A RIPARIAN FOREST BUFFER OUTCOMES FUND FOR THE CHESAPEAKE BAY

A BUYER'S GUIDE

A THEORETICAL GUIDE EXPLAINING THE RIPARIAN FOREST BUFFER OUTCOMES FUND AS IT PERTAINS TO POTENTIAL BUYERS.

ENVIRONMENTAL POLICY INNOVATION CENTER
OCTOBER 2023

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Executive Summary

The Chesapeake Bay watershed covers over 60,000 square miles in six states and is the third largest watershed in the world. The watershed is also densely developed, and nutrient and other pollution from agriculture and development has led to water quality challenges both locally upstream and downstream in the Bay. To improve water quality, the Bay has been an epicenter of collaborative cross-jurisdictional work to reduce and mitigate key sources of pollutants. Bay states have developed and are implementing the Chesapeake Bay Agreement for pollution reduction and other environmental improvements in the region. The Bay is also under a TMDL with EPA to improve water quality, which provides a regulatory driver for interventions that reduce pollutant loads. However, despite these efforts, to varying degrees Bay states are behind in reaching certain goals. One of these goals - and the focus of this business plan - is the Chesapeake Bay Agreement's Riparian Forest Buffer Outcome Goal of restoring 900 miles of riparian forest buffer annually so that 70% of riparian areas in the Bay watershed are forested by 2025. Riparian forest buffers confer water quality and other important co-benefits and have been a focus area in the Bay but projects are not being implemented fast enough to reach the Buffer Outcome Goal.

This proposed idea is the result of a project to identify an innovative financing strategy to incentivize greater riparian forest buffer planting to help Bay states meet the Riparian Forest Buffer Outcome goal in the Chesapeake Agreement. An outcomes purchase fund is the best way to create new incentives to plant more buffers. Research to inform the development of this model included desk research and interviews to first identify current barriers to riparian forest buffer planting; in other words, why aren't more buffers being planted in the Bay states? While multiple barriers were surfaced and are discussed, a lack of reliable/guaranteed demand for riparian forest buffers in the region appeared to be the largest hurdle in incentivizing planting, especially from private sector restoration companies. For this reason, this proposed fund idea centers on an outcomes purchase fund that is a Pay-for-Success (PFS) model in which the successful outcomes of environmental work are paid for by the fund after they are realized, rather than funding on-the-ground project work up-front as is more typically the case. Maryland has a robust restoration sector of private developers that will be incentivized to invest in riparian forest buffers given the certainty of recouping costs - plus some margin of profit - that the outcomes purchase fund would provide. Currently, this guaranteed source of demand does not exist.

The fund as conceptualized would be established to pay for outcomes in Maryland - and eventually the regional Chesapeake region - and could be designed to cover riparian forest buffer projects in different landscapes (e.g., urban, suburban, rural). Under the PFS model (Figure 2), the fund would issue requests for proposals (RFPs) for the outcomes needed (in this case, acres of riparian forest buffers established), project developers would submit bids, the fund would select bids based on a scoring rubric, and the fund out pay successful bidders for the outcomes once projects are completed and outcomes are verified.

The Fund serves as the buyer of last resort for the outcome. Other entities with voluntary or regulatory compliance needs for this outcome can step in at various points of the project cycle and purchase projects in process – either from the Fund or from project developers, depending on project readiness and buyer risk tolerance – for a penny more. Acres of riparian forest buffer established is an umbrella outcome that can be purchased, and it is possible to calculate other benefits (e.g., nitrogen, carbon) on a per-acre basis that these other entities may need.

This Buyer's Guide provides the conceptual overview and relevant components to potential buyers of the fund. It's important to note that a recommendation is made for a prototyping phase to further refine design details within each step of the fund process. The entity that will implement the fund will be an important partner in sorting through options for fund design and iterating on the prototype to adapt the final design.

The outcomes purchase fund strategy for meeting the riparian forest buffer goal is based on the successful implementation of this type of model around the country. Please see the accompanying business plan for examples (Washington DC's stormwater credit trading program, Wisconsin's water quality trading clearinghouse) that support the recommendation that a PFS model be used to catalyze Bay states to meet an important goal under the Chesapeake Bay Watershed Agreement.

Introduction

The Problem

Chesapeake Bay states and municipalities are responsible for the health of the Chesapeake Bay watershed through the 2014 Chesapeake Bay Watershed Agreement, the Bay-wide TMDL, MS4 permits, and other drivers. Under the 2014 Chesapeake Bay Agreement, Bay states developed a riparian forest buffer outcome of restoring 900 miles per year of riparian forest buffer and conserving existing buffers until at least 70 percent of riparian areas in the watershed are forested. However, over the past 10 years, Bay states have not kept pace with this goal (Figure 1). The region needs a better way to purchase environmental benefits within the Chesapeake Bay watershed, making it easier for MS4 holders, state governments, and other interested parties to meet their water quality and acreage requirements.

