

Executive Summary

Virginia is one of six states that directly impact the health of the Chesapeake Bay. Virginia has 15.3 million acres of land (approximately 56 percent of the state) in the Chesapeake Bay Watershed. Over half of Virginia's streams and rivers flow to the Bay. Almost three-fourths of the state's 8.0 million residents live within the watershed.

Agriculture accounts for about 28 percent of the land use in the bay watershed with Virginia's top eight (8) agricultural counties located either entirely or partially within its boundaries. The type of agricultural operations vary widely throughout the watershed. In the Shenandoah Valley, there are small to medium dairies, poultry farms and grass-based beef operations. Central Virginia's Piedmont region features a mix of beef and cash grain operations. The Coastal Plain is dominated by corn and soybeans, small grains, some vegetable production and an expanding nursery stock industry.

According to data at the [Chesapeake Bay Program](#), riparian forest buffers (RFBs) rank second of all nonpoint source BMPs needed to meet TMDL targets. Agricultural landowners and operators across Virginia, especially with the Chesapeake Bay, have a wide variety of technical and financial resources available to support and assist them with implementation of forest buffers. Nevertheless, progress toward meeting goals of the [Watershed Implementation Plan](#) (WIP), in Virginia and across the watershed, has been falling short of the established benchmarks for RFBs.

In order to examine progress toward the WIP goals in Virginia, and to consider strategies for accelerating implementation of RFBs in the Chesapeake Bay watershed, USDA assembled a group of stakeholders to discuss efforts in Virginia. The State Task Force included attendees from 30+ agencies and stakeholders with a variety of interests. Attendees provided valuable experience and viewpoints ranging from local staff ("boots on the ground") to policy specialists, technical experts, program managers, advocacy groups, and more. Most participants had first-hand experience with the variety of programs that are available to support forest buffer implantation in the State.

The group met for a face-to-face, all-day, facilitated work session to examine drivers, barriers, opportunities and solutions pertaining to implementation of forest buffers. Virginia Farm Bureau hosted the event. In order to gain a sense of priority from the group, a survey was distributed to all attendees after the meeting. The survey asked participants to consider all of the opportunities and solutions that were suggested by the group and rank the top 4 suggestions of highest priority. Based on the survey results the items of highest priority were:

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- Increase financial incentives
- Provide greater flexibility in technical recommendations for establishment and management
- Establish clear priority for forest buffers
- Increase capacity for trained technical assistance

In addition, the feedback provided by the task force could be grouped into 3 broad categories:

- Technical Issues;
- Programs, Policies, and Financial Incentives;
- Outreach, Marketing and Partnership Strategies.

Three follow-up teleconferences were held to address each of these topics in greater detail. Any State Task Force member with an interest in the topic was invited and encouraged to participate in the follow-up discussion. Through this process, broad suggestions were discussed in detail to be and honed down to more practical and applicable solutions.

Finally, a meeting of principle agency leaders was assembled to consider the suggestions of the State Task Force and make decisions on next steps. USDA staff presented data pertaining to buffer implementation and progress toward the WIP goals, as well as the priority suggestions of the State Task Force. Agency leadership discussed the outcomes and considered strategies suggested by the State Task Force to accelerate implementation of forest buffers. Specifically, programmatic changes in the Conservation Reserve Enhancement Program (CREP) agreement were discussed.

Although the State Task Force was intended to examine the issues pertaining to forest buffer implementation in general, CREP has been acknowledged as the premier program for aiding with implementation of forest buffers. Therefore, the State Task Force group and the assembly of Agency leadership focused on opportunities to modify the CREP in order effectively spur adoption of forest buffers on working lands.

Compared to other programs, CREP offers its participants the highest level of financial benefit for implementing buffers. The Virginia CREP is a partnership between USDA and the State of Virginia's Department of Conservation and Recreation (DCR). The program was designed specifically to address water quality as the primary resource concern and wildlife habitat as a secondary concern, through the installation of herbaceous and forest riparian buffers.

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Conservation practices offered in the Virginia CREP for the Chesapeake Bay include the following practices:

- CP-21, Filter Strips;
- CP-22, Riparian Buffer;
- CP-23, Wetland Restoration;
- CP-29, Marginal Pastureland Wildlife Habitat Buffer.



CREP forest buffer (CP-22) in a pasture field.

Photo by: Lindsey Carico, FSA

The State Task Force in Virginia examined the efficacy of the program's current policies, financial incentive package, technical guidance, and outreach and marketing resources. Virginia's CREP agreement was originally signed in 2000 with very few, minor changes in the agreement to date. The incentives available for all 4 practices available in CREP are the same. Hence the incentive package does not create a priority for forest buffers.

