BIENNIAL STRATEGY REVIEW SYSTEM
Chesapeake Bay Program

Narrative Analysis

FOREST BUFFERS DECEMBER 8TH, 2022

ABSTRACT: [Provide a concise paragraph summary, beginning with the outcome status (*e.g.,* on track, off track, ahead of schedule), your key findings, successes and challenges that are described in more detail below.]

The Forest Buffer Outcome is currently off track. The pace and scale of forest buffer implementation is inadequate to meet the ambitious goals set in the Watershed Agreement or in the state WIPs. However, forest buffer planting has steadily increased over the last two years and in 2021, partners recorded planting more miles of new buffers than any year since 2016. Recent progress is due, at least in part, to the development and expansion of flexible standalone buffer programs which have become increasingly popular with landowners. The outcome has also been effective in generating leadership attention through the recent 2022 Leadership Workshop and the subsequent development of state Forest Buffer Action Strategies. Building and maintaining capacity for technical assistance, planting and maintenance remains a major challenge that will need to be overcome, with support from State and Bay Program leadership, in order to meet our buffer goals.

NOTE: The narrative analysis summarizes the findings of the logic and action plan and serves as the bridge between the pre-quarterly logic and action plan and the quarterly progress meeting presentation. After the quarterly progress meeting, your responses to these questions will guide your updates to your logic and action plan. Additional guidance can be found on ChesapeakeDecisions.

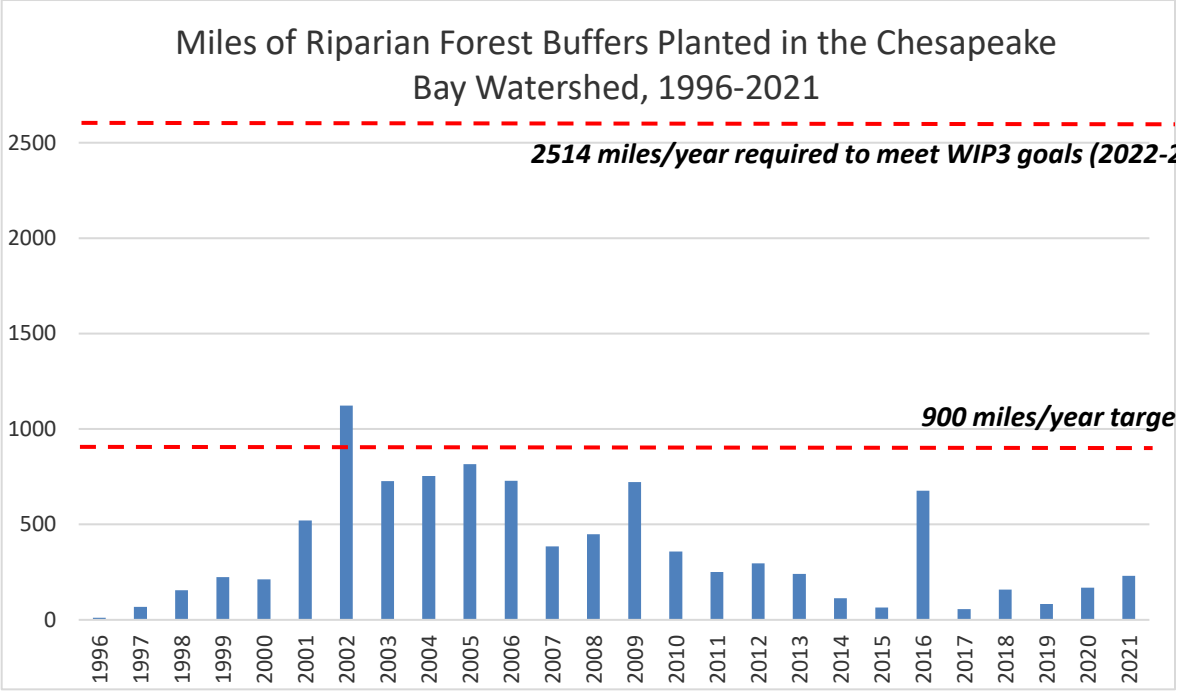
1. Are we, as a partnership, making progress at a rate that is necessary to achieve this outcome? Would you define our **outlook** as on course, off course, uncertain, or completed? Upon what basis are you forecasting this outlook?