Figure 1: Miles of new riparian forest buffers reported by states to the Chesapeake Bay Program (2010-2021)
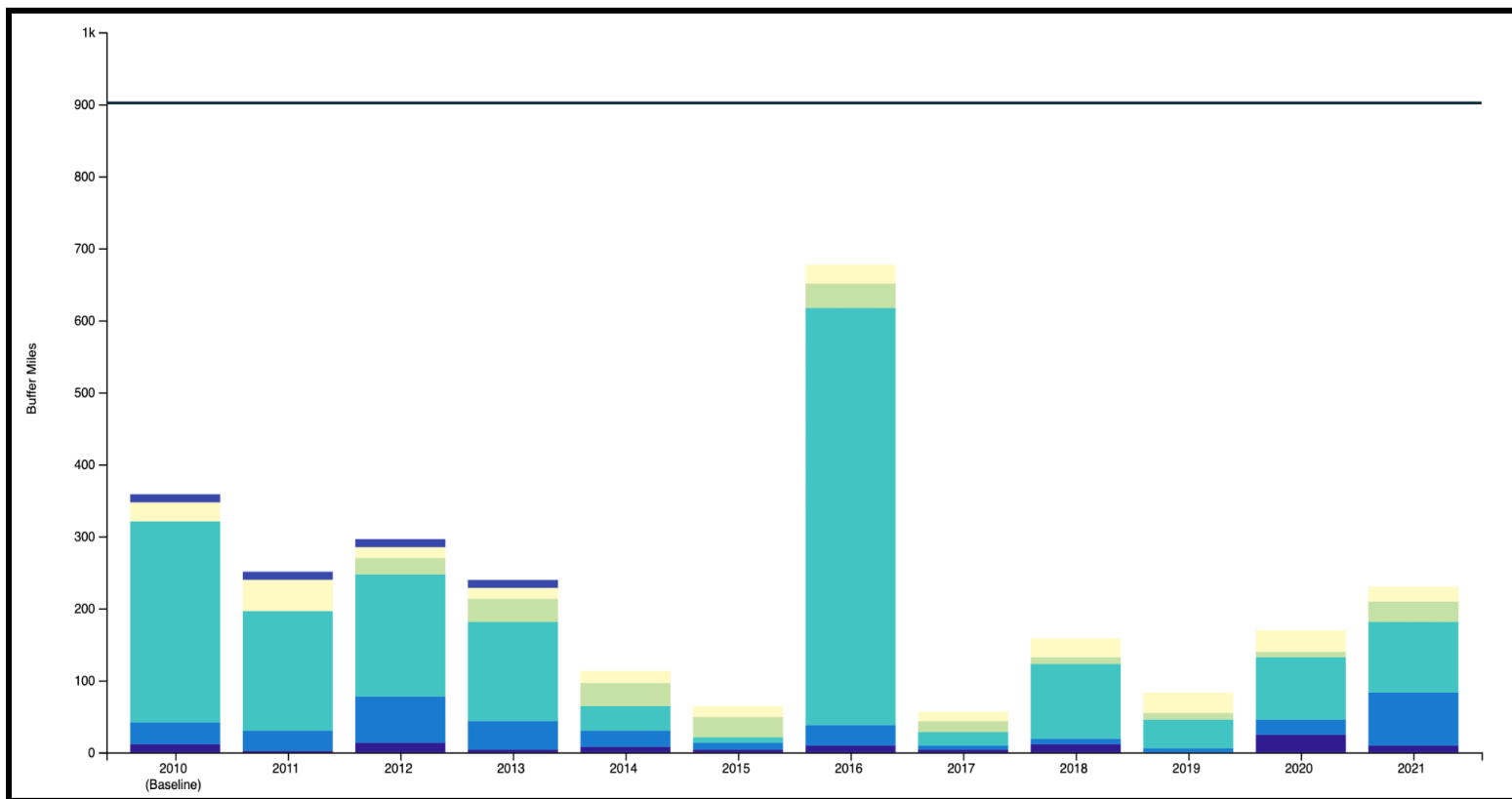
Why Forest Buffers?

This proposed Fund is specific to riparian forest buffers, which act as natural filters. Riparian forest buffers are strips of land along bodies of water planted with trees, shrubs, and other perennial plants. These buffers provide myriad benefits, including:

1. **Cleaner water.** Riparian forest buffers filter water and absorb nutrients before entering adjacent waterways. They also stabilize soils and prevent erosion.
2. **Flood mitigation.** Buffers reduce flooding, as well as coastal impacts from storm surges and sea level rise.
3. **Cleaner and cooler air.** Riparian buffers remove air pollutants and provide cooling benefits for people and wildlife.
4. **Climate mitigation.** Trees and vegetation planted as buffer strips sequester carbon.

