# Virginia’s Chesapeake Bay 2020-2021 Programmatic Milestones Final Progress Report

| **Milestone****Number** | **Final Phase III WIP** | **Lead Agency &****Supporting Agencies** | **Actions & Deliverables** | **Target Dates** | **Comments.****Progress.** |
| --- | --- | --- | --- | --- | --- |
|  |  |  | Agriculture - Key Ongoing Activities |  |  |
| A1 | p. 41 | Department of Conservation and Recreation (DCR) | Incorporate changes to animal waste practices recommended by the Agricultural Best Management Practice Technical Advisory Committee (Ag BMP TAC) into cost share program. | Jul. 1, 2020 | Four new Animal Waste practices were created and were incorporated into the Virginia Agricultural Cost-Share Program (VACS) on Jul. 1, 2020. New opportunities include animal waste control facilities for livestock in confinement, non-bovine dairy loafing lot management systems, seasonal feeding facilities and feeding pads.  |
| A2 | p. 42 | DCR / Department of Environmental Quality (DEQ) | Work with Bay Program to adjust cover crop planting dates, incorporating climate change, for appropriate areas in Virginia. | Jan. 1, 2021 | Cover Crop planting dates for the Eastern Shore, Coastal Plain, Piedmont and Mountain/Valley regions were all adjusted by two weeks to account for climatic changes in recent years. Additionally, the date by which cover crops must reach 60% cover has been pushed back by two weeks to Dec. 15. These changes were incorporated into VACS as of Jul. 1, 2021. |
| A3 | p. 42 | DCR | Incorporate changes to riparian buffer best management practices (BMPs) recommended by the Ag BMP TAC that may increase the level of producer interest and participation. | Jul. 1, 2020 | State VACS cost-share for riparian forest buffers was increased to 95%, in addition to a one-time incentive payment based on tree species and practice lifespan, beginning Jul. 1, 2019 (FY 2020). The Technical Advisory Committee is currently recommending the addition of a buffer payment for the VACS riparian forested buffer practice, similar to previous changes to VACS stream exclusion and protection practices, for FY 2023. |
| A4 | p. 42 | DCR | Incorporate changes to livestock stream exclusion practices recommended by the Ag BMP TAC including those intended to add additional flexibility and increased likelihood of adoption by producers.  | Jul. 1, 2020 | As of Jun. 1, 2019 (FY 2020), the VACS stream exclusion and stream protection practices were split into narrow buffer and wide width buffer (35’+) options with a wide variety of cost-share opportunities up to 100% depending on practice lifespan and buffer width. A buffer payment was also added to the wide width buffer practices to make them more attractive to producers.  |
| A5 | p. 43 | DCR | Require private sector Virginia-certified nutrient management planners who participate in Direct Pay to conduct Nutrient Management Plan verification. | Dec. 31, 2021 | An Agricultural NMP Direct Pay Initiative is currently being implemented. Registered NMP private sector planners must agree to conduct NMP verification after 12 months that they write or amend a new NMP.  |
| A6 |  | DCR | Conduct annual Agricultural Needs Assessment and report funding needs to Governor and Virginia General Assembly. | Nov. 1. 2020,Nov. 1, 2021 | The annual Agricultural Needs Assessment is updated annually by DCR and included in the annual Chesapeake Bay and Virginia Waters Clean Up Plan Report. The report can be found on the Virginia’s Legislative Information System (LIS) webpage.Governor Northam’s 2022-2023 proposed budget includes full funding for agriculture BMP and technical assistance needs. The budget proposal is available on [Virginia’s LIS website](https://budget.lis.virginia.gov/bill/2022/1/).  |
| A7 |  | Virginia Department of Agriculture and Consumer Services (VDACS) | Report BMPs installed to resolve founded Agricultural Stewardship Act (ASA) complaints. | Ongoing | Currently tracked in the ASA module of the Agriculture BMP Tracking Program.Two BMPs were installed during the reporting period that were created to resolve a founded ASA complaint. Additional tracking issues were identified and addressed in Jan. 2021. |
|  |  |  | Agriculture – WIP Chapter 7 Initiatives |  |  |
| A8 | WIP Initiative # 13 | DCR | Conduct both cover crop and conservation tillage surveys in Chesapeake Bay watershed. | Dec. 31, 2021 | Due to the COVID-19 pandemic, these tasks were postponed. However, through amendments to the Chesapeake Bay Regulatory and Accountability Program (CBRAP) grants both the cover crop and tillage surveys will be completed by Jun. 30, 2022. |
| A9 | WIP Initiative # 13 | Office of the Secretary of Natural and Historic Resources (OSNHR) in partnership with DEQ, DCR, VDACS, Virginia Department of Forestry (VDOF), Soil and Water Conservation Districts (SWCDs), Virginia Cooperative Extension (VCE), Virginia Tech, U. S. Department of Agriculture - Natural Resources Conservation Service (NRCS), U.S. Environmental Protection Agency (EPA) | Continue work of the Voluntary Agriculture BMP Task Force to evaluate effective approaches to document BMPs implemented without cost share.Draft work plan to conduct a survey of agriculture producers in the watershed seeking information on BMPs.Finalize work plan and project budget.Draft questions for farmer survey with experts and seek approval of final questionnaire from task force members.Initiate farmer survey, if approved by task force members.Conduct spot checks of approximately 10% of producers participating in the survey.Complete analysis of survey results. | OngoingJan. 31, 2020Mar. 2020Aug. 1, 2020Dec. 31, 2020Summer 2021Nov. 30, 2021 | Farmer survey partners also include Virginia Farm Bureau Federation and Virginia Agribusiness Council.DCR DSWC provided training to VCE field staff in Jul. 2021 on BMP verification.VCE reports that the project is nearing completion. Acreage figures have been provided to DCR/DEQ to include with this year’s annual reporting and the [final summary report](https://ext.vt.edu/content/dam/ext_vt_edu/homepage/Virginia%20Vol%20Ag%20BMP%20Producer%20Survey%20Final%20Report%2012-13-21.pdf) was completed by Dec. 31, 2021 as outlined in the work plan. |
| A10 | WIP Initiative # 14 | OSNHR | Interview partners agencies and organizations that assist farmers regarding opportunities to improve coordination.Draft language for joint letter of agreement between Secretaries of Natural Resources, Agriculture and Forestry, and Education and Virginia Association of Soil and Water Conservation Districts.Finalize language and obtain signatures.Review joint letter of agreement at agency and partner meetings and trainings. | Oct. 2020 – Mar. 2021Jun. 2021Dec.31, 2021 | Initiative will be done in partnership with VCE, DCR, VDOF, VDACS, Soil and Water Conservation Districts (SWCDs), NRCS, and U.S. Department of Agriculture - Farm Service Agency (FSA).The Joint Letter of Agreement was finalized Nov. 2020. A work plan to implement the letter of agreement was completed May 2021. Materials can be found on [DEQ's Chesapeake Bay Phase III WIP webpage](https://www.deq.virginia.gov/our-programs/water/chesapeake-bay/phase-iii-wip/). Collaborative actions called for through the letter and plan are ongoing. |
| A11 | WIP Initiative # 14 | OSNHR in partnership with Office of Agriculture and Forestry (OSAg&F),DCR | Conduct regular meetings with NRCS and FSA to enhance joint efforts and identify/resolve issues of concern. | Ongoing | Meetings between DCR and both the USDA NRCS state office, and FSA offices on issues of mutual concern have become more routine.  |
| A12 | WIP Initiative # 17 | DCR | Implement recommendations of the Virginia Soil and Water Conservation Board Allocation Subcommittee to increase base technical assistance funding to SWCDs. | Jul. 1, 2020 | Budget Action by the General Assembly will be followed by Board action prior to the beginning of next program year. During the 2019 General Assembly Session, $4.55 million was provided to SWCDs in their annual budget for base technical assistance; this funding represents a stable source of financial support for SWCD technical assistance activities and staff. The Department will review the current base technical assistance SWCD allocations and will present any necessary revisions to the Board for approval during spring 2022. Governor Northam’s 2023-2024 proposed budget includes full funding for agriculture BMP and technical assistance needs. The budget proposal is available on [Virginia’s LIS website](https://budget.lis.virginia.gov/bill/2022/1/). |
| A13 | WIP Initiative # 19 | DCR | Direct increased cost share funding to key WIP III SWCDs. | Jul. 1, 2020 | Each year the Board approves the cost-share and technical assistance allocations for each SWCD. Key WIP III SWCDs have consistently received record cost-share funds and many SWCDs in the Bay watershed are participating in pilot projects as well.  |
| A14 | WIP Initiative # 20 | DCR | Examine options and present to the Virginia Soil and Water Conservation Board an approach that would regionalize prioritization of BMPs in the agricultural BMP cost share program. | Seek approval from the Soil and Water Conservation Board by Dec. 1, 2021. | Develop a new methodology to integrate Phase 6.0 Chesapeake Bay Model BMP reductions based on position in the watershed into the Conservation Effectiveness Factor then reprogram the Ag BMP Tracking Module to automate it.A MIT Micro-Internship project with a student completed in 2021 that put together a portion of the data analysis needed for the new proposed methodology. DCR Data Services staff also completed comprehensive CAST training which will help them to conduct analysis of the methodology. Once this is completed, CEF can be modified to assist with establishing BMP regional prioritization. Any changes to CEF will first receive input from the Ag BMP TAC and will then be proposed to the Soil and Water Conservation Board for approval. |