Therefore, the consensus of the State Task Force and panel of leadership was that Virginia's CREP agreements, for both the Chesapeake Bay and waters outside the Chesapeake Bay, should be examined and revised. In addition program gaps should be analyzed and modified so that financial incentives available through the various Federal and State programs are more collegial and complementary to each other. Competition among programs should be eliminated, to the extent possible, and programs should complement each other for the benefit of participants and to achieve the maximum environmental benefit. Finally, the incentive should reflect a clear priority for forest buffers.

Current Baseline and Goals

The Virginia CREP agreement that was originally developed for the Chesapeake Bay called for 25,000 acres to be enrolled in the basin—22,000 acres of riparian areas and 3,000 of wetlands. However, current data at the Chesapeake Bay program estimates that in order to meet the goals of the [Watershed Implementation Plan](#), Virginia should implement more than 80,000 acres additional acres of riparian forest buffers on agricultural land currently in production by the year 2025. Therefore, one of the principal outcomes of the State Task Force was for Federal and State partners to review the current CREP agreement and make appropriate revisions for acreage enrollment.

Recommendations from the Chesapeake Bay Program suggest that target for forest buffer implementation is 900 miles per year across the basin. In Virginia, the annual target equates to approximately 6,215 acres per year converted from agricultural use to forest buffer. Unfortunately, the annual rate of enrollment in CP-22 is approximately 650 acres per year.

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Because these goals are seemingly unattainable, given the pace forest buffer implementation through programs to date, some consideration has been given to allowing **local working groups to set their own goals for enrollment in CP-22**. The idea being that when Agency staff view the long-term WIP goals, it seems insurmountable and have a sense of failure and hopelessness; therefore less effort it put forth to work toward the goal. In contrast, staff would be more invested in an attainable, short term goal, and work harder to meet a goal that they have set for themselves.

Using GIS, aerial imagery, a compilation of soils data, erodibility, FSA common land unit (CLU) attribution, proximity to water courses, and other FSA information, a county office has the ability to identify acres within their service area that are potential eligible for enrollment in CREP. Considering the enrollment potential, staffing and other resources available, the local working group should have adequate information in order to set reasonable goals.

Participating Agencies/Groups

Federal Agencies: Farm Service Agency (FSA), Natural Resources Conservation Service, (NRCS), US Forest Service (USFS)

State Agencies: VA Department of Conservation and Recreation (DCR), VA Department of Forestry (DOF), VA Department of Environmental Quality (DEQ), VA Department of Agriculture and Consumer Services (VDACS), VA Department of Game and Inland Fisheries (DGIF).

Other: Soil and Water Conservation District (SWCD) staff, VA Association of SWCD's, Chesapeake Bay Commission, Chesapeake Bay Foundation, Trout Unlimited, Alliance for the Bay, VA Cattlemens Association, VA Grain Producers, VA Agribusiness Council, VA Dairymens Association, VA Farm Bureau, Smithsonian Institute, private contractors.

Current Programs and Gaps

The Virginia CREP has been acknowledged as the premier program for aiding with implementation of forest buffers. Compared to other programs, CREP offers participants the highest level of financial benefit for implementing buffers. The Virginia CREP is a partnership between USDA and the State of Virginia's Department of Conservation and Recreation (DCR). The program was designed specifically to address water quality as the primary resource concern and wildlife habitat as a secondary concern, through the installation of herbaceous and forest riparian buffers.

However, with the same level of financial incentive provided for all of the practices available through CREP, there is no clear priority established for forest buffers. Research reveals that forest buffers provide additional environmental benefit beyond that which is provided by herbaceous buffers.

Beginning in July 2014, DCR began offering a BMP through the VACS that provided 100% cost-share reimbursement to the participant. VACS policy describes the purpose of the BMP, SL-6, "Stream Exclusion with Grazing Land Management" as a practice to "reduce non-point source pollution associated with grazing livestock". The offering was intended to remove any financial barrier that might prevent a landowner or producer from adopting livestock exclusion as a management practice. SL-6 does not aim to establish a forest buffer in the riparian area and does not provide cost-share to establish any type of conservation cover.

Across the State there has been a high level of interest in the SL-6 offering. In fact there is a backlog of applicants that the current level of VACS program funding cannot support.

