**Riparian Forest Buffer Logic Table and Work Plan**

**Primary Users:** Goal Implementation Teams, Workgroups, and Management Board | Secondary Audience: Interested Internal or External Parties

**Primary Purpose:** To assist partners in thinking through the relationships between their actions and specific factors, existing programs and gaps (either new or identified in their Management Strategies) and to help workgroups and Goal Implementation Teams prepare to present significant findings related to these actions and/or factors, existing programs and gaps to the Management Board. | Secondary Purpose: To enable those who are not familiar with a workgroup to understand and trace the logic driving its actions.

**Reminder:** As you complete the table below, keep in mind that removing actions, adapting actions, or adding new actions may require you to adjust the high-level Management Approaches outlined in your Management Strategy (to ensure these approaches continue to represent the collection of actions below them).

**Long-term Target:** (the metric for success of Outcome):

**Two-year Target:** (increment of metric for success):

|  |
| --- |
| KEY: Use the following colors to indicate whether a Metric and Expected Response have been identified.  |
| Metric | Specific metrics have not been identified |
| Metrics have been identified  |
| Expected Response | No timeline for progress for this action has been specified  |
| Timeline has been specified |

| Factor | Current Efforts | Gap | Actions (critical in bold) | Metrics | Expected Response and Application | Learn/Adapt |
| --- | --- | --- | --- | --- | --- | --- |
| *What is impacting our ability to achieve our outcome?* | *What current efforts are addressing this factor?* | *What further efforts or information are needed to fully address this factor?* | *What actions are essential to achieve our outcome?* | *Optional: Do we have a measure of progress? How do we know if we have achieved the intended result?* | *Optional: What effects do we expect to see as a result of this action, when, and what is the anticipated application of these changes?* | *Optional: What did we learn from taking this action? How will this lesson impact our work?*  |
| Scientific and Technical Understanding | Lots of data, good targeting and use of high-resolution | Not a priority at this time | [2.8](#Management28), [5.1](#Management51), [5.4](#Management54), [5.9](#Management59), [6.1](#Management61), [7.1](#Management71), [7.3](#Management73), [7.4](#Management74), [8.1](#Management81), [8.3](#Management83) |  |  |  |
| Improved Technical Assistance  | 11 new positions in forestry, some additional trainings, | Need for consistent funding for positions | [**3.4**](#Management34)**,** [**3.5**](#Management35), [5.2](#Management52), [5.8](#Management58), [7.4](#Management74), |  |  |  |
| Partner Coordination | PSC appointed State RFB Lead, not all partners are onboard,  | Help from upper-level state WQ lead, federal programs have important role  | [**1.1**](#Management11)**,** [**1.4**](#Management14), [2.1](#Management21), [3.4](#Management34), [4.3](#Management43), [4.6](#Management46), [5.2](#Management52), [**5.3**](#Management53), [5.4](#Management54), [7.3](#Management73), [7.4](#Management74), [8.5](#Management85),  |  |  |  |
| Nongovernmental Organization Engagement  | Good involvement, but through soft money | More funding, training ops, TSP | [2.5](#Management25), [2.3](#Management23), [7.2](#Management72), [9.3](#Management93), |  |  |  |
| Legislative Engagement at the Federal, State, and/or Local Levels | Fed- 2018 Farm Bill, Clean Water Act;State grant funds | Farm Bill influence for CREP and TA | [**1.6**](#Management16), [5.6](#Management56), [8.4](#Management84) |  |  |  |
| Government Agency Engagement at the Federal, State and/or Local Levels | FSA, and some states and locals are engaged | More engagement needed at all levels | [1.1](#Management11), [4.5](#Management45), [5.7](#Management57), [5.9](#Management59), [8.2](#Management82), [9.4](#Management94), |  |  |  |
| Public Engagement | Some general outreach efforts | Not a priority at this time | [9.1](#Management91) |  |  |  |