| A15 | WIPInitiative#20 | DCR | Report Soil Conservation and Water Quality Plans to include all federal and state conservation plans associated with agricultural BMPs in lifespan. | Dec. 31, 2021 | In FY 2021, USDA program staff collaborated with DCR staff, to provide federal data, pre-screened to meet Farm Bill privacy requirements, that was then combined with DCR data to provide an estimate of the number of acres under plans. Going forward, these data will be requested every year. |
| A16 | WIP Initiative # 23 | DCR | Conduct periodic review of Resource Management Plan (RMP) Program and recommend regulatory changes. | Jan. 1, 2021 | The periodic review was completed on Jul. 29, 2021. Based on the comments received, no revisions were made to the regulations to date. However, the Department is still evaluating possible revisions to both RMP policy and regulations that would make the program easier to administer. Those revisions will be pursued during 2022. |
| A17 | WIP Initiative # 24 | DCR | Bundle all Resource Management Plan BMPs into one cost share contract. | Jul. 1, 2021 | AG BMP TAC in 2021 recommended separate bundles of similar types of BMPs for use in the VACS program statewide beginning in FY 2023. |
| A18 | WIP Initiative # 25 | DCR | Conduct periodic review of Nutrient Management regulations and recommend regulatory changes. | Dec. 31, 2021 | The periodic review of the nutrient management regulations was completed in 2021. The Board approved the initiation of a regulatory action at their Sept. 23, 2021 meeting, providing an additional method to achieve the educational requirements to become a certified planner. |
| A19 | WIP Initiative #26 | OSNHR | Pursue legislation to achieve goal of 85% implementation of nutrient management plans on cropland and to achieve goal of livestock exclusion from perennial streams in the Chesapeake Bay watershed.Pursuant to final legislation, convene Secretaries of Natural Resources and Agriculture and Forestry stakeholder advisory group to review annual progress toward the implementation of agriculture best management practices, develop a process to assist operators in developing nutrient management plans, and develop a plan for a stream exclusion program. Establish a portable stream fencing practice for inclusion in the Virginia Agricultural Best Management Practice Cost-Share Program.Establish method for identifying perennial streams. | Jul. 1, 2020Nov., 2020Nov., 2021Jul. 1, 2021Dec. 31, 2020 | Virginia General Assembly 2020 session: House Bill 1422 and Senate Bill 704 Chesapeake Bay watershed implementation plan initiatives passed and were signed by Governor Northam in Jun. 2020.The stakeholders advisory group was convened in the fall of 2020. A report on implementation of NMPs and stream fencing was prepared Apr. 2021.The Virginia Soil and Water Conservation Board enacted a portable stream exclusion fencing BMP specification on July 1, 2021.The Virginia Soil and Water Conservation Board adopted a [perennial stream determination method](https://townhall.virginia.gov/L/GetFile.cfm?File=C:\TownHall\docroot\GuidanceDocs\199\GDoc_DCR_6947_v1.pdf) in December 2020. DCR has enlisted a contractor to develop mapping using this methodology, for Virginia's Chesapeake Bay watershed. This mapping will be completed by June 2022. |
| A20 | WIP Initiative # 27 | DCR | Conduct a pilot study to help estimate the extent of perennial streams in Bay watershed excluded from livestock. | Feb. 1, 2020 | The pilot study covering Rockingham County was completed in Mar. 2020. The project examined the extent of livestock excluded using multiple years of aerial photography and found that the rate of exclusion in the pilot area increased in the county from approximately 24% in 2002 to 41% in 2018. |
| A21 | WIP Initiative # 27 | DCR | Monitor and report continued progress of livestock stream exclusion efforts with a goal of exclusion from all perennial streams. Monitor and report continued progress of nutrient management plan efforts with a goal of 85% implementation of nutrient management plans. | Dec. 1, 2020,Dec. 1, 2021 | Livestock stream exclusion and protection efforts were greatly expanded starting in Program Year 2020 with options now available for exclusion with minimum buffer widths of 10, 25, 35 or 50 feet, offering buffer payments for all buffers > 35 feet. Starting in Program Year 2022 a Portable Fencing practice became available as mandated by the 2020 General Assembly. During the 2021 cycle of the Agricultural BMP Technical Advisory Committee, the Nutrient Management bundled practice (WFA-NM) was recommended and will be expanded to additional SWCDs. This practice will capture increased Nutrient Management Planning Data.  |
| A22 | WIP Initiative # 28 | DCR | Fund research study to determine practical end uses for horse manure. | Dec. 31, 2021 | This effort will continue until a viable option is identified. |
| A23 | WIP Initiative # 29 | DCR | Increase poultry litter transported to appropriate areas towards the year 2025 annual goal, through program outreach and marketing, and by increasing the number of eligible counties to receive litter subsidized by the DCR Poultry Litter Transport Program. Expanding by 14 localities, this program will now apply to 69 localities statewide. In counties within the Chesapeake Bay watershed, transfers will be tracked and applicable regular reporting requirements (DEQ) would apply. | Dec. 31, 2021 | Pursuing funding for “Litter Storage Hubs” for off-season storage of Bay watershed litter outside of the Bay watershed, and other alternatives/incentives, in an effort to increase transport to appropriate areas for later use, at times when land application is not recommended/allowed. |
| A24 | WIP Initiative # 30 | DEQ | Improve poultry litter transport accounting. | Dec. 31, 2020 | The final language of the Virginia Pollution Abatement Regulation and General Permit for Poultry Waste Management includes annual reporting requirements for both the permitted grower and the end-user of poultry waste. The regulatory changes became effective on Feb. 17, 2021, with reporting requirements being phased in over the next two years. Additionally, the agency completed the development of a poultry transfer database to include a portal for external users to report their poultry transfer data more efficiently and securely. |
| A25 | WIP Initiative #30 | DEQ | Reissue the Virginia Pollution Abatement Regulation and General Permit for Poultry Waste Management:Present proposed language to the State Water Control Board. This stage will include a 60-day comment period and at least one public hearing. Present final language to the State Water Control Board.Upon Board approval, publish the final regulation in the Virginia Register to become effective at least 30 days after publication. | Apr. 30, 2020Sept. 30, 2020Dec. 31, 2020 | A Technical Advisory Committee met four times. Staff developed the proposed regulation and presented the language to the State Water Control Board on Jun. 29, 2020. The proposed language was approved by the State Water Control Board for public notice. Staff held two public hearings during the 60-day public comment period. The final language was presented to the State Water Control Board on Dec. 9, 2020. The Board voted to adopt the final language as presented by staff. Unforeseen delays occurred during this process due to the COVID-19 pandemic. The final regulation became effective on Feb. 17, 2021. |
| A26 | WIP Initiative # 32 | VDACS | Pilot long-term marketing plan to promote certain farm products grown on farms implementing a RMP. VDACS, in conjunction with DCR, will develop a marketing plan for products to be sold under a specific brand that identifies that the products were produced on an operation fully implementing a RMP. A recognizable logo will be developed for the products. | Dec. 31, 2020 | Initiative and milestone were not completed by the target date due to key vacancies and the COVID-19 pandemic. Marketing staff was focused on the division’s food distribution programs and economic development recovery functions during the pandemic. A new 2022-2023 programmatic milestone was created (A-37) regarding the development of a tiered certification program under the Virginia Grown domestic marketing program for products grown under a Resource Management Plan or Conservation Plan. |
| A27 | WIP Initiative # 34 | VDACS | VDACS will update the current Agriculture and Forestry Industries Development (AFID) program web page to promote the availability of the funds for projects involving operations such as oyster aquaculture or nurseries producing native plants for stormwater BMPs. | Dec. 31, 2020 | Completed Sept. 2020. |
|  |  |  | Wastewater & Septic - Key Ongoing Activities |  |  |
| W1 |  | DEQ | Publish Notice of Intended Regulatory Action for reissuance of watershed general permit (9VAC25-820).Establish Technical Advisory Committee and developed proposed watershed general permit regulation for consideration by State Water Control Board.Reissue watershed general permit. | Mar. 31, 2020Mar. 31, 2021Dec. 31, 2021 | The reissuance of the watershed general permit (9VAC25-820) was approved by the State Water Control Board on Jun. 29, 2021 and the permit becomes effective on Jan. 1, 2022.  |