   How would you summarize your **recent progress** toward achieving your outcome (since your last QPM)? If you don't have an indicator, would you characterize this progress as an increase, decrease, no change, or completed? *If you have an indicator and it was updated since your last QPM, use your answer to question 16 from your Analysis and Methods document.*

Although the amount of Riparian Forest Buffers (RFBs) planted annually has steadily increased over the last two years, we are still well short of the 900-mile per year target outlined in the Watershed Agreement and furthermore, this target is inadequate to meet the buffer goals outlined in the Phase III Watershed Implementation Plans (WIPs). To fill the gap between 2021 Progress and 2025 WIP III goals, we would need to add over 2,500 miles of forest buffers annually between 2022-2025 (assuming 100 ft. buffer widths). Many of the same factors we identified in our previous workplan are still

limiting our progress towards meeting our buffer goals (for example, insufficient availability of technical assistance and lack of consistent funding).

Although we are able to monitor progress towards meeting our short-term, 900-mile per year target through NEIEN and CAST, we need a clearer perspective on our progress towards meeting our long-term goal of having seventy percent of riparian areas throughout the watershed forested. The new high-resolution datasets should provide an updated calculation of the percentage of forested riparian areas throughout the watershed. Once this data is available, we should reassess whether the shorter-term goal of planting 900 miles/year is appropriate for reaching our long-term goals. It is also important to note that the seventy percent goal was set as a minimum target some time ago. There could also be an opportunity to assess whether this is still an appropriate goal or whether we need to set higher goals in some places (such as critical coldwater habitat areas).



2. Looking back over the last two or more years, describe any scientific (including the impacts of climate change), fiscal, and policy-related developments that impacted your progress or may influence your work over the next two years. Have these resulted in revised needs (*e.g.*, less, more) to achieve the outcome?

   *To the extent feasible, describe your needs using the SPURR thought model, i.e., **S**pecific and actionable, **P**rogrammatic partner, **U**rgency of the needed action, **R**isk of not acting, **R**esources required.*

The massive influx of federal funding from the Bipartisan Infrastructure Law (BIL) and the Inflation Reduction Act (IRA) has the potential to greatly accelerate progress, and reduce the extent to which funding is limiting progress. For example, the new USDA Partnerships for Climate-Smart Commodities program recently announced $2.7 billion in new funding, including approximately $980 million for initiatives in the watershed. The USFS Urban and Community Forestry program is also set to receive $1.5 billion from the Inflation Reduction Act, so there may be significant opportunities to plant new buffers in more developed landscapes. However, it is still uncertain how much of these

funds could be applied to RFBs and what restrictions will be put on their use. If invested wisely, these funds could help provide the certainty needed for contractors and other partner organizations to build the capacity needed to plant and maintain more buffers.

In the Policy arena, a new Farm Bill will be negotiated for 2023. This presents an opportunity to improve the Conservation Reserve Enhancement Program (CREP). There may be a new generation of agricultural landowners that are ready to re-engage with the program if the incentives are right. Specific opportunities to improve CREP include:

- **Allowing states to include the favorable provisions from the 2018 Farm Bill (including covering 100% of the costs of managing RFB vegetation and providing cost share based on current, fair market prices) as addenda to their CREP agreements. Currently, to take advantage of these provisions, state would need to renegotiate existing CREP agreements and accept other unfavorable provisions (such as reduced Practice Incentive Payments and eliminating the cost share for mid-contract management).**
- **Streamlining the CREP amendment process and providing technical and financial assistance for NEPA compliance needed for CREP amendments**
- **Identifying and addressing challenges for CREP enrollment/reenrollment, including increased agency staffing and support for conservation districts**

In terms of relevant scientific development, as new high-resolution hydrography and land use data becomes available, we will have an even better idea of where the greatest opportunities are for implementing RFB across the landscape. This new data will also show where buffers are being lost to development – an unfortunate occurrence that will require even more work and expense to realize improved water quality. As capabilities improve, there may be potential to use remote sensing for buffer verification initially in individual states, but ideally this capacity would be built watershed-wide to limit the costs associated with monitoring and verification.

