

Strategic Action Plan for Riparian Forest Buffers  
in West Virginia's Chesapeake Bay Watershed Area  
8/2/2022

Partners who participated in the development of this plan

USDA Farm Service Agency (FSA)  
USDA Natural Resources Conservation Service (NRCS)  
WV Conservation Agency (WVCA)  
WV Department of Agriculture (WVDA)  
WV Division of Forestry (DOF)  
WV Department of Environmental Protection (DEP)  
Trout Unlimited (TU)  
Cacapon Institute (CI)

This plan has been developed in response to the Chesapeake Bay Program partnership's request that each jurisdiction develop a plan to address our collective shortfall in establishing Riparian Forest Buffers (RFB). West Virginia's primary source of technical assistance and funding is through the USDA/WV Conservation Reserve Enhancement Program (CREP). To a much lesser extent, WV's Chesapeake Bay Implementation Grant (CBIG), USDA NRCS Environmental Quality Incentives Program (EQIP) and National Fish and Wildlife Fund (NFWF) CB funds have been used toward riparian forest buffer installations on land not eligible under CREP.

The signatories to WV's CREP program include USDA FSA and NRCS, US Fish and Wildlife Service, WV Conservation Agency, Division of Forestry, Department of Agriculture, Department of Environmental Protection, and Division of Natural Resources (CREP Partners). WV's CREP Partners have worked hard to implement incentives in West Virginia to ensure West Virginia has adequate CREP funding. Long-term partnerships with dedicated staff and communication among partners ensure RFB practices are successful. Many established RFB practices are doing well and have landowners that are RFB champions. Strong partners like the WV Conservation Agency and Trout Unlimited and their staff build relationships with riparian landowners and ensure RFB success. NRCS staff have diligently implemented EQIP and worked with landowners to find compromises that would meet their needs, such as narrow RFB.

In this plan, six areas were identified as opportunities or concerns around increasing new riparian forest buffer implementation or maintaining previously implemented practices already reported in the Chesapeake Bay model.

- Staffing
- Maintenance
- Improving or streamlining CREP
- Non-CREP options
- Outreach and Education
- Tracking/Verification/Reporting

WV WIP Goal - To install and maintain 250 acres per year (for 7 years) in forest riparian buffers through CREP to reach a cumulative total of 5692 acres by 2025.

Starting point for WIP III: 3942 acres, 2017 progress level. Annual implementation (2018 - 2021) averaged 139 acres per year, 80% of which was through CREP. Over 1000 credited acres have been lost since 2017 due to expiration.

Strategy Goal - Return to WIP level of annual implementation.

**WV's 2022-23 2-Year Milestones #2:** Implement a formal riparian buffer outreach strategy to increase the adoption of effective CREP buffers to 200 new acres annually in 2022 and 2023. This will be in conjunction with federal, state and local partners and may include mass mailings, public meetings, news articles, videos, field days, etc. that promote 35-foot riparian buffers required by CREP. (pg. 50-54)

**WV's 2022-23 2-Year Milestones #7:** WV CREP Partner Agencies, led by WVCA, will train staff and implement a verification program for previously expired CP22 contracts. A combined effort between state and federal partners will result in inspection of 100% of expired contracts to determine if areas are still functioning as a forested buffer or grass buffer, or not functioning as a buffer at all (WVCA/FSA). Due 12/31/23.

## Staffing

Goal - Increase staffing to add new RFB area and to maintain existing forest buffers.

Staffing has been identified as one of the limiting factors in adding more RFB area and maintaining the area we have. Documentation of market pay scales is needed. The general feeling is that pay must be > \$35,000/year to recruit and retain staff. Staffing is needed primarily to develop planting and maintenance plans, both requiring site visits, but also for outreach and technical assistance. A long term presence of staff in the community is important to establish relationships and build trust.

USDA Farm Service Agency (FSA)

Farm Service Agency leads and manages CREP in WV and is responsible for program development in cooperation with CREP partners and training. Local FSA office staff are responsible for contract development, payment and oversight with participating landowners. FSA is in the process of hiring to backfill a vacant position for a CREP program lead. This individual will help with program development and management, training and support to local field offices.

## USDA Natural Resources Conservation Service (NRCS)

NRCS staff in local field offices provide technical assistance to FSA in development of CREP planting plans and oversight of installation of RFBs. NRCS develops conservation plans, job sheets, and other technical work. NRCS also develops EQIP contracts with landowners for access control/livestock exclusion and narrow forest buffer practices. NRCS has a need for a forester in the northern area. At this time, it is not likely that position will be filled.