| W2 | p. 8 | DEQ | Continue implementation of septic BMPs to address local impairments within the Chesapeake Bay watershed in Section 319(h) and Water Quality Improvement Fund (WQIF) implementation project areas. | Dec. 31, 2021 | DEQ continues to utilize EPA 319 funding to fund the installation of septic BMPs across the Chesapeake Bay watershed, and is working with planning district commissions and localities on BMP reporting. |
|  |  |  | Wastewater & Septic – WIP Chapter 7 Initiatives |  |  |
| W3 | WIP Initiative # 45 | DEQ | Conduct annual Water Quality Improvement Fund (WQIF) Requests Estimates Report and include findings in the annual Chesapeake Bay and Virginia Waters Clean Up Plan Report for the Governor and Virginia General Assembly. | Nov. 1, 2020,Nov. 1, 2021 | The report can be found on [Virginia's LIS webpage.](https://rga.lis.virginia.gov/Published/2021/RD682)Governor Northam proposed and the General Assembly approved significant ARPA funding for CSOs, wastewater and septic needs in the 2021 Special Session II. Governor Northam proposed additional ARPA funding for wastewater and CSOs in the FY 2023-2024 budget. The budget proposal is available on [Virginia’s LIS website](https://budget.lis.virginia.gov/bill/2022/1/). |
| W4 | WIP Initiative #51 | Virginia Department of Health (VDH) | Manage the Wastewater Infrastructure Workgroup. | Ongoing | Jul. 22, 2019: Joint letter of agreement creating the workgroup signed. Oct. 16, 2019: First workgroup meeting held.Jul. 1, 2021: [Senate bill 1396](https://lis.virginia.gov/cgi-bin/legp604.exe?ses=212&typ=bil&val=sb1396) permanently established the workgroup in Code until 2030.Funding provided to VIMS to continue mapping failed/failing septic systems. |
| W5 | WIP Initiative # 52 | DEQ | Publish Notice of Intended Regulatory Action (NOIRA) to amend Water Quality Management Planning Regulation (9VAC25-720) to (1) include Chlorophyll-a based wasteload allocations for significant James River dischargers, (2) re-evaluate industrial significant wasteload allocations and (3) establish floating wasteload allocations for significant municipal dischargers.Establish Regulatory Advisory Panel and develop proposed regulatory amendments to 9VAC25-720 for consideration by State Water Control Board.Initiate stakeholders group to review wastewater loads and identify cost-effective options to achieve wastewater nutrient load levels with reasonable assurance consistence with the needs of the Phase III WIP.Present wastewater options report to General AssemblyComplete Amendments to 9VAC25-720. | Nov. 25, 2019July 1, 2020Dec. 1, 2020Dec. 31, 2021 | NOIRA public comment period ended Feb. 19, 2020.Established Apr. 16, 2020The final wastewater report, [Review of Wastewater Nutrient Concentrations and Trends in Virginia’s Chesapeake Bay TMDL Phase III Watershed Implementation Plan](https://rga.lis.virginia.gov/Published/2020/RD630), was published to the Virginia’s Legislative Information System in Dec. 2020.[HB 2129](https://lis.virginia.gov/cgi-bin/legp604.exe?212+ful+CHAP0363) adopted in Special Session I of the General Assembly eliminated the floating wasteload allocation approach in WIP Initiative #52 and replaced it with the Enhanced Nutrient Removal Certainty (ENRC) Program. The ENRC program includes upgrade/consolidation projects at 13 POTWs and reduced nutrient wasteload allocations at 7 POTWs. The ENRC reduced nutrient allocations were adopted by the State Water Control Board in Jun. 2021. Amendments to 9VAC25-720 to include (1) chlorophyll-a based TP allocations in the James River Basin and (2) transfer of nutrient allocations for five industries to the Nutrient Offset Fund were presented to and approved by the State Water Control Board on Dec. 14, 2021 along with amendments to the watershed general permit (9VAC25-820) to implement the chlorophyll-a and ENRC Program based allocation reductions. |
| W6 | WIP Initiative # 53 | DEQ | Submit for executive review a Notice of Intended Regulatory Action to amend Sewage Collection and Treatment Regulations (9VAC25-790).Establish Regulatory Advisory Panel and develop Proposed Regulatory Amendments for consideration by State Water Control Board. | Jul. 1, 2021Dec. 31, 2021 | Programmatic action has been carried over to the 2022-2023 Milestones. Preparation of a NOIRA is underway and is anticipated in late Jan. 2022. |
| W7 | WIP Initiative #54 | VDH | Pilot shifting oversight of the septic pump-out program from certain localities to the VDH. | Nov. 1, 2020 | Jul. 2019: VDH meet with Planning District Commissions (PDCs) and DEQ. Anticipate interim report to General Assembly by Jan. 2020. Anticipate final report to General Assembly by Nov. 2020.Aug. 2021: [Final report](https://rga.lis.virginia.gov/Published/2021/RD342/PD) and recommendations on a pilot program were submitted. Additional authority and funding is required to implement. |
| W8 | WIP Initiative #55 | VDH | Designate VDH as a state certifying authority and provide sales tax exemption for community systems serving 10 or more households that use total nitrogen (TN) reducing treatment systems. | Feb. 29, 2020 | Mar. 18, 2019: HB 2811 became effective making VDH a certifying authority. Aug. 20, 2019: Draft policy to implement HB 2811 shared with onsite advisory committee. Anticipate completion of public comment process for policy/effective date in Feb. 2020.Nov. 1, 2021: Policy became effective on Mar. 19, 2020. VDH has granted three exemptions to date. |
| W9 | WIP Initiative # 56 | VDH | VDH to establish by regulation TN limits for all OSS dispersing greater than 1,000 gallons per day (GPD), including Conventional OSS. | TBD | Update will be part of overall revisions to the Sewage Handling and Disposal Regulations. Anticipate initial workgroup meeting to revise regulations to begin prior to the end of 2019.Nov. 1, 2021: Discussed overall revisions with sewage handling and disposal advisory committee and we have set up sub-workgroups to address various components including Nitrogen requirements for conventional systems dispersing greater than 1,000 GPD. The sub-group for climate change met in 2021, but the other sub-group meetings were pushed to early 2022. |
|  |  |  | Developed Lands (Regulated and Unregulated Urban) – Key Ongoing Activities |  |  |
| D1 |  | DEQ | Complete review of Phase II MS4 TMDL Action Plans. | May 30, 2020 | All Action Plan reviews completed and final comment letter sent out in Aug. 2021. |
| D2 |  | DEQ | Continue implementation of Virginia Stormwater Management Program and Virginia Erosion and Sediment Control Program. | Ongoing | DEQ continues to implement the VSMP and VESCP with the assistance of local governments, where applicable. |
| D3 |  | DEQ | Reissue Arlington MS4 Permit.  | Jul. 30, 2020 | Permit reissued Jul. 1, 2021. |
| D4 |  | DEQ | Reissue Prince William and Chesterfield MS4 Permits. | Dec. 31, 2020 | Initial draft permits expected Dec. 31, 2021. DEQ working to finalize $150,000 grant from EPA to assist in permit issuance. The 2022-2023 Milestones include new issuance target of Jun. 30, 2022. |
| D5 |  | DEQ | Reissue Fairfax and Henrico MS4 Permits. | Jun. 30, 2021 | DEQ working to finalize $150,000 grant from EPA to assist in permit issuance. 2022-2023 Milestones include new issuance target of Dec. 31, 2022. |
| D6 |  | DEQ | Reissue Chesapeake, Hampton, Newport News, Norfolk, Portsmouth and Virginia Beach MS4 Permits. | Mar. 30, 2022 | DEQ working to finalize $150,000 grant from EPA to assist in permit issuance. 2022-2023 Milestones include new issuance target of Sept. 30, 2032. |
| D7 | p. 154 | DCR | Report on linear feet of verified tidal shoreline stabilized via DCR Shoreline Erosion Advisory Service Program. | Annual | DCR-SEAS has verified and reported BMPs installed to stabilize tidal shorelines as follows:reporting year linear feet2017 93,5542018 106,5672019 30,5862020 12,8952021 49,318 |
| D8 |  | VDOF | Forest Planting – VDOF will continue to leverage partnerships and collaborative efforts to establish afforestation in urban areas. Continue to seek stable general fund budget support. Provide partners with tree planting tracking program to enhance recording. Develop Green Infrastructure planning efforts and Urban Forest Management Plans. | Dec. 31, 2021 | Pending the recent changes resulting from HB2485 and SB 1343 the Healthy Watershed Forests Initiative can move forward. Meetings currently being scheduled with pilot communities for potential role out of contracts for 2022.  |
| D9 |  | VDACS | Utilize fertilizer tonnage reporting system data to report annual fertilizer sales to DEQ. | Ongoing | [Annual report of fertilizer sales](https://www.vdacs.virginia.gov/plant-industry-services-agricultural-commodity-inspection.shtml#materials) posted on agency website by Jan. 31 each year for previous fiscal year. |
| D10 |  | VDACS | Utilize annual fertilizer application data to report acres of non-agricultural lands under management by Certified Fertilizer Applicators (CFAs) and receiving fertilizer in accordance with Nutrient Management Standards and Criteria. | Ongoing | Reported annually in June. |
|  |  |  | Developed Lands (Regulated and Unregulated Urban) – WIP Chapter 7 Initiatives |  |  |
