current nutrient management plan and the nutrient application record keeping form (located in the glossary and forms section of this manual) shall be maintained in the participant's practice folder.
   iv. SWCD 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 SWCD 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 SWCD 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 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 prepared and signed by a certified nutrient management planner that specifies split applications of nitrogen as appropriate. The plan must be on file with the local SWCD.
   ii. SWCD 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 SWCD 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 SWCD 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 Precision Nutrient Management on Cropland
DCR Specification for VNM -5

A. Description and Purpose

This practice will document the use of precision nutrient management practice components that support a higher intensity of nutrient management in the field than existing standard nutrient management practices. This practice is limited to row crop production systems.

This practice supports multiple enhanced nutrient management components such as; zone soil fertility samples, soil (pre-sidedress) nitrate tests (PSNT), corn stalk nitrate sampling (CSNT), and variable rate nitrogen and phosphorous, applications based upon the soil test results of zone (subfield) sampling. It also supports all variable rate nitrogen and phosphorous application technologies. This practice may be used on fields that apply nutrients based upon the soil test results whether they have organic nutrient applications or not, with the exception of Biosolids Applications.

Multiple split applications of nitrogen only applies to corn and cotton crops. This practice does not apply to the late winter split application of nitrogen on small grains. The variable rates of nitrogen and phosphorus listed below (in B. 2.) apply to all row crops. Other macro-micro nutrients may be applied concurrently.

B. <u>Policies and Specifications</u>

1. This is an annual practice. Results from any test supported by the implementation of this practice shall be used to determine the nutrient application rates for the current or following crop as appropriate.

2. At least two of the following identified components must be implemented. Furthermore at least one of those components implemented must be variable rate nitrogen or phosphorous application, or multiple split applications of nitrogen on corn and cotton only.
   i. zone soil fertility samples,
   ii. soil (pre-sidedress) nitrate test (PSNT)
   iii. corn stalk nitrate sampling (CSNT),
   iv. variable rate nitrogen and/or phosphorous applications based upon the soil test results of (subfield) sampling; other macro-micro nutrients may be applied concurrently
   v. variable rate of nitrogen application on any row crops
   vi. multiple (more than one) split applications of nitrogen on corn and cotton only

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

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

5. Producers should be fully implementing their current nutrient management plan prepared and signed by a certified nutrient management planner. Where this practice is recommended or applied there must be a note to that effect in the narrative or elsewhere in the nutrient management plan indicating that the soils and/or tissue samples were sampled in an appropriate manner. A copy of the current nutrient application, record keeping and work orders shall be maintained by the producer for the purposes of verification.

6. The total number of acres that qualify for this practice will be based upon the total acres that were sampled in zones (zone are no larger than 20 acres and based upon soil type), or grids (grid size may be of 1 to 4 acres in size), or had mid-season testing such as soil (Pre-sidedress) Nitrate Testing (PSNT), Corn Stalk Nitrate Testing (CSNT), or received Variable Rate or Zone applications of nitrogen, and/or phosphorus, based upon the zone or grid soil sampling.

7. The producer should provide written verification (such as results of laboratory test, a work order or bill; or as-applied application map of field) to the district (SWCD) within forty-five days of the variable rate nitrogen and/or phosphorous application to verify that the recommendations of the soil samples were followed.

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

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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: VOLUNTARY VEGETATIVE STABILIZATION OF MARSH FRINGE AREAS
DCR Specifications for 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 & 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 SWCD 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 SWCD 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 or without GRAZINGLAND MANAGEMENT

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 SWCD 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 the Department of Conservation and Recreation Nutrient Management Handbook.

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 SWCD 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.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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 STRIP CROPPING 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, cultural 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 SWCD throughout the lifespan of the practice.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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 BUFFER STRIP CROPPING
DCR Specifications for No. VSL-3B

This document specifies terms and conditions for the Department of Conservation and Recreation's voluntary buffer strip cropping 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 SWCD throughout the lifespan of the practice.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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 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 SWCD throughout the lifespan of the practice.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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 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 SWCD throughout the lifespan of the practice.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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, 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.
   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, 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 SWCD throughout the lifespan of the practice.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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 SMALL ACREAGE GRAZING SYSTEMS
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 SWCD.

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. Soil loss rates must be computed for all applications.

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, 590 Nutrient Management 342 Critical Area Planting, 362 Diversion, 575 Trails and Walkways, 391 Riparian Herbaceous Cover, 393 Filter Strip, 412 Grassed Waterway, 516 Pipeline, 574 Spring Development, 580 Stream bank and Shoreline Protection, 558 Roof Runoff Structures and 614 Watering Facilities, 528 Prescribed Grazing.

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 SWCD throughout the lifespan of the practice.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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 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, 580 Stream Bank and Shoreline Protection, 614 Watering Facility, 516 Pipeline, 472 Access Control, 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 SWCD throughout the lifespan of the practice.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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 PROTECTIVE COVER FOR SPECIALTY CROPLAND
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 cropland 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:

i. Tetraploid Rye (pure strain only).....2.0 bu./acre
ii Winter Rye.....1.5 bu. /acre
iii. Winter Barley.....2.5 bu. /acre
iv. Winter Annual ryegrass .....20 lbs. /acre
v. Winter Wheat.....1.5 bu. /acre
vi. Winter hardy Oats** .....2.0 bu. /acre
vii. 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
viii. Triticale.....1.5 bu. /acre
ix. Forage Radish .....6-8 lbs. /acre
1) mixture with grass or legume†.....4 lbs. /acre
x. Winter-hardy *Brassica* (canola/rape).. 5 lbs. /acre

1) mixture with grass or legume† ..... 2-4 lbs. /acre

°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 SWCD 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 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. This practice may be implemented one time without the participant providing a copy of a current nutrient management plan that is being implemented on all of the appropriate agricultural acres contained within the tract to the SWCD. After implementing this practice one time producers must be fully implementing a current nutrient management plan prepared and signed by a certified nutrient management planner. The plan must include all agricultural production acreage contained within the tract that this BMP will be implemented on and must be on file with the local SWCD.

4. A good stand and good growth of winter cover must be obtained in sufficient time to protect the area in the fall and winter. (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:

i.	Rye (Tetraploid)	2 bu./acre
ii	Winter Rye (not tetraploid)	2 bu./acre
iii.	Winter Barley	2 bu./acre
iv.	Winter Hardy Oats	2 bu./acre
v.	Winter Wheat or Triticale.....	2 bu./acre
vi.	Winter Annual ryegrass.....	20 lbs./acre
vii.	Small grain mixtures.....	1 bu./acre with
	a) legume†	10 lbs./acre or,
	b) Diakon (forage or tillage) radish...	6 lb./ acre or,
	c) canola or rape	4 lbs./acre
viii.	Diakon (forage or tillage) radish.....	6-8 lbs./acre°
	mixture with annual rye grass	10 lbs./acre
ix.	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.

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

		Early Planting date	Standard Planting date
i.	Cities of Chesapeake & VA Beach.....	**November 10**	**November 30**
ii.	Coastal Plain……..	**October 25**	**November 15**
iii.	Piedmont……..	**October 10**	**November 1**
iv.	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 SWCD 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 COVER CROP (may be harvested)
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 winter cover must be obtained in sufficient time to protect the area in the fall and winter. (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:

i.	Rye (Tetraploid).....	2 bu./acre
ii	Winter Rye (not tetraploid)	2 bu./acre
iii.	Winter Barley.....	2 bu./acre
iv.	Winter Hardy Oats	2 bu./acre
v.	Winter Wheat or Triticale	2 bu./acre
vi.	Winter Annual ryegrass	20 lbs./acre
vii.	Small grain mixtures.....	1 bu./acre with
	a) legume†	10 lbs./acre or,
	b) Diakon (forage or tillage) radish.....	6 lb./ acre or,
	c) canola or rape	4 lbs./acre
viii.	Diakon (forage or tillage) radish.....	6-8 lbs./acre°
	mixture with annual rye grass	10 lbs./acre
ix.	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.

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

		Early Planting date	Standard Planting date
i.	Cities of Chesapeake & VA Beach.....	**November 10**	**November 30**
ii.	Coastal Plain……	**October 25**	**November 15**
iii.	Piedmont……	**October 10**	**November 1**
iv.	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.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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 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 prepared and signed by a certified nutrient management planer that specifies cover crops as appropriate. The plan must include all appropriate agricultural production acres contained within the tract that contains the cover crop acreage and must be on file with the local SWCD. Any cost share payments shall not be made until a current nutrient management plan is on file with the SWCD.

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 winter cover must be obtained in sufficient time to protect the area in the fall and winter, or a minimum of sixty percent (60%) of the land area must maintain sufficient cover to intercept rain drops and reduce the impact of wind generated erosion. (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 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.

9. 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.

10. 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.

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

i.	Tetraploid rye (pure stand only)	2 bu./acre
ii	Winter Rye (not tetraploid)	2 bu./acre
iii.	Winter Annual ryegrass	20 lbs./acre
iv.	Winter Hardy Oats or Barley	2 bu./acre
v.	Winter Wheat or Triticale.....	2 bu./acre
vi.	Small grain mixtures.....	1 bu./acre with
	a) legume†	10 lbs./acre or,
	b) Daikon, (forage or tillage) radish	6 lb./ acre or,
	c) canola or rape	4 lbs./acre
vii.	Daikon, (forage or tillage radish)	6-8 lbs./acre°
	mixture with annual rye grass	10 lbs./acre
viii.	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.

12. Seeding of all seed types must be planted by the dates listed below:
    i. Cities of Chesapeake and VA Beach…….**November 10**
    ii. Coastal Plain……...**October 25**
    iii. Piedmont……**October 10**
    iv. Mountain and Valley... ..... ….**October 5**

13. 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 <u>prior to seeding</u> by a recognized seed laboratory.

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

15. 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. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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

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

I, _____ hereby certify that I will not claim the tax credit which is available for participation in the Harvestable Cover Crop, SL-8H practice, and therefore I am eligible for cost-share funding available under that practice for participants who do not wish to utilize the tax credit. I understand that any cost-share funds received must be returned should I claim the tax credit.

Signed: _____

Date: _____

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 & 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 & 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 for the life of this practice.
   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, 516 Pipeline, 512 Forage and Biomass Planting, 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 SWCD throughout the lifespan of the practice.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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.

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 SWCD throughout the lifespan of the practice.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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 SWCD throughout the lifespan of the practice.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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, 410 Grade Stabilization Structure, and 638 Water and

Sediment Control Basin.

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 SWCD throughout the lifespan of the practice.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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 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 **VWP-2 Stream Protection** 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 SWCD throughout the lifespan of the practice.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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
   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 SWCD throughout the lifespan of the practice.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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 WATERWAYS
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 SWCD throughout the lifespan of the practice.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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. A nutrient management plan developed in accordance with requirements for nutrient management plan content and procedures as stipulated in the 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 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.

ii. 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, 342 Critical Area Planting, 359 Waste Treatment Lagoon, 362 Diversion, 367 Roofs and Covers, 382 Fence, 412 Grassed Waterway, 558 Roof Run Off Management, 561 Heavy Use Protection, 575 Trails and Walkways, 590 Nutrient Management, 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 SWCD throughout the lifespan of the practice.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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 DAIRY 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 SWCD.

