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# COMMONWEALTH of VIRGINIA

## VIRGINIA'S TOTAL MAXIMUM DAILY LOAD (TMDL) IMPLEMENTATION COST-SHARE BEST MANAGEMENT PRACTICE (BMP) GUIDELINES

**Fiscal Year 2017**

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Virginia Department of Environmental Quality

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[http://www.deq.virginia.gov/Programs/  
Water/WaterQualityInformationTMDLs  
/TMDL/TMDLImplementation/TMDLIm  
plementationProjects.aspx](http://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/TMDL/TMDLImplementation/TMDLImplementationProjects.aspx)

VIRGINIA’S TOTAL MAXIMUM DAILY LOAD (TMDL) IMPLEMENTATION  
BEST MANAGEMENT PRACTICE (BMP) GUIDELINES - PROGRAM YEAR 2017-Draft (7/31/16)

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Disclaimer:

These BMP Guidelines are being provisionally released in Draft format on 7/31/16 pending final DEQ approval. These guidelines are in effect, and should be used as of 7/1/16.

This document sets forth standard operating procedures for the Total Maximum Daily Load (TMDL) Implementation program. However, it does not mandate or prohibit any particular action not otherwise required or prohibited by law or regulation. If alternative proposals are made, such proposals will be reviewed and accepted or denied based on their technical adequacy and compliance with appropriate laws and regulations.

Questions concerning any aspect of the cost-share program that are not addressed in these guidelines should be directed to either the DEQ Project Managers or to the NPS Grant Program Manager ([npsgrants@deq.virginia.gov](mailto:npsgrants@deq.virginia.gov))

## SECTION I - VIRGINIA TOTAL MAXIMUM DAILY LOAD (TMDL) Best Management Practice COST-SHARE

### Overview

Virginia's total maximum daily load (TMDL) implementation program is administered by the Virginia Department of Environmental Quality (DEQ) through local Soil and Water Conservation Districts (SWCDs or Districts), local governments, non-profits, planning district commissions, and local Health Departments to improve water quality in the state's streams, rivers, and the Chesapeake Bay. DEQ provides cost-share assistance to landowners, homeowners, and agricultural operators as an incentive to voluntarily install nonpoint source (NPS) best management practices (BMPs) in designated watersheds. The basis of the program is to install BMPs to implement TMDLs and meet Virginia's NPS pollution water quality objectives. Although resource based problems affecting water quality can occur on all land uses, this manual addresses cost share assistance on agricultural, residential and urban lands only. The geographic extents of eligible lands are identified in grant agreements, and in watershed based plans (WBPs), including TMDL implementation plans (IPs) approved by DEQ and the United States Environmental Protection Agency (EPA).

These guidelines provide specification for residential septic, pet waste and certain agricultural BMPs. The TMDL program also funds a subset of other agricultural BMPs that are described in the Department of Conservation and Recreation's (DCR) [Virginia Agricultural Cost-share \(VACS\) BMP Manual](#). The TMDL program also will fund certain urban practices that are described by the [Virginia Stormwater BMP Clearinghouse](#) and the [Virginia Conservation Assistance Program](#) (VCAP) and in the [VCAP Manual](#).

Starting in fiscal and program year 2017 (FY/PY 17) (i.e. July 1, 2016), DEQ will reduce the number of TMDL specific agricultural BMP specifications to LE-1T, LE-2T, SL-6AT, SL-10T and WP-2T. Certain agricultural BMPs used by the TMDL implementation program in previous years (i.e. SL-6T, SL-7T) were essentially the same practice as analogous DCR VACS practices (SL-6, SL-7). As of July 1, 2016, DEQ will cost-share on these VACS practices; using the specifications, cost-share rates and caps established by DCR and listed in their [Virginia Agricultural Cost-share \(VACS\) BMP Manual](#). As of July 1 2016, no new signup of SL-6T or SL-7T will be allowed. Please note that if a SL-6T or SL-7T was signed up in FY/PY 2015 or 2016 and is being carried over into FY/PY 17, these practices are still eligible for funding using the guidance for the year they were signed up and approved. The rate for SL-6T in FY/PY 15 was 75% and FY/PY 16 it was 80%. Many Districts are using 319(h) funds to partially fund practices signed up during FY/PY 15 when DCR was allowing 100% cost share through the VACS program. If a District is utilizing 319(h) to partially fund these practices (i.e. technically funding SL-6T in the Tracking Program) the 319(h) can still only fund 75% of that SL-6T practice.

The normal suite of residential septic (RB-1, RB-2, RB-3, RB-4/4P and RB-5) and pet waste (PW-1 and PW-2) practices will be eligible. Grantees using 319h funds to implement these BMPs should follow all aspects of these DEQ [TMDL BMP guidelines](#).

The 2017 Virginia TMDL implementation program is funded with federal Section 319(h) funds and therefore the Program must meet certain federal requirements. The main difference between other funding programs and the TMDL BMP cost-share program is that TMDL funding is utilized only in targeted watersheds and for specific BMPs. Unlike state cost-share funds, federal 319(h) funds do expire and the use of those funds after the period of the federal grant award period is not allowed.

Note: Programs at DEQ, other than those funded by Section 319(h) may be used to fund BMPs listed in this manual (i.e. residential septic BMPs). As such the specification and cost-share rates of those BMPs would be applied to these other programs. In August of 2016, DEQ will begin administering contracts utilizing the non-agricultural nonpoint source portion of the Water Quality Improvement Fund. Those contracts will fund implementation of certain practices described herein.

History

The goal of DEQ’s TMDL implementation program is to provide cost-share assistance to implement on-the-ground BMPs identified in TMDL implementation plans that result in watershed restoration and water quality improvements, and ultimate delisting of impaired stream segments and documentation of [NPS success stories \(www.epa.gov/nps/success\)](http://www.epa.gov/nps/success). The history of TMDL implementation in Virginia dates back to 2002 when DCR started three TMDL implementation projects. The TMDL Implementation program shifted to DEQ in June 2013 when DEQ became Virginia’s lead nonpoint source agency. As of July 1, 2016 the program consists of 23 active implementation projects receiving cost-share for BMPs, all funded through federal 319(h) funds (Table 1).

<b>Table 1: TMDL Implementation Projects Funded with DEQ Section 319(h)</b>			
<b>Watershed Area</b>	<b>TMDL Segment</b>	<b>Grantee</b>	<b>Year Start</b>
Thumb & Carter Runs	VAN-E01R, E02R & E10R	John Marshall SWCD	2006
Upper Hazel River	VAN-E03R, E04R, E05R	Culpeper SWCD	2009
Slate and North River, Rock Island, and Troublesome Creeks	VAC-H21R, H22R, VAV-H17R	Peter Francisco SWCD	2011
Upper York River	VAN-F06R, F07R	Culpeper SWCD	2012
Spout Run	VAV-B57R	Clarke County (Lord Fairfax SWCD)	2014
Lower Banister River, Polecat Creek and Sandy Creek	VAW-L45R, L46R	Tri-County Community Action Agency, Inc. (Halifax SWCD) (No agriculture)	2014
Greenvale, Paynes, and Beach Creeks	VAN-E25,E-28	Northern Neck SWCD	2014
Upper Middle Fork Holston River	VAS-O03R	Evergreen & Big Walker SWCDs	2014
Stroubles Creek	VAW-N22R	Virginia Tech – BSE (No septic)	2014
Linville Creek	VAV-B46R	Shenandoah Valley SWCD	2015
Middle River	VAV-B11R	Headwaters SWCD (Agriculture only)	2015
Flat and Nibbs Creeks	VAP-J08R	Piedmont SWCD (Septic only)	2015
Little Dark Run and Robinson River	VAN—15R	Culpeper SWCD	2015
Tye River, Hat Creek, Rucker Run and Piney River	VAV-H13R	Thomas Jefferson SWCD	2015
Chickahominy River and Tributaries	VAP-G05R, G06R	Hanover-Caroline SWCD (No septic)	2015
Hardware River	VAV-H18R	Thomas Jefferson SWCD	2016
Spring Creek, Briery Creek, Bush River, Little Sandy Creek and Saylers Creek	VAP-J02R,J03R, J04R, J05R	Piedmont SWCD (Septic only)	2016
Upper Rapidan River	VAN-E13	Culpeper SWCD	2016
Chestnut Creek	VAW-N06R	New River SWCD	201
Upper Clinch River	VAS-P01R	Tazewell SWCD and Upper Tennessee River Roundtable (no Septic)	2016

Eligible Practices

There are specific BMPs eligible for cost-share assistance depending on what type of impairment(s) a project area addresses (e.g. benthic and/or bacteria). All practices listed below are eligible to be funded with 319(h) funds. A specific list of BMPs based on the TMDL implementation Plan will be listed in contractual agreements with DEQ. Grantees cannot make modifications or changes to BMP standards and specifications without prior approval. The following practices have their specifications included in this manual: LE-1T, LE-2T, SL-6AT, SL-10T, and WP-2T, RB-1, RB-2, RB-3, RB-4/4P, RB-5, PW-1 and PW-2. Specifications for agricultural BMPs listed in the table below without “T” notation in the BMP code can be found in DCR’s [Virginia Agricultural Cost-share \(VACS\) BMP Manual](#). Urban BMPs can be found on [the Virginia Stormwater BMP Clearinghouse](#) and the [VCAP Manual](#).

**Table 2: Eligible Virginia TMDL Implementation BMPs**

BMP Code	BMP Name	Revision Date	Source of Specification	Tax Credit	BMP Category	BMP Units
<b>Agricultural BMPs</b>						
FR-1	Aforestation of Erodible Crop and Pastureland	3/2016	VACS	X	4	Acre
FR-3	Woodland Buffer Filter Area	3/2016	VACS	X	1	Acre
LE-1T	Livestock Exclusion with Riparian Buffers	5/2016	DEQ	X	1 or 4	Lin. Feet (LF) of stream bank protected by each fence (35' or 10' setback)
LE-2T	Livestock Exclusion with Reduced Setback	5/2016	DEQ	X	1 or 4	
SL-1	Permanent Long Term Vegetative Cover on Cropland	3/2016	VACS	X	1 or 4	Acre
SL-6AT	Small Acreage Grazing System	5/2016	DEQ	X	1	Acre
SL-6	Stream Exclusion with Grazing Land Management	3/2016	VACS	X	1 or 4	Linear Feet (LF) of stream bank protected
SL-7	Support for Extension of CREP Watering Systems	6/2015	VACS	X	1	Acreage of rotational grazing implemented
SL-8B	Small Grain and Mixed Cover Crop for Nutrient Management	3/2016	VACS	X	1 or 4	Acre
SL-10T	Pasture Management for TMDL Implementation	6/2015	DEQ		1 or 4	Acre
SL-11	Permanent Vegetative Cover on Critical Areas	3/2016	VACS	X	4	Acre
WP-2A	Streambank Stabilization	3/2016	VACS	X	4	LF of stream bank protected
WP-2T	Stream Protection	5/2016	DEQ	X	1 or 4	LF of stream bank protected
WP-3	Sod Waterway	3/2016	VACS	X	4	Acres in waterway
WQ-1	Grass Filter Strips	3/2016	VACS	X	4	Acre
WQ-4	Legume Cover Crop	3/2016	VACS		5	Acre
WQ-11	Agricultural Sinkhole Protection	3/2016	VACS	X	1	Acre
<b>Residential septic and Pet Waste BMPs</b>						
RB-1	Septic Tank Pump-out	6/2016	DEQ		2	# of Systems
RB-2	Septic Connection to Public Sewer System	6/2016	DEQ		2	# of Systems
RB-3	Onsite Sewage System Repair	6/2016	DEQ		2	# of Systems
RB-4	Onsite Sewage System Installation/Replacement	6/2016	DEQ		2	# of Systems
RB-4P	Onsite Sewage System Installation/Replacement with Pump	6/2016	DEQ		2	# of Systems
RB-5	Alternative Sewage System	6/2016	DEQ		2	# of Systems
PW-1	Pet Waste Disposal Station	6/2016	DEQ		3	# of Systems
PW-2	Pet Waste Digesters, Composters and Fermentation	6/2015	DEQ		3	# of Systems
<b>Urban and Suburban BMPs (list not exhaustive, just an example, depends on IP)</b>						
n/a	Stream Restoration/Stabilization	n/a	VCAP, DEQ stormwater Handbook or VT/DEQ Stormwater BMP Clearinghouse		4 or 5	Linear feet
n/a	Riparian Buffer Establishment (planting)	n/a			4 or 5	Acre
n/a	Infiltration Practices (trench, basins, etc.)	n/a			4 or 5	Acre-treated
n/a	Rainwater Harvesting (rain barrels, cisterns, etc.)	n/a			4 or 5	System
n/a	Bioretention (e.g. raingardens, etc.)	n/a			4 or 5	Acre-treated
n/a	Wet/Dry Swales	n/a			4 or 5	Acre-treated
n/a	Permeable Pavement	n/a			4 or 5	Acre
n/a	Constructed Wetlands	n/a			4 or 5	Acre-treated
n/a	Green Roofs	n/a			4 or 5	Square feet
n/a	Urban Nutrient Management Planning	n/a			5	Acre
n/a	Wet/Dry Ponds	n/a			4 or 5	Acre-treated

- BMP Category 1: Stream Exclusion/Improve Riparian Areas/Remove Livestock Bacteria Sources
- BMP Category 2: Remove Human Bacteria Sources
- BMP Category 3: Animal Waste Management
- BMP Category 4: Reduce Sediment
- BMP Category 5: Reduce Nutrients

### Funding Sources and Interest Income Earned

The Virginia TMDL implementation program is partially funded with federal Section 319(h) funds. No interest may be earned on federal 319(h) funds, and all funds issued to Grantees must be placed in a non-interest-bearing account. TMDL cost-share funds will be administered based upon signed cost-share grant agreements issued by DEQ. Other funds from local, state, federal, and even private sources may support implementation of BMPs. For practices receiving Section 319(h) funds the combination of 319(h) and other funds cannot exceed 100% cost-share.