Finally, climate change impacts, both known and unknown, could have an overwhelming impact on forests and riparian buffers. Climate projections for the region suggest that generally speaking, conditions will become hotter and wetter, although there is also likely to be more variability. This means that riparian forests are likely to experience a greater frequency of both extreme flooding and late-season flash droughts that could negatively affect tree establishment and growth. At the same time, riparian forest buffers will become increasingly critical for shading and controlling effects of rising temperatures on stream life, moderating the stream environment and triggering self-healing processes in the stream. We therefore will need to pay increasing attention to ensuring that riparian forest buffers are planted in a way that will be resilient to future climate change.

3. Based on the red/yellow/green analysis of the actions described in your logic and action plan, summarize what you have learned over the past two years of implementation.

Summarize overall (not per action) what you have learned about what worked and what didn't work. For example, have you identified additional factors to consider or filled an information gap?

Riparian forest buffers (RFB) are an essential and cost-effective practice for improving water quality and the health of the Chesapeake Bay watershed. Although the current pace

and scale of forest buffer implementation is inadequate, we have had some significant successes over the past two years of implementation.

One major success was the 2022 RFB Leadership Workshop and the resulting state RFB Action Strategies. The Leadership Workshop was convened in April 2022 at the request of the Management Board's Outcome Attainability Team. Chesapeake Bay partners need to rapidly accelerate RFB implementation due to the low rate of implementation and the large goals set for RFBs in the jurisdictional and Conowingo WIPs and the 2014 Watershed Agreement. To this end, the objectives of the workshop were to 1) discuss state RFB Action Strategies for increasing the rate of forest buffer restoration and 2) develop recommendations for specific roles for the Partnership in advancing buffer goals. Approximately 95 people attended the workshop, including PSC and MB representatives and their delegates. Pennsylvania's Secretary of Natural Resources Cindy Dunn took part in the workshop by giving opening remarks. Secretary Dunn's involvement with the RFB Leadership Workshop is a great example of how sustained leadership commitment from a dedicated champion can support increased engagement and the development of actionable strategies. Every state completed new RFB Action Strategies following this workshop except Virginia, whose Action Strategy is currently in progress. These Strategies outline how each state intends to accelerate RFB implementation over the next 5-10 years, including how to meet buffer goals established in Watershed Implementation Plans (WIPs).

It will be critical to build upon the high-level attention on RFB shown at the workshop Maintaining leadership engagement in implementing and ensuring accountability for Strategy implementation remains a challenge. The ultimate utility of these Strategies in accelerating progress towards meeting the ambitious RFB goals in the Agreement and the WIPs will depend on continued engagement by state Water Quality and Management Board leadership.

Progress is also being made towards implementing flexible buffer programs that complement CREP. Historically, CREP was the primary program used to implement buffers. Despite some promising provisions for CREP in the 2018 Farm Bill, these improvements were not realized as in order to take advantage of these provisions, FSA required states to renegotiate their CREP agreements and accept other unfavorable provisions. As a result, there were no new amendments to state CREP agreements and there are limitations with the design and delivery of CREP that despite previous efforts, have not improved.

Although CREP remains an essential and valuable program (and there may be new opportunities to improve CREP in the 2023 Farm Bill), there is growing momentum to expand existing flexible and effective buffer programs. Maryland, New York, Pennsylvania and Virginia all have programs that have proven to be very popular with landowners. Although the details of these programs vary, some of the characteristics of these programs that have been particularly effective include funding buffers on a rolling basis (rather than an annual, competitive grant process), making funding available quickly, providing buffers to agricultural and non-agricultural landowners, providing maintenance, and limiting or eliminating out-of-pocket costs for landowners. Some of these flexible buffer programs are working to incorporate the innovative finance elements proposed during the last RFB SRS review. For example, the Alliance for the Chesapeake Bay is working with MS4 jurisdictions in Maryland to explore selling credits from forest buffer plantings through their Healthy Forests, Healthy Waters program.

