Table 1: DEQ Loan Eligible Agricultural BMPs

VACS Practices			
Practice #	**Practice Name**	**Practice Description**	**Practice Purpose**
EM-1AT	Small Scale Manure Composting for Equine Operations – Aerated Systems	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.	Improve water quality through the proper storing, composting and spreading of waste on small-scale livestock operations.
EM-1T	Small Scale Manure Composting for Equine Operations – Static Systems	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.	Improve water quality through the proper storing, composting and spreading of waste on small-scale livestock operations.
FR-3	Woodland Buffer Filter Area	Creates a woodland buffer filter area to protect waterways or water bodies by reducing erosion, sedimentation, and the pollution of water from agricultural nonpoint sources.	Change land use and establish a forest buffer to provide stream bank protection and to control soil erosion, sedimentation, and nutrient loss from surface runoff to improve water quality. This practice will also provide forest areas for the benefit of wildlife and aquatic environments.
SE-2	Shoreline Stabilization	Structures and/or vegetative measures will be designed and implemented to stabilize shoreline areas of estuaries, bays and the ocean.	Improve water quality by stabilizing shoreline areas that are being eroded because of waves, boat wake or overland flow.
SL-1	Long Term Vegetative Cover On Cropland	Grass and/or legume vegetation will be established on cropland with existing cover of less than 60% converting it to pasture or hay land.	To promote conversion of cropland to fields with a healthy, well- maintained sod and to reduce soil erosion and enhance water quality.
SL-4	Terrace System	Earth embankment, channel, or a combination ridge and channel constructed across the slope.	Improve water quality by reducing slope and slope length to one that will slow the movement of sediment and nutrients from cropland.
SL-5	Diversion	Channel with a supporting ridge on the lower side constructed across the general land slope.	Improve water quality by directing nutrient and sediment laden water from large areas to sites where it can be used or disposed of safely.
SL-6A	Small Acreage Grazing System	This practice is designed to reduce soil erosion in pastures and to prevent those areas exposed to heavy alternative livestock traffic from experiencing excessive manure and soil losses due to the destruction of ground cover and eliminate direct access to or a direct runoff input to live streams where there is a defined water quality problem.	Prevent manure and sediment runoff from a heavy use area and pastures from entering watercourses and to capture a portion of the manure as a resource for other uses such as fertilizer. This is accomplished by dividing the pasture into grazing paddocks. Livestock is rotated from paddock to paddock as is necessary to maintain a permanent vegetative cover. One lot is stabilized and designated as a heavy use area for use in periods of wet weather and when the grass in the grazing paddocks needs to rest in order to re-grow to the appropriate grazing height.
SL-6B	Alternative Water System	A structural practice that will provide an alternative water source for livestock to reduce direct deposition of animal waste to waterways. This practice may reduce stream bank erosion and livestock waste reaching the stream.	Provide watering facilities for livestock to reduce or eliminate the need for livestock to access streams, which reduces erosion and livestock waste reaching the stream.
SL-6F**	Stream Exclusion in Floodplains	A structural and/or management practice that will enhance or protect vegetative cover to reduce runoff of sediment and nutrients from grazing livestock on existing pastureland through livestock exclusion.	This practice is intended for use in areas prone to flooding where the producer wishes to retain usage of a portion of the floodplain and also protect exclusion fencing from destruction by flooding. This is a structural and/or management practice that will enhance or protect vegetative cover to reduce runoff of sediment and nutrients from grazing livestock on existing pastureland through livestock exclusion.
SL-6N	Stream Exclusion with Narrow (<35 ft) Width Buffer and Grazing Land Management	A structural and/or management practice that will enhance or protect vegetative cover to reduce runoff of sediment and nutrients from grazing livestock on existing pastureland through livestock exclusion.	Provide livestock water systems, fencing and/or a hardened pad for winter-feeding that will improve water quality control erosion and eliminate direct access to or a direct runoff input to all live streams or live water. Stream exclusion fencing and an offstream watering facility are required components of this practice. Rotational grazing is an optional enhancement of this practice. The exclusion and/or rotational grazing system receiving cost share should reflect the least cost, technically feasible, environmentally effective approach to resolve the existing water quality problem.