### Limits to use of TMDL Funding

Federal Section 319(h) funds may not be used to pay for BMPs that will be credited towards activities related to developing, implementing or meeting any National/Virginia Pollution Discharge Elimination System (NPDES/VPDES) permits or permit requirements. In addition, the funds may not be used in relation to mitigation banking or nutrient credit trading. If at any time it is determined that 319(h) grant funds were utilized in association with the above-described permit, mitigation or nutrient crediting, the Grantee and participating landowner may be liable for reimbursement of all funds associated with the installed practice(s).

### Cost Share Program Funding Allocations

Grantees that are managing or involved with TMDL implementation projects will be provided an allocation of 319(h) in the grant contract to implement BMPs in specified watersheds. Grantees should manage cost-share funds to implement the most effective and cost-efficient practices available while meeting the contract implementation goals. Only the BMPs listed in the executed agreement are eligible for cost-share funding. Grantees will obligate funds to high priority watersheds in a manner consistent with the executed agreement.

### Re-obligation of 319(h) Cost-share BMP Allocations

At the end of each quarter an assessment should be made by the Grantee of cost-share funds status. The quarterly assessment will be based upon the financials reported and a TMDL completed practices report retrieved from the DCR BMP Tracking Program (if applicable). The Grantee should also include a financial status report of cost-share expenditures that shows obligated and unobligated cost-share funds.

Re-obligation of 319(h) cost-share allocations will be dependent on the program limitations and will be handled on a case-by-case basis. The use of federal funds carries with it more restrictions for re-obligation than does state cost-share funds. Unlike state cost-share funds, federal 319(h) funds do expire and the use of those funds after the period of the federal grant award period is not allowed.

### Technical Assistance Funding

Grantees are not allowed to utilize any TMDL BMP cost-share allocations for technical assistance. Grantees involved in the TMDL program will receive separate allocations for technical assistance in concert with BMP allocations as specified in their grant agreement contracts.

### Participant Recruitment and BMP Approval

The Virginia TMDL implementation program gives Grantees the responsibility to determine the recipients of BMP funds. The better the Grantees recruit and evaluate participant applications, the more successful the Grantee will be at improving local water quality. This begins with the establishment of local Grantee criteria

for conducting recruitment. All of these criteria presume that a water quality problem exists and needs to be corrected. For Districts this could include primary and secondary considerations utilized by the DCR VACS Program. ***Above all else, Grantees should follow prioritization recommendations for participant selection if articulated in the TMDL IP or within their executed agreement. A Grantee should prioritize recruitment and participant selection based on maximizing the water quality benefits as stated in any contractual documents with DEQ.***

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 Grantee (or its approved sub-awardees) is responsible for approving cost-share, clearly understood priorities will make this approval process much easier and minimize possible misunderstandings. All Grantees should recruit participants from hydrologic units in descending priority beginning with the highest priority first if described in the grant contract scope of work.

Cost-share requests from outside the hydrologic unit(s) identified in grant contract are **not** allowed. There will be no exceptions. Funds paid for BMPs found to be outside of the TMDL IP area will be not be reimbursed, or funds may be required to be returned to DEQ. Please note that this includes the instance where a portion of a participant's property is within the TMDL IP boundary but the actual location of the BMP is outside of the IP boundary. In these cases 319(h) should not be used to fund this BMP. It is the responsibility of the Grantee to be aware of the location of the BMPs in relation to the IP boundary.

Grantees should strive to prioritize the recruitment of applicants and the implementation of BMPs that will reduce the greatest amount of pollutant based upon the TMDL IP (bacteria, nutrients, and sediment) and associated executed agreement while utilizing the least amount of cost-share funds to address site specific water quality problems. Grantees may conduct recruitment of program participants on a continuous basis, or may establish a cost-share sign up schedule, to best manage their cost-share requests. Whatever methods utilized selection of participants should be done in an equal and fair manner, with consistency.

#### Cost-Share Funding Restrictions and Variance Requests

In TMDL implementation areas, as identified in Table 1 on page 3, Grantees should not establish alternative BMP cost-share caps. Grantees should follow caps specified in the BMP specifications. The rationale is based on the level of federal 319(h) and state cost-share funds that are available and the increased level of participation that is needed in TMDL areas to attain water quality objectives. Grantees are advised to monitor the amount of cost-share that has been/will be approved, especially in the case of multiple Districts that may provide funding to the applicant so that caps are not exceeded.

- **Agricultural "T" BMPs:** The agricultural TMDL Cost-Share Program for PY 2017 has a \$50,000/applicant/year limit for individual practices or any aggregation with other TMDL eligible practices. The exception to this is for LE-1T, LE-2T and WP-2T has a \$70,000/applicant/year cap. No variance requests are allowed.
- **Agricultural "VACS" BMPs:** Any eligible BMP listed in the table on page 3 that is considered a VACS practice shall follow the programmatic caps for PY 17 listed in the DCR Virginia Agricultural Cost-share Manual in Section I.8. This pertains to practices not specified with a "T". No variance requests are allowed.
- **Residential septic BMPs:** Each practice has a funding cap based upon the written specification. Grantee staff can potentially provide more than the cap amount allowable by practice applied to RB-2, RB-4, RB-4P, and RB-5. To submit a variance request the applicant must be eligible for 75% cost-share. All requests should be forwarded by the Grantee to the DEQ central office NPS Grant Manager at

[npsgrants@deq.virginia.gov](mailto:npsgrants@deq.virginia.gov) and cc the assigned DEQ project manager. Only those applicants eligible for 75% cost-share will be considered for a variance to allow increased cost-share above the cap.

- Pet Waste BMPS: Each practice has a funding cap based upon the written specification; no variances are allowed.

#### Guidance on Volunteer Hours and the Cost-Share Program

These guidelines provide clarification for allowing volunteer hours that have value in the calculations to determine BMP cost-share practice reimbursement amounts. Above all, it is important that the number of hours and monetary value of those hours is appropriate to accomplish the BMP installation.

As with all reimbursable BMPs, the practice participant must provide documentation to support the labor component of the installed practice – meaning quantity of labor hours and value of the labor performed. Grantees or their sub-awardees 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, Grantees 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 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.

#### Agricultural Act of 2014 (Federal Farm Bill) Compliance

This section is applicable for all TMDL program areas for agricultural BMPs. Please reference DCR's [Virginia Agricultural Cost-share \(VACS\) BMP Manual](#).

#### Conservation Plan Requirements

This section is applicable for all TMDL program areas for agricultural BMPs. Please reference DCR's [Virginia Agricultural Cost-share \(VACS\) BMP Manual](#). The TMDL agricultural cost-share program supports and encourages conservation planning, including resource management planning, on all agricultural land in Virginia. 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.

#### Land Conservation Easements and BMP Cost-Share Program Eligibility

If identified as corrective action in the implementation plan and identified in the scope of work in the grant contract agreement as a listed activity with goals and deliverables; then it would be eligible for funding.

#### Cost-share BMP Contract

Federal requirements of the 319(h) program include the verification that all BMPs paid for with federal funds are maintained for the intended life of the practice. The DEQ BMP contract is to be filled out by Grantees and participants requesting cost-share assistance for agricultural and residential septic practices. This three-part contract assures that grant funds are allocated to applicants in adherence with TMDL implementation and grant program requirements. The use of this contract assures that all BMPs funded through DEQ's TMDL implementation program are installed according to technical criteria and specifications and are maintained in for the required lifespan of each practice. This contract is also used to collect information from participants on Section 319(h) funded practices which will be entered by Soil and Water Conservation Districts (Districts) into the Department of Conservation and Recreation's BMP Tracking

Program (Tracking Program). The Tracking Program is a tool by which DEQ and DCR tracks BMP implementation.

The DEQ TMDL Cost-share Contract is contained in an Excel Workbook and contains 6 worksheets or tabs.

1. Instructions – provide full directions on how to utilize Excel document
2. Part I – Application for Program
3. Part II – Technical Determination and Approval: Agriculture
4. Part II – Technical Determination and Approval: Residential septic
5. Part III – Technical Installation and Payment: Agriculture
6. Part III – Technical Installation and Payment: Residential septic

All applicants of agricultural and residential septic practices paid for by Section 319h must sign Part I and Part III of DEQ’s Virginia 319(h) TMDL BMP Incentives Programs Contract. Part II will depend on the type of grantee and BMP. A summary of the requirements is included below:

- **Districts administering agricultural BMP program:** Districts must fill out and have Part I signed by both the participant and the District. However Districts may utilize DCR's Tracking Program to develop Part II, this should be stapled to the full contract. For Part III, the DEQ contract needs to be signed, however the list of BMPs that appears on Part III can be generated from the tracking program and added.
- **Districts administering residential septic BMP program:** Districts must fill out and have Part I and III of the contract signed by the participant and Part III signed by technical representative. Districts may utilize DCR's Tracking Program to develop Parts II and the BMP list for Part III. The Tracking Program generated information should be stapled to the DEQ contract.
- **Districts installing approved agricultural BMP demonstration projects:** The entire 3-part DEQ contract should be used if the BMP is not a VACS or TMDL established practice. In addition, an Operation and Maintenance Plan and Landowner agreement are required.
- **Grantees who are NOT Districts that are administering a residential septic program:** The entire 3-part DEQ contract should be used. Non-District entities should then provide copies of the signed contract to their partner District to record the BMPs in the DCR Tracking Program (if appropriate).

A signed DEQ TMDL Cost-share BMP Contract (Contract) for agricultural and residential septic practices will meet the operation and maintenance plan and landowner agreement requirements. Signing of the contract results in the participant agreeing to maintain their BMP for the specified lifespan and to allow access to the property for spot checks and other listed reasons. A complete application by a participant may include both agricultural and residential septic practices in one application; however, BMP information must be recorded on separate **Part II** or **Part III** of the contract document. This Contract should be maintained in the grant record/file for three years after the lifespan of the longest practice on this contract expires. If the Grantee has an additional contract/agreement that they require participants to use, that document should be attached to a signed version of this contract.

**Copies and distribution of these documents:** Upon completion of Parts I, II and/or III copies should be provided to the following individuals and entities with the following stipulations.

<b>Grantee:</b>	A signed <u>original</u> of the 3-part contract with all associated documentation.
<b>Participant:</b>	A signed copy of the 3-part contract is provided to the participant.
<b>DEQ:</b>	A signed, redacted copy of the 3-part contract with all associated documentation is provided to DEQ. Redacted information includes: social security #, farm/track/field #, general contact information (address, phone #, etc.).

### Cost-Share Rates

Practices paid on a percentage basis can be funded solely with TMDL funds or in combination with other cost-share assistance programs (piggy-back funding) as long as the combined total does not exceed 100% and the 319(h) portion does not exceed the practice limits. These can include (but are not limited to) the Environmental Quality Incentive Program (EQIP), the Emergency Watershed Protection (EWP) program, or other USDA programs; and the DCR Virginia Agricultural Cost-Share Program (VACS), Indoor Plumbing Program, Southeast Rural Assistance Program (SERCAP), etc. The Department of Forestry conservation programs, like Reforestation of Timberland may only be used for combined funding with the forestry practices FR-1, and FR-3. Grantees may choose to combine resources to fund mutually high priority practices up to a maximum cost-share rate of hundred percent (100%). Unless otherwise explicitly allowed within this manual or the DCR Agricultural Manual, the cost-share payments will be in accordance with the percentage rate (e.g. 75%) of the cost of implementing a practice as documented in the practice specification. Payments shall be made upon the lesser of the actual or estimated eligible cost. Grantees are encouraged to meet with local conservation workgroups and organizations to discuss funding options, priorities, etc.

### Participant Notification

Grantees **must** notify each applicant of the maximum dollar amount approved as well as the cost-share rate for each practice. This will prevent an over allocation of funds by establishing an approved maximum 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 TMDL implementation 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 disbursement of funds is not expected before a specified date. Participant notification of available funding must also include a copy of the DEQ practice specifications to insure they are aware of all aspects of their commitments.

Payments over the estimated total cost due to additional incurred expenses (within the practice limits) that arise after the original Grantee 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.
2. Additional material expenses directly related to the unforeseen site condition altering material quantity or structural specification.
3. Grantee action (e.g. from a District Board) may provide cost-share for additional eligible component expenses related to the unforeseen condition. The sum of additional cost-share and the cost-share amount originally approved cannot exceed the practice cost-share limit.
4. When funds are available, official Grantee action (e.g. from District Board) 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 Grantee's meeting minutes and appropriate changes should be made and noted on the request application and any other data tracking programs.

### Payment

This section is applicable for all TMDL program areas. Any practice installation must meet 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 installation on Part III of the BMP Incentives Contract and all back up financial documentation has been provided by the participant to the grantee. The amount of the cost-share payment is based upon the estimated cost or total actual cost, whichever is less. When completed practices are scheduled for combined funding from a Grantee and other sources, the Grantee cost-share payment must reflect the balance due (not to exceed the amount approved by the Grantee for the cost-share payment) after payment has been approved or issued by the other sources. Total combined state, federal, and any other funding source cost-share payments must not exceed 100% of the actual eligible total cost.

- Agricultural Practices: In the event that a District implements an agricultural BMP, a staff person of the District must sign Part III of the DEQ BMP contract stating that they “certify that all administrative and technical components of any practice listed above for payment and/or tax credit have been completed by an appropriately qualified individual and it has been determined that each practice meets all applicable standards and specifications necessary for certification and/or payment. All practices are subject to spot check procedures and any other quality control measures.”