| D11 | WIP Initiative # 40 | VCE / OSNHR | Conduct expanded Healthy Virginia Lawns Program:1) recruit at least one new Extension Unit office to adopt the Healthy Virginia Lawns program for implementation; 2) provide program support to existing Extension programs in Fairfax, Henrico, and Prince William counties with a goal of 20 % growth either by clients, plans, or acres under urban nutrient management or a combination of all three components; 3) encourage the use of summer interns in local Extension offices to promote best practices for proper lawn maintenance that encourages Bay-friendly or watershed-friendly practices; 4) report to DEQ the potential nutrient reductions for nitrogen, phosphorus, or sediment based on the number of acres of residential lawn being managed under a certified plan; and 5) develop a robust evaluation plan to capture short-term and mid-term impacts from Healthy Virginia Lawns clients. | Spring 2020 | No progress to report on this item. VCE lacks the organizational capacity (i.e., a program coordinator) to carry out this effort and the COVID-19 pandemic hampered existing efforts. VCE may have better success in the future if the OSN proposed budget is approved that includes funds to support an HVL program coordinator.Governor Northam’s 2023-2024 proposed budget includes funding for VCE technical assistance. The budget proposal is available on [Virginia’s LIS website](https://budget.lis.virginia.gov/bill/2022/1/). |
| D12 | WIP Initiative # 41 | VCE / DCR | Implement an urban nutrient management pilot project to train youth, via the VCE 4-H Program, to make turf grass management recommendations for homeowners. | Dec. 31, 2021 | This project was postponed indefinitely due to the COVID-19 pandemic. VCE staff initiated curriculum development but stopped until another source of funding can be found.DCR has expressed interest in attempting to apply for the funding jointly again in the near future.Governor Northam’s 2023-2024 proposed budget includes funding for VCE technical assistance. The budget proposal is available on [Virginia’s LIS website](https://budget.lis.virginia.gov/bill/2022/1/).  |
| D13 | WIP Initiative # 42 | VDACS / OSAg&F | Secured legislation to enhance existing lawn fertilizer contractor-applicator program. Effective Jul. 1, 2020.Amend 2 VAC 5-405, Regulations for the Application of Fertilizer to Nonagricultural Lands, to reflect regulatory changes required pursuant to Chapter 413 of the 2020 Acts of Assembly (SB 849): Consider additional amendments to this regulation to increase compliance. | Dec. 31, 2020 | [Virginia's General Assembly 2020 Session: Senate Bill 849 Lawn fertilizer; contractor-applicators.](https://lis.virginia.gov/cgi-bin/legp604.exe?201+cab+SC10122SB0849+UCSB1)On Jul. 21, 2020, the Board of Agriculture and Consumer Services approved an exempt action to adopt amendments necessary to conform 2 VAC 5-405, Regulations for the Application of Fertilizer to Nonagricultural Land to changes in Virginia’s Fertilizer Law. The exempt action, which decreased contractor-applicators’ and licensees’ annual reporting threshold, from 100 acres to 50 acres of nonagricultural lands to which fertilizer was applied, was published in the Register of Regulations on Oct. 12, 2020, and became effective on Nov. 11, 2020. On Jul. 21, 2020, the Board of Agriculture and Consumer Services also approved a NOIRA for 2 VAC 5-405, Regulations for the Application of Fertilizer to Nonagricultural Lands, to determine the appropriate increase to the current maximum penalty and assess the need for additional penalties that will ensure compliance with this regulation. VDACS held an industry stakeholder meeting to develop recommendations regarding penalties for non-compliance of Regulations for the Application of Fertilizer to Nonagricultural Lands. Industry stakeholders recommended increased penalty amounts to the existing penalty and two additional penalties for non-compliance. The stakeholder recommendations were approved by the Board of Agriculture and Consumer Services on Jul. 20, 2021, initiating Stage 2 of the standard regulatory process. |
| D14 | WIP Initiative #44 | DEQ | Enhance marketing of funding opportunities for Non-MS4 localities. Incorporate marketing survey results into draft comprehensive marketing plan. Finalize comprehensive marketing plan. Implement marketing strategy for non-MS4 localities prior to the October 2020 Stormwater Local Assistance Fund (SLAF) solicitation. | Dec. 31, 2021 | DEQ Clean Water Financing and Assistance Program development of comprehensive marketing plan to include enhanced outreach on SLAF use for non-MS4 stormwater projects expected completion date by the end of Jan. 2022. |
| D15 | WIP Initiative # 45 | DEQ | Conduct annual Stormwater Local Assistance Fund (SLAF) Requests Estimates Report and include findings in the annual Chesapeake Bay and Virginia Waters Clean Up Plan Report for the Governor and Virginia General Assembly. | Nov. 1, 2020,Nov. 1, 2021 | The report can be found on the [Virginia’s LIS website.](https://rga.lis.virginia.gov/Published/2021/RD682)Governor Northam’s 2023-2024 proposed budget includes Stormwater Local Assistance Funding. The budget proposal is also available on [Virginia’s LIS website](https://budget.lis.virginia.gov/bill/2022/1/). |
| D16 | WIP Initiative # 47 | DEQ | Establish Stakeholders Advisory Group and evaluate nutrient management planning under the Erosion & Sediment Control Regulations.Submit for executive review a Notice of Intended Regulatory Action to amend Erosion & Sediment Control Regulations (9VAC25-840).Establish Regulatory Advisory Panel and develop Proposed Regulatory Amendments for consideration by State Water Control Board if necessary. | Jan. 1, 2021Jul. 1, 2021Dec. 31, 2021 | No progress has been made during the reporting period. Programmatic action has been carried over to the 2022-2023 Milestones. |
| D17 | WIP Initiative # 48 | DEQ | Establish Stakeholders Advisory Group and develop protocol for re-evaluating post-construction water quality design criteria requirements. | Jan. 1, 2021  | DEQ and the Chesapeake Bay Program Office have met with key stakeholders three times during the past 12 months to develop the re-evaluation protocol. A fourth meeting is scheduled for early Dec. to finalize the necessary land use change analysis. Programmatic action has been carried over to the 2022-2023 Milestones. |
| D18 | WIP Initiative # 49 | DEQ | Perform a limited review of approximately 25 Virginia Stormwater Management Programs under the federally-delegated MS4 permitting and compliance program. | Sept. 30, 2020,Sept. 30, 2021 | DEQ to continue performing MS4 program audits. |
| D19 | WIP Initiative # 50 | DEQ | Provide proposed amendments to Guidance Memo No. 15-2005, Chesapeake Bay TMDL Special Condition Guidance for MS4s to group of interested permittees for review and comment.Public notice and finalize amendment to Guidance Memo No. 15-2005 Chesapeake Bay TMDL Special Condition Guidance for MS4s. | Apr. 1, 2020Jul. 31, 2020 | GM No. 20-2003 replaced GM No. 15-2005 and was signed on Feb. 6, 2021. |
| D20 | WIP Initiative # 50 | DEQ | Review Urban Tree Canopy expert panel report for potential inclusion of Tree Planting on Virginia Stormwater BMP Clearinghouse (i.e., potential BMP for use under the VSMP). Update Virginia Stormwater BMP Clearinghouse to include Tree Planting, if applicable. | Nov. 1, 2020 | The Stakeholder Advisory Group met two times during 2021 to review and discuss Urban Tree Canopy expert panel report. The report was completed in accordance with House Bill 520 (2020). It is available on [Virginia’s LIS webpage](https://rga.lis.virginia.gov/Published/2022/RD43). |
| D21 |  | DCR | Renew urban nutrient management plans on at least 5,000 acres of golf courses plans due to expire through 2021. | Dec. 31, 2021 | Golf course NMPs renewed for 11,012 acres from Jul. 1, 2019 – Jun. 30, 2021. Work to renew plans scheduled to expire in 2022 has begun. |
| D22 |  | Virginia Marine Resources Commission (VMRC) | Update standards/guidelines for living shorelines to implement Senate Bill 776, “ *D. The Commission shall permit only living shoreline approaches to shoreline management unless the best available science shows that such approaches are not suitable. If the best available science shows that a living shoreline approach is not suitable, the Commission shall require the applicant to incorporate, to the maximum extent possible, elements of living shoreline approaches into permitted projects.”* (§28.2-104.1(D)) | Jul. 1, 2020 – Dec. 31, 2020 | [Living Shoreline Legislation Tidal Wetlands Guidelines](https://lis.virginia.gov/cgi-bin/legp604.exe?201+ful+SB776ER) were updated in May 2021. The new Guidelines promote the conservation of tidal wetlands and acknowledge their critical role in helping coastal communitiesrespond to the challenges of sea level rise and a changing climate. |
|  |  |  | Forestry – Key Ongoing Activities |  |  |
| F1 | p. 120 | VDOF | Forest Buffer – VDOF will continue to collaborate with partners and provide technical assistance in NRCS, USDA and SWCD districts in order to achieve riparian forest buffer project goals. It will also use grant programs such as the Virginia Environmental Endowment (VEE) Middle James Grant program to capture projects where traditional cost share programs do not attract landowner participation. | 2020-2021 | Under the VEE Program, the VDOF has planted 19 projects with 103,605 trees on 186 acres of buffers in the Middle James River Watershed and 257 acres of additional RFB in Bay watershed.Under the Chesapeake Bay Foundation’s Mountains to Bay (M2B) grant, the VDOF has site prepared and planted 14 projects for 20.1 acres. |