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5. **Habitat.** Buffer strips provide forested habitat, often as connectors facilitating wildlife movement. Buffers also improve aquatic habitat within streams; for example, the shade from trees helps maintain cool water temperatures for aquatic species.

Current Barriers to Buffer Plantings

While the benefits are clear, there have been challenges of getting these projects in the ground within the Chesapeake Bay watershed. If current structures made it cheaper and easier to plant forest buffers, more of them would have been planted already. While developing this proposal, we interviewed many regional forest and finance experts, potential buyers, and local governments who helped inform the list of barriers below. Our Fund concept aims to mitigate many of these issues, with the hopes of facilitating buffer planting.

Table 1: Summary of Current Barriers to Buffer Plantings

Barriers	Policy	Capacity	Attitudes	Funding/Cost
Lack of regulatory drivers	✔			
Insufficient county/MS4 capacity		✔		
Hurdles of existing public sources of funding (CREP)				✔
Preference for other BMPs	✔	✔	✔	✔
Lack of contractors/planting capacity		✔		
Private landowners wary			✔	✔
Lack of initial capital for new projects				✔

Lack of regulatory drivers. Riparian forest buffers as a practice are not mandated under any existing Chesapeake Bay programs, so there is not a regulatory driver unique to riparian forest buffer restoration or planting. Stormwater requirements under National Pollutant Discharge Elimination System (NPDES) permits for MS4 jurisdictions are a potential regulatory nexus for riparian forest buffer planting; however, many MS4s in Maryland have demonstrated a preference for other types of BMPs (e.g., wet ponds, stream restoration) to meet permit requirements.

Insufficient capacity at counties and MS4s. County and MS4 budgets are limited so hiring and retaining enough personnel to scope new projects, build partnerships, raise funds and carry out projects is limited. Broadly speaking, counties generally do not have staff equipped with needed forestry expertise to manage these projects.

Insufficient technical assistance capacity. Technical support for edge-of-field practices and good training service providers may be insufficient to encourage landowners to consider riparian forest buffers and then to plant and maintain them.

Public funding: Multiple sources of public funding exist that can support riparian forest buffer project implementation in Maryland[1], however these programs have not to date resulted in the states meeting their

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[1] The Chesapeake Riparian Forest Buffers Network has compiled a list of potential funding sources for riparian forest buffers at the federal and state level that help landowners pay for projects. Federal sources of funding include CREP and

riparian forest buffer goals. Understanding the reasons why is beyond the scope of this business plan, but is an area of future inquiry included in the Next Steps for Operationalizing the Business Plan section.

Preference for other BMPs. Many jurisdictions have invested in wet ponds and stream restoration because these practices are familiar, have lower up-front costs, and are often seen as less risky investments overall. In addition, riparian forest buffer projects have largely already been implemented on available publicly owned lands. A current challenge is now implementing projects on private lands, where future projects must be sited. Furthermore, while Maryland's FFIT tool suggests riparian forest buffers are cost-effective (as compared with other BMPs), land costs, which can be substantial, are often the biggest hurdle. Costs of riparian forest buffers include opportunity costs, land costs, site preparation, trees, planting tools, and long-term maintenance.

Lack of contractors/planting capacity: Another challenge to faster uptake of riparian forest buffers is the availability of nurseries, plants and root-stock. If a planting plan requires larger trees, it takes time to grow them big enough; smaller/younger trees are easier to procure. Another issue is seasonality. Tree planting is seasonal, with typical planting happening during a couple of months in the spring and the fall. This means there are limitations to how much work can be accomplished in any season or year.

Ineffective programs for private landowners: A majority of Chesapeake states' lands are privately owned, which offers both an opportunity and a challenge. Private landowners including homeowners, farmers, churches and other private institutions, all have reasons they may be wary of participating in riparian forest buffer programs, including high up front and maintenance costs and excessive paperwork requirements. Riparian forest buffers are edge-of-field practices. These are difficult because they can't be tied to higher yield or profitability; so programs should ensure that landowner payments compensate for this. Farmers may also not want to take land out of production to plant riparian forest buffers, particularly when crop commodity prices are high.

Lack of initial capital for new projects: Up front costs for most projects must be paid out of MS4 or landowner cash on hand. Projects are often eligible for other sources, but the process of pursuing loans or grants to cover those costs can be slow/cumbersome.

EQIP; state sources in MD include the Maryland Agricultural Water Quality Cost Share (MACS) Program (MD Department of Agriculture); the Backyard Buffers program (Maryland Department of Natural Resources (DNR) Forest Service and Potomac Conservancy); the Conservation Buffer Initiative (MD Department of Agriculture); the Chesapeake and Atlantic Coastal Bays Trust Fund (MD Department of Natural Resources); and Healthy Forests Healthy Waters (Alliance for the Chesapeake Bay).

