

Focus on What Matters!

How buying environmental results can be faster,
cheaper, and more effective



ENVIRONMENTAL POLICY
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Agenda



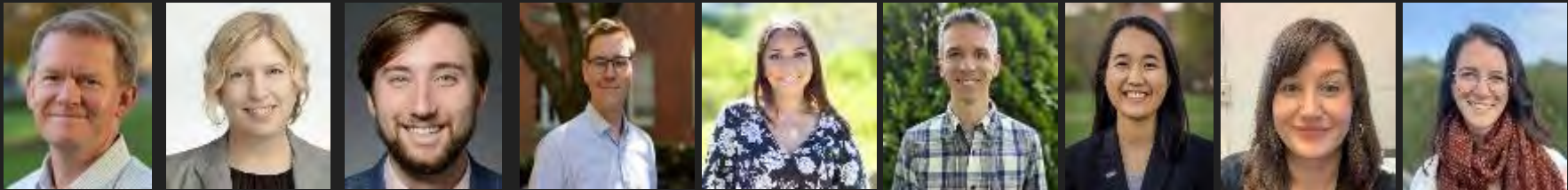
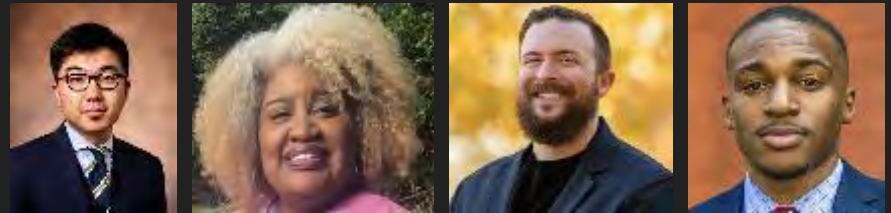
- ~~The problem~~
- The solution
- The solution in action
 - Clean Water
 - Commerce
 - Conservation
 - Finance
 - Watershed Partnerships
- Opportunities





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We build policies that deliver
spectacular improvement in the
speed of environmental
progress.



New Report Shows Why Bay Cleanup Practices Aren't Working

By Bay Bulletin / May 9, 2023

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Additional funding of existing implementation efforts is unlikely to produce the intended nutrient reduction outcomes. Achieving and sustaining substantial nonpoint pollutant reductions will likely **require development and adoption of new implementation programs** and tools.

Nonpoint source implementation efforts could be improved by shifting the focus from a census of implemented practices to an accounting of load reductions. Finer spatial scale modeling and monitoring could further identify high nutrient loss areas and operations and be used to consider more effective treatment options. Additionally, new financial incentive programs such as **pay-for-performance or pay-for-success** programs offer opportunities to reward treatment of high-loss areas or operations and to encourage adoption of highly effective practices that land managers may not consider under standard cost-share programs. These approaches would provide both the identification of high-value opportunities and the incentives for landowners to take advantage of them.



So Far: Paying for Practices



Credit: Maryland Department of Agriculture



Credit: Lynn Betts/Wikipedia



Pay for Success: Freedom



Outcomes-based

Measured or modeled

Payment after verification

No itemizing costs

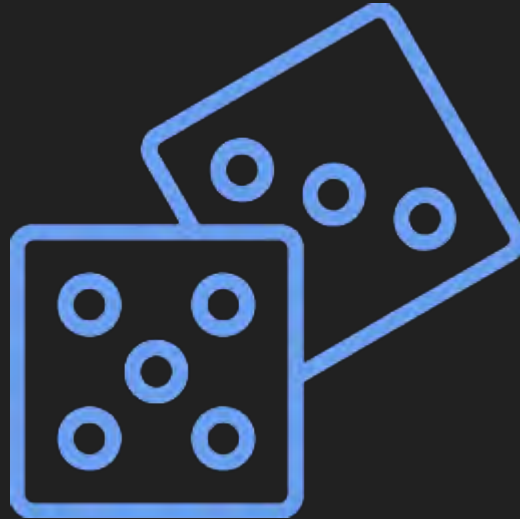
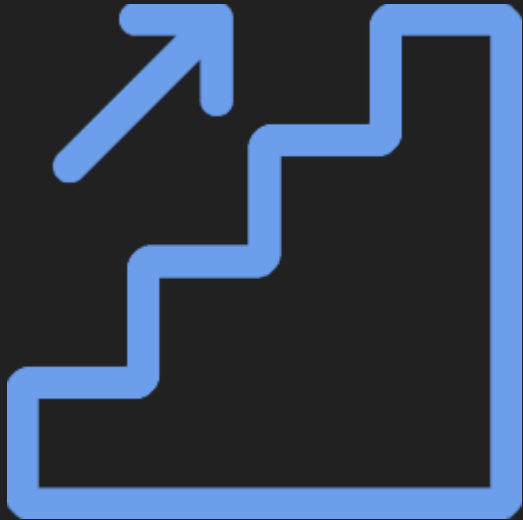
Room for innovation

Flexibility for farmers





PfS Public Benefits





Pay-for-Success: Analyzing and Evaluating a New Way of Government Contracting for Environmental Projects

Ongoing data from these projects shows a 63% cost reduction in environmental outcomes over a 5-year period, ultimately creating a cleaner and better-managed environment.