| Landowner Engagement | Some targeted outreach | More education/TA needed | [3.1](#Management31), [3.3](#Management33), [3.5](#Management35), [4.1](#Management41), [4.2](#Management42), [4.3](#Management43), [4.4](#Management44), [6.2](#Management62), [6.3](#Management63),  |  |  |  |
| Funding or Financial Resources; Partner Coordination |  |  | [**2.3**](#Management23)**,** [**2.4**](#Management24)**,** [2.6](#Management26)**,** [2.7](#Management27), [**3.1**](#Management31), [3.3](#Management33), [**9.2**](#Management92), [1.5](#Management15), |  |  |  |
| Funding or Financial Resources | FSA passing along funding for positions/outreach | Need more consistent funding for staff and TA | [1.2](#Management12), [1.3](#Management13), [**2.2**](#Management22)**,** [3.2](#Management32), [3.5](#Management35), [5.5](#Management55), [7.1](#Management71), [**9.5**](#Management95) |  |  |  |

|  | WORK PLAN ACTIONS |
| --- | --- |
| Green - action has been completed or is moving forward as planned Yellow - action has encountered minor obstaclesRed - action has not been taken or has encountered a serious barrier |
| Action # | Description | Performance Target(s) | Responsible Party (or Parties) | Geographic Location | Expected Timeline |
| Management Approach 1: RFB Leadership |
| 1.1 | Meet with RFB leadership within each state to develop a coordinated, riparian forest buffer (RFB) strategy to boost enrollment | 1. State Lead for RFB activities is appointed and helps coordinate work at all levels--from state leadership to field
2. Host a watershed wide 2-day RFB Forum
3. Pursue opportunities for state leadership to express need/RFB is a priority practice
4. Establish a RFB Leadership Team in PA and host a statewide RFB summit
 | USFS, FSA, ACB, State Leads, PA DCNR, PA DEP, MD CREP Committee |  | OngoingSome states did not get additional assistance from FSA |
| 1.2 | States augment CREP program for RFB using additional funding from FSA | Increase acres enrolled in Chesapeake Bay CREPS, CP22 | FSA, State Leads | DE, VA, WV, NY | December 2017 |
| 1.3 | Work to access additional financial assistance to augment programs for RFB | 1. Increase acres enrolled in Chesapeake Bay CREPS, CP22. Continue to assess available financial assistance as needed to encourage landowner interest in CREP and implementing conservation practice Compile and publish bi-annual Chesapeake Bay Protected Lands Dataset
2. Make non-federal match available as new opportunities present for federal funding
 | FSA, State Leads | Split FA and TA, add NRCS | December 2017 |
| 1.4 | Coordinate and support State Leads and other partners in achieving RFB goals | Work with each state to help accomplish actions in 2-year workplan | USFS, FWG | Make maps | December 2017 |
| 1.5 | Pilot Projects to Inform Leadership | 1. Coordinate with Sustainable Ag community
2. Develop a flexible buffer program with innovative tools and programs to fill niches not met by traditional buffer programs
 | MD DNR FS, USC, NFWF | State grant programs; PA, NY, | July 2016 |
| 1.6 | Work on Policies to Advance RFB programs | 1. Work with partners to identify legislative, budgetary and policy needs to advance RFB and other goals
2. Pursue action within our member state General Assemblies and the United States Congress
 | Chesapeake Bay Commission, Choose Clean Water Coalition |  | December 2017 |
| Management Approach 2: RFB Enhancements |
| 2.1 | Look broadly to plan for new buffers and align related projects/funding | 1. Coordinate with allied ag practices in NY especially streambank fencing, streambank stabilization and/or transitional woodland practice using AgNPS
2. Seek more opportunities to engage landowners about opportunities for RFB
3. Incorporate RFBs into planning efforts, e.g., the State Planning Board, county comprehensive plans, and local zoning ordinances
4. Work with other programs and agencies that do preservation, restoration, etc. to improve overlap with RFB
 | NY NRCS, TU, FSA, USC, State Leads | Follow up with conservation community and SWCDs- stronger conversations around fencing in VA and new pipeline mitigation funding | December 2017 |