Overview of Incentives and Drivers

While barriers to riparian forest buffer planting exist as identified above, numerous incentives and drivers for scaling up riparian forest buffer planting likewise exist (Table 2).

Table 2: Incentives and Drivers for Riparian Buffer Planting

Incentives and Drivers	Law	Policy	Funding/ Cost
1991 Forest Conservation Act (FCA)	✔		
2022 MD Conservation Finance Act (CFA)	✔		
MS4 NPDES permits		✔	
MD: New riparian forest buffer efficiency ratio		✔	
WIP and TMDL goals		✔	
MD Clean Water Commerce Act (CWCA)	✔		✔
PA Clean Water Procurement Program (CWPP)	✔		✔
Conowingo WIP		✔	✔

There are many places where forest and tree conservation, restoration and afforestation are included in Maryland's legal code. These legal provisions provide important regulatory and voluntary drivers that can support greater riparian forest buffer planting. See Appendix I for an Expansion on Incentives and Drivers that provides specifics of relevant Maryland legislation.

Outcomes Fund Overview

General Concept and Overview of The Fund

Mission: To incentivize accelerated riparian forest buffer plantings through a Pay for Success contracting model in order to meet the riparian forest buffer outcomes goal of the Chesapeake Bay Agreement.

The Fund, established to serve the entire state of Maryland–and eventually the regional Chesapeake Bay states–can be adapted to incentivize buffers in all kinds of circumstances: urban, suburban, rural, near existing stream restorations, on agricultural lands, etc. Piloting the Fund, with the intention to expand its reach, sets it up for success through learning from early experiences and adapting and improving it.

The Fund will put out RFPs for project bids for acres of riparian buffer, select bids based on a scoring rubric, and once projects are completed and outcomes are verified, will purchase project outcomes measured in acres of riparian forest buffers established (Figure 2). Riparian forest buffers must be established following the appropriate BMP guidelines under the Chesapeake Bay Program and verification of these outcomes should follow the [Chesapeake Bay Program Forestry Workgroup's BMP Verification Guidance](#)). While some Bay Program goals refer to *miles* of riparian forest buffers, acres are preferable because they are more easily converted to other benefits like carbon.

Other buyers, who have regulatory drivers, environmental goals, compliance reasons, etc. will have the ability to outbid the Fund for $0.01 more per acre and use the outcomes to meet their needs.

Essentially, the Fund (1) establishes a permanent demand for riparian forest buffers and (2) sets a price floor for those projects.

Figure 2: Fund Mechanism
Note: Under Step 4, 'P4S' stands for Pay for Success. Details explained further in this document.
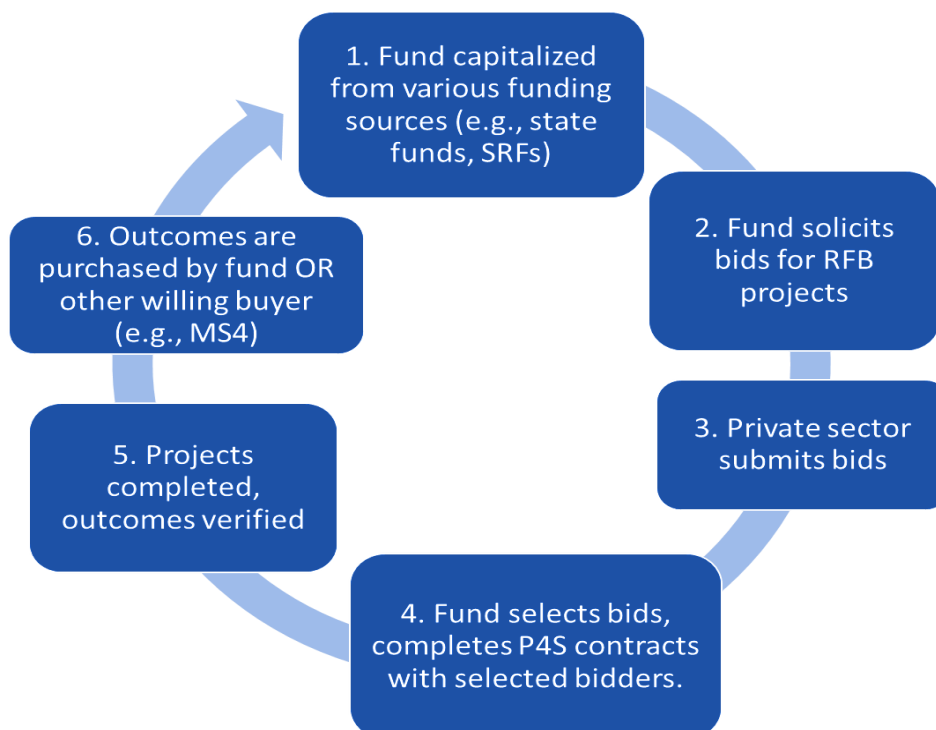
Solicitations and Contracts

To ensure your dollars are spent appropriately, and on high quality outcomes, key components of the Fund's proposed RFP and proposal scoring criteria are listed below.

