Virginia Soil and Water Conservation Board
Workgroup Discussing VACS Implementation
Pocahontas State Park
Chesterfield, Virginia
December 13, 2022

TIME AND PLACE

The meeting of the Workgroup Discussing VACS Implementation took place at 9:00 a.m. on Tuesday, December 13, 2022 at Pocahontas State Park in Chesterfield, Virginia.

WORKGROUP MEMBERS PRESENT

Jay Ford, Chair, Chesapeake Bay Foundation*
Chad Wentz, Natural Resources Conservation Service
Cliff Williamson, Virginia Agribusiness Council
Jeremy Daubert, Virginia Cooperative Extension
Pamela Mason, Colonial Soil and Water Conservation District*
Kendall Tyree, Virginia Association of Soil and Water Conservation Districts
Adrienne Kotula, Chesapeake Bay Commission
Martha Moore, Virginia Farm Bureau Federation
Samuel Vest, Trout Unlimited

WORKGROUP MEMBERS NOT PRESENT

Adam Wilson, Holston River Soil and Water Conservation District*
Charles Newton, Shenandoah Valley Soil and Water Conservation District*

*Denotes Virginia Soil and Water Conservation Board Member

DCR STAFF PRESENT

Andrew Smith, Chief Deputy Director
Darryl Glover, Director, Soil and Water Conservation and Dam Safety and Floodplain Management
James Martin, Director, Division of Soil and Water Conservation
Christine Watlington, Policy and Regulatory Coordinator
Michael Fletcher, Board and Constituent Services Liaison
Sara Bottenfield, Agricultural Incentives Program Manager
Stuart Blankenship, Data Services Manager

OTHERS PRESENT

Tom Dunlap, James River Association
Jessica Shippen, Thomas Jefferson Soil and Water Conservation District

WELCOME AND INTRODUCTIONS

Mr. Ford called the meeting to order at 9:10 a.m. He advised that the first meeting of the workgroup was for listening to an overview of the programs under discussion.

Mr. Ford reviewed the charter for the workgroup from the motion passed by the Soil and Water Conservation Board at their September 2022 meeting.

Mr. Ford called for introductions of those present.

WORKGROUP CHARTER

Mr. Ford reviewed the workgroup charter.

> The Virginia Soil and Water Conservation Board (Board) directs the Department of Conservation and Recreation (Department) to convene a Workgroup to discuss implementation of the Virginia Agricultural Best Management Practices Cost-Share (VACS) Program and the impacts of implementation on Virginia's ability to meet its water quality goals, including the goals established in Virginia's Chesapeake Bay Phase III Watershed Implementation Plan (WIP). Additional topics of discussion should include, but are not limited to, the following:
>
> 1. Are there ways to increase participation in the VACS Program (and partner programs) to achieve the necessary nutrient and sediment reductions? a. In FY2022, there were approximately 2,100 participants in VACS. This is a small percentage of producers throughout the state participating and needs to increase in order to achieve the necessary reductions.
>
> 2. Are the practices that are currently being encouraged by the Board the practices that reflect the best return on investment for Virginia? a. How does the Board prioritize practices with the highest pollution reduction efficiencies?
>
> 3. Are there barriers to participation in VACS that could be diminished? a. Are there steps that could be taken to increase participation of small producers? i. Are there practices that could be developed for small producers that are not currently used in the VACS Program?
>
> The Workgroup will be comprised of, at a minimum, representatives from this Board as well as representatives from the following organizations:
>
> - Virginia Association of Soil and Water Conservation Districts;
> - Virginia Farm Bureau Federation;
> - Virginia Agribusiness Council;
> - Chesapeake Bay Commission;
> - Natural Resources Conservation Service;
> - Virginia Cooperative Extension (if available); and
> - At least one nonprofit organization that partners with agricultural producers to implement and install practices.

The Workgroup will be chaired by a Board member who shall be appointed by the Board Chair. The Workgroup will meet at least once prior to the December 7, 2022, Board meeting. The Department will provide an update to the Board about the discussions of the Workgroup throughout the upcoming year (or for as long as the Workgroup continues to meet) and will share items that the Workgroup recommends the Board take action on for FY2024's VACS Program.

Mr. Ford advised that the 2025 deadline for Bay restoration is rapidly approaching, and that Virginia would not likely hit the Agricultural goals by that deadline. The Soil and Water Conservation Board has a narrow focus and serves as the fiduciary agent for the VACS program. The workgroup was established to explore ways that the Board could maximize the investment of Virginia tax dollars.