SL-6W	Stream Exclusion with Wide (>35 ft) Width Buffer and Grazing Land Management	A structural and/or management practice that will enhance or protect vegetative cover to reduce runoff of sediment and nutrients from grazing livestock on existing pastureland through livestock exclusion.	Provide livestock water systems, fencing and/or a hardened pad for winter-feeding that will improve water quality control erosion and eliminate direct access to or a direct runoff input to all live streams or live water. Stream exclusion fencing and an offstream watering facility are required components of this practice. Rotational grazing is an optional enhancement of this practice. The exclusion and/or rotational grazing system receiving cost share should reflect the least cost, technically feasible, environmentally effective approach to resolve the existing water quality problem.
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SL-7	Extension of Watering Systems	A management system that will provide and ensure adequate surface cover protection to minimize soil erosion. The system will reduce sediment, nutrients and pathogen loads in runoff.	Improve the quantity, quality and utilization of forage for livestock and will reduce the risk of surface and groundwater contamination from nonpoint source pollution from pastures by assuring that an adequate stand of forage is available to absorb runoff and reduce pollutants.
SL-11B	Farm Road, Animal Travel Lane, Heavy Use Area Stabilization	This practice will promote structural and/or management practices that will protect surface water and groundwater recharge areas from pollution from travel ways of farm equipment and livestock or from a winter feeding area.	Protect or maintain water quality by stabilizing travel ways used by farm equipment and livestock or from winter feeding area.
WP-1	Sediment Retention, Erosion or Water Control Structures	Structures that will collect and store debris or control the grade of drainageways.	Improve water quality by reducing the movement of sediment and materials from agricultural land to receiving streams.
WP-2A	Streambank Stabilization	Protection methods along steams to reduce erosion, sedimentation and the pollution of water from agricultural nonpoint sources.	Offer an incentive that will change landuse, provide vegetative stabilization or improve management techniques to more effectively control soil erosion, sedimentation and nutrient loss from surface runoff to improve water quality.
WP-2B	Stream Crossing & Hardened Access	A stabilized area to provide access to and/or across a stream for livestock and/or farm machinery.	Improve water quality by controlling bank and streambed erosion and reducing sediment by providing a controlled crossing and/or access to streams.
WP-2C	Stream Channel Stabilization	Stabilizing the stream channel with the use of non erodible material and/or structures that will prevent the stream channel from eroding.	Improve water quality by reducing erosion by stabilizing stream channels.
WP-2N	Stream Protection - Fencing with Narrow (<35 ft) Width Buffer	Protection by fencing along all live streams or live water in a field, to reduce erosion, sedimentation, and the pollution of water from agricultural nonpoint sources.	Offer an incentive that will change land use, provide vegetative stabilization, or improve management techniques to more effectively control soil erosion, sedimentation, and nutrient loss from surface runoff to improve water quality.
WP-2W	Stream Protection - Fencing with Wide (>35 ft) Width Buffer	Protection by fencing along all live streams or live water in a field, to reduce erosion, sedimentation, and the pollution of water from agricultural nonpoint sources.	Offer an incentive that will change landuse, provide vegetative stabilization, or improve management techniques to more effectively control soil erosion, sedimentation, and nutrient loss from surface runoff to improve water quality.
WP-4	Animal Waste Control Facility	A planned system designed to manage liquid and/or solid waste from areas where livestock and poultry are concentrated. This practice is designed to provide facilities for the storage and handling of livestock and poultry waste and the control of surface runoff to permit the recycling of animal waste onto the land in a way that will abate pollution that would otherwise result from existing livestock or poultry operations.	Improve water quality by storing and spreading waste at the proper time, rate and location, and/or to control erosion and nutrient input caused by feeding operations located adjacent to riparian areas or other environmentally sensitive features.
WP-4B	Dairy Loafing Lot Management System	Prevent areas which are exposed to heavy livestock traffic from experiencing excessive manure and soil losses due to the destruction of ground cover. Unimproved loafing lots that are used for dairy herd exercise and loafing are usually denuded of vegetation and harbor undesirable plants.	Prevent manure and sediment runoff from entering water courses and sensitive karst areas and to capture a portion of the manure as a resource for other uses such as crop fertilizer. Accomplished by dividing the area into lots. The dairy cattle are rotated from lot to lot as necessary to maintain vegetative cover. One lot is designated as a sacrifice area for use in wet weather. This practice is for dairy cattle only.