#### Payment – Tax information

Grantees must provide an Internal Revenue Service Form 1099-G or 1099-M 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. 1099 forms go to the individual or organization who received payment for the practice. DEQ is not providing tax advice; the Grantee and the program participant may wish to consult with an independent tax advisor regarding potential tax consequences.

- Agricultural Practices: Districts should use a 1099-G form.
- Residential septic Practices: For practices other than agricultural BMPs, such as residential septic BMPs, a 1099-M will be used. If the payment for a RB practice (RB-2, 3, 4, 4P, 5) is redirected at the participant’s request to a technical service provider (TSP), the 1099-M goes to the individual/business receiving cost-share funds. Participants must sign an “Assignment of Onsite Sewage Disposal Practices Cost-share Payment Authorization” form which will designate that a payment goes to the TSP. Districts must also file IRS Form 1099-M and Form 1096 with the Internal Revenue Service in accordance with IRS regulations. In the case of authorized TSP, the 1099-M would be sent to the TSP not to the landowner who signed the assignment form.

#### Government Owned/Managed Land

As of June 2015 federal 319(h) funds may not be utilized on federally owned or managed lands. Please consult with DEQ for more information.

#### Agricultural Engineering and Job Approval Authority

All agricultural BMPs installed with grant funds must have an individual with Engineering Job Approval Authority (EJAA) design the practice and verify that the practice was installed according to appropriate specifications. Prior to October 1, 2013, NRCS delegated EJAA to District staff allowing them to design many of the agricultural practices installed. NRCS no longer provides EJAA oversight for practices by Districts. DCR will provide engineering services for all practices jointly funded with VACS and 319(h) if there is not a District staff person available who holds DCR EJAA. VACS projects will take priority regarding engineering services at DCR; however, DCR will provide these services for solely funded 319(h) projects when possible. This means that in some cases, design and oversight for practices completed solely through DEQ 319(h) funding will have to come from another entity if the District does not have staff with EJAA.

Ensuring that practices installed with 319(h) funds are designed and installed by an individual with the appropriate EJAA will protect District staff from potential liability issues, while also making certain that practices are installed according to established specifications. Districts should have sufficient staff resources that include appropriate EJAA to meet the requirements under the grant.

There are several ways in which a District can demonstrate that they meet the EJAA requirement stated above:

- 1) If the District currently has staff that hold(s) the appropriate NRCS EJAA(s) as recognized by DCR as of October 1, 2013 for all the components of all BMPs that will be installed or if DCR has performed a review and issued EJAA, the District will be asked to sign a statement listing these staff members and verifying their EJAA.
- 2) If the District does not have any staff with appropriate EJAA(s) they can do any or all of the following:
  - a. Partner with neighboring Districts that have staff that do hold the appropriate EJAA(s).
  - b. Consider selecting BMPs to implement which require EJAA that can be jointly funded with both 319(h) and state VACS (e.g. SL-6 stream exclusion). For practices that are jointly funded with 319(h) and VACS the district would continue as they normally would to contract, design and install a practice through the VACS program under the guidance and oversight of DCR.
  - c. Select BMPs that could be jointly funded by USDA-NRCS EQIP or other federal funding allowing 319(h) funds to supplement other funding. In this case NRCS staff could be available to assist with practice design and oversight.
  - d. Engage a private professional engineer (PE) to provide oversight of design and installation to insure BMPs meet specifications and eliminate liability to district.
  - e. Contact DCR for assistance if the other options listed above are not available.

DEQ wants to make Districts aware of this issue and the associated grant requirements so they can take it into consideration when deciding which agricultural practices to fund. We recognize the challenges that this may pose for some districts and intend to work with our partners to assist Districts in meeting this requirement in the easiest way possible.

<u>TMDL Practice Code</u>	<u>TMDL Practice Name</u>	<u>NRCS Practice Code</u>	<u>NRCS Practice Name</u>	<u>Professional Engineer (PE) or Engineer Job Approval Authority (EJAA) Required</u>
LE-1T Or LE-2T	Livestock Exclusion with Riparian Buffers for TMDL Implementation or Livestock Exclusion with Reduced Setback for TMDL Implementation	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
		472	Access Control	NO
		378	Pond	PE
SL-6AT	Small Acreage Grazing Systems for TMDL Implementation	580	Stream Bank and Shoreline Protection	PE
		575	Trails and Walkways	EJAA
		362	Diversion	EJAA
		412	Grass Waterway	EJAA
		516	Livestock Pipeline	EJAA
		574	Spring Development	EJAA

		558	Roof Runoff Structures	EJAA
		614	Watering Facility	EJAA
		561	Heavy Use Area Protection	EJAA
WP-2T	TMDL Support for Stream Protection	575	Trails and Walkways	EJAA
		516	Livestock Pipeline	EJAA
		472	Access Control	NO
		578	Stream Crossing	EJAA

If a TMDL “T” practice is not listed above, the practice does not contain components that require EJAA or a Professional Engineer and the practice can proceed to completion without the EJAA requirement. Certain BMPs have multiple components, and each component may have multiple levels that require different EJAA. The table above just states whether some level of EJAA may be required. In some cases staff may not hold all of the EJAA’s necessary to design all of the components necessary for a practice. When in doubt, please check with the DCR State Agricultural Engineer (Amanda.pennington@dcr.virginia.gov). All VACS practices funded with 319(h) need to follow the procedures outlined in DCR’s BMP manual; please refer to the “Agricultural Engineering Program” section below for more information. All EJAA and completed designs may be subject to annual reviews and engineering spot checks.

#### DCR Agricultural Engineering Program

For the EJAA requirements for VACS practices (allowable agricultural practices not listed above) or for more information about DCR’s Agricultural Engineering Program and what assistance may be provided, please refer to pages II-14-18 of DCR’s [Virginia Agricultural Cost-share \(VACS\) BMP Manual](#).

#### Documentation

Grantees will retain all billings and supporting data in their files according to the information listed in individual grant agreement documents, including the following unless notified by DEQ. For any practice cost-shared with TMDL funds on a percentage or flat rate basis, the Grantee 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.

- Districts must complete their data input to the DCR BMP Tracking program according to the program schedule published in this manual. This may mean that Grantees contracting with Districts to enter practices into the DCR Tracking Program must provide information to the associated District in time to meet the published schedule.
- Conservation and BMP plans and practice design sheets should be kept with individual case files according to Grantee policy.
- Grantees must retain signed copies of Parts I, II and III of the BMP Contract. If the practice is installed, documentation (including signed cost-share contract) should be retained for three (3) years beyond the lifespan of the practice.
- Copies of the contractor selection documentation must be provided to the Grantee and be included as documentation along with the associated BMP Contract

Any cost-share request that includes at least one subcontractor’s scope of work that is anticipated to exceed billable expenses in excess to what is listed in the approved Contractor Selection for BMPs procedures (in this Manual), must have documentation that they those approved bid procedures were followed before cost-share funds may be expended. For any practice cost-shared with 319(h) funds on a percentage basis, the Grantee will require bills for all eligible practice components to determine total installation costs. Authorizing personnel will examine supporting data to determine components and

proper rates. Participants must sign DEQ BMP Contract Parts I and III. Part III includes the participant's certification that the practice is completed according to specifications.

### Data Reporting

In order to adequately track program effectiveness and to make necessary management decisions, it is vital that all data is reported in a timely fashion. Per executed DEQ grant agreements; by the 15th of the month following the end of a calendar quarter, Grantees are to submit a quarterly budget report, reimbursement request and narrative report according to their grant agreement contract, to the assigned DEQ Project Manager, DEQ Office of Financial Management ([ofm@deq.virginia.gov](mailto:ofm@deq.virginia.gov)), and DEQ NPS program ([npsgrants@deq.virginia.gov](mailto:npsgrants@deq.virginia.gov)). All data for completed practices for a specific quarter must be entered into DCR's BMP Tracking Program (or entered onto the *Attachment D NPS BMP Tracking Form* from the executed agreement) by the 15th day following the end of a quarter. Any additional reporting requirements for the TMDL BMP cost-share will be stated in the contractual agreement with DEQ. The Tracking Program BMP database will be maintained on a DCR Richmond server and will be available for generating reports through LOGI software accessible by the District staffs. DEQ database management staff will query DCR's database to officially collect data for all practices quarterly.

### Conflict of Interest

As required by Title 2 of the Code of Federal Regulations, section 200.112, Environmental Protection Agency (EPA) has established a Financial Assistance Conflict of Interest (COI) Policy governing disclosure of actual and potential conflicts of interest by non-Federal entities for federal financial assistance awards received from EPA/DEQ. The COI Policy has a streamlined approach to reduce administrative burden.

The streamlined approach:

- 1) Uses a solicitation clause requiring non-Federal entities to notify EPA/DEQ if their COI point of contact is aware of any unfair competitive advantage the non-Federal entity had in competing for any EPA awards
- 2) Relies on **systems in place** developed by the non-Federal entity to disclose and address contract/subaward COIs for EPA funded transactions without prescribing the procedures or type of COI inquiry they must conduct.

All non-Federal entities receiving EPA financial assistance must abide by the EPA Conflict of Interest Policy. In addition to the EPA Conflict of Interest Policy, the Code of Virginia State and Local Government Conflict of Interest Act is applicable to all state and local government officers and employees.

The following links are listed below for non-Federal entities receiving federal funds from EPA via DEQ.

1. EPA's Final Financial Assistance Conflict of Interest Policy <http://www2.epa.gov/grants/epas-final-financial-assistance-conflict-interest-policy>
2. Code of Virginia State and Local Government Conflict of Interest Act <http://law.lis.virginia.gov/vacode/title2.2/chapter31/>

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

TMDL projects are administered with an assigned cost-share allocation (which, if appropriate will be associated with an initial Program Year in the DCR BMP Tracking Program). Practices should be tracked and maintained in a tracking spreadsheet (and if appropriate in the DCR BMP Tracking Program) until the grant ends, is canceled, or all funds are expended. Grantees shall set completion dates for practices in order to authorize funds from canceled practices to other requests. All authorized practices must be completed by deadlines as established by DEQ based on grant termination dates and deadlines. **Practices not started within nine months of Grantee approval (e.g. SWCD Board approval) should be cancelled.** Please note:

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 shall be monitored by Grantee staff or their sub-award staff until completion of the practice. The Grantee 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 official action by the Grantee may extend the completion date if justified. All practices should be completed within two years of Grantee approval or within the time limits of the grant contract end date. BMPs may need more than one year to complete and should be maintained in all tracking mechanisms (e.g. DCR BMP Tracking Program) under the initial program year until certified as complete. It is the responsibility of each Grantee to monitor progress with approved BMPs and communicate the preceding expectations to all affected participants. It is also the Grantee's responsibility to take into consideration the end date of their 319(h) grant award when approving new practices to assure there will be enough time on the grant contract for the work to be completed.

- Grantees are required to track BMP progress (percent completed) to help determine status of projects.
- Grantees must expend all disbursements (cash-on-hand) during the time frame of the current, active grant agreement.
- Districts should track 31(h) funding on the "End of Program Year Cash On-Hand Balance" form and the "Carry Over" form provided to CDCs and include this in the appropriate quarterly report with the 319(h) grant agreements.
- Unlike state cost-share funds, federal 319(h) funds do expire and the use of those funds after the period of the federal award period is **not** allowed. Funds not expended during the Federal EPA award period must be given back to DEQ to be returned to EPA. This is important to remember as DEQ may provide a 'drop dead' date for the full completion and pay out of practices.

Special Actions for BMPs tracked in DCR's Tracking Program: All applications entered into BMP Tracking Program must be identified as (1) completed; (2) canceled, or (3) carry over (if meets TMDL eligibility guidelines) at the end of a fiscal year (June 30). All completed projects to be paid and marked as "complete" in the BMP Tracking Program by this date. No Approved or Requested practices may exist in the following fiscal year. Districts complete carry over report and submit this to their Conservation District Coordinator and their DEQ Project Manager.

#### Location of Environmental Information

Grantees are asked to geo-locate, with a coordinate pair, all cost-share BMP practices. Having a coordinate pair representing the location of the practice allows DEQ or another organization to associate the BMP with geographic features such as monitoring locations, watersheds and stream segments. A practice coordinate pair should be near the center of the area impacted by the BMP. Accurately siting a BMP and collecting the correct coordinate pair is critical since it may impact eligibility for Section 319(h) TMDL funding. As a reminder section 319(h) funds are strictly limited to use within the boundaries of DEQ/EPA approved NPS Implementation Plans; and more specifically any smaller, targeted subwatershed areas of an IP for which a project may focus that may be listed in an executed grant contract. DEQ's Section 319(h) TMDL implementation cannot pay for nor reimburse the costs for BMP installed outside of approved boundaries.

Please use the approved DEQ Implementation Plan watershed boundaries when determining scope of an implementation project and for locating a BMP. The Virginia Environmental Geographic Information System (VEGIS), VEGIS is a good resource that may help you create an implementation map. VEGIS is provided by DEQ at

[http://www.deq.virginia.gov/mapper\\_ext/default.aspx?service=public/wimby](http://www.deq.virginia.gov/mapper_ext/default.aspx?service=public/wimby).

A user must ADD the Implementation Watersheds map layer, this can be done through the following steps.

1. You must “Add Map Layers” (TMDL\_IP\_Watersheds)– Add by clicking on the TMDL\_IP\_Watersheds within the Public folder in the left-hand pane then click on the green Plus sign in the right hand pane.
2. Then turn on (click or place a checkmark by the layer) the watershed layer in the table of contents on the left and the IP watersheds will display by status.
3. More information is available for each Implementation Watershed by using the identify tool and then checking in the Results tab in the Table of Contents on the left of the map.

Once the TMDL IP Watersheds layer is loaded there are various ways you may utilize the application in order to determine if a BMP is within a specific TMDL IP. For example a Grantee may- “Search for Address” and type the address of where a BMP is located and then determine if it within the desired TMDL IP area.