## WV Division of Forestry (DOF)

WVDOF provides planting plans to NRCS for CREP, Conservation Stewardship Program (CSP) and EQIP. WVDOF writes and approves Chesapeake Bay funded Forest Stewardship Plans (with additional stream BMP's). WVDOF is struggling with recruitment and retention because of lower than average market salaries. Applicants must have a degree from a Society of American Forestry accredited program, limiting the pool of applicants.

## WV Conservation Agency (WVCA)

WVCA provides state incentive payments for CREP through Conservation Districts, develops CREP annual reports, and documents state match for CREP. WVCA assists with the review of CREP re-enrollments to determine whether the buffer can be retained for model credit. WVCA also organizes training on CREP for all WV partners, provides outreach to agricultural producers and organizes field days in cooperation with other WV partners through the Conservation Districts. Through AgEP and WV's Chesapeake Bay Program, WVCA offers cost share to cooperators to implement exclusion fencing which results in a grass or forest buffer and reports and verifies all agricultural best management practices the agency implements, including riparian forest buffers.

## WV Department of Agriculture (WVDA)

WVDA delivers information on availability of CREP and other BMPs to ag producers when developing nutrient management plans and reports and verifies implemented agriculture best management practices.

## Trout Unlimited (TU)

TU has one shared position with NRCS who develops RFB plans in trout waters. TU also has a crew that installs RFBs.

In partnership with NRCS, TU is hiring 1-3 people to conduct outreach/planning/monitoring in TU priority areas. Outreach during the contract period is important for maintenance and long term success. As a result of this planning effort, TU has applied for funding for RFP outreach, planning, installation and monitoring outside of TU priority areas from WVDEP CBIG for funding for 4 years.

Cacapon Institute (CI)

CI has 1 - 2 entry level positions funded through the USFS to fill who will provide technical assistance to coach landowners through the CREP process. CI staff will assist landowners throughout the contract period to address maintenance and ensure re-enrollment over the 10 - 15 year life of the contract.

Coordination between partners is needed to prevent duplication. We will begin with regularly scheduled meetings with agenda topics centered on the 6 focus areas described in this strategic action plan. WV DEP will commit to scheduling this first meeting in November 2022 after which the group will decide future meetings.

Training of staff is needed, preferably in person and is included in WV's 2 year milestones. Based on feedback during the development of this strategy, consideration will be given to including pre-training or break outs of agency specific topics.

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## Maintenance

Maintenance of forest buffers is needed to

- Establish needed tree cover/survival
- Address invasive species
- Monitor fence (if included) to prevent livestock intrusion

The CREP FSA CP22 tree practice standard establishes a target of 70% survival at year 2 of the contract which is verified by FSA. There is a small amount of money through CREP for maintenance (\$5 / acre/yr). Most contracts do not result in meeting the 70% target. Less than 10% of landowners do maintenance despite contract requirements. Aging and absentee landowners who lease pasture for cattle increase the maintenance challenge. Routine and consistent outreach and education is necessary to ensure the landowner will do maintenance. FSA is partly addressing the maintenance by performing a mid-contract site visit. If maintenance is not occurring, USDA uses a negative incentive such as reducing, canceling or postponing payment.

Money can be the limitation to maintenance. Other threats to the RFB practice may include fencing failure, poor planting methods, poor planning, deer browse, mole and vole damage, drought, and flooding. More than \$5/acre/yr is needed for maintenance if the landowner does

maintenance, or funding is needed for a contracted service provider or other entity to do maintenance for landowners.

USDA best practices include a tube to prevent herbivory and herbicide dots. If tree tubes are used, a plan is needed to collect them at an identified tree size or year in the contract to prevent unsightly litter or disposal challenges. Partners have noted that unsightly RFP projects with plastic tube “trash” are a barrier to recruiting new landowners.

WV partners could request CBIG funding to cover the cost of white oak stakes and additional tree tubes if needed during the maintenance phase of the contract.

TU could help with FSA mid-contract site visits and other follow-up if they have the background/training required to make proper determinations. TU usually conducts follow-up site visits on the tree plantings they install. Landowners are often not motivated to straighten tree tubes, etc. and TU will do that.

