COMMONWEALTH of VIRGINIA

VIRGINIA'S NONPOINT SOURCE (NPS) IMPLEMENTATION BEST MANAGEMENT PRACTICE (BMP) GUIDELINES

Fiscal Year 2020
(July 1, 2019– June 30, 2020)
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https://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/NonpointSourcePollutionManagement/NPSImplementationProjectResources.aspx

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

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VIRGINIA'S NONPOINT SOURCE (NPS) IMPLEMENTATION
BEST MANAGEMENT PRACTICE (BMP) GUIDELINES - PROGRAM YEAR 2019

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Disclaimer: This document sets forth standard operating procedures for the Nonpoint Source (NPS) 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).

Cost-Share Program Implementation Schedule

For all Grantees: Grantees should keep track of key dates during the fiscal year as related to project activity and reporting to keep their projects on schedule. Every Grantee should adhere to the activity schedules addressed in the Milestone Table (Form C1) contained in their executed agreement. The schedules contained in this manual are reminders of general programmatic activities and goals. As per the executed DEQ agreement, all payments for cost-share practices must be recorded on the Form B1 and shall only include those practices, which are completed and paid by the end of the report period.

Sample Cost-Share Program Implementation Schedule: January 1, 2020 – June 30, 2021

Due Dates	Year 1: January 1, 2020 – December 31, 2020 Deliverable(s)	Year 2: January 1, 2021 – June 30, 2021 Deliverable(s)
Jan 15	N/A	Quarterly report for October 1-December 31
Jan 30	Residential Program Guidelines submitted	N/A
April 15	Quarterly report for January 1-March 31	Quarterly report for January 1-March 31
June 30	**SWCDs Using DCR Tracking System only:** BMPs entered into the tracking system must be identified as (1) completed, (2) canceled, or (3) carry over (if meets NPS program eligibility guidelines). All completed BMPs are to be paid and marked as "complete" in the Virginia Agricultural BMP Tracking Program by this date. No approved or requested practices may exist after June 30 of the program year.	**SWCDs Using DCR Tracking System only:** Instructions same as year 1
July 15	Quarterly report for April 1-June 30 **SWCDs Using DCR Tracking System only**: Must provide a copy of carryover and year-end reports with quarterly report.	N/A
July 30	N/A	Final report is due to DEQ within 30 days after the end of the contract period. **SWCDs Using DCR Tracking System only**: Must provide a copy year-end report.
July 31	Semi-Annual or Annual Satisfactory Progress Review to assess project implementation.	N/A
Aug 31	Residential Program Guidelines Update to address any changes to residential program guidance.	N/A
Oct 15	Quarterly report for July 1-September 30 activity	N/A

- All quarterly and final reports must be sent to OFM@deq.virginia.gov.
- All residential program guideline updates must be sent to npsgrants@deq.virginia.gov.
- All Semi-Annual or Annual Satisfactory Progress Reviews are conducted by DEQ project managers.
- All Districts Using DCR's Tracking Program will submit BMPS directly into the Tracking Program.

SECTION I - VIRGINIA NONPOINT SOURCE (NPS) IMPLEMENTATION BEST MANAGEMENT PRACTICE (BMP) COST-SHARE PROGRAM

1. Overview

Virginia's nonpoint source (NPS) implementation program is administered by the Virginia Department of Environmental Quality (DEQ) through local Soil and Water Conservation Districts (SWCD or District), local governments, state agencies, nonprofits, planning district commissions (PDC), and local health departments to improve water quality in the Commonwealth's streams and rivers and in the Chesapeake Bay. DEQ, through its partners, 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 program uses funds from a variety of sources, including but not limited to EPA 319(h) and the state-funded Water Quality Improvement Fund (WQIF) to install BMPs with the goal of ultimately meeting Virginia's NPS pollution water quality objectives. This manual addresses cost-share assistance on agricultural, residential, and urban lands. The geographic extent of eligible lands is identified for each funding cycle in DEQ's Requests for Applications (RFA) and associated grant agreements. RFAs typically target watershed-based plans (WBPs) including TMDL implementation plans (IPs) approved by DEQ and the United States Environmental Protection Agency (EPA).

The Virginia NPS implementation program is partially funded with federal Section 319(h) funds; therefore, the program must meet certain federal requirements. The main difference between other funding programs and the NPS cost-share program is that NPS 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 prohibited. Programs at DEQ other than those funded by Section 319(h) may be used to fund BMPs listed in this manual (e.g., residential septic BMPs). As such, the specifications and cost-share rates of those BMPs would be applied to these other programs.

DEQ's NPS implementation program provides cost-share assistance to implement BMPs identified in TMDL IPs with the goal of achieving watershed restoration, water quality improvements, eventual delisting of impaired stream segments, and documentation of NPS success stories [1][1]. Grantees managing 319(h)-funded implementation projects must utilize this manual and follow the above Cost-share Implementation Project Schedule. A list of active 319(h)-funded projects can be found on DEQ's TMDL Implementation Projects[2] page.

[1] URLs of websites referenced in this document are available in Section III Program References. The number in brackets following each online reference indicates the number of the corresponding URL in Section III.

2. Eligible Practices

The NPS implementation program supports a variety of practices, although only eligible practices within a particular implementation watershed are specified in the grant agreement for the implementation project. To be eligible for funding, practices must meet the specifications set forth in the respective guidelines cited below.

IN THIS SECTION:

2.1 Eligible practices and where to find practice specifications
- **Land conservation easement funding eligibility**
- **Discontinuation of LE-1T and LE-2T practices**
- **Notes on funding SL-6T practices signed-up prior to 7/1/2016**
- **Table 1: Virginia DEQ NPS implementation BMPs**
- **Table 2: Non-DEQ Virginia BMPS**

2.2 Changes in practices due to DCR VACS program changes

2.1 Eligible Practices and Specifications

Eligible BMPs include agricultural BMPs (SL-6AT, SL-10T, WP-2T, EM-1T, and EM-1AT), residential septic BMPs (RB-1, RB-2, RB-3R, RB-3R, RB-4/4P and RB-5), and pet waste BMPs (PW-1 and PW-2) as described in these DEQ BMP Guidelines as well as certain eligible agricultural BMPs that are described in the Department of Conservation and Recreation's (DCR) Agricultural Cost-share BMP Manual[3]. The NPS program also funds certain urban practices described by the Virginia Stormwater BMP Clearinghouse[4] and the Virginia Stream Restoration and Stabilization Best Management Practices Guide[5], as well practices funded through the Virginia Conservation Assistance Program[6] (VCAP), as described in the VCAP Manual[7]. In addition to adhering to the program guidelines described in this document, Grantees using DEQ NPS funds to implement these BMPs should follow the applicable BMP guidelines where appropriate.

This manual includes specifications for DEQ BMPs listed in Table 1 including: EM-1T, EM-1AT, SL-6AT, SL-10T, WP-2T, RB-1, RB-2, RB-3, RB-3R, RB-4/4P, RB-5, PW-1, and PW-2. All BMPs listed in Table 1 have DEQ-developed specifications and are eligible for 319(h) funding; however, contractual agreements with DEQ will include a specific list of BMPs approved for an area. All non-DEQ BMPs listed in Table 2 have specifications referenced in other sources (manuals, guidelines, etc.) but are eligible for 319(h) and other DEQ grant funds; however, contractual agreements with DEQ will include a specific list of BMPs approved for an area. Specifications for agricultural BMPs listed in Table 2 without "T" notation in the BMP code can be found in DCR's Virginia Agricultural Cost-share (VACS) BMP Manual[3]. Urban BMPs can be found on the Virginia Stormwater BMP Clearinghouse[4] and in the VCAP Manual[7]. Only those BMPs included in an executed DEQ grant agreement are eligible for funding in the area covered by that agreement. Specific BMPs eligible for cost-share assistance in a project area depend on what type of impairment(s) are being addressed there (e.g., benthic and/or bacteria). Grantees cannot modify or change BMP standards and specifications.

- **Land conservation easements:** If identified as a corrective action in the TMDL IP and identified in the grant contract scope of work as a listed activity with goals and deliverables, then land conservation easements would be eligible for funding.
- **LE-1T and LE-2T practices:** As of July 1, 2019, DEQ no longer accepts new signup for LE-1T or LE-2T as DCR has now created SL-6W and SL-6N. DCR practices eliminate the need for the LE practices; however, many Districts are using 319(h) funds for LE practices currently under construction prior to July 1, 2019. In those cases, Districts should refer to the specification written in the FY19 DEQ BMP manual.

- **SL-6T and SL-7T practices:** As of July 1, 2016, DEQ no longer accepts new sign-up on SL-6T or SL-7T. However, 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.

Table 1: Virginia DEQ NPS Implementation BMPs

BMP Code	Agricultural BMP Name	Revision Date	Source	Tax Credit	319(h) eligible	BMP Units
EM-1T	Small Scale Manure Composting for Equine Operations – Static Systems	6/2018	DEQ	No	Yes	# of Systems and # of Horses
EM-1AT	Small Scale Manure Composting for Equine Operations – Aerated Systems	6/2018	DEQ	No	Yes	# of Systems and # of Horses
LE-1T	Livestock Exclusion with Riparian Buffers - **FFY20 and beyond, replaced with SL-6W**	N/A	N/A	N/A	N/A	N/A
LE-2T	Livestock Exclusion with Reduced Setback - **FFY20 and beyond, replaced with SL-6N,**	N/A	N/A	N/A	N/A	N/A
SL-6AT	Small Acreage Grazing System	6/2019	DEQ	Yes	Yes	# of Systems
SL-10T	Pasture Management for TMDL Implementation	6/2019	DEQ	No	Yes	Acres
WP-2T	Stream Protection for TMDL	6/2019	DEQ	Yes	Yes, but recommend WP-2N & WP-2W	# of Systems and Linear Feet
BMP Code	**Residential Septic and Pet Waste BMP Name**	**Revision Date**	**Source**	**Tax Credit**	**319(h) eligible**	**BMP Units**
RB-1	Septic Tank Pump-out	6/2019	DEQ	n/a	Yes	# of Systems
RB-2	Connection to Public Sewer System	6/2019	DEQ	n/a	Yes	# of Systems
RB-3	Onsite Sewage System Repair	6/2019	DEQ	n/a	Yes	# of Systems
RB-3R	Full Inspection and Non-permitted Repairs of Conventional Onsite Sewage System	6/2019	DEQ	n/a	Yes	# of Systems
RB-4	Onsite Sewage System Installation/Replacement	6/2019	DEQ	n/a	Yes	# of Systems
RB-4P	Onsite Sewage System Installation/Replacement with Pump	6/2019	DEQ	n/a	Yes	# of Systems
RB-5	Alternative Sewage System	6/2019	DEQ	n/a	Yes	# of Systems
PW-1	Pet Waste Disposal Station	6/2017	DEQ	n/a	Yes	# of Systems
PW-2	Pet Waste Digesters, Composters, and Fermentation	6/2017	DEQ	n/a	Yes	# of Systems

Table 2: Non-DEQ Virginia BMPs

BMP Code	Agricultural BMP Name (See Virginia Agricultural Cost-share (VACS) BMP Manual[3])	Tax Credit	319(h) eligible	BMP Units
FR-1	Aforestation of Erodible Crop and Pastureland	Yes	Yes	See DCR
FR-3	Woodland Buffer Filter Area	Yes	Yes	See DCR
SL-1	Long Term Vegetative Cover on Cropland	Yes	Yes	See DCR
SL-6N	Stream Exclusion with Narrow Width Buffer and Grazing Land Management	Yes	Yes	See DCR
SL-6W	Stream Exclusion with Wide Width Buffer and Grazing Land Management	Yes	Yes	See DCR
SL-7	Support for Extension of Watering Systems	Yes	Yes, when associated with new Stream Exclusion practice	See DCR
SL-8B	Small Grain and Mixed Cover Crop for NM	Yes	Yes	See DCR
SL-9	Grazing Land Management	Yes	Yes	See DCR
SL-11	Permanent Vegetative Cover on Critical Areas	Yes	Yes	See DCR
WP-2A	Streambank Stabilization	Yes	Yes	See DCR
WP-2N	Stream Protection (Fencing with Narrow Width Buffer)	Yes	Yes, 10-year lifespan only	See DCR
WP-2W	Stream Protection (Fencing with Wide Width Buffer)	Yes	Yes, 10-year lifespan only	See DCR
WP-3	Sod Waterway	Yes	Yes	See DCR
WQ-1	Grass Filter Strips	Yes	Yes	See DCR
WQ-11	Agricultural Sinkhole Protection	Yes	Yes	See DCR
BMP Code	**Urban and Suburban BMP Name (list not exhaustive)** (See specifications: Virginia Stormwater BMP Clearinghouse[4] and in the VCAP Manual[7])	**Tax Credit**	**319(h) eligible**	**BMP Units**
n/a	Stream Restoration/Stabilization	n/a	Yes	Linear Feet
n/a	Riparian Buffer Establishment (planting)	n/a	Yes	Acres
n/a	Infiltration Practices (trench, basins, etc.)	n/a	Yes	Acres-treated
n/a	Rainwater Harvesting (rain barrels, cisterns, etc.)	n/a	Yes	TBD
n/a	Bioretention (rain gardens, etc.)	n/a	Yes	Acres-treated
n/a	Wet/Dry Swales	n/a	Yes	Acres-treated
n/a	Permeable Pavement	n/a	Yes	TBD
n/a	Constructed Wetlands	n/a	Yes	TBD
n/a	Green Roofs	n/a	Yes	Square Feet
n/a	Urban Nutrient Management Planning	n/a	Yes	Acres
n/a	Wet/Dry Ponds	n/a	Yes	Acres-treated

2.2 Changes in Practices Due to DCR VACS Program Changes

For FY20, DCR made major changes to some agricultural specifications stemming from an enhanced Agricultural Technical Advisory Committee that met in late 2018 and early 2019. At the time of the issuance of this DEQ BMP Manual, the DCR Agricultural Cost-Share BMP Manual was not available. As such, new practices were created, older practices were 'retired,' and other practices were modified. The DEQ NPS program has, when at all possible, adhered to DCR agricultural specifications with the exception of the handful of "T" practices. The same holds for FY20. Section 319(h) funds will be available for cost-share of DCR practices based upon DCR's published specifications.

- **SL-6N and SL-6W**: DCR has replaced the SL-6 practice with SL-6N (narrow width buffer) and SL-6W (wide width buffer). These practices also allow for varying cost-share rates depending on lifespan (10-15 years) and buffer width. Section 319(h) funds may be used to partially or fully fund these practices similar to how 319(h) could partially or fully fund SL-6. Section 319(h) can be used for the buffer incentive payment for the SL-6W following DCR specification. This includes the case of a SL-

6W with at least a 50-foot buffer and 15-year lifespan, which allows for 100% cost-share plus a buffer payment incentive. For FY20, DCR will discontinue the SL-6 practice, and DEQ will discontinue cost-share for LE-1T and LE-2T practices. There are no restrictions on the use of 319(h) for the SL-6N and SL-6W practices; Districts should follow the VACS specifications including practice and participant caps.

  - DEQ encourages Districts to fund these practices jointly with 319(h) and VACS. Jointly funded practices not only extend 319(h) funds but are also a) eligible for DCR's agricultural engineer oversight and b) covered under the spot check process lead by DCR and the SWCDs. Even splits of 95% 319(h) and 5% VACS are eligible.
  - 319(h) can fund the buffer incentive payment for the SL-6W following the DCR specification, practice caps, and participant caps

- **WP-2N and WP-2W**: DCR has replaced the WP-2 practice with WP-2N and WP-2W. These practices allow for varying cost-share rates depending on lifespan (5 or 10 years) and buffer width. Section 319(h) funds can be utilized to cost-share on these new practices following the DCR VACS specifications and rules, with the following exceptions:
  - 319(h) can only fund the 10-year lifespan options for either practice; the 5-year lifespan options are not eligible.
  - 319(h) can fund the buffer incentive payment for the WP-2W following the DCR specification, practice caps, and participant caps (with the exception of not funding 5-year lifespans).
  - For FY20, DEQ will continue offering cost-sharing on the WP-2T practice in case the restriction of the 5-year lifespan is an issue in DCR's Tracking Program. DEQ understands the use of and interest in this practice may be lower due to new WP-2N and WP-2W practices.

Impact to executed agreements: All current executed agreements that list LE-1T, LE-2T or WP-2T as their practices will be allowed to use 319(h) to fund the new VACS practice equivalents (SL-6N, SL-6W, WP-2N, WP-2W) as of July 1, 2019. DEQ will determine the best way to authorize this change and communicate that to grantees. DEQ will also request that DCR make changes to the program names in the DCR Agricultural Tracking Program to allow these additional practices.

3. Implementation Funding Restrictions

DEQ awards grant funding for implementation projects with restrictions and stipulations by which the Grantee and participant must abide to remain eligible. Understanding of these conditions is necessary for the Grantee to remain in compliance with the funds' agreed-upon use.

IN THIS SECTION:

3.1 Funding sources and the prohibition of earning interest on federal 319(h) funds
3.2 Limits and restrictions on use of 319(h) funding in association with permits, mitigation banking, and nutrient credits
3.3 Re-obligation of 319(h) BMP cost-share allocations
3.4 Requirements for Districts receiving 319(h) funds for program year 2015 100% stream exclusion practices
3.5 Conflict of interest disclosure requirements
3.6 Other restrictions
3.7 Noted differences between Section 319(h) and WQIF-Non-agricultural nonpoint funding

3.1 Funding Sources and Interest Income Earned

The Virginia NPS implementation program is partially funded with federal Section 319(h) funds, which does not allow interest to be earned on federal Section 319(h) funds. All funds issued to Grantees must be placed in a non-interest-bearing account. DEQ administers NPS cost-share funds based upon signed cost-share grant agreements. Other funds from local, state, federal, or private sources may support implementation of BMPs. For practices receiving DEQ grant funds, the combination of federal Section 319(h) and other funds cannot exceed 100% cost-share.

3.2 Limits and Restrictions to Use of 319(h) Funding

Federal Section 319(h) funds may not be used to pay for BMPs that will be credited toward activities related to developing, implementing, or meeting any National/Virginia Pollution Discharge Elimination System (NPDES/VPDES) permits or permit requirements. Please note that 319(h) funds cannot be used to fulfill any NPDES permit requirements including but not limited to: MS4, combined sewer overflows (CSOs), concentrated agricultural feeding operations (CAFOs), wastewater, and discharging on-site septic systems. Federal 319(h) funds can be used by localities with municipal separate storm sewer systems (MS4s) in a limited capacity. Funds may be applied toward any urban stormwater activities that are not explicitly required in an MS4 NPDES permit or in a plan required by the permit. Thus, any activities that an MS4 locality will "credit" toward meeting its permit requirements, count toward a TMDL Action Plan or Bay Action Plan or use to develop a permit are not eligible for 319(h) funds. 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 permits, mitigation banking, or nutrient crediting, the practice will be determined to be "failed" (see Practice Failures section) and the Grantee and program participant may be liable for reimbursement of all funds associated with the installed practice(s). Any grantee receiving Section 319(h) funds from DEQ must agree to these limitations and restrictions.

3.3 Re-obligation of 319(h) Cost-share BMP Funding

At the end of each quarter, the Grantee should perform an assessment of the status of cost-share funds to determine progress toward project goals. The quarterly assessment will be based upon the financials

reported and a completed BMP report. Grantees should include a list of completed BMPs in their quarterly report; Districts can run a completed-practices report retrieved from the DCR BMP Tracking Program and compare the number of BMPs signed-up and under contract with the number of BMPs projected in the DEQ Grant Agreement. Further, the Grantee should also include a financial status report of cost-share expenditures that shows obligated and unobligated cost-share funds. DEQ reserves the right to discuss the removal of BMP funds that are not obligated in timely fashion or according to the schedule presented in the contract milestone table. Re-obligation of 319(h) cost-share allocations from one budgeted direct cost category to another or the addition and/or removal of funds from a contract will be dependent on program limitations and will be handled on a case-by-case basis. There are more restrictions for re-obligation of federal funds than there are for state cost-share funds. Unlike state cost-share funds, federal 319(h) funds do expire, and their use after the period of the federal grant award period is prohibited.

3.4 Districts Receiving 319(h) funds for Program Year 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 Tracking Program will not control the cap and percentage, and it is the Grantee's responsibility to abide by these funding limits.

3.5 Conflict of Interest Disclosure Requirements

As required by Title 2 of the Code of Federal Regulations, section 200.112, 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. All non-Federal entities receiving EPA financial assistance must abide by the EPA Conflict of Interest Policy.

The streamlined approach: (1) requires that non-federal entities contact DEQ if the Grantee's 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.

In addition to the EPA Conflict of Interest Policy, the Code of Virginia State and Local Government Conflict of Interests Act ("COIA"), Va. Code § 2.2-3100 et seq., is applicable to all state and local government officers and employees. Please note that the COIA was amended both in 2016 and 2017. Grantees and their staff are advised to review COIA requirements with their COI point of contact.

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

- EPA's Final Financial Assistance Conflict of Interest Policy[8]
- Code of Virginia State and Local Government Conflict of Interests Act[9]

3.6 Other Restrictions

- **BMPs not listed in grant agreement**: Only the BMPs listed in the executed agreement are eligible for cost-share funding.

- **Geographic constraints**: Cost-share requests from outside the hydrologic unit(s) identified in the grant contract are **not** allowed. There will be no exceptions. It is the **responsibility of the Grantee** to be aware of the location of BMPs in relation to the approved IP and/or project boundary. The DCR Tracking Program and VEGIS (see "Environmental Information" below) can assist with identifying appropriate BMP locations.
    - Section 319(h) project funds are strictly limited to use within the boundaries of EPA-approved watershed-based plans ("TMDL Implementation Plans" - "IPs" or approved alternatives). Section 319(h) project funds cannot pay nor reimburse any costs associated with a BMP installed outside of the approved IP boundary. If a BMP is found to be located outside the approved IP boundary, the Grantee shall be responsible for reimbursing DEQ the full amount of 319(h) funds expended on the BMP, up to and including technical assistance funds. In these cases, 319(h) should not be used to fund BMPs.
- **Technical assistance funding:** Grantees are not allowed to utilize any BMP cost-share allocations for technical assistance. Grantees involved in the NPS program will receive separate allocations for technical assistance in concert with BMP allocations as specified in their grant agreement.
- **Government owned/managed land**: As of June 2017, DEQ NPS grant funds may not be utilized on state or federally owned or managed lands without prior written consent from DEQ Section 319 Program Coordinator or the Watershed Programs Manager. Please consult with DEQ for more information.
- **Use of demonstration BMPs**: DEQ currently includes two agricultural BMPs (EM-1T and EM-1AT) in these guidelines, which are to be implemented for demonstration purposes only. Demonstration BMPs are available on a limited basis, and grantees must be pre-authorized by DEQ to implement them. Additional documentation of practice outcomes may be required for DEQ to fully evaluate the effectiveness of these practices. Questions regarding demonstration BMPs may be directed to a DEQ Project Manager or can be sent to npsgrants@deq.virginia.gov using the subject line "Demonstration BMP Question."

3.7 Differences between Section 319(h) and WQIF-Non-Agricultural, Nonpoint Source Pollution Funding

The NPS implementation program utilizes federal EPA funds from Section 319(h) as well as state funds from the Water Quality Improvement Fund (WQIF) (non-agricultural, nonpoint source pollution). There are inherent differences for certain areas between these two funding sources.

- **IP Boundary Limitations**: WQIF funds are not limited to activities within the boundaries of EPA-approved IPs unless that executed grant agreements limits the boundary to specific IPs.
- **NPDES Permit issues**: WQIF does not prohibit the use of funds for BMPs implementing NPDES permits. As such, WQIF may be used to fund such things as discharging residential septic systems, implementing MS4 requirements, etc.

4. Awarding Cost-Share

Once the Grantee has been awarded funding through a grant agreement with DEQ, the Grantee must establish procedures for recruiting and selecting participants. Selection should be based on locally relevant criteria and information from the implementation plan with the ultimate goal of maximizing the water quality benefits realized through implementation. Grantees must inform selected participants of BMP specifications and qualifying cost-share amounts; however, participants are responsible for soliciting bids for BMP construction according to guidelines set forth by the Grantee before cost-share may be approved and installation initiated.

IN THIS SECTION:

4.1 Cost-share program funding allocations to grantees
4.2 Participant recruitment, prioritization, and selection
4.3 Cost-share rates and combination with other cost-share assistance programs
4.4. Cost-share funding caps and cap variance requests
4.5 Participant notification of application approval
4.6 Contractor bid solicitation and selection for BMPs including information on emergency situations
4.7 Determining qualified/licensed contractors

4.1 Cost-Share Program Funding Allocations to Grantees

Grantees that are managing or involved with NPS implementation projects will be provided an allocation of funds 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. Grantees will obligate funds to high priority watersheds in a manner consistent with the executed agreement. Grantees must receive written permission to adjust the eligible BMP list in an executed grant.

4.2 Participant Recruitment

The Virginia NPS implementation program gives Grantees the responsibility to select recipients of BMP funds. The more effectively Grantees recruit and evaluate participant applications, the more successfully they will improve local water quality. Effective participant selection begins with the establishment of locally relevant 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. For Grantees with residential septic programs, this could be indicated through criteria listed in their approved Residential Septic Program Guidelines.

Grantees developing and administering a residential septic program must develop and submit a local "Residential Septic Program Guidelines" document based upon the information provided by DEQ in this manual (Section II). Examples of approved Residential Septic Guidelines include those from Linville Creek[A][2], Flat and Nibbs Creeks[B], and the North Fork Holston River[C]. The Residential Septic Program Guidelines outline the specific manner in which the Grantee will recruit and select participants and administer its

[2] Links to document templates referenced in this document are available in Section IV. The letter in brackets following each reference indicates the letter of the corresponding link in Section IV.

residential septic program. The associated Residential Septic Program Design and Guidelines template[D] can be modified by Grantees for their own use.

Above all else, Grantees should follow prioritization recommendations for participant selection if articulated in the TMDL IP or within their executed agreements. 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 that address local water quality will maximize water quality benefits realized from this program. 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. If hydrologic units are prioritized within a grant contract scope of work, the Grantee should recruit participants from hydrologic units in descending priority beginning with the highest priority first. Grantees should strive to prioritize the recruitment of applicants and the implementation of BMPs that will reduce the greatest amount of the identified pollutant of concern (e.g., bacteria, nutrients, sediment) identified in the executed agreement while utilizing the least 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. Whichever method is utilized, selection of participants should be done in an equal and fair manner and with consistency.

4.3 Cost-Share Rates

Practices paid on a percentage basis can be funded solely with NPS funds or in combination with other cost-share assistance programs (piggy-back funding); these can include but are not limited to the Environmental Quality Incentive Program (EQIP)[36], the Emergency Watershed Protection (EWP) Program[37] or other USDA programs, the DCR VACS Program [38], Indoor Plumbing Program[22], and Southeast Rural Community Assistance Program (SERCAP)[23]. Grantees may choose to combine resources to fund mutually high priority practices up to a maximum cost-share rate of one hundred percent (100%). Unless otherwise explicitly allowed within this manual or the DCR VACS 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. DEQ will not exceed the cost-share limits in the specifications, regardless of the combination of DEQ grant funds. 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.