Mr. Ford noted that it is difficult to bring new farmers into the program, particularly with small and medium sized farms. A DCR survey showed that there was room for improvement.

OVERVIEW OF AGRICULTURAL NEEDS ASSESSMENT

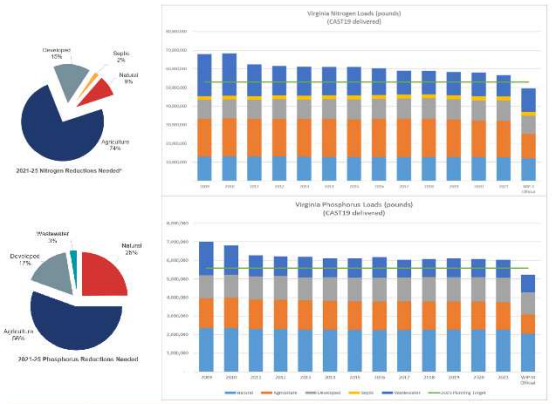
James Martin gave an overview of the Agricultural Needs Assessment.

Chesapeake Bay Phase III WIP

- Virginia's WIP completed in August 2019
- Need to reduce an additional 7M pounds of nitrogen according to Bay Model
- Relies heavily on implementation of practices on agricultural lands to achieve reductions
    - 89% (6.3 M pounds) is earmarked to come from agriculture
    - In best year, reduced agricultural nitrogen by 550,000 pounds.
- Contains a mix of practices that achieve necessary reductions
    - One way to achieve reductions
    - Could use a different mix of practices

WIP III Practice	Percent of WIP N Reduction
Cover Crop	15.2%
Nutrient Management	11.7%
Animal Waste Management System	10.0%
Livestock Exclusion	9.0%
Tillage Management	5.9%
Soil Conservation and Water Quality Plans	5.8%
Forest Buffer	4.0%
Land Retirement to Ag Open Space	2.0%
Grass Buffer	1.7%
Tree Planting	1.6%
Precision Intensive Rotational/Prescribed Grazing	1.6%
Manure Transport	1.1%

Virginia WIP Progress – By the Numbers



TN (lbs/yr, delivered)	Natural	Agriculture	Developed	Septic	Wastewater	Total
2021 Progress	12,697,985	19,402,218	10,970,355	2,152,761	11,418,719	56,642,038
WIP III	11,972,558	13,144,607	9,723,803	1,978,577	12,753,264	49,573,264
Gap	725,427	6,257,611	1,246,551	174,184	-1,334,998	7,068,774
% of Total Gap	10%	89%	18%	2%	-19%	

TP (lbs/yr, delivered)	Natural	Agriculture	Developed	Septic	Wastewater	Total
2021 Progress	2,263,761	1,473,365	1,322,900	1,234	966,787	6,028,057
WIP III	2,065,371	1,027,506	1,189,883	1,234	945,985	5,229,988
Gap	198,391	445,859	133,017	0	20,802	798,069
% of Total Gap	25%	56%	17%	0%	3%	

Agricultural Needs Assessment

- Required by Code of Virginia
- Foundation of cost-share budgeting
- Based on multiple variables including:
    - Nutrient reductions need to meet water quality goals
    - What BMPs do we want to use to get there
    - Costs of those BMPs
    - What timeline do we use

- Stakeholder group
    - Virginia Agribusiness Council
    - Farm Bureau Federation
    - Virginia Poultry Federation
    - Chesapeake Bay Commission
    - Chesapeake Bay Foundation
    - Virginia Association of Soil and Water Conservation Districts
    - James River Association
    - Natural Resources Conservation Service

The stakeholder group met in August.

Impacts on Needs Assessment

- Model makes assumptions on when structural practices expire.
    - Almost certainly not capturing all actively implemented practices in reporting
    - Capturing more practices would drive down the overall costs
- Many practices needed are some of the most expensive.
    - Animal waste storage systems estimated to drive roughly 50% of cost going forward
- Inflation
    - Significant impacts on all practices
    - Used a three year average for practice cost estimates
    - Used recently increased cover crop payment rates approved by Board for FY2023
    - Added a 6% inflation factor to the costs
- Timeline
    - Meet Virginia statutory requirements (nutrient management and livestock stream exclusion) and other annual practices by 2025
    - All other structural practices by 2030

FY2024 Budget Request

- Department has requested significant additional funding for FY2024.