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		VACS Practices	
WP-4C	Composter Facilities	Planned system designed to manage treatment and disposal of poultry and swine carcasses resulting from normal mortality. This practice is designed to provide facilities for composting poultry and swine carcasses from normal mortality, storage of raw materials necessary for composting, storage of the composted end product, and the recycling of composted carcasses by land applying the end product in a manner that will abate pollution that would otherwise result from existing disposal methods for normal poultry and swine mortality carcasses.	To improve water quality by properly composting normal mortality for poultry and swine and spreading the composted material at the proper time, rate, and location.
WP-4E	Animal Waste Structure Pumping Equipment	Mechanism used to agitate and/or pump liquid and/or simi-liquid animal waste for the purpose of land application.	Insure that animal wastes are land applied at the most optimum times so as not to effect water quality.
WP-4F	Animal Mortality Incinerator Facilities	A planned mortality incineration system.	Dispose of poultry and livestock carcasses resulting from normal mortality.
WP-4LC	Animal Waste Control Facility for Confined Livestock Operations	A planned system designed to prevent those areas exposed to heavy livestock traffic from experiencing excessive manure and soil losses due to the destruction of ground cover and to manage liquid and/or solid waste from areas where livestock are concentrated. A covered facility that requires 100% confinement of livestock which includes a feeding area as well as a bedded or manure pack area with a manure storage area if needed. Permanent removal of livestock from all acres associated with the confined livestock is required. All associated acres must be re-vegetated. This practice is not intended for grazing operations.	Improve water quality by preventing manure and sediment runoff from entering watercourses and sensitive karst areas and capturing a portion of the manure as a resource for other uses by storing and spreading waste at the proper time, rate, and location.
WP-4LL	Loafing Lot Management System with Manure Management (excluding bovine dairy)	A planned system designed to prevent those areas exposed to heavy livestock traffic from experiencing excessive manure and soil losses due to the destruction of ground cover and to manage liquid and/or solid waste from areas where livestock are concentrated. A sacrifice lot or covered facility that includes a feeding area as well as a bedded or manure pack area with a manure storage area if needed. A minimum of three associated grassed lots are required. All streams must be excluded. Streams associated with the grassed lots require a 35' minimum buffer.	Improve water quality by preventing manure and sediment runoff from entering watercourses and sensitive karst areas and capturing a portion of the manure as a resource for other uses by storing and spreading waste at the proper time, rate, and location.
WP-4SF	Seasonal Feeding Facility with Attached Manure Storage	A planned system designed to prevent those areas exposed to heavy livestock traffic from experiencing excessive manure and soil losses due to the destruction of ground cover and to manage liquid and/or solid waste from areas where livestock are concentrated. A covered concrete facility that includes a feeding area as well as a manure storage area that allows for the capture and storage of manure during inclement weather. An approved rotational grazing plan and stream exclusion are required.	Improve water quality by preventing manure and sediment runoff from entering watercourses and sensitive karst areas and capturing a portion of the manure as a resource for other uses by storing and spreading waste at the proper time, rate, and location.
WP-5	Stormwater Retention Pond	Structure that will collect and retain stormwater in order to release the water at a rate that will reduce the amount of downstream erosion due to storm water flow.	Improve water quality by reducing the amount of channel erosion during storm events.
WP-6*	Agricultural Chemical & Fertilizer Handling Facility	Facility to adequately store, mix and contain agricultural chemicals and fertilizers.	Improve water quality by properly handling chemicals and fertilizers during mixing and cleaning equipment.
WP-7	Surface Water Runoff Impoundment for Water Quality	Structure that will impound surface water runoff and allow sediment and nutrients to settle out.	Improve water quality by impounding surface water and allowing sediments and nutrients to settle out.
WP-8	Relocation of Confined Feeding Operations From Environmentally Sensitive Areas	The relocation of confined feeding operations from areas that have an increased chance of contaminated runoff entering the state's streams, rivers and estuaries.	Improve water quality by relocating confined feeding operations away from environmentally sensitive areas such as sinkholes, streams and rivers to reduce or eliminate the amount of pollution-laden runoff reaching these areas.
WQ-5	Water Table Control Structure	Water control structure for the management of drainage water.	Regulate and manage drainage water to improve water quality by trapping sediment and managing dissolved or suspended nutrients.
WQ-6	Constructed Wetlands	Construction of a wetland for the treatment of animal waste runoff or stormwater runoff.	Improve water quality by using a constructed wetlands to remove nutrients from animal waste or sediments and nutrients from stormwater runoff.
WQ-6B	Wetland Restoration	Activities which restore land to the hydraulic condition that existed prior to 1985 and the installation of drainage and conversion to cropland.	Improve water quality by returning environmentally sensitive land back to its original wetland condition before it was converted to cropland.
WQ-7	Irrigation Water Recycling System	A system of practices designed to distribute, collect and reuse irrigation water and surface runoff from agricultural fields involved in the production of vegetable and horticultural crops.	Improve water quality by collecting and reusing irrigation and surface runoff that may be high in nutrients, sediments, or pesticides from a variety of vegetable and horticultural crops grown using plastic or synthetic fiber mulches and impervious surfaces.
WQ-8	Fuel Storage Treatment	This practice will promote proper removal of farm underground fuel storage tanks and the construction of an above ground farm fuel storage facility with proper containment system.	Improve water quality by removing leaky or possibly leaking fuel storage tanks and contaminated soil and replacing the tank with an above ground storage tank with the proper spill and rupture containment facility.
WQ-11	Agricultural Sinkhole Protection	This practice will provide a protection method to improve groundwater quality from surface contamination.	Improve water quality by removing sources of pollution from sinkholes and providing an adequate buffer to trap and filter sediments and nutrients from surface flows that enter the groundwater through sinkholes.
WQ-12	Roof Runoff Management System	A planned system designed to manage roof runoff from agricultural structures in areas where concentrated runoff creates a water quality concern through contact with animal waste such as barnyards and feeding areas. This practice is designed to collect, control and convey precipitation runoff from a roof to an appropriate discharge area in a way that will protect water quality.	Protect water quality by capturing roof runoff and routing it away from contaminated and/or sensitive areas to control erosion and nutrient input.
NTD ∓	No-Till Planter/Drill	Purchase of new or used no-till planters or no-till drills that are not modifications or upgrades to an existing no-till planter or drill.	Improve water quality by encouraging the use of continuous no-till planting and cover crops. Reduce the acres which are under conventional tillage.

* WP-6 Practice is no longer part of the VACS manual but will be eligible for loan funding through June 30, 2023 (Program Year 2024)

** Newly eligible loan practices beginning July 1, 2022 (Program Year 2023)

∓ SL-1 has maximum loan term of 5 years, NTD has maximum loan term of 7 years

Additional details on the listed practices can be found here:

DCR's Virginia Agricultural Cost-Share (VACS) BMP Manual
http://consapps.dcr.virginia.gov/htdocs/agbmpman/agbmptoc.htm

DEQ's Virginia Non-Point Source Implementation BMP Guidelines
https://www.deq.virginia.gov/home/showpublisheddocument/10401/637643957888070000