There has also been progress in developing new programs in states that do not currently have a fast and flexible alternative to CREP. For example, in Delaware's new RFB Action Strategy, they propose developing a new state buffer cost share program using CBIG or BIL funds. Delaware's Conservation Buffer Program would provide on-demand funding and would cover all the costs for implementation, installation and maintenance. West Virginia is also looking at opportunities to direct CBIG and other grant funding towards RFB planting on lands not eligible for CREP.

A new Bay-wide source of funds that could be available on demand to implement buffers across the watershed could provide an effective addition to the current landscape of programs that could help meet goals and bring buffer planting to scale. However, additional coordination and prioritization of buffer practices from CBP leadership is still needed to realize a Bay-wide buffer program.

The Forestry Workgroup has also made advances in improving understanding of the multiple benefits of RFBs. For example, the recent STAC Rising Water Temperatures workshop highlighted the critical role forest buffers play in moderating warming stream water temperatures and includes forest buffer planting and conservation as key strategies in several recommendations and implementing actions. The recently completed "Maintaining Riparian Forests in Stream Corridor Restoration" GIT-funded project also emphasized the important role riparian forests play in ensuring overall stream ecosystem health. However, conservation of buffers remains a challenge. Stream restoration projects are still resulting in the removal of newly planted and mature riparian buffers. Recommendations from these recent projects in combination with new targeting approaches being implemented by the states and the new high resolution land use datasets may assist with spatial prioritization of forest buffer restoration and conservation efforts.

Although Forest Buffers are needed everywhere on the landscape, prioritization and targeting efforts are nonetheless relevant considering that capacity remains a challenge at multiple levels. With the massive influx of funding projected from the Bipartisan Infrastructure Law and the Inflation Reduction Act, there are serious questions about whether we have the boots on the ground available to put these funds to work planting buffers. There is significant need to recruit and retain additional technical service providers to work with landowners. The Farm Service Agency is providing funding for 12 field personnel providing technical assistance in each state, but these positions have experienced high levels of turnover due to inadequate compensation. Partners have also been hesitant to hire more staff due to relatively short grant-funded project periods and in some places, there is inadequate contractor capacity for site preparation, planting and maintenance. For these contractors, RFB work is only profitable at scale so they do not work in places where RFBs are currently being planted on a smaller scale.

Finally, verification of RFBs remains a challenge. Although we know that most RFBs are a regenerative practice, every year we lose buffers in the model due to the lack of verification. The new high resolution land use change datasets will help us evaluate to what degree the buffer loss we see in the model reflects reality on the ground. The recently approved extension of the credit duration to 15 years will help alleviate some of the loss is the model, but additional effort is needed to ensure forestry staff know how to verify buffers correctly. There are also opportunities to investigate more cost-effective ways to meet the intent of verification while limiting the extent to which already limited money and capacity are taken away from planting and maintaining buffers.

4. Based on what you have learned through this process and any new developments or considerations described in response to question #2, how will your work change over the next two years? If we need to accelerate progress towards achieving our outcome, what steps are needed and, in particular, what specific actions or needs are beyond the ability of your group to meet and, therefore, you need the assistance of the Management Board to achieve?

Describe any adaptations that may be necessary to achieve your outcome more efficiently and explain how these changes might lead you to adjust your Management Strategy (if significant) or the actions described in column four of your Logic & Action Plan. What new science, fiscal, and policy-related information, could be recommended or pursued over the next two years to maintain or, if needed, accelerate progress? Use the SPURR model described in question #2, to provide detail to the needed steps and actions.

Now that nearly all of the watershed states have developed new RFB Action Strategies, we plan to put more focus into supporting the implementation of these plans and tracking progress. This will involve regular updates both from Forestry Workgroup members and state Water Quality and Management Board leaders. To maintain high-level leadership support for plan implementation, we are requesting that the MB support implementation of state RFB Action Strategies. State MB and Water Quality leads should work with Forestry staff to track implementation of the Action Strategies and report on progress towards implementing the Strategies in the 2-year programmatic milestones. The MB could also request annual/biennial updates on Strategy implementation at MB or PSC meetings following the EPA review of the Milestones to provide an opportunity for the partnership to evaluate progress. If states are not making sufficient progress, the MB could help identify specific actions to be taken at the State or Partnership level to improve progress and incorporate these actions into a revised Action Strategy.