Relevant Components of the RFP

The RFP structure would be generally modeled after Anne Arundel County's existing outcomes-based program which has been well-received by the private sector and used for MS4 compliance. This program has gone through iterations and improvement over the last 5+ years, based on lessons learned, so building off of this success makes sense and prevents reinventing the wheel.

The Fund application will have a simplified structure, given that the purchase of agreed-upon outcomes requires less in reporting and budget transparency than traditional procurement.

Relevant Components of the RFP include:

- **Offeror Qualifications:** Bidders must show that they have experience in completing successful projects relevant to the one they're proposing; ability to secure, and/or history of securing, appropriate financing; two references demonstrating the offeror's successful projects in design, installation, and maintenance capabilities.

- **Price:** Offerors must include their proposed price per unit of outcomes provided (i.e., price per acres of riparian forest buffers established). Price per outcome is weighted heavily in the scoring criteria, but will not be the sole determinant of successful bids.

- **Alternate Buyer Clause:** All contracts resulting from this RFP will include a clause that allows the contractor to sell the outcomes resulting from these contracts to another entity. Eligible entities include local governments (i.e., MS4 holders), companies/businesses, and NGOs. Such a clause establishes the outcome fund as a buyer of last resort. See Figure 3 below.

- **Project Co-Benefits:** Along with the specific outcomes included in the RFP, bidders are encouraged to share other ecological, social, and health benefits that would be a direct and measurable result from their proposal. Co-Benefits will be a consideration when scoring proposals (see scoring criteria below).

- **Justice & Equity Considerations:** The fund recognizes that securing capital needed to complete projects may be prohibitive for smaller, more rural communities as well as minority-owned project deliverers. The section below titled "Small, Minority and Women-Owned Business Enterprises" outlines additional considerations for proposals that fit either category.

Figure 3: Buyers' Options. Other buyers can purchase outcomes either through directly contracting with the bidder, through taking over the signed contract from the Fund or through purchasing outcomes from the Fund.

Buyers' Options			
	Direct Contract with Bidder	**Transfer Contract from Fund**	**Direct Purchase from Fund**
Timing	Day 0	Day 0 -> end Yr 3	After final payment (yr 3)
Risk to Buyer	Highest	Variable	Lowest
Level of effort	Highest	Variable	Lowest
Payments	All payments to project developer	Pro rata based on contracted schedule	Single payment to fund
Who Earns $.01	Project developer	Project developer and Fund	Fund

Proposal Scoring

Each proposal will be reviewed using a scoring matrix (Table 3). Reviewers could include fund managers, experts in relevant fields, state and local government employees, and members of academic institutions. Funding institutions would be offered a reviewing seat.

This matrix was developed as a hybrid model, combining elements of the [Maryland Clean Water Commerce Act Application](#), Anne Arundel County's Stormwater Program, and elements needed to address specific demands of the Fund. We suggest the Fund revisit the scoring criteria after the completion of a pilot round of solicitations to ensure it is creating incentives that deliver a balance of projects across urban and rural geographies and a range of project sizes, and that it does not exacerbate environmental injustices.

Table 3: Proposal Scoring Criteria*

Solicitation Scoring Criteria	Max Points (total of 100)
Cost Effectiveness (price per acre per year)** Bid should include: 1. Number of riparian forest buffer acres established (outcomes) 2. Total project cost 3. Project term (i.e., permanent protection, 15 year contract, etc.)	50
Bidder Qualifications Bid should include: 1. Letters of reference 2. Team leadership resumes 3. List of prior projects 4. Other materials to substantiate bidder qualifications.	20
Co-Benefit 1: Alleviating environmental harms and risk to disadvantaged communities To be substantiated as projects: 1. located in communities identified by a Socioeconomic Score (Distribution Across Maryland) of 80 or higher using MDE's Environmental Justice Tracking Tool 2. located on land owned or operated by a producer classified as historically underserved by USDA	10
Co-Benefit 2: Enhancing adaptation against climate change Examples include: 1. flood control and mitigation 2. disaster resilience	10
Co-Benefit 3: Contributing towards attainment of local water quality standards (i.e., to prioritize impaired waterways)	10

*To be refined following the initial Fund pilot; co-benefits or measures may need to be added and point weights may need to be redistributed, etc. See MD's CWCA Application for details on how co-benefits will be measured.