| 2.2 | For the scale of buffer work needed, make leveraging the power of other funding and programs a priority | 1. Explore using Ag Land Preservation funds to drive new RFB
2. Leverage other USDA programs to complement CREP
 | State Leads, FSA, NRCS |  | December 2017 |
| 2.3 | Accelerate RFB implementation through NFWF's 2015 Regional Conservation Partnership Program (RCPP) project award, "Comprehensive Watershed-Scale Restoration in Dairy and Livestock Landscapes of the Chesapeake Bay" | 1. Utilize NFWF grant funding and technical and financial assistance to increase RFB and leverage existing cost-share funding
2. Support local USDA NRCS and FSA staff, SWCDs, and NGOs in collaborating and prioritizing RCPP funding to enhance RFB CREP implementation at the local level
 | Stroud Water Research Center, TU, CBF, ACB, Bradford County (PA) Conservation District |  | December 2017 |
| 2.4 | Support states in prioritizing funding for RFB and explore new funding options | 1. Work with states to align available funding with priority practices like RFB
2. Explore converting RFBs to nutrient banks to provide additional incentive to maintain, conserve RFB
 | EPA, FWG |  | December 2017 |
| 2.5 | Apply the Healthy Streams Farm Stewardship Program | Identify projects in conjunction with SWCD and ag consultants | ACB | Done and looking for more funding; VA has new pilot in Augusta from court settlement USFWS | December 2017 |
| 2.6 | Pilot voluntary purchase of nutrient credits by businesses to pay for the installation of forest buffers | 1. Work with partners to identify businesses interested in this investment
2. Make purchases on behalf of businesses and establish RFB
 | PENNVEST |  | December 2017 |
| 2.7 | Pursue a state/privately-funded RFB program | 1. Test methods for flexibility in buffer administration and management
2. Introduce needed policy changes to implement the program
3. Pilot sites showcasing different approaches including maintenance needs
4. Look for funding and funding partners
 | PA DCNR and DEP |  | December 2017 |
| 2.8 | Consider climate change in future actions for RFB | 1. Review and refine climate resiliency decision making matrix and implementation process for the RFB outcome
2. Develop climate change strategies for RFB
 | Climate Resiliency Workgroup and FWG | Judy’s crosswalk; is this still the process for CR Workplan; conservation plus scenario- check specific CR | December 2017 |
| Management Approach 3: RFB Technical Assistance |
| 3.1 | Increase staffing levels to provide more technical assistance | 1. Hire 8 additional field personnel through grant from FSA
2. Increase technical capacity to increase RFB establishment and enrollment
 | FSA, USFS, ACB, MD, PA, VA, WV, TU, NRCS | Continuation?? | December 2017 |
| 3.2 | Improve tracking and spending of TA funding provided by FSA | 1. FSA provides TA funding for CRP/CREP to USFS
2. Track and suggest improvements in spending as needed
 | State Leads | Still get thru USFS | December 2017 |
| 3.3 | Increase effectiveness of landowner education on RFB establishment and maintenance | 1. Identify successful programs and begin expanding them in states
2. Reach out to local groups with interest in RFB such as SWCDs, NGOs, Land Trusts
3. Support PACD outreach efforts in creating a clearinghouse of informational materials
4. Enhance collaboration among organizations to better understand farmers' needs
5. Technical Service Providers receive training on RFB outreach through grant from FSA
6. NRCS employees receive >3 trainings per year
7. Determine how best to engage SWCDs
 | State Lead, PA DCNR and DEP, USFS, ACB, NRCS | TELEgrant with CI and MD; MD has had joint trainings; PA NRCS also receiving training; Should develop curriculum esp for NRCS; across the board? Trainings resources for xx staff suggested sequence on website- | December 2017 |
| 3.4 | Expand partnerships to address technical assistance needs | Identify potential new partners and establish working agreements | State Leads, TU |  | January 2017 |
| 3.5 | Technical Assistance provided by NYS DEC Forester | Provide forestry support on EQIP and CREP projects | NYS DEC, USFS |  | December 2017 |