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 one acre per twenty to twenty-five (1,000 lb. EAU) cattle 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.

7. If a sacrifice lot is impractical due soil and/or topographical conditions, a loose housing structure may be substituted for the sacrifice lot.
   i. 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

8. Soil loss rates must be computed for all applications.

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

10. 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, 590 Nutrient Management, 614 Watering Facility, 620 Underground Outlet, 633 Waste Recycling, 634 Waste Transfer and 642 water well.

11. 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 SWCD throughout the lifespan of the practice.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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 COMPOSTING 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. A nutrient management plan developed in accordance with requirements for nutrient management plan content and procedures as stipulated in the 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 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.
   iii. Prefabricated composting facilities.

3. All appropriate local and state permits must be obtained before cost-share payments are authorized.

4. Soil loss rates must be computed for all applications.

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

6. This practice is subject to NRCS Standards 313 Waste Storage Facility, 316 Animal Mortality Facility, 317 Composting Facility, 367 Roofs and Covers, 558 Roof Runoff Management, 590 Nutrient Management, 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 SWCD throughout the lifespan of the practice.

C. <u>Technical Responsibility</u>

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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 MORTALITY INCINERATOR FACILITY
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. A nutrient management plan developed in accordance with requirements for nutrient management plan content and procedures as stipulated in the 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 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, 590 Nutrient Management, 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 SWCD throughout the lifespan of the practice.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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 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 SWCD throughout the lifespan of the practice.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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. As well, these living filters are 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, 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 SWCD throughout the lifespan of the practice.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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

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. 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.

6. Type Rate Seeding Date
   Crimson Clover 20 lbs/acre .....by September 28
   .....Except October 12 for **the Coastal Plain**
   OR
   Crimson clover (10 lbs/acre) .....with any single grain or single grass below
   1) Annual ryegrass .....10.0 lb./acre
   2) Rye .....1.0 bu./acre
   3) Barley .....1.0 bu./acre
   4) Oats .....1.0 bu./acre
   OR
   Ladino Clover (2 lbs/acre) ..... with either
   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 15-20 lbs/acre with any single grain or single grass below

1) Annual ryegrass ..... 10.0 lb./acre
2) Rye ..... 1.0 bu./acre
3) Barley ..... 1.0 bu./acre
4) Oats ..... 1.0 bu./acre

OR

Austrian Winter Pea 15-20 lbs/acre with either

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 10 lbs/acre with any single grain or single grass below

1) Annual ryegrass ..... 10.0 lb./acre
2) Rye ..... 1.0 bu./acre
3) Barley ..... 1.0 bu./acre
4) Oats ..... 1.0 bu./acre

OR

Hairy Vetch 10 lbs/acre with either

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.

i. All seed is required to be inoculated.
ii. 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

7. Legume cover crop must be left on surface intact to serve as mulch for the no-till planting of grain crops.

8. Soil loss rates must be computed for all applications.

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

10. This practice must be implemented on the fields consistent with NRCS Standards 340 Cover Crops and 590 Nutrient Management. 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. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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

Nitrogen Reduction Form for WQ-4 Certification

District Name: _____

Printed Applicants Name:_____

Applicants Address: _____

Fields	Acreage	Nitrogen Reduction (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, Microirrigation, 442 Irrigation System Sprinkler, 441 Irrigation System, Micro-Irrigation, 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 SWCD throughout the lifespan of the practice.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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 SWCD 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 clean up 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 SWCD 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 SWCD 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 SWCD throughout the lifespan of the practice.

C. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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

SECTION VI

VIRGINIA AGRICULTURAL BMP REVOLVING LOAN PROGRAM

VIRGINIA'S AGRICULTURAL BMP LOAN PROGRAM GUIDELINES

STATE WATER CONTROL BOARD

Approved December 7, 1999
Updated February 15, 2008

VIRGINIA'S AGRICULTURAL BMP LOAN PROGRAM INITIATIVE AND ENABLING LEGISLATION

In order to reduce agriculture non-point source pollution of Virginia's waters, the Virginia General Assembly in its 1999 session amended Chapter 22 of the *Code of Virginia* by expanding the activities of the Virginia Water Facilities Revolving Fund (VWFRF). Low interest loan financing is now available to the Commonwealth's agricultural producers for the implementation of specific agricultural best management practices.

> *62.1-229.1. Loans for agricultural best management practices*
>
> *Loans may be made from the Fund, in the board's discretion, to an individual for the construction of facilities or structures to implement agricultural best management practices to prevent pollution of state waters, to a local government which has developed a low-interest loan program to provide loans or other incentives to facilitate the construction of such facilities or structures, or to a financial institution working with a local government to establish such a program. The Board shall develop guidelines for the administration of such loans and shall determine the terms and conditions of any loan from the Fund.*

The purpose of this Agricultural BMP Loan initiative is to provide a source of low interest financing which will encourage the use of specific best management practices which reduce or eliminate the impact of Agricultural Non-point Source (NPS) pollution on Virginia waters. The goal of the program is to improve water quality in the Commonwealth.

FUNDING AVAILABILITY

The initial funding to implement the Ag BMP low interest loan program was provided by a set-aside of $5,000,000 from the Virginia Clean Water Revolving Loan Fund (VCWRLF) program's fiscal year 2000 revenue and two additional $5,000,000 set-asides in subsequent years. The VCWRLF loan program was established in 1988 to create a self perpetuating source of low interest financing which would be available to Virginia municipalities for improving publicly owned wastewater treatment works and collection systems. On behalf of the State Water Control Board, DEQ developed and continues to administer the VCWRLF program. DEQ's Virginia Ag BMP loan program is a subset of the parent VCWRLF loan program and is intended to create a continuing source of low interest financing that will be available to Virginia's agricultural producers to assist them in their efforts to reduce agricultural non-point source pollution. Unlike other assistance programs, the Ag BMP loan program is not dependent on legislative appropriations for its fund availability. All repayments of principal and interest from previous Ag BMP loans are returned to the Fund and used to provide additional loans to other Virginia farmers. In addition to the revenue available from repayments, DEQ will request that the State Water Control Board (SWCB) consider making additional funding set-asides from the VCWRLF revenue as deemed necessary in order to meet Virginia's agricultural non-point source pollution reduction needs.

WHO'S ELIGIBLE TO APPLY

Any Virginia agricultural producer wishing to implement eligible Best Management Practices in order to reduce the amount of polluted agricultural runoff entering Virginia waters adjacent to their existing agricultural operation will be considered by DEQ for Ag BMP low interest loan assistance. Producers will be considered for low interest loan assistance whether or not they choose to participate in any other State and/or Federal agricultural assistance program.

ACRONYMS AND DEFINITIONS

Definitions of terms and acronyms used in this guidance document as they apply to the Virginia Agricultural BMP Loan Program are:

Ag BMP..... Agricultural Best Management Practice

BOARD or SWCB..... State Water Control Board

DEQ..... Department of Environmental Quality

DCR..... Department of Conservation and Recreation

"Fund" ..... Virginia Clean Water Revolving Loan Fund

"IN-KIND SERVICES"..... Labor and/or materials provided by the Producer or their farm employees and/or rental fees for farm equipment owned by the Producer

"LONG TERM" loan need .... the amount remaining after all approved federal, state and local grant funds and practice incentive payments are deducted from the total estimated cost of the practice(s).

Incurred cost..... eligible expenses for which the loan recipient has been invoiced or amounts which are due and stipulated in a contract for labor, material or professional services.

NPS ..... Non-Point Source – Pollution from runoff of agricultural chemicals, animal waste, storm water, fertilizer and/or erosion

NRCS..... United States Department of Agriculture, Natural Resources Conservation Service

Producer..... a landowner, agent, or operator of record engaged in agricultural production for market and having control of the property on which the practice will be located

SWCD..... Soil and Water Conservation District

VRA..... Virginia Resources Authority

VWFRF..... Virginia Water Facilities Revolving Fund

LOAN AMOUNTS

- Minimum Loan Amount

The minimum allowable loan amount is $5,000. In order to be considered for funding, a loan request must demonstrate a "long term" loan need of not less than $5,000. Loan funded projects fall into two broad categories which are: 1) projects where both loan and federal/state grant funds are involved and 2) projects where only Ag BMP loan funds are involved. The first step in determining if your proposed BMP project meets the "long term" loan need requirement is to decide which of the two categories fits your project.

IF YOUR PROPOSED PRACTICES HAVE BEEN APPROVED FOR ANY FEDERAL, STATE AND/OR LOCAL GRANT FUNDS, THE FOLLOWING METHOD SHOULD BE USED TO DETERMINE "LONG TERM" LOAN NEED:

> **Add the estimated cost of each loan eligible practice for which you intend to request low interest loan assistance. Subtract the amount of all federal, state and local grant funds that have been approved for the practices. If one of the grant programs providing funds for your project is the Conservation Reserve Enhancement Program (CREP), you must also subtract the amount of**

the program's Practice Incentive Payment (PIP). Then subtract the amount of all "in-kind" services for labor, equipment or material you will provide. If you intend to apply funds of your own toward the project cost then you also need to subtract that amount. The result, after making these deductions, constitutes your "long term" loan need under the Ag BMP loan program. If the figure is greater than $5,000 your project is eligible for loan assistance from the program.

IF THERE IS NO FEDERAL, STATE AND/OR LOCAL GRANT PARTICIPATION IN THE PRACTICES FOR WHICH YOU ARE REQUESTING LOAN FUNDING, THE FOLLOWING METHOD SHOULD BE USED TO DETERMINE THE "LONG TERM" LOAN NEED:

Add the estimated cost of each loan eligible practice for which you intend to request low interest loan assistance. Subtract "in-kind" services for labor, equipment or material that is included in the estimated cost. Also subtract the amount of any of your own funds that you intend to use for the practice(s). The remainder constitutes your "long term" loan need under the Ag BMP loan program. If the figure is greater than $5,000 your project is eligible for loan assistance from the program.

- Maximum Loan Amount

There has been no maximum loan amount established for the Ag BMP loan program. However, funding can only be authorized for the expenses relating to implementation of the eligible practice(s) and the loan amount cannot be greater than the total estimated cost of implementing the practice(s).

- Eligible Loan Amount

Virginia agricultural producers may request loan assistance from the DEQ Ag BMP low interest loan program in order to finance their portion of implementation expenses under a cost-share grant agreement or up to 100% of loan eligible expenses for approved BMPs if they are not participating in another funding program. Where cost-share funds will be provided at completion of one or more practices an Ag BMP low interest loan may be approved for the total cost of the proposed practice(s). In such cases, when the cost-share funds become available they must immediately be applied to retirement of the Producer's loan obligation in order to avoid any duplication of funding.