**We propose a calculation that takes project term into account and assumes project life is 100 years for projects that have permanent easements to protect the land. This will create a significant benefit for projects that have permanent protection.

Award Announcement & Tracking

All awards will ideally be made publicly available via an online dashboard maintained by the Fund manager, allowing prospective buyers to know the details of projects that would be available for purchase. Public record will include geographic location of the project, price per outcome, and the main point of contact for the contracting entity. Per the contract agreement, other entities like yours have the opportunity to outbid the Fund by $0.01 to meet their own compliance requirements or voluntary environmental goals. The online dashboard

will denote progress made throughout the project, including elements like land acquisition, securing proper permits, etc.

Outcomes Measurement and Verification
Outcomes will be measured in **acres of riparian forest buffer established**. These acres must align with minimum standards expected of riparian forest buffers that "count" toward Bay Program goals, as defined by the Chesapeake Bay Program Guide and discussed in the Introduction to the business plan. This means, for instance, a recommended buffer width of 100 ft, with a 35-foot minimum buffer width. Verification of outcomes should follow the Chesapeake Bay Program Forestry Workgroup's BMP Verification Guidance. Verification methods for rural/agricultural projects are further detailed in the Chesapeake Bay Program Resource Improvement Practice Definitions and Verification Visual Indicators Report (pp 19-20).

Payments
Contracts issued under this fund will utilize the Pay for Success model with Full Delivery contracts, in which the contractor takes responsibility for all elements of the project from design to maintenance. This differs from traditional procurement where reimbursements for time and materials are paid out at regular intervals (monthly, quarterly, etc.). Full Delivery does not require the contractor to submit itemized budgets and receipts, rather the contractor submits an invoice for the agreed upon price once outcomes have been successfully delivered. The Fund's contracts will be structured this way because PFS creates positive economic pressure, allowing the private sector to take on the risk of achieving project outcomes, which means more work can be accomplished for less public funding.

Not only are PFS contracts paid out upon delivery of successful outcomes, there is evidence that this innovation takes significantly less time. In Florida, traditional procurement has taken up to three phases funded over 16 years, compared to a new PFS contract that is shaving off a decade from the process. Not only are they faster, they can also be cheaper: RFPs in Maryland show PFS contracts costing one third of past procurement.

Payment from the Fund is contingent on the contractor delivering verified outcomes, measured in acres of riparian forest buffers established.

Broken into three phases, the payment schedule is:

1. 30% of the payment will be delivered at the time of planting
2. 30% of the payment will be delivered after 1-2 years of verified maintenance
3. The remaining 40% will be paid after 3 years of verified maintenance.

Small, Minority and Women-Owned Business Enterprises
Along with scoring bonuses given to projects alleviating environmental harms in disadvantaged communities, the Fund recognizes the extra burden of securing financing that may be prohibitive to smaller and minority-owned project developers. For contractors who are woman-owned, minority-owned, and/or considered a small business, project proposals can ask for up to 25% of the total contract cost up front. It will be the responsibility of the Fund manager - who will have additional local context - to determine exact criteria for eligibility. Remaining payments could be adjusted equally, such that the payment schedule for these entities would be:

1. 50% paid upon contract signing
2. 25% paid upon planting
3. 25% paid upon 3 years of verified maintenance

How this model addresses existing barriers

The Introduction lists key barriers that are standing in the way of increasing riparian forest buffer plantings, at least in Maryland. The Fund aims to address as many of them as possible:

- **Lack of regulatory drivers:** the Fund will fill this gap by creating a predictable annual source of demand, overcoming the low level of demand due to lack of regulation specifically requiring riparian forest buffer plantings.
- **Insufficient county/MS4 capacity:** the Fund will help localities by creating replicable templates, contracts and processes AND by catalyzing a source of outcomes that counties or localities can purchase directly, without having to do all the groundwork.
- **Hurdles of existing public sources of funding:** through its structure, the Fund should streamline all aspects of its operations to avoid the kinds of paperwork and process hurdles that have stymied public funding programs. The Fund puts project development squarely into the hands of successful project bidders, for-profit and nonprofit, non-public firms and organizations. Bidders who know they can sell outcomes to the Fund at a previously agreed-upon price will work directly with landowners on securing land access, contracts and any other arrangements needed through direct contracts that don't necessitate the participation of public funding sources.
- **Preference for other BMPs:** the Fund will generate specialized demand for riparian forest buffers to expressly increase those practices in more places; of course the market can still develop other BMPs to meet other sources of demand, but our focus is increasing demand expressly for riparian forest buffers.
- **Lack of contractors/planting capacity:** by establishing predictable annual demand, the Fund should spur contractors to maintain their businesses such that they can sell outcomes to the Fund; there might still be supply chain challenges in obtaining root stock or other raw materials, but at least contractors can predict a steady demand for their work. This can eventually contribute to more forward contracting deals that support new or expanding nurseries.
- **Ineffective programs for private landowners:** this is probably the hardest barrier to overcome, but one of the most critical; a well-designed outcomes purchase fund will drive the private sector to deliver outcomes. Costs for things like easement payments and other landowner incentives can be built into outcomes pricing. Given that most new opportunities are with private lands, the Fund can generate significant new demand for those projects, driving investment across the private sector in landowner outreach and engagement.
- **Lack of initial capital for new projects:** the establishment of a guaranteed buyer with a predictable annual demand will give comfort to lenders that they will be repaid. Private lenders and banks should be willing to finance projects, and the State Revolving Funds and other impact investors will ideally crowd private investors into the market as a result of a new predictable buyer.