| Management Approach 4: RFB Outreach and Increasing New Enrollment |
| 4.1 | Address programmatic design/delivery that are barriers to new enrollment | Work with decision-makers to secure state cost-share funding to process CRP/CREP new contracts | DNREC, DE NRCS |  | January 2017 |
| 4.2 | Execute Outreach Strategy for 2016 | Improve outreach of RFB: webinar education series, information packets, posters, displays, forum, support for re-enrollment | USFS, FSA, ACB |  | December 2016 |
| 4.3 | Improve outreach and education to landowners on RFB | 1. Technical Service Providers receive training on RFB outreach through grant from FSA
2. NRCS employees receive >3 trainings per year
3. Determine how best to engage SWCDs
 | USFS, ACB, NRCS |  | December 2017 |
| 4.4 | Seek liaisons (leaders, early adopters) within farming communities | 1. Reach out to dairy, horse, and poultry farmers, and others
2. Reach out to plain sect community
 | USFS Dept. Ag., PA CREP partners |  | December 2016 |
| 4.5 | Evaluate current MPL soil rental rates and determine if updates are necessary | Work with FSA to make adjustments in CREP agreements, as needed | State Leads |  | December 2017 |
| 4.6 | Share local case studies of successful buffers-- how to integrate with better overall environmental health (e.g., LandCare model) | Reports on case studies and how LandCare model could be used | State Leads |  | December 2017 |
| Management Approach 5: Improve Establishment/Maintenance/Verification |
| 5.1 | Improve tracking and reporting of RFB implementation | 1. Utilize GIS, CAST, and other tools
2. Analyze efficiencies and quantify benefits of RFB
3. Track progress through reports and maps
 | State Leads, FSA, USFS, ARS, PA DEP and DCNR, Penn State |  | December 2017 |
| 5.2 | Survey recent NFWF grantees to determine extent of RFB vs. grassed buffer implementation | Develop, implement, and analyze survey of NFWF grantees to determine likelihood of RFBs going in on grants that don't specify type of riparian buffer being used | NFWF, USFS |  | December 2016 |
| 5.3 | Strengthen inter-organizational operations, including reporting, cross-training, and Verification for RFB BMP | 1. States work internally with partners
2. Enable verification to be completed by multiple entities, independent of landowner/installer
3. Work with other Workgroups and Goal Teams to integrate RFB into planning
4. Work with Ag Workgroup on improving Verification procedures for RFB
 | State Leads, EPA, PA DEP and DCNR, FWG, USFS |  | December 2017 |
| 5.4 | Evaluate State RFB BMP Verification Protocol | Work with states to examine how RFB verification is working | USFS |  | December 2017 |
| 5.5 | Examine effectiveness of annual maintenance payments and evaluate if current rate is appropriate | Annual maintenance payments increase (e.g., from $5/acre to $10/acre) where feasible | State Leads, ACB, USFS |  | December 2016 |
| 5.6 | Evaluate current establishment period effectiveness and recommend potential changes | Expand the RFB establishment period from 2 years to 3-4 years (already happened in PA) | State Leads |  | December 2017 |
| 5.7 | Work with FSA to make cost share available for weed suppression during RFB establishment | Determine level of invasive plant control cost-share that is part of extended establishment | State Leads, FSA |  | December 2016 |
| 5.8 | Put maintenance tips in conservation plans, contracts, and landowner info | 1. Produce information on common maintenance needs/issues for website/handbook
2. Distribute handbook to contract holders through SWCD and field offices
 | USFS, ACB | Mostly in PA handbook | January 2017 |
| 5.9 | Evaluation of Buffer Effectiveness/Tree Planting Success | 1. Complete evaluation of tree planting mortality/success for three years after initial planting and secure additional planting stock to correct planting failures
2. Look at sites with legacy sediment issues
 | State Leads |  | December 2017 |
| Management Approach 6: Improve Re-enrollment |