Grantees who have their own GIS systems may download up-to-date spatial data downloaded for use in ArcGIS desktop in the following location:

<http://www.deq.virginia.gov/ConnectWithDEQ/VEGIS/VEGISDatasets.aspx>.

The **TMDL\_IP\_Watersheds\_Geodatabase.zip** is updated nightly. Once you have unzipped the file, the polygon layer (s) can be added to ArcMap. There are two polygon layers and two tables in the geodatabase. The IP Watersheds DEQ layer should be joined to the IP\_Watershed\_Info Table on the IP\_KEY field. This will allow access to attribution associated with the Implementation Watersheds in Virginia.

District users of DCR’s Tracking Program: DEQ provides an updated TMDL IP layer twice a year to DCR which is uploaded into DCR’s Tracking Program. If the IP layer is “on” in the GIS application within the Tracking Program, then a District staff person will be able to determine if the BMP location is within a designated TMDL IP area.

#### Hydrologic Unit Geography, Reporting, Unit Codes, County Codes and City Codes

For more information about Virginia’s hydrologic units and getting lists of county and city codes; please refer to DCR’s [Virginia Agricultural Cost-share \(VACS\) BMP Manual](#).

#### 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. 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. 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 DEQ or 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 Grantee will notify participants found with practices still not in compliance in writing that repayment of TMDL cost-share

funds is required. Participants will have 60 days from the date of the Grantee's notification of repayment to refund the cost-share funds. If restitution has not been made at the end of this period, the Grantee will notify DEQ for assistance to reclaim funds in order to determine if assistance from the Office of the Attorney General (OAG) is necessary. On a case-by-case basis, 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. When a Grantee has determined that a practice has failed or been destroyed and all of the practice failure and repayment procedures were followed, and the participant claims that due to some unforeseen hardship that he/she cannot repay the cost-share funds then the hardship process may be initiated.

Agricultural 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 during active implementation projects 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.

#### Hardship Process (including highly unusual situations)

This process may be utilized in highly unusual situations where a participant requests that the Grantee forgive repayment of cost-share funds due to failure of a BMP and the Grantee has determined that due to highly unusual circumstances beyond the participant's control that it is reasonable to forgive repayment cost-share funds normally associated with a practice failure. The unusual circumstances must be of a severity such as a life-threatening illness, bankruptcy, or other highly unusual situation. This process may not be used to provide relief associated with modifications to practice specifications. If appropriate in "hardship" cases, the Grantee may make alternative recommendations for DEQ's consideration. All requests for hardship shall be submitted in writing to the DEQ 319(h)NPS Grant Program Manager ([npsgrants@deq.virginia.gov](mailto:npsgrants@deq.virginia.gov)) and copied to the appropriate DEQ Project Manager (and if appropriate with Districts, to the appropriate DCR Conservation District Coordinator (CDC). When a Grantee requests considerations of a hardship case, DEQ will convene an ad hoc committee composed of at least three members; the regional Project Manager, the DEQ NPS Grant Manager, and one other representative (DCR CDC, DEQ Implementation Manager, etc.). The Grantee may act as an advocate for the program participant or the participant may present their 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 their responsibility to repay, (ii) granted a reduced repayment, or (iii) be allowed to restructure repayment of the cost-share amount due to the Grantee/DEQ. The ad-hoc committee will render its decision whether or not to grant a hardship exception in writing to the Grantee and participant citing its reasoning and referencing the documentation provided.

- Agricultural Practices: The DEQ Project Manager and the regional DCR CDC must be copied on all correspondence and be kept informed of any related activity.
- Non-Agricultural Practices: The DEQ Project Manager must be copied on all correspondence and be kept informed of any related activity.

### Transfer of Responsibility

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 Grantee either an executed copy of the, "TMDL Best Management Practice Maintenance Agreement Transferring Responsibility for Best Management Practice" transferring legal responsibility for maintenance of the practice to the new property owner/lessee or (2) a pro-rated return of cost-share funds (see section on Practice Failures). When signing of Part I and III of the BMP contract, the participant affirms his/her understanding that he/she will be held financially responsible and liable for the practice even if the property exchanges hands; unless a dually signed "TMDL Best Management Practice Maintenance Agreement Transferring Responsibility for Best Management Practice" is completed.

Commonwealth of Virginia  
TMDL 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 (BMP) that received grant funding, cost-share and/or tax credit. The present participant of the property has received funding from the Commonwealth of Virginia to implement a BMP on the below-referenced land unit. In return he/she has agreed to maintain the practice until \_\_\_\_\_. Completion of this agreement acknowledges assumption of responsibility by the new participant, including the requirement to repay grant, cost-share or tax credit received by the present participant if the BMP is not maintained according to state specifications or in accordance with the Operations and Maintenance Plan.

Latitude: \_\_\_\_\_ Longitude: \_\_\_\_\_  
Specification No. (if applicable): \_\_\_\_\_ Extent Installed: \_\_\_\_\_  
Contract No.: \_\_\_\_\_ BMP Instance # \_\_\_\_\_

PRESENT PARTICIPANT-NAME & ADDRESS

NEW PARTICIPANT-NAME & 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 or the assigned Operation and Maintenance Plan, and to refund all or part of the cost-share assistance or other provided funding 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 DEQ personnel or their designee access to his/her property for the purpose of verifying maintenance of BMP. DEQ follows agency guidance and the Code of Virginia when accessing private property see, <http://www.deq.virginia.gov/Programs/Enforcement/Laws,Regulations,Guidance.aspx>
2. DEQ 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.

\_\_\_\_\_  
(SIGNATURE OF PRESENT PARTICIPANT)

\_\_\_\_\_  
(SIGNATURE OF NEW PARTICIPANT)

\_\_\_\_\_  
DATE

\_\_\_\_\_  
DATE

\_\_\_\_\_  
SSN or Federal Tax ID#

\_\_\_\_\_  
SSN or Federal Tax ID#

APPROVED BY: \_\_\_\_\_

DATE: \_\_\_\_\_

## Contractor Selection for BMPs

Grantees are expected to spend cost-share funds as efficiently as possible. Grantees must document the decision process to approve cost-share, which includes documenting participant's rationale for choice of contractor. Grantees should establish minimal procedures that participants must follow when selecting contractors in order to insure competition and most competitive pricing. When working with participants to document choice of contractor, Grantees should employ existing organizational procurement procedures. For example, existing internal approval process with established average cost lists and partnerships are utilized to ensure appropriate competition and pricing. Grantees must provide DEQ with a copy of or reference to (e.g. web link) the Grantee's established procedures. Grantees that do not have existing contractor selection procedures may establish their own procedures or should employ the processes described below.

- **Agriculture BMPs:** Bid procedures found in DCR's [Virginia Agricultural Cost-Share \(VACS\) BMP Manual](#).
- **Residential septic BMPs:** Bids will be obtained from contractors when the total cost of the BMP is expected to exceed \$5,000.<sup>1</sup> The number of bids obtained must be deemed appropriate by the Grantee. The bid process for residential septic should include the following:
  - **Participant notification:** Grantees will notify the participant that the request is eligible for cost-share assistance and that cost-share funds will be authorized pending the receipt of bids. The scope of the bid should be clarified with the participant by the appropriate technical agency, if applicable, so that equivalent estimates for installation can be acquired. Appropriate technical agency is referenced in Part III of the contract and explained in the contract section of these BMP guidelines. The participant will be sent a bid solicitation sheet for use in obtaining bids (Cost-Share Bid Solicitation Sheet). The participant will have 60 days to obtain bids, complete the form, and return it to the Grantee. Grantees may employ a more expedited process when emergency conditions exist (e.g. non-functioning system in need of immediate repair). Grantees should document to the project file the procedures implemented during emergency conditions.
  - **Public announcement:** The Grantee will post at a prominent public place within its office a notice that a participant is accepting bids for the installation of the specified BMP. The appropriate standards and specifications will be attached to the notice as well as the desired starting and completion dates. Distribution of copies of designs or other specific site diagrams to prospective bidders will be the responsibility of the participant. Participants may contact contractors in an attempt to obtain bids.
  - **Bid solicitation:** The participant will complete the bid solicitation sheet showing the name, address, telephone numbers, and employer identification number of each construction contractor, the (participant) name, address, site location, type of BMP, and estimated start and completion date. When the recommended number of bids cannot be obtained from sources within a fifty (50) mile radius of the BMP location, the participant will provide documentation for this in the comment section of the bid solicitation form.
  - **Receipt of the bid solicitation sheet:** After the Grantee receives the required bid solicitation sheet, the Grantee will notify the participant that his cost-share request has been approved, and the specific cost share amount authorized. The Grantee will retain a file copy of the bid solicitation sheet.
  - **Notification to bidder:** The participant will notify the successful bidder who can then execute a construction contract and begin installation. The participant will reserve the right to reject all bids and cancel the cost-share request up until signing a contract. In the event the participant

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<sup>1</sup> This number represents the higher end of cost for residential septic practices found in the program design and guidelines.

does not award the project to the lowest bidder, the participant will provide suitable justification in writing to the Grantee as to why the low bid was not accepted. This statement will be attached to the bid solicitation sheet and maintained in the Grantee files.

- **Notification to Grantee:** The participant will notify the Grantee and the appropriate technical agency, if applicable, that the bid process is complete and of the anticipated construction start date.
- **Funding confirmation:** Upon review and certification of the bids or required bid sheet, the Grantee will confirm authorization of funding with the participant.

### Spot-check Procedures

Spot checks are meant to determine practice viability during 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 Grantee and the appropriate technical agency should be notified.

- **Agricultural BMPs:** DEQ has an agreement with DCR that TMDL practices will be considered with VACS practices when determining which BMPs should be inspected. DCR personnel along with associated DEQ Project Managers will conduct spot checks and will follow the procedures found in DCR's [Virginia Agricultural Cost-Share \(VACS\) BMP Manual](#).
- **Non-Agricultural BMPs:** DEQ is establishing its BMP Inspection and spot check procedures for non-agricultural practices. Once this process is approved a copy of the procedures will be provided to all grantees conducting non-agricultural BMP implementation.

### Administrative Review and Satisfactory Progress Review

All grant contracts are subject to periodic satisfactory progress review to determine if the Grantee is managing its work according to the executed agreement. These reviews will be conducted by the assigned DEQ project manager and may include other listed project partners. In conjunction with spot-checking, each assigned project manager (and/or associated DCR Conservation District Coordinator) may ask to examine participant files to assure accordance with plans, policies, procedures and specifications. DEQ or its designee may choose to examine only those participant files, which have been selected for spot check or they may choose an overall sampling of no more than 10% of all participant files currently under practice lifespan.

### Biosecurity Considerations (including for Poultry and Livestock) and Response to Suspected or Confirmed Foot and Mouth Disease (FMD) Outbreak

This section is applicable for all TMDL agricultural program areas; reference DCR's [Virginia Agricultural Cost-share \(VACS\) BMP Manual](#).

### Districts Receiving 319(h) funds in 2017 for 2015 100% Stream Exclusion Practices

All Districts that are utilizing Section 319(h) funds in combination with VACS funds to provide 100% cost-share for SL-6 practices signed up by 6/30/2015 will be required to acknowledge that they are being allowed to use new funds to partially fund these pending 100% practices. *"You are receiving 319(h) funds for SL-6 practices that were signed-up during the 2015 program year as eligible for 100% funding to be paired with VACS funding. These funds are awarded to [name district] specifically for [name watershed]. The 319(h) funds can support up to \$70,000 per practice per year, and only up to 75% of the overall cost of the practice."* The DCR Tacking Program will not control the cap and percentage, and it is the grantee's responsibility to abide by these funding specifications.

Revised June 2016

**Section II: (Template)**  
**Program Design and Guidelines**  
**TMDL – Cost-Share Assistance Program for Onsite Sewage Systems**

**Overview**

The Program Design and Guidelines for the Virginia TMDL Cost-Share Assistance Program for Onsite Sewage Systems, administered by the Department of Environmental Quality (DEQ), will outline the application and review process; selection criteria, and administrative procedures for providing cost-share assistance to property owners.

This program provides cost-share for septic tank pump-outs, connection of failing systems or straight pipes to public sewer, repair and or replacement of failing onsite sewage systems, and the installation of onsite sewage systems and alternative sewage systems.

Grantees who receive grant funds to provide cost-share assistance for sewage systems shall use this program guidance and modify it to identify the specific local areas where these funds are being utilized (note bolded text). A copy of the completed guidance shall be submitted to the DEQ project manager and (and cc'd to [npsgrants@deq.virginia.gov](mailto:npsgrants@deq.virginia.gov)) within 30 days of the grant agreement effective date. This guidance should be updated and resubmitted to DEQ by August 31 of every year to address changes in the residential septic program for the new fiscal year that starts July 1.

**I. Targeting Participation**

A. **Geographical Area of Program:** The program will be available to **homeowners** of property located in the (**list impaired watersheds**) in (**County or Counties**), Virginia.

B. **Solicitation of Participants:** Cost-share applications will be sought through the following means:

1. Health Department Referrals – The Virginia Department of Health, through the local Health Department, issues Notices of Alleged Violations (NOAV) to property owners whose sewage systems are in violation of health and environmental regulations. Property owners under NOAV may contact the (**Grantee**) for application.
2. Referrals from Local Governments, Other Agencies – Homeowners often contact the locality when they have a malfunctioning sewage system. Localities and other local, state, and federal agencies serving the area will be notified of the Program and will be able to refer clients to the Program.
3. Educational Activities – News releases, fliers at public locations, mailings to watershed property owners, workshops, public meetings, etc.