- $110 million total
    - $ 65.3 million for implementation of BMPs
    - $8.5 million for technical assistance funding for Districts
    - $35.3 million for deposit to the reserve
        - Part is mandatory 15% deposit
        - Remainder needed to cover FY2023 deposit to Reserve

Mr. Martin noted that the Agricultural Needs Assessment was developed during the 2021 summer study. He advised that the numbers being used are from 2021. The 2022 numbers are not yet final with the EPA.

Mr. Glover noted that because the 2023 budget was so large, the Board split the money over two years. About $256 million was set aside into the Virginia Natural Resources Commitment Fund. This is where DCR holds cost-share and technical assistance (TA) dollars. About 130 million was allocated for each year. Funds approved in 2023 will be in addition.

Mr. Ford asked if the agency and districts have sufficient staff capacity to do the work.

Ms. Watlington Jones noted that at the June 2022 meeting, the Board approved the use of a million dollars of recordation revenue that should carry the program through 2025.

Dr. Tyree noted that the additional funding was taxing District capacity. She note that it takes about two years to fully train an employee.

Mr. Glover noted that there had been discussion regarding extending the 2025 deadline.

OVERVIEW OF POLLUTION REDUCTION EFFICIENCIES FOR BMPS

Stuart Blankenship gave an overview of pollution reduction efficiencies. He noted that the reduction efficiencies can help measure cost effectiveness. The data was taken from the needs assessment showing the cost per pound of reduction.

The data spreadsheet is available from DCR.

Mr. Blankenship advised that nitrogen is the driving pollutant. The model shows that if the nitrogen reduction goal is met, then phosphorus and sediment will also be reduced.

The cost of each measure is considered. The second factor is how much the load is reduced by unit in each of the practices. Each practice is based solely on looking at those pollutions in isolation.

Ms. Moore noted that the data is just from the maps but does not factor in the human consideration. She commented that it would be helpful to hear from farmers who are participating.

Mr. Martin commented that the districts could be asked which practices have been signed up for the most.

At this time the workgroup recessed for a break.

Cost share alighed with where they would fit into our program.

BREAK

PRIORITIZATION MECHANISMS WITHIN THE CURRENT VIRGINIA AGRICULTURAL COST-SHARE PROGRAM

Following the break, Ms. Watlington Jones reviewed the priority mechanisms. She noted that there have been historical priority practices based on a 2004 Chesapeake Bay report.

Overview of current VACS prioritization mechanisms

Historical priority practices

- Chesapeake Bay Commission report
    - Cost-effective strategies for the Bay (2004)
- Report analyzed:
    - Applicability of BMPs
    - Cost-effectiveness of BMPs
    - Availability of land to implement BMPs
- Virginia identified the following as most cost-effective:

    - Nutrient management (including side dressing and split nitrogen applications)
    - Cover crops
    - High-residue tillage systems
- Included additional practices over time
    - Livestock stream exclusion
    - Precision nutrient management
    - Riparian buffers

Priority considerations

- Statewide considerations established by the Board
- Must be used by all Districts to qualify applications for funding approval
- Application that doesn't meet at least 1 priority consideration shouldn't receive funding
- Priorities include:
    - Highest ranked hydrological unit
    - Appropriate, least costly BMP with highest level of nutrient and sediment reduction needed to address site-specific water quality concern
    - BMPs that will address concern within a designated impaired waters drainage area
    - Fields with at least ½ highly erodible land
    - Practices that are included in an approved RMP
- Exceptions can be made for:
    - Animal waste practices
    - Practices that protect groundwater
    - Practices that address gully erosion
    - Practices that protect critical areas

Practices as priority considerations

FR-3	Woodland Buffer Filter Area
NM-1A	Nutrient Management Plan Writing and Revisions
NM-5N	Precision Nutrient Management on Cropland – Nitrogen Application
NM-5P	Precision Nutrient Management on Cropland – Phosphorous Application
SL-6F	Stream Exclusion in Floodplains
SL-6N	Stream Exclusion with Narrow Width Buffer and Grazing Land Management
SL-6W	Stream Exclusion with Wide Width Buffer and Grazing Land Management
SL-8B	Small Grain and Mixed Cover Crop for Nutrient Management and Residue Management
SL-8M	Small Grain and Mixed Cover Crop for Nutrient Management and Residue Management with Fall Manure Application
SL-11	Permanent Vegetative Cover on Critical Areas
WFA-CC**	Whole Farm Approach – Cover Crop Bundle
WFA-NM**	Whole Farm Approach – Nutrient Management Bundle
WP-1	Sediment Retention, Erosion or Water Control Structures
WP-3	Sod Waterway
WP-4	Animal Waste Control Facilities
WP-4B	Dairy Loafing Lot Management System
WP-4C*	Composter Facilities
WP-4FP*	Feeding Pad
WP-4LC	Animal Waste Control Facility for Confined Livestock Operations
WP-4LL	Loafing Lot Management System with Manure Management (Excluding Bovine
WP-4SF	Seasonal Feeding Facility with Attached Manure Storage
WQ-1	Grass Filter Strips