Prototyping

Rationale

Launching as a pilot will help iron out many details related to project costs, outcomes pricing, contracting, technical assistance levels, staffing levels and more. The initial pilot could aim to work with a wide variety of project implementers, community types (urban and rural), and carry out a formal reflection process that leads to adaptive management of the Fund. Launching in a couple of counties will narrow the number of variables the newly-formed fund has to deal with and support developing early partnerships and examples. The idea behind such a pilot would be to assess the Fund's potential challenges with setting pricing, covering staffing costs, revealing unexpected expenses and tasks that need to be built into a scaling plan and fund rollout.

Other buyers, like MS4 holders, will be crucial partners in a pilot Fund. In order to glean as much information as possible to inform future iterations, we must learn how the proposed process works from the alternative buyer perspective and help realize the full suite of benefits that buffers provide locally. Other buyers will help Fund dollars stretch farther and are a main source of long-term outcomes demand.

We need to make sure the Fund structure works for potential other buyers including timeline, contract structure, and requirements.

Proposed Locations

The Fund could launch via a multi-county pilot in Carroll and Howard Counties. Howard County has established a need and desire for increased riparian forest buffer plantings to meet their MS4 requirements, and Carroll County has a vast rural area opportunity, plus some riparian forest buffer work currently underway with the Alliance for the Chesapeake Bay. Harford and Baltimore Counties have also been suggested as potentially worth exploring for pilots.

Potential Fund Managers

At this time, no Fund Managers have been formally approached about their potential role as the pilot implementor. We are currently sharing the full business plan (available upon request) with a preliminary list of potential entities to help identify the best fit. An important element of selecting a fund manager is to avoid a structure that involves the opportunity for that manager to enrich itself. Therefore, any firm that would likely develop credits to sell to the Fund should not also manage the Fund.

Some potential managers include groups like the Alliance for the Chesapeake Bay, Chesapeake Conservancy, i2 Capital, HASI (formerly Hannon Armstrong), Quantified Ventures, University of Maryland's Environmental Finance Center, and many others.

Timeline

For the initial pilot, the Fund would issue a Request for Proposals (RFP) with a 3-month window to submit proposals. An informational webinar would be hosted for those interested in submitting a proposal at the beginning of this window.

Contract terms may be negotiated for no more than an additional three months, with the anticipated contract start date to be three months after the solicitation closes.

Table 4: Example Solicitation Timeline

Solicitation Opens	October 1
Pre-Proposal Webinar for Bidders	Early October
Solicitation Closes	January 15
Solicitation Scoring & Contract Negotiations	January 15 - March 31
Estimated Contract Start Date	April 15
Ability for other buyers to assume contracts	As Early as April 16

Scaling the Fund
After the pilot has concluded and necessary adjustments have been made, the Fund could accept proposals on a rolling basis. By keeping the solicitation open, local communities have the opportunity to purchase outcomes (by outbidding the Fund) outside of restricted grant cycles, working around other constraints they are bound by. We have heard from multiple localities that grant cycle timelines can be problematic and that additional flexibility would be appreciated.

How You Can Get Involved
Right now, we are looking for interested geographies to pilot this concept. All operations are still contingent on identifying a fund manager and sources of fund capitalization.

We are also looking for prospective outcomes buyers that would be interested in purchasing riparian forest buffer acres from contracts awarded from the Fund for $0.01 more than the negotiated price.

If you are interested in exploring this concept further, or willing to volunteer as a part of the pilot program, please reach out to Phoebe Higgins, phiggins@policyinnovation.org.

Conclusion

Thank you for providing feedback on the Chesapeake Bay Riparian Forest Buffer Outcomes Fund! EPIC, as well as our suite of advisors and partners are excited at the prospect of this theoretical concept becoming reality. The need for more riparian forest buffers in the Chesapeake Bay region is great. By aggregating funds and project submissions, we hope to facilitate plantings for all parties involved.