4.4 Cost-Share Funding Caps and Cap Variance Requests

Grantees should not establish alternative BMP cost-share caps or rates. Grantees should follow caps specified in the BMP specifications. This 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 NPS implementation areas to attain water quality objectives. Grantees are advised to monitor the amount of cost-share that has been/will be approved, especially in cases where an applicant may receive funding from multiple Grantees, so that caps are not exceeded.[3]

[3] Exception: Grantees administering residential septic programs are given the option to evaluate the fiscal stress of their project area and, if qualified, can request permission from DEQ to utilize the Septic Funding Scenario for fiscally stressed areas that is detailed in the Residential Septic Program Guidelines.

Variance requests will only be considered and approved by DEQ for the practice(s) and respective amounts indicated below:

- **Agricultural "T" BMPs**: The agricultural NPS Cost-share Program for FY20 has a $50,000/applicant/year limit for individual practices or any aggregation with other TMDL-eligible practices listed in Table 1. One exception is the WP-2T practice, which has a $100,000/applicant/year cap. No variance requests are allowed.
- **Agricultural "VACS" BMPs**: Any eligible BMP listed in Table 2 that is considered a VACS practice shall follow the programmatic caps (participant and practice) for FY20~~19~~ listed in the DCR Virginia Agricultural Cost-share (VACS) BMP Manual[3]. This pertains to practices not specified with a "T." No variance requests are allowed.
- **Residential Septic BMPs:** Each practice listed in Table 1 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-3 RB-4, RB-4P, and RB-5 if approved by DEQ. To submit a variance request, the applicant must be eligible for more than 50% cost-share and provide income verification. All requests should be forwarded by the Grantee to the DEQ central office NPS Grant Manager at npsgrants@deq.virginia.gov and cc the assigned DEQ Project Manager. Only those applicants eligible for more than 50% cost-share will be considered for a variance to allow increased cost-share above the cap. Variance is only allowed to increase the funding cap in the case where the cost of the BMP is above the standard cost of the practice to assure that the applicant can receive the cost-share percentage for which they are eligible. For example: average practice cost of an RB-4 is $9,000; participant A is eligible for 75% cost-share ($6,750). The actual cost of the practice is $12,000. With a variance request, participant A would be able to get 75% cost-share ($9,000).

4.5 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. Specific language is already included in the DEQ Nonpoint Source Cost-share Programs Contract[E]. For practices that cannot utilize the BMP contract, the following sample language can be used: "*Your application to install a (Practice Name and Number) under the Virginia Nonpoint Source program has been approved and funded for _____ percent of the total eligible cost, not to exceed _____ dollars.*" Landowners must be informed that the authorized amount of cost-share assistance is the maximum they can receive, and that fund disbursal is not expected before a specified date. Participant notification of available funding must also include a copy of the DEQ practice specifications to ensure they are aware of all aspects of their commitments.

4.6 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 a participant's rationale for choosing a contractor. Grantees should establish minimal procedures that participants must follow when selecting contractors in order to ensure competition and 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 (e.g., web link) to 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 can be found in DCR's Virginia Agricultural Cost-share (VACS) BMP Manual[3].
- ***Residential septic BMPs:*** *Many Grantees may decide to bid and hire septic contractors instead of relying on homeowners to procure qualified contractors. There may be many benefits for the grantees to select contractors instead of requiring this of homeowners. Regardless of whether contractors are selected by the Grantee or the homeowner, a process that meets minimal procurement requirements must be followed.* Bids will be obtained from contractors when the total cost of any relevant BMP (RB-2, RB-3, RB-3R, RB-4, RB-4P, RB-5) or collection of BMPS (e.g., a contractor is sought to do a group of pump-outs or repairs) is expected to exceed $5,000.[4] The number of bids obtained must be deemed appropriate by the Grantee. Grantees should detail their recommended Bid Solicitation Process by including this detail in their Residential Septic Program Guidelines. 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 Technical Approval section below. An example of a bid solicitation sheet could be provided to the participant for use in obtaining bids. 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 in 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 the 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 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.

[4] This number represents the higher end of cost for residential septic practices found in the program design and guidelines.

- **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.

DEQ acknowledges that costs may increase in emergency situations (i.e., the need to immediately address an issue while a contractor is already onsite). Consequently, in emergency situations, as outlined in the Residential Septic Program Guidelines, the aforementioned rules for contractor selection and bid solicitation may have to vary. However, participants are expected to make all efforts to select contractors in an open and fair manner while encouraging competition and best price.

4.7 Determining Qualified/Licensed Contractors

Grantees must assure, to the best of their ability, that participants are provided with sufficient information regarding the type of licenses that are required in Virginia to do the required work. This would include any permits or licenses required. The Residential Septic Guidelines (Section 2) more fully describe the certification and licensure required to work on septic systems, so participants can make informed choices during contractor selection. Appropriate licensure for each practice is determined under state code by the Virginia Department of Health (VDH). The Department of Professional and Occupational Regulation[24] (DPOR) issues all licensure for Onsite Sewage System Professionals[25] under state regulations 18 VAC 160-40[26]. More information is provided in subsection *k. Process for Assuring Appropriate Licensure* in the Residential Septic Program Guidelines below.

5. Practice Requirements

To be approved for construction and fund disbursement, practices must have acceptable operation and maintenance plans and landowner agreements for the specified lifetime of the practice. Utilization of the DEQ Nonpoint Source Cost-share Programs Contract is considered an adequate operation and maintenance plan and landowner agreement for agricultural and residential septic BMPs. All agricultural and residential practice installations must receive technical approval that they were installed properly and according to specifications. Further, agricultural BMPs must be designed and their installation verified by someone with Agricultural Engineering and Job Approval Authority. The Grantee is responsible for tracking progress on practice installation to assure adequate progress and efficient allocation of grant funds.

IN THIS SECTION:

5.1 Operation and maintenance requirement for BMPs
5.2 Cost-share BMP Contract for agricultural and residential septic BMPs
5.3 Agricultural engineering and job approval authority requirements for agricultural BMPs
5.4 Technical approval requirements for agricultural and residential BMPs
5.5 Completion dates and approved practices under contract and construction
5.6 Special considerations for agricultural BMPs

- **Conservation plan requirements**
- **Biosecurity considerations and response to suspected or confirmed foot and mouth disease outbreak**

5.1 Operation and Maintenance Requirement for BMPs

According to the Programmatic Special Terms and Conditions for 319(h) grant contracts, the Grantee will ensure the continued proper operation and maintenance of all NPS BMPs that have been funded under an agreement with DEQ through the establishment of operation and maintenance plans and agreements with landowners and participants. BMPs shall be operated and maintained for the expected lifespan and in accordance with applicable standards and specifications as defined in DCR's Agricultural BMP Cost-Share Manual (Manual) or DEQ's Nonpoint Source (NPS) Implementation Best Management Practice (BMP) Guidelines (Guidelines), or other DEQ-approved documents. An operation and maintenance plan and the associated landowner agreement for each BMP are due to DEQ for review and approval before any work can be initiated and any funds reimbursed. Operation and maintenance plans and landowner agreements should be submitted to DEQ within 60 days of the start of the grant agreement or within 15 days of completion of the subject BMP designs. Additional landowner agreements or contracts should be submitted on a quarterly basis throughout the grant period.

5.2 Cost-Share BMP Contract for Agricultural and Residential Septic BMPs

Utilization of the DEQ Nonpoint Source Cost-share Programs Contract[E] or DEQ-approved equivalent (Contract) is considered an adequate operation and maintenance plan and landowner agreement for agricultural and residential septic BMPs. The three-part Contract form is for documenting and recording the application and award of NPS BMP funds issued by DEQ through sub-recipient grant agreements. Once signed and executed, the Contract provides documentation that grant funds are allocated to applicants in adherence with DEQ's NPS grant program requirements.

A signed, redacted copy of the three-part contract with all associated documentation is provided to DEQ. The DEQ Nonpoint Source Cost-share Programs Contract[E] is contained in an Excel workbook and contains seven worksheets or tabs. Details on the use of this contract can be found in Tab 1, "Instructions."

- Instructions – provide full directions on how to utilize Excel document
- Part I – Application for Program
- Part II – Technical Determination and Approval: Agriculture
- Part II – Technical Determination and Approval: Residential Septic
- Part III – Technical Installation and Payment: Agriculture
- Part III – Technical Installation and Payment: Residential Septic
- Form Nonpoint Source Cost-share Program Agreement Transferring Responsibility for Best Management Practice[F]

5.3 Agricultural Engineering and Job Approval Authority

All agricultural BMPs installed with grant funds must have an individual with Department of Conservation and Recreation (DCR)-issued Engineering Job Approval Authority (EJAA) design the practice and verify that the practice was installed according to appropriate specifications. DEQ wants to make Districts aware of this issue and the associated grant requirements, so they can take them into consideration when deciding which agricultural practices to fund. DEQ recognizes the challenges this may pose for some Districts and intends to work with partners to assist Districts in meeting this requirement in the easiest way possible.

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. DCR will provide these services for solely 319(h)-funded projects when possible; however, VACS projects will take priority regarding engineering services at DCR. 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:

- The District currently has staff that hold(s) the appropriate EJAA(s) recognized or issued by DCR for all the engineering components of all BMPs that will be installed.
- If the District does not have any staff with appropriate DCR EJAA(s), they can do any or all of the following:
    - Partner with neighboring Districts with staff that do hold the appropriate DCR EJAA(s).
    - 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 proceed normally to contract, design, and install a practice through the VACS program under the guidance and oversight of DCR.
    - 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.
    - Engage a private professional engineer (PE) to provide oversight of design and installation to

ensure BMPs meet specifications and eliminate liability to the District.

Table 3 below outlines whether some level of technical knowledge may be required for particular BMPs. If a TMDL "T" practice is not listed below, the practice does not contain components that require EJAA or a PE, 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. In some cases, staff may not hold all of the EJAAs necessary to design all of the components necessary for a practice. Please check with the DCR State Agricultural Engineer (Amanda.pennington@dcr.virginia.gov) for any questions on EJAA or agricultural BMP design. All VACS practices funded with 319(h) must follow the procedures outlined in Virginia Agricultural Cost-share (VACS) BMP Manual[3]. All DCR EJAA and completed designs may be subject to annual reviews and engineering spot checks.

Table 3: Technical (PE or EJAA) Requirements for Agricultural NPS BMPs

NPS BMP Code	BMP Description	NRCS Practice Code	NRCS Practice Name	PE or EJAA Required
SL-6AT	Sm. Acreage Grazing Sys.	362	Diversion	EJAA
SL-6AT	Sm. Acreage Grazing Sys.	376	Roofs and Covers	PE
SL-6AT	Sm. Acreage Grazing Sys.	412	Grass Waterway	EJAA
SL-6AT	Sm. Acreage Grazing Sys.	516	Livestock Pipeline	EJAA
SL-6AT	Sm. Acreage Grazing Sys.	558	Roof Runoff Structures	EJAA
SL-6AT	Sm. Acreage Grazing Sys.	561	Heavy Use Area Protection	EJAA
SL-6AT	Sm. Acreage Grazing Sys.	574	Spring Development	EJAA
SL-6AT	Sm. Acreage Grazing Sys.	575	Trails and Walkways	EJAA
SL-6AT	Sm. Acreage Grazing Sys.	614	Watering Facility	EJAA
WP-2T	Stream Protection Support	472	Access Control	No
WP-2T	Stream Protection Support	516	Livestock Pipeline	EJAA
WP-2T	Stream Protection Support	575	Trails and Walkways	EJAA
WP-2T	Stream Protection Support	578	Stream Crossing	EJAA

5.4 Technical Approval

This section is applicable for all NPS program areas. Any practice installation must meet technical agency standards and specifications of that practice before cost-share payment is made. For all practices utilizing the NPS BMP contract, a staff member of the Grantee must sign Part III certifying the BMP Installation was completed by an "appropriately qualified individual." "Appropriately qualified" is defined in the Cost-Share BMP Contract and for purposes of these guidelines as an individual who is indicated in the associated BMP specification as having the ability and/or certifications necessary to determine a BMP has been installed according to the individual BMP specifications. The statements below have already been included in the Cost-Share BMP Contract. For practices that cannot utilize the BMP contract, the language should be included in the approval documentation to the participant.

- Agricultural Practices: "I certify that all administrative and technical components of the BMP(s) listed above for payment have been completed by an appropriately qualified individual, and it has been determined that each BMP meets all applicable standards and specifications necessary for certification and/or payment. I understand that all BMPs are subject to spot checks and any other quality control measures as determined by the funding agency or its designees."
- Residential Practices: "I certify that this BMP has been installed according to the applicable BMP(s) standards and specifications. I certify that all construction for the repair or installation of a conventional onsite septic systems (RB-3, RB-3R, RB-4 and RB-4P) or alternative onsite septic system

(RB-5) has been completed in accordance with the permit issued by the local Virginia Department of Health and was inspected by the local Health Department, appropriate Onsite Soil Evaluator, or Professional Engineer who certified the design of the system. I certify that all documentation for the alternative onsite system was provided to the local Virginia Department of Health (VDH) and an operation permit was issued. I certify that for the alternative onsite sewage system (RB-5), the type of installed system was recorded (with the VDH) and is attached to this BMP three-part contract. I certify that for BMPs with the exception of those not requiring a permit (RB-1, RB-2 and RB-3R), a copy of the VDH final inspection report is attached to this BMP contract. I certify that any 'Assignment of On-Site Sewage Disposal BMPs Cost-share Payment Authorization Form' signed by the participant, along with the receiving Technical Service Provider's Name, Address, Tax ID and phone number, is attached to this contract. I understand that all BMPs are subject to spot check procedures and any other quality control measures."

5.5 Completion Dates and Approved Practices under Contract and Construction

NPS projects are administered with an assigned cost-share allocation. Practices should be tracked and maintained in in the DCR BMP Tracking Program or an alternative tracking spreadsheet (if the BMP is not available in the Tracking Program) until the grant ends, is canceled, or all funds are expended.

The Grantee must set a completion date for approved practices and inform the applicant of that date. BMP completion dates will help Grantees establish deadlines, so that funds can be freed up for other BMPs if projects are not started or progressing; Grantee staff or sub-award staff are required to track BMP progress (percent completed) through completion to help determine the status of projects. **Practices not started within nine months of Grantee approval (i.e., signed contract and SWCD Board approval) should be canceled.** Likewise, practices not completed by the established deadline or within two years of Grantee approval should be canceled; however, the official action by the Grantee may extend the completion date if justified. All authorized practices must be completed by deadlines established by DEQ based on grant termination dates and the amount of time it takes to complete a BMP; however, no BMP should take longer than two years to complete without approval by the Grantee and DEQ. 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 of 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 DEQ grant award when approving new practices to assure there will be enough time on the grant contract for the work to be completed.

Grantees must expend all grant funds and make all cost-share payments during the timeframe of the current, active grant agreement. Tracking BMP progress will facilitate the appropriate expenditure of all funds by allocating funds away from projects that haven't been started or aren't progressing and ensure that all funded projects will be completed within specified deadlines. Unlike state cost-share funds, federal funds (e.g., 319(h)) do expire, and the use of those funds after 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 payout of practices.

5.6 Special Considerations for NPS Agricultural Program Areas

- **Conservation plan requirements** apply to agricultural BMPs in all NPS implementation areas. Please reference DCR's Virginia Agricultural Cost-share (VACS) BMP Manual[3]. The DEQ NPS 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 SWCD to receive an Agricultural BMP Tax Credit. "T" practices funded with DEQ funds are eligible for tax credit.

- **Biosecurity Considerations (including poultry, livestock, and other animal operations) and Response to Suspected or Confirmed Foot and Mouth Disease (FMD) Outbreak** guidelines included in DCR's Virginia Agricultural Cost-share (VACS) BMP Manual[3] are applicable in all NPS agricultural program areas. If there are any questionable disease situations on a farm, please call before visiting. Remember these are minimal guidelines, and some operations may have additional requirements.

6. Cost-Share Payment

Cost-share payment is issued by the Grantee after the participant and technical representative have certified installation on Part III of the BMP Contract, and all back-up financial documentation has been provided by the participant to the Grantee. In some circumstances, funds in excess of the amount originally approved may be approved, not to exceed a cap, for unforeseen conditions.

IN THIS SECTION:

6.1 Payment of cost-share to participants
6.2 Additional funds for unforeseen conditions
6.3 Tax information and documentation

6.1 Payment

This section is applicable for all NPS program areas. 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 eligible total actual cost.

6.2 Additional Funds

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. Payments over the total estimated 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 is required.
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.

6.3 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) during the calendar year per their federal taxpayer identification number or social security number. The 1099 forms go to the individual 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. VA DEQ encourages

Grantees to provide information in writing to potential participants that they may be taxed on the cost-share they receive.

- **Agricultural Practices:** Districts should use a 1099-G form.
- **Residential Septic Practices:** Grantees should issue a 1099-M. If the payment for a RB practice (RB-2, 3, 3R, 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 the cost-share funds. Participants must sign an Assignment of Onsite Sewage Disposal Practices Cost-share Payment Authorization form[G], which will designate that a payment goes to the TSP. In the case of an authorized TSP, the 1099-M would be sent to the TSP, not to the landowner who signed the assignment form. Districts must also file IRS Form 1099-M and Form 1096 with the Internal Revenue Service in accordance with IRS regulations.

7. BMP Data Collection and Reporting

Grantees are responsible for maintaining appropriate documentation of funded projects. Progress on implementation projects is reported to DEQ quarterly and tracked through DCR's BMP Tracking Program. Further, all grant contracts are subject to periodic satisfactory progress review in conjunction with spot checks to assure the Grantee is managing its work according to the executed grant agreement.

IN THIS SECTION:

7.1 Documentation to be maintained by Grantee
7.2 Guidance on reasonable volunteer hours and rates
7.3 Environmental Information (or BMP Location Verification)
- **GIS considerations for District users of DCR's Tracking Program**
- **Hydrologic unit geography, reporting, unit codes, county and city codes**

7.4 Data reporting
- **Special consideration for SWCDs and practices in DCR's Tracking Program**
- **Data reporting through DEQ's BMP Warehouse**

7.5 Administrative review and satisfactory progress review

7.1 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 DEQ 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 and payments.

- Districts must complete their agricultural and septic BMP 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.
- Only agricultural and septic BMP data are entered into the DCR BMP Tracking Program. All other BMP types (e.g., pet waste, urban) data are entered into the BMP Warehouse.
- 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 or equivalent DEQ-approved documentation. 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 must have documentation that those approved bid procedures were followed before cost-share funds may be expended. One exception is in the case of an emergency situation, which is defined as septic system conditions external to the building which fully prevent use of the onsite septic system. In the event of an emergency situation, if a District is contacted within 24 hours of discovery and the conditions are documented, the applicant may be eligible for reimbursement payment without following approved bid procedures. Further information is provided in the Residential Septic Program Guidelines.

For any practice cost-shared with DEQ 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 and payments. Participants must sign DEQ NPS Cost-share BMP Contract[E] Parts I and III or equivalent DEQ-approved documentation. Part III includes the participant's certification that the practice is completed according to specifications.

7.2 Guidance on Volunteer Hours

These guidelines provide clarification for including appropriate volunteer hours in calculations to determine BMP cost-share 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 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 question 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.

Grantees may suggest an estimated volunteer match rate based on a known value of similar work in the area. Otherwise, the US Department of Labor, Bureau of Labor Statistics[10] has a website with average hourly wages for various occupations, including agriculture, which may provide a good reference for reasonableness of cost estimates. If no clear estimate is available from these sources, DEQ will accept the national value of volunteer time (including fringe) listed on the Independent Sector[11] website. The current (2019) average hourly rate is $25.43.

7.3 Environmental Information (or BMP Location Verification)

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) funding. As a reminder, 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 BMPs 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) is a good resource that may help you create an implementation map. VEGIS is provided by DEQ here[12].

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, and then click on the green plus sign in the right-hand pane.
2. Then turn on (click or place a checkmark by) the watershed layer in the table of contents on the left,

and the IP watersheds will display.

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.

Note that there are two status fields: one for the Report Status and one for the Watershed Status. The Report Status refers to whether an implementation plan is in Draft, Completed, or Approved. The Watershed Status refers to whether a Project is Underway, Project Not Assigned, or Project Closed.

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.

DEQ anticipates that a fiscal stress layer will eventually be available through VEGIS. Grantees may utilize this layer to determine participants' eligibility for increased rates of cost-share based on the fiscal stress ranking of the locality in which a practice is located. More information is provided in the Residential Septic Program Guidelines section of this document.

Grantees who have their own GIS systems may download up-to-date spatial data for use in ArcGIS desktop from the datasets available here[13].

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 in the geodatabase, the TMDL Watersheds layer and the Implementation Watersheds layer. The Implementation Watersheds layer will display all implementation watershed boundaries in Virginia and their associated attribution, such as Report and Project Status.

Grantees are encouraged to contact DEQ with questions on how to access data. Primary contact may be made with Kristy Woodall (kristy.woodall@deq.virginia.gov) or the appropriate regional Nonpoint Source Coordinator (see contact information here[14]).

- **GIS Considerations for District users of DCR's Tracking Program:** Biannually, DEQ provides DCR with an updated TMDL IP layer, 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[3].

7.4 Data Reporting

Timely data reporting is vital to adequately tracking program effectiveness and making necessary management decisions. 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), and DEQ NPS program (npsgrants@deq.virginia.gov). All data for completed practices for a specific quarter must be entered into DCR's BMP Tracking Program (for Districts) or into DEQ's BMP Warehouse and entered onto the Form D2 TMDL Implementation Project Activity or its equivalent from the executed agreement) by the 15th day following the end of a quarter. Any additional reporting requirements for the NPS 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.

For Soil and Water Conservation Districts (Districts): All BMP data must be entered into the DCR Agricultural Tracking Program ("Tracking Program") by the 15th of the month following the end of a calendar quarter to qualify for reimbursement. Practices with a status of "complete-not paid" will only be eligible for reimbursement if the following information is in the Tracking Program: completion date, extent installed, actual cost, cost-share payment, check number, and payment date.

- **Special Consideration for SWCDs and Practices in DCR's Tracking Program:** The following special considerations related to BMP tracking apply only to Districts as Grantees or when Districts are using the DCR BMP Tracking Program to track practices for a non-District Grantee (e.g., nonprofit, Planning District Commission). Cost-allocation will be associated with an initial Program Year in the DCR BMP Tracking Program and program names will be established and entered into the Tracking Program.

  All applications entered into the BMP Tracking Program (or an alternative tracking spreadsheet if the BMP is not available in the Tracking Program) must be identified as (1) completed, (2) canceled, or (3) carry over (if it meets DEQ NPS program eligibility guidelines) at the end of a fiscal year (June 30). All completed projects are 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 should include grant-funded projects when completing a carryover and year-end reports and submit the reports to their DCR Conservation District Coordinator and their DEQ project manager (this can be included in the July 15th quarterly report). Districts should track DEQ NPS funding on the End of Program Year Cash On-Hand Balance form and the Carry Over form provided by DCR to the Conservation District Coordinators (CDC) and include a copy of this in the appropriate quarterly report with the DEQ NPS grant agreements. *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.*

Data Reporting in DEQ's BMP Warehouse: If the Grantee plans to complete BMPs that cannot be reported in DCR's Tracking Program, the Grantee shall document BMP installation and shall ensure that required operation and maintenance plans and landowner agreements are developed and submitted to DEQ if applicable. Once those BMPs are completed, Grantees should record the BMP information onto an Excel spreadsheet (BMP Grants Template) provided by DEQ. The BMP Grants Template (formerly known as the Attachment D NPS BMP Tracking Form) will then be uploaded by the Grantee into DEQ's BMP Warehouse[15] by the 15th of the month following the end of a calendar quarter. A PDF printout of this submittal should be included in the Grantee's quarterly report package as documentation of data submission.

7.5 Administrative Review and Satisfactory Progress Review

All grant agreements 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. The general schedule of these reviews is dictated by the requirements of the executed agreement, but generally includes an initial review first within the first 6 month of grant initiation, every 12 months after that point, and within 3-6 months of a grant ending. Progress reviews generally involving reviewing the commitments in the executed agreement, the level of BMP signup and completion compared to the milestone schedule in the executed agreement, the level of grant spending per the completed deliverables, as well as other BMP-specific reviews. This may

include spot-checks of certain BMPs for adherence to stated specifications. 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 that 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.

8. BMP Lifespan Management

Following BMP installation and cost-share disbursement, the appropriate authority will perform spot checks to ensure practice viability as per approved specifications for the lifespan of the practice. The lifespan of a BMP is defined as the time by which a participant/ grantee/ landowner is responsible for the operation and maintenance for the practice per the approved BMP Specifications. Generally, the lifespan is considered 10 years (if not stated), although there are a few that are as short as 1-5 years. The original participant is responsible for maintaining the practice unless the land is legally transferred with proper documentation transferring responsibility for the BMP to the new owner or leaseholder. Grantees must have procedures in place for addressing practice failures: practices that are no longer functioning per specifications, have been destroyed, or have not been properly transferred to a new landowner.

IN THIS SECTION:

8.1 Spot-check procedures to determine practice viability during its lifespan
8.2 Transfer of responsibility with transfer of property ownership or leasehold
8.3 Practice failure identification and procedures to address

8.1 Spot-Check Procedures

Spot checks are meant to determine practice viability during lifespan to determine if the practice is being maintained per the practice specification. A technical review of the original BMP is conducted 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[3]. As referenced in the Practice Failure section below, DEQ requests that Districts provide a report of all spot checks that are performed on agricultural practices paid for by DEQ NPS funds. The manner by which this requirement can be fulfilled (e.g., the type of report or information provided) can be negotiated by the District, its DCR CDC, and DEQ's Nonpoint Source Coordinator.
- **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.