Fencing - Under CREP contracts, the landowner decides the type of fence to install.

- Electric fences are problematic due to maintenance. Regular checks are needed to make sure they are “hot”.
- Barbed wire fences are good in uplands but not in floodplains, as they tend to catch debris
- Woven wire - best but expensive. Not suitable for floodplain.
- High tensile - relatively easy to install, stronger than barbed or woven wire, won't catch as much debris.

For all fencing types, staff is needed to check and maintain fence frequently, which is not currently occurring.

Americorps could be enlisted for a program like Alliance for the Bay's “Riparian Rangers.” See their recent training announcement [here](#).

## **Improving CREP**

WV currently offers the following incentives under CREP

- \$540/ac incentive for re-enrollment (\$500 FSA, \$40 WVCA)
- \$274 or \$280/ac incentive for new acres (\$200 FSA. \$74 or \$80 WVCA)

Consideration could be given to increasing incentive payments on new acres higher than \$200/ac through other resources, potentially CBIG.

Trees and buffer widths are undesirable to some farmers. Trees on shale banks cannot survive, a problem in some parts of the Potomac Valley.

FSA is in the process of adding CP-29 Wildlife Habitat Buffer, as an approved practice to the WV CREP agreement, which would allow for the planting of native shrubs, grasses, and forbs beneficial to wildlife instead of trees.

TU has concerns that not requiring trees will result in fewer farmers choosing forested riparian buffers once landowners see this option. Forested buffers provide greater bank stability and stream shading benefits than buffers without trees.

CREP payment schedules for some practices are increasing for FY22 which will help attract and retain participating landowners.

## **Non CREP options**

NRCS commonly uses several practices under EQIP that could result in buffers. These include

- Access Control (472) (livestock exclusion)
- Fence (382)
- Riparian Forest Buffer (391)
- Tree/Shrub Establishment (612)

There is a challenge in counting all of the RFB practices in our BMP reporting because we do not know which projects qualify as streamside buffers. If a practice is paid based on the fencing (382) or access control (472) standard, we cannot tease that out from the NRCS database report we receive each year from the USGS data agreement with NRCS. WVCA communicates with local NRCS field offices annually to determine if any installed EQIP practices are eligible to report, but this is likely incomplete.

For agriculture producers who are reluctant to set aside 35' or greater in a CREP RFB, these conservation practices allow for alternatives to address resource concerns and meet their objectives. The Fence (382) conservation practice recommends a 20' minimum buffer from the stream, but this buffer distance is not required. Access control or livestock exclusion requires no minimum buffer width. The duration of these contracts is 1- 5 years. Flash grazing is allowed under these NRCS standards. These practices do not meet CB BMP requirements or result in less credit in the CB model. NRCS also offers the Conservation Stewardship Program (CSP) where landowners are paid for successful practices in place.

TU encourages 35' buffers on EQIP and is often successful in convincing landowners by explaining the reduced maintenance needed when the buffer is sufficient to allow the stream and buffer to perform their function in the landscape.

CI has a program funded by CBIG to contact landowners, order trees, and install buffer plantings similar to the service WVDOF provided historically. The projects are typically on developed land but are not limited to any specific land type.

WVCA has committed to 2 buffer-related milestones:

**WV's 2022-23 2-Year Milestones #5:** Commit \$54,681 annually for the implementation of exclusion fencing, alternative watering facilities, pasture division fencing and forested buffers within the Most Effective Basins that EPA has identified. Voluntary BMP implementation will be reported through CBIG annual and semi-annual reporting and NEIEN (WVCA). Due 12/31/22 and 12/31/23.

**WV's 2022-23 2-Year Milestones #6:** Commit \$100,000 annually for the implementation of exclusion fencing, alternative watering facilities and pasture division fencing within the Eastern Panhandle Conservation District (EPCD) and Potomac Valley Conservation District (PVCD). Voluntary BMP implementation will be reported through CBIG annual and semi-annual reporting and NEIEN (WVCA). Due 12/31/22 and 12/31/23.