C. **Income Guidelines:** All Program participants are eligible to receive a minimum of 50% cost-share for all practices. An increased assistance rate up to 75% will be available based on the family income of the property owner(s) for certain practices. The cost share rate of 50% to 75% is applied to the total eligible cost and has a maximum payment amount (cap) based on the upper end of the practice reimbursable amount (see Table 1 below). The percentage of cost-share awarded per applicant will be based on the current median family income for the subject county, as published by the [U.S. Department of Housing and Urban Development](#) or [US Census Data](#). Applicant cost-share assistance rate will be based on the guidance below:

<u>Percent of Median Income</u>	<u>Percent of Cost-Share</u>
< 40%	75%
40 - 60%	70%
61 - 80%	60%
81 – 100%	50%

D. **Scope of Work:** The TMDL Cost-Share Assistance Program for Onsite Sewage Systems will consider any repair or replacement approved by the Virginia Department of Health, and not prohibited by any local ordinance to be suited for cost-share assistance under this Program for dwellings that are occupied or may be temporarily unoccupied between leases. When an applicant agrees to carry out the onsite sewage system repair or replacement, the applicant is responsible for maintaining the repair/replacement for the specified life span requirement unless the property is sold and a *Transfer of Responsibility Agreement* is executed between the seller and buyer.

Examples of onsite sewage systems or alternative sewage systems which may be funded under this program include septic tank – soil absorption, aerobic treatment units, low pressure distribution systems, drip distribution systems, sand filters, elevated sand mounds, constructed wetlands, peat filters, vault privies, incinerator toilets, and composting toilets.

The following are general estimates of cost ranges for practices/systems that are eligible for cost-share:

**Table 1. Practices/systems eligible for cost-share.**

<b>Systems</b>	<b>Cost</b>	<b>Cost-Share Caps</b>
Septic Tank Pumpout (RB-1)	\$150 - \$300	\$150, all participants
Connection to Sewer (RB-2)	\$3,500 - \$9,000	\$4,500 (50%) \$5,400 (60%) \$6,300 (70%) \$6,750 (75%)
Septic Tank System Repair (RB-3)	\$300 - \$4,667	50%-75% of total, cap of \$3,500
Septic Tank System Installation/Replacement (RB-4)	\$3,000 - \$8,000	\$4,000 (50%) \$4,800 (60%) \$5,600 (70%) \$6,000 (75%)
Septic Tank System with Pump (RB-4P)	\$4,500 - \$9,000	\$4,500 (50%) \$5,400 (60%) \$6,300 (70%) \$6,750 (75%)
Alternative Waste Treatment Systems (RB-5), include: Aerobic Treatment Units, Low Pressure Distribution Systems, Drip Irrigation Distribution Systems, Sand Filters, Elevated Sand Mounds, Constructed Wetlands, Peat Filters, Vault Privies, Incinerator Toilets, Composting Toilets. Discharging systems requiring a NPDES/VPDES permit are not allowed.	\$1,500 - \$20,000	\$10,000 (50%) \$12,000 (60%) \$14,000 (70%) \$15,000 (75%)

Alternative sewage systems are often needed for older homes that have a straight pipe or a failing septic tank system and there is not enough space with setback requirements or suitable soils for replacing with a septic tank system. Older homes often have antiquated plumbing that creates challenges in dealing with gray water discharges. Because of these factors, local programs are encouraged to work with the [Virginia Department of Housing and Community Development](#) and the

[Southeast Rural Community Assistance Project](#). Both have Indoor Plumbing and Rehabilitation Programs that offer grants/loans to homeowners to modernize plumbing and to replace straight pipes and failing onsite sewage disposal systems. Communication has been provided to both about the TMDL – Cost-Share Assistance Program for Onsite Sewage Systems and they are interested in working with low income homeowners that need assistance.

Alternative sewage systems (RB-5) that discharge to state waters and require a discharge permit from DEQ are ineligible for 319(h) cost-share according to EPA.

## II. Cost-Share Application and Review

### A. Application Guidelines:

1. Continuous Sign-Up – Applications will be accepted on a continual basis.
2. Income Eligibility – For an increased cost-share rate above 50%, applicants shall demonstrate income qualification based on local program guidance. This may include a requirement that the applicant provide a copy of the most recent state or federal tax return. Applicants should also provide a completed W-9 form.
3. Place and Time of Application – Applications will be available at the (**Grantee**) office at (**address**) between the hours of (**operating hours/days**).

### B. Review Guidelines:

1. Staff Review – The (**Grantee**) staff will review each application for completeness. Staff will verify income eligibility. Staff will verify that the onsite sewage system is in need of deficiency correction through a repair permit or installation permit issued by the Department of Health or consultation with the local Health Department. A site visit should be made by Grantee staff.
2. Selection Committee – The (**Grantee**) will designate a committee to review and approve the completed applications. The Committee will recommend the applicants to receive cost-share assistance to the (**Grantee**) for approval. The Committee shall consider the following in determining cost-share funding priorities when the number of applicants and requested cost-share exceed available funding :
  - a. Quantity of Residential Program control measures identified in the TMDL implementation plan;
  - b. Cost of correcting onsite deficiency;
  - c. Correction of on-site waste disposal deficiency, impact on water quality;
  - d. Repair permit issued by Department of Health;
  - e. Proximity of deficiency to impaired stream;
  - f. Local geological features on-site (e.g. karst, rock outcroppings, etc.),
  - g. Method of correcting on-site deficiency – probability of successfully functioning system, including ease of maintenance.

### III. Administrative Procedures:

#### A. On-site Sewage System Repair/Replacement Specifications

The owner or agent shall obtain a Department of Health permit for the repair of an existing on-site sewage system or the installation of an on-site sewage system or an alternative sewage system. Also the owner or agent is responsible for obtaining any other permit as required for construction of the sewage system. The property owner shall obtain and comply with any engineering designs as required in the Department of Health permit.

#### B. Permits, Inspections and Sign-Off

The Department of Health will issue the on-site sewage system repair/replacement permit. A final inspection of the repair or replacement shall be conducted by the local Health Department, private on-site Soil Evaluator, or Virginia licensed Professional Engineer. The *Virginia Residential TMDL BMP Cost-Share Contract Form* (Parts I and III) must be signed and dated by the property owner(s) and a Grantee representative. A copy of the repair or replacement permit shall be retained in the applicant file.

#### C. Variance Requests

The (**Grantee**) staff can potentially provide more than the cap amount allowable by practice at the 75% cost-share assistance rated applied to RB-2, RB-4, RB-4P, and RB-5. To submit a variance request the applicant must be eligible for more than 75% cost-share. All requests should be forwarded by the (**Grantee**) to the DEQ central office TMDL implementation Coordinator or [NPSgrants@deq.virginia.gov](mailto:NPSgrants@deq.virginia.gov). Only those applicants eligible for >75% cost-share will be considered for a variance to allow increased cost-share above the cap amount.

#### D. Assignment of Residential Cost-Share Funds

The (**Grantee**) staff can assign the cost-share payment for residential septic practices to a third party contractor/installer upon request by the participant. An "Assignment of Residential septic Practice (RB-2, 3, 4, 4P, and 5) Cost-Share Authorization" form must be completed and provided to the (**Grantee**). In order for this payment to be made the contractor must provide a completed Form W-9, Request for Taxpayer Tax Identification and Certification to the (**Grantee**). If over \$600, the (**Grantee**) must submit a 1099-M to the recipient of grant funds, in this case the contractor.

#### E. Tax Advice

Neither the (**Grantee**) nor the Virginia Department of Environmental Quality (DEQ) provide tax advice; the program participant may wish to consult with an independent tax advisor regarding potential tax consequences

Revised June 2016

**Section III**  
**TMDL Program Schedule for Fiscal Year 2017 (July 1, 2016 – June 30, 2017)**

Grantees should keep track of key dates during the fiscal year as far as reporting and activity to make sure their projects are kept on schedule. Every Grantee has received a timeline and milestone table which is usually contained in the Attachment C of the executed agreement. Grantees should adhere to that schedule. The schedules contained in this manual are reminders of General programmatic activities and goals.

- June 1, 2016      **End of PY16 Cost Share Program Year and End of Quarter:** Quarterly reports, including cost-share requests for reimbursements for the quarter due to OFM and Project Manager by 07/15/2016. All applications entered into BMP Tracking Program must be identified as (1) completed; (2) canceled, or (3) carry over (if meets TMDL eligibility guidelines). All completed projects to be paid and marked as “complete” in the BMP Tracking Program by this date. No Approved or Requested practices may exist in PY16 after June 2016.
- July 15, 2016      **Quarterly report due for April 1 – June 30.** Grantees submit full quarterly report (per their executed grant agreement) to [OFM@deq.virginia.gov](mailto:OFM@deq.virginia.gov) and cc their project manager.
- July 31, 2016      **Semi-Annual or Annual Satisfactory Progress Review.** At least once a year DEQ Project Managers will meet with grantees (specific dates and deadlines will be listed in executed agreements) to assess project implementation.
- August 31, 2016      **Residential Program Guidelines Update.** Grantees submit updated Residential Program Guidance to DEQ Project Manager and [npsgrants@deq.virginia.gov](mailto:npsgrants@deq.virginia.gov) to address any changes in the program for new fiscal year and to address any changes made by DEQ in the program.
- October 15, 2016      **Quarterly report due for July 1 – September 30.** Grantees submit full quarterly report (per their executed grant agreement) to [OFM@deq.virginia.gov](mailto:OFM@deq.virginia.gov) and cc their project manager.
- January 15, 2017      **Quarterly report due for October 1 – December 31.** Grantees submit full quarterly report (per their executed grant agreement) to [OFM@deq.virginia.gov](mailto:OFM@deq.virginia.gov) and cc their project manager.
- April 15, 2017      **Quarterly report due for January 1 – March 31.** Grantees submit full quarterly report (per their executed grant agreement) to [OFM@deq.virginia.gov](mailto:OFM@deq.virginia.gov) and cc their project manager.
- June 1, 2017      **End of PY17 Cost Share Program Year and End of Quarter:** Quarterly reports, including cost-share requests for reimbursements for the quarter due to OFM and Project Manager by 07/15/2018. All applications entered into BMP Tracking Program must be identified as (1) completed; (2) canceled, or (3) carry over (if meets TMDL eligibility guidelines). All completed projects to be paid and marked as “complete” in the BMP Tracking Program by this date. No Approved or Requested practices may exist in PY17 after June 2018. Districts complete carry over report and submit this to their Conservation District Coordinator and their DEQ Project Manager.
- July 15, 2017      **Quarterly report due for April 1 – June 30.** Grantees submit full quarterly report (per their executed grant agreement) to [OFM@deq.virginia.gov](mailto:OFM@deq.virginia.gov) and cc their project manager. Additional year-end report information is required. Districts should include 319(h) funded practices in the carry over report they prepare. A copy should be included in the July quarterly

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 reimbursement, disbursement or advance. As per the executed DEQ agreement; all payments for cost-share practices must be recorded on the *Attachment B –Financial Reporting Form* and shall only include those practices with a status of “complete” and/or “complete not paid” by the end of the quarter. Practices with a status of "complete-not paid" will only be eligible for reimbursement if (at a minimum) the following information has been entered into the tracking program: completion date, extent installed, actual cost, cost share payment, check number, and payment date. Tracking program reports will be pulled by DCR on the 17th of the month. report.

**Section IV**  
**Program References**

This Manual referenced various websites and resources. Below is a compendium list of these resources for your easy referral.

URLs of referenced websites and web resources

1. **Virginia Agricultural Cost-share (VACS) BMP Manual:**  
<http://dswcapps.dcr.virginia.gov/htdocs/agbmpman/agbmptoc.htm>
2. **Virginia Stormwater BMP Clearinghouse:** <http://www.vwrrc.vt.edu/swc/NonProprietaryBMPs.html>
3. **Virginia Conservation Assistance Program (VCAP):** <http://vaswcd.org/vcap>
4. **VCAP Manual:** <http://vaswcd.org/wp-content/uploads/2015/09/VCAP-Manual-July-2015.pdf>
5. **TMDL BMP guidelines:**  
<http://www.deq.virginia.gov/Portals/0/DEQ/Water/NonpointSource/DEQTMDLGuidelines-Specifications.pdf>
6. **NPS success stories (www.epa.gov/nps/success):** <https://www.epa.gov/polluted-runoff-nonpoint-source-pollution/nonpoint-source-success-stories>
7. **EPA's Final Financial Assistance Conflict of Interest Policy:** <http://www2.epa.gov/grants/epas-final-financial-assistance-conflict-interest-policy>
8. **Code of Virginia State and Local Government Conflict of Interest Act:**  
<http://law.lis.virginia.gov/vacode/title2.2/chapter31/>
9. **The Virginia Environmental Geographic Information System (VEGIS):**  
[http://www.deq.virginia.gov/mapper\\_ext/default.aspx?service=public/wimby](http://www.deq.virginia.gov/mapper_ext/default.aspx?service=public/wimby)
10. **Enforcement Guidance Memorandum # 1-2011: Access to Private Property for Inspections and Investigations, Denial of Access, and Obtaining Administrative Inspection Warrants:**  
<http://www.deq.virginia.gov/Portals/0/DEQ/Enforcement/GuidanceMemorandum1-2011Mar032011.pdf>
11. **U.S. Department of Housing and Urban Development:**  
<http://www.huduser.org/portal/datasets/il/il15/index.html>
12. **US Census Data:** <http://www.census.gov/hhes/www/income/data/statemedian/>
13. **Virginia Department of Housing and Community Development:**  
<http://www.dhcd.virginia.gov/index.php/community-partnerships-dhcd/water-and-sewer-assistance/indoor-plumbing-rehabilitation-ipr.html>
14. **Southeast Rural Community Assistance Project:** <http://sercap.org/virginia.htm>

**Section V**  
**TMDL Best Management Practice Specifications**

The following section includes detailed specifications for best management practices specific to the TMDL implementation program . Information all eligible practices is included on pages 2-3 of this document.