However, the offering has created some program gaps and other ‘unintended consequences’. Specifically, very few producers have enrolled in CREP since the 100% offering has been available. Therefore, fewer forest buffer projects have been initiated. Many producers are interested in receiving 100% cost-share to implement grazing management components and infrastructure, such as fencing, alternative watering systems, and stream crossings, without any additional requirement to plant conversation cover in the riparian area. Unfortunately, the competition that the SL-6 offering has created has resulted in very few in forest buffer projects and a substantial decline in RFBs initiated through CREP or any other Federal program (i.e. EQIP) that encourages (RFBs). In order to reverse the detrimental trend, these programs need to be modified in order to leverage both Federal and State resources to create a priority for forest buffers.

Factors Influencing Success

The State Task Force suggested that the following **DRIVERS** effect forest buffer implementation:

- Fear of government regulation
- Landowners/operators want to “do the right thing” for the environment
- Habitat improvement
- Financial gain from programs
- Increased property value and return on investment
- Protect farm streams
- Program requirement
- Increase ranking
- Field staff promote the practice
- Opportunity to sell environmental credits
- Agro-forestry practice
- Risk reduction - financial and flood
- Proper tree species selection
- Growing 'woodland retreat' owners who manage land for recreation and aesthetics
- Positive past experience with program/Agency staff
- Easement programs and public land purchases

The following **BARRIERS** to forest buffer adoption were presented:

- Lack of capital to cover out-of-pocket expenses
- Cumbersome sign-up process to receive financial assistance
- Inconsistent program and funding – Farm Bill gaps resulted in ‘stop-and-go’ CREP signup
- Consumes [production] acreage
- No employee incentives to encourage staff to promote forest buffer programs
- Unkempt appearance of existing buffers – maintenance and management issues
- Loss of lease revenue [for landowners leasing to producers]
- Program requirement
- Having a choice of a grass buffer which may be preferred to a forest buffer
- Fear of Government intervention -- anti-government attitude
- Lack of program understanding of establishing forest buffers
- Cost-share caps/ maximums are too low
- Technical limitation of assessing where a buffer is needed
- No incentives for localities to retain forest land
- Availability of trained technical assistance
- Low input management style
- Lack of producer willingness to maintain buffer/perceived [low] success rate of buffers
- Improper tree species selection because of program policies
- Length of contract period – 10-15 years is a long term agreement
- Fear of lost production from 'edge effect'
- Appropriate BMP [or inappropriate BMP]
- Produces wildlife conflict
- Lack of understanding of farm demographics
- Lack of labor and equipment [for participant to implement practice]
- No land use breaks/taxes
- Dislike of reforesting open land
- Equity - not fair that urban lands don't have to do the same thing

- Difference in administrative and programmatic policies between local state and federal programs
- Land rental rates not high enough
- Inadequate cost-share structure – not enough for encourage forest buffers
- Lack of clear priority for riparian forest buffers

Finally, the **solutions and opportunities** provided by the State Task Force include:

- Provide part of the cost-share incentives upfront; Utilize DEQ revolving loan fund
- Pay contractors directly
- Boost financial incentives and CREP rental rates to outcompete other program offerings
- Variable state contributions for exclusion+CP-22 to achieve 100% reimbursement
- Targeting SL-6 oversubscription as potential CREP customers
- Broaden CREP eligibility beyond strictly ag
- Reduce State match requirement because of state deficit
- Quantify direct benefit to farmer
- Utilize buffer calculator
- Establish clear priority for buffers; work out conflicts and leadership needs to award achievement (local, state, federal)
- DEQ needs to recognize landowners who put in forest buffers
- Recommend national policy change to increase cost-share cap
- Provide SIP for acres 'treated' by forest buffer*
- Allow higher EQIP ranking score for installation of buffers through other programs
- Greater flexibility in management recommendations (species selection, stocking rate, and maintenance)
- Review of NRCS standards to make sure there are no "hurdles" / (Mowing) - FSA
- Provide additional cost-share scenarios for these buffers - planting larger trees
- Additional rental payment for lost yield on adjoining land
- Make CREP signup less cumbersome
- Increase trained technical assistance - FSA, NRCS, SWCDs
- Marketing and outreach needs to be accelerated by SWCD/FSA/NRCS/State/NGOs
- Outreach to landowners who don't want to work with government

- More identification and targeting to determine where buffers are needed
- Outreach to absentee landowners and Trusts
- Encouraging agricultural practices
- Improve coordination between NRCS and SWCD in areas where needed