Secondary considerations

- Local water quality considerations established by local Districts
- Established by local Districts:
    - Identify water quality concerns
    - Develop and approve ranking criteria that addresses identified concerns
    - Must use same considerations for entire year
- Reviewed and approved by Department
- Can vary greatly between Districts
- Examples:
    - Fields with high leaching or significant impacts on groundwater
    - Applications that will exclude highest number of livestock
    - Applications that protect Healthy Waters
    - New participants
    - Previous participants with a successful history of participation

Conservation efficiency factor (CEF)

- Calculated by the AgBMP Tracking Module
- Districts must use when ranking applications
- Lower the CEF value = greater the conservation efficiency
- Very helpful to rank same practices in different locations
    - 2 applications for cover crop practices
- Helpful to rank practices that reduce same pollutant

    - Terrace system practice versus stripcropping system
- Not reliable for ranking 2 very different practices
    - Animal waste practice versus cover crop
- Uses 11 different components to "score" practices
- 3 main categories
    - Geographic location
        - Priority HUCs
        - Type of agricultural land
        - Type of soils
        - Type of animals
    - BMP qualities
        - Priority practice
        - Practice lifespan
        - Chesapeake Bay Program efficiencies
    - BMP efficiencies
        - Installed unit costs
        - Delivered sediment reduction costs

DISCUSSION ON WAYS THE BOARD COULD PRIORITIZE BMPS WITH THE HIGHEST POLLUTION REDUCTION EFFICIENCES

Mr. Ford noted that these presentations were to begin the discussion. He noted that the overview was a broad look at where things are. The discussion should be focused on was the Board can prioritize BMPs. What are the tweaks that can be made given the limited powers and resources available to the Board?

Mr. Ford asked the workgroup if there were more data points to be considered. He cautioned the workgroup about rushing the issue. The intent is to allow members the opportunity to explore the options going forward.

Mr. Glover noted that it would be helpful to look at what farmers are actually signing up for and where.

Mr. Wentz commented that it might be good to look at collaboration possibilities between NRCS, DCR, Districts and others regarding the human aspect and program backlogs.

Ms. Mason reminded the workgroup that there are often other benefits to nutrient reduction that are co-benefits to other bay goals. She noted that this would be a good place to focus on climate shifts. A lot of natural practices will offset some of those issues.

Mr. Williamson asked where best to send those who might be interested.

It was noted that not every county or locality has a cooperative extension agent.

Ms. Watlington Jones noted that vacancies vary from localities. She advised that there would always be gaps due to regular staff turnover.

Mr. Glover reiterated that the biggest challenge is reaching farmers who do not know what Districts have to offer.

Mr. Vest suggested that groups work together and provide partner employees to help.

Mr. Ford noted that he was concerned with the water quality side. While it is right and helpful to focus on the large producers it would be helpful to think of creative ways to support districts to reach out to smaller farms.

Mr. Glover commented that the fundamental issue is that there are some farmers who are not participating at all.

Mr. Daubert noted that there are farms in the Shenandoah Valley who would not participate with any government program.

Darryl an object of increase level of participation. We still have a lot of farmers not participating at all that is the fundamental issue.

Mr. Ford asked the workgroup to consider these issues prior to the next meeting. It is important to remember:

- Districts are being asked to do a lot
- The last change on outreach did not have consensus
- DCR and districts need to do a better job with recruitment

Mr. Martin noted that it would be important to maintain the momentum built over the last few years.

Ms. Moore asked if there was a need to revisit the $35 million floor in terms of assistance. Could that be a state level discussion?

Mr. Ford advised workgroup members to forward questions to Ms. Watlington Jones.

Ms. Watlington Jones agreed to send out presentations from the meeting.

PUBLIC COMMENT

Mr. Dunlap noted that in years prior the monetary benefit was not always work the amount of paperwork involved.

POSSIBLE NEXT MEETING DATES

Mr. Ford advised that the next meeting would be following the General Assembly session. Staff will poll members for a date and location.

ADJOURN

There was no further business and the meeting adjourned at 11:55 a.m.