**TMDL AGRICULTURAL BEST MANAGEMENT PRACTICES**

LE-1T : Livestock Exclusion with Riparian Buffers for TMDL Implementation.....LE-1T  
LE-2T: Livestock Exclusion with Reduced Setback for TMDL Implementation.....LE-2T  
SL-6AT:Small Acreage Grazing Systems for TMDL Implementation..... SL-6AT  
SL-10T: Pasture Management for TMDL Implementation.....SL-10T  
WP-2T: TMDL Support for Stream Protection..... WP-2T

**TMDL RESIDENTIAL ON-SITE SEWAGE BEST MANAGEMENT PRACTICES**

RB-1: Septic Tank Pumpout.....RB-1  
RB-2: Connection of Malfunctioning On-site Sewage System or Straight Pipe to Public Sewer.....RB-2  
RB-3: Conventional On-site Sewage System Repair (updated 9/9/2015).....RB-3  
RB-4: Conventional On-site Sewage System Installation/Replacement .....RB-4  
RB-4P: Conventional Onsite Sewage System Installation/Replacement with Pump..... RB-4P  
RB-5: Alternative On-site Sewage System Installation.....RB-5

**TMDL PET WASTE PRACTICES**

PW-1: Pet Waste Disposal Station ..... PW-1  
PW-2: Pet Waste Treatment BMP..... PW-2

LIVESTOCK EXCLUSION WITH RIPARIAN BUFFERS  
FOR TMDL IMPLEMENTATION  
DEQ Specifications for No. LE-1T

This document specifies terms and conditions for the Total Maximum Daily Load (TMDL) stream exclusion with riparian buffers best management practice, that are applicable to all contracts, entered into with respect to that practice in targeted TMDL implementation project areas.

A. Description and Purpose

A structural and/or management practice that will restrict access to surface waters to reduce sediment, nutrients, and bacteria loadings to streams, and reduce NPS pollution associated with grazing livestock on pastures, within identified TMDL Implementation Areas only.

Provide livestock watering systems and fencing that will improve water quality by eliminating direct access to surface waters, establishing riparian buffers, and by improving pasture management by establishing rotational grazing to control erosion. **Stream exclusion fencing is a required component of this practice.** When rotational grazing is established, participants must implement a rotational grazing plan.

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 and establishing riparian buffers. The least cost alternative that best resolves the resource concern must be utilized.
2. A written management plan, and operations and maintenance plan including a rotational schedule when more than one grazing unit is planned must be prepared and followed for all grazing units contained in the system in accordance with NRCS FOTG. Factors to be addressed must include water sources, environmental impacts, fencing needs, wetlands, minimum cover and grazing heights. Additional concerns addressed should include soil fertility, and system maintenance, access lanes, carrying capacity of the land and paddock rotational grazing schedules.
3. To protect stream banks, cost-share and tax credit are authorized for:
  - i. Fencing, both temporary and stream exclusion (permanent), for grazing distribution and 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. Stream exclusion fencing selection must meet the minimum NRCS permanent fence standard for the livestock being excluded.
  - ii. Stream crossings for grazing distribution, as long as the crossing restricts access to the stream.
  - iii. Fence chargers used to electrify permanent or temporary fencing.

4. To supply water, cost-share and tax credit are 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 technically feasible alternative for water source), including fencing of the area, where needed, to protect water source from pollution by livestock.
  - iv. Installing pipelines, storage facilities, cisterns, and troughs.
  - 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 share is authorized in connection with wells for pipe installed in the well (including the casing), pumps, pumping equipment, and well houses. Districts may approve 85% cost-share for dry wells and/or well location studies (geotechnical surveys) for the development of an alternative watering system on a case by case basis and at the discretion of the SWCD 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.
  - viii. Watering facilities that distribute grazing to improve water quality when an existing livestock exclusion of an adjacent stream or sensitive feature fails to protect water quality.
5. To establish pasture management, cost-share and tax credit are authorized for:
  - i. Interior fencing or intensive rotational grazing systems that distribute grazing to improve water quality when the existing livestock exclusion of an adjacent stream or sensitive feature fails to protect water quality.
  - ii. Prescribed grazing systems may be installed where judged appropriate and feasible by the local technical authority. Consideration must be given, in such cases, to the additional management requirements of such systems.
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.
7. No cost-share and tax credit are authorized under the practice for any

installation that is:

- i. PRIMARILY for recreation, 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 purpose of providing water for the farm or ranch headquarters.
8. 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 only in cases of severe environmental degradation occurring in and around features such as, seeps, ponds, wetlands, sinkholes, etc.
9. Wells constructed under this practice must meet appropriate state and local ordinances and permit requirements for wells supplying water to livestock as a minimum.
10. 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.
11. The primary water use of the components which were installed with cost-share assistance must be for the purpose of providing water for livestock; however, incidental usages may be permitted but is subject to review and approval of the SWCD Board of Directors. Cost-share assistance 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, in advance of BMP implementation the District Board should consider the applicant's intent before approving the request. When a need for incidental use arises following practice implementation approval is subject to a decision of the SWCD Board of Directors. Failure to follow this guidance may result in a re-payment of some portion of the cost share funds provided.
12. Soil loss rates must be computed for all applications for use in establishing priority considerations.

13. 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.
14. This practice is subject to NRCS Standards 528 Prescribed Grazing, 382 Fence, 390 Riparian Herbaceous Cover, 512 Forage and Biomass Planting, 561 Heavy Use Area Protection, 574 Spring Development, 614 Watering Facility, 516 Livestock Pipeline, 472 Access Control, 642 Water Well, 580 Stream Bank and Shoreline Protection, and 378 Pond (water supply only).
15. All practice components implemented must be maintained for a minimum of 10 years following the calendar year of installation. The lifespan begins on January 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.
16. The conservation planning process for developing an alternative watering system for livestock should include consideration of some means of providing water to the livestock during emergency conditions. Generators may not receive cost-share.

C. Rate(s)

1. A cost-share rate based on 85% of the lesser of the estimated or actual cost of all eligible components has been established. Cost-share may be from state or federal funds or a combination of state, federal, and other sources. The maximum cost-share 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.
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 SWCD staff in consultation with DCR, Virginia Certified Nutrient Management Planner(s), NRCS, DOF and VCE, if deemed necessary. Individuals certifying technical need and technical practice installation shall have appropriate certification as identified above, and/or Engineering Job Approval Authority (EJAA), for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures.

LIVESTOCK EXCLUSION WITH REDUCED SETBACK  
FOR TMDL IMPLEMENTATION  
DEQ Specifications for No. LE-2T

This document specifies terms and conditions for the stream exclusion with reduced setback best management practice that are applicable to all contracts entered into with respect to that practice in targeted TMDL project areas.

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, sediment, and bacteria from existing pastureland within TMDL implementation areas and therefore reduce 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 rotational grazing is established, participants must 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. 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, 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

- iv. 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.
  - iv. For the purpose of providing water for the farm or ranch headquarters.
- 8. 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.
- 9. The conservation planning for developing an alternative watering system for livestock should include consideration for some means of providing water to the livestock during emergency conditions. Generators may not receive cost-share.
- 10. State cost-share and tax credit for implementing this practice are limited to pastureland that borders a live stream only. 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, concentrated flow channels with evidence of pollution, 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 cost-share and state tax credit must be for the purpose of providing water for livestock; however, incidental use is not prohibited. 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 Animal Trails and Walkways, 578 Stream Crossing, 614 Watering Facility, 516 Livestock Pipeline, 472 Access Control, and 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 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 credit.

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. Cost-share may be from state or federal funds. The maximum cost-share 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
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 SWCD staff in consultation with DCR, Virginia Certified Nutrient Management Planner(s), NRCS, DOF and VCE, if deemed necessary. Individuals certifying technical need and technical practice installation shall have appropriate certification as identified above, and/or Engineering Job Approval Authority (EJAA), for the designed and installed component(s). All practices are subject to spot check procedures and any other quality control measures.

Revised May 2016

Name of Practice: SMALL ACREAGE GRAZING SYSTEMS  
FOR TMDL IMPLEMENTATION  
DEQ Specifications for No. SL-6AT

A. Description

This practice is cost-share eligible in TMDL targeted implementation areas. It is designed to reduce soil erosion in pastures and to prevent those areas exposed to heavy alternative livestock (non-bovine) 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. Alternative livestock are addressed as pollutant sources in TMDLs.

B. Purpose

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 and runoff transporting bacteria 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.

C. Policies and Specifications

1. Cost-share and tax credit are authorized to protect surface water, supply water troughs, and stabilize a heavy use area
  - i. No structural or management practice is capable of compensating for the damage to soil and water quality from extreme over stocking of livestock; therefore, cost-share and tax credit will not be authorized for any operation where the stocking rate exceeds one (1) animal unit (1,000-pound equivalent) per acre on the existing pastures.
  - ii. A stocking rate of no greater than one (1) animal unit (1,000-pound equivalent) per acre must be maintained throughout the 10 year life span of the practice.
  - iii. Operation must have a minimum of (3) animal units.

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. An animal waste management system plan shall be developed as required by NRCS standard 561-Heavy Use Protection.
3. 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.
4. A minimum of three grassed grazing paddocks is required.
5. 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.
6. 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.
7. 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.
8. 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).
9. 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.

10. Critical eroding and sensitive areas will be fenced out and permanent cover established.
11. The small acreage grazing system must remain in place and operated according to the O & M plan for a period of ten years.
12. Cost-share and tax credit are authorized for: watering facilities, stream exclusion and interior paddock fencing, excavation, and site preparation, geotextile fabric, stone, pipeline, and watering troughs. Cost-share and tax credit are not authorized for heavy use sacrifice areas that exceed the allowable sizing limitation as outlined in (5) (i), or the designated use requirement in 5 (v).
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 Animal Trails and Walkways, 382 Fence, 391 Riparian Herbaceous Cover, 393 Filter Strip, 412 Grassed Waterway, 516 Livestock Pipeline, 574 Spring Development, 558 Roof Runoff Structures and 614 Watering Facilities, and 528 Prescribed Grazing.
14. All practice components implemented must be maintained for a minimum of 10 years following the calendar year of installation. The lifespan begins on January 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.

E. Rate(s)

1. A rate based on 50% of the cost of all eligible components has been established. Cost-share may be from state or federal funds. The cost-share payment amount will not exceed \$15,000.
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.
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.

F. Technical Responsibility

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

Revised May 2016

Name of Practice: PASTURE MANAGEMENT  
FOR TMDL IMPLEMENTATION  
DEQ Specification for No. SL-10T

This document specifies terms and conditions for the Total Maximum Daily Load (TMDL) pasture management best management practice. These terms and conditions are applicable to all contracts entered into with respect to this practice.

Pasture 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 agronomy practices for grazing of livestock.

A. Description and Purpose

A system of pasture management techniques to improve the quantity, quality and utilization of forage for grazing animals, and reduce the risk of surface and groundwater contamination from nonpoint source pollution from pastures by maintaining an adequate stand of forage to absorb runoff and reduce pollutants.

To provide adequate vegetative protection from soil erosion, nutrients delivery, and pathogen loads in runoff water to adjacent surface waters and or sinkholes.

Promote better utilization of cost-shared infrastructure installed for grazing management systems.

B. Policies and Specifications

All fields that receive cost share under this practice must be perennial pasture and have had all livestock previously excluded from all surface waters and sink holes. A written grazing management plan, and operation and maintenance plan including all acres in the grazing system must be prepared and followed in accordance with NRCS 528 Prescribed Grazing standard.

1. This practice where applied must meet 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.
  - iii. The practice must be maintained for a minimum of three years.
2. Locate infrastructure to facilitate grazing management and manure distribution:

- i. Manage the type and number of grazing animals, 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 Table 1. Guidelines for Grazing Heights and Rest Periods (page SL-10T-4). Size pasture subdivisions and manage animal stock densities to minimize grazing periods and maximize manure and urine distribution throughout the pasture.
  - ii. Maintain adequate and uniform plant cover ( $\geq 60\%$ ) and pasture stand density to increase rainfall infiltration and decrease runoff from pasture lands for the lifespan of the practice.
  - iii. Locate feeding and watering facilities 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 in varied locations throughout the pasture system where soils are well drained, or moving hay rings periodically.
  - v. Designate a sacrifice lot/paddock to locate cattle 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.
3. Pastures must be mowed as needed no lower than indicated in NRCS Table 1. Guidelines for Grazing Heights and Rest Periods (page 4) to control woody vegetation and encourage forage re-growth. Consider wildlife nesting concerns and time appropriately.
  4. Pastures not meeting minimum 60% cover criterion should be replanted in accordance to NRCS 512 Forage and Biomass Planting standard.
  5. Chain harrow pastures at least twice a year to break-up manure piles after livestock are removed from a field to uniformly spread the manure load, or manage manure distribution through rotational grazing where livestock are moved to uniformly distribute manure and maximize forage.
  6. The NRCS pasture condition score will be used to establish a benchmark for pasture evaluation and to document pasture condition and progress. This score will be tabulated annually at the same time of year as the initial scoring. The pasture condition score should not exceed 35 to be eligible for sign-up. The pasture condition score should increase each year as better pasture management techniques allow for better forage management and increased utilization.
  7. Cost-share will be provided only one time per field.

8. Fields utilizing this practice must not have a NRCS 528 Prescribed Grazing contract on the same fields.
9. This practice is subject to the requirements of NRCS standards, 314 Brush Management, 512 Forage and Biomass Planting, 528 Prescribed Grazing, and 595 Pest Management.
10. By accepting payment for this practice the recipient agrees to maintain the practice for the 3 year lifespan beginning with practice approval by the District. This practice will be spot checked annually by the District throughout the lifespan of the practice and failure to comply may result in reimbursement of cost-share funds.