LOAN REPAYMENT PERIOD

The total Ag BMP loan amount, life of the structure or facility being financed, and the level of payment which the individual can meet without undue financial burden are factors which are considered in setting the loan repayment period. Based on these factors, repayment periods may range from 1 to 10 years but will not exceed the standard useful life of the practice being funded. In special cases, loan repayment periods greater than 10 years may be authorized if these factors warrant an extended repayment period. DEQ will extend repayment periods beyond the standard practice life only in instances where it is necessary in order for the Producer to implement a practice or practices which result in a significant water quality benefit.

ELIGIBLE PRACTICES FOR FINANCING BY PROGRAM

Virginia's legislation specifically limits Ag BMP low interest loan assistance to facilities and structures that are necessary for Producers to implement agricultural best management practices. The following list of Best Management Practices pertains to construction of facilities or structures as prescribed by statute and is specific to practices designed for water quality protection. These are the practices that are eligible for loan assistance through the Fund's Ag BMP loan program.

SL-4 TERRACE SYSTEM

SL-5 DIVERSION

SL-6	**GRAZING LAND PROTECTION**
SL-6B	**ALTERNATIVE WATER SYSTEM**
SL-11B	**ANIMAL TRAVEL LANE STABILIZATION**
WP-1	**SEDIMENT RETENTION, EROSION OR WATER CONTROL STRUCTURES**
WP-2	**STREAM PROTECTION**
WP-2A	**STREAMBANK STABILIZATION**
WP-2B	**STREAM CROSSING & HARDENED ACCESS**
WP-2C	**STREAM CHANNEL STABILIZATION**
WP-4	**ANIMAL WASTE CONTROL FACILITY**
WP-4B	**LOAFING LOT MANAGEMENT SYSTEM**
WP-4C	**COMPOSTER FACILITIES**
WP-4E	**ANIMAL WASTE STRUCTURE PUMPING EQUIPMENT**
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-5	**WATER TABLE CONTROL STRUCTURE**
WQ-6	**CONSTRUCTED WETLANDS**
WQ-6B	**WETLAND RESTORATION**
WQ-8	**FUEL STORAGE TREATMENT**
NTD	**NO-TILL DRILLS/ NO-TILL PLANTERS**

A BRIEF DESCRIPTION OF THE AFOREMENTIONED PRACTICES AND THEIR PURPOSES IS INCLUDED IN APPENDIX A OF THESE GUIDELINES.

INTEREST RATE AND LOAN FEES

Loan assistance will be made available at an effective rate of 3% per year. The repayment term may be up to 10 years, depending on the design life of the practice(s) being funded. A loan servicing fee to cover the Farm Credit financial analysis, loan recommendation and incidental loan servicing activities for an Ag BMP loan will be added to each loan request. The servicing fee for loans with a "long term" need of less than $25,000 is $500 and the fee for loans with a "long term" need of $25,000 or more is $1,000. In order to further reduce the financial burden on Virginia producers, the VCWRLF loan program, not the Producer, will absorb this fee. The servicing fee will be included in the loan amount, but the Producer's loan payments will be the same as a 3% loan on the amount borrowed before the fee was added. The following Ag BMP loan example is based on a ten-year term, semi-annual payments, and a Producer loan need of $20,000.

	Amount Borrowed	Interest Rate	Number of Payments	Semi-annual Payment	Total Payments
①	$20,000.00	3.0000%	20	$1,164.91	$23,298.20
②	$20,500.00	2.5015%	20	$1,164.91	$23,298.20

Row ① shows the semi-annual (twice a year) payment and the total amount that would be repaid if a Producer borrowed $20,000 without the $500 loan servicing fee. The VWFRF loan program absorbs the servicing fee by adjusting the interest rate as shown in Row ② of the table. In Row ②, the $500 loan-servicing fee has been included in the amount borrowed but the interest rate

has been adjusted to 2.5015% and the semi-annual and total payments are the same as the no fee example in Row ①. In order to pay the loan-servicing fee for the Producer, the VWFRF program will adjust the interest rate on each Ag BMP loan in this manner. The actual interest rate on loans will vary according to the loan term and amount but the payments will always be equivalent to 3% interest on the loan need, not including the service fee.

ELIGIBLE LOAN EXPENSES

Authorized loan amounts will be restricted to costs associated with services, labor and materials necessary to complete or implement the approved BMP(s). Disbursements from the approved loan will be made as the cost of implementation or construction is incurred by the borrower. The following expenses may also be included when determining the allowable amount of an Ag BMP low interest loan and can be reimbursed from loan proceeds after the cost is incurred.

1. an Ag BMP loan servicing fee at the time of loan closing and other costs incidental to loan closing
2. cost associated with professional services for any planning, design, or construction services needed to implement the approved BMP
3. contractor(s) invoices for payments due or payments which are due to contractor(s) as specified in a binding contract relating to the approved BMPs
4. invoiced cost of materials stored on site / incorporated in the work
5. invoiced cost for labor used to install the practice
6. other related cost incurred as necessary and as approved by DEQ

INELIGIBLE LOAN EXPENSES

The following expenses cannot be included when determining the allowable amount of an Ag BMP low interest loan or reimbursed from loan proceeds.

7. "IN-KIND-SERVICES" cannot be included in the loan amount or reimbursed from the Ag BMP loan proceeds.
8. cost related to farm production equipment
9. cost associated with the purchase of land, right-of-ways or easements cannot be included in the loan amount or reimbursed from loan proceeds
10. there can be no duplication of payment. Costs, which have been paid by any federal, state, local or other grant sources cannot be included in the loan amount or reimbursed from loan proceeds. In the event that grant funds are received for work previously paid for with loan funds, the grant funds must be applied to reduction of the loan debt.

AG BMP LOAN PROCESS OVERVIEW

11. **PRE-APPLICATION** – The Pre-application (Appendix A) is a short questionnaire which provides the name of the Producer, location of the farm, specific BMP(s) proposed for loan financing, estimated total cost of the practice(s), and the applicant's estimate of the amount of loan assistance that will be required. *Virginia Agricultural BMP Loan Program Guidelines* booklets which include the Pre-application form are available to Virginia agricultural producers at their local SWCD offices, DEQ and DCR regional offices, and Farm Credit offices.

    The Pre-application documents the Producer's intent to apply for a DEQ Ag BMP low

interest loan, allows DEQ to verify that the intended practices are loan eligible, and provides planning data used by DEQ to estimate the number of loans and total amount of loan funds that will be required in a given period. Loan Pre-applications do not need to be submitted by any specific date and there is no scheduled solicitation of applications for Ag BMP loans. After a Pre-application is received by DEQ, a member of the Clean Water Financing & Assistance Program staff will contact the applicant and arrange a meeting on the farm. This "*Initial Meeting*" provides an opportunity for the CWF&AP staff to gain a better understanding of what the project will involve, determine if any part of the proposed practice(s) is not loan eligible, explain what happens next in the loan review and approval process and answer any questions the applicant may have. (*See* **RANKING OF APPLICATIONS** *section below*)

At any time during the year a Virginia Producer may take the first step in applying for an Ag BMP low interest loan from DEQ by completing the Pre-application and sending it to DEQ at the address below.

Mr. Walter A. Gills
Clean Water Financing & Assistance Program
Department of Environmental Quality
P.O. Box 1105
Richmond, Virginia 23218

12. **RANKING OF APPLICATIONS** – DEQ staff will prioritize applications for loan assistance on a monthly basis. Applications for practices which are expected to provide the greatest water quality benefit will be given the highest funding priority. Applications considered to impact segments of Impaired, Threatened or Nutrient Enriched waters will receive a HIGH funding priority. Applications affecting an area with a high NPS designation, an impoundment, a natural trout stream, a designated scenic river, or that demonstrate another recognizable water quality benefit will be given a MEDIUM priority rating. All applications which do not meet the criteria for a HIGH or MEDIUM prioritization will receive a LOW ranking. This prioritization process is conducted once per month.

13. Contingent on availability of funds, all projects that receive a HIGH or MEDIUM priority ranking and are ready to proceed to construction or the implementation phase will be recommended for a conditional funding authorization. The conditions of that authorization are that DEQ receives verification that the applicant has an acceptable conservation plan / nutrient management plan and that DEQ receives a satisfactory loan recommendation from the Farm Credit Association.

    HIGH and MEDIUM priority projects that cannot proceed to construction or the implementation phase within a six-month timeframe will be deferred and may be reconsidered for funding at a later date. In order to be reconsidered, the applicant will have to resubmit an application when the project has moved to within six months of construction or implementation.

    Because they demonstrated no recognizable water quality benefit, loan funding will be denied for all proposed projects that received a LOW priority ranking.

14. **CONSERVATION PLANS**

    PLANNING FOR PRACTICES THAT ARE NOT ANIMAL WASTE PRACTICE(S) - Prior to funding approval for projects that do not include animal waste practices (animal waste practices require that the producer provide evidence that they possess a current nutrient management plan), the loan program requires that the applicant have a conservation plan that has been approved by the local Soil & Water Conservation District (SWCD) and contains the proposed practice(s) and an implementation schedule for the specific site or field. Several

types of plans qualify as a conservation plan for Ag BMP loan projects which do not include animal waste practices. If the proposed practice is not related to animal waste and a schedule is already in one of the following commonly used plans, that plan can be used to fulfill the loan program's conservation planning requirement.

- **Soil Erosion Plans (NRCS standards, including EQIP, WHIP or Food Security Act plans)**
- **Nutrient Management Plans (DCR standards)**
- **Ag Stewardship Plan (VDACS standards)**
- **Chesapeake Bay Plan (CBLAD standards)**

If the proposed practice(s) are not included in an existing plan, appropriate government agencies such as the local Soil and Water Conservation District (SWCD), Natural Resources Conservation Service (NRCS) or Department of Conservation & Recreation (DCR) can prepare one at no charge to the Producer. If the Producer chooses to have a private planner develop the plan, the fee can be included in the loan amount. The type of plan used is up to the Producer so long as it identifies the practice and provides an installation schedule. A Chesapeake Bay Plan is required for all practices located within areas included under the Chesapeake Bay Preservation Act. It's important to recognize that the implementation schedule applies only to the specific field or location of the proposed BMP. While "Whole Farm" plans are not required to fulfill conservation plan requirements, the development of plans which address additional water quality issues is encouraged.

PLANNING FOR ANIMAL WASTE PRACTICES - Prior to approving loan funding for projects that involve animal waste practices, the loan program requires that the applicant obtain a current Nutrient Management Plan (NMP) which has been prepared by a DCR certified planner. A NMP which has been prepared by a DCR certified planner does not require SWCD approval in order to fulfill the loan program conservation planning requirement. If the Producer chooses to have a DCR certified private planner develop the Nutrient Management Plan, the preparation fee can be included in the loan amount. An independent cost estimate may be required to substantiate the dollar need in the pre-application and help ensure that enough loan funds are appropriated to complete the project.