| 6.1 | Consider fate of non-re-enrolling RFB acres | Develop model to determine situational likelihood that landowners not re-enrolling will maintain their RFB | FSA, FWG |  | December 2016 |
| 6.2 | Provide targeted outreach to CREP participants in the last 1-2 years of contract | 1. Send postcards to expiring contract holders and follow-up with phone calls
2. Provide maintenance crews to assist landowners with successful RFB
3. Encourage TSPs re-enrolling RFBs to include upgrades, such as increased acres and/or alternative water, stream crossings, fencing
 | State Leads, USFS, State FSA, ACB |  | December 2017 |
| 6.3 | Contact landholders with expiring contracts | 1. Provide contact information for expiring contract holders to State Leads
2. Send landowner RFB outreach and promotional material, follow with phone call
 | FSA, State Leads |  | December 2017 |
| Management Approach 7: Improve Targeting of RFB |
| 7.1 | Develop nutrient incentive payment practice | Pilot program to target long-term nutrient reduction/ecological services for RFB & wetlands | MDA, NFWF |  | December 2017 |
| 7.2 | Utilize CREP targeting tools | Make maps of high-priority areas for reforestation | State Leads |  | December 2017 |
| 7.3 | Incorporate other WQ, brook trout, and demographic targeting tools for RFB | 1. Utilize tools to identify and implement RFB restoration opportunities considering climate change
2. Analyze for effectiveness
 | VA, TNC |  | December 2017 |
| 7.4 | Use high-resolution land cover data to map RFB and train partners on how to use the new data for prioritizing their work | 1. Pilot method in James to target areas for new RFB
2. Work with the SWCDs, JRA and others to independently incorporate the new high-resolution data into their planning and ranking frameworks
 | James River Assoc, NFWF, Chesapeake Conservancy, SWCDs |  | December 2017 |
| Management Approach 8: Ramp-up conservation of RFB |
| 8.1 | Explore RFB preservation policies to analyze their effectiveness/need for enforcement | Identify local RFB preservation policies and conduct analysis | FWG,LUWG |  | December 2017 |
| 8.2 | Increase participation with the Agriculture Conservation Partnership Program (ACEP) | Determine opportunities for CREP participants to transition enrollments to NRCS ACEP easement programs | NRCS |  | December 2017 |
| 8.3 | Explore a buffer easement program | Incorporate RFBs into a broader forest conservation easement program, if created | DCNR, DEP, FBC, Ag, DCED |  | December 2017 |
| 8.4 | Integrate RFB in local green space planning and protection | Work to incorporate RFBs into other planning efforts, such as the State Planning Board, county comprehensive plans, and local zoning ordinances | DCNR |  | December 2017 |
| 8.5 | Improve easement language for RFB | Suggest acceptable language standards for RFB easements | FWG |  | December 2016 |
| Management Approach 9: Focus on non-ag RFB |
| 9.1 | Broaden awareness with non-ag owners about tree planting/RFB/reduced mowing | 1. State/County-level programs work with federal land managers to promote RFB at
2. Target locations through GIS analysis
 | Stat Leads, USFS, PA DCNR, MD DNR, VA DOF |  | December 2017 |
| 9.2 | Look for funding opportunities for local tree planting and conservation efforts, including RFB in developed areas | 1. Assess and summarize local, state, federal and private funding opportunities
2. Continue to work with volunteers to replant stream sides
 | FWG, NY Trees for Tribs |  | December 2017 |
| 9.3 | Work with local groups to expand tree planting programs | Successful programs such as Turf to Trees, Backyard Buffers, NY's Trees for Tribs, and CLIPS (Baltimore Co)--meet with LGAC, local leadership group, and others to determine how best to do this | FWG |  | December 2017 |
| 9.4 | Work to better integrate urban tree canopy and RFB with TMDL/WIP implementation and MS4 programs | 1. Meet to assess options, needs, of MS4 Permit holders and other stakeholders
2. Develop examples of buffers & SWM
 | FWG, CWP |  | December 2017 |
| 9.5 | Increase CBIG/319 funding for RFB establishment on urban lands | Assign 1-2 additional no-ag buffer projects to CREP foresters | WVDOF |  | December 2017 |
|  |  |