| F2 | p. 120 | VDOF | Forest Buffer (with exclusion fencing) – Continue to coordinate and develop cost share programs with partner agencies to coordinate efforts and provide technical assistance on stream side exclusion practices. | 2020-2021 | The VDOF has partnered with the Chesapeake Bay Foundation, the James River Association to concentrate efforts in the James River Watershed. |
| F3 | p. 121 | VDOF | Tree Planting – VDOF will continue to utilize Reforestation of Timberland funding, Ag. BMP, Environmental Quality Incentives Program (EQIP), Conservation Reserve Enhancement Program (CREP), NRCS and other cost share programs to impact tree planting projects in the watershed, including outreach efforts and technical assistance to provide a dedicated focus on program improvements, expansion and implementation. | 2020-2021 | Under the VEE Program, the VDOF has planted 19 projects with 103,605 trees on 186 acres of buffers in the Middle James River Watershed and 257 acres of additional RFB in Bay watershed.Under the Chesapeake Bay Foundation’s Mountains to Bay (M2B) grant, the VDOF has site prepared and planted 14 projects for 20.1 acres. |
| F4 | p. 121 | VDOF | Forest Harvesting Practices – VDOF will continue to provide technical assistance to USDA conservation agencies, SWCDs and landowners for afforestation, reforestation and implementation of riparian forest buffers; continue monitoring and enforcement of the Silvicultural Water Quality Enforcement program; and continuation of logger education programs through the SHARP logger and Sustainable Forest Initiative and training programs.  | 2020-2021 | Over the past two-year period, VDOF in conjunction with the SHARP Logger Program conducted 29 classes with 976 loggers, foresters and forest practitioners in attendance on harvest planning, and BMP implementation. VDOF has created four new programs for the SHARP Logger Program which includes two mandatory face-to-face programs on forestry updates where the instructor goes over the BMP monitoring program results and focuses on those BMPs that show up as needing improvement on those results. Each of these programs is an hour and a half in length. Continuous BMP Implementation monitoring has continued with Annual BMP Monitoring Reports being produced in Feb. 2020 and Feb. 2021. Results have been posted to the VDOF website.BMP compliance results for the Bay Watershed for calendar year 2020 was 95.5%. This encompassed 4,623 harvesting jobs (5.3% increase from 2019), resulting in 20,197 inspections on 204,878 acres.A total of 50 projects were completed with the previous cycle of cost-share funding, a glitch in funding for 2020 pushed that funding to be allocated in 2021. 16 projects have already been approved utilizing 2020 funding and VDOF is currently awaiting 2021 funding to continue signups for the current funding cycle. VDOF has taken enforcement action on 63 sites within the Chesapeake Bay Watershed under the Commonwealth’s Silvicultural Water Quality Law. |
| F5 |  | VDOF | Urban Tree Canopy Program – Pursue consistent General Fund support to expand capacity of Urban and Community Forestry Program, utilize Urban Tree Canopy Analysis data, and support tree canopy analysis in localities. | Dec. 31, 2021 | Over the past two planting seasons (Spring 2020 / Spring 2021) there have been 247 urban canopy projects in the Bay watershed that have planted over 27,430 trees on riparian and urban projects throughout the Virginia portion of the Bay watershed under the Virginia trees for Clean Water Program which is funded though WQIF as well as EPA CBRAP and the U. S. Forest Service Chesapeake Bay Grant funding.Completed field work and data capture on urban heat island studies in 12 municipalities to guide future work and completed an internal “Riparian Forest Buffer Guidance Document”. The VDOF has also worked with the Green Infrastructure Center to complete a legislative review of existing legislation impacting urban canopy and urban forest projects. |
| F6 |  | VDOF | Improve technical assistance, collaboration and oversight of stream protection projects. Increase riparian forest buffers and urban tree canopy. | Dec. 31, 2021 | Over the past two planting seasons (Spring 2020 / Spring 2021) there have been 247 urban canopy projects in the Bay watershed that have planted over 27,430 trees on riparian and urban projects throughout the Virginia portion of the Bay watershed under the Virginia trees for Clean Water Program which is funded though WQIF as well as CBRAP and the U. S. Forest Service Chesapeake Bay Grant funding. |
|  |  |  | Forestry – WIP Chapter 7 Initiatives |  |  |
| F7 | WIP Initiative # 35 | VDOF | Implement VDOFs Healthy Watershed Initiative recommendations to pilot proof of concept activities with a locality or localities within the Rappahannock River Basin study area designed to aggregate and represent landowners interested in securing carbon credits in the voluntary and/or regulatory carbon markets for retaining their forestland. Work with pilot locality(ies) to design and implement an economic development authority (EDA) mechanism as authorized by the General Assembly in its 2019 session to provide EDAs with such authority. Establish contractual framework and locality point of contact to ensure that the legislative change regarding the EDA success is properly implemented. Success metrics will be number of contracts executed, number of acres enrolled in carbon credit markets and development of EDA. | Dec. 31, 2021 | In the past two years changes in legislation were needed to address aggregation of landowners to participate in the carbon program to get the market to scale. This resulted in changes to the Economic Development Authority (HB2485). In addition, protections regarding changes to the Freedom of Information Act to protect trade secrets and proprietary records was also identified as a need and addressed by SB1343. |
| F8 | WIP Initiative # 35 | VDOF | Implement VDOFs Healthy Watershed Initiative – Create policy and financial infrastructure needed to facilitate forest and agricultural land conservation and retention at a landscape scale on a long-term basis. Metrics: Securing term length carbon credit contracts for forestland owners within the voluntary carbon credit market, realized market access and number of acres enrolled in the carbon sequestration market will measure success.  | Dec. 31, 2021 | Pending the recent changes resulting from HB2485 and SB 1343 the Healthy Watershed Forests Initiative can move forward. Meetings currently being scheduled with pilot communities for potential role out of contracts for 2022. |
| F9 | WIP Initiative# 35, 36, & 37 | VDOF | Forest Buffer – VDOF will pursue a Watershed Coordinator position to increase implementation of programs and strategic initiatives. Continue to utilize existing programs and partnerships to deliver on buffer establishment in urban sector. The VDOF will work with urban localities within the watershed to discuss barriers and needs to ensure urban canopy retention and establishment. Increases in WQIF money received will be used to administer the “Trees for Clean Water” grant program. VDOF will develop a matrix to realize effectiveness of “Maturity Measurements” concept. Continue to utilize community revitalization projects, raise citizen awareness and educational opportunities through outreach efforts and partner projects.  | Dec. 31, 2021 | Watershed Program funded in 2021. Watershed Program Manager hired and in place Oct. 2021. |
| F10 | WIP Initiative # 36, 37 | VDOF | Improve technical assistance, collaboration and oversight of stream protection projects. Pursue funding for a Watershed Program Manager for Chesapeake Bay Initiatives. Increase riparian forest buffers, urban tree canopy, urban stormwater credit practices, develop BMPs for mitigation of concentrated flows, seek crediting program for rural and urban forestland owners plan development and ensure crediting for Green Infrastructure practices and plans. Develop a Watershed Prioritization tool to target specific areas of need within VDOF Work Areas to drive implementation of projects. | 2020-2021 | Watershed Program funded in 2021. Watershed Program Manager hired and in place Oct. 2021.VDOF utilized WQIF dollars to support grant efforts to implement the Virginia Trees for Clean Water Grants program, focused efforts in the Middle James River Watershed utilizing Virginia Environmental Endowment grant. Results in this two year cycle are the completion of the “My Tree Counts” data collection application that allows for self-reporting of tree establishment projects to enhance project recording, continuation of DEQ/EPA CBRAP funding for “Turf to Trees” program (additional $150,000), completion of the “VDOF Tree Policy Report” with the Green Infrastructure Center, support and funding for 12 Heat Island study’s. Completion of the Watershed Prioritization Tool for planning and targeting work at the local VDOF office level completed. Work continues on “Maturity Measurement” concept with hire of Watershed Program Manager. |
| F11 | WIP Initiative # 37 | VDOF | Urban Tree Canopy Program – Develop and provide a tree tracking platform to record and report on tree planting projects using data expected to be available to Chesapeake Bay jurisdictions through Chesapeake Conservancy Cooperative Agreement with federal government. | 2020-2021 | “My Tree Counts” application completed, field tested and in use. Improvements to program continue to occur as feedback from users is acquired and Model Template changes are required. |