15. **CONDITIONAL LOAN AUTHORIZATION AND CREDIT REVIEW** – Shortly after the prioritization process is completed, each applicant who submitted a request for loan assistance for a practice(s) that resulted in a HIGH or MEDIUM priority and were ready to proceed will receive a Conditional Loan Authorization letter from DEQ. The letter will state the amount of loan funds that have been authorized, contingent on two conditions being fulfilled prior to DEQ's final approval of the loan. The first condition is that the applicant will provide DEQ with evidence that they have a conservation plan / nutrient management plan in place that meets the loan program requirement. The second condition is that DEQ receives a satisfactory credit review and loan recommendation from the Farm Credit Association. Included with the Conditional Loan Authorization letter will be two financial forms. One is the *Virginia Agricultural BMP Loan Program Application for Loan* and the other is the *Financial Information* worksheet. It's very important that applicants who are selected for funding enter the credit review process in a timely manner. As soon as possible after receiving a Conditional Loan Authorization Letter, the applicant should complete the two financial forms and submit them to their local Farm Credit office. Once the Farm Credit office has received the completed financial information forms and any additional financial information that was requested from the applicant, Farm Credit will conduct the appropriate underwriting analysis.

Based on the result of that financial analysis, Farm Credit will provide DEQ with a recommendation for either approval or denial of the loan. Recommendations that DEQ approve loans will also specify any collateral that Farm Credit has established as appropriate security for the loan.

16. **DESIGN** – Many practices that will be financed with loan funds will require development of design documents. This is especially the case for those projects involving construction of animal waste control facilities. The design documents usually consist of a set of specifications and construction drawings, which demonstrate that the practice or practices meet, at least, the minimum standards established by NRCS. If the Producer elects to hire a private consultant to prepare the design documents the design fee will be eligible for reimbursement from loan proceeds. Upon completion of the design, the Producer needs to provide DEQ with a copy of the design document(s) and the most recent estimate of the cost of implementing the practice(s).

17. **LOAN APPROVAL** – Once a satisfactory credit summary is provided to DEQ by Farm Credit and the appropriate conservation / nutrient management plan has been received, DEQ will finalize the terms and conditions of the loan and provide the applicant and Farm Credit with authorization to execute the loan agreement. The authorization will include the amount and term of the loan as well as a list of any special conditions that are applicable.

18. Loan Agreement – After receipt of authorization from DEQ, Farm Credit will, on behalf of the state, execute a loan agreement with the Producer. At minimum the loan agreement will specify the loan amount, interest rate, repayment period, loan security arrangements and any special conditions which were stipulated by DEQ. The loan agreement will also require the loan participant / recipient to operate and maintain the practice which is constructed with the loan funds for the life of the loan and utilize the practice for its Ag BMP intended use. After receipt of a copy of the signed loan documents, DEQ will authorize VRA to transfer the loan funds to the Ag BMP Disbursement Account which is maintained by the Farm Credit office. For most projects the authorized *transfer* of funds will be the lump sum total of the loan. However, for larger projects, involving longer construction times, DEQ may elect to make several transfers based on the anticipated construction schedule of the project.

19. **CONSTRUCTION AND DISBURSEMENT OF LOAN FUNDS**

    Loan funds are disbursed to the loan recipient on a reimbursement basis, i.e. after costs have been incurred. Farm Credit may disburse loan funds to the Producer only upon written authorization from DEQ. Therefore, when loan recipients have incurred expenses which are eligible for payment from loan funds it is necessary for them to submit a *Request for Disbursement of Ag BMP Loan Funds* form to DEQ. Copies of loan eligible invoices or contracts must accompany the disbursement request form. Upon receipt of the Producer's request for disbursement, a Construction Assistance Program (CAP) representative will contact the Producer and arrange a visit to the project site. During the disbursement site visit the CAP representative will verify that the invoices submitted represent work, services and/or material provided for the loan eligible BMP. After the disbursement site visit the CAP representative will e-mail the DEQ Central Office a site visit memorandum. DEQ will then authorize Farm Credit to disburse the eligible amount of loan funds to the Producer. The first disbursement will also authorize the payment of the loan servicing fee to Farm Credit. Usually the disbursement is authorized within 3 to 5 days from the date DEQ receives the request for disbursement.

20. **CONSTRUCTION COMPLETION AND FINAL DISBURSEMENT** – Once construction activities are complete the Producer will request a final inspection of the practice(s) which were financed

with Ag BMP loan proceeds. As soon as possible after receiving the request for a final inspection, a DEQ Construction Assistance Program representative will conduct an onsite review of the practice(s) to determine that the loan project is complete and meets the minimum standards set forth in the plans and specifications.

21. **LOAN AND FUND MAINTENANCE** – The Farm Credit office will collect repayments on Ag BMP low interest loans for the term specified in the financing agreement. Once every three months Farm Credit will return all accumulated repayments and any interest earned to the VRA for redeposit in the Commonwealth's Ag BMP loan fund.

    LOAN DEFAULT – If collection attempts by Farm Credit are unsuccessful and a payment becomes 90 days past due, the defaulted loan will be returned to the Fund for collection. DEQ and VRA will take all appropriate measures, including legal actions, which are necessary to collect the balance of the loan. On loans with payments 90 days or more past due, appropriate interest, late payment charges and/or the cost associated with legal or collection services necessary to collect the balance will be added to the balance due from the borrower and any security provided for the loan may be forfeited.

Descriptions of DEQ Loan Eligible Agricultural BMPs

Practice #	Practice Name	Practice Description	Practice Purpose
SL-4	Terrace System	Earth embankment, channel, or a combination ridge and channel constructed across the slope	Improve water quality by reducing slope and slope length to one that will slow the movement of sediment and nutrients from cropland
SL-5	Diversion	Channel with a supporting ridge on the lower side constructed across the general land slope	Improve water quality by directing nutrient and sediment laden water from large areas to sites where in can be used or disposed of safely
SL-6	Grazing Land Protection	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	Provide livestock water systems and/or fencing that will improve water quality by establishing rotation grazing to control erosion and eliminate direct access to live streams where there is a defined water quality problem
SL-6B	Alternative Water System	Structural practice that will provide an alternative water source for livestock to discourage animal access to streams	Provide watering facilities for livestock to reduce or eliminate the need for livestock to access streams, which reduces erosion and livestock waste reaching the stream
SL-11B	Animal Travel Lane Stabilization	Structural and/or management practice that will protect surface water from pollution from travelways of farm equipment and livestock	Protect or maintain water quality by stabilizing travelways used by farm equipment and/or livestock
WP-1	Sediment Retention, Erosion or Water Control Structures	Structures that will collect and store debris or control the grade of drainageways	Improve water quality by reducing the movement of sediment and materials from agricultural land to receiving streams
WP-2	Stream Protection	Protection methods along streams to reduce erosion, sedimentation, and the pollution of water from agricultural Nonpoint sources	Offer an incentive that will change landuse, provide vegetative stabilization, or improve management techniques to more effectively control soil erosion, sedimentation, and nutrient loss from surface runoff to improve water quality
WP-2A	Streambank Stabilization	Protection methods along steams to reduce erosion, sedimentation and the pollution of water from agricultural Nonpoint sources	Offer an incentive that will change landuse, provide vegetative stabilization or improve management techniques to more effectively control soil erosion, sedimentation and nutrient loss from surface runoff

to improve water quality

Descriptions of DEQ Loan Eligible Agricultural BMPs

Practice #	Practice Name	Practice Description	Practice Purpose
WP-2B	Stream Crossing & Hardened Access	A stabilized area to provide access to and/or across a stream for livestock and/or farm machinery	Improve water quality by controlling bank and streambed erosion and reducing sediment by providing a controlled crossing and/or access to streams
WP-2C	Stream Channel Stabilization	Stabilizing the stream channel with the use of non erodible material and/or structures that will prevent the stream channel from eroding	Improve water quality by reducing erosion by stabilizing stream channels
WP-4	Animal Waste Control Facility	A planned system designed to manage liquid and solid waste from areas where livestock and poultry are concentrated	Improve water quality by storing and spreading waste at the proper time, rate and location
WP-4B	Loafing Lot Management System	Prevent areas which are exposed to heavy livestock traffic from experiencing excessive manure and soil losses due to the destruction of ground cover	Prevent manure and sediment runoff from entering water courses and to capture a portion of the manure as a resource for other uses such as crop fertilizer. Accomplished by dividing the area into lots. Cattle are rotated from lot to lot as necessary to maintain vegetative cover. One lot is designated as a sacrifice area for use in wet weather. Loose housing may be installed in lieu of a typical sacrifice lot.
WP-4C	Composter Facilities	Planned system designed to manage treatment and disposal of poultry/livestock carcasses resulting from normal mortality	Facilities for composting normal mortality poultry/livestock carcasses, 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

WP-4E	**Animal Waste Structure Pumping Equipment**	**Mechanism used to agitate and/or pump liquid and/or semi-liquid animal waste for the purpose of land application**	**Insure that animal wastes are land applied at optimum times so water quality is not adversely effected**
WP-5	**Stormwater Retention Pond**	**Structure that collects and retains stormwater in order to release the water at a rate that will reduce the amount of downstream erosion due to storm flow**	**Improve water quality by reducing the amount of channel erosion during storm events.**

Descriptions of DEQ Loan Eligible Agricultural BMPs

Practice #	Practice Name	Practice Description	Practice Purpose
WP-6	**Agricultural Chemical & Fertilizer Handling Facility**	**Facility to adequately store, mix and contain agricultural chemicals and fertilizers**	**Improve water quality by properly handling chemicals and fertilizers during mixing and cleaning equipment**
WP-7	**Surface Water Runoff Impoundment for Water Quality**	**Structure that will impound surface water runoff and allow sediment and nutrients to settle out**	**Improve water quality by impounding surface water and allowing sediments and nutrients to settle out**
WP-8	**Relocation of Confined Feeding Operations**	**Relocation of confined feeding facilities from areas that have an increased chance of contaminated runoff entering the state's streams, rivers and estuaries**	**Improve water quality by relocating confined feeding operations away from environmentally sensitive areas such as sink holes, streams and rivers to prevent pollution laden runoff from reaching these areas**
WQ-5	**Water Table Control Structure**	**Water control structure for the management of drainage water**	**Regulate and manage drainage water to improve water quality by trapping sediment and managing dissolved or suspended nutrients**
WQ-6	**Constructed Wetlands**	**Construction of a wetland for the treatment of animal waste runoff or stormwater runoff**	**Improve water quality by using a constructed wetlands to remove nutrients from animal waste or sediments and nutrients from stormwater runoff**
WQ-6B	**Wetland Restoration**	**Activities which restore land to the hydraulic condition that existed prior to 1985 and the installation of drainage and conversion to cropland**	**Improve water quality by returning environmental sensitive land back to its original wetland condition before it was converted to cropland**

WQ-8	**Fuel Storage Treatment**	**Excavation of farm underground fuel storage tanks and the construction of an above ground farm storage facility with proper containment system**	**Improve water quality by removing leaky or possibly leaking fuel storage tanks and contaminated soil and replacing the tank with an above ground storage tank with the proper spill and rupture containment facility**
NTD	**No-Till Planter/Drill**	**Purchase of no-till planters or no-till drills that are not replacements or upgrades of a no-till planter or drill that is currently owned by the applicant**	**Improve water quality by encouraging the use of continuous no-till planting and cover crops. Reduce the acres which are under conventional tillage**

DEPARTMENT OF ENVIRONMENTAL QUALITY
CLEAN WATER FINANCING & ASSISTANCE PROGRAM
PRE-APPLICATION FOR AGRICULTURAL BMP LOAN ASSISTANCE

APPLICANT INFORMATION

NAME OF LOAN APPLICANT: _____

FARM NAME (IF ANY): _____

MAILING ADDRESS _____

CITY, STATE, ZIP CODE _____

PHONE: _____ FAX _____ EMAIL _____

TYPE OF FARM OPERATION: _____
(DAIRY, POULTRY, SWINE, ROW CROP, BEEF, ETC.)