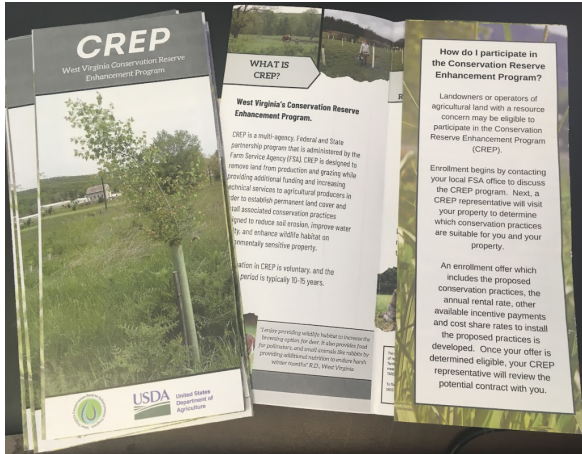
## Outreach and Education

There is funding for RFB practices available if partners can increase the demand for RFB cost-share assistance programs such as CREP and EQIP.

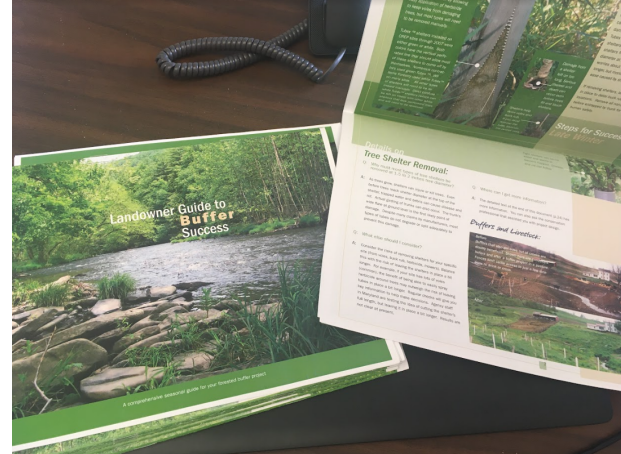
WVCA partnered with landowners and other agencies to create a new [CREP video](#), "Benefits of CREP in West Virginia," which was posted on YouTube for use with potential new landowners. We can now develop strategies for increasing viewers and making sure they have what they need to follow up if they are interested.

The Eastern Panhandle Regional Planning & Development Council ("Region 9") worked with agricultural agencies and the Berkeley and Jefferson Farmland Protection Programs (FLPP) to compile information about available conservation programs including CREP, and mailed it to FLPP participants. Region 9's Environmental Program Coordinator plans to continue this work (see Milestone #8, below).

WV's Conservation Districts in cooperation with WVDOF recently produced a forest buffer brochure and book (images below). Information could be added about the financial incentives and payments very prominently to these publications so that potential cooperators see the financial benefit immediately.



CREP brochure



Landowner Guide for Buffer Success book

Farm tours will be an important part of accelerating RFP adoption. Willing and successful CREP participants will be identified to showcase mature buffers, thereby reassuring potential applicants that the rows of plastic tubes will not always dominate the view. This also gives staff a chance to point out species and functions observed in the growing RFB, to increase appreciation and tolerance for what may be perceived as a “messy” landscape. WVCA currently has a Milestone to this effect (see below). The FSA committee will be tasked with inviting their local contacts. In addition to agency-led tours, peer-to-peer farm visits will be encouraged on successful CREP RFB sites.

West Virginia Woodlands Stewards meetings - WVU Extension hosts monthly Zoom meetings on a variety of forestry topics aimed at foresters and forest landowners. This would be a good venue for RFB outreach.

#### Outreach Expansion Ideas:

Conduct buffer tours targeted to non-farm people in the communities to show off great farms doing great work to other community members

Conduct surveys of existing CREP participants to get information about the positives and negatives of the program. This could be done through a self addressed stamped post card or one on one interviews with CREP landowners.

Identify all landowners on streams using GIS data layers and survey. Less targeted, less bias.

In TU's experience, the best approaches for recruiting participants are knocking on doors and initiating conversations, and landowners seeing successful projects nearby.

Billboards - TU has found these to be successful for the simple point of “name recognition” when they are talking to potential applicants face-to-face.



Radio - WELD AM/FM and WQWV FM (690 AM, 101.7 FM, and 103.7 FM) are local radio stations that serve the Potomac Highlands of West Virginia. RFB partners believe our agricultural producers turn to these stations for agricultural information that is relevant to them locally. Partners could provide information about cost-share programs and the benefits of RFBs through these stations.

Schools - Cacapon Institute works in schools, teaching them about local water quality and which actions in the watershed are beneficial. Could send flyers about our RFB programs home with students and teachers.

Press releases - local weekly newspapers would likely print RFB information for free, as articles.