Luskin
School of Public Affairs



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policyinnovation.org/publications/analyzing-pfs-luskin

Maryland's Clean Water Commerce Program

1. Request for proposals
2. Entities bid \$/lb N
 - a. Based on model
 - b. Include co-benefits
3. State selects projects
4. Verification
5. Payment
6. Cleaner water



FY19 Applications Received / Projects Selected

FY19 Proposals Received:

Applicant	Nitrogen (\$/Lb/yr)	Phosphorus (\$/Lb/yr)	Sediment (\$/Ton/yr)	Evaluation Results
HGS, LLC (a RES company)	\$105.12	\$144.34	\$552.80	Selected
OptiRTC, Inc.	\$265.00	\$1,535.00	\$1,995.00	Not Selected

- 2 proposals received; both non-point source
- Selected the HGS, LLC project.
- Up to \$4,409,300 in grant funding for HGS, LLC to restore 6,236 linear feet of degraded stream channel.
- HGS is providing 20 years of monitoring and maintenance activities and all restoration areas are projected in perpetuity by deed restrictions
- MDE provides annual payments for the purchase of verified annual reductions of nitrogen, phosphorous, and sediment based on the agreed upon unit prices.

Reduction Type	Estimated Units/Year		Delivery Factor	Unit/Year Delivered	Price per Unit/Year	Total Price/Year
Nitrogen	1,626.00	Lbs/yr	0.43	699.18	\$105.12	\$73,497.80
Phosphorus	749.00	Lbs/yr	0.68	509.32	\$144.34	\$73,515.25
Sediment	129.00	Tons/yr	1.03	132.87	\$552.80	\$73,450.54

Unit Annual Price	\$220,463.59
Practice Useful Life (years)	20
Total Over 20 Years	\$4,409,271.73



Maryland
Department of
the Environment



MDCWCP: Money

(ii) Must be created on or after July 1, 2017.] **IN FISCAL YEAR 2022 AND EACH FISCAL YEAR THEREAFTER, THE DEPARTMENT SHALL TRANSFER \$20,000,000 FROM THE BAY RESTORATION FUND TO THE CLEAN WATER COMMERCE ~~FUND~~ ACCOUNT ESTABLISHED UNDER § 9-1605.4 OF THIS SUBTITLE, TO BE USED FOR THE PURPOSES SPECIFIED IN § 9-1605.4 OF THIS SUBTITLE.**



MDCWCP: Commodity

~~(4) (6)~~ “ENVIRONMENTAL OUTCOME” MEANS ~~ANY OF THE FOLLOWING QUANTITATIVE OUTCOMES~~ NITROGEN LOAD REDUCTIONS THAT CAN BE DIRECTLY MEASURED OR MODELED ~~AT THE EDGE OF TIDE~~ USING THE CHESAPEAKE BAY PROGRAM ~~WATERSHED MODEL~~ MODELS ~~OR ANY OTHER METHOD OR MODEL IN A QUANTIFICATION PLAN;~~



MDCWCP: Specifications

~~(7)~~ (8) “QUANTIFICATION PLAN” MEANS A PLAN APPROVED BY THE DEPARTMENT THAT DESCRIBES:

(I) THE METHOD THAT WILL BE USED TO MEASURE OR MODEL ENVIRONMENTAL OUTCOMES;

(II) THE REQUIRED COMPLIANCE MONITORING THAT WILL OCCUR TO ENSURE THAT THE PROPOSED ACTIONS WERE TAKEN;

(III) ANY VERIFICATION STEPS THAT MAY BE CARRIED OUT BY THE DEPARTMENT OR THE OWNER OF A PROJECT OR PRACTICE TO CONFIRM ~~THE MODEL RESULTS OR THE ACCURATE MEASUREMENT OF~~ ENVIRONMENTAL OUTCOMES; AND

(IV) THE TIMELINE FOR PROPOSED PAYMENTS UNDER A CONTRACT WITH THE DEPARTMENT.