| F12 | WIP Initiative# 37 | VDOF | Tree Planting Forest Canopy – Utilize Green Infrastructure plans, Urban Forest Management Plans and institute the USFS Tree Canopy Analysis and Tree Inventory programs to develop a matrix to focus on Maturity Measurement protocols.  | Dec. 31, 2021 | OngoingMaturity Measurements protocols and methodology are currently being researched by the Watershed Program Manager utilizing data sources from the Chesapeake Bay CAST Tool, new USGS spatial data, the VDOF Urban and Community Forestry staff and ESRI ArcView tools. |
| F13 | WIP Initiative # 38 | VDOF | The Secretaries of Agriculture and Forestry and Veterans and Defense Affairs in partnership with the Governor’s Special Assistant for Coastal Adaptation and Protection, the Commonwealth’s military installations, local governments, and NGOs representing conservation, farming, forestry, private landowners and others are heading a geographically diverse partnership to seek a Sentinel Landscape designation in 2021 from the federal government encompassing much of the eastern portion of the Commonwealth. The Department of Forestry has been designated the lead agency responsible for the effort. The federal Sentinel Landscapes Partnership initiative was created to sustain military readiness, reduce the effects of incompatible development around military installations, conserve working forests and agricultural lands and protect wildlife habitat by focusing on areas where these priorities overlap. The military, federal agencies, including the Departments of Defense, Agriculture and the Interior (DoD, USDA and DOI), state governments, NGOs, and other partners coordinate their conservation and working lands programs in support of ranching, farming, forestry, and conservation practices compatible with the military installations in partnership with the landowners in the landscape.  | 2020-2021 | Initial submission/application submitted to Federal Coordinating Committee Mar. 2021. Awarded full application submission status.Full application submitted Aug. 2021. Anticipated decision regarding designation expected by late Jan. 2022. |
| F14 | WIP Initiative # 39 | VDOF | Encourage Tree Conservation. Review existing legislation. Work with localities to potentially enhance state code to reflect the benefits of conserving trees that provide environmental benefits. Watershed wide and statewide meetings to be held to determine barriers to Tree Conservation in urbanized and urbanizing areas of Commonwealth.  | 2020-2021 | “VDOF Tree Ordinance Policy Report” completed Jul. 2020.The Secretaries of Natural and Historic Resources and Agriculture and Forestry convened a tree canopy advisory group in 2021 pursuant to two legislative mandates. The report is available on [Virginia’s LIS website](https://rga.lis.virginia.gov/Published/2021/RD530).Governor Northam’s 2023-2024 proposed budget includes funding for tree canopy implementation and technical assistance needs. The budget proposal is available on [Virginia’s LIS website](https://budget.lis.virginia.gov/bill/2022/1/). |
|  |  |  | Multiple Sectors – WIP Chapter 7 Initiatives |  |  |
| M1 | WIP Initiative # 1 | DEQ | Implement enhancements to BMP Warehouse system to facilitate verification. Update and deliver training module following system upgrades. Continue working with implementation partners to ensure complete and accurate reporting. | Dec. 31, 2020 | BMP Warehouse Training and Updates held Sept. 2, 2021. |
| M2 | WIP Initiative # 2 | DEQ / OSNHR | Conduct a series of facilitated discussions with the Secretary of Natural Resources’ (SNR) Chesapeake Bay Preservation Act (CBPA) Extension Work Group, to consider broadening application of the CBPA west of Tidewater Virginia across the entire Bay Watershed.Revise CBPA regulations to implement “*(vi) coastal resilience and adaptation to sea-level rise and climate change*” pursuant to [House Bill 504](https://lis.virginia.gov/cgi-bin/legp604.exe?201+ful+HB504ER2). | Jun. 30, 2020 | Three meetings were held from Jul. – Oct. 2019; provided info on CBPA and Regulations; heard from localities now administering CBPA and several that voluntarily implemented elements of the CBPA in the headwaters area. SNR closed Oct. mtg. with expectation to not propose any legislation for 2020 G.A.; likely to continue discussions with a revised Work Group that will focus on enhancements to existing program and explore ways to promote adoption of CBPA provisions that make sense for water quality protection and other co-benefits.Final CPBA Regulations effective Sept. 29, 2021. |
| M3 | WIP Initiative # 3 | DEQ / OSNHR | Develop state lands data layer and determine reductions required. Establish state lands WIP development team. Final state lands WIP will be completed no later than 2021. | 2020-2021 | DEQ, in partnership with the Virginia Information Technologies Agency, completed the Virginia Statewide Land Cover Database. The database is available on [DEQ’s Chesapeake Bay Phase III WIP BMP Verification webpage](https://www.deq.virginia.gov/our-programs/water/chesapeake-bay/phase-iii-wip/bmp-verification).The State Lands WIP (SWIP) was completed and released June 2021 along with Executive Directive 17. Information on both documents can be accessed on [DEQ’s Chesapeake Bay Phase III WIP webpage](https://www.deq.virginia.gov/our-programs/water/chesapeake-bay/phase-iii-wip). A SWIP Interagency Technical Team (ITT) was formed to assist state agencies implementing the SWIP. The Green Infrastructure Center (GIC) created a BMP GIS analysis and Excel tool to help state agencies implement BMPs on state lands. This tool will aid agency planners and managers more effectively implement state agency goals to help all of Virginia meet the Chesapeake Bay TMDL by 2025. The tool will be completed by GIC in late Jan. 2022. Governor Northam’s 2023-2024 proposed budget includes funding to implement the SWIP. The budget proposal is available on [Virginia’s LIS website](https://budget.lis.virginia.gov/bill/2022/1/). |
| M4 | WIP Initiative # 4 | Department of Wildlife Resources (DWR) | Provide technical assistance to public and private landowners, impacting wetlands through management, enhancement or restoration. | Dec. 31, 2021 | The DWR continued to help private and other public landowners with wetlands restoration or enhancement on their properties. This technical assistance included providing information about how to restore wetlands and the steps needed to do so, how to best manage wetlands located on properties (including controlling invasive species), and determining the feasibility of restoring or enhancing wetlands on these properties. DWR staff met with over 20 individuals to discuss potential projects and management during 2021. The DWR was successful in hiring a new Wetland Biologist this fall and will be more active in this category in the coming year. |
| M5 | WIP Initiative # 4 | DWR | Develop and implement wetland restoration and/or enhancement projects on DWR lands. | Dec. 31, 2021 | The DWR continued its cooperative work with Ducks Unlimited to install a living shoreline on the Hog Island Wildlife Management Area in Surry County. This project now protects over 6,000 linear feet of shoreline and will reduce siltation and nutrient loading in the James River. Funding for this work has been provided through the Surry-Skiffes Creek-Wheaton Mitigation Agreement directly to the DWR and via a James River Water Quality Improvement grant awarded to Ducks Unlimited by the Virginia Environmental Endowment. The construction phase of the project is complete, and the remaining shoreline plantings will occur this winter and spring 2022.  |
| M6 | WIP Initiative # 4 | DWR | Collaborate with partners to secure $2,000,000+ in new funding to support wetlands acquisition, enhancement, or restoration projects. | Dec. 31, 2021 | The DWR has applied for and received approval for $6,650,000 in new funding for the acquisition of forested wetlands on the Eastern Shore of Virginia (9,800+ acres). Funds have been awarded by the U.S. Fish and Wildlife Service (National Coastal Wetlands Conservation Grant program and North American Wetlands Conservation Act grant program; $4 million total), Virginia Land Conservation Foundation (up to $1,115,000), American Bird Conservancy ($50,000), Ducks Unlimited ($400,000), The Nature Conservancy ($500,000), and the National Fish and Wildlife Foundation (Acres for America; $600,000). The DWR expects to close on these acquisitions in late 2021 and 2022. |
| M7 | WIP Initiative # 4 | DWR | Leverage DWR’s Virginia Migratory Waterfowl Stamp Fund competitive grant program to fund 6 projects that restore or enhance wetlands through collaborations with 5 unique non-governmental partners. | Dec. 31, 2021 | The DWR's Wetlands Biologist is responsible for leading the Agency's Migratory Waterfowl Stamp Fund competitive grant program. The position was filled in Sept 2021. Now that the position is filled, the Agency will issue a request for proposals for funding wetland restoration or enhancement projects, with the expectation of grant award in mid-2022. |