Americorps

Document and/or explain watershed resilience / flood resilience / money saved in long term of forest buffers

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**WV's 2022-23 2-Year Milestones #9:** Continue outreach with Berkeley County Farmland Protection easement holders on the various benefits of eligible Conservation Programs, such as CREP, EQIP, and WV Agricultural Enhancement (Region 9 Planning & Development Council). Due 12/31/22 and 12/31/23.

**WV's 2022-23 2-Year Milestones #10:** Update WV based outreach materials that can be utilized to showcase resource concerns and how BMP implementation has advanced water quality (WVCA). Due 12/31/22 and 12/31/23.

**WV's 2022-23 2-Year Milestones #13:** Host several field days at different locations within PVCD and EPCD to showcase current conservation practices. Staff will be available to advise attendees of current incentive programs (WVDA/WVCA/ NRCS/FSA/ WVDOF/TU). Due 12/31/22 and 12/31/23.

## **Tracking / Verification / Reporting**

Tracking new and existing CREP contracts, verifying that the practices are in place near the end of their lifespan and reporting RFBs to the CBP are all important parts of the proces. Overall, we have lost many previously credited RFB practices due to either an inability to verify or the

discovery that the tree planting was not successful. In an effort to correct this problem, a number of strategies have been identified.

NRCS or WVDOF verify practices as completed according to NRCS standards and specifications once the customer reports that they are completed. NRCS or WVDOF conduct another site visit approximately 2 years after the tree planting is certified as complete to verify that the tree planting has been established. The CREP contract also includes a mid-contract practice such as tree thinning. The landowner is expected to do the mid-contract practice and self-certify that it has been completed. FSA, NRCS, or WVDOF may take a look at the practice. Other entities could do these mid-contract site visits as long as they have the technical knowledge. TU is developing a proposal to employ staff to assist with mid-contract check in.

NRCS or WVDOF conducts a site visit on every CREP contract at least 2 years before the contract expiration date. This visit identifies if the practice is still established and functioning according to NRCS standards and specifications. FSA uses the findings of this visit to determine if the site will be eligible for re-enrollment and begins the conversation with the landowner. At the end of the contract period, re-enrollments are easily reported by WVCA. Contracts that are not re-enrolled may nonetheless have functioning livestock exclusion and RFBs that, if verified, could receive continued CBP credit. Other sites may have practices that would be able to receive reduced continued credit (ex. functioning livestock exclusion fencing but trees have not been established per CREP requirements could receive grass buffer credit) For sites not eligible for re-enrollment or sites that producers choose not to re-enroll, WVCA and the county FSA offices will work together to determine if exclusion fencing and buffers are still in place and the level of their functionality. Documentation of such determinations will provide the information necessary to inform continued CBP crediting. This strategy is intended to be first implemented for practices that will lose credit beginning in Progress Year 2022 and continuing annually thereafter.

A WVCA intern is also developing a list of historical CREP contracts that have expired, were not re-enrolled and need to be verified. WVCA and FSA will again cooperate to determine and document practice existence and functionality to inform CB crediting. Practices that first expired in Progress Year 2015 constitute the most area of practices that are no longer CBP-credited because of lack of verification, and will initially be focused upon. After resolving these historical expired contracts, the annual determinations described above should be manageable and effective.

An area needing improvement is the ability to capture NRCS buffers installed through EQIP. EQIP practices planned by TU are easily reported. In some instances WVCA captures NRCS EQIP data to report from local contact with NRCS staff. There are no established protocols to comprehensively obtain this information and ensure against double counting. NRCS is evaluating if its dashboard can provide any useful information and will coordinate with WVCA to develop an efficient and reliable tracking and reporting methodology .

## **In Summary**

West Virginia has a strong partnership working toward implementation of forest buffers, including strong incentives for CREP program participation and experienced field staff who understand riparian ecosystems. West Virginia predominantly relies on CREP to meet our forest buffer goals. Greater flexibility and funding from USDA related to CREP as well as increasing non-CREP related funding for program support could greatly enhance the program and generate greater success. Improvements in staffing, maintenance, successful buffer establishment, CREP re-enrollment, capturing of non-CREP buffers and verification could lead to West Virginia meeting our riparian forest buffer goals for the benefit of West Virginia streams and the Chesapeake Bay. Accelerating this work will also provide the co-benefits of tree canopy for fisheries and climate resiliency.