8.2 Practice Failures

A practice failure occurs when upon spot check or inspection, it is determined that the practice is no longer functioning per the practice specification. Practice failures or damage are **not** eligible for cost-share assistance unless specifically authorized in the practice specification. Practice failure can also be considered when upon spot check or inspection, it is determined that the property changed ownership or leasehold during the lifespan of the BMP and is no longer under control of the participant, and the participant did not complete appropriate paperwork (see Transfer of Responsibility below). Per the DEQ NPS Cost-share BMP Contract[E] signed by the participant (for agricultural or residential septic practices) or a DEQ-approved equivalent document (for all other practices), maintenance of the practice is the responsibility of the participant for the lifespan of the practice. Practices that are damaged or destroyed before certification as complete are also the responsibility of the applicant, and only the original authorized cost-shared amount

can be used to establish the practice. Grantees are obligated to report annually to DEQ the spot checks and practice inspections made, the identification of failures or unmaintained practices, and the steps taken to address such failures. **Grantees should establish minimal procedures that participants must follow in the instance of a practice failure, and these procedures should be clearly documented.** Grantees that do not have existing practice failure procedures may establish their own procedures based on DCR's Virginia Agricultural Cost-share (VACS) BMP Manual[3] for agricultural BMPs and the following guidance:

- Participants found, at any time, to have 1) practices not meeting specifications, 2) practices destroyed during the designated lifespan, or 3) practices no longer under the control of the original or an approved new landowner transfer agreement[F], should be contacted by the Grantee and informed of the nature of the identified practice failure, actions necessary to correct, and the repayment requirements if not corrected. This may initially be a verbal notification. Verbal notification should be followed with a written notification (by certified mail) within two weeks. This correspondence should indicate the observed practice failure and allow the individual the opportunity to respond within a specified period of time (e.g., two weeks). It is suggested that a copy of a spot-check inspection form be provided if available or appropriate.
- Participants may be given a grace period (e.g., maximum of three months) from the date of the written notification for addressing the practice failure. At the end of the grace period, the practice should be re-inspected. The Grantee should notify participants with practices still identified as practice failures in writing that repayment of DEQ NPS cost-share funds is required. Repayment of all or part of the cost-share funds will be based upon a straight-line pro-rata basis if appropriate. This should be calculated on a monthly basis. For example, if the lifespan of the practice was 10 years (120 months), and the practice was determined out of compliance at month 60, then the participant would have to make payment for the equivalent of 60 months, or 50% of the funds paid.
- Participants should have a specified amount of time (e.g., 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 should notify DEQ and propose appropriate next steps to reclaim the funds (e.g., by seeking assistance from legal counsel).
- When a Grantee has determined that a practice has failed or been destroyed and all practice failure and repayment procedures were followed, and the participant claims that due to some unforeseen hardship, he/she cannot repay the cost-share funds, the Grantee should contact DEQ to discuss how to proceed.

8.3 Transfer of Responsibility

Should the property change ownership or leasehold during the lifespan of the BMP (partially or fully funded by DEQ funds), the original participant will be held responsible for the maintenance of the practice for the duration of the BMP lifespan 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 participant. Upon the transfer of ownership or leasehold of the property, the current participant must present to the Grantee for their approval either: (1) an executed copy of the Nonpoint Source Cost-share Program Agreement Transferring Responsibility for Best Management Practice[F] transferring legal responsibility for maintenance of the practice to the new participant, or (2) a pro-rated return of cost-share funds (see Practice Failures above). When signing and executing the BMP contract (Parts I, II and III) or DEQ-approved equivalent, the participant affirms his/her understandings that he/she will be held financially responsible and liable for the practice even if the property exchanges hands, unless a dually signed Nonpoint Source Cost-share Program Agreement Transferring Responsibility for Best Management Practice is completed.

Section II - Residential Septic Program Guidelines

Background: These Residential Septic Program Guidelines are intended to provide additional information for Grantees who will develop and administer a Residential Septic Program utilizing funds from DEQ. Grantees who receive DEQ funds to provide cost-share assistance for residential onsite sewage systems must develop their own, local Program Design and Guidelines for NPS Cost-share Assistance Program for Residential Onsite Sewage Systems that would be reviewed and approved by DEQ prior to the Grantee executing their program. This section provides information to assist Grantees in developing these specific guidelines. The associated Residential Septic Program Design and Guidelines template[D] can be modified by Grantees for their own use. The local guidelines developed by Grantees should identify the specific local areas where DEQ NPS funds are being utilized and include any changes to reflect their Grantee-specific program where noted. The template referenced above includes example language that can be used as is, augmented, or substituted. All documents must meet minimal standards to be approved. Examples of acceptable Residential Septic Guidelines include those from Linville Creek[A], Flat and Nibbs Creeks[B], and the North Fork Holston River[C].

Submission and Approval: A copy of the completed local program guidelines shall be submitted to the DEQ project manager (and cc'd to npsgrants@deq.virginia.gov) within 30 days of the grant agreement effective date. Annually, the Grantee should update and resubmit their guidelines to DEQ by August 31 to address changes in the residential septic program for the new fiscal year that started July 1.

I. **Overview -** The Program Design and Guidelines for the Virginia NPS Cost-share Assistance Program for Residential Onsite Sewage Systems, administered by the Department of Environmental Quality (DEQ), outlines the application and review process, selection criteria, and administrative procedures for providing cost-share assistance to residential property owners. This program provides cost-share for septic tank pump-outs, connection of failed or failing systems or other non-complying discharges (i.e., straight pipes, gray water) to public sewer, repair and/or replacement of failing onsite sewage systems, and the installation of both conventional and alternative onsite sewage systems for residential homes. The Grantee should state in this section what their program funds, who is eligible, and what types of practices will be covered.

II. **Targeting Participation** – Grantees should describe how they are going to target participation in their program, recruit participants, and promote the program.
    a. **Geographical Area of Program:** Grantees must identify the geographic area their program will cover, so homeowners know if they are eligible. This should identify the following:
        i. Impaired watersheds and/or TMDL implementation plan watersheds
        ii. Localities (cities or counties)
        iii. Neighborhoods (if appropriate)
    b. **Solicitation of Participants:** Grantees should list how and/or from where cost-share applications will be sought. Below are some examples that can be utilized:
        i. 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 an application.
        ii. 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.

iii. Educational Activities – News releases, fliers at public locations, mailings to watershed property owners, workshops, public meetings, etc.

c. **Time Frame**: Grantees should indicate the time frame for which they will accept applications for cost-share. If there are any specific deadlines under which the Grantee is working, these should be listed.

d. **Special Targeting Initiatives**: Grantees have the ability to describe any additional targeting or special situations (e.g., straight pipes or low-income households) that the Grantee is conducting as a way to target participation. This description should include at a minimum:

i. Why is this topic is being targeted?

ii. How will targeting of this particular issue be conducted?

iii. For example, if a Grantee wishes to create a residential septic program or initiative that only addresses straight pipes, then this is where information on how this initiative would be administered should be explained.

III. Income Guidelines and Cost-share Rates/Caps – All program participants are eligible to receive a minimum of 50% cost-share for all practices. An increased assistance rate up to 90% will be available based on the income of the property owner(s) for certain practices and the fiscal stress[16] ranking of the implementation area. The percentage of cost-share awarded per applicant will be based on the current **median household income** for the subject county, as published by the Virginia Housing Development Authority[17] (VHDA), US Housing and Urban Development (HUD)[18] or US Census Data[19]. Grantees must identify which source they use and must utilize all components related to that single source. (e.g., Grantees may not use the median household income from one source but the income verification procedures from another.)

a. Income Verification: Grantees should establish a process or procedure for the manner in which they will verify income for participants eligible to receive more than 50% cost-share. For the purposes of this exercise, the DEQ NPS program will be based upon the median household income unless the participant and Grantee can make a case for using median family income. This is based upon a USHUD recommendation to utilize median household income when involving activities that improve property for housing[20]. According to the US Census related to income[19]: a family consists of two or more people (one of whom is the householder) related by birth, marriage, or adoption residing in the same housing unit. A household consists of all people (over 15 years of age) who occupy a housing unit regardless of relationship. A household may consist of a person living alone or multiple unrelated individuals or families living together. Currently median household or family income values are not based upon household size (i.e., number of persons that make up the family or household). If a grantee wishes to address household size, then they must include a proposal on how this will be addressed and reviewed. At a minimum, it is recommended that this process includes the following:

i. Identification of whether using median family or household income. Identification of the median family/household income for which rates will be based for the location(s) covered under the program. Identification of the source used to determine the median income.

ii. Identification of household size (if chosen and approved to utilize).

iii. Confirms whose incomes will be used to calculate median income (e.g., head of household)

iv. W-9 for applicants

v. A copy of their most recent tax filing (1099, etc.) or statement that they did not earn enough income to file taxes (statement should include the minimum funding amount

needed to require to file taxes).

- Alternative income verification if 1099 is not available.
- Two years of tax filing may be helpful and can be requested.
- If an applicant has had a drastic change in income since the last year's tax filing, then the Grantee shall establish a process or procedure by which to document income. An assessment of the last two years of tax filing plus an income statement (pay stubs) for the proceeding three months (or since the last tax filing) may be helpful.

b. Cost-share Rate Structure: Once income levels are established, the Grantee must determine the cost-share funds for which the participant is eligible by applying a cost-share rate structure. In order to address the economic differences throughout Virginia which may impact an individual's ability to participate in the program, DEQ has developed a two-tier cost-rate structure that addresses the fiscal stress a location may experience. A fiscal stress index[16] was developed by the Virginia Department of Housing and Community Development and provides an indication of a locality's "ability to generate additional local revenues from its current tax base relative to the rest of the commonwealth." There are two cost-share rate structures the Grantee may use, which will be based upon the fiscal stress of the project area: 1) No Fiscal Stress and 2) Fiscal Stress. One rate structure should be selected for a project area unless the Grantee has established a process by which it will determine fiscal stress eligibility for each applicant.

i. Determining Fiscal Stress: Grantees will utilize the most recently available "Report on the Comparative Revenue Capacity, Revenue Effort and Fiscal Stress of Virginia Counties and Cities[21]" to determine fiscal stress of their project area. DEQ staff will be available to assist you with this work. Areas will be considered to have no fiscal stress if they are shown to have average, below average, or no fiscal stress. An area will be considered to have fiscal stress if they are designated as either above average or high fiscal stress. Grantees must receive DEQ approval of their fiscal stress determination for their project area. The cost-share rate structure will be determined during the Request for Applications process for newly awarded grants; existing Grantees should consult with DEQ to determine a cost-share rate structure for their grant implementation area. The table representing the selected cost-share rate structure should be included in a Grantee's Residential Program Guidelines. If an implementation area comprises multiple different fiscal stress indexes, applicants must provide rationale in their application for the rate structure they will use.

- **No Fiscal Stress:** Those BMPs determined to be located within localities which have an overall fiscal stress ranking of average, below average, or no will be eligible for a cost-share rate of 55%-80% for all income-verified thresholds (<40%, 41-60%, 61-80%, 81-100% and 100-120%). The cost-share rate of 50% to 80% is applied to the total eligible cost and has a maximum payment amount (cap) based on the average total practice amount (see Table 4 below).

Table 4: No Fiscal Stress – Cost-share Rate Structure

Percent of Median Income	Percent of Cost-Share
< 40%	80%
41 - 60%	75%
61 - 80%	65%
81 – 100%	60%
100-120%	55%
>121% or No Income Verification	50%

- **Fiscal Stress:** Those BMPs determined to be located within localities which have an overall fiscal stress ranking of above average or high will be eligible for an increase in their cost-share rate of 10% for all income-verified thresholds (<40%, 41-60%, 61-80%, 81-100% and 100-120%). The cost-share rate of 60% to 90% is applied to the total eligible cost and has a maximum payment amount (cap) based on the average total practice amount (see Table 5 below).

Table 5: Fiscal Stress – Cost-share Rate Structure

Percent of Median Income	Percent of Cost-Share
< 40%	90%
41 - 60%	85%
61 - 80%	75%
81 – 100%	70%
100-120%	65%
>121% or No Income Verification	50%

c. Cost-share Caps: The cost-share rate of 50% to 90% is applied to the total eligible cost and has a maximum payment amount (cap) based on the average total practice cost (see Table 6 & 7 below). The Grantee must select and provide one of the following tables of general estimates of cost ranges for practices/systems that are eligible for cost-share:

Table 6: No Fiscal Stress (Localities Ranked Average, Below Average, and Low Fiscal Stress) Residential Septic Cost-share Rates/Caps

	Median Income	**<40%**	**40-60%**	**61-80%**	**81-100%**	**100-120%**	**>120% or no income verification**
Practice	**Average Total Practice Cost**	80%	75%	65%	60%	55%	50%
Septic Tank Pump-out (RB-1)	$350	$280	$263	$228	$210	$193	$175
Connection to Sewer (RB-2)	$11,000	$8,800	$8,250	$7,150	$6,600	$6,050	$5,500
Septic Tank System Repair (RB-3)	$5,000	$4,000	$3,750	$3,250	$3,000	$2,750	$2,500
Inspection and Non-Permitted Repair (RB-3R)	$4,000	$3,200	$3,000	$2,600	$2,400	$2,200	$2,000
Septic Tank System Installation/Replacement (RB-4)	$8,000	$6,400	$6,000	$5,200	$4,800	$4,400	$4,000
Septic Tank System with Pump (RB-4P)	$12,000	$9,600	$9,000	$7,800	$7,200	$6,600	$6,000
Alternative Onsite Sewage Systems (RB-5)	$24,000	$19,200	$18,000	$15,600	$14,400	$13,200	$12,000

Table 7: Fiscal Stress (Localities Ranked High and Above Average Fiscal Stress) Residential Septic Cost-share Rates/Caps

	Median Income	<40%	40-60%	61-80%	81-100%	100-120%	>120% or no income verification
Practice	**Average Total Practice Cost**	90%	85%	75%	70%	65%	50%
Septic Tank Pump-out (RB-1)	$350	$315	$298	$263	$245	$228	$175
Connection to Sewer (RB-2)	$11,000	$9,900	$9,350	$8,250	$7,700	$7,150	$5,500
Septic Tank System Repair (RB-3)	$5,000	$4,500	$4,250	$3,750	$3,500	$3,250	$2,500
Inspection and Non-Permitted Repair (RB-3R)	$4,000	$3,600	$3,400	$3,000	$2,800	$2,600	$2,000
Septic Tank System Installation/Replacement (RB-4)	$8,000	$7,200	$6,800	$6,000	$5,600	$5,200	$4,000
Septic Tank System with Pump (RB-4P)	$12,000	$10,800	$10,200	$9,000	$8,400	$7,800	$6,000
Alternative Onsite Sewage Systems (RB-5)	$24,000	$21,600	$20,400	$18,000	$16,800	$15,600	$12,000

IV. Information to Inform the Guidelines' Scope of Work

a. What Program Covers: Grantees should include a description of what type of work is covered under the program and what is not. The Grantee should also include a statement about other specific program activities for which additional information may be needed (e.g., gray water, alternative septic systems). Suggested language includes:

   i. The [Name] Cost-Share Assistance Program for Residential Onsite Sewage Systems will consider any repair or replacement approved by the Virginia Department of Health (VDH) and not prohibited by any local ordinance to be suited for cost-share assistance under this Program for residential dwellings that are occupied or may be temporarily unoccupied between leases.

   ii. Alternative Onsite Sewage Systems (AOSS): AOSS are often needed for homes that have a non-conforming discharge (straight pipe) or a failing conventional septic system where there is not enough area for setback requirements or suitable soils for replacing with a conventional septic system. There is a suite of different types of systems that are approved by VDH and thus are eligible for cost-share funding. These include but are not limited to: 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, disinfection systems, raw or treated wastewater pump stations, composting toilets, and AOSS aerobic treatment units.

   iii. Gray Water Discharges: Gray water is defined as wastewater from sinks, showers, or laundry. VDH considers this similar to a straight pipe, as it is a non-conforming discharge, and they will require it to be addressed by a septic system. This residential septic grant program allows for gray water to be addressed while addressing other straight pipe or failing or failed septic system issues. Costs can include connecting a gray water discharge from a dwelling that is discharging on the ground or in a wet/dry ditch to the existing or replacement conventional or alternative onsite sewage system or while connecting to public sewer.

b. Grantee Obligations for Maintenance: Grantees should include a section that describes obligations on the part of the participant to maintain the practice. Suggested language: "When an applicant agrees to complete the onsite sewage system practice, the applicant is responsible for maintaining the practice for the specified required lifespan (as listed in the associated DEQ BMP specification), unless the ownership/leasehold changes and a Transfer of Responsibility Agreement[F] is executed between the seller (present participant) and buyer (new participant) and approved by the Grantee."

c. Alternate Funding or Partner Programs: Grantees are encouraged to identify alternative funding that can partner with DEQ NPS funds to assist participants in correcting septic issues.
    i. If alternative funds are identified as part of the larger project, the Grantee should include a process by which the alternative funds will be selected and utilized.

d. Addressing Indoor Plumbing Issues: Grantees should include a section that describes how the project will address indoor plumbing and provide information on other programs that may provide funds for these needs. Older homes often have antiquated plumbing that creates challenges in dealing with non-complying discharges (i.e., straight pipes, gray water). Costs of upgrading or modernizing indoor plumbing are not eligible for cost-share. Because of these factors, local programs are encouraged to work with partner organizations, which may have complementary programs that may address indoor plumbing issues.
    i. For example, the Virginia Department of Housing and Community Development[22] and the Southeast Rural Community Assistance Project[23] both have indoor plumbing and rehabilitation programs that offer grants/loans to homeowners to modernize and/or replace plumbing to address non-complying discharges and failing onsite sewage disposal systems. Communication has been provided to both about the Virginia Residential Cost-Share Assistance Program for Onsite Sewage Systems, and they are interested in working with low-income homeowners who need assistance.

e. Addressing Multiple Systems: DEQ originally developed the Residential Septic Guidelines to address the typical septic system set-up for a single-family residence, which includes a single septic tank, distribution box and drainfield. DEQ recognizes that historically not all septic systems were designed and installed the same. After consultation with VDH, DEQ has developed guidelines for BMP or cost-share eligibility for unique system set-ups that Grantees may encounter. This list is not exhaustive. Grantees should consult DEQ on a case-by-case basis for eligibility for any non-typical situations not addressed below:
    i. One house with two septic systems and a single drainfield: Cost-share will be allowed for pumping out of both tanks, but this will be based on a variance. This would be credited as one (1) RB-1 septic pump-out, but the applicant would be able receive cost-share for the cost of the two pump-outs combined. For example: if each pump-out costs $300, and the homeowner would be eligible for 75% cost-share, then a variance request would be granted for ($300x2x75%) $450. Credit for two pump-outs should not be given.
        i. If a system requires additional work beyond a pump-out (e.g., RB-3, 3R, 4, 4P, etc.), then the cost of the extra pump-out would be included in the total cost of the system, and a variance would only be required if the total cost of the action (repair/replacement) exceeds the average practice cost.
    ii. One house with one septic system (or two) and two separate drainfields: Cost-share will be allowed to address the repairs/replacements required by VDH. If this includes repairing or replacing both drainfields, this would be eligible for cost-share. This would be credited as one (1) septic system (e.g., one RB-3, one RB-4), but the applicant would be able receive cost-share for the cost of all eligible actions. A variance would only be needed if the cost of the repair or replacement exceeds the average practice cost.
    iii. Two houses on the same property with completely separate septic systems (not

connected): These systems would have two separate operation permits from VDH and would be considered two (2) separate practices. Each would be eligible for its own separate cost-share for eligible work (e.g., each gets a pump-out, each gets a repair). It is suggested that these practices are handled as separate BMPs for recording purposes.

iv. Two houses on the same property, each with separate septic tanks but one shared drainfield: The two tanks are collecting solids before the effluent moves to the drainfield. For VDH purposes, this would have one operation permit and one owner/responsible party. However, this should be counted as two (2) systems if just a pump-out is required (no variance needed). If this system requires additional work beyond a pump-out (e.g., RB-3, -3R, -4, -4P), then only the responsible owner/party would be eligible; cost of the extra pump-out would be included in the total cost of the system, and a variance would only be required if the total cost of the action (repair/replacement) exceeds the average practice cost. In the latter case for tracking purposes, this could be counted as one RB-1 and one other (e.g., RB-3, -3R, -4), so that two systems are actually credited against the IP.

v. Two houses on separate properties, each with separate septic tanks but with one shared drainfield: For VDH purposes, if the system has one drainfield, one operation permit would be issued, and there would be one owner/responsible party. This would be handled the same as if the houses were on the same property (see "iv." above).

vi. House is connected to public sewer, but the system includes a septic tank (or other components for pre-treatment): Occasionally, historic connections to public sewer may have kept a septic tank functioning to remove solids before the effluent flowed into the central sewer. Other systems may have had a grinder pump to process some of the solid wastes before joining the effluent flowing out of the system. Generally, these situations are not common because the system is already connected to public sewer. This system is already considered to be connected to public sewer so the property would not be eligible for cost-share for a pump-out or any repairs or replacements.

f. Cost-share Eligibility for Applicants that are Estates or Trusts: Properties owned or administered by an estate or trust will be eligible for 50% cost-share. Cost-share beyond 50% requires income verification. Currently, there is not a DEQ-accepted or approved uniform process for income verification for estates or trusts, as this can be difficult due to the potential for multiple beneficiaries and the possible lack of documentation generally required for income verification. DEQ is in the process of developing income verification processes for estates or trusts; until that is available, only 50% cost-share funding is authorized.

g. Key Restrictions: Grantees should include a statement of the situation of when DEQ NPS funds are not allowable for septic practices. The following situations should be noted along with any local restrictions.

i. Permitted Discharging Systems: Any onsite sewage septic systems that discharge to state waters and require a discharge permit (e.g., NPDES) are ineligible for cost-share.

ii. Gray Water: In the absence of a failing or failed septic system when gray water is the only issue to address, there are restrictions on when repairs/replacements to address only gray water will be allowed. If the proposed overall project is intended to only address bacteria contamination, then gray water discharges may only be addressed when addressing failing or failed septic systems. If the purpose of the overarching project is to address nutrients, then a repair or replacement that addresses only gray water would be allowed.

iii. Non-residential properties: This program currently applies only to non-complying discharges or failing or failed residential septic systems. Properties that cannot be defined as residential septic properties (e.g., business, schools, churches) are not

currently eligible to receive funding. Grantees should document any request received from non-traditional, non-residential properties. This information will be used by DEQ when reviewing the residential septic program next year.

V. **Cost-Share Application and Review** – There are many methods by which Grantees can solicit and/or allow for the sign-up for and approval of cost-share funds. The Grantee should have a process established that addresses the key components of application, review, and approval. This process should include some of the following minimum components:

a. **Application Guidelines:**
   i. Continuous Sign-Up – Applications will be accepted on a continual basis.
   ii. 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.
   iii. Place and Time of Application – Guidelines should note that applications will be available at the Grantee office and include the office address and operating hours.
   iv. Cost-share Eligibility – expenses incurred or work completed prior to submission of an application are not eligible for cost-share, unless they meet a qualifying event under "Emergency Situations."

b. **Review Guidelines:**
   i. 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.
   ii. Selection Committee – The Grantee will designate a committee to review and approve 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:
      i. Quantity of residential septic BMPs identified in the TMDL implementation plan
      ii. Cost of correcting onsite deficiency
      iii. Correction of onsite waste disposal deficiency, impact on water quality
      iv. Repair permit issued by Department of Health
      v. Proximity of deficiency to impaired stream
      vi. Local geological features onsite (e.g., karst, rock outcroppings)
      vii. Method of correcting onsite deficiency – probability of successfully functioning system including ease of maintenance

VI. **Administrative Procedures**

a. **Onsite Sewage System Repair/Replacement Specifications:** The Grantee should include a description or reference the specifications for which their program covers and include language that funds will not be provided for any practice that does not meet these specifications.

b. **Permits, Inspections, and Sign-Off**: The Grantee should include a description of what is needed, who must do it, what inspections will be completed (and by whom) and what is needed to sign off on and certify a practice. Suggested language can include: "The participant (homeowner or their agent) shall obtain a VDH permit for the repair of an existing onsite sewage system or the installation of an onsite 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 engineered designs as required in the VDH permit. The Department of Health will issue the onsite sewage system repair/replacement permit. A final inspection of the repair or replacement shall be conducted by the local Health Department, appropriately licensed onsite Soil Evaluator, or Virginia licensed Professional Engineer. The DEQ Nonpoint Source Cost-Share Programs Contract[E] 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 participant file."

i. VDH Permit Requirements: VDH does not require a permit for work on septic systems or their components provided the correction needed meets the definition of "maintenance." VDH does require a permit for the new construction of septic systems and for repair or replacement of systems when a system meets the definition of a "failure of a sewage disposal system." VDH also requires a permit for replacement of tanks, drainfield piping, and subsurface drainfields, as these actions are explicitly excluded from the definition of "maintenance."

ii. Starting July 1, 2019, VDH will charge a fee of $425 for a repair permit without supporting work from a private sector onsite soil evaluator or professional engineer and charge a fee of $225 for a repair permit with supporting work from the private sector. Applicants with incomes below 200% of the Federal Poverty Guidelines are eligible for a fee waiver from VDH. Permit fees are allowed to be included in the total cost for calculating cost-share purposes. Variances of the exceedance of the practice cap are allowed for the inclusion of permit fees as long as it is documented that the participant has applied for any eligible permit fee waivers from VDH.

c. **Variance Requests**: The Grantee should include a description of what a variance is, who is eligible, what types of variances are allowed, when they are eligible, and the process by which a variance is requested and granted. Suggested language could include: "A participant may be eligible to receive a variance if the cost of the practice exceeds the average practice cost (cap), according to the rules laid out in Section I (subsection Cost-Share Funding Caps and Cap Variance Requests) of the DEQ NPS BMP Guidelines. The purpose of a variance is to assure that a participant received the percent of cost-share for which they were approved. Example language can be found in the above-referenced subsection of Section 1**.** This should include information of what is the minimal information needed to submit a variance request, including: 1) why the cost of the practice is exceeding the original estimate, and/or 2) documentation from contractor or VDH approved system designer if the scope of the project has changed.

d. **Tree Removal and Land Clearing**: Under certain circumstances, RB-2, RB-4/4P or RB-5 may not be possible without tree removal and/or land clearing due to restrictions at the site. Homeowners meeting eligibility requirements as defined below may receive cost-share funding to do this activity. Grantees can approve the inclusion of tree removal as eligible for cost-share as long as a process for reviewing requests for tree removal are developed by the Grantee that meet the minimal eligibility and review requirements set here.

i. To qualify, the site must be reviewed and evaluated by an appropriately licensed professional who determines that the only viable site on the property for the proposed septic work would require the removal of trees or clearing of land.

ii. A DEQ-granted variance is no longer required; however, the Grantee should collect and file the required documents (see "iv" below).

iii. The proposed activity must adhere to all local, state, and federal laws or ordinances applicable at the time of design and installation. This includes adhering to the

Chesapeake Bay Preservation Act, which may limit or prohibit land clearing in a Resource Protection Area (RPA).

iv. Adequate Justification provided to Grantee for review and approval

i. A written statement explaining why the wooded area was chosen for BMP installation. This minimally includes a discussion of the alternate locations that were evaluated but eliminated from consideration (and why) and an assessment of the smallest number of trees that would need to be removed to accommodate a functional septic system. This statement should be developed and signed by the on-site soil evaluator, VDH representative, or licensed professional.

ii. Site map showing locations of existing septic system, proposed septic system, trees to be removed, square footage of land to be cleared, and any alternative locations.

iii. Cost estimate, which includes separate costs for tree removal.

e. **Assignment of Residential Cost-Share Funds:** The Grantee can make the cost-share payment for certain residential septic practices (RB-2, -3, -3R, -4, -4P, and -5) to a third-party contractor/installer upon request by the participant. An Assignment of Residential Septic Practice Cost-Share Authorization[G] 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 send a 1099-M to the recipient of grant funds, in this case the contractor.