	YES	NO
Have you had a Nutrient Management Plan (NMP) developed for your farm ?	☐	☐
Have you had a Conservation Plan developed for your farm ?	☐	☐
Has the plan been approved by the local soil and water conservation district?	☐	☐

PROJECT LOCATION AND WATERSHED INFORMATION

COUNTY WHERE FARM IS LOCATED _____

STATE OR COUNTY ROAD # _____

NEAREST WATER BODY (NAME OF CREEK, RIVER, LAKE, ETC.) _____

BRIEF DRIVING DIRECTIONS FROM NEAREST CITY OR TOWN TO YOUR FARM _____

_____

_____

GRANT FUNDING INFORMATION

	YES	NO
Did you apply for a Cost Share grant for any part of this project?	☐	☐

If the answer is YES provide the amount of Cost-Share participation you expect $ _____

What is the amount of the Ag BMP low interest loan that you are requesting? $ _____

AUTHORIZATION AND SIGNATURE

I wish to be considered for a low interest rate loan from the Ag BMP loan program. I also agree to allow appropriate agency or program management personnel access to land under my control for the purposes of evaluating the proposed practices during the implementation of the practices for which the requested loan is to be used.

SIGNATURE OF APPLICANT FOR DEQ AGRICULTURAL BMP LOAN FUNDS

PRINTED NAME _____

Signature _____ Date _____

<Please Complete and Return Page 1 and Page 2 of this Pre-application>

LOAN ELIGIBLE BMP(S) AND ESTIMATED COST

IDENTIFY EACH BEST MANAGEMENT PRACTICE (BMP) THAT YOU ARE PLANNING TO IMPLEMENT BY PROVIDING THE ESTIMATED COST FOR EACH PRACTICE ON THE APPROPRIATE LINE

(SEE ATTACHMENT FOR A DESCRIPTION OF THE PRACTICES)

PRACTICE TYPE		ESTIMATED COST
SL-4	Terrace System	$ _____
SL-5	Diversion	$ _____
SL-6	Grazing Land Protection	$ _____
SL-6B	Alternative Water System	$ _____
SL-11B	Animal Travel Lane Stabilization	$ _____
WP-1	Sediment Retention, Erosion or Water Control Structures	$ _____
WP-2	Stream Protection	$ _____
WP-2A	Stream bank Stabilization	$ _____
WP-2B	Stream Crossing & Hardened Access	$ _____
WP-2C	Stream Channel Stabilization	$ _____
WP-4	Animal Waste Control Facility	$ _____
WP-4B	Loafing Lot Management System	$ _____
WP-4C	Composter Facilities	$ _____
WP-4E	Animal Waste Structure Pumping Equipment	$ _____
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-5	Water Table Control Structure	$ _____
WQ-6	Constructed Wetlands	$ _____
WQ-6B	Wetland Restoration	$ _____
WQ-8	Fuel Storage Treatment	$ _____
NTD	No-Till Drill / No-Till Planter	$ _____
ADD ALL AMOUNTS FROM LINES ABOVE FOR THE TOTAL ESTIMATED COST		**$** _____

The completed application should be mailed to the following address:

Mr. Walter A. Gills
Clean Water Financing & Assistance Program
Department of Environmental Quality
P.O. Box 1105
Richmond, Virginia 23218

For additional information you may contact ***Walter Gills:***

Phone: ***(804)698-4133*** *Email:* ***walter.gills@deq.virginia.gov***

<Please Complete and Return Page 1 and Page 2 of this Pre-application>

DEPARTMENT OF ENVIRONMENTAL QUALITY
CLEAN WATER FINANCING & ASSISTANCE PROGRAM
NO-TILL PLANTER/DRILL LOAN QUESTIONNAIRE

IN ORDER TO BE CONSIDERED FOR AG BMP LOW INTEREST LOAN ASSISTANCE FOR A NO-TILL PLANTER OR DRILL ALL QUESTIONS MUST BE ANSWERED AND THIS FORM SUBMITTED WITH THE COMPLETED PRE-APPLICATION.

PLANTER OR DRILL THAT YOU EXPECT TO PURCHASE

MANUFACTURER:_____

MODEL NUMBER:_____ SIZE_____

DEALERSHIP NAME:_____

LIST THE COUNTIES AND ACREAGE IN EACH WHERE YOU FARM OR WHERE THE EQUIPMENT WILL BE USED

COUNTY 1) _____ TOTAL ACRES _____

COUNTY 2) _____ TOTAL ACRES _____

COUNTY 3) _____ TOTAL ACRES _____

	YES	NO		YES	NO
Do you currently own a: no-till planter?	☐	☐	No-till Drill	☐	☐

IF YES, WHAT IS THE SIZE OF YOUR CURRENT NO-TILL PLANTER? _____ NO-TILL DRILL _____

IF YES, WHAT IS THE PURPOSE OF THIS PURCHASE ? _____

_____

	YES	NO
Did you sign up for a continuous no-till or cover crop cost-share program last year ?	☐	☐
Do you intend to sign up for continuous no-till or cover crop cost-share this year ?	☐	☐

TOTAL NUMBER OF ACRES OF CONTINUOUS NO-TILL PLANTING ON ALL TRACTS YOU FARMED LAST YEAR _____

TOTAL NUMBER OF ACRES OF CONTINUOUS NO-TILL YOU ANTICIPATE AFTER THIS PURCHASE _____

TOTAL NUMBER OF ACRES OF COVER CROPS PLANTED ON ALL TRACTS YOU FARMED LAST YEAR _____

TOTAL NUMBER OF ACRES OF COVER CROPS YOU ANTICIPATE PLANTING AFTER THIS PURCHASE _____

SIGNATURE OF APPLICANT FOR DEQ AGRICULTURAL BMP LOAN FUNDS

I wish to be considered for a low interest rate loan from the Ag BMP loan program for purchase of a no-till planter or no-till drill. I affirm that the information provided on this form is true, accurate and complete to the best of my knowledge.

PRINTED NAME _____

Signature _____ Date _____

< For loan requests involving no till planters/drills, send this form and the Ag BMP loan pre-application form to >

MR. WALTER A. GILLS, PROGRAM MANAGER

CLEAN WATER FINANCING & ASSISTANCE PROGRAM

DEPARTMENT OF ENVIRONMENTAL QUALITY

P.O. BOX 1105

RICHMOND , VIRGINIA 23218

SECTION VII

VIRGINIA CONSERVATION RESERVE ENHANCEMENT PROGRAM (CREP) GUIDELINES

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 Southern Rivers portion is directed at the area of Virginia outside of the Chesapeake Bay drainage. 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 SR 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.

Southern Rivers:

1) 13,500 acres of riparian area treatment and (includes supplemental 5,000 acres approved in March of 2005)
2) 1,500 acres of wetlands restored.

The CREP is not intended to be applied on the same field as the Virginia Agricultural Best Management Practices Cost Share program (VACS), although in certain specific instances it may be allowed. Please contact the respective state program managers for guidance on allowable interactions between the various conservation programs.

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 FY 2017

Beginning July 1, 2015 the Commonwealth will match FSA cost-share payments for any CRFR-3 and CRSL-6 when implemented in conjunction with a CRFR-3 BMP. This additional funding is designed to increase the restoration of Riparian Forest Buffers while continuing to prioritize the exclusion of livestock from surface waters. SWCDs should match the amount of FSA cost-share provided for these practices. The availability of federal Practice Incentive Payments (PIP) and Signing Incentive Payments will assure that implementation of this practice will provide at least 100% reimbursement of approved cost to the participant.

Program Area

Eligible counties and hydrologic units are shown on a CREP eligibility map available from the DCR CREP website:
http://www.dcr.virginia.gov/stormwater_management/images/crep_map.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 exclusion conservation programs i.e. may not be applied simultaneously in the same field. The VACS SL-7 practice has been specifically generated to provide VACS financial support for CREP practices. No other VACS practice addressing the same resource concern can be implemented in the same fields as CREP. The application for SL-7 state cost-share must be simultaneous with the approval of state cost-share for the other CREP practices.

CREP Enrollment

Beginning July 1, 2016 District's 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 states 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 impended 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 RPA. Public policy requires government not provide taxpayer funded financial incentives for actions that are mandated under law or regulation. Based upon this requirement SWCDs should only pay rent on the 10 feet of a require 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 Virginia Best Management Practice Computer Tracking Program. Please remember that the average buffer width for any buffer practice should be recorded in the tracking program.

1) **CP-21** CREP Filter Strip (Tracks state $ 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 states portion of the cost-share payment for planting of the NWSG filter strip.

OR

CRFR-3 CREP Riparian Forest Buffer: 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 This code is entered as a reporting marker to capture the linear feet of stream bank that was protected by the installation of the NWSG filter strip. The entry of the linear feet of stream bank protected by the installation of the filter strip, forested buffer or natural regeneration of a forested buffer allows the state to take credit for restoring that many linear feet of riparian buffer since there is no fencing practice to install.

OR

CRWP-2 Stream bank Protection: if any fencing is installed to protect the NWSG buffer.

2) **CP-22** Riparian Forest Buffer (Tracks state $ 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 Riparian Forest Buffer: 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 Grazing Land Protection: Records the site conditions, linear feet of stream bank 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 stream bank 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 This code is entered as a reporting marker to capture the linear feet of

stream bank 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 stream bank protected by the restoration of the buffer allows the state to take 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 to remove and dispose 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 Southern Rivers 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 AG BMP tracking system as a VACS practice, and 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 VACS program support for extension of CREP watering systems. Payment of VACS funds will be authorized from either CB or SR 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** Wetland Restoration on cropland; 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 states 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 Riparian Forest Buffer CRFR-3 CREP Riparian Forest Buffer: 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** Wildlife Habitat Buffer on marginal pasture land (Tracks state $ 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 states 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 states portion of the cost-share payment for planting of a herbaceous buffer.

AND

CRSL-6 CREP Grazing Land Protection: Records the site location, linear feet of stream bank protected and the states 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 stream bank protected and the states portion of the cost-share payment on fencing and systems that utilize hardened crossings as a livestock water source.

OR

CRLF-1 Reporting marker for entering the linear feet of stream bank 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 to remove and dispose 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 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.