Management Approach & Work Plan

Leadership, coordination and administration of programs – One of the primary recurring themes during the State Task Force process was the need for a unified and consistent message from Agency leadership that riparian forest buffers are a priority practice. At this time this message is not resounding with field staff or has become muffled because of other work priorities and conflicts. Diminished staffing resources have resulted in employees being spread thin to cover a wide variety of work areas. In order to effectively accelerate implementation of forest buffers through Federal and State program, **there needs to be adequate staff available to assist participants.**

Need for Policy or Guidance Adjustments – Many of the suggestions from the State Task Force fall outside the purview and authority of State leadership. The group has pointed out several conflicts in National USDA program policy that may actually be defeating enrollment. **Suggestions to consider revising in the National policy are:**

- Recommend CRP policy change to increase cost-share caps for components:
 - Water development, watering facilities, pipeline, etc.
- Provide cost-share for exclusion fencing where a forest buffer exists IF the additional fence is needed to protect a newly planted CP-22 buffer
- Allow higher EQIP ranking score for installation of buffers through other programs
- Make CREP signup less cumbersome

Outreach and Customer Service Strategy – In order to effectively market forest buffers on agricultural land through programs requires highly training, technical and policy staff as well as informed and cooperative partnerships. Outreach to potential customers has proven to be a time-intensive sale that requires hours of personalized education, planning, design, contracting, implementation, and plenty of follow-up. Sending a postcard, letter or any kind of generalized mass mailing, no longer effectively recruits new participants, as it may have in the past.

Existing agency staff is not able to execute all of these phases effectively. Therefore, in order to increase enrollment, **teams of specialized staff are needed to supplement existing Agency staff.** A “SWAT Team” of buffer specialists to serve specific areas within the Watershed may be an effective outreach approach to increase enrollment. Of course, this would require **additional staffing to be dedicated to outreach/recruiting as well as technical assistance for planning and implementation.**

Other useful tools may be currently available to mitigate and abate some of the obstacles to enrollment that challenge local staff who work directly with customers. Some of these include:

- [Buffer\\$](#) - a spreadsheet based tool for evaluating cost-benefit of buffers
- VA Department of Environmental Quality (DEQ) [“Clean Water State Revolving Fund”](#) program
- Assignment of Payment, CCC-36

Establishment, Maintenance, Compliance and Reenrollment – Some other modifications are being considered in order to fulfill other suggested solutions such as:

- updating the current technical guidance to provide more flexibility in establishment techniques including:
 - site preparation recommendations
 - tree species selection
 - tree species composition
 - planting density
 - post planting treatment of invasive competition
- Joint agency training – “CREP RALLY 2015”
- Encourage more partner coordination through the Local Working Group for program implementation with a focus on forest buffers

Technical Assistance Delivery –

Need for Additional Financial Incentives -

DCR leadership and staff are examining the program gaps created by the SL-6 offering. Considering the conflicts within their policy, and in light of the funding inadequacies, the Agency director issued a letter to SL-6 applicant who have ‘pending’/unfunded applications and encouraged them to consider federal programs like CREP or NRCS’ Environmental Quality Incentives Program (EQIP) as an alternative to SL-6.

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Further, DCR has proposed combining the SL-6 BMP with the CP-22 CREP in create a new offering which would allow the participant to receive 100% cost-share for implementing BOTH a riparian forest buffer along with grazing management components. Merging these two practices would effectively create a priority for RFBs by providing a much higher level of reimbursement for those producers who opt to install the RFBs. Other program offerings for practices, such as grass/herbaceous buffers and/or livestock exclusion/access control without an RFB would be adjusted so that the level of financial assistance was much lower so as not to compete with program opportunities that include the RFB.

Currently the level of financial reimbursement in CREP is as follows:

Payment type	Federal	State
SIP	\$100/acre	-
Cost-Share	50%	25%
PIP	40%	-
Annual Rental Incentive	120%	-
Maintenance	\$5/acre	-
Other Rent	-	\$5/acre

Proposed adjustments in the CREP for CP-22 only would provide the following, higher levels of remuneration to create a priority for RFBs:

Payment type	Federal	State
SIP	\$150/acre	-
Cost-Share	50%	50%
PIP	40%	-
Annual Rental Incentive	150%	-
Maintenance	\$10/acre	-
Other Rent	-	\$5/acre

Virginia's intention is to utilize the [\\$5 million](#) in special funding that was announced for the Chesapeake Bay, along with additional partner contributions, to increase the financial incentive package only for RFBs in order to accelerate implementation through CREP. In addition to modifications in the CREP agreement, Virginia partners also aim to recruit additional, dedicated teams of specialized staff in order to increase the capacity for technical assistance, including outreach.