As supporting and expanding stand-alone, flexible buffer programs are a major focus in the state RFB Action Strategies, the Forestry Workgroup (FWG) will continue supporting existing and new partnerships that offer the fast and flexible buffer programs which have been popular among landowners. The FWG will continue to be a venue for sharing lessons learned to help improve the efficacy of existing programs and to inform the development of new programs (such as Delaware's new proposed buffer program). For example, through these programs, we have learned more about the importance of incorporating both financial assistance and extensive technical assistance to landowners to help design, implement and maintain buffers.

The influx of new federal funding through BIL and IRA could provide significant sources of support for flexible buffer programs, but many of these new funding opportunities through BIL/IRA have broad potential applications and aren't directed specifically to buffers. We need MB support with identifying opportunities where this new funding could be invested in existing (or new) effective standalone buffer programs and where possible, supporting investments in these programs. For example, we should look at opportunities to work with the entities receiving funding through the Climate-Smart Commodities program and USFS Urban & Community Forestry to see where these funds can either be used directly to plant and maintain buffers or as leverage by encouraging or requiring buffer planting as a condition of receiving funding to implement other practices.

However, it is important to be strategic in how BIL/IRA funds are invested so this isn't just a one-time influx of cash but can help build the financial and organizational structures needed to sustain additional buffer plantings for years to come. Conservation

finance models could help inform the development of these financial and organizational structures, on a state-by-state basis and potentially Bay-wide over the longer term. As these structures are developed, there needs to be a major focus on capacity building and building the restoration economy needed to support planting and maintenance. Much more RFB technical assistance (TA) will be needed to find and recruit landowners as well as assist with buffer planning, planting and maintenance. As turnover among buffer TAs has stalled progress, we want to work to create new stable, permanent and well-paid buffer TA positions. We need help from the MB with identifying opportunities to improve grants and program funding terms to help build the needed capacity in staff, contractors and outreach.

These new sources of funding also present opportunities to engage with non-traditional partners, including corporations, utilities, and other state and federal departments. As we engage with these partners, we will work to improve the ways in which we communicate regarding the ways buffers can benefit communities, for example by providing hazard mitigation, recreation, climate adaptation and other benefits. We will continue working to leverage the new LU/LC data and hyper-resolution hydrography to better understand these benefits and pursue avenue to communicate about these benefits in strategic and creative ways.

Finally, we plan to put additional focus into the conservation of existing forest buffers. We will look at opportunities to pursue the "next steps" identified in the Maintaining Forests in Stream Corridor Restoration project to help ensure buffers aren't being lost unnecessarily when stream restoration projects are implemented. Additional state and local policies safeguarding existing riparian forests may be needed in some cases.

5. What steps are you taking, or do you recommend, to ensure your actions and work will be equitably distributed and focused in geographic areas and communities that have been underserved in the past?

The Forest Service recently released a new Equity Action Plan, which includes Actions calling for improving access to the benefits of our programs to historically underserved communities. The FWG could help support the use of the Chesapeake Environmental Justice and Equity Dashboard and other tools to help identify these communities, prioritize outreach efforts, and eventually plant new forest buffers if the community is interested. This will be especially important if new Urban & Community Forestry funds from the IRA are available for buffer planting.

As we work to engage with new communities and non-traditional partners, we will consider ways to improve equity in access to federal funding for buffers across the watershed. Relaxing the federal match requirements for RFB could help ensure that communities that are less well-off economically can also access these critical federal funds. One option would be to implement a sliding scale for match based on the socio-economic strength of communities. Federal funding entities could also incentivize state partners and other larger NGOs to partner with smaller, community-based organizations in their grant applications. This could help increase access to federal funds for organizations that may not otherwise be able to compete successfully for funding and could help ensure that funds are put towards activities that support the needs of these communities.

The FS Equity Action Plan also calls for achieving a representative, inclusive and thriving workforce. Given the critical need of building up a stronger workforce for planting and maintaining new buffers, there also may be opportunities to support training and employing people from these historically underserved communities. The FWG could work with the Diversity Workgroup and other CBP partners to coordinate outreach efforts to HBCUs and other institutions of color in an effort to grow and diversify the restoration workforce.