MDCWCP: Prioritization

(II) WHEN EVALUATING FUNDING PROPOSALS, THE DEPARTMENT SHALL PRIORITIZE THE FOLLOWING FACTORS IN THE FOLLOWING ORDER:

1. THE DOLLAR COST PER UNIT OF ENVIRONMENTAL OUTCOME; AND

2. THE PROVISION OF EXPECTED CO-BENEFITS RELATED TO:

A. ENHANCING THE MITIGATION OF AND RESILIENCY TO THE ANTICIPATED ADVERSE EFFECTS OF CLIMATE CHANGES;

B. ~~ADDRESSING DIVERSITY, EQUITY, OR ENVIRONMENTAL JUSTICE CONCERNS; OR~~ ALLEVIATING THE ENVIRONMENTAL HARMS AND RISKS BORNE BY COMMUNITIES DISPROPORTIONATELY BURDENED BY ENVIRONMENTAL HARMS AND RISKS AS IDENTIFIED BY THE DEPARTMENT IN CONSULTATION WITH THE COMMISSION ON ENVIRONMENTAL JUSTICE AND SUSTAINABLE COMMUNITIES;

C. CONTRIBUTING TOWARD THE ATTAINMENT OF WATER QUALITY STANDARDS IN A LOCALLY IMPAIRED WATERSHED; OR

D. REDUCTIONS IN PHOSPHORUS OR SEDIMENT LOADS THAT ARE DIRECTLY MEASURED OR MODELED BY THE CHESAPEAKE BAY PROGRAM MODELS AND CAN BE COUNTED TOWARD THE STATE'S POLLUTION LOAD REDUCTIONS REQUIRED UNDER THE CHESAPEAKE BAY TMDL.

Carve-outs: at least...

- 35% (\$7M) for agricultural practices
- 20% (\$4M) for projects in communities disproportionately burdened by environmental harms and risks, including stormwater management and green infrastructure
- 10% (\$2M) for nonagricultural landscape restoration projects



MDCWCP: Scoring and Selection

Nitrogen Price	Nitrogen Pounds	Nitrogen Quintile	Phosphorus Reduction (lbs)	Phosphorus Quintile	Sediment Reduction (tons)	Sediment Quintile	Points Assigned							Total Points
							Cost Effect	Climate	Env	Water	Phosphorus	Sediment	Natural	
							Points	Change	Justice	Quality	Points	Points	Filters	
\$ 16.31	507664	1	5,662	1	7,201.00	1	60	10	0	10	5	5	10	100
\$ 44.38	8912	1	0	0	0.00	0	60	10	10	10	0	0	10	100
\$ 29.45	134100	1	1,866	2	4,266.10	1	60	10	0	10	4	5	10	99
\$ 19.38	70962	1	2,299	2	481.10	2	60	10	0	10	4	4	0	88
\$ 47.51	2459	2	0	0	0.00	0	45	10	0	10	0	0	10	75
\$ 30.00	2978	1	0	0	0.00	0	60	0	0	10	0	0	0	70
\$ 55.28	2387	3	0	0	0.00	0	30	10	0	10	0	0	10	60
\$ 56.43	7483	3	0	0	0.00	0	30	10	0	10	0	0	10	60
\$ 52.00	7218	3	0	0	0.00	0	30	0	0	10	0	0	10	50
\$ 63.50	1326	3	42	4	27.82	4	30	0	0	10	2	2	0	44
\$ 63.50	1731	3	24	4	17.44	5	30	0	0	10	2	1	0	43
\$ 63.50	1688	3	21	5	18.28	4	30	0	0	10	1	2	0	43
\$ 96.85	14440	5	350	3	335.00	2	0	10	0	10	3	4	10	37
\$ 190.46	1576	5	350	3	335.00	3	0	10	0	10	3	3	10	36
\$ 81.29	1516	4	0	0	0.00	0	15	10	0	0	0	0	10	35
\$ 50.00	5000	3	750	2	0.00	0	30	0	0	0	4	0	0	34



Pennsylvania buys outcomes too!

	MDCWCP	PACWPP
Funding	\$20M/year	\$22M over 3 years
Carve-outs	<ul style="list-style-type: none">• ≥35% agriculture• ≥20% in burdened communities• ≥10% non-agricultural landscape restoration	100% agriculture
Priorities	<ul style="list-style-type: none">• Locally impaired watershed• P and sediment reductions• Alleviation of environmental injustice• Climate mitigation and adaptation	<ul style="list-style-type: none">• Locally impaired watershed• Tier 1 Chesapeake Bay county• “Small farms”=not CAFOs• Community/environmental benefits• Fiscal/managerial viability of entity
Administered by	WIFA	PennVest



More states paying for results



VFPF Vermont Pay For Phosphorus Program
Performance-based payments for phosphorus reductions on farms



**Soil and Water
Outcomes Fund**

Press Release | January 5, 2021

**Iowa Department of Agriculture and Land Stewardship Announces
Groundbreaking Water Quality Outcomes Incentives**

Partnership supports Iowa farmers' efforts to produce quantifiable environmental outcomes

Annapolis, MD - Today, Governor Lawrence J. Hogan Jr. signed into law



SB0348/HB0653: The Conservation Finance Act of 2022.

The legislation has received praise from dozens of