Rate History Table:

Date of latest signature on FCP	FSA Practice Codes	Rate
After June 8, 2000	CP-21, CP-22, CP-23	25% of eligible cost
After August 23, 2001	CP-21, CP-22, CP-23	25% not to exceed $200/acre
After May 22, 2006	CP-21, CP-22, CP-23, CP-29 Southern Rivers & Chesapeake Bay CB CP-22 (only) – 5.0-10.0 Acres CB CP-22 (only) > 10.0 Acres	25% not to exceed $300/acre 25% not to exceed $400/acre 25% not to exceed $600/acre
After June 30, 2009	CP-21, 22, 23, 29 CB & SR	25% of eligible cost

As of July 1, 2015, the above dollars per acre maximum payments were abandoned; Virginia will pay up to 25% of eligible cost or 50% of the FSA cost-share payment for all CRWP-2, CRWQ-1, CRWQ-11, and CRWQ-6B practices. For these practices calculations will be made to determine the least cost alternative, 25% of FSA eligible cost or a state cost share payment equal one half 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 county SRR as well as a $5 per acre per year maintenance fee. The Commonwealth of Virginia will pay another $5 per acre per full year of the CREP contract as a lump sum rental rate when all BMPs are completed.

Federal CREP Incentive Payments

A federal Signing Incentive Payment (SIP) will be paid by FSA; this one time payment will equal $100 per acre per full year of contract. 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 and 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 Southern Rivers 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 Southern Rivers 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 DCR. 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.
>
> FSA will keep all billings and expense records. Copies of appropriate FSA forms (CRP-1, and appropriate 848), the Conservation Plan of Operations, and a copy of DCR form 199-071 or Parts I, II and III of the Virginia BMP Incentives Program Contract that reference signatures on the FSA 848 will provide sufficient documentation for District files.

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 DCR Tracking program be generated, and entered into the Tracking Program 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 Tracking Program no less than on a weekly basis. Districts are to assure that the status and data associated with each practice entered into the Tracking program 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 tracking program 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 SWCD. 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 DCR Agricultural Incentives Program Manager.

Revised March, 2016

Conservation Reserve Enhancement Program (CREP) BMPs

Practice Number	CREP Practice	Units Requested	CS calculation method	Units Installed / Average Buffer Width	Reduction (TONS/ AC/YR)	Reduction (TONS/ YR)	Acres Benefited	Life Span *	Tech. Respon.	Other C-S
CP-21	CREP Grass Filter Strip	Acres	Rental payment = ($5) X (number of acres) X (number of full years in contract)	Acres / Average buffer width in feet			Acreage of buffer planted	Optional 10 years or 15 years	SWCD	FSA
CP-22	Forested Riparian Buffer on Pasture or Cropland	Acres	Rental payment = ($5) X (number of acres) X (number of full years in contract)	Acres / Average buffer width in feet			Acreage of buffer planted	Optional 10 years or 15 years	SWCD	FSA
CP-23	Wetland Restoration on Cropland	Acres	Rental payment = ($5) X (number of acres) X (number of full years in contract)	Acres / Average buffer width in feet			Acreage of buffer planted	Optional 10 years or 15 years	SWCD	FSA
CP-29	Marginal Pasture land Wildlife Habitat Buffer	Acres	Rental payment = ($5) X (number of acres) X (number of full years in contract)	Acres / Average buffer width in feet			Acreage of buffer planted	Optional 10 years or 15 years	SWCD	FSA
CRFR-3	CREP Woodland Buffer Filter Area on cropland or pasture	Acres	50% of FSA eligible and approved component cost or equal to the FSA cost-share payment amount lesser of	Acres / Average Width In Feet	X	X	Acreage of buffer planted	Optional 10 years or 15 years	DOF	FSA
CRLF-1	Reporting Marker for linear feet of stream bank protected	Linear feet	N/A	Linear feet of stream bank protected	N/A	N/A	N/A	Optional 10 years or 15 years	N/A	N/A
CRSL-6	Fence and Alternative water System	Lin. Feet of Stream bank Protected	50% of FSA eligible and approved component cost or equal to the FSA cost-share payment when implemented in conjunction with a CRFR-3 practice. Otherwise 25% of the lesser of actual or estimated cost or 50% of FSA cost-share $.	Lin. Feet of Stream bank Protected / Average buffer width in feet	X	X	Acreage of buffer planted	Optional 10 years or 15 years	SWCD	FSA

Practice Number	CREP Practice	Units Requested	CS calculation method	Units Installed / Average Buffer Width	Reduction (TONS/ AC/YR)	Reduction (TONS/ YR)	Acres Benefited	Life Span *	Tech. Respon.	Other C-S
CRWP-2	CREP Fence and Hardened Crossing	Lin. Feet of Stream bank Protected	25% of the lesser of actual or estimated cost or 50% of FSA cost-share $.	Lin. Feet of Stream bank Protected	X	X	Acreage of buffer planted	Optional 10 years or 15 years	SWCD	FSA
CRWQ-1	CREP Herbaceous Riparian Buffers to include Native Warm Season Grass Filter Strips	Acres	25% of the lesser of actual or estimated cost or 50% of FSA cost-share $.	Acres / Average Width In Feet	X	X	Acreage of buffer planted	Optional 10 years or 15 years	SWCD	FSA
CRWQ-6B	CREP Wetland and Buffer Restoration	Acres	25% of the lesser of actual or estimated cost or 50% of FSA cost-share $.	Acres / Average Width In Feet	X	X	Acreage of buffer planted	Optional 10 years or 15 years	SWCD	
CRWQ-11	CREP Ag. Sinkhole Protection	Acres	75% of clean out cost not to exceed $2,500 and 25% of the lesser of actual or estimated cost or 50% of FSA cost-share $.	Acres / Average Width in Feet	X	X	Acreage protected around sinkhole and any area draining into the sinkhole.	10 or 15 Years	SWCD	

*** Please refer to Field 9 of the FSA CREP contract (CRP-1) for the full years of the CREP contract it may vary. A 10 year contract may only contain 9 full years, or a 15 year contract may only contain 14 full years.**

Revised March 2016

Counties Included in the CREP Area

CHESAPEAKE BAY

Entire County:

Albemarle	Fluvanna	Nelson
Alleghany	Frederick	New Kent
Amelia	Gloucester	Northumberland
Amherst	Goochland	Orange
Augusta	Greene	Page
Bath	Hanover	Powhatan
Bedford	Henrico	Prince William
Botetourt	Highland	Rappahannock
Buckingham	James City	Richmond
Caroline	King and Queen	Rockbridge
Charles City	King George	Rockingham
Chesterfield	King William	Shenandoah
Clarke	Lancaster	Spotsylvania
Culpeper	Loudoun	Stafford
Cumberland	Louisa	Warren
Essex	Madison	Westmoreland
Fairfax	Mathews	York
Fauquier	Middlesex	

Partial counties (CREP Eligible hydrologic units within the Chesapeake Bay Drainage):

Accomack	CB27, CB28, CB30, CB31, CB32, CB33, CB34, CB35, CB36, CB37, CB38, CB39, CB41, CB42, CB43	Montgomery	JU41
Appomattox	JA01. JA02, JA03, JA04, JA06, JM13, JM14, JM15, JM16, JM17, JM18, JM19, JM20, JM51	Northampton	CB43, CB44, CB45, CB46
Campbell	JM10, JM11, JM12, JM13, JM14, JM16	Nottoway	JA14, JA15, JA24, JA25, JA29, JA30, JA31, JA32, JA34, JA37
Chesapeake	JL49, JL15, JL51, JL52, JL53, JL54, JL55	Prince Edward	JA03, JA04, JA05, JA06, JA07, JA08, JA09, JA10, JA11, JA12, JA13, JA14, JA15, JA16, JA17, JA24
Craig	JU17, JU18, JU19, JU41, JU42, JU43, JU44, JU45, JU46, JU47, JU48, JU52	Prince George	JA40, JA45, JL07, JL08, JL11, JL12, JL13, JL14, JL15
Dinwiddie	JA37, JA37, JA38, JA39, JA40	Roanoke	JU41, JU43, JU52
Giles	JU16, JU44	Surry	JL12, JL14, JL15, JL30, JL32, JL33, JL35, JL36, JL37
Isle of Wight	JL35, JL36, JL37, JL39, JL40, JL41, JL42, JL43, JL45, JL46, JL47,	Virginia Beach	CB25, CB25, CB26, JL54

Counties Included in the CREP Area

SOUTHERN RIVERS

Entire counties:

Bland	Halifax	Scott
Brunswick	Lee	Smyth
Carroll	Lunenburg	Southampton
Floyd	Montgomery	Sussex
Grayson	Patrick	Tazewell
Greensville	Pulaski	Washington
	Russell	Wythe

Partial counties (Eligible hydrologic units within the Southern Rivers Basins):

Appomattox	RU65, RU66, RU70, RU76, RU77	Isle of Wight	CU59, CU60, CU61, CU62, CU66, CU68, CU69, CU70,
Accomack	AO01, AO02, AO03, AO05, AO08, AO09, AO10, AO11, AO12, A013, AO14, AO15, AO16	Mecklenburg	CM01, CM02, CM03, CM08, CM09, CM11, CM12, RL10, RL11, RL12
Bedford	RU17, RU18, RU19, RU38, RU50, RU51, RU52, RU53, RU54, RU55, RU56, RU57	Northampton	AO13, AO14, AO15, AO16, AO18, AO19, AO20, AO21, AO22,
Campbell	RU44,RU45,RU46,RU48,RU55, RU56, RU57, RU58, RU59, RU65, RU66, RU67, RU68, RU69, RU70, RU71, RU74	Nottoway	CU01,CU04, CU05, CU06, CU07, CU08, CU10
Charlotte	CM01, CM02, CM04, CM05 RU70, RU71, RU74, RU76, RU77, RU78, RU82, RU84	Pittsylvania	RD34, RD35, RD36, RU26, RU28, RU45, RU32, RU34, RU35, RU36, RU37, RU38
Chesapeake	AS01, AS03, AS04, AS06, AS07, AS08, AS09, AS10, AS11, AS12, AS13,AS15,AS16	Prince Edward	CM01, CU04, CU05,
Craig	NE64, NE65	Prince George	CU28, CU29, CU30, CU31, CU52, CU53, CU54, CU56
Dinwiddie	CU09, CU10, CU11, CU13, CU15, CU16, CU17, CU19, CU20, CU21, CU22, CU23, CU24, CU25, CU26, CU27 CU28, CU29, CU52, CU54	Roanoke	RU02, RU05, RU06, RU08, RU09
Giles	NE63, NE64, NE65, NE67, NE69, NE70, NE71, NE72, NE73, NE74, NE75, NE81, NE82, NE83, NE84, NE85	Suffolk	AO02, AO03, AO04, AO05, AO06, CL01, CL02, CL03, CL05, CU66, CU69, CU70,
Franklin	RU16, RU18, RU19, RU20, RU21, RU22, RU23, RU24, RU25, RU26, RU29, RU30, RU31, RU32, RU33, RU34, RU35, RU36	Surry	CU53, CU55, CU56, CU57, U58, CU59, CU60, CU61, CU63
Henry	RD34 , RD35, RU33, RU34	Virginia Beach	AO23, AO25, AS10, AS11, S12, AS13, AS14, AS15, AS16, S17, AS18, AS19, AS20

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 SWCD 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 SWCD 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 SWCD 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 SWCD 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
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 SWCD 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 SWCD 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 SWCD 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 SWCD 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

POLICIES AND SPECIFICATIONS FOR CREP
RIPARIAN FOREST BUFFER

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 SWCD 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 farm conservation plans signed after July 1, 2015 the CREP cost-share rate is fifty percent (50%) of FSA approved eligible cost or equal to the FSA cost-share for all CREP components.

2. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia law 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 SWCD 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

CREP LINEAR FOOT OF STREAM BANK 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 stream bank protected reporting marker for reporting the linear feet of stream bank 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 stream bank 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

SWCDs 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
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. The CRSL-6 is reimbursable on a variable scale illustrated in the following table:

In conjunction with the following CREP Practice:	Federal Rate	State Rate for CRSL -6	Total C/S reimbursement for CRSL-6
CRFR-3	50%	50%	100%
CRWQ-1	50%	25%	75%

2. All state cost share payments will be based upon the FSA form 848.
   i. When the CRSL-6 is implemented in conjunction with the CRFR-3, then state cost-share rate is fifty percent (50%) of FSA approved eligible cost or equal to the FSA cost share for all CREP components.
   ii. When the CRSL-6 is implemented in conjunction with the CRWQ-1, then state cost-share rate is twenty-five percent (25%) of FSA approved eligible cost or half the FSA cost share for all CREP components.

3. 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.

4. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia law 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.

5. 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 SWCD 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.

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Revised March, 2016

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 SWCD 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 twenty-five percent (25%) of FSA approved eligible cost or one half of the FSA cost share for all CREP components.

2. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia law 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 SWCD 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 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:
   i. 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.
   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 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 SWCD 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 twenty-five percent (25%) of FSA approved eligible cost or one half of the FSA cost share for all CREP components.

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 law 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.

D. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD 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 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 SWCD 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 twenty-five percent (25%) of FSA approved eligible cost or one half of the FSA cost share for all CREP components.

2. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia law 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 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 SWCD 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

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 SWCD 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

twenty-five percent (25%) of FSA approved eligible cost or one half of the FSA cost share for all CREP components.

2. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia law 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 SWCD 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

SECTION VIII

POULTRY LITTER TRANSPORT PROGRAM

Virginia's Poultry Litter Transport Incentive Program

The Virginia Department of Conservation and Recreation and the Virginia Poultry Federation are offering 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 outside of the main poultry-producing counties. The goal of this program is to encourage the development of self-sustaining poultry litter markets outside of the Chesapeake Bay watershed. The program provides assistance at the rate of $15 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

2. Poultry litter brokers

B. Program requirements:

1. **Poultry litter must originate on farms in Page or Rockingham counties.**

2. **To receive an incentive payment through this program, litter must be transported to a final destination outside of the Chesapeake Bay watershed** (see attached listing and map for eligible localities).

3. Up to 300 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 a period of 12 months from the date the request was received. If litter applications are not made within 12 months, a new form will have to be submitted for consideration.

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.

8. Fields eligible for payment must have a Virginia Tech soil test phosphorus reading not exceeding the maximums shown in the following table:

Maximum Soil Phosphorus for Region[1]	**Virginia Tech soil test reading[2], P lbs/acre (Mehlich I)**
Eastern Shore and Lower Coastal Plain	270
Middle and Upper Coastal Plain and Piedmont	272
Ridge and Valley	324

[1]To determine the region the field is in; refer to the attached list of eligible counties by region.

Virginia's Poultry Litter Transport Incentive Program

C. Program requirements: (continued)

1. 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 October 2005*), with phosphorus applications **not to exceed crop removal phosphorus or crop nutrient needs determined by the soil test method**, whichever is greater.

2. The most recent poultry litter analysis results or an average of past nutrient analysis results for the specific operation within the last three-year period shall be used to determine the nutrient content of the poultry litter and final application rate for NMP 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 October 2005*, may be used to develop the initial NMP submitted with the "Request Form" for this program.

3. **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.

4. Litter with moisture greater than 35% is not eligible for payment.

5. The receiving farm must provide a safe off-loading site that does not pose an undue risk to water quality. These sites must be identified in the NMP.

6. The receiving farm must store litter in accordance with the requirements identified in the NMP "Special Conditions" and cover the litter if stored more than 14 days. Storage sites must be identified in the NMP.

7. 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.

8. Spot checks for compliance with these program requirements may be performed by the Virginia Department of Conservation and Recreation.

Virginia's Poultry Litter Transport Incentive Program

D. How to Apply:

1. To apply for an incentive payment for litter transport, the applicant must complete and return the included "Poultry Litter Transport Incentive Request Form", a "Request for Taxpayer Identification Number and Certification (Substitute W-9) Tax Form", and a current NMP for the fields receiving litter to:

   Poultry Litter Transport Incentive Program
   Department of Conservation & Recreation
   P.O. Box 1
   Verona, VA 24482

2. Once the "Poultry Litter Transport Incentive Request Form" and NMP are received they will be reviewed by DCR. If you wish to be certain you are eligible before receiving litter, the incentive request must be accepted by DCR prior to litter transport. (Final payment will still be dependent upon receipt and approval of "Chain of Custody," "Field Application Record(s)," and certified scale weight tickets.)

3. Once a "Poultry Litter Transport Incentive Request Form" has been accepted for incentive payment and after litter has been applied, submit the following completed forms and items to the above address: "Chain of Custody," "Field Application Record," and certified scale weight tickets showing the litter tonnage transported.

4. These documents will be reviewed, and if approved will be processed for payment. The party who submitted the "Poultry Litter Transport Incentive Request Form" will then receive the incentive payment.

E. More Poultry Litter Transport Incentive Program Information

The following web address will take you to a description of the Virginia Poultry Litter Transport Incentive Program and downloadable forms needed for participation in the program:

http://www.dcr.virginia.gov/water_quality/nmlitter.shtml

F. Contacts

Cynthia Williams – (540) 332-9228; cynthia.williams@dcr.virginia.gov
Robert Long – (434) 547-8172; bobby.long@dcr.virginia.gov
Timothy Sexton – (804) 371-0061; timothy.sexton@dcr.virginia.gov

Complete packets of information, including an explanation of the program and all forms needed to participate in the program, will be available upon request from any of the contacts listed above.

Virginia's Poultry Litter Transport Incentive Program

G. Counties ELIGIBLE to receive incentive payments BY REGION:

Eastern Shore and Lower Coastal Plain:

Southampton	Sussex

Middle and Upper Coastal Plain and Piedmont:

Brunswick	Grayson	Mecklenburg
Carroll	Greensville	Patrick
Charlotte	Halifax	Pittsylvania
Floyd	Henry	
Franklin	Lunenburg	

Ridge and Valley:

Bland	Pulaski	Tazewell
Buchanan	Russell	Washington
Dickenson	Scott	Wise
Lee	Smyth	Wythe

H. PORTIONS of the following Counties are Eligible to receive incentive payments BY REGION (PLEASE CALL Cynthia Williams at the DCR Verona office at (540) 332-9228 to determine the specific eligibility of your location):

Eastern Shore and Lower Coastal Plain:

Chesapeake	Suffolk	Virginia Beach
Isle of Wight	Surry	

Middle and Upper Coastal Plain and Piedmont:

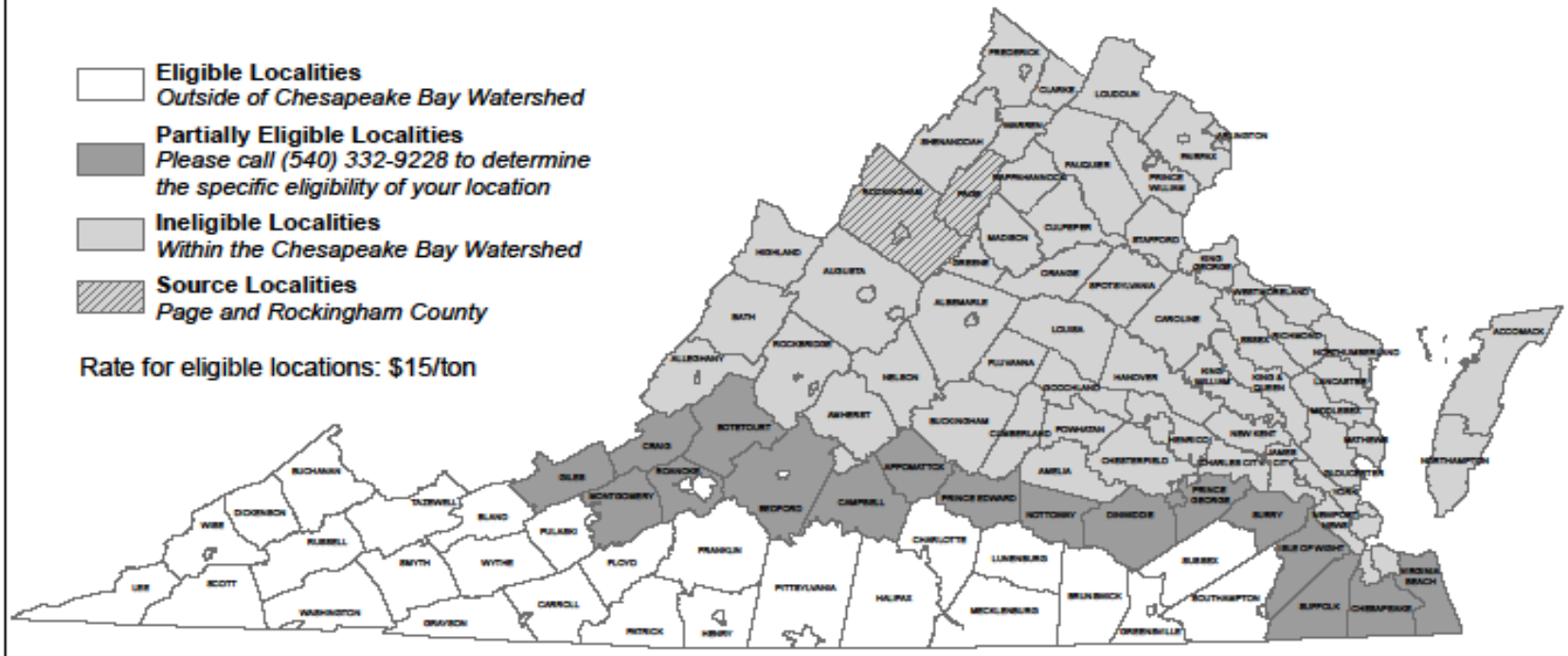
Appomattox	Dinwiddie	Prince George
Bedford	Nottoway	
Campbell	Prince Edward	

Ridge and Valley:

Botetourt	Giles
Craig	Roanoke

Virginia Department of Conservation and Recreation and Virginia Poultry Federation

Poultry Litter Transport Incentive Program



2010-12-21

Data Sources:
Jurisdiction Boundaries - VDCR
Eligibility Areas - VDCR

Miles
0 20 40 60 80

DCR

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

Return Application via U.S. Mail to:
Poultry Litter Transport Incentive Program
Dept. of Conservation & Recreation
P.O. Box 1
Verona, VA 24482
Faxed or electronic applications will not be accepted.