C. Rate

The cost-share rate is an incentive payment of \$25 per acre per year over the three year lifespan of this practice (for a total of \$75 per acre) and is limited to a maximum of **200 acres** per participant per year.

D. Technical Responsibility

Technical and administrative responsibility is assigned to SWCDs in consultation with DCR, Virginia Certified Nutrient Management Planner(s), NRCS, and/or VCE, if deemed necessary. Individuals certifying technical need and technical practice installation shall have previously had appropriate NRCS job approval authority for the designed and installed practice. All practices are subject to spot check procedures and any other quality control measures.

Revised June 2015

## 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) <sup>1</sup>
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 <sup>2</sup>
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

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

<sup>2</sup>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: TMDL SUPPORT FOR STREAM PROTECTION  
DEQ Specifications for NO. WP-2T

This document specifies terms and conditions for the Total Maximum Daily Load (TMDL) 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 in TMDL implementation areas.

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-sharing 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. Both sides of the stream are fenced, or if livestock is restricted from both sides.

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. Consideration must be given to wildlife and environmental issues when designing the practice.
5. If during the required 10 year life span the practice is damaged or destroyed by flooding (or some other act of nature) the SWCD Board of Directors may authorize additional cost-share funding to replace or repair stream fencing subject to funding availability, and the program priorities established by the district. Acceptance of the additional cost-share assistance for replacement and/or repair will require the recipient to implement the BMP no less than the original 10-year life span maintenance requirement and no more than a new 10-year commitment for the restored BMP. Consideration of all factors including time remaining to fulfill the original contract period should be considered by the Board of Directors when they establish the implementation time commitment for a restored practice. Should replacement funding not be made available, the SWCD Board of Directors may waive the remaining life span requirement of this BMP.
6. Soil loss rates must be computed for all practices for use in establishing priority considerations.
7. 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.
8. The conservation planning process for developing an alternative watering system for livestock should include consideration for some means of providing water to the livestock during emergency conditions. Generators may not receive cost-share.
9. This practice phase is subject to NRCS Standards 342 Critical Area Planting, 382 Fence, 390 Riparian Herbaceous Cover, 516 Livestock Pipeline, 575 Animal Trails and Walkways, 578 Stream Crossing, and 472 Access Control.
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 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 (unless conditions in item 5 above apply).

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 or federal funds. The maximum cost-share 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.
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.
4. A one-time incentive fence maintenance payment of \$0.50 per linear foot of stream exclusion fence installed is provided at the completion of the practice.

D. Technical Responsibility

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

Revised May 2017

Name of Practice: SEPTIC TANK PUMPOUT  
DEQ Specifications for No. RB-1

A. Description

Maintenance of a conventional onsite sewage system by having septic tank pumped to remove solids and to inspect septic tank components.

B. Purpose

To maintain the operation and performance of conventional onsite sewage system.

C. Policies

1. Cost-share is authorized:
  - a. For the pumpout and removal of solids from the septic tank.
  - b. For an inspection of the tank lids and baffles.
  - c. Pumpouts can occur during: routine maintenance of the system, repair or replacement of system, or the abandonment of a septic tank when a dwelling is connected to public sewer.
2. Sewage must be handled and transported by a sewage handler having a permit issued by the Virginia Department of Health.
3. Cost-share is limited to pumpouts that occur no more than once every five years.

D. Rate

The cost-share payment shall not exceed 50% of the total eligible cost or a cap amount of \$150, whichever is less.

Revised June 2016

Name of Practice: CONNECTION OF MALFUNCTIONING ONSITE SEWAGE  
SYSTEM OR STRAIGHT PIPE TO PUBLIC SEWER  
DEQ Specifications for No. RB-2

A. Description

Connecting a residence to an existing sewer line to eliminate a malfunctioning onsite sewage system, an identified straight pipe, or a system not VDH-approved that can potentially impact water quality. A malfunctioning system could be contributing raw or partially treated sewage on the ground's surface, or resulting in a direct source of sewage to adjacent ditches, or waterways, or ground water. A straight pipe can potentially deliver sewage directly to a stream, pond, lake, or river.

B. Purpose

To improve water quality by removing raw or partially treated sewage on the land surface that can enter surface water or ground water during storm events, or sewage that is a direct source of contamination to surface water or ground water. Sewage means water-carried and non-water-carried human excrement; kitchen, laundry, shower, bath, or lavatory wastes separately, or together.

C. Policies

1. Cost-share is authorized:
  - a. For the connection fee, which is the fee allowing the dwelling to be connected to the public sewer system. This fee may be referred to as a tap fee.
  - b. For the construction cost associated with connecting the dwelling to a sewer line. This cost is the expenses to pipe the waste from the dwelling to the sewer connection point.
  - c. To re-stabilize and establish a vegetative cover on disturbed areas by planting seed.
  - d. For the abandonment of the septic tank by a septic tank contractor or plumber.
2. A distance from the public sewer that would make this practice technically feasible is generally specified by the local government or public sewer authority. This cost-share practice is the preferred practice for replacing failing septic systems where sewer connections can be made.

3. Disturbed areas need to be stabilized by planting seed in accordance with the Virginia Erosion and Sediment Control Standard and Specifications 3.31 (Permanent Seeding) and Specification 3.35 (Mulching). For slopes of 3:1 or greater use 3.36 (Blankets and Matting).
4. Septic tank abandonment should be performed by a septic tank contractor or plumber. The septic tank is pumped out, tank lids are crushed and dumped in tank, and the tank is filled with sand or other suitable material.
5. Proper permitting and inspections need to be adhered to in accordance with local and state regulations. Local permit fees are an eligible expense for cost-share.
6. Cost-share is not authorized under this practice for the repair of defective sewer laterals.

D. Rate

The cost-share amount will not exceed 50% to 75% of the total eligible cost based on income levels in accordance with *Program Design and Guidelines, TMDL - Cost-Share Assistance Program for On-Site Sewage Disposal Systems*. The cost-share payment at 50% cost-share shall not exceed \$4,500, \$5,400 at 60% cost-share, \$6,300 at 70% cost-share, and \$6,750 at 75% cost-share

Revised June 2015

**ASSIGNMENT OF ON-SITE SEWAGE SYSTEM PRACTICES  
COST-SHARE PAYMENT AUTHORIZATION**

\_\_\_\_\_ Date

I \_\_\_\_\_, do hereby direct  
Name

| the \_\_\_\_\_ (Project Sponsor)

to pay any and all cost-share funds disbursed under the RB-2 to

\_\_\_\_\_, of  
Name

\_\_\_\_\_  
Business

for services to connect my household sewage to public sewer.

In order for this payment to be made the recipient of the payment must provide a completed Form W-9, Request for Taxpayer Tax Identification and Certification to the Project Sponsor.

\_\_\_\_\_  
Signature

Name of Practice: CONVENTIONAL ONSITE SEWAGE SYSTEM REPAIR  
DEQ Specifications for No. RB-3

A. Description

Improvements to a conventional onsite sewage system to remove the presence of raw or partially treated sewage on the ground's surface, to prevent sewage from entering adjacent ditches or waterways, or potentially impacting ground water. A conventional onsite sewage system refers to a treatment works consisting of one or more septic tanks with gravity, pumped, or siphoned conveyance to a gravity subsurface drainfield.

B. Purpose

To improve water quality by removing raw or partially treated sewage on the land surface that can enter surface water or ground water during storm events, or sewage that is direct source of contamination to surface water or ground water. Sewage means water-carried and non-water-carried human excrement; kitchen, laundry, shower, bath, or lavatory wastes separately, or together.

C. Policies

1. Cost-share is authorized:

- a. For the pumpout and removal of solids from the septic tank.
- b. For inspection of the distribution box or multiple boxes to determine if the effluent is being properly distributed to the drainfield, and to assess if components of the system are functioning properly.
- c. For repair and or partial replacement of the following components of a conventional onsite sewage system: septic tank, distribution box or boxes, header lines, and partial replacement of absorption lines (for full replacement of absorption lines use RB-4 or RB-4P). Repairs also include the re-leveling of sanitary tees and distribution box, flushing of conveyance and header lines and removing roots from septic tank or distribution box.
- d. For connecting a gray water discharge from a dwelling that is discharging on the ground, or in a wet/dry ditch, to the existing conventional onsite sewage system. If the gray water discharge cannot be connected to the existing system and a separate system needs to be installed that would be cost-shared as a

system installation (RB-4 or RB-4P). Any plumbing that is necessary inside the dwelling to make the gray water connection to the onsite system is not eligible for cost-share.

- e. To re-stabilize and establish a vegetative cover on disturbed areas by planting seed.
2. A sewage system repair must be in accordance to a written construction permit (there is no state permit fee to file a repair application) from the Virginia Department of Health and inspection from the Virginia Department of Health, or a private Onsite Soil Evaluator (OSE) or Professional Engineer (PE). There are several maintenance repairs which includes flushing of conveyance and header lines and cleaning roots out of septic tank or distribution box that do not require a repair permit.
3. Disturbed areas need to be stabilized by planting seed in accordance with the Virginia Erosion and Sediment Control Standard and Specifications 3.31 (Permanent Seeding) and Specification 3.35 (Mulching). For slopes of 3:1 or greater use 3.36 (Blankets and Matting).
4. The repair must be maintained for a minimum of 10 years following the calendar year of installation.
5. If the old septic tank is not useable it should be properly abandoned by a septic tank contractor or plumber. The septic tank is pumped out, tank lids are crushed and dumped in tank, and the tank is filled with sand or other suitable fill material.
6. The repair must include a copy of a malfunction assessment completed by either VDH, OSE, or a PE.

#### D. Rate

The cost-share payment will not exceed 50% to 75% of the total eligible cost based on income levels in accordance with *Program Design and Guidelines, TMDL – Cost-Share Assistance Program for On-Site Sewage Disposal Systems*. The cost-share payment for all income levels will be based on the system repair cost not exceeding \$4,675 and the maximum cost-share amount shall not exceed \$3,500.

Revised June 2016

**ASSIGNMENT OF ONSITE SEWAGE SYSTEM PRACTICES  
COST-SHARE PAYMENT AUTHORIZATION**

\_\_\_\_\_ Date

I \_\_\_\_\_, do hereby direct  
Name

the \_\_\_\_\_ (Project Sponsor)

to pay any and all cost-share funds disbursed under the RB-3 to

\_\_\_\_\_, of  
Name

\_\_\_\_\_ for  
Business

services to repair my conventional onsite sewage disposal system.

In order for this payment to be made the recipient of the payment must provide a completed Form W-9, Request for Taxpayer Tax Identification and Certification to the Project Sponsor.

\_\_\_\_\_  
Signature

Name of Practice: CONVENTIONAL ONSITE SEWAGE SYSTEM  
INSTALLATION/REPLACEMENT  
DEQ Specifications for No. RB-4

A. Description

Installation of a conventional onsite sewage system to replace an identified straight pipe which delivers sewage directly to a stream, pond, lake, or river; or an installation to correct a malfunctioning conventional sewage system, or replace a system not VDH-approved that can potentially impact water quality. A malfunctioning system could be contributing raw or partially treated sewage on the ground's surface, or resulting in a direct source of sewage to adjacent ditches or waterways, or potentially impacting ground water. A conventional onsite sewage system refers to a treatment works consisting of one or more septic tanks with gravity, pumped, or siphoned conveyance to a gravity subsurface drainfield.

B. Purpose

To improve water quality by removing raw or partially treated sewage on the land surface that can enter surface water or ground water during storm events, or sewage that is direct source of contamination to surface water or ground water. Sewage means water-carried and non-water-carried human excrement; kitchen, laundry, shower, bath, or lavatory wastes separately, or together.

C. Policies

1. Cost-share is authorized:
  - a. For the pumpout and removal of solids from the septic tank.
  - b. For the installation of a septic tank(s), installation of subsurface drainfield, and components needed to install or replace a conventional onsite sewage system.
  - c. For connecting a gray water discharge from a dwelling that is discharging on the ground or in a wet/dry ditch to the newly constructed onsite sewage system. Any plumbing that is necessary inside the dwelling to make the gray water connection to the system is not eligible for cost-share.
  - d. To provide adequate access to the septic tank(s) for inspection and sludge removal by installing risers extending to the finished ground surface or above. Risers may be provided at both inlet and outlet ends (if only one is installed the preference would be the outlet) of the septic tank and at a minimum shall be 18 inches in diameter. VDH requires

an access manhole within 18 inches of the ground surface when the tank is in excess of 30 inches deep.

- e. To re-stabilize and establish vegetative cover on disturbed areas by planting seed.
  - f. For permit fees associated with construction of conventional onsite sewage system (reimbursable upon installation and final approval of system by the Virginia Department of Health).
2. The owner or agent shall obtain a written construction permit from the local Health Department.
  3. The owner or agent shall obtain any other permit(s) as required for the installation/replacement of the conventional sewage system.
  4. The owner or agent shall obtain and comply with any engineering designs as required in the Health Department permit.
  5. All construction in accordance with the VDH issued permit must be inspected by the local Health Department, an Onsite Soil Evaluator, or Professional Engineer who designed the system.
  6. Disturbed areas need to be stabilized in accordance with the Virginia Erosion and Sediment Control Standard and Specifications 3.31 (Permanent Seeding) and Specification 3.35 (Mulching). For slopes of 3:1 or greater use 3.36 (Blankets and Matting).
  7. If the old septic tank is not useable an abandonment should be performed by a septic tank contractor or plumber. The septic tank is pumped out, tank lids are crushed and dumped in tank, and the tank is filled with sand or other suitable material.
  8. By accepting payment for this practice, the recipient agrees to maintain the system for a minimum of 10 years unless the system is eliminated by connection to public sewer. This practice will be subject to spot checks for up to 10 years.