| M8 | WIP Initiative # 4 | DWR | Provide 500 hours of coordination to state, regional and national wetlands and associated species conservation planning efforts, including Phase III WIP, Atlantic Coast Joint Venture, North American Waterfowl Management Plan, Virginia Wildlife Action Plan, U.S. Shorebird Conservation Plan, and North American Waterbird Conservation Plan, impacting of wetlands via acquisition, enhancement or restoration. | Dec. 31, 2021 | The DWR continued to work through a variety of partnerships to advance wetlands conservation goals across the Commonwealth. Becky Gwynn serves as the Virginia representative on the Atlantic Coast Joint Venture Management Board. Dr. Gray Anderson represents Virginia on the Atlantic Flyway Council, and Dr. Gary Costanzo serves as the Virginia representative on the associated Technical Section. Three other DWR biologists participate in and serve on numerous working groups of the Technical Section. Dr. Anderson is a member of the North American Bird Conservation Initiative governing body. Through all of these partnership programs, the DWR coordinates regularly on the actions of regional and national planning efforts, such as the North American Waterfowl Management Plan, U.S. Shorebird Conservation Plan, and North American Waterbird Conservation Plan, with particular focus on activities that impact the acquisition, enhancement, restoration or protection of wetlands. Amy Martin serves as DWR's representative to the Interagency Review Team (IRT) of the Aquatic Resources Trust Fund, with the purpose of overseeing wetland and stream mitigation in Virginia and ensuring the projects provide positive benefits for wildlife and have no negative impacts on Threatened and Endangered species. VDWR participates on the Northeast Climate Change Workgroup (understanding climate-related impacts to wetlands to inform management and conservation efforts); DWR participates as a member of the Coastal Policy Team of the Virginia Coastal Zone Management Program; and we engaged in the newly-authorized Chesapeake WILD federal program that will, in part, give Virginia the opportunity (and potential funding) to identify and conserve/restore key wetlands in the Bay watershed. Virginia's Wildlife Action Plan is an aspect of evaluating acquisition proposals submitted to the Virginia Land Conservation Foundation. Actions to acquire, enhance and restore wetlands remain an on-going emphasis for the Virginia Eastern Shore Conservation Alliance, of which the DWR is a founding member. DWR culminated the acquisition of a new Wildlife Management Area (Proposed Guinea Marsh WMA) with the assistance of the Wildlife Foundation of Virginia and utilizing North American Wetland Conservation Act grant funds. This new property is located in Gloucester County and will open 738 acres of marshland habitat for hunting, wildlife viewing and fishing. DWR staff involvement in these efforts in 2021 exceeded 800 hours. |
| M9 | WIP Initiative # 5 | DEQ | Continue work with the Bay Program through the Watershed Technical Workgroup to seek approval of methods to account for Bay nitrogen reductions associated with actions to reduce air emissions. | Dec. 31, 2020 | In collaboration with Maryland, additional conversations with Bay Program workgroups were conducted. Based on those conversations, crediting water quality benefits from air emissions reductions will be considered for inclusion in the Phase 7 model development.    |
| M10 | WIP Initiative # 8 | DEQ | Coordinate with Virginia Tech researchers to install and evaluate the performance of bioreactors to reduce legacy nitrogen loads from springs. | Dec. 31, 2020 | Several additional bioreactors have been installed in Virginia's Shenandoah Valley through a collaboration between Ridges to Reefs and Virginia Tech. The performance of the bioreactors are being monitored and are anticipated to be reported to the Bay Program in the 2022 progress report. Additional bioreactors are anticipated for installation in 2022-2023 through a DEQ Pay-for-Performance pilot program. Additional funding to continue the PFDP program is provided in the proposed budget for FY 2023-2024. |
| M11 | WIP Initiative #10 | DEQ / OSNHR | The Commonwealth, in consultation with stakeholders, will consider options available under the Clean Water Act to apply to the Administrator of the EPA for a No Discharge Zone (NDZ) for all or portions of the Chesapeake Bay mainstem and its tributaries, including evaluating whether or not state legislative changes may be required to facilitate such an application, and identifying funding needs and sources. | Dec. 31, 2021 | DEQ is currently investigating options for additional NDZs in the Chesapeake Bay mainstem and its tidal tributaries as a part of the strategy in Virginia’s Phase III WIP, which provides that “[t]he Commonwealth, in consultation with stakeholders, will consider options available under the Clean Water Act to apply to the Administrator of the E[nvironmental] P[rotection] A[gency] for a No Discharge Zone (NDZ) for all or portions of the Chesapeake Bay mainstem and its tributaries.” This investigation includes the collection data of various forms and performing targeted stakeholder outreach to gain an understanding of the spectrum of perspectives, concerns, challenges, and areas of support surrounding options that may exist for increasing the number of NDZs in Virginia and, in particular, in all or portions of the Chesapeake Bay mainstem and its tidal tributaries. Continued NDZ efforts will be funded through the Chesapeake Bay Restoration Fund. |
| M12 | WIP Initiative # 11 | VMRC | Work with federal and non-federal partners to set tributary-specific oyster restoration goals and develop plans describing how these tributaries will be restored for each of the Virginia tributaries slated for large-scale oyster restoration as part of the 2014 Chesapeake Bay Watershed Agreement (Lafayette River, Lynnhaven River, Piankatank River, Lower York River, and Great Wicomico River). Continue on water construction to complete the established restoration goals in these five tributaries and assist in the coordination of other partners planned restoration projects. Maintain, monitor, expand, and continue to protect past and ongoing restoration efforts throughout Virginia.Seek additional state capital funding for oyster restoration. | Restoration goals set and restoration plan developed in all five tributaries by Jun. 1, 2020.Ensure the protection, maintenance and expansion of restoration efforts through 2025 and beyond.Budget target date: Jul. 1, 2020 | Restoration goals have been set in the Lafayette, Lynnhaven, Piankatank and Lower York. Restoration plans have been completed in the Lafayette, Lynnhaven, and Piankatank. On water restoration construction is completed in the Lafayette. On water restoration is underway in the Lynnhaven, Piankatank and Lower York.Restoration goals and plans have been developed for all selected tributaries. An additional 6th tributary was selected for large scale restoration and completed in 2020. Two additional tributaries were completed in 2021, Great Wicomico and Piankatank, and funding has been secured to complete the remaining two, York and Lynnhaven, with completion expected by end of 2023.  |
| M13 | WIP Initiative # 12 | DCR is the lead, supported by Department of Historic Resources (VDHR), DWR, VDOF, Virginia Outdoors Foundation (VOF) | Update the ConserveVirginia model to include a water quality layer that will identify highest non-point loadings for N, P and S that would be reduced if the property was subject to BMPs and minimum conservation criteria as set forth in the updated Virginia Land Conservation Foundation (VLCF) grant manual.Conduct VLCF and Land and Water Conservation Fund (LWCF) grant rounds, scoring projects using ConserveVirginia.Continue to use ConserveVirginia to target state funded acquisitions and mitigation. | Spring 2020Fall 2020,Fall 2021Ongoing | ConserveVirginia is a key tool in guiding those investments, providing a map of Virginia’s highest conservation value lands, based on 24 mapped data inputs. The ConserveVirginia map currently includes more than **7 million acres of lands** representing top priority conservation values in seven categories. |
| M14 | WIP Initiative # 46 | DEQ | Establish long-term partnerships with local Planning District Commissions; execute grant contract with 15 Bay watershed PDCs to transition from planning to implementation, building on the momentum gained through the local engagement process for WIP III development. Work includes continued support for the PDCs to engage localities, regional and state partners regarding Bay WIP III programmatic actions and implementation activities. Training will be provided on available grant programs, and using Bay Program tools for BMP targeting to help inform PDC and local government decision making on BMP implementation. | Dec. 31, 2020, Dec. 31, 2021 | Two meetings with updates, training, and information sharing were held during 2021. Scope of work finalized and contracts expected to be issued by Jan. 31, 2022.Approximately $52,000/PDC is being distributed in pass-thru funds from the CBRAP grant. |
| M15 |  | OSNHR / Special Assistant for Coastal Adaptation and Protection | Complete Initial Coastal Resilience Master Plan “Phase 1”. This work supports WIP III implementation through emphasis on identifying and prioritizing natural and nature based features as a priority, based on analysis of actions and projects implemented or underway by planning district and regional commissions, localities and other stakeholder entities. It will focus on developing methods to further prioritize within the natural and nature-based features (NNBF) category to focus on those areas with the most potential and need for restoration, and as well as support for water management and best management practices and the co-benefits between them of ecosystem services and flooding protection. | Jul. 1, 2020 | The first edition or phase of the Coastal Master Plan will focus on setting the stage for Virginia’s Coastal future, defining the threat, identifying actions ongoing in Virginia’s localities and planning district and regional commissions, addressing floodplain and dam safety requirements, making recommendations to correct identified gaps and needs, examining anticipated financial impact, and defining goals and objectives to work through 2021. Will include public comments from planning districts/localities, state agencies, and federal partners.The Virginia Coastal Resilience Master Plan was issued in Dec. 2021. The Master Plan and web based planning tool are available on [DCR’s website](https://www.dcr.virginia.gov/crmp/plan). |
| M16 |  | OSNHR / Special Assistant for Coastal Adaptation and Protection | Initiate strategy development for Full Coastal Study based on recommendations and gaps from Coastal Master Plan Phase 1. Emphasize, need to identify and understand critical and vulnerable infrastructure across Coastal Virginia to develop evolutionary planning process and funding strategy to adapt and protect Virginia’s Coast. Strategy will incorporate other ongoing coastal study efforts across coastal Virginia and include alignment with WIP III objectives, NNBF prioritization, co-benefit and ecosystem service prioritization, collaborative federal, state, local actions, and environmental equity. | Dec. 31, 2021 | DCR is charged with implementation of the Virginia Coastal Resilience Master Plan and developing a statewide flood protection plan pursuant to §10.1-602. DCR will work with the Office of Diversity, Equity and Inclusion to develop a comprehensive outreach plan to engage under-represented communities. |
| M17 |  | OSNHR / Special Assistant for Coastal Adaptation and Protection | Develop plan for and draft Virginia Coastal Master Plan Phase 2. This expanded plan will include case studies and focus more on developing solutions for gaps identified in the first plan, and fully implementing the project database and prioritization process, plus outline a framework for full future condition modeling to facilitate state planning for coastal resilience for the future, in order to support outcomes of the Full Coastal Study. Work will align with and support WIP III actions and intent to encourage and prioritize green infrastructure, NNBF, ecosystem services, as a priority to prepare, protect and adapt Virginia’s coastal region and impacted watersheds. | Dec. 31, 2021 | Plan will expand on and address gaps, recommendations and objectives identified in Phase 1 of the Master Plan.DCR will work with contractor to broaden the analysis and characterization of hazards by including rainfall-driven, riverine, and compound flooding in the coastal hazard and impact assessments. Additional information on next steps can be found on the [DCR website](https://www.dcr.virginia.gov/crmp/plan).Related: Governor Northam as Chair of the Chesapeake Executive Council led development of Directive 21-1: Collective Action for Climate Change.DCR initiated the first two grant rounds for the Community Flood Preparedness Fund. Supported by RGGI proceeds, the Fund supports local government actions that build resilience and often address stormwater pollution and/or restore natural habitats. |
| M18 | Multiple WIP Initiatives | DEQ, DCR, VDACS, VDH, VDOF, OSNHR, OSAg&F, Office of Secretary of Health and Human Resources | Pursue additional state agency staff to implement multiple WIP initiatives. | Jul. 1, 2020 | Governor Northam’s final budget developed over the course of multiple legislative sessions and special sessions included additional staff for DEQ, DCR, VDACS, VDOF and VDH to implement the Phase III WIP.  |
|  |  |  | Trading and Offsets |  |  |
| T1 |  | DEQ | Publish annual watershed general permit nutrient loads report. | Apr. 1,2020, Apr. 1, 2021 | Annual nutrient loads reports published by Apr. 1of each year as required by state code. |
| T2 |  | DEQ | Publish annual watershed general permit trades report. | Jul. 1, 2020, Jul. 1, 2021 | Annual trades reports published by Jul. 1of each year as required by state code. |
|  |  |  | Reporting, Verification and Accountability |  |  |
| R1 |  | DEQ/DCR | Update BMP Verification QAPPs annually and submit to EPA for approval. | Dec. 1, 2020,Dec. 1, 2021 | Updated QAPPs were submitted to EPA by DEQ on Dec. 1, 2020 and Dec. 1, 2021.  |
| R2 |  | DEQ | Submit 2018-2019 Milestone Final Progress Report to EPA. | Jan. 15, 2020 | Progress report was submitted to EPA on Jan. 15, 2020. |
| R3 |  | OSNHR | Submit the Annual Chesapeake Bay and Virginia Waters Clean-Up Plan Report for the Governor and Virginia General Assembly. | Nov. 1, 2020,Nov. 1, 2021 | Reports were posted to Virginia’s Legislative Information System (LIS) website in Nov. 2020 and Nov. 2021. The FY 2021 report can be found on the [LIS website](https://rga.lis.virginia.gov/Published/2021/RD682).  |
| R4 |  | DEQ | Submit Annual Implementation Progress to EPA. | Dec. 1, 2020,Dec. 1, 2021 | DEQ submitted progress report to EPA on Dec. 1, 2020 and Dec. 1, 2021. |
| R5 |  | DEQ | Semi-Annual Reports for Chesapeake Bay Regulatory and Accountability Program (CBRAP) and Chesapeake Bay Implementation Grant (CBIG) contracts submitted to EPA. | Jan. 15, 2020,Jul. 15, 2020,Jan. 15, 2021,Jul. 15, 2021 | Reports were submitted on the following dates:Jan. 15, 2020,Jul. 15, 2020,Jan. 15, 2021,Jul. 15, 2021 |
| R6 |  | DEQ | Proposed annual Work Plans for Chesapeake Bay Regulatory and Accountability Program and Chesapeake Bay Implementation Grant contracts submitted to EPA. | Feb. 15, 2020,Feb. 15, 2021 | Reports were submitted on the following dates:Feb. 15, 2020,Feb. 15, 2021 |
| R7 |  | DCR | Conduct field inspections to verify agricultural BMPs and report findings. | Ongoing | Multiple types of BMP Verifications were conducted by SWCD staff: an annual statewide random selection, End-of-Lifespan Verifications on expiring BMPs in the Chesapeake Bay watershed, and special annual verifications of the intensive SL-10 Prescribed Grazing practice which mandates yearly grazing plan reviews and Pasture Conditioning Scores for enrolled acreage. |
| R8 | WIP Initiative # 33 | VDACS | Enhance verification of BMPs implemented as a result of Agricultural Stewardship Act (ASA).Contingent on receiving additional funding and full-time equivalents (FTEs),VDACS will increase staffing levels to assist with the tracking and verification of BMPs implemented to resolve ASA complaints. Additional resources are needed to keep up with the verification schedule necessary to ensure those BMPs are accounted for in the Bay Model. | Dec. 31, 2021 | Position included in the 2021 Appropriations Act. Additional FTE was added in Sept. 2021 to increase staff’s ability for tracking and verification. |
| R9 | WIP Initiative # 42 | VDACS | Contingent on receiving additional funding and full-time employees (FTEs),VDACS will create a position to audit turf fertilizer application records for contractor-applicators, state agencies, localities, and other government agencies. | Dec. 31, 2021 | Position included in the 2021 Appropriations Act. VDACS is currently recruiting for the position to assist with the program’s ability to audit turf fertilizer application records. |
| R10 | WIP Initiative # 42 | VDACS | VDACS will update the current Turf Fertilizer Reporting system to include a function for assisting with auditing a minimum of 10% of the reported acres annually. | Dec. 31, 2021 | Not completed by the target date.  VDACS has begun the process of auditing the turf fertilizer application reports and will consider updating the existing Turf Fertilizer Reporting system once the audit process matures and the necessary changes can be identified. |
| R11 | WIP Chapter 5.2 | DEQ | Append the Final Nutrient and Sediment Targets to the Phase III Watershed Implementation Plan. The final targets will be added to the Final Phase III WIP Tables spreadsheet available on DEQ’s Chesapeake Bay Phase III WIP Data webpage. | Jul. 1, 2020 | Targets were posted to the [DEQ website](https://www.deq.virginia.gov/our-programs/water/chesapeake-bay/phase-iii-wip/phase-iii-wip-data) in Jul. 2020. |
| R12 | WIP Initiative # 1, WIP Chapter 10.2 | DEQ | Develop and deploy a verification SOP template for use by implementation partners to satisfy Verification Program Plan requirements. | Dec. 31, 2021 | The verification SOP template was completed in Aug. 2021. DEQ then entered into MOAs with DWR, VDOF, DCR and VMRC to establish a cooperative relationship and to set out responsibilities between DEQ and partner agencies to align water quality, resilience and habitat restoration goals and solicit documentation of nitrogen, phosphorus and sediment reductions achieved by state agency restoration projects for annually reporting on Chesapeake Bay TMDL progress. |
|  |  |  | James River Phased Implementation / Chlorophyll Study |  |  |
| J1 | p. 137 | DEQ | Complete rulemaking for chlorophyll criteria amendments and submit for EPA review/approval and effective date. | Jan. 6, 2020 | State Water Control Board approved final amendments at their Jun. 27, 2019 meeting; Executive Review completed Aug. 26, 2019. Final public review period ended Oct. 16, 2019. Amendments submitted to EPA in Nov. 2019; approved by letter dated Jan. 6, 2020. Revised criteria now effective for regulatory purposes. |