f. **Tax Advice:** Neither the Grantee nor DEQ provide tax advice; the program participant may wish to consult with an independent tax advisor regarding potential tax consequences.

g. **Inspections**: Several BMPs allow for the inspection of different components of the septic system to determine if there are issues needing repair or if the system has failed. Certain levels of inspections are required for certain practices (RB-1 and RB-3R), and as such, an Inspection Form[H] is required. Other practices may also involve inspections. The Grantee is encouraged to outline the process by which inspections will be allowed and what is expected from those actions.

h. **Process to Address Change in Need:** Occasionally a participant is approved for a practice, and it is determined that the septic system needs more extensive work than is authorized under the originally approved septic practice. As a result, there will be a need for a change in practice code (e.g., RB-1 turns into an RB-3, or RB-3 turns into an RB-4, -4P or -5). The Grantee has developed processes to address and approve changes in practice codes:

i. The participant will provide the Grantee with documentation supporting the need for a practice code change. This documentation should be completed by the septic professional and can be documented on the Septic System Inspection Form or other report from the septic professional.

ii. The Grantee shall review the documentation supporting need for practice code change and determine the new practice code and shall document it accordingly in the participant file.

iii. The Grantee shall notify the participant that they are authorized to proceed with the installation/construction of components associated with the new practice code and inform them of the approved associated cost-share funds.

iv. The Grantee shall follow their established procedures for approval of cost-share and BMPs, except that the decision will instead be to either amend the practice code or change the approved cost-share amount. For example, if a Grantee has a selection committee, the program participant's situation, associated documentation, request review, and approval of the change in practice code would be presented to that committee.

i. **Process to Address Change in Need After BMP is Complete and in Lifespan:** A participant is only eligible for funding for a septic practice if they are not currently under the contract lifespan of another septic BMP for the same septic system. For example, if the participant has already received cost-share for an RB-4 replacement practice that is still under lifespan, and the system needs a pump-out or repair (RB-1, -3, -3R), the participant would not be eligible for additional funds. In cases where a participant completes a DEQ NPS-funded practice (e.g., repair or replacement) and during the lifespan of the practice contract, it is determined that there still is a problem and either repair or replacement work (RB-3, -4, -4P, or -5) is needed, the Grantee may authorize, through DEQ approval, cost-share for the new practice if all of the following conditions apply or occur:

   i. The Grantee has an existing DEQ grant and funds available in the location of the existing BMP.
   ii. The Grantee has developed a process or procedure, approved by DEQ, by which these types of situations are addressed, which minimally include the following:
      i. Specific situations have been identified in the Residential Septic Guidelines where the Grantee will allow this to occur.
      ii. The participant provides documentation of proper maintenance of the original practice. Funds for the new practice will not be provided if there is evidence of failure due to improper maintenance.
      iii. The participant would only be eligible for a pro-rated amount of cost-share for the new practice after crediting what was fully paid by DEQ NPS funds for the old practice.
         - Example: A participant is eligible for 50% of $24k for RB-5 but received $3k for RB-3, so participant would be eligible for $9k instead of $12k.
         - Example: A pump-out was completed, and in year 2 of the 5-year lifespan the practice had a failure, and a replacement is needed (RB-4). The $150 paid for the pump-out would be subtracted from the amount of cost-share funds for which the applicant would be eligible.
      iv. Efforts would be made to assure that "double counting" of the practice doesn't occur. This may include cancelling the existing ("old") practice and initiating sign-up for the new practice.
      v. The participant agrees to maintain the practice for the full lifespan of the new practice.
      vi. Prior approval by DEQ is received before final contract is issued, Grantee approves work, or work begins.

j. **Process to Approve Emergency Situations:** For purposes of these procedures, an emergency situation is defined as septic system conditions external to the home which fully prevent use of the onsite septic system. This includes sewage backing up into the residence and/or sewage backing up and/or ponding on the surface of the ground. In the event that an emergency situation necessitates an emergency pump-out or emergency repair, the Grantee must be contacted within the first 24 hours after discovery of the situation for the applicant to be eligible for reimbursement for any expenses incurred to bring the system back into functional status. The applicant must fully document the existing condition which necessitates emergency procedures. These procedures are not intended to be used for major repairs, only for those repairs to return functionality.

   i. The Grantee should develop a process to approve emergency situations.
   ii. The process should include, at a minimum:

i. The applicant must complete and submit an application and documentation of the emergency situation to the Grantee prior to proceeding with the repair/replacement.
ii. Documentation shall include both a written, signed statement by the applicant which describes the situation and photograph(s) of the presenting condition, as well as an inspection form completed by septic contractor that completed the work.
iii. The Grantee shall review the application and supporting documentation, refer the applicant to VDH, and determine the appropriate practice. The Grantee shall advise the applicant that they will need to inform the Grantee of VDH's determination regarding appropriate action needed to address the emergency.
iv. The Grantee shall obtain a copy of the VDH permit, if needed/if applicable and verify the needed practice.
v. The Grantee shall notify the applicant that they are authorized to proceed with the repair/replacement and inform them of the approved associated cost-share funds.
vi. The applicant must sign a form provided by the Grantee on official letterhead acknowledging: the aforementioned documentation has been completed and reviewed by the District, that funding is available although pending later Board approval, and that they may proceed at this time without sacrificing their eligibility. However, funding is not guaranteed until the Board takes action; thus, applicants proceed at their own risk.
vii. The Grantee shall present to the selection committee the applicant's situation and associated documentation and request review and approval of the practice.

k. **Process to Assure Operation and Maintenance and Address Practice Failures -** All residential septic practices contain a requirement to maintain practices per the DEQ BMP specification for the designated lifespan. The Grantee, utilizing the NPS BMP Contract, must assure that all participants agree to certain terms and conditions related to this requirement. A practice failure occurs when upon inspection it is determined that the practice is no longer functioning as intended by or per the practice specification. More information on O&M and Practice Failures may be found in the corresponding sections of the BMP Manual.
    i. The Grantee should develop a process or procedure by which practice failures are identified, addressed, tracked, and reported.
    ii. The process should minimally include what is listed in subsection 8.2 above on Practice Failures.

l. **Process for Assuring Appropriate Licensure:** Grantees must assure to the best of their ability that participants are provided with sufficient information regarding the type of licenses that are required in Virginia to work on septic systems, so participants can make informed choices during contractor selection. Appropriate licensure for each practice is determined under state code by VDH. The Department of Professional and Occupational Regulation[24] (DPOR) issues all licensure for Onsite Sewage System Professionals[25] under state regulations 18 VAC 160-40[26]: Onsite Sewage System Professionals Licensing Regulations.
    i. Each Grantee will include a section in their guidelines that describes their process by which they will assure participants are provided access to appropriate information.
        i. If Grantees provide participants with a list of local contractors, DEQ recommends including a disclaimer regarding endorsements and recommendations, homeowner responsibility, and finding a contractor with an appropriate licensure.

- Example: "The Piedmont Soil and Water Conservation District has partnered with the Amelia, Nottoway, and Prince Edward County Health Departments to compile this list. None of the organizations endorses or recommends any person, company, or entity listed. It is your responsibility to verify that the contractor has the appropriate licensure to do the work. Ask the contractor, or visit http://www.dpor.virginia.gov/LicenseLookup/"

ii. Appropriate information that is a key to licensure:

i. To install
- Conventional Onsite Sewage System Installer license (individual) + SDS Contractor's license (company that the individual owns or works for)
- Alternative Onsite Sewage System Installer + SDS Contractor's license (company that the individual owns or works for)

ii. To repair for RB-3 or RB-4:
- Conventional Onsite Sewage System Installer license + SDS Contractor's license (company that the individual owns or works for).

iii. To pump: Onsite Sewage System Operator license (individual must possess license or must work for a licensed OSS Operator who is liable for the work performed) + sewage handling permit from VDH

iv. Final Inspection: Onsite Soil Evaluator license

v. To install/work on conventional systems: Alternative license classification or Conventional license classification

vi. To install/work on alternative systems: Alternative license classification

iii. Appropriate Methods to locate Licensed Service Providers

i. VDH Map Tool: Currently VDH provides a map search tool[27] to identify septic system service providers throughout Virginia.

ii. DPOR Lookup Service: DPOR provides a "License Lookup[28]" tool to find service providers in a specific area. Please choose "WWWOOSSP" for the Board; and then select a license type.

iii. DPOR Public Records Request: It is possible to request a list of all qualified Onsite Sewage System Professional by contacting the Information Management Section of Public Records[29] (email publicRecords@dpor.virginia.gov or phone 804-367-8583). It will be possible to request an entire list of licensed professionals for a specific geographic area (e.g., county or counties).

VII. Glossary of Terms:

a. 12VAC5-610-350[33]**. Failure of a Sewage Disposal System, Virginia Department of Health (VDH), Chapter 610 Sewage Handling and disposal Regulations**

i. For the purpose of requiring correction of a malfunctioning sewage disposal system the presence of raw or partially treated sewage on the ground's surface or in adjacent ditches or waterways or exposure to insects, animals, or humans is prima facie evidence of such system failure and is deemed a violation of these regulations. Pollution of the groundwater or backup of sewage into plumbing fixtures may also indicate system failure.

b. 32.1VAC6-1-163 (§32.1-163)[34]**. Definitions from Virginia Department of Health Article 1 Sewage Disposal**

i. "Alternative Discharging Sewage System" means any device or system which results in a point source discharge of treated sewage for which the Board may issue a permit authorizing construction and operation when such system is regulated by the State Water Control Board pursuant to a general Virginia Pollutant Discharge Elimination System permit issued for an

individual single family dwelling with flows less than or equal to 1,000 gallons per day.

ii. "Alternative onsite sewage system" or "alternative onsite system" means a treatment works that is not a conventional onsite sewage system and does not result in a point source discharge.

iii. "Conventional onsite sewage system" means a treatment works consisting of one or more septic tanks with gravity, pumped, or siphoned conveyance to a gravity distributed subsurface drainfield.

iv. "Maintenance" or "maintain" means, unless otherwise provided in local ordinance, (i) performing adjustments to equipment and controls or (ii) in-kind replacement of normal wear and tear parts that do not require a construction permit for adjustment or replacement of the component such as light bulbs, fuses, filters, pumps, motors, sewer lines, conveyance lines, distribution boxes, header lines, or other like components. "Maintenance" includes pumping the tanks or cleaning the building sewer on a periodic basis. Notwithstanding any local ordinance, "maintenance" does not include replacement of tanks, drainfield piping, subsurface drainfields, or work requiring a construction permit and installer. Unless otherwise prohibited by local ordinance, a conventional onsite sewage system installer or an alternative onsite sewage system installer may perform maintenance work limited to in-kind replacement of light bulbs, fuses, filters, pumps, sewer lines, conveyance lines, distribution boxes, and header lines.

c. **12VAC5-613[35]: Regulations for Alternative Onsite Sewage Systems (VDH)**

i. "Small AOSS" means an AOSS that serves no more than three attached or detached single-family residences with a combined average flow of less than or equal to 1,000 GPD or a structure with an average daily sewage flow of less than or equal to 1,000 GPD.

ii. "Large AOSS" means an AOSS that serves more than three attached or detached single-family residences with a combined average daily sewage flow greater than 1,000 GPD or a structure with an average daily sewage flow in excess of 1,000 GPD.

d. **18VAC160-40-10[30] Definitions from Department of Professional and Occupational Regulation (DPOR) Chapter 40 Onsite Sewage System Professional Licensing Regulations**

i. "Alternative onsite sewage system installer" means an individual licensed by the board to construct, install, and repair conventional and alternative onsite sewage systems.

ii. "Alternative onsite sewage system operator" means an individual licensed by the board to operate and maintain conventional and alternative onsite sewage systems.

iii. "Alternative onsite soil evaluator" means an individual licensed by the board to evaluate soils and soil properties in relationship to the effect of these properties on the use and management of these soils as the locations for conventional and alternative onsite sewage systems, to certify in accordance with applicable state regulations and local ordinances that sites are suitable for conventional and alternative onsite sewage systems, and to design conventional and alternative onsite sewage systems suitable for the soils.

iv. "Conventional onsite sewage system installer" means an individual licensed to construct, install, and repair conventional onsite sewage systems.

v. "Conventional onsite sewage system operator" means an individual licensed by the board to operate and maintain a conventional onsite sewage system.

vi. "Conventional onsite soil evaluator" means an individual licensed by the board to evaluate soils and soil properties in relationship to the effects of these properties on the use and management of these soils as the locations for conventional and alternative onsite sewage systems, to certify in accordance with applicable state regulations and local ordinances that sites are suitable for conventional and alternative onsite sewage systems, and to design conventional onsite sewage systems suitable for the soils.

vii. "Maintenance" or "maintain [same definition as 32.1VAC6-1-163 (§32.1-163) listed above]

viii. "Operate" means any act of an individual that may impact the finished water quality at a waterworks, the plant effluent at a wastewater works, or the effluent at an onsite sewage system.

ix. "Operator" means any individual employed or appointed by any owner and who is designated by

such owner to be the person in responsible charge, such as a supervisor, a shift operator, or a substitute in charge, and whose duties include testing or evaluation to control waterworks, wastewater works operations, or to operate onsite sewage systems. Not included in this definition are superintendents or directors of public works, city engineers, or other municipal or industrial officials whose duties do not include the actual operation or direct supervision of waterworks or wastewater works.

e. **18VAC50-22-30. Definitions of Specialty Services[31]**
   i. "Sewage disposal systems contracting" (Abbr: SDS) means the service that provides for the installation, repair, improvement, or removal of septic tanks, septic systems, and other onsite sewage disposal systems annexed to real property.
   ii. Requirements for Qualified Individuals [32]
   Businesses applying for SDS specialty Designation must employ a qualified individual who has a valid Onsite Sewage Systems Professionals Installers license from the Waterworks and Wastewater Works Operators and Onsite Sewage System Professionals Board."

f. **Financial Reporting Form (Form B1):** is a document grantees are required to submit listing project expenditures by budget categories. This must be signed by a person authorized to approve financial transactions. An example Form B1 can be made available upon request to npsgrants@deq.virginia.gov.

g. **Milestone Table (Form C1):** is a document grantees are required to submit listing project deliverables and associated completion dates. Maintaining an updated milestone table is helpful for both the grantee and their associated partners, as well as the project manager to ensure that the project I son target to meet goals within the project lifespan. An example Form C1 can be made available upon request to npsgrants@deq.virginia.gov

Revised June 2019

Section III - Program References

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

1. **Virginia's Nonpoint Source Pollution Program Success Stories**
   http://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/WaterQualitySuccessStories/VirginiasNonpointSourcePollutionProgramSuccessStories.aspx; Also available: https://www.epa.gov/nps/nonpoint-source-success-stories-virginia
2. **DEQ TMDL Implementation Projects**
   http://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/TMDL/TMDLImplementation/TMDLImplementationProjects.aspx
3. **Virginia Agricultural Cost-share (VACS) BMP Manual**
   http://consapps.dcr.virginia.gov/htdocs/agbmpman/agbmptoc.htm
4. **Virginia Stormwater BMP Clearinghouse**
   https://www.swbmp.vwrrc.vt.edu/
5. **The Virginia Stream Restoration and Stabilization Best Management Practices Guide:**
   http://www.deq.virginia.gov/Portals/0/DEQ/Water/Publications/BMPGuide.pdf
6. **Virginia Conservation Assistance Program (VCAP**)
   https://vaswcd.org/vcap-information
7. **VCAP Manual**
   https://vaswcd.org/wp-content/uploads/2019/07/PY2020-VCAP-BMP-Manual.pdf
8. **EPA's Final Financial Assistance Conflict of Interest Policy**
   http://www2.epa.gov/grants/epas-final-financial-assistance-conflict-interest-policy
9. **Code of Virginia State and Local Government Conflict of Interest Act**
   https://law.lis.virginia.gov/vacode/title2.2/chapter31/
10. **US Department of Labor, Bureau of Labor Statistics Wage Estimates**
    https://www.bls.gov/oes/current/oes_nat.htm
11. **Independent Sector Value of Volunteer Time**
    https://independentsector.org/resource/the-value-of-volunteer-time/
12. **The Virginia Environmental Geographic Information System (VEGIS)**
    http://www.deq.virginia.gov/mapper_ext/?service=public/wimby
13. **Downloadable VEGIS Datasets**
    http://www.deq.virginia.gov/ConnectWithDEQ/VEGIS/VEGISDatasets.aspx
14. **Regional Nonpoint Source Coordinator Contact Information**
    http://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/TMDL/Contacts.aspx
15. **DEQ BMP Warehouse**
    https://apps.deq.virginia.gov/BMP/
16. **Fiscal Stress Index of Virginia Counties and Cities**
    https://www.dhcd.virginia.gov/fiscal-stress
17. **Virginia Housing Development Authority Median Household Income**
    https://www.vhda.com/BusinessPartners/PropertyOwnersManagers/Income-Rent-Limits/Pages/HUDMedianIncome.aspx
18. **U.S. Department of Housing and Urban Development Income Limits**
    https://www.huduser.gov/portal/datasets/il.html#2017
19. **US Census Data Related to Income**
    https://www.census.gov/topics/income-poverty/income/about/faqs.html and https://www.census.gov/data/tables/2016/demo/income-poverty/p60-256.html or https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml

20. **Community Development Block Grant Family Income vs. Household Income** https://www.hud.gov/program_offices/comm_planning/communitydevelopment/rulesandregs/memoranda/famhhinc93
21. **Report on the Comparative Revenue capacity, Revenue Effort and Fiscal Stress of Virginia Counties and Cities** https://www.dhcd.virginia.gov/fiscal-stress
22. **Virginia Department of Housing and Community Development Indoor Plumbing Rehabilitation** https://www.dhcd.virginia.gov/indoor-plumbing-rehabilitation-program-ipr
23. **Southeast Rural Community Assistance Project** http://sercap.org/virginia.htm
24. **Department of Professional and Occupational Regulation** http://www.dpor.virginia.gov/
25. **Onsite Sewage System Professionals** http://www.dpor.virginia.gov/Boards/WWWOOSSP/
26. **State Regulations 18VAC160-40** https://law.lis.virginia.gov/admincode/title18/agency160/chapter40/
27. **Virginia Department of Health Service Provider Map Search Tool** http://www.vdh.virginia.gov/environmental-health/onsite-sewage-water-services-updated/septic-system-and-private-well-service-providers/
28. **Department of Professional and Occupational Regulation License Lookup** http://www.dpor.virginia.gov/LicenseLookup/
29. **Information Management System of Public Records** http://www.dpor.virginia.gov/RecordsandDocuments/
30. **State Regulations 18VAC160-40-10** https://law.lis.virginia.gov/admincode/title18/agency160/chapter40/section10
31. **State Regulations 18VAC50-22-30. Definitions of Specialty Services** https://law.lis.virginia.gov/admincode/title18/agency50/chapter22/section30
32. **Board of Contractors Requirements for Qualified Individuals** http://www.dpor.virginia.gov/uploadedfiles/mainsite/content/boards/contractors/a501-27exinfo.pdf
33. **Failure of a Sewage Disposal System, Virginia Department of Health (VDH), Chapter 610 Sewage Handling and disposal Regulations** https://law.lis.virginia.gov/admincode/title12/agency5/chapter610/section350
34. **Definitions from Virginia Department of Health Article 1 Sewage Disposal** https://law.lis.virginia.gov/vacode/title32.1/chapter6/section32.1-163/
35. **Regulations for Alternative Onsite Sewage Systems (VDH)** https://law.lis.virginia.gov/admincode/title12/agency5/chapter613/
36. **Natural Resources Conservation Service – Virginia's Environmental Quality Incentives Program** https://www.nrcs.usda.gov/wps/portal/nrcs/main/va/programs/financial/eqip/
37. **Natural Resources Conservation Service – Emergency Watershed Protection Program** https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/landscape/ewpp/
38. **Virginia Department of Conservation and Recreation's Agricultural BMP Cost-Share (VACS) Program** https://www.dcr.virginia.gov/soil-and-water/costshar2

Revised July 2019

Section IV – TEMPLATES

Examples of Residential Septic Program Design and Guidelines

A. Linville Creek
http://www.deq.virginia.gov/Portals/0/DEQ/Water/NonpointSource/NPSGrantsResources/examples/FY18-ShendoahValley_LinvilleCreek-ResidentialSepticGuidelines.pdf

B. Flat and Nibbs Creeks
http://www.deq.virginia.gov/Portals/0/DEQ/Water/NonpointSource/NPSGrantsResources/examples/FY18_PiedmontSWCD_FlatNibbs-Residential_Septic_Guidelines.pdf

C. North Fork Holston River
http://www.deq.virginia.gov/Portals/0/DEQ/Water/NonpointSource/NPSGrantsResources/examples/FY18_Local-ResidentialSepticGuidelines_LENOWISCO-PDC.pdf

D. Template for Residential Septic Program Design and Guidelines

FY18:
http://www.deq.virginia.gov/Portals/0/DEQ/Water/NonpointSource/ImplementationProjects/NPSBMPGuidelines/FY18_Local-Residential Septic Guidelines_Template.docx
FY19:
https://www.deq.virginia.gov/Portals/0/DEQ/Water/NonpointSource/ImplementationProjects/NPSBMPGuidelines/FY19_Local-ResidentialSepticGuidelines_Template.docx
FY20:
https://www.deq.virginia.gov/Portals/0/DEQ/Water/NonpointSource/ImplementationProjects/NPSBMPGuidelines/VADEQ_Local-ResidentialSepticGuidelines_Template.docx?ver=2019-08-01-114008-733

E. DEQ Nonpoint Source Cost-share BMP Contract

https://www.deq.virginia.gov/Portals/0/DEQ/Water/NonpointSource/ImplementationProjects/NPSBMPGuidelines/DEQ_NPS_BMP_Contract.xlsx?ver=2018-07-27-094910-943

F. Nonpoint Source Cost-share Program Agreement Transferring Responsibility for Best Management Practice

http://www.deq.virginia.gov/Portals/0/DEQ/Water/NonpointSource/ImplementationProjects/NPSBMPGuidelines/VADEQ-template_Transfer-Responsibility.docx

G. Nonpoint Source Cost-share Program Assignment of On-site Sewage System Practices Cost-share Payment Authorization

http://www.deq.virginia.gov/Portals/0/DEQ/Water/NonpointSource/ImplementationProjects/NPSBMPGuidelines/VADEQ-template_Septic-AssgnmentofFunds.docx

H. Nonpoint Source Cost-share Program Septic System Inspection Form

http://www.deq.virginia.gov/Portals/0/DEQ/Water/NonpointSource/ImplementationProjects/NPSBMPGuidelines/VADEQ-template_Septic-InspectionForm.docx

Section V - Best Management Practice Specifications

The following section includes detailed specifications for best management practices specific to the DEQ NPS implementation program.

TMDL AGRICULTURAL BEST MANAGEMENT PRACTICES

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
EM-1T: Small Scale Manure Composting for Equine Operations – Static Systems EM-1T
EM-1AT: Small Scale Manure Composting for Equine Operations – Aerated Systems EM-1AT

RESIDENTIAL ONSITE SEPTIC BEST MANAGEMENT PRACTICES

RB-1: Septic Tank Pump-out RB-1
RB-2: Connection of Malfunctioning Onsite Sewage System or Straight Pipe to Public Sewer RB-2
RB-3: Conventional Onsite Sewage System Repair RB-3
RB-3R: Conventional Onsite Sewage System Full Inspection and Non-Permitted Repair RB-3R
RB-4: Conventional Onsite Sewage System Installation/Replacement RB-4
RB-4P: Conventional Onsite Sewage System Installation/Replacement with Pump RB-4P
RB-5: Alternative Onsite Sewage System Installation RB-5

PET WASTE PRACTICES

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

SMALL ACREAGE GRAZING SYSTEMS
FOR TMDL IMPLEMENTATIONDEQ Specifications for No. SL-6AT

This document specifies terms and conditions that are applicable to all contracts entered into with respect to the *Small Acreage Grazing Systems* best management practice (BMP) in targeted TMDL implementation areas.

A. Description

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 heavy use areas 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 state tax credit are authorized to protect surface water, supply water, and troughs and to 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 two (2) animal units (1,000-pound equivalent) per acre on existing pastures.
   ii. A stocking rate of no greater than two (2) animal units (1,000-pound equivalent) per acre must be maintained throughout the 10-year lifespan of the practice.
   iii. Operation must have a minimum of three (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. In order to be eligible for cost-share or tax credit, a nutrient management plan must be prepared by a certified planner who holds a current Nutrient Management Planner Certificate issued by the Virginia Department of Conservation and Recreation. Nutrient Management Plans must be written to comply with all requirements set forth in the Nutrient Management Training and Certification Regulations (4 VAC 50-85-10 et seq.) and the criteria set forth in the Virginia Nutrient Management Standards and Criteria, revised July 2014.

4. A minimum of three (3) grassed grazing paddocks is required.

5. A heavy-use (sacrifice) 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 (O&M) 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-pound 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)(ii), or the designated use requirement in 5 (v).

13. This practice is subject to the requirements of applicable NRCS Standards. These may include 342 Critical Area Planting, 362 Diversion, 376 Roofs and Covers, 382 Fence, 390 Riparian Herbaceous Cover, 393 Filter Strip, 412 Grassed Waterway, 516 Livestock Pipeline, 528 Prescribed Grazing., 558 Roof Runoff Structures, 561 Heavy Use Area Protection, 574 Spring Development, 575 Trails and Walkways, 614 Watering Facility, 642 Water Well.

14. All practice components implemented must be maintained for a minimum of 10 years following the calendar year of installation. The lifespan begins on 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.

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

E. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD staff in consultation, where appropriate and based on the controlling standard, with DCR, Virginia Certified Nutrient Management Planner(s), NRCS, DOF, and VCE, 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 August 2019

PASTURE MANAGEMENT
FOR TMDL IMPLEMENTATION
DEQ Specification for No. SL–10T

This document specifies terms and conditions that are applicable to all contracts entered into with respect to the *Pasture Managemen*t best management practice (BMP) in targeted TMDL implementation areas.

A. Description

Pasture is 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 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.

B. Purpose

To provide adequate vegetative protection from soil erosion, nutrient 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.

C. 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 sinkholes. 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 (3) years.

2. Locate infrastructure to facilitate grazing management and manure distribution:

   i. Manage the type and number of grazing animals and 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 (≥ 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, sinkholes, 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 by 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 participant agrees to maintain the practice for the three-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.

D. Rate(s)

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.

E. 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 2017

United States Department of Agriculture
Natural Resources Conservation Service

Grazing Height and Rest Guidelines by Forage

Appropriate grazing and recovery periods allow forages to renew energy reserves, improve plant vigor, maintain or improve plant diversity, and provide long-term persistence of a productive forage stand. The grazing period should be adjusted based on stage of growth or forage height. Rest period between grazing events will vary in length depending on growing conditions and forage recovery.

Table 1. Guidelines for Grazing Heights and Rest Periods

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

[1]Recovery times are best based on regrowth. If pastures have not regrown, feed hay to animals in a sacrifice area.
[2]Grazing types of alfalfa can sustain with shorter recovery times under optimum growth conditions compared to hay types of alfalfa.

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TMDL SUPPORT FOR STREAM PROTECTION
DEQ Specifications for NO. WP-2T

This document specifies terms and conditions that are applicable to all contracts entered into with respect to the *Stream Protection* best management practice (BMP) in targeted TMDL implementation areas.

A. Description

Protection by fencing along all waterbodies and streams in a field to reduce erosion, sedimentation, and the pollution of water from agricultural nonpoint sources in TMDL implementation areas.

B. Purpose

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.

C. Policies and Specifications

1. Cost-sharing and state 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) Wetlands, intermittent springs, seeps, and gullies adjacent to streams should be included in the buffer area. Isolated seeps, springs, or wetlands may be fenced as well.
      (c) There is adequate natural or planted vegetation between the fence and the stream to serve as an effective filter strip to improve water quality.

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

3. Cost-share and tax credit are not authorized for:

   i. Boundary fence if it is being used to bring new pasture into production. If the stream is the barrier currently confining the livestock, then fencing is allowed.
   ii. Interior cross fencing that does not exclude livestock from the stream.
   iii. Rebuilding of existing fence.
   iv. Temporary fencing.
   v. Hardened travel lanes that are not attached to a crossing or limited access.

4. Consideration must be given to wildlife and environmental issues when designing the practice.

5. Soil loss rates must be computed for all practices for use in establishing priority considerations.

6. 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.

7. This practice is subject to NRCS Standards 342 Critical Area Planting, 382 Fence, 390 Riparian Herbaceous Cover, 472 Access Control, 575 Animal Trails and Walkways, and 578 Stream Crossing.

8. This is a one-time incentive payment not eligible for reapplication on the same site.

9. All practice components implemented must be maintained for a minimum of 10 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of 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.

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

1. Cost-share rates shall be based on the approved or actual cost, whichever is less.
2. A rate based on 80% of the cost of all eligible components has been established. The buffer payment rates shall be provided for a maximum of 10 acres. The maximum cost-share payment for this practice is not to exceed $100,000 per landowner per year.

Minimum Fence Setback (from the top of streambank)	Lifespan	Cost-share rate	Buffer Payment Rate	Buffer Payment Cap
35’	10 years	80%	$80 per acre per year	$8,000 per contract

Note: For the purposes of calculating buffer acres, measurements are capped at 100 feet from the top of streambank or 1/3 of the floodplain up to 300 feet.

3. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia law currently provides a tax credit for implementation of certain BMP practices. The current tax credit rate, which is subject to change in accordance with the Code of Virginia, is 25% of the total eligible cost not to exceed $17,500.

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

5. 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.

E. Technical Responsibility

Technical and administrative responsibility is assigned to qualified technical DCR and SWCD staff in consultation, where appropriate and based on the controlling standard, with DCR, Virginia Certified Nutrient Management Planner(s), NRCS, DOF and VCE, 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 August 2019

DEMONSTRATION BMP ONLY
(implementation requires pre-authorization by DEQ)

SMALL SCALE MANURE COMPOSTING FOR EQUINE OPERATIONS – STATIC SYSTEMS

DEQ Specifications for NO. EM-1T

This document specifies terms and conditions for a small-scale manure composting practice for static systems. The terms and conditions are applicable to all contracts signed between Districts and applicants statewide.

A. Description and Purpose

A small-scale manure composting practice is a system designed to manage solid waste from areas where horses and other small barn-lot animals are concentrated. This practice is designed to provide for the storage and composting of livestock waste so as to control surface runoff from facilities and permit the safe recycling of animal waste onto the land.

To improve water quality through the proper storing, composting and spreading of waste on small-scale livestock operations.

B. Policies and Specifications

1. Eligibility:

   Funding is available for existing livestock operations where the operation can show the following:

   i. It does not meet the agricultural eligibility requirements set forth in either the Federal or State BMP Cost-share programs.
   ii. Limited access to land for manure applications.

iii. The farm is willing to participate in a planned approach to improving soil and water quality problems.

2. Practice Development:

i. Before funding can be approved for construction of a manure composting facility, all reasonable means of reducing the environmental impacts of animal waste from the existing operation must be considered. Lack of space for relocation, economic inefficiency, or other factors may be considered. Furthermore, all livestock must be excluded or enrolled in a program to exclude livestock from all streams on the tract before funding is provided.

ii. The applicant is required to sign a "Manure Composting Structure Agreement," which addresses the minimum criteria prior to receiving any funds.

3. Funding is authorized:

i. For animal waste composting facilities that will contribute to improving the soil or water quality by providing protected storage for waste generated on-site.

ii. For facilities designed and approved by the participating Soil and Water Conservation Districts with the following minimum features:

a) All designed and approved structural components. All bins will be built from pressure treated lumber, cedar, or a 10-year equivalent for maintenance purposes.

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

c) BMPs such as diversions or filter strips needed to protect riparian areas from direct runoff from the facility.

d) A tarpaulin or comparable cover for all composting bins.

e) An impervious pad if the site has high to very high leachable soils. A clay, stone or concrete/soil mix for moderately leachable soils. For low leachable soils, there is no requirement for an impermeable surface.

f) For a minimum of 2 composting bins providing 90-120 days of storage for the equivalent of 1-6 animal units (1000 lbs/AU). All components of the composting system (regardless of funding source) must be designed to finish composting within the design capacity of the system.

4. Funding is <u>not</u> authorized for:

i. A permanent roof. This does not include a tarpaulin or comparable cover for all composting bins.

ii. Storage bin doors. This does not include stackable slats, which are a cost-share component of the bin system.

iii. The provision of electricity to the property or composting system.

iv. In-ground, top-loaded systems; these systems require significant soils analysis and engineering.

v. Spreading animal wastes on the land.
vi. For the portion of the cost of composting structures installed under or attached to buildings that serve as part of the building or its foundation.
vii. Enlargements of existing storage facilities. Enlargements cannot receive funding unless the original cost-shared storage practice has been in place for 10 years per location.
viii. For animal waste facilities that do not meet local or State regulations.

5. All applicants must have:

   i. An end-use plan or statement for composted manure re-use. If the end-use is to spread back on the horse operation (i.e., pasture fields), then a nutrient management plan including soil test and compost analysis is required. All other uses, including transfer, sale, garden use, and landscaping purposes will not require a NM plan. However, participants are encouraged to coordinate with VCE and their "Healthy VA Lawns" program for guidance.
   ii. Those operations requiring a nutrient management plan must develop the plan in accordance with requirements for nutrient management plan content and procedures as stipulated in the Nutrient Management Training and Certification Regulations. The nutrient management plan should address all pasture or crop acreage where manure will be applied. The nutrient management plan should be implemented and maintained for the life of the practice.
   iii. All appropriate local and state permits before payments are authorized.
   iv. Monitoring documentation to aid in learning how to operate the system efficiently. At a minimum this should include the date, amounts and types of materials added, compost temperature, weather conditions, and actions taken to manage the compost (e.g., turning frequency).

6. This practice may be subject to NRCS standards 317 Composting Facility, 362 Diversion, 558 Roof Runoff Management, 561 Heavy Use Protection, and 590 Nutrient Management.

7. All practice components implemented must be maintained for a minimum of 10 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. By accepting a payment for this practice, the participant agrees to maintain all practice components for the specified lifespan. This practice is subject to spot check by the SWCD throughout the lifespan of the practice, and failure to maintain the practice may result in the participant being required to reimburse cost-share funds.

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

Payment for implementation of this practice is limited to the available funds within the DEQ grant cost-share program. The payment cannot be combined with any other state or federal cost-share payment and will not exceed 75% of the total eligible cost. The maximum payment for this practice is not to exceed $3000/bin with pad.

D. Technical Responsibility

Technical and administrative responsibility is assigned to the Soil and Water Conservation District in consultation with DCR Virginia Certified Nutrient Management Planner(s), NRCS, and/or VCE, if deemed necessary. All practices are subject to spot check procedures and any other quality control measures.

February 2018

DEMONSTRATION BMP ONLY
(implementation requires pre-authorization by DEQ)

SMALL SCALE MANURE COMPOSTING FOR EQUINE OPERATIONS – AERATED SYSTEMS

DEQ Specifications for NO. EM-1AT

This document specifies terms and conditions for a small-scale manure composting practice for static systems. The terms and conditions are applicable to all contracts signed between Districts and applicants statewide.

A. Description and Purpose

A small-scale manure composting practice is a system designed to manage solid waste from areas where horses and other small barn-lot animals are concentrated. This practice is designed to provide for the storage and composting of livestock waste so as to control surface runoff from facilities and permit the safe recycling of animal waste onto the land.

To improve water quality through the proper storing, composting and spreading of waste on small-scale livestock operations.

B. Policies and Specifications

1. Eligibility:

Funding is available for existing livestock operations where the operation can show the following:

i. It does not meet the agricultural eligibility requirements set forth in either the Federal or State BMP Cost-share programs.

ii. Limited access to land for manure applications.

iii. The farm is willing to participate in a planned approach to improving soil and water quality problems.

2. Practice Development:

i. Before funding can be approved for construction of a manure composting facility, all reasonable means of reducing the environmental impacts of animal waste from the existing operation must be considered. Lack of space for relocation, economic inefficiency, or other factors may be considered. Furthermore, all livestock must be excluded or enrolled in a program to exclude livestock from all streams on the tract before funding is provided.

ii. The applicant is required to sign a "Manure Composting Structure Agreement," which addresses the minimum criteria prior to receiving any funds.

3. Funding is authorized:

i. For animal waste composting facilities that will contribute to improving the soil or water quality by providing protected storage for waste generated on-site.

ii. For facilities designed and approved by the participating Soil and Water Conservation Districts with the following minimum features:

a) All designed and approved structural components. All bins will be built from pressure treated lumber, cedar, or a 10-year equivalent for maintenance purposes.

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

c) BMPs such as diversions or filter strips needed to protect riparian areas from direct runoff from the facility.

d) A tarpaulin or comparable cover for all composting bins.

e) An impervious pad if the site has high to very high leachable soils. A clay, stone or concrete/soil mix for moderately leachable soils. For low leachable soils, there is no requirement for an impermeable surface.

f) Air pumps, air pump housing, timers, PVC piping, materials, and designs and component kits for manufactured systems necessary for aerated or passive aerated multi-cell composting.

iii. For a minimum of 2 composting bins providing 90-120 days of storage for the equivalent of 1-6 animal units (1000 lbs/AU). All components of the composting system (regardless of funding source) must be designed to finish composting within the design capacity of the system.

4. Funding is not authorized for:

   i. A permanent roof. This does not include a tarpaulin or comparable cover for all composting bins.
   ii. Storage bin doors. This does not include stackable slats, which are a cost-share component of the bin system.
   iii. The provision of electricity to the property or composting system.
   iv. In-ground, top-loaded systems; these systems require significant soils analysis and engineering.
   v. Spreading animal wastes on the land.
   vi. For the portion of the cost of composting structures installed under or attached to buildings that serve as part of the building or its foundation.
   vii. Enlargements of existing storage facilities. Enlargements cannot receive funding unless the original cost-shared storage practice has been in place for 10 years per location.
   viii. For animal waste facilities that do not meet local or State regulations.

5. All applicants must have:

   i. An end-use plan or statement for composted manure re-use. If the end-use is to spread back on the horse operation (i.e., pasture fields), then a nutrient management plan including soil test and compost analysis is required. All other uses, including transfer, sale, garden use, and landscaping purposes will not require a NM plan. However, participants are encouraged to coordinate with VCE and their "Healthy VA Lawns" program for guidance.
   ii. Those operations requiring a nutrient management plan must develop the plan in accordance with requirements for nutrient management plan content and procedures as stipulated in the Nutrient Management Training and Certification Regulations. The nutrient management plan should address all pasture or crop acreage where manure will be applied. The nutrient management plan should be implemented and maintained for the life of the practice.
   iii. All appropriate local and state permits before payments are authorized.
   iv. Monitoring documentation to aid in learning how to operate the system efficiently. At a minimum this should include the date, amounts and types of materials added, compost temperature, weather conditions, and actions taken to manage the compost (e.g., turning frequency).

6. This practice may be subject to NRCS standards 317 Composting Facility, 362 Diversion, 558 Roof Runoff Management, 561 Heavy Use Protection, and 590 Nutrient Management.

7. All practice components implemented must be maintained for a minimum of 10 years following the calendar year of installation. The lifespan begins on Jan. 1 of the calendar year following the year of certification of completion. By accepting a payment for this practice, the participant agrees to maintain all practice components

for the specified lifespan. This practice is subject to spot check by the SWCD throughout the lifespan of the practice, and failure to maintain the practice may result in the participant being required to reimburse cost-share funds.

C. Rate(s)

Payment for implementation of this practice is limited to the available funds within the DEQ grant cost-share program. The payment cannot be combined with any other state or federal cost-share payment and will not exceed 75% of the total eligible cost. The maximum payment for this practice is not to exceed $5000/bin with pad.

D. Technical Responsibility

Technical and administrative responsibility is assigned to the Soil and Water Conservation District in consultation with DCR Virginia Certified Nutrient Management Planner(s), NRCS, and/or VCE, if deemed necessary. All practices are subject to spot check procedures and any other quality control measures.

February 2018

SEPTIC TANK PUMP-OUT
DEQ Specifications for No. RB-1

This document specifies terms and conditions that are applicable to all contracts entered into with respect to the *Septic Tank Pump-out* best management practice (BMP) in NPS implementation areas.

A. Description

Maintenance of a conventional or alternative 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 either a conventional or alternative onsite sewage system.

C. Policies and Specifications

1. Cost-share is authorized:

   i. For the pump-out and removal of solids from the septic tank.
   ii. For an inspection of the tank lids and baffles. (Use of the Inspection Form attached to the Residential Septic Guidelines is encouraged.)

2. Pump-outs can occur during: routine maintenance of the system, repair or replacement of system, or the abandonment of a septic tank when a dwelling will be connected to public sewer.

3. Sewage must be handled and transported by a sewage handler having a permit issued by the Virginia Department of Health.

4. The lifespan of this practice is five (5) years. Cost-share is limited to pump-outs that occur no more than once every five years. The period of lifespan starts on January 1 of the calendar year following the year of installation of the practice.

5. Cost-share for an RB-1 is not eligible for systems still under lifespan for a practice for which they have received funding from DCR/DEQ. For example, if a system is under lifespan for RB-2, RB-3R, RB-3, RB-4/4P, or RB-5 for which they received funding from DCR/DEQ, they would not be eligible to receive funding for an RB-1.

D. Rate(s)

The cost-share amount is based upon an average estimated total practice cost of $350.00 per practice and will not exceed 50% to 90% of the total eligible cost based on participant income levels (based upon verification) in accordance with *Program Design and Guidelines, NPS - Cost-Share Assistance Program for Residential Onsite Sewage Systems*. The cost-share payment for this practice shall not exceed the BMP estimated average total cost-share cost, known as the practice cap associated with the approved cost-share rate for the participant.

A Grantee will request from DEQ the ability to use either the No Fiscal Stress or Fiscal Stress table (see table below):

Residential Septic Cost-share Table: RB-1: Septic Tank Pump-out, Rates based upon average total practice cost of $350.00

% of Median Family Income	No Fiscal Stress* Rate	No Fiscal Stress* CS Cap	Fiscal Stress** Rate	Fiscal Stress** CS Cap
> 120% or no income verification	50%	175	50%	$175
100-120%	55%	$193	65%	$228
81-100%	60%	$210	70%	$245
61-80%	65%	$228	75%	$263
40-60%	75%	$263	85%	$298
<40%	80%	$280	90%	$315

*** Located in locality with No Fiscal Stress (average, below average, or no FS)**

**** Located in Locality with Fiscal Stress (high or above average FS)**

Revised August 2019

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

This document specifies terms and conditions that are applicable to all contracts entered into with respect to *the Connection of Malfunctioning Onsite Sewage System or Straight Pipe to Public Sewer* best management practice (BMP) in NPS implementation areas.

A. Description

Connecting a residence to an existing sewer line to eliminate a malfunctioning onsite sewage system, an identified non-complying discharging system (straight pipe, gray water discharge, etc.), 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, waterways, or groundwater. A straight pipe can potentially deliver sewage directly to a stream, pond, lake, or river. Sewage refers to water-carried or non-water-carried human excrement, kitchen, laundry, shower, bath, or lavatory wastes separately or together with such underground, surface, stormwater, or liquid waste as may be present from a residence.

B. Purpose

To improve water quality by removing raw or partially treated sewage on the land surface that can enter surface water or groundwater during storm events or sewage that is a direct source of contamination to surface water or groundwater.

C. Policies and Specifications

1. Cost-share is authorized:
   i. For the connection fee. This is the fee allowing the dwelling to be connected to the public sewer system. This fee may be referred to as a tap fee.
   ii. For the construction cost associated with connecting the dwelling to an existing sewer line. This cost is the expense to pipe the waste from the dwelling to the sewer connection point adjacent to property boundary. This does not include the extension of any sewer lines to the property boundary, including extension of a sewer mainline or "trunk" line, but does allow for a lateral connection to the main line adjacent to the property boundary from the home
   iii. Gray water (from an identified non-complying discharging system, e.g., straight pipe), often considered kitchen, laundry, shower, or bath water, is considered sewage. If gray water is not connected to an onsite sewage system, this is identified as eligible for connection during the repair or replacement of a failing or failed onsite system. Costs can include the connection of gray water discharge from a dwelling that is discharging on the ground or in a wet/dry ditch to the existing system that will then be connected to public sewer. Any plumbing or equipment that is needed inside the dwelling to make the gray water connection to the system is not eligible for cost-share.

- If the funding source of the project is intended to only address bacteria contamination, then gray water discharges may only be addressed when addressing failing or failed septic systems.

iv. To re-stabilize and establish a vegetative cover on disturbed areas by regrading and planting seed as appropriate. 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).

v. For the abandonment of the septic tank by a licensed septic contractor. Septic tank abandonment should be performed by a licensed septic contractor. Proper abandonment includes pumping and proper disposal of the tank contents, crushing the tank lids or top into the tank, breaking the bottom of the tank so it doesn't hold water, filling it with sand or other suitable fill material and restoring the area to its original condition.

2. A distance from the public sewer that would make this practice technically feasible or cost-effective 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. Proper permitting and inspections must be adhered to in accordance with local and state regulations. Local permit fees are an eligible expense for cost-share.

4. VDH must be notified that the sewage system has been taken out of operation and connected to a public sewer with a request that the system be updated in the VDH database.

5. Cost-share is not authorized under this practice for the repair of defective sewer laterals, nor is it authorized for mainline sewer extensions or extension of sewer lines to a line adjacent to the property boundary.

6. "Assignment of On-site Sewage System Practices Cost-share Payment Authorization" and "Agreement Transferring Responsibility for Best Management Practice" forms for this practice are attached to the Residential Septic Guidelines.

7. The lifespan for this practice is 10 years. The period of lifespan starts on January 1 of the calendar year following the year of installation of the practice.

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

The cost-share amount is based upon a total average estimated practice cost of $11,000.00 per practice and will not exceed 50% to 90% of the total eligible cost based on participant income levels (based upon verification) in accordance with *Program Design and Guidelines, NPS - Cost-Share Assistance Program for Residential Onsite Sewage Systems*. The cost-share payment for this practice shall not exceed the BMP estimated average total cost-share cost, known as the practice cap associated with the approved cost-share rate for the participant.

A Grantee will request from DEQ the ability to use either the No Fiscal Stress or Fiscal Stress table (see table on next page):

Residential Septic Cost-share Table: RB-2: Connection to Public Sewer, Rates based upon average total practice cost of $11,000.00

% of Median Family Income	No Fiscal Stress* Rate	No Fiscal Stress* CS Cap	Fiscal Stress** Rate	Fiscal Stress** CS Cap
> 120% or no income verification	50%	$5,500	50%	$5,500
100-120%	55%	$6,050	65%	$7,150
81-100%	60%	$6,600	70%	$7,700
61-80%	65%	$7,150	75%	$8,250
40-60%	75%	$8,250	85%	$9,350
<40%	80%	$8,800	90%	$9,900

*** Located in locality with No Fiscal Stress (average, below average, or no FS)**

**** Located in Locality with Fiscal Stress (high or above average FS)**

Revised August 2019

CONVENTIONAL ONSITE SEWAGE SYSTEM REPAIR
DEQ Specifications for No. RB-3

This document specifies terms and conditions that are applicable to all contracts entered into with respect to the *Conventional Onsite Sewage System Repair* best management practice (BMP) in NPS implementation areas.

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 from 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-distributed subsurface drainfield. Sewage refers to water-carried or non-water-carried human excrement, kitchen, laundry, shower, bath, or lavatory wastes separately or together with such underground, surface stormwater, or liquid waste as may be present from a residence.

B. Purpose

To improve water quality by removing raw or partially treated sewage on the land surface that can enter surface water or groundwater during storm events or sewage that is a direct source of contamination to surface water or groundwater.

C. Policies and Specifications

1. Cost-share is authorized:
   i. For the pump-out and removal of solids from the septic tank.
   ii. For the replacement or repair of a failing conventional onsite sewage system, in which case a permit from VDH is required, for: replacement of septic tank, partial replacement of absorption lines (for full replacement of absorption lines use RB-4 or RB-4P). This practice does not pay for the replacement of a pump or pump station, as replacement of a pump is a part of "normal operation" of a system. **For "maintenance," which does not require a VDH permit, please use RB-3R.**
   iii. Gray water (from an identified non-complying discharging system, e.g., straight pipe), often considered kitchen, laundry, shower, or bath water, is considered sewage. If gray water is not connected to an onsite sewage system, this is identified as eligible for connection during the repair or replacement of a failing or failed onsite system. Funding is available for the connection of 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 or equipment needed inside the dwelling to make the gray water connection to the onsite system is not eligible for cost-share. If the funding source of the project is intended to only address bacteria contamination, then gray water discharges may only be addressed when addressing failing or failed septic systems.
   iv. To re-stabilize and establish a vegetative cover on disturbed areas by regrading and planting seed as appropriate. 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).

v. For VDH permit fees associated with repair of conventional onsite sewage system (reimbursable upon installation and final approval of system by the Virginia Department of Health (VDH)).

vi. For the cost associated with design of the system using an appropriately licensed Conventional (or Alternative) Onsite Soil Evaluator or Professional Engineer.

vii. A participant is only eligible for DEQ funding of this practice if they are not currently under lifespan of another septic BMP in for the same septic system. For example, if the participant has already received cost-share for an RB-4 replacement practice and it is still under lifespan and the system needs a pump-out or repair (RB-1, 3, 3R), that participant would not be eligible for additional DEQ NPS funds. The only exception to this rule is in those cases where the Grantee had issued a written (DEQ-approved) exemption to the original cost-shared practice and it is issued with the BMP contract at the time that the original practice was installed (see the Residential Septic Guidelines for more information).

2. A sewage system repair or replacement must be in accordance with a written repair or construction permit from the Virginia Department of Health and inspection from the Virginia Department of Health or a licensed Onsite Soil Evaluator (OSE) or Professional Engineer (PE). The Virginia Department of Health must be consulted on the need for a repair permit. There is maintenance (non-permitted repairs) that does not require a repair permit. Maintenance should be cost-shared as RB-3R.

   i. Starting July 1, 2019, VDH will charge a fee of $425 for a repair permit without supporting work from a private sector onsite soil evaluator or professional engineer and charge a fee of $225 for a repair permit with supporting work from the private sector. Applicants with incomes below 200% of the Federal Poverty Guidelines are eligible for a fee waiver.

3. The lifespan for this practice is 10 years. The period of lifespan starts on January 1 of the calendar year following the year of installation of the practice.

4. Operation and Maintenance Statement: Acceptance of payment for this practice results in the recipient agreeing to maintain the onsite septic system for a minimum of 10 years unless the system is eliminated by connection to public sewer (RB-2). The recipient agrees to refund all or part of the funds received if the practice is found not to meet applicable standards and specifications or if the BMP(s) is/are removed or not properly maintained during the lifespan of the practice. The sale, lease, or changed use of the property will not exempt the recipient from fulfilling this/these requirement(s). Should the property change ownership or leasehold during the lifespan of the practice, the recipient agrees to complete an Agreement Transferring Responsibility for Best Management Practice form signed by all involved parties and submit that signed form to the Grantee identified in this agreement. More information on operation and maintenance can be found in the DEQ BMP manual and the Residential Septic Guidelines.

5. Exemption to the operation and maintenance requirement: An exemption to the above reference operation and maintenance requirement may be granted by the Grantee (with approval from DEQ) in the event that a participant decides to connect the system to public sewer (RB-2).
    i. Connection to Public Sewer (RB-2): Although the participant is not eligible for cost-share on the RB-2 if an exemption is granted the participant will not be responsible for paying back the prorated cost-share amount remaining on the lifespan of the existing BMP if the participant agrees to maintain the new RB-2 practice for 10 years.

6. If the old septic tank is not useable and is to be replaced, it must be properly abandoned by a licensed septic contractor. Proper abandonment includes pumping and proper disposal of the tank contents, crushing the tank lids or top into the tank, breaking the bottom so that it will not hold water, filling it with sand or other suitable fill material and restoring the area to its original condition.

7. A copy of the VDH malfunction assessment form completed by VDH, OSE, or a PE (if applicable) must be provided to the Grantee upon application for cost-share funding.

8. "Assignment of Residential Septic Practice Cost-Share Authorization" and "Agreement Transferring Responsibility for Best Management Practice" forms for this practice are attached to the Residential Septic Guidelines.

D. Rate

The cost-share amount is based upon a total average estimated practice cost of $5,000.00 per practice and will not exceed 50% to 90% of the total eligible cost based on participant income levels (based upon verification) in accordance with *Program Design and Guidelines, NPS - Cost-Share Assistance Program for Residential Onsite Sewage Systems*. The cost-share payment for this practice shall not exceed the BMP estimated average total cost-share cost, known as the practice cap associated with the approved cost-share rate for the participant.

A Grantee will request from DEQ the ability to use either the No Fiscal Stress or Fiscal Stress table (see table below):

Residential Septic Cost-share Table: RB-3: Repair of Conventional onsite Septic System, Rates based upon average total practice cost of $5,000.00

% of Median Family Income	No Fiscal Stress* Rate	No Fiscal Stress* CS Cap	Fiscal Stress** Rate	Fiscal Stress** CS Cap
> 120% or no income verification	50%	$2,500	50%	$2,500
100-120%	55%	$2,750	65%	$3,250
81-100%	60%	$3,000	70%	$3,500
61-80%	65%	$3,250	75%	$3,750
40-60%	75%	$3,750	85%	$4,250
<40%	80%	$4,000	90%	$4,500

*** Located in locality with No Fiscal Stress (average, below average, or no FS)**

**** Located in Locality with Fiscal Stress (high or above average FS**

Revised August 2019

CONVENTIONAL ONSITE SEWAGE SYSTEM
FULL INSPECTION and NON-PERMITTED REPAIRS
DEQ Specifications for No. RB-3R

This document specifies terms and conditions that are applicable to all contracts entered into with respect to the *Conventional Onsite Sewage Systems Full Inspection and Non-permitted Repair* best management practice (BMP) in NPS implementation areas.

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 groundwater. 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-distributed subsurface drainfield. Sewage refers to water-carried or non-water-carried human excrement, kitchen, laundry, shower, bath, or lavatory wastes separately or together with such underground, surface stormwater, or liquid waste as may be present from a residence.

B. Purpose

To improve water quality by removing raw or partially treated sewage on the land surface that can enter surface water or groundwater during storm events or sewage that is a direct source of contamination to surface water or groundwater.

C. Policies and Specifications

1. Cost-share is authorized:
   i. For the pump-out and removal of solids from the septic tank.
   ii. For inspection of the distribution box or multiple boxes, or other components of the system to determine if the effluent is being properly distributed to the drainfield, and to assess if components of the system are functioning properly. Completion and submission of an Inspection Form (attached to the Residential Septic Guidelines) is required for reimbursement.
   iii. For "maintenance" (as defined in 32.1VAC6-1-163 (§32.1-163) Code of Virginia) of the components of a conventional onsite sewage system. Authorized work also includes the re-leveling of sanitary tees and distribution box, flushing of conveyance and header lines, and removal of roots from septic tank or distribution box. For repairs for which Virginia Department of Health (VDH) permit is needed, please use RB-3 or RB-4/4P).
      1. Please note that a property may only receive one RB-3R during a 5-year period regardless of the breadth of the maintenance repair involved.
   iv. To re-stabilize and establish a vegetative cover on disturbed areas by regrading and planting seed as appropriate. 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).
   v. For the cost associated with design of the system using an appropriately licensed Conventional Onsite Soil Evaluator or Professional Engineer if necessary.

A participant is only eligible for DEQ funding of this practice if they are not currently under lifespan of another septic BMP in for the same septic system. For example, if the participant has already received cost-share for an RB-4 replacement practice and it is still under lifespan and the system needs a pump-out or repair (RB-1, 3, 3R), that participant would not be eligible for additional DEQ NPS funds. The only exception to this rule is in those cases where the Grantee had issued a written (DEQ-approved) exemption to the original cost-shared practice and it is issued with the BMP contract at the time that the original practice was installed (see the Residential Septic Guidelines for more information).

2. ”Maintenance” repairs and improvements to a conventional sewage system that do not require a permit must be in accordance with a written statement of need from the Virginia Department of Health and inspection from VDH or a licensed Onsite Soil Evaluator (OSE) or Professional Engineer (PE). VDH must be consulted on the need for a repair permit and must state that a repair permit is not needed for this work.

3. Operation and Maintenance Statement: Acceptance of payment for this practice results in the recipient agreeing to maintain the onsite septic system for a minimum of five (5) years unless the system is eliminated by connection to public sewer (RB-2). The recipient agrees to refund all or part of the funds received if the practice is found not to meet applicable standards and specifications or if the BMP(s) is/are removed or not properly maintained during the lifespan of the practice. The sale, lease, or changed use of the property will not exempt the recipient from fulfilling this/these requirement(s). Should the property change ownership or leasehold during the lifespan of the practice, the recipient agrees to complete an Agreement Transferring Responsibility for Best Management Practice form signed by all involved parties and submit that signed form to the Grantee identified in this agreement. More information on operation and maintenance can be found in the DEQ BMP manual and the Residential Septic Guidelines.

4. Exemption to the operation and maintenance requirement: An exemption to the above reference operation and maintenance requirement may be granted by the Grantee (with approval from DEQ) in the event that a participant decides to connect the system to public sewer (RB-2).
    i. Connection to Public Sewer (RB-2): Although the participant is not eligible for cost-share on the RB-2 if an exemption is granted the participant will not be responsible for paying back the prorated cost-share amount remaining on the lifespan of the existing BMP if the participant agrees to maintain the new RB-2 practice for 10 years.

5. Applications for “maintenance” (non-permitted) repairs that do not require a permit must include a copy of VDH malfunction assessment form completed by VDH, OSE, PE, licensed installer, or licensed operator (if applicable).

6. “Assignment of Residential Septic Practice Cost-Share Authorization” and “Agreement Transferring Responsibility for Best Management Practice” forms for this practice are attached to the Residential Septic Guidelines.

7. The lifespan for this practice is 10 years. The period of lifespan starts on January 1 of the calendar year following the year of installation of the practice.

D. Rate

The cost-share amount is based upon an average maximum cost of cost of $4,000.00 per practice and will not exceed 50% to 90% of the total eligible cost based on participant income levels (based upon verification) in accordance with *Program Design and Guidelines, NPS - Cost-Share Assistance Program for Residential Onsite Sewage Systems*. The cost-share payment for this practice shall not exceed the BMP estimated average total cost-share cost, known as the practice cap associated with the approved cost-share rate for the participant.

A Grantee will request from DEQ the ability to use either the No Fiscal Stress or Fiscal Stress table (see table below):

Residential Septic Cost-share Table: RB-3R: Full Inspection and Non-permitted Repair of Conventional Onsite Septic System, Rates based upon average total practice cost of $4,000.00

% of Median Family Income	No Fiscal Stress* Rate	No Fiscal Stress* CS Cap	Fiscal Stress** Rate	Fiscal Stress** CS Cap
> 120% or no income verification	50%	$2,000	50%	$2,000
100-120%	55%	$2,200	65%	$2,600
81-100%	60%	$2,400	70%	$2,800
61-80%	65%	$2,600	75%	$3,000
40-60%	75%	$3,000	85%	$3,400
<40%	80%	$3,200	90%	$3,600

*** Located in locality with No Fiscal Stress (average, below average, or no FS)**

**** Located in Locality with Fiscal Stress (high or above average FS)**

Revised August 2019

CONVENTIONAL ONSITE SEWAGE SYSTEM
INSTALLATION/REPLACEMENT
DEQ Specifications for No. RB-4

This document specifies terms and conditions that are applicable to all contracts entered into with respect to the *Conventional Onsite Sewage System Installation/Replacement* best management practice (BMP) in NPS implementation areas.

A. Description

Installation of a conventional onsite sewage system to replace an identified non-complying discharging system (straight pipe), which delivers sewage directly to a stream, pond, lake, or river, or installation to correct or replace a malfunctioning conventional sewage system, or to repair 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 groundwater. 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-distributed subsurface drainfield. Sewage refers to water-carried or non-water-carried human excrement, kitchen, laundry, shower, bath, or lavatory wastes separately or together with such underground, surface stormwater, or liquid waste as may be present from a residence.

B. Purpose

To improve water quality by removing raw or partially treated sewage on the land surface that can enter surface water or groundwater during storm events or sewage that is a direct source of contamination to surface water or groundwater.

C. Policies and Specifications

1. Cost-share is authorized:

i. For the pump-out and removal of solids from the septic tank.

ii. For the new installation (construction), repair, or replacement (all of which require a permit), of a conventional onsite sewage system or the installation or replacement of any of the following conventional onsite sewage system components: septic tank(s) distribution box(es) (if included with other components/work; distribution box replacement on its own should be charged as an RB-3R), drainfield piping, and subsurface drainfields, or other work requiring a permit and installer. A pump or pump station is not eligible for cost-share under this practice. If a pump is necessary, please use RB-4P.

iii. Gray water (from an identified non-complying discharging system, e.g., straight pipe), often considered kitchen, laundry, shower, or bath water, is considered sewage. If gray water is not connected to an onsite sewage system, this is identified as eligible for connection during the repair or replacement of a failing or failed onsite system. Funding is available for the connection of 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. Any plumbing or equipment needed inside the dwelling to make the gray water connection to the onsite system is not eligible for cost-share. If the funding source of the project is

intended to only address bacteria contamination, then gray water discharges may only be addressed when addressing failing or failed septic systems.

iv. 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 shall be a minimum of 18 inches in diameter. Virginia Department of Health (VDH) requires an access manhole within 18 inches of the ground surface when the tank is in excess of 30 inches deep.

v. To re-stabilize and establish a vegetative cover on disturbed areas by regrading and planting seed as appropriate. 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).

vi. For the cost associated with design of the system using an appropriately licensed Conventional (or Alternative) Onsite Soil Evaluator or Professional Engineer.

vii. For permit fees associated with construction of conventional onsite sewage system (reimbursable upon installation and final approval of system by VDH).

A participant is only eligible for DEQ funding of this practice if they are not currently under lifespan of another septic BMP in for the same septic system. For example, if the participant has already received cost-share for a repair (RB-3 or RB-3R) practice and it is still under lifespan and the system needs replacement (RB-4), that participant would not be eligible for additional DEQ NPS funds. The only exception to this rule is in those cases where the Grantee had issued a written (DEQ-approved) exemption to the original cost-shared practice and it is issued with the BMP contract at the time that the original practice was installed (see the Residential Septic Guidelines for more information).

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 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, a licensed Onsite Soil Evaluator, or Professional Engineer who designed the system.

6. If the old septic tank is not usable and is to be replaced, it must be properly abandoned by a licensed septic contractor. Proper abandonment includes pumping and proper disposal of the tank contents, crushing the tank lids or top into the tank, breaking the bottom so that it will not hold water, filling it with sand or other suitable fill material, and restoring the area to its original condition.

7. The lifespan for this practice is 10 years. The period of lifespan starts on January 1 of the calendar year following the year of installation of the practice.

8. Operation and Maintenance Statement: Acceptance of payment for this practice results in the recipient agreeing to maintain the onsite septic system for a minimum of 10 years unless the system is eliminated by connection to public sewer (RB-2). The recipient agrees to refund all or part of the funds received if the practice is found not to meet applicable standards and specifications or if the BMP(s) is/are removed or not properly maintained during the lifespan of the practice. The sale, lease, or changed use of the property will not exempt the recipient from fulfilling this/these requirement(s). Should the property change ownership or leasehold during the lifespan of the practice, the recipient agrees to complete an Agreement Transferring Responsibility for Best Management Practice form signed by all involved parties and submit that signed form to the Grantee identified in this agreement. More information on operation and maintenance can be found in the DEQ BMP manual and the Residential Septic Guidelines.

9. Exemption to the operation and maintenance requirement: An exemption to the above reference operation and maintenance requirement may be granted by the Grantee (with approval from DEQ) in the event that a participant decides to connect the system to public sewer (RB-2).
    i. Connection to Public Sewer (RB-2): Although the participant is not eligible for cost-share on the RB-2 if an exemption is granted the participant will not be responsible for paying back the prorated cost-share amount remaining on the lifespan of the existing BMP if the participant agrees to maintain the new RB-2 practice for 10 years.

10. The application for permitted replacement application must include a copy of VDH malfunction assessment form completed by VDH, OSE, or a PE (if applicable).

11. "Assignment of Residential Septic Practice Cost-Share Authorization" and "Agreement Transferring Responsibility for Best Management Practice" forms for this practice are attached to the Residential Septic Guidelines.

12. Cost-share is not authorized for:
    i. New septic systems or septic system upgrades associated with new houses, new development, or to add new bathrooms due to the expansion of an existing house or structure.

D. <u>Rate</u>

The cost-share amount is based upon a total average estimated practice cost of $8,000.00 per practice and will not exceed 50% to 90% of the total eligible cost based on participant income levels (based upon verification) in accordance with *Program Design and Guidelines, NPS - Cost-Share Assistance Program for Residential Onsite Sewage Systems*. The cost-share payment for this practice shall not exceed the BMP estimated average total cost-share cost, known as the practice cap associated with the approved cost-share rate for the participant.

A Grantee will request from DEQ the ability to use either the No Fiscal Stress or Fiscal Stress table (see table on next page):

Residential Septic Cost-share Table: RB-4: Conventional Onsite Septic System Installation/Replacement, Rates based upon average total practice cost of $8,000.00

% of Median Family Income	No Fiscal Stress* Rate	No Fiscal Stress* CS Cap	Fiscal Stress** Rate	Fiscal Stress** CS Cap
> 120% or no income verification	50%	$4,000	50%	$4,000
100-120%	55%	$4,400	65%	$5,200
81-100%	60%	$4,800	70%	$5,600
61-80%	65%	$5,200	75%	$6,000
40-60%	75%	$6,000	85%	$6,800
<40%	80%	$6,400	90%	$7,200

*** Located in locality with No Fiscal Stress (average, below average, or no FS)**

**** Located in Locality with Fiscal Stress (high or above average FS)**

Revised August 2019

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

This document specifies terms and conditions that are applicable to all contracts entered into with respect to the *Conventional Onsite Sewage System Installation/Replacement with Pump* best management practice in NPS implementation areas.

A. Description

Installation of a conventional onsite sewage system to replace a non-complying discharging system (straight pipe), which delivers untreated, raw 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 groundwater. 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-distributed subsurface drainfield. Sewage refers to water-carried or non-water-carried human excrement, kitchen, laundry, shower, bath, or lavatory wastes separately or together with such underground, surface, stormwater or liquid waste as may be present from a residence.

B. Purpose

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

C. Policies and Specifications

1. Cost-share is authorized:

   i. For the pump-out and removal of solids from the septic tank.
   ii. For the new installation (construction), repair, or replacement (all of which require a permit), of a conventional onsite sewage system or the installation or replacement of any of the following conventional onsite sewage system components- septic tank(s) distribution box(es) (if included with other components/work, distribution box; replacement on its own should be charged as an RB-3R), drainfield piping, and subsurface drainfields, or other work requiring a permit and installer.
   iii. 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.
   iv. Gray water (from an identified non-complying discharging system, e.g., straight pipe), often considered kitchen, laundry, shower, or bath water, is considered sewage. If gray water is not connected to an onsite sewage system, this is identified eligible for connection during the repair or replacement of a failing or failed onsite system. Funding is available 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. Any plumbing or equipment needed inside the dwelling to make the gray water connection to the onsite system is not eligible for cost-share. If the funding source of the project is intended to only address bacteria contamination, then gray water discharges may only be addressed when addressing failing or failed septic systems.

v. 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 shall be a minimum of 18 inches in diameter. Virginia Department of Health (VDH) requires an access manhole within 18 inches of the ground surface when the tank is in excess of 30 inches deep.

vi. To re-stabilize and establish a vegetative cover on disturbed areas by regrading and planting seed as appropriate. 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).

vii. For the cost associated with design of the system using an appropriately licensed Conventional (or Alternative) Onsite Soil Evaluator or Professional Engineer.

viii. For permit fees associated with construction of conventional onsite sewage system (reimbursable upon installation and final approval of system by VDH).

ix. A participant is only eligible for DEQ funding of this practice if they are not currently under lifespan of another septic BMP in for the same septic system. For example, if the participant has already received cost-share for an RB-4 replacement practice and it is still under lifespan and the system needs a pump that participant would not be eligible for additional DEQ NPS funds. The only exception to this rule is in those cases where the Grantee had issued a written (DEQ-approved) exemption to the original cost-shared practice and it is issued with the BMP contract at the time that the original practice was installed (see the Residential Septic Guidelines for more information).

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 or replacement of the conventional sewage system.

4. The owner or agent shall obtain and comply with any 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, a licensed Onsite Soil Evaluator, or Professional Engineer who designed the system.

6. If the old septic tank is not usable and is to be replaced, it must be properly abandoned by a licensed septic contractor. Proper abandonment includes pumping and proper disposal of the tank contents, crushing the tank lids or top into the tank, breaking the

bottom so that it will not hold water, filling it with sand or other suitable fill material, and restoring the area to its original condition.

7. The lifespan for this practice is 10 years. The period of lifespan starts on January 1 of the calendar year following the year of installation of the practice.

8. Operation and Maintenance Statement: Acceptance of payment for this practice results in the recipient agreeing to maintain the onsite septic system for a minimum of 10 years unless the system is eliminated by connection to public sewer (RB-2). The recipient agrees to refund all or part of the funds received if the practice is found not to meet applicable standards and specifications or if the BMP(s) is/are removed or not properly maintained during the lifespan of the practice. The sale, lease, or changed use of the property will not exempt the recipient from fulfilling this/these requirement(s). Should the property change ownership or leasehold during the lifespan of the practice, the recipient agrees to complete an Agreement Transferring Responsibility for Best Management Practice form signed by all involved parties and submit that signed form to the Grantee identified in this agreement. More information on operation and maintenance can be found in the DEQ BMP manual and the Residential Septic Guidelines.

9. Exemption to the operation and maintenance requirement: An exemption to the above reference operation and maintenance requirement may be granted by the Grantee (with approval from DEQ) in the event that a participant decides to connect the system to public sewer (RB-2).
    i. Connection to Public Sewer (RB-2): Although the participant is not eligible for cost-share on the RB-2 if an exemption is granted the participant will not be responsible for paying back the prorated cost-share amount remaining on the lifespan of the existing BMP if the participant agrees to maintain the new RB-2 practice for 10 years.

10. The application for permitted replacement application must include a copy of VDH malfunction assessment form completed by VDH, OSE, or a PE (if applicable).

11. "Assignment of Residential Septic Practice Cost-Share Authorization" and "Agreement Transferring Responsibility for Best Management Practice" forms for this practice are attached to the Residential Septic Guidelines.
12. Cost-share is not authorized for:
    i. New Septic systems or septic system upgrades associated with new houses, new development, or to add new bathrooms due to the expansion of an existing house or structure.

D. <u>Rate</u>

The cost-share amount is based upon a total average estimated practice cost of $12,000.00 per practice and will not exceed 50% to 90% of the total eligible cost based on participant income levels (based upon verification) in accordance with *Program Design and Guidelines, NPS - Cost-Share Assistance Program for Residential Onsite Sewage Systems*. The cost-share payment for this practice shall not exceed the BMP estimated average total cost-share cost, known as the practice cap associated with the approved cost-share rate for the participant.

A Grantee will request from DEQ the ability to use either the No Fiscal Stress or Fiscal Stress table (see table on next page):

Residential Septic Cost-share Table: RB-4P: Conventional Onsite Septic System Installation/Replacement with Pump, Rates based upon average total practice cost of $12,000.00

% of Median Family Income	No Fiscal Stress* Rate	No Fiscal Stress* CS Cap	Fiscal Stress** Rate	Fiscal Stress** CS Cap
> 120% or no income verification	50%	$6,000	50%	$6,000
100-120%	55%	$6,600	65%	$7,800
81-100%	60%	$7,200	70%	$8,400
61-80%	65%	$7,800	75%	$9,000
40-60%	75%	$9,000	85%	$10,200
<40%	80%	$9,600	90%	$10,800

*** Located in locality with No Fiscal Stress (average, below average, or no FS)**
**** Located in Locality with Fiscal Stress (high or above average FS)**

Revised August 2019

ALTERNATIVE ONSITE SEWAGE SYSTEM INSTALLATION
DCR Specifications for No. RB-5

This document specifies terms and conditions that are applicable to all contracts entered into with respect to the *Alternative Onsite Sewage System Installation* best management practice (BMP) in NPS implementation areas.

A. Description

Installation of an alternative onsite sewage system to correct a malfunctioning or failing conventional onsite sewage system, malfunctioning or failing alternative onsite sewage system, or to replace an identified non-complying discharging system (straight pipe) in situations where installation or 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 (or a discharge that receives a VPDES/NPDES permit). Sewage refers to water-carried or non-water-carried human excrement, kitchen, laundry, shower, bath, or lavatory wastes separately or together with such underground, surface, stormwater or liquid waste as may be present from a residence.

B. Purpose

To improve water quality by removing raw or partially treated sewage on the land surface that can enter surface water or groundwater during storm events or sewage that is direct source of contamination to surface water or groundwater.

C. Policies and Specifications

1. Cost-share is authorized:
   i. For the pump-out and removal of solids from the septic tank.
   ii. For the installation of an alternative onsite sewage system that may include one or more of 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 or other treatment components or methodology approved by the Virginia Department of Health (VDH).
   iii. Gray water (from an identified non-complying discharging system, e.g. straight pipe), often considered kitchen, laundry, shower, or bath water, is considered sewage. If gray water is not connected to an onsite sewage system, this is identified eligible for connection during the repair or replacement of a failing or failed onsite system. Funding is available 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. Any plumbing or equipment needed inside the dwelling to make the gray water connection to the onsite system is not eligible for cost-share. If the funding source of the project is intended to only address bacteria contamination, then gray water discharges may only be addressed when addressing failing or failed septic systems.
   iv. To cover expenses for up to two years of sampling, operation, and maintenance performed by a licensed Alternative Onsite Sewage System Operator (or approved alternative) and reported to VDH. Only recipients eligible for more than 50% cost-share (who have provided income verification) are eligible. An executed

contract must be in place before cost-share is provided, and a copy of that contract is provided as documentation. The Virginia Administrative Code 12VAC 5-613-150 requires the owner of each alternative onsite sewage system to have the system visited by a licensed operator. Most residential system are designed with an average daily flow of less than or equal to 1000 gallons per day and require an initial visit within 180 calendar days of the issuance of the operation permit from VDH. Regular visits following the initial visit are to occur every 12 months. Note the initial visit and regular visit requirements are different for systems with an average daily flow greater than 1000 gallons per day. Documentation of these inspections must be provided upon request.

v. To re-stabilize and establish a vegetative cover on disturbed areas by regrading and planting seed as appropriate. 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).

vi. For the cost associated with design of the system using an appropriately licensed Alternative Onsite Soil Evaluator or Professional Engineer.

vii. For permit fees associated with installation of alternative onsite sewage system (reimbursable upon installation and final approval of system by VDH).

viii. Any onsite sewage septic systems that discharge to state waters and require a discharge permit (e.g., NPDES) from DEQ are ineligible for 319(h) cost-share.

ix. For fees associated with deed recordation in localities where it is required.

x. A participant is only eligible for DEQ funding of this practice if they are not currently under lifespan of another septic BMP in for the same septic system. For example, if the participant has already received cost-share for an RB-3 repair or RB-4/4P replacement practice and it is still under lifespan and the system needs an alternative system (RB-5) that participant would not be eligible for additional DEQ NPS funds. The only exception to this rule is in those cases where the Grantee had issued a written (DEQ-approved) exemption to the original cost-shared practice and it is issued with the BMP contract at the time that the original practice was installed (see the Residential Septic Guidelines for more information).

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 installation of an alternative onsite sewage system and comply with local building codes.

4. The owner or agent shall obtain and comply with any designs as required in the Health Department permit.

5. The installation of the alternative onsite sewage system must be inspected by the licensed Alternative Onsite Soil Evaluator or Professional Engineer who certified the design, and all completion documentation must be provided to the local Health Department and an operation permit issued.

6. If the old septic tank is not usable and is to be replaced, it must be properly abandoned by a licensed septic contractor. Proper abandonment includes pumping and proper disposal of the tank contents, crushing the tank lids or top into the tank, breaking the bottom so that it will not hold water, filling it with sand or other suitable fill material, and restoring the area to its original condition.

7. The lifespan for this practice is 10 years. The period of lifespan starts on January 1 of the calendar year following the year of installation of the practice.

8. Operation and Maintenance Statement: Acceptance of payment for this practice results in the recipient agreeing to maintain the onsite septic system for a minimum of 10 years unless the system is eliminated by connection to public sewer (RB-2). The recipient agrees to refund all or part of the funds received if the practice is found not to meet applicable standards and specifications, or if the BMP(s) is/are removed or not properly maintained during the lifespan of the practice. The sale, lease or changed use of the property will not exempt the recipient from fulfilling these requirements. Should the property change ownership or leasehold during the lifespan of the practice, the recipient agrees to complete an Agreement Transferring Responsibility for Best Management Practice form signed by all involved parties and submit that signed form to the Grantee identified in this agreement. More information on operation and maintenance can be found in the DEQ BMP manual and the Residential Septic Guidelines.

9. Exemption to the operation and maintenance requirement: An exemption to the above reference operation and maintenance requirement may be granted by the Grantee (with approval from DEQ) in the event that a participant decides to connect the system to public sewer (RB-2).
   ii. Connection to Public Sewer (RB-2): Although the participant is not eligible for cost-share on the RB-2 if an exemption is granted the participant will not be responsible for paying back the prorated cost-share amount remaining on the lifespan of the existing BMP if the participant agrees to maintain the new RB-2 practice for 10 years.

10. The application for permitted replacement application must include a copy of VDH malfunction assessment form completed by VDH, OSE, or a PE (if applicable).

11. "Assignment of Residential Septic Practice Cost-Share Authorization" and "Agreement Transferring Responsibility for Best Management Practice" forms for this practice are attached to the Residential Septic Guidelines.

12. Cost-share is not authorized for:
    i. New Septic systems or septic system upgrades associated with new houses, new development, or to add new bathrooms due to the expansion of an existing house or structure.

D. Rate

The cost-share amount is based upon a total average estimated practice cost of $24,000.00 per practice and will not exceed 50% to 90% of the total eligible cost based on participant income levels (based upon verification) in accordance with *Program Design and Guidelines, NPS - Cost-Share Assistance Program for Residential Onsite Sewage Systems*. The cost-share payment for this practice shall not exceed the BMP estimated average total cost-share cost, known as the practice cap associated with the approved cost-share rate for the participant.

A Grantee will request from DEQ the ability to use either the No Fiscal Stress or Fiscal Stress table (see table on next page):

Residential Septic Cost-share Table: RB-5: Alternative Onsite Septic System Installation, Rates based upon average total practice cost of $24,000.00

% of Median Family Income	No Fiscal Stress* Rate	No Fiscal Stress* CS Cap	Fiscal Stress** Rate	Fiscal Stress** CS Cap
> 120% or no income verification	50%	$12,000	50%	$12,000
100-120%	55%	$13,200	65%	$15,600
81-100%	60%	$14,400	70%	$16,800
61-80%	65%	$15,600	75%	$18,000
40-60%	75%	$18,000	85%	$20,400
<40%	80%	$19,200	90%	$21,600

*** Located in locality with No Fiscal Stress (average, below average, or no FS)**

**** Located in Locality with Fiscal Stress (high or above average FS)**

Revised August 2019

PET WASTE DISPOSAL STATION
DEQ Specifications for No. PW-1

This document specifies terms and conditions that are applicable to all contracts entered into with respect to the *Pet Waste Disposal Station* best management practice (BMP) in NPS implementation project areas.

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 of.

B. Purpose

To improve water quality by removing from the land surface raw pet waste 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 and Specifications

1. Cost-share is authorized for:
   i. Purchase or construction and installation of a pet waste bag station (waste cans are not required if trash receptacles already exist in public area).
   ii. Purchase of replacement waste bags and trash can liners (terms will be included in DEQ grant agreement with Grantee).
   iii. An educational kiosk or signage (often a component of purchased commercial stations) describing why picking up and properly disposing of dog waste benefits water quality.

2. The lifespan for this practice is 3 years. The period of lifespan starts on January 1 of the calendar year following the year of installation of the practice.

3. Pet waste stations are subject to an inspection to verify proper installation as well as periodic spot checks during the three-year lifespan of the BMP to ensure proper maintenance, which includes keeping the station stocked with bags, emptying of garbage cans, and preservation of structural integrity.

4. Stations should be installed in public areas amenable to owners walking and exercising dogs, such as parks, trails, neighborhood common areas, apartment complexes, marinas, campgrounds, and motels.

5. Plans and specifications are to be prepared for each station including: location within the property on a site map, site preparation, installation requirements, and a statement

regarding compliance with all federal, state, and local requirements (*Virginia Conservation Assistance Program Implementation and Design Manual,* 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 practice cost (not to exceed a total estimated practice cost of $600) which is a cost-share practice cap amount of $450.

Revised June 2017

PET WASTE TREATMENT BMP
DEQ Specifications for No. PW-2

This document specifies terms and conditions that are applicable to all contracts entered into with respect to the *Pet Waste Treatment* best management practice (BMP) in NPS implementation project areas.

A. Description

Installation and regular maintenance of a backyard pet waste digester, composter, or fermentation system so that dog waste can be collected and treated, so the by-product can be reused or disposed of 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 for:
   i. Purchase of a manufactured digester designed for 1-2 or 2-4 dogs, depending on the unit purchased.
   ii. Purchase of manufactured composter or materials for the construction of a composter.
   iii. Purchase of a fermentation system.
   iv. Purchase of 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 digester marketed primarily for use with pet waste. *Bokashi Pet Cycle Fermentation System* is an available on-market fermentation unit.

3. The lifespan for this practice is 3 years. The period of lifespan starts on January 1 of the calendar year following the year of installation of the practice.

4. 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 three (3) years.

5. 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 from the unit, treated with an enzyme, flows into the subsoil which provides additional treatment.

6. 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 practice cost (not to exceed a total estimated practice cost of $200) which is a cost-share practice cap amount of $100.

Revised June 2017

Section IV- Summary of Changes in the DEQ NPS BMP Guidelines and Associated Documents for Fiscal Year 2020

This document compares the FY20 DEQ NPS BMP Guidelines to the FY19 version. Document excerpts indented with new language shown highlighted in grey and deleted language shown as ~~strikethrough~~. Please note that for large sections of deleted text we may not have included them here. For more information contact NPSgrants@deq.virginia.gov.

COST-SHARE PROGRAM IMPLEMENTATION SCHEDULE – Pages 1-2

To increase ease of use, the Sample Cost-Share Program Implementation Schedule: January 1, 2019 – June 30, 2020 is presented in a table format instead of the bulleted list provided in the 2019 Guidelines.

SECTION I - VIRGINIA NONPOINT SOURCE (NPS) IMPLEMENTATION BEST MANAGEMENT PRACTICE (BMP) COST-SHARE PROGRAM – Page 2

2. ELIGIBLE PRACTICES - Page 3

"In this Section" text box was updated to reflect changes in text and tables.

IN THIS SECTION:

2.1 Eligible practices and where to find practice specifications

- Land conservation easement funding eligibility [Moved to new position from below]
- Discontinuation of LE-1T and LE-2T practices
- Notes on funding SL-6T practices signed-up prior to 7/1/2016
- Table 1: Virginia DEQ NPS Implementation BMPs ~~Eligible Virginia NPS Implementation BMPs~~
- Table 2: Non-DEQ Virginia BMPS

2.2 Changes in Practices due to DCR VACS program changes

2.1 Eligible Practices and Specifications - Page 3

Text updated to reflect discontinuation of LE-1T and LE-2T practices

Text updated to explain information in Table 1 (modified) and Table 2 (new) as they separately list DEQ BMPs and Non-DEQ BMPs, respectively.

This manual includes specifications for DEQ BMPs listed in Table 1 including: EM-1T, EM-1AT, SL-6AT, SL-10T, WP-2T, RB-1, RB-2, RB-3, RB-3R, RB-4/4P, RB-5, PW-1, and PW-2. All BMPs listed in Table 1 have DEQ-developed specifications and are eligible for 319(h) funding; however, contractual agreements with DEQ will include a specific list of BMPs approved for an area. All non-DEQ BMPs listed in Table 2 have specifications referenced in other sources (manuals, guidelines, etc.) but are eligible for 319(h) and other DEQ grant funds; however, contractual agreements with DEQ will include a specific list of BMPs approved for an area. Specifications for agricultural BMPs listed in Table 2 without "T" notation in the BMP code can be found in DCR's Virginia Agricultural Cost-share (VACS) BMP Manual[3]. Urban BMPs can be found on the Virginia Stormwater BMP Clearinghouse[4] and in the VCAP Manual[7]~~. All practices listed in Table 1 are eligible for 319(h) and other DEQ grant funds; however, contractual agreements with DEQ will include a specific list of BMPs approved for an area.~~

Language added on the discontinuation of LE-1T and LE-2T practices, which will now be substituted with SL-6W and Sl-6N, respectively.

> **LE-1T and LE-2T practices:** As of July 1, 2019, DEQ no longer accepts new signup for LE-1T or LE-2T as DCR has now created SL-6W and SL-6N. DCR practices eliminate the need for the LE practices; however, many Districts are using 319(h) funds for LE practices currently under construction prior to July 1, 2019. In those cases, Districts should refer to the specification written in the FY19 DEQ BMP manual.

Table 1: ~~Eligible~~ Virginia DEQ NPS Implementation BMPs - Page 4

Table was modified to only include information on DEQ BMPs. Notes added on discontinued BMPs (LE-1T and LE-2T) as shown below.

Table 2: Non-DEQ Virginia BMPs - Page 5

New table added for PY20, which extracts from last year's Table 1 relevant Non-DEQ BMPs. New BMPs added and information on BMPs was updated, as shown below.

New: 2.2 Changes in Practices due to DCR VACS program changes – Pages 5-6

Added to discuss changes made to list of eligible BMPs and how these changes impact executed agreements.

> For FY20, DCR made major changes to some agricultural specifications stemming from an enhanced Agricultural Technical Advisory Committee that met in late 2018 and early 2019. At the time of the issuance of this DEQ BMP Manual, the DCR Agricultural Cost-Share BMP Manual was not available. As such, new practices were created, holder practices were 'retired,' and further practices were modified. The DEQ NPS program has, when at all possible, adhered to DCR agricultural specifications with the exception of the handful of "T" practices. The same holds for FY20. Section 319(h) funds will be available for cost-share of DCR practices based upon DCR's published specifications.
>
> - **SL-6N and SL-6W**: DCR has replaced the SL-6 practice with SL-6N (narrow width buffer) and SL-6W (wide width buffer). These practices also allow for varying cost-share rates depending on lifespan (10-15 years) and buffer width. Section 319(h) funds may be used to partially or fully fund these practices similar to how 319(h) could partially or fully fund SL-6. Section 319(h) can be used for the buffer incentive payment for the SL-6W following DCR specification. This includes the case of a SL-6W with at least a 50-foot buffer and 15-year lifespan, which allows for 100% cost-share plus a buffer payment incentive. For FY20, DCR will discontinue the SL-6 practice, and DEQ will discontinue cost-share for LE-1T and LE-2T practices. There are no restrictions on the use of 319(h) for the SL-6N and SL-6W practices; Districts should follow the VACS specifications including practice and participant caps.
> - DEQ encourages Districts to fund these practices jointly with 319(h) and VACS. Jointly funded practices not only extend 319(h) funds but are also a) eligible for DCR's agricultural engineer oversight and b) covered under the spot check process lead by DCR and the SWCDs. Even splits of 95% 319(h) and 5% VACS are eligible.
> - **WP-2N and WP-2W**: DCR has replaced the WP-2 practice with WP-2N and WP-2W. These practices allow for varying cost-share rates depending on lifespan (5 or 10 years) and buffer width. Section 319(h) funds can be utilized to cost-share on these new practices

following the DCR VACS specifications and rules, with the following exceptions:

- 319(h) can only fund the 10-year lifespan options for either practice; the 5-year lifespan options are not eligible.
- 319(h) cannot fund the buffer incentive payment for the WP-2W following the DCR specification, practice caps, and participant caps (with the exception of not funding 5-year lifespans).
- For FY20, DEQ will continue offering cost-sharing on the WP-2T practice in case the restriction of the 5-year lifespan is an issue in DCR's Tracking Program. DEQ understands the use of and interest in this practice may be lower due to new WP-2N and WP-2W practices.

Impact to executed agreements: All current executed agreements that list LE-1T, LE-2T or WP-2T as their practices will be allowed to use 319(h) to fund the new VACS practice equivalents (SL-6N, SL-6W, WP-2N, WP-2W) as of July 1, 2019. DEQ will determine the best way to authorize this change and communicate that to grantees. DEQ will also request that DCR make changes to the program names in the DCR Agricultural Tracking Program to allow these additional practices.

3. IMPLEMENTATION FUNDING RESTRICTIONS – Page 7

"In this Section" text box was updated to reflect changes in text.

IN THIS SECTION:

3.1 Funding sources and the prohibition of earning interest on federal 319(h) funds

3.2 Limits and restrictions on use of 319(h) funding in association with permits, mitigation banking, and nutrient credits

3.3 Re-obligation of 319(h) BMP cost-share allocations

3.4 Requirement for Districts Receiving 319(h) funds for Program Year 2015 100% Stream Exclusion Practices ~~districts receiving 319(h) funds in 2018 for 100% Stream Exclusion Practices signed up by 6/30/2015~~

3.5 Conflict of Interest disclosure requirements

3.6 Other restrictions

3.7 Differences between Section 319(h) and WQIF-Non-agricultural, nonpoint source pollution funding

3.2 Limits and Restrictions to Use of 319(h) Funding - Page 7

Language added to clarify restrictions on use of 319(h) funds and note that grantees must agree to said limitations and restrictions.

Federal Section 319(h) funds may not be used to pay for BMPs that will be credited toward activities related to developing, implementing, or meeting any National/Virginia Pollution Discharge Elimination System (NPDES/VPDES) permits or permit requirements. Please note that 319(h) funds cannot be used to fulfill any NPDES permit requirements including but not limited to: MS4, combined sewer overflows (CSOs), concentrated agricultural feeding operations (CAFOs), wastewater, and discharging on-site septic systems. Federal 319(h) funds can be used by localities with municipal separate storm sewer systems (MS4s) in a limited capacity. Funds may be applied toward any urban stormwater activities that are not explicitly required in an MS4 NPDES permit or in a plan required by the permit. Thus, any activities that an MS4 locality will "credit" toward meeting its permit requirements, count toward a TMDL Action Plan or Bay Action Plan or use to develop a permit are not eligible for 319(h) funds. 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 permits, mitigation banking, or nutrient crediting, the practice will be determined to be "failed" (see Practice Failures section) and the Grantee and program participant may be liable for reimbursement of all funds associated with the installed practice(s). Any grantee receiving Section 319(h) funds from DEQ must agree to these limitations and restrictions.

3.6 Other Restrictions – Page 9

Language on the use of funds on BMPs outside TMDL IP boundaries clarified and moved from original location to bulleted sub-text.

Geographic constraints: Cost-share requests from outside the hydrologic unit(s) identified in the grant contract are **not** allowed. There will be no exceptions. ~~Funds paid for BMPs found to be outside of the TMDL IP boundary outlined in the executed contract will be not be reimbursed. If such misuse of funds is discovered after payment has been made to the Grantee, funds may be required to be returned to DEQ. Please note that this includes any 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 BMPs.~~ It is the **responsibility of the Grantee** to be aware of the location of BMPs in relation to the approved IP and/or project boundary. The DCR Tracking Program and VEGIS (see "Environmental Information" below) can assist with identifying appropriate BMP locations.

- Section 319(h) project funds are strictly limited to use within the boundaries of EPA-approved watershed-based plans ("TMDL Implementation Plans" - "IPs" or approved alternatives). Section 319(h) project funds cannot pay nor reimburse any costs associated with a BMP installed outside of the approved IP boundary. If a BMP is found to be located outside the approved IP boundary, the Grantee shall be responsible for reimbursing DEQ the full amount of 319(h) funds expended on the BMP, up to and including technical assistance funds. In these cases, 319(h) should not be used to fund BMPs.

New: 3.7 Differences between Section 319(h) and WQIF-Non-agricultural, nonpoint source pollution funding – Page 9

Added to describe the differences between 319(h) and WQIF funding as related to IP Boundary Limitations and NPES Permit Issues

The NPS implementation program utilizes federal EPA funds from Section 319(h) as well as state funds from the Water Quality Improvement Fund (WQIF) (non-agricultural, nonpoint source pollution). There are inherent differences for certain areas between these two funding sources.

- **IP Boundary Limitations**: WQIF funds are not limited to activities within the boundaries of EPA-approved IPs unless that executed grant agreements limits the boundary to specific IPs.
- **NPDES Permit issues**: WQIF does not prohibit the use of funds for BMPs implementing NPDES permits. As such, WQIF may be used to fund such things as discharging residential septic systems, implementing MS4 requirements, etc.

4. AWARDING COST-SHARE - Page 10

"In this Section" text box was updated to reflect addition of sub-section 4.7 Determining Qualified/Licensed Contractors

IN THIS SECTION:

4.1 Cost-share program funding allocations to Grantees

4.2 Participant recruitment, prioritization, and selection

4.3 Cost-share rates and combination with other cost-share assistance programs
4.4. Cost-share funding caps and cap variance requests
4.5 Participant notification of application approval
4.6 Contractor bid solicitation and selection for BMPs including information on emergency situations
4.7 Determining Qualified/Licensed Contractors

4.3 Cost-Share Rates – Page 11

Hyperlinks added to websites of programs listed within text as shown below.

Practices paid on a percentage basis can be funded solely with NPS funds or in combination with other cost-share assistance programs (piggy-back funding); these can include but are not limited to the Environmental Quality Incentive Program (EQIP)[36], the Emergency Watershed Protection (EWP) Program[37] or other USDA programs, the DCR VACS Program [38], Indoor Plumbing Program[22], and Southeast Rural Community Assistance Program (SERCAP)[23].

4.4 Cost-Share Funding Caps and Cap Variance Requests – Page 11

Information on variance requests updated to reflect the discontinuation of LE-1T and LE-2T practices and add references with links to Tables 1 and 2.

Variance requests will only be ~~entertained~~ considered and approved by DEQ for the practice(s) and respective amounts indicated below:

- **Agricultural "T" BMPs**: The agricultural NPS Cost-Share Program for FY2019 has a $50,000/applicant/year limit for individual practices or any aggregation with other TMDL-eligible practices listed in Table 1. ~~The~~ One exception ~~to this~~ is ~~the~~ ~~for LE-1T, LE-2T, and~~ WP-2T practice~~s~~, which ~~have~~ has a $100,000 ~~70,000~~/applicant/year cap. No variance requests are allowed.
- **Agricultural "VACS" BMPs**: Any eligible BMP listed in Table 2 ~~1~~ that is considered a VACS practice shall follow the programmatic caps (participant and practice) for FY20 ~~PY19~~ listed in the DCR Virginia Agricultural Cost-share (VACS) BMP Manual[3]. This pertains to practices not specified with a "T." No variance requests are allowed.
- **Residential Septic BMPs:** Each practice listed in Table 1 has a funding cap based upon the written specification. ….

4.6 Contractor Selection for BMPs - Page 12

Clarifying language added regarding Grantees' option to bid and hire septic contractors instead of requiring participants to do so.

Residential septic BMPs: *Many Grantees may decide to bid and hire septic contractors instead of relying on homeowners to procure qualified contractors. There may be many benefits for the grantees to select contractors instead of requiring this of homeowners. Regardless of whether contractors are selected by the Grantee or the homeowner, a process that meets minimal procurement requirements must be followed.* Bids will be obtained from contractors when the total cost of any relevant BMP (RB-2, RB-3, RB-3R, RB-4, RB-4P, RB-5) or collection of BMPS (e.g., a contractor is sought to do a group of pump-outs or repairs) is expected to exceed $5,000.[5] The

[5] This number represents the higher end of cost for residential septic practices found in the program design and guidelines.

number of bids obtained must be deemed appropriate by the Grantee. Grantees should detail their recommended Bid Solicitation Process ~~for participants~~ by including this detail in their Residential Septic Program Guidelines.

New: 4.7 Determining Qualified/licensed Contractors - Page 14

New sub-section created with information formerly found at the end of 4.6 with some clarifying language and a link to the Residential Septic Guidelines added, as shown below.

> Grantees must assure, to the best of their ability that participants are provided with sufficient information regarding the type of licenses that are required in Virginia to do the required work. This would include any permits or licenses required. The Residential Septic Guidelines (Section 2) more fully describe the certification and licensure required to work on septic systems, so participants can make informed choices during contractor selection. Appropriate licensure for each practice is determined under state code by the Virginia Department of Health (VDH). The Department of Professional and Occupational Regulation[24] (DPOR) issues all licensure for Onsite Sewage System Professionals[25] under state regulations 18 VAC 160-40[26]. More information is provided in subsection *k. Process for Assuring Appropriate Licensure* in the Residential Septic Program Guidelines below.

5. PRACTICE REQUIREMENTS - Page 15
5.3 Agricultural Engineering and Job Approval Authority - Page 16

Clarification added that acceptable Engineering Job Approval Authority (EJAA) must be DCR-issued and is required for all engineering components of BMPs.

> All agricultural BMPs installed with grant funds must have an individual with Department of Conservation and Recreation (DCR)-issued Engineering Job Approval Authority (EJAA) design the practice and verify that the practice was installed according to appropriate specifications.
> …. There are several ways in which a District can demonstrate that they meet the EJAA requirement stated above:
>
> - The District currently has staff that hold(s) the appropriate EJAA(s) recognized or issued by DCR for all the engineering components of all BMPs that will be installed.
> - If the District does not have any staff with appropriate DCR EJAA(s), they can do any or all of the following:
> - Partner with neighboring Districts with staff that do hold the appropriate DCR EJAA(s).

Table 3 (formerly Table 2): Technical (PE or EJAA) Requirements for Agricultural NPS BMPs – Page 17

Table updated to eliminate references to discontinued LE-1T and LE-2T practices.

5.6 Special Considerations for NPS Agricultural Program Areas - Page 18

Reference to Agricultural Act of 2014 removed.

- ~~**Agricultural Act of 2014 (Federal Farm Bill)** compliance is required for agricultural BMPs in all NPS implementation areas. Please reference DCR's Virginia Agricultural Cost-share (VACS) BMP Manual[3].~~

7. BMP DATA COLLECTION AND REPORTING - Page 22

"In this Section" text box was updated to reflect change in title of section 7.3 and addition of sub-section on data reporting through DEQ's BMP Warehouse.

IN THIS SECTION:

7.1 Documentation to be maintained by Grantee
7.2 Guidance on reasonable volunteer hours and rates
7.3 Environmental information (or BMP Location Verification)~~for identifying geographic location of BMPs~~
- GIS considerations for District users of DCR's Tracking Program
- Hydrologic unit geography, reporting, unit codes, county and city codes

7.4 Data reporting ~~through quarterly reporting and DCR's BMP Tracking Program~~
- Special consideration for SWCDs and practices in DCR's Tracking Program
- Data reporting through DEQ's BMP Warehouse

7.5 Administrative review and satisfactory progress review

7.1 Documentation - Page 22

Language added to clarify that agricultural and septic BMP data are entered into the DCR BMP Tracking program, while all other BMP data are entered into the BMP Warehouse.

- Districts must complete their agricultural and septic BMP 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.
- Only agricultural and septic BMP data are entered into the DCR BMP Tracking Program. All other BMP types (e.g., pet waste, urban) data are entered into the BMP Warehouse.

7.2 Guidance on Volunteer Hours – Page 23

Updated to reflect most recent (2019) data on the average hourly rate for volunteer hours.

The current (2019~~2018~~) average hourly rate is $25.43~~24.69~~.

7.4 Data Reporting – Pages 24-26

Language added to indicate that data must be entered into the Tracking Program and/or BMP Warehouse, as appropriate, as well as the Form D2 TMDL Implementation Project Activity (formerly Form D1 NPS BMP Tracking). Other wording altered to enhance readability.

Timely data reporting is vital ~~In order~~ to adequately tracking~~track~~ program effectiveness ~~adequately~~ and making~~to make~~ necessary management decisions.~~, it is vital that all data are 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), and DEQ NPS program (npsgrants@deq.virginia.gov). All data for completed practices for a specific quarter must be entered into DCR's BMP Tracking Program (for Districts) or into DEQ's BMP Warehouse and entered onto the Form D2 TMDL Implementation Project Activity~~D1 NPS BMP Tracking~~ Form or its equivalent from the executed agreement) by the 15th day following the end of a quarter.

Passage regarding Districts' use of the Tracking Program moved to Section 7.4 from paragraph before implementation schedule in 2019 version.

For Soil and Water Conservation Districts (Districts): All BMP data must be entered into the DCR Agricultural Tracking Program ("Tracking Program") by the 15th of the month following the end of a calendar quarter to qualify for reimbursement. Practices with a status of "complete-not paid" will only be eligible for reimbursement if the following information is in the Tracking Program: completion date, extent installed, actual cost, cost-share payment, check number, and payment date.

Specification added that the Carry-Over form used by Districts for tracking should be provided by DCR, not DEQ, and a copy of the form should be included in the quarterly report.

- **Special Consideration for SWCDs and Practices in DCR's Tracking Program:** …. Districts should track DEQ NPS funding on the End of Program Year Cash On-Hand Balance form and the Carry Over form provided by DCR ~~DEQ~~ to the Conservation District Coordinators (CDC) and include a copy of this in the appropriate quarterly report with the DEQ NPS grant agreements.

Information formerly a part of the above section was separated into a new subsection entitled Data Reporting in DEQ's BMP Warehouse. Additionally, a clarification was added within the text that the shpreadsheet on which information should be recorded is specifically the BMP Grants Template.

7.5 Administrative Review and Satisfactory Progress Review – Pages 25-26

A general description of the schedule and nature of the progress review process was added.

All grant agreements~~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. The general schedule of these reviews is dictated by the requirements of the executed agreement, but generally includes an initial review first within the first 6 month of grant initiation, every 12 months after that point, and within 3-6 months of a grant ending. Progress reviews generally involving reviewing the commitments in the executed agreement, the level of BMP signup and completion compared to the milestone schedule in the executed agreement, the level of grant spending per the completed deliverables, as well as other BMP-specific reviews. This may include spot-checks of certain BMPs for adherence to stated specifications.

8. BMP LIFESPAN MANAGEMENT - 27

Information added to introduction regarding definition and typical length of BMP lifespans.

Following BMP installation and cost-share disbursement, the appropriate authority will perform spot checks to ensure practice viability as per approved specifications for the lifespan of the practice. The lifespan of a BMP is defined as the time by which a participant/ grantee/ landowner is responsible for the operation and maintenance for the practice per the approved BMP Specifications. Generally, the lifespan is considered 10 years (if not stated), although there are a few that are as short as 1-5 years. The original participant is responsible for maintaining the practice unless the land is legally transferred with proper documentation transferring responsibility for the BMP to the new owner or leaseholder. Grantees must have procedures in place for addressing practice failures: practices that are no longer functioning per specifications, have been destroyed, or have not been properly transferred to a new landowner

SECTION II- RESIDENTIAL SEPTIC PROGRAM GUIDELINES - Page 29

Table numbers updated throughout.

II. Targeting Participation – Page 29

Subsection added to discuss grantee approaches to targeting special situations within implementation watersheds.

i. **Special Targeting Initiatives**: Grantees have the ability to describe any additional targeting or special situations (e.g., straight pipes or low-income households) that the Grantee is conducting as a way to target participation. This description should include at a minimum:

iii. Why is this topic is being targeted?

iv. How will targeting of this particular issue be conducted?

v. For example, if a Grantee wishes to create a residential septic program or initiative that only addresses straight pipes, then this is where information on how this initiative would be administered.

III. Income Guidelines and Cost-share Rates/Caps – Page 30

Clarifying statement added to emphasize that Grantees must consistently use a single source for data related to income guidelines and fiscal stress.

All program participants are eligible to receive a minimum of 50% cost-share for all practices. An increased assistance rate up to 90% will be available based on the income of the property owner(s) for certain practices and the fiscal stress[16] ranking of the implementation area. The percentage of cost-share awarded per applicant will be based on the current **median household income** for the subject county, as published by the Virginia Housing Development Authority[17] (VHDA), US Housing and Urban Development (HUD)[18] or US Census Data[19]. Grantees must identify which source they use and must utilize all components related to that single source. (e.g., Grantees may not use the median household income from one source but the income verification procedures from another.)

III. a. Income Verification – Page 30

Information added on how grantees may consider household size in determining participants eligibility for cost-share greater than 50%. Additional information also provided for data that may be collected from participants for income verification when the most recent tax filing may not be available or appropriate.

Grantees should establish a process or procedure for the manner in which they will verify income for participants eligible to receive more than 50% cost-share. …. Currently median household or family income values are not based upon household size (i.e., number of persons that make up the family or household). If a grantee wishes to address household size, then they must include a proposal on how this will be addressed and reviewed. At a minimum, it is recommended that this process includes the following:

i. Identification of whether using median family or household income. Identification of the median family/household income for which rates will be based for the location(s) covered under the program. Identification of the source used to determine the median income.

ii. Identification of household size (if chosen and approved to utilize).

…..

v. A copy of their most recent tax filing (1099, etc.) or statement that they did not earn enough income to file taxes (statement should include the minimum funding amount needed to require to file taxes).

- Alternative income verification if 1099 is not available.

- Two years of tax filing may be helpful and can be requested.
- If an applicant has had a drastic change in income since the last year's tax filing, then the Grantee shall establish a process or procedure by which to document income. An assessment of the last two years of tax filing plus an income statement (pay stubs) for the proceeding three months (or since the last tax filing) may be helpful.

Table 6 (formerly Table 3) and Table 7 (formerly Table 4) – Pages 32-33

Average Total Practice Costs and corresponding data were updated, where applicable for RB-1, RB-3R and RP-4P.

Excerpt from Table ~~3~~6: No Fiscal Stress (Localities Ranked Average, Below Average, and Low Fiscal Stress) Residential Septic Cost-share Rates/Caps

	Median Income	<40%	40-60%	61-80%	81-100%	100-120%	>120% or no income verification
Practice	**Average Total Practice Cost**	80%	75%	65%	60%	55%	50%
Septic Tank Pump-out (RB-1)	$350~~300~~	$280 ~~240~~	$263 ~~225~~	$228 ~~195~~	$210 ~~180~~	$193 ~~165~~	$175 ~~150~~
Connection to Sewer (RB-2)	$11,000	$8,800	$8,250	$7,150	$6,600	$6,050	$5,500
Septic Tank System Repair (RB-3)	$5,000	$4,000	$3,750	$3,250	$3,000	$2,750	$2,500
Inspection and Non-Permitted Repair (RB-3R)	$4~~2~~,000	$3,200 ~~1,600~~	$3,000 ~~1,500~~	$2,600 ~~1,300~~	$2,400 ~~1,200~~	$2,200 ~~1,100~~	$2~~1~~,000
Septic Tank System Installation/Replacement (RB-4)	$8,000	$6,400	$6,000	$5,200	$4,800	$4,400	$4,000
Septic Tank System with Pump (RB-4P)	$12~~10~~,000	$9,600 ~~8,000~~	$9,000 ~~7,500~~	$7,800 ~~6,500~~	$7,200 ~~6,000~~	$6,600 ~~5,500~~	$6~~5~~,000
Alternative Onsite Sewage Systems (RB-5)	$24,000	$19,200	$18,000	$15,600	$14,400	$13,200	$12,000

Excerpt from Table ~~4~~ 7: Fiscal Stress (Localities Ranked High and Above Average Fiscal Stress) Residential Septic Cost-share Rates/Caps

	Median Income	<40%	40-60%	61-80%	81-100%	100-120%	>120% or no income verification
Practice	**Average Total Practice Cost**	90%	85%	75%	70%	65%	50%

Septic Tank Pump-out (RB-1)	$350~~300~~	$315~~270~~	$298~~255~~	$263~~225~~	$245~~210~~	$228 ~~195~~	$175~~150~~
Connection to Sewer (RB-2)	$11,000	$9,900	$9,350	$8,250	$7,700	$7,150	$5,500
Septic Tank System Repair (RB-3)	$5,000	$4,500	$4,250	$3,750	$3,500	$3,250	$2,500
Inspection and Non-Permitted Repair (RB-3R)	$4~~2~~,000	$3,600 ~~1,800~~	$3,400 ~~1,700~~	$3,000 ~~1,500~~	$2,800 ~~1,400~~	$2,600 ~~1,300~~	$2~~1~~,000
Septic Tank System Installation/Replacement (RB-4)	$8,000	$7,200	$6,800	$6,000	$5,600	$5,200	$4,000
Septic Tank System with Pump (RB-4P)	$12~~10~~,000	$10,800 ~~9,000~~	$10,200 ~~8,500~~	$9,000 ~~7,500~~	$8,400 ~~7,000~~	$7,800 ~~6,500~~	$6~~5~~,000
Alternative Onsite Sewage Systems (RB-5)	$24,000	$21,600	$20,400	$18,000	$16,800	$15,600	$12,000

IV. Information to Inform the Guidelines' Scope of Work – Pages 33-35

Subsections e. and f. added regarding special situations when cost=share is sought for non-traditional residential practices beyond a single onsite system servicing one single-family residence as well as Cost-share Eligibility for Applicants that are Estates or Trusts.

e. Addressing Multiple Systems: DEQ originally developed the Residential Septic Guidelines to address the typical septic system set-up for a single-family residence, which includes a single septic tank, distribution box and drainfield. DEQ recognizes that historically not all septic systems were designed and installed the same. After consultation with VDH, DEQ has developed guidelines for BMP or cost-share eligibility for unique system set-ups that Grantees may encounter. This list is not exhaustive. Grantees should consult DEQ on a case-by-case basis for eligibility for any non-typical situations not addressed below:

vi. One house with two septic systems and a single drainfield: Cost-share will be allowed for pumping out of both tanks, but this will be based on a variance. This would be credited as one (1) RB-1 septic pump-out, but the applicant would be able receive cost-share for the cost of the two pump-outs combined. For example: if each pump-out costs $300, and the homeowner would be eligible for 75% cost-share, then a variance request would be granted for ($300x2x75%) $450. Credit for two pump-outs should not be given.

i. If a system requires additional work beyond a pump-out (e.g., RB-3, 3R, 4, 4P, etc.), then the cost of the extra pump-out would be included in the total cost of the system, and a variance would only be required if the total cost of the action (repair/replacement) exceeds the average practice cost.

vii. One house with one septic system (or two) and two separate drainfields: Cost-share

will be allowed to address the repairs/replacements required by VDH. If this includes repairing or replacing both drainfields, this would be eligible for cost-share. This would be credited as one (1) septic system (e.g., one RB-3, one RB-4), but the applicant would be able receive cost-share for the cost of all eligible actions. A variance would only be need if the cost of the repair exceeds the average practice cost.

viii. Two houses on the same property with completely separate septic systems (not connected): These systems would have two separate operation permits from VDH and would be considered two (2) separate practices. Each would be eligible for its own separate cost-share for eligible work (e.g., each gets a pump-out, each gets a repair). It is suggested that these practices are handled as separate BMPs for recording purposes.

ix. Two houses on the same property, each with separate septic tanks but one shared drainfield: The two tanks are collecting solids before the effluent moves to the drainfield. For VDH purposes, this would have one operation permit and one owner/responsible party. However, this should be counted as two (2) systems if just a pump-out is required (no variance needed). If this system requires additional work beyond a pump-out (e.g., RB-3, -3R, -4, -4P), then only the responsible owner/party would be eligible; cost of the extra pump-out would be included in the total cost of the system, and a variance would only be required if the total cost of the action (repair/replacement) exceeds the average practice cost. In the latter case for tracking purposes, this could be counted as one RB-1 and one other (e.g., RB-3, -3R, -4), so that two systems are actually credited against the IP.

x. Two houses on separate properties, each with separate septic tanks but with one shared drainfield: For VDH purposes, if the system has one drainfield, one operation permit would be issued, and there would be one owner/responsible party. This would be handled the same as if the houses were on the same property (see "iv." above).

xi. House is connected to public sewer, but the system includes a septic tank (or other components for pre-treatment): Occasionally, historic connections to public sewer may have kept a septic tank functioning to remove solids before the effluent flowed into the central sewer. Other systems may have had a grinder pump to process some of the solid wastes before joining the effluent flowing out of the system. Generally, these situations are not common because the system is already connected to public sewer This system is already considered to be connected to public sewer so the property would not be eligible for cost-share for a pump-out or any repairs or replacements.

f. Cost-share Eligibility for Applicants that are Estates or Trusts: Properties owned or administered by an estate or trust will be eligible for 50% cost-share. Cost-share beyond 50% requires income verification. Currently, there is not a DEQ-accepted or approved uniform process for income verification for estates or trusts, as this can be difficult due to the potential for multiple beneficiaries and the possible lack of documentation generally

required for income verification. DEQ is in the process of developing income verification processes for estates or trusts; until that is available, only 50% cost-share funding is authorized.

IV. g. Key Restrictions - 35

Information added regarding current restrictions of funding for non-residential properties.

iii. Non-residential properties**:** This program currently applies only to non-complying discharges or failing or failed residential septic systems. Properties that cannot be defined as residential septic properties (e.g., business, schools, churches) are not currently eligible to receive funding. Grantees should document any request received from non-traditional, non-residential properties. This information will be used by DEQ when reviewing the residential septic program next year.

VI. Administrative Procedures – Pages 36-41

Under subsection b. Permits, Inspections, and Sign-off, clarifying language added regarding when VDH does and does not require permits.

i. VDH Permit Requirements: VDH does not require a permit for work on septic systems or their components provided the correction needed meets the definition of "maintenance." VDH does require a permit for the new construction of septic systems and for repair or replacement of systems when a system meets the definition of a "failure of a sewage disposal system." VDH also requires a permit for replacement of tanks, drainfield piping, and subsurface drainfields, as these actions are explicitly excluded from the definition of "maintenance."

ii. Starting July 1, 2019, VDH will charge a fee of $425 for a repair permit without supporting work from a private sector onsite soil evaluator or professional engineer and charge a fee of $225 for a repair permit with supporting work from the private sector. Applicants with incomes below 200% of the Federal Poverty Guidelines are eligible for a fee waiver from VDH. Permit fees are allowed to be included in the total cost for calculating cost-share purposes. Variances of the exceedance of the practice cap are allowed for the inclusion of permit fees as long as it is documented that the participant has applied for any eligible permit fee waivers from VDH.

Clarifying language added to what information Grantees should include regarding variances.

c. Variance Requests: The Grantee should include a description of what a variance is, who is eligible, what types of variances are allowed, when they are eligible, and what the process is by which a variance is requested and granted.

Information added regarding homeowner eligibility and grantee review requirements for tree removal and land clearing.

d. Tree Removal and Land Clearing: Under certain circumstances, RB-2, RB-4/4P or RB-5 may not be possible without tree removal and/or land clearing due to restrictions at the site. Homeowners meeting eligibility requirements as defined below may receive cost-share funding to do this activity. Grantees can approve the inclusion of tree removal as eligible for cost-share as long as a process for reviewing requests for tree removal are developed by the Grantee that meet the minimal eligibility and review requirements set here.

i. To qualify, the site must be reviewed and evaluated by an appropriately licensed professional who determines that the only viable site on the property

for the proposed septic work would require the removal of trees or clearing of land.

ii. A DEQ-granted variance is no longer required; however, the Grantee should collect and file the required documents (see "iv" below) (.

iii. The proposed activity must adhere to all local, state, and federal laws or ordinances applicable at the time of design and installation. This includes adhering to the Chesapeake Bay Preservation Act, which may limit or prohibit land clearing in a Resource Protection Area (RPA).

iv. Adequate Justification provided to Grantee for review and approval

i. A written statement explaining why the wooded area was chosen for BMP installation. This minimally includes a discussion of the alternate locations that were evaluated but eliminated from consideration (and why) and an assessment of the smallest number of trees that would need to be removed to accommodate a functional septic system. This statement should be developed and signed by the on-site soil evaluator, VDH representative, or licensed professional.

ii. Site map showing locations of existing septic system, proposed septic system, trees to be removed, square footage of land to be cleared, and any alternative locations.

iii. Cost estimate, which includes separate costs for tree removal.

Recommendation provided for disclaimer regarding Grantee providing participants with a list of local contractors. Also, licensure requirements for repair for practices RB-3 and RB-4 were updated.

l. Process for Assuring Appropriate Licensure:

i. Each Grantee will include a section in their guidelines that describes their process by which they will assure participants are provided access to appropriate information.

i. If Grantees provide participants with a list of local contractors, DEQ recommends including a disclaimer regarding endorsements and recommendations, homeowner responsibility, and finding a contractor with an appropriate licensure.

- Example: "The Piedmont Soil and Water Conservation District has partnered with the Amelia, Nottoway, and Prince Edward County Health Departments to compile this list. None of the organizations endorses or recommends any person, company, or entity listed. It is your responsibility to verify that the contractor has the appropriate licensure to do the work. Ask the contractor, or visit http://www.dpor.virginia.gov/LicenseLookup/"

ii. Appropriate information that is a key to licensure:

i. To install

- Conventional Onsite Sewage System Installer license (individual) + SDS Contractor's license (company that the individual owns or works for)
- Alternative Onsite Sewage System Installer + SDS Contractor's license (company that the individual owns or works for)

ii. To repair for RB-3 or RB-4:

- ~~Minor repairs: Conventional Onsite Sewage System Operator license ("performing adjustments to equipment and controls and in-kind~~

~~replacement of normal wear-and-tear parts such as light bulbs, fuses, filters, pumps, motors, or other like components" – applies to both OSS and Water/Wastewater Works Operators)~~

- ~~Larger repairs:~~ Conventional Onsite Sewage System Installer license ~~("replacement of tanks, drainfield piping, distribution boxes, or work requiring a construction permit and a licensed onsite sewage system installer")~~ + SDS Contractor's license (company that the individual owns or works for).

VII. **Glossary of Terms – Pages 41-43**

Relevant definitions were added and updated.

a. 12VAC5-610-350[33]**. Failure of a Sewage Disposal System, Virginia Department of Health (VDH), Chapter 610 Sewage Handling and disposal Regulations**

b. Clarification of "Failure" provided 32.1VAC6-1-163 (§32.1-163)[34]**. Definitions from Virginia Department of Health Article 1 Sewage Disposal**

i. "Alternative Discharging Sewage System" [definition added]

ii. "Alternative onsite sewage system" or "alternative onsite system" [definition added

iii. "Conventional onsite sewage system" [definition added

iv. "Maintenance" or "maintain" means, unless otherwise provided in local ordinance, (i) performing adjustments to equipment and controls or (ii) in-kind replacement of normal wear and tear parts that do not require a construction permit for adjustment or replacement of the component such as light bulbs, fuses, filters, pumps, motors, sewer lines, conveyance lines, distribution boxes, header lines, or other like components. "Maintenance" includes pumping the tanks or cleaning the building sewer on a periodic basis. Notwithstanding any local ordinance, "maintenance" does not include replacement of tanks, drainfield piping, subsurface drainfields, or work requiring a construction permit and installer. Unless otherwise prohibited by local ordinance, a conventional onsite sewage system installer or an alternative onsite sewage system installer may perform maintenance work limited to in-kind replacement of light bulbs, fuses, filters, pumps, sewer lines, conveyance lines, distribution boxes, and header lines.

c. 12VAC5-613[35]: Regulations for Alternative Onsite Sewage Systems (VDH)

i. "Small AOSS" [definition added]

ii. "Large AOSS" [definition added]

d. 18VAC160-40-10[30] Definitions from Department of Professional and Occupational Regulation (DPOR) Chapter 40 Onsite Sewage System Professional Licensing Regulations

vii. "Maintenance" or "maintain [same definition as listed above] ~~"Maintenance" or "maintain" means performing adjustments to equipment and controls and in-kind replacement of normal wear-and-tear parts such as light bulbs, fuses, filters, pumps, motors, or other like components. Maintenance includes pumping the tanks or cleaning the building sewer on a periodic basis. Maintenance shall not include replacement of tanks,~~

~~drainfield piping, distribution boxes, or work requiring a construction permit and a licensed onsite sewage system installer.~~

SECTION III - PROGRAM REFERENCES – Pages 44-46

Links to resources added as needed and six new references added:

39. **Failure of a Sewage Disposal System, Virginia Department of Health (VDH), Chapter 610 Sewage Handling and disposal Regulations**
    https://law.lis.virginia.gov/admincode/title12/agency5/chapter610/section350
40. **Definitions from Virginia Department of Health Article 1 Sewage Disposal**
    https://law.lis.virginia.gov/vacode/title32.1/chapter6/section32.1-163/
41. **Regulations for Alternative Onsite Sewage Systems (VDH)**
    https://law.lis.virginia.gov/admincode/title12/agency5/chapter613/
42. **Natural Resources Conservation Service – Virginia's Environmental Quality Incentives Program**
    https://www.nrcs.usda.gov/wps/portal/nrcs/main/va/programs/financial/eqip/
43. **Natural Resources Conservation Service – Emergency Watershed Protection Program**
    https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/landscape/ewpp/
44. **Virginia Department of Conservation and Recreation's Agricultural BMP Cost-Share (VACS) Program**
    https://www.dcr.virginia.gov/soil-and-water/costshar2

SECTION V - BEST MANAGEMENT PRACTICE SPECIFICATIONS – Page 48

Specifications removed for discontinued practices LE-1T and LE-2T

SMALL ACREAGE GRAZING SYSTEMS FOR TMDL IMPLEMENTATIONDEQ Specifications for No. SL-6AT

Clarification added that authorized tax credit for specification is a state tax credit. Stocking rate for this practice increased from one to two animal units per acre. Under Technical Responsibility, a mention of DCR as qualified technical and administrative staff was added, as was clarifying language about the need for technical assistance.

TMDL SUPPORT FOR STREAM PROTECTION DEQ Specifications for NO. WP-2T

This specification was updated to emulate DCR's WP-2W (with modification). Clarifications were added that authorized tax credit for specification is a state tax credit. Information added about fencing of nearby wetlands, spring, seeps and gullies and that haying, in addition to grazing, is prohibited in the protected area. Unattached hardened travel lanes were added as ineligible under this specification, and clarification was added the reapplication for the same site is prohibited. Cost share rates and maximum were updated, and a table was added to present related information more clearly. Under Technical Responsibility, a mention of DCR as qualified technical and administrative staff was added, as was clarifying language about the need for technical assistance.

D.Rate(s)

1. Cost-share rates shall be based on the approved or actual cost, whichever is less.
2. A rate based on 80~~75~~% of the cost of all eligible components has been established. The buffer payment rates shall be provided for a maximum of 10 acres. The maximum cost-share payment for this practice is not to exceed $100,000~~70,000~~ per landowner per year.

Minimum Fence Setback (from the top of streambank)	Lifespan	Cost-share rate	Buffer Payment Rate	Buffer Payment Cap

35’	10 years	80%	$80 per acre per year	$8,000 per contract

Note: For the purposes of calculating buffer acres, measurements are capped at 100 feet from the top of streambank or 1/3 of the floodplain up to 300 feet.

3. As set forth by Virginia Code § 58.1-339.3 and §58.1-439.5, Virginia law currently provides a tax credit for implementation of certain BMP practices. The current tax credit rate, which is subject to change in accordance with the Code of Virginia, is 25% of the total eligible cost not to exceed $17,500.
4. If a participant ~~cooperator~~ receives cost-share, only the participant’s ~~cooperator’s~~ eligible out-of-pocket share of the project cost is used to determine the tax credit.
5. 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.

SEPTIC TANK PUMP-OUT DEQ Specifications for No. RB-1

This specification was updates so that Alternative septic systems are (along with conventional systems) now eligible for cost-sharing for this practice, and that no system under lifespan for any other residential BMP is eligible for funding of RB-1. The average estimated project cost was increased from $300 to $350, and the cost-share rates and caps presented in the table below were updated, accordingly.

A. Description

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

Residential Septic Cost-share Table: RB-1: Septic Tank Pump-out Rates based upon average total practice cost of $350~~300~~.00

% of Median Family Income	No Fiscal Stress* Rate	No Fiscal Stress* CS Cap	Fiscal Stress** Rate	Fiscal Stress** CS Cap
> 120% or no income verification	50%	$175~~150~~	50%	$175~~150~~
100-120%	55%	$193~~165~~	65%	$228~~195~~
81-100%	60%	$210~~180~~	70%	$245~~210~~
61-80%	65%	$228~~195~~	75%	$263~~225~~
40-60%	75%	$263~~225~~	85%	$298~~255~~
<40%	80%	$280~~240~~	90%	$315~~270~~

*** Located in locality with No Fiscal Stress (average, below average, or no FS)**

**** Located in Locality with Fiscal Stress (high or above average FS)**

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

An item was added regarding the requirement that VDH must be notified of when properties are connected to a public sewer.

C. Policies and Specifications

4. VDH must be notified that the sewage system has been taken out of operation and connected to a public sewer with a request that the system be updated in the VDH database.

CONVENTIONAL ONSITE SEWAGE SYSTEM REPAIR DEQ Specifications for No. RB-3

Clarifications were made regarding eligibility of replacements and repairs to system and when VDH permits are needed. Language was added regarding funding of maintenance, which should be cost-shared as RB-3R, not RB-3. Additionally, new information was added regarding VDH repair permit fees.

C. Policies and Specifications

1. Cost-share is authorized:

ii. For the replacement or repair of a failing conventional onsite sewage system, in which case a permit from VDH is required, for: replacement of septic tank, partial replacement of absorption lines (for full replacement of absorption lines use RB-4 or RB-4P). This practice does not pay for the replacement of a pump or pump station, as replacement of a pump is a part of "normal operation" of a system. **For "maintenance," which does not require a VDH permit, please use RB-3R.**

2. A sewage system repair or replacement must be in accordance with a written repair or construction permit from the Virginia Department of Health and inspection from the Virginia Department of Health or a licensed Onsite Soil Evaluator (OSE) or Professional Engineer (PE). The Virginia Department of Health must be consulted on the need for a repair permit. There is maintenance (non-permitted repairs) that does not require a repair permit. Maintenance should be cost-shared as RB-3R.

i. Starting July 1, 2019, VDH will charge a fee of $425 for a repair permit without supporting work from a private sector onsite soil evaluator or professional engineer and charge a fee of $225 for a repair permit with supporting work from the private sector. Applicants with incomes below 200% of the Federal Poverty Guidelines are eligible for a fee waiver

CONVENTIONAL ONSITE SEWAGE SYSTEM FULL INSPECTION and NON-PERMITTED REPAIRS DEQ Specifications for No. RB-3R

Clarifications were made to the language throughout, distinguishing maintenance from system repairs. A note was added on how often this practice may be cost-shared on a property. The average estimated project cost was increased from $2,000 to $4,000, and the cost-share rates and caps presented in the table below were updated, accordingly.

D. Policies and Specifications

1. Cost-share is authorized:

iii. For "maintenance," as defined in Code of Virginia) of the components of a conventional onsite sewage system. Authorized work also includes the re-leveling of sanitary tees and distribution box, flushing of conveyance and header lines, and removal of roots from septic tank or distribution box. For repairs for which Virginia Department of Health (VDH) permit is needed, please use RB-3 or RB-4/4P).

1. Please note that a property may only receive one RB-3R during a 5-year period regardless of the breadth of the maintenance repair involved.

2. "Maintenance" repairs and improvements to a conventional sewage system that do not require a permit must be in accordance with a written statement of need from the Virginia Department of Health and inspection from VDH or a licensed Onsite Soil Evaluator (OSE) or Professional Engineer (PE). VDH must be consulted on the need for a repair permit and must state that a repair permit is not needed for this work.

5. Applications for "Maintenance" (non-permitted)repairs that do not require a permit must include a copy of VDH malfunction assessment form completed by VDH, OSE, PE, licensed installer, or licensed operator (if applicable)

Residential Septic Cost-share Table: RB-3R: Full Inspection and Non-permitted Repair of Conventional Onsite Septic System, Rates based upon average total practice cost of $4,000~~2,000~~.00

% of Median Family Income	No Fiscal Stress* Rate	No Fiscal Stress* CS Cap	Fiscal Stress** Rate	Fiscal Stress** CS Cap
> 120% or no income verification	50%	$2,000~~1,000~~	50%	$2,000~~1,000~~
100-120%	55%	$2,200~~1,100~~	65%	$2,600~~1,300~~
81-100%	60%	$2,400~~1,200~~	70%	$2,800~~1,400~~
61-80%	65%	$2,600~~1,300~~	75%	$3,000~~1,500~~
40-60%	75%	$3,000~~1,500~~	85%	$3,400~~1,700~~
<40%	80%	$3,200~~1,600~~	90%	$3,600~~1,800~~

*** Located in locality with No Fiscal Stress (average, below average, or no FS)**
**** Located in Locality with Fiscal Stress (high or above average FS)**

CONVENTIONAL ONSITE SEWAGE SYSTEM INSTALLATION/REPLACEMENT DEQ Specifications for No. RB-4

Clarifying language was added regarding the eligibility of repairs and under what circumstances this practice is appropriate. A statement was also added about ineligibility of new houses, new development, or expansion of existing structures.

A. Description

Installation of a conventional onsite sewage system to replace an identified non-complying discharging system (straight pipe), which delivers sewage directly to a stream, pond, lake, or river or installation to correct or replace a malfunctioning conventional sewage system, or to repair 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 groundwater.

C. Policies and Specifications

1. Cost-share is authorized:

ii. For the new installation (construction), repair, or replacement (all of which require a permit), of a conventional onsite sewage system or the installation or replacement of any of the following conventional onsite sewage system components: septic tank(s) distribution box(es) (if included with other components/work; distribution box replacement on its own should be charged as an RB-3R), drainfield piping, and subsurface drainfields, or other work requiring a permit and installer. A pump or pump station is not eligible for cost-share under this practice. If a pump is necessary, please use RB-4P.

12. Cost-share is not authorized for:

ii. New septic systems or septic system upgrades associated with new houses, new development or to add new bathrooms due to the expansion of an existing house or structure.

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

Clarifying language was added regarding the eligibility of repairs and under what circumstances this practice is appropriate. A statement was also added about ineligibility of new houses, new development, or expansion of existing structures. The average estimated project cost was increased from $10,000 to $12,000, and the cost-share rates and caps presented in the table below were updated, accordingly.

C. Policies and Specifications

1.Cost-share is authorized:

i. For the pump-out and removal of solids from the septic tank.

ii. For the new installation (construction), repair, or replacement (all of which require a permit), of a conventional onsite sewage system or the installation or replacement of any of the following conventional onsite sewage system components- septic tank(s) distribution box(es) (if included with other components/work; distribution box replacement on its own should be charged as an RB-3R), drainfield piping, and subsurface drainfields, or other work requiring a permit and installer.

12. Cost-share is not authorized for:

iii. New septic systems or septic system upgrades associated with new houses, new development, or to add new bathrooms due to the expansion of an existing house or structure.

Residential Septic Cost-share Table: RB-4P: Conventional Onsite Septic System Installation/Replacement with Pump, Rates based upon average total practice cost of $12,000~~10,000~~.00

% of Median Family Income	No Fiscal Stress* Rate	No Fiscal Stress* CS Cap	Fiscal Stress** Rate	Fiscal Stress** CS Cap
> 120% or no income verification	50%	$6,000~~5,000~~	50%	$6,000~~5,000~~
100-120%	55%	$6,600~~5,500~~	65%	$7,800~~6,500~~
81-100%	60%	$7,200~~6,000~~	70%	$8,400~~7,000~~
61-80%	65%	$7,800~~6,500~~	75%	$9,000~~7,500~~
40-60%	75%	$9,000~~7,500~~	85%	$10,200~~8,500~~
<40%	80%	$9,600~~8,000~~	90%	$10,800~~9,000~~

*** Located in locality with No Fiscal Stress (average, below average, or no FS)**

**** Located in Locality with Fiscal Stress (high or above average FS)**

ALTERNATIVE ONSITE SEWAGE SYSTEM INSTALLATION DCR Specifications for No. RB-5

Specific information was added about the operator and operator visit requirements based on flow of the system. A statement was also added about ineligibility of new houses, new development, or expansion of existing structures.

A. Description

Installation of an alternative onsite sewage system to correct a malfunctioning or failing conventional onsite sewage system, malfunctioning or failing alternative onsite sewage system,

or to replace an identified non-complying discharging system (straight pipe) in situations where installation or replacement of a conventional onsite sewage system cannot be permitted.

C. Policies and Specifications

1. Cost-share is authorized:

iv. To cover expenses for up to two years of sampling, operation, and maintenance performed by a licensed Alternative Onsite Sewage System Operator (or approved alternative) and reported to VDH. Only recipients eligible for more than 50% cost-share (who have provided income verification) are eligible. An executed contract must be in place before cost-share is provided, and a copy of that contract is provided as documentation. The Virginia Administrative Code 12VAC 5-613-150 requires the owner of each alternative onsite sewage system to have ~~an annual operation and maintenance inspection performed~~ the system visited by a licensed \. Most residential system are designed with an average daily flow of less than or equal to 1000 gallons per day and require an initial visit within 180 calendar days of the issuance of the operation permit from VDH. Regular visits following the initial visit are to occur ~~Also, a minimum of one routine inspection by a licensed Alternative onsite Sewage System Operator is required~~ every 12 months. Note the initial visit and regular visit requirements are different for systems with an average daily flow greater than 1000 gallons per day ~~a two year period~~. Documentation of these inspections must be provided upon request.

12. Cost-share is not authorized for:

i. New Septic systems or septic system upgrades associated with new houses, new development, or to add new bathrooms due to the expansion of an existing house or structure.