Please email Phoebe Higgins, EPIC's Director of Markets, with any questions or ideas.

Appendix

i: Expansion on Incentives and Drivers

Table 3: Incentives and Drivers for Riparian Buffer Planting

Incentives and Drivers	Law	Policy	Funding/ Cost
1991 Forest Conservation Act (FCA)	✔		
2022 MD Conservation Finance Act (CFA)	✔		
MS4 NPDES permits		✔	
MD: New riparian forest buffer efficiency ratio		✔	
WIP and TMDL goals		✔	
MD Clean Water Commerce Act (CWCA)	✔		✔
PA Clean Water Procurement Program (CWPP)	✔		✔
Conowingo WIP		✔	✔

There are many other places where forest and tree conservation, restoration and afforestation are included in Maryland's legal code.[2] These legal provisions provide important regulatory and voluntary drivers that can support greater riparian forest buffer planting.

The MD Forest Conservation Act (FCA) of 1991 requires that development projects (site plan parcels and subdivisions) larger than .92 acres have to offset forest clearing with new planting. The MDNR Forest Service administers FCA but the FCA is implemented at the local level and while counties must implement the FCA as the minimum requirement, counties can impose stricter requirements. The program has two quantitative requirements: (1) restoration following prescribed formulas that determine how much mitigation is required for forest removed by development; and (2) afforestation following an afforestation threshold that determines how much forest developers must plant to mitigate development. Hydrologically sensitive areas - streams, wetlands, and rivers - are the highest priority for preservation and planting. The FCA has also enabled

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[2] Forest Preservation Act of 2013 (MD NR Code § 5-101(2021)/HB 706 2013); Maryland Reforestation Law of 1989 (MD NR Code § 5-103); Greenhouse Gas Emissions Reduction Act (GGRA) - Reauthorization of 2016 (SB 323); Climate Solutions Now Act of 2022(SB0528/CH0038); Conservation Finance Act of 2022 (HB653/SB348); Tree Solutions Now Act of 2021 (HB991)

development of forest mitigation banks from which developers can comply with their restoration and afforestation requirements. Currently, banks exist in 15 of the 18 counties in Maryland. The FCA is therefore a potential area of demand for riparian forest buffer restoration/planting, but is not specifically required for mitigation. The FCA is a particularly important nexus in those counties that are growing rapidly - such as Frederick County, which has strong buffer requirements due to rapid growth (Frederick Country grew 11% from 2010 to 2019, making it the fastest growing county in Maryland).

In 2023, the FCA was revised for the first time since 1991 (SB 526) to strengthen the law's ability to stem forest loss. The new law simplifies and increases mitigation requirements: rather than following complicated formulas to determine replanting requirements, the revised law requires developers to replant most forest lost to development acre for acre. The law also set a statewide goal for forest and tree canopy acres, and gave local governments more options to halt net forest loss in their jurisdictions. Hydrologically sensitive areas - streams, wetlands, and rivers - are the highest priority for preservation and planting.

MS4 jurisdictions are another nexus of potential opportunity for riparian forest buffer implementation, covering roughly 70% of the state, but, similar to FCA requirements, MS4s are not required to implement riparian forest buffers as a BMP in order to fulfill their NPDES permit requirements. Through research into MS4 Financial Assurance Plans (FAPs) and interviews, it appears that MS4s prefer other BMP options, such as wet ponds, as they are seen as easier and less risky investments. In addition, the FFIT tool suggests that riparian forest buffers are a cost-effective alternative for permit compliance, and these buffers have important co-benefits that MS4 jurisdictions can leverage. For example, when counties are MS4 jurisdictions - such as Howard County - implementing riparian forest buffers to meet NPDES permit requirements can have important benefits to other county initiatives, such as climate mitigation included in county-level climate action plans. In these cases, land/easement costs are highly variable depending on location; land cost and permanence requirements can impact the cost-effectiveness of riparian forest buffer implementation for MS4s.

An opportunity for MS4s to consider riparian forest buffer restoration/planting is the **new Equivalent Impervious Acres (EIA) efficiency credit for riparian forest buffer implementation** provided through the updated Wasteload Allocations (WLA) for riparian forest buffers in 2021. The 2014 WLA Guidance provided an 0.38 EIA/acre credit for this practice for Phase I MS4s; in 2021, revised WLA Guidance increased this credit to 1.5 EIA/acre for riparian forest buffers.

State spending on environmental outcomes purchases is an innovative financing mechanism currently being implemented in Maryland (the Clean Water Commerce Act or CWCA) as well as in Pennsylvania (the Clean Water Procurement Program or CWPP). In Maryland, the 2022 Conservation Finance Act has provided an enabling environment for the increased use of outcomes purchasing in the state.