Poultry Litter Transport Incentive Request Form

Incentive Payment Applicant

Name: _____

Social Security # or: _____ ***Federal Tax* Identification #:** _____

Address: _____

_____ **County:** _____

Contact Person: _____ **Telephone No.:** _____

Litter Broker □ **Poultry Litter End-User** □

Acreage for Application: _____ Tons of litter to be applied: _____

- **Attach a completed "Request for Taxpayer Identification Number and Certification (Substitute W-9) Tax Form."**

5. **Attach 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 300 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 (pg. 1) 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 or Rockingham counties.
10. **To receive an incentive payment through this program, litter must be transported to a final destination outside of the Chesapeake Bay Watershed.**
11. The receiving farm must provide a safe off-loading site that does not pose an undue risk to water quality. These sites must be identified in the NMP.
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 **60 days** of the litter application. 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: _____

DCR199-184

REQUEST FOR TAXPAYER IDENTIFICATION NUMBER AND CERTIFICATION

Substitute Form W-9 Each person/organization doing business with the Commonwealth must provide the following information or be subject to backup withholding.

1 _____ AND/OR _____
Social Security Number **Federal Identification Number**

2 _____
Dun & Bradstreet Number

3 Is this form being completed for disbursement of grant funds? Y / N If yes, skip item 4

4 Provide a **general** description of goods/services to be sold to the Commonwealth: **Poultry Litter Transport Incentive Program**

0*	___ **Other**	6	___ **Corporation**	A*	___ **Partnership**
2	___ **Federal Agency**	7*	___ **Sole Proprietor/Reportable Individual**	B*	___ **Estate**
3	___ **State Agency**	8*	___ **Medical Corporation**	C*	___ **Trust**
4	___ **Local Government**	9	___ **Non-Reportable Individual**	D*	___ **Limited Liability Company**
5	___ **Political Subdivision**				

* Indicates vendor may be eligible to receive a form 1099

LEGAL NAME _____

TRADE NAME _____

Order Address _____

_____

Contact Person _____ Telephone No. _____

E-mail Address _____ FAX No. _____

Remittance Address _____

_____

Contact Person _____ Telephone No. _____

THIS BUSINESS IS CERTIFIED BY THE VIRGINIA DEPARTMENT OF MINORITY BUSINESS ENTERPRISE AS:

___ Small ___ Woman-Owned ___ Minority-Owned

For information on VDMBE certification, visit their website at www.dmbe.virginia.gov or call them at 804-786-6585

CERTIFICATION

Under penalties of perjury, I certify that:

1. The number(s) shown on this form is/are my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
2. I am not subject to backup withholding because: [a] I am exempt from backup withholding, or [b] I have not been notified by the Internal Revenue Service that I am subject to backup withholding as a result of a failure to report all interest or dividends, or [c] the IRS has notified me that I am no longer subject to backup withholding.

Certification Instructions - You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because of under reporting interest or dividends on your tax return.

Signature _____ Date _____

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

Poultry Litter Transport Incentive Chain of Custody

Return this Form to:
Poultry Litter Transport Incentive Program
Dept. of Conservation & Recreation
P.O. Box 1
Verona, VA 24482

SOURCE of the POULTRY LITTER

Name:			
Address:			
Contact Person:		**Telephone No.**	
Tons of litter		**County:** □ **Rockingham,** HU Code-	□ **Page**, HU Code-

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.
- 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 _____

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 _____

Virginia's Poultry Litter Transport Incentive Program
Maximum Eligible Phosphorus Soil Tests Values by Laboratory and Region

	Soil Testing Laboratories								
Region	VA Tech (M I)	A&L Eastern (M III)	Brookside (M III)	Spectrum Analytic (M III)	Waters Ag Labs (M I)	Agri-Analysis (M III)	Logan Labs (M III)	AgroLab (MIII)	Midwest Nebraska (M III)
Eastern Shore and Lower Coastal Plain	270 lbs P	253 ppm P	1150 lbs P_2O_5	506 lbs P	270 lbs P	506 lbs P	1150 lbs P_2O_5	253 ppm P	253 ppm P
Middle and Upper Coastal Plain and Piedmont	272 lbs P	254 ppm P	1155 lbs P_2O_5	508 lbs P	272 lbs P	508 lbs P	1155 lbs P_2O_5	254 ppm P	254 ppm P
Ridge and Valley	324 lbs P	281 ppm P	1277 lbs P_2O_5	562 lbs P	324 lbs P	562 lbs P	1277 lbs P_2O_5	281 ppm P	281 ppm P

M I = Labs using Mehlich I procedure. **M III** = Labs using Mehlich III procedure
Specific counties for each **Region** are identified on page 32 of the "Virginia Phosphorus Index, Version 2.0" Table A.1.

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
P.O. Box 1
Verona, VA. 24482

END-USER OF POULTRY LITTER:

Name: _____ **Source County:** _____

Address: _____ **Receiving County:** _____

_____

Telephone No.: _____

FIELD INFORMATION

(Include **all** fields receiving litter)

Tract No.	Field No.	Acres Receiving Poultry Litter	Application Date	Tons Applied (Total)	Crop	Soil Test P*	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:** _____

(DCR199-186) (1/11)

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

Return Completed form to:
Poultry Litter Transport Incentive Program
Dept. of Conservation & Recreation
P.O. Box 1
Verona, VA 24482

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 P*	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:** _____

SECTION IX

GLOSSARY & FORMS

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 pages **II-65-69** for acreage benefited for each practice.

Advisory committee: The Virginia Agricultural Best Management Practices Technical Advisory Committee, see pages **II–79-81** for current membership.

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.

Agriculturally and forestally significant land: Land that has recently or historically produced agricultural and forestall products and is suitable for agricultural or forestall production or is considered appropriate to be retained for agricultural and forestall production as determined by such factors as soil quality, topography, climate, markets, farm structures, and other relevant factors.

Amount Approved by SWCD: 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 BMP Tracking Program, 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 BMP Tracking Program. When completed and signed will be considered an application to participate in the Ag. BPM cost share program.

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 plan that addresses the water quality problems of the field or site being planned. It must at least reduce erosion to a level of soil loss tolerance equal to T. Plans for individual fields are acceptable, as are those for tracts and entire farms. Examples would include plans written by qualified conservation professionals to comply with the Chesapeake Bay Preservation Act and the 1985, 1990, 2000 and 2008 Food Security Acts. This definition is not intended to establish a new planning standard but to encourage the use and implementation of those already being employed.

Conservation Efficiency Factor (CEF): The CEF factor is calculated by the BMP tracking program to serve as a ranking tool and provide some guidance for ranking applications that would implement different BMPs. This tool is designed to assist SWCDs with the ranking of their cost share practice applications. The CEF uses eleven different components, including soil loss data that is inputted by the SWCD, 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 like BMPs as well as different BMPs.

County Code: The Federal Information Processing Standards (FIPS) code; see list beginning on page **II-44**.

Distance to Stream and Relief to Stream: A USGS topographic quad sheet or a Geographic Information Systems (GIS) computer program such as is available within the BMP Tracking program should be used to make these measurements. A measurement is taken between the highest point where the practice is applied and the top of the bank of the nearest solid or dotted blue line stream or man-made drainage channel (acting as an intermittent stream). The distance should be measured along the path of flow between these two end points in feet. Sinkholes, being a geological barrier to flow and potential source of groundwater contamination, can be substituted as the delivery point rather than a blue line stream.

District: A Virginia Soil and Water Conservation District

Engineering Job Approval Authority (EJAA): DCR Engineering Job Approval Authority (EJAA) is the authority to design, inspect, or certify various BMP Practices. Level of EJAA is granted by the DCR Agricultural BMP Engineer to individuals based on their training, experience and demonstrated competence. Until such time that DCR has a fully functioning EJAA program, any NRCS EJAA granted and current prior to October 1, 2013 will be recognized.

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.

A. For Grass Filter Strips (WQ-1), use the procedure outlined starting on page **WQ-1-4**.
B. For Animal Waste Facilities (WP-4), specify total tons of manure treated on an annual basis.
C. 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.

Forestall production: the production for commercial purposes of forestall products, and includes the processing or retail sales by the producer, of forestall products that are produced on the parcel. "Forestall products" includes, but is not limited to; saw timber, pulpwood, posts, firewood, Christmas trees and other tree and wood products for sale or for farm use.

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 SWCD 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.

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 mean 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.

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 BMP Tracking Program 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.

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 SWCD 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. For flat rate practices, multiply the rate times the extent approved. For all other practices the total estimated cost shall be determined by designated technically competent personnel. Permanent vegetative cover on cropland (SL-1) and strip-cropping system (SL-3) should be calculated using the flat rate method. If variable component costs are incurred for, seed, chemicals or obstruction removal, 100% of this amount should be added to the flat rate. The tracking program will calculate the 75% cost-share rate for eligible components.

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.

SWCDs 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 SWCD.

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*

Example

NUTRIENT APPLICATION FIELD RECORD SHEET

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*

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.

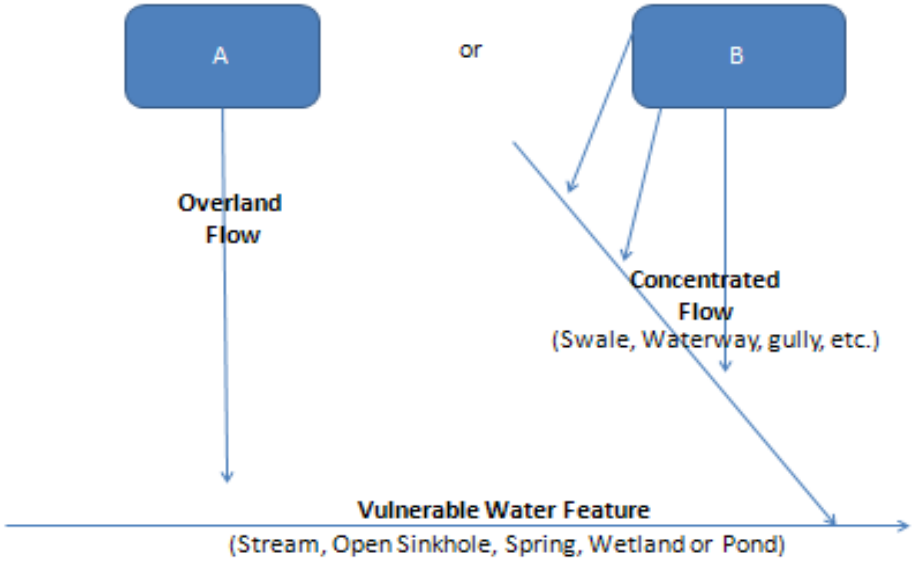
Karst features - Includes sinkholes, limestone rock outcrops, and fractured limestone that are direct conduits to ground water.

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



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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