D. Rate

The cost-share amount will not exceed 50% to 75% of the total eligible cost based on income levels in accordance with *Program Design and Guidelines, TMDL – Cost-Share Assistance Program for On-Site Sewage Disposal Systems*. The cost-share payment for installation costs at 50% cost-share shall not exceed \$4,000, \$4,800 at 60% cost-share, \$5,600 at 70%, and shall not exceed \$6,000 for recipients eligible for 75% cost-share.

Revised June 2015

**ASSIGNMENT OF ONSITE SEWAGE SYSTEM PRACTICES  
COST-SHARE PAYMENT AUTHORIZATION**

\_\_\_\_\_  
Date

I \_\_\_\_\_, do hereby direct  
Name

the \_\_\_\_\_ (Project Sponsor) to pay any and all

cost-share funds disbursed under the RB-4 to \_\_\_\_\_,  
Name

of \_\_\_\_\_ for  
Business

services to install/replace a septic system.

In order for this payment to be made the recipient of the payment must provide a completed Form W-9, Request for Taxpayer Tax Identification and Certification to the Project Sponsor.

\_\_\_\_\_  
Signature

Name of Practice: CONVENTIONAL SEWAGE SYSTEM  
INSTALLATION/REPLACEMENT with PUMP  
DEQ Specifications for No. RB-4P

A. Description

Installation of a conventional onsite sewage system to replace an identified straight pipe which delivers sewage directly to a stream, pond, lake, or river; or an installation to correct a malfunctioning conventional sewage system, or replace a system not VDH-approved that can potentially impact water quality. A malfunctioning system could be contributing raw or partially treated sewage on the ground's surface, or resulting in a direct source of sewage to adjacent ditches or waterways, or potentially impacting ground water. A conventional onsite sewage system refers to a treatment works consisting of one or more septic tanks with gravity, pumped, or siphoned conveyance to a gravity subsurface drainfield.

B. Purpose

To improve water quality by removing raw or partially treated sewage on the land surface that can enter surface water or ground water during storm events, or sewage that is direct source of contamination to surface water or ground water. Sewage means water-carried and non-water-carried human excrement; kitchen, laundry, shower, bath, or lavatory wastes separately, or together.

C. Policies

1. Cost-share is authorized:
  - a. For the pumpout and removal of solids from the septic tank.
  - b. For the installation of a septic tank(s), installation of subsurface drainfield, and components needed to install or replace a conventional onsite sewage system.
  - c. For the installation of a pump to move the septic tank effluent to a higher elevation in order to replace a straight pipe, install a new septic system, or eliminate a gray water discharge.
  - d. For connecting a gray water discharge from a dwelling that is discharging on the ground or in a wet/dry ditch to the newly constructed onsite sewage system. Any plumbing that is necessary inside the dwelling to make the gray water connection to the system is not eligible for cost-share.

- e. To provide adequate access to the septic tank(s) for inspection and sludge removal by installing risers extending to the finished ground surface or above. Risers may be provided at both inlet and outlet ends (if only one is installed the preference would be the outlet) of the septic tank and at a minimum shall be 18 inches in diameter. VDH requires an access manhole within 18 inches of the ground surface when the tank is in excess of 30 inches deep.
  - f. To re-stabilize and establish a vegetative cover on disturbed areas by planting seed.
  - g. For permit fees associated with construction of conventional onsite sewage system (reimbursable upon installation and final approval of system by the Virginia Department of Health).
2. The owner or agent shall obtain a written construction permit from the local Health Department.
  3. The owner or agent shall obtain any other permit(s) as required for the installation/replacement of the conventional sewage system.
  4. The owner or agent shall obtain and comply with any engineering designs as required in the Health Department permit.
  5. All construction in accordance with the VDH issued permit must be inspected by the local Health Department, or Onsite Soil Evaluator, or Professional Engineer who designed the system.
  6. Disturbed areas need to be stabilized in accordance with the Virginia Erosion and Sediment Control Standard and Specifications 3.31 (Permanent Seeding) and Specification 3.35 (Mulching). For slopes of 3:1 or greater use 3.36 (Blankets and Matting).
  7. If the old septic tank is not useable an abandonment should be performed by a septic tank contractor or plumber. The septic tank is pumped out, tank lids are crushed and dumped in tank, and the tank is filled with sand or other suitable material.
  8. By accepting payment for this practice, the recipient agrees to maintain the system for a minimum of 10 years unless the system is eliminated by connection to public sewer. This practice will be subject to spot checks for up to 10 years.

D. Rate

The cost-share amount will not exceed 50% to 75% of the total eligible cost based on income levels in accordance with *Program Design and Guidelines, TMDL – Cost-Share*

*Assistance Program for On-Site Sewage Disposal Systems.* The cost-share payment for installation costs at 50% cost-share shall not exceed \$4,500, \$5,400 at 60% cost-share, \$6,300 at 70%, and shall not exceed \$6,750 for recipients eligible for 75% cost-share.

Revised June 2015

**ASSIGNMENT OF ONSITE SEWAGE SYSTEM PRACTICES  
COST-SHARE PAYMENT AUTHORIZATION**

\_\_\_\_\_  
Date

I \_\_\_\_\_, do hereby direct  
Name

the \_\_\_\_\_ (Project Sponsor) to pay any and all

cost-share funds disbursed under the RB-4P to \_\_\_\_\_,  
Name

of \_\_\_\_\_ for  
Business

services to install/replace a septic system with pump.

In order for this payment to be made the recipient of the payment must provide a completed Form W-9, Request for Taxpayer Tax Identification and Certification to the Project Sponsor.

\_\_\_\_\_  
Signature

Name of Practice: ALTERNATIVE ONSITE SEWAGE SYSTEM INSTALLATION  
DCR Specifications for No. RB-5

A. Description

Installation of an alternative onsite sewage system to correct a malfunctioning conventional onsite sewage system or to replace an identified straight pipe in situations where the installation/replacement of a conventional onsite sewage system cannot be permitted. An alternative onsite sewage system means a treatment works that is not a conventional onsite sewage system and does not result in a permitted discharge.

B. Purpose

To improve water quality by removing raw or partially treated sewage on the land surface that can enter surface water or ground water during storm events, or sewage that is direct source of contamination to surface water or ground water. Sewage means water-carried and non-water-carried human excrement; kitchen, laundry, shower, bath, or lavatory wastes separately, or together.

C. Policies

1. Cost-share is authorized:
  - a. For the pumpout and removal of solids from the septic tank.
  - b. For the installation of an alternative onsite sewage system that includes the following: aerobic treatment units, low pressure distribution systems, drip distribution systems, sand filters, elevated sand mounds, constructed wetlands, peat filters, vault privies, incinerator toilets, and composting toilets.
  - c. To cover expenses for up to two years for a sampling, operation, and maintenance contract required to be performed by a licensed alternative operator and reported to VDH. Only recipients of 75% cost-share are eligible. An executed contract must be in place before cost-share is provided. The Virginia Administrative Code 12VAC5-613 requires the owner to have a licensed onsite system operator under contract or directly employed. Also, one routine inspection is required every 12 months.
  - d. To re-stabilize and establish vegetative cover on disturbed areas by planting seed.

- e. For the cost associated with design of the system using a Private Onsite Soil Evaluator or Professional Engineer.
  - f. For permit fees associated with installation of alternative onsite sewage system (reimbursable upon installation and final approval of system by Virginia Department of Health).
2. The owner or agent shall obtain a written construction permit as required by the Virginia Department of Health.
  3. The owner or agent shall obtain any other permit(s) as required for installation of an alternative onsite sewage system and comply with local building codes.
  4. The owner or agent shall obtain and comply with any engineering designs as required in the Health Department permit.
  5. The installation of the alternative onsite sewage system must be inspected by the Private Onsite Soil Evaluator or Professional Engineer that certified the design and all completion documentation must be provided to the local Health Department and an operation permit issued.
  6. Disturbed areas need to be stabilized in accordance with the Virginia Erosion and Sediment Control Standard and Specifications 3.31 (Permanent Seeding) and Specification 3.35 (Mulching). For slopes of 3:1 or greater use 3.36 (Blankets and Matting).
  7. If the old septic tank is not useable it should be properly abandoned by a septic tank contractor or plumber. The septic tank is pumped out, tank lids are crushed and dumped in tank, and the tank is filled with sand or other suitable fill material.
  8. By accepting payment for this practice, the recipient agrees to maintain the onsite sewage system. This practice will be subject to spot checks for up to 10 years.

D. Rate

The cost-share amount will not exceed 50% to 75% of the total eligible cost based on income levels in accordance with *Program Design and Guidelines, TMDL - Cost-Share Assistance Program for On-Site Sewage Disposal Systems*. The cost-share payment at 50% shall not exceed \$10,000, \$12,000 at 60% cost-share, \$14,000 at 70%, and shall not exceed \$15,000 at 75%.

Revised June 2016

**ASSIGNMENT OF ALTERNATIVE ONSITE SEWAGE SYSTEM PRACTICES  
COST-SHARE PAYMENT AUTHORIZATION**

\_\_\_\_\_ Date

I \_\_\_\_\_, do hereby direct  
Name

the \_\_\_\_\_ (Project

Sponsor) to pay any and all cost-share funds disbursed under

the RB-5 to \_\_\_\_\_, of  
Name

\_\_\_\_\_ Business

for services to install a alternative onsite sewage system.

In order for this payment to be made the recipient of the payment must provide a completed Form W-9, Request for Taxpayer Tax Identification and Certification to the District/Project Sponsor.

\_\_\_\_\_  
Signature

Name of Practice: PET WASTE DISPOSAL STATION  
DEQ Specifications for No. PW-1

A. Description

Installation and regular maintenance of a pet waste disposal station in a dog walking/exercising area so that dog waste can be removed and properly disposed.

B. Purpose

To improve water quality by removing raw pet waste from the land surface that can potentially impact surface water or groundwater during storm events, or impact surface water through runoff conveyance into a storm sewer. Pet waste contains bacteria, parasites and nutrients (nitrogen and phosphorus). Provide pet owners with easy access to plastic or bio-degradable bags for waste pick up and a trash receptacle to clean up after their pets. Improve the overall aesthetics of the area where the disposal station is located.

C. Policies

1. Cost-share is authorized:
  - a. For purchase or construction and installation of a pet waste bag station (waste cans are not required if trash receptacles already exist in public area).
  - b. For purchasing replacement waste bags and trash can liners (terms will be included in DEQ grant agreement with project sponsor).
  - c. For an educational kiosk or signage (often component of purchased commercial stations) describing why picking up and properly disposing of dog waste benefits water quality.
2. Pet waste stations are subject to an inspection to verify proper installation, as well as periodic spot checks during the 3 year lifespan of the BMP to ensure proper maintenance, which includes keeping the station stocked with bags, garbage cans emptied and structural integrity intact.
3. Stations should be installed in public areas amendable to owners walking and exercising dogs such as parks, trails, neighborhood common areas, apartment complexes, at marinas, campgrounds, motels, etc.
4. Plans and specifications are to be prepared for each station, including: location within the property on a site map, site preparation, installation requirements, statement regarding compliance with all federal, state and local requirements

*(Virginia Conservation Assistance Program Implementation and Design Manual, 2013, Virginia Association of Soil and Water Conservation Districts).*

D. Rate

The cost-share payment for authorized expenses will not exceed 75% of the total eligible cost, or a cap amount of \$450

June 2016

Name of Practice: PET WASTE TREATMENT BMP  
DEQ Specifications for No. PW-2

A. Description

Installation and regular maintenance of a backyard pet waste digester, composter or fermentation system so that dog waste can be collected, treated, and the by-product can be reused or disposed in an environmentally safe manner.

B. Purpose

To improve water quality by removing raw pet waste from residential areas that can potentially impact surface water or groundwater during storm events, or impact surface water through runoff conveyance into a storm sewer. Pet waste contains bacteria, parasites and nutrients (nitrogen and phosphorus). Provide pet owners with easy access to pick up and dispose of pet waste in a digester, composter or fermentation system for biological treatment of the waste. This will reduce the volume of pet waste in plastic bags disposed of in landfills, or flushed down toilets for treatment by home septic systems or sewage treatment plants. The average dog produces 274 pounds of waste each year according to USDA Natural Resources Conservation Service.

C. Policies

1. Cost-share is authorized:
  - a. For purchase of a manufactured digester, 1-2 or 2-4 dogs depending on the unit purchased.
  - b. For purchase of manufactured composter, or materials for the construction of a composter.
  - c. For purchase of a fermentation system.
  - d. For purchasing treatment enzymes or septic starter supplies for biological treatment process.
2. Digesters, composters and fermentation units are to be properly maintained according to the manufacturer's recommendations or information provided by source(s) for constructing pet waste composters. The septic-tank style pet-waste disposal system (i.e. *Doggie Dooley*™) is the only type digester marketed primarily for use with pet waste. *Bokashi Pet Cycle Fermentation System* is an available on market fermentation unit.

3. Digesters, composters or fermentation systems are subject to an inspection or verification which can include a photograph of the installed unit to verify proper installation. Each unit must be maintained for at least 3 years.
4. Digesters are generally installed in the ground with the top at the ground surface. In the placement of the unit consider a location where there is not a high seasonable water table so there will be adequate separation between the bottom of the unit and the water table. The liquid waste, treated with an enzyme, from the unit flows into the subsoil which provides additional treatment.
5. Composters may be a manufactured unit or a constructed composter using a trash can with drilled holes around the bottom of the can. Mixing or turning of the composted material may be needed to accelerate the composting process, follow manufacturer's operating procedures for purchased units.

D. Rate

The cost-share payment for authorized expenses will not exceed 50% of the total eligible cost, or a cap amount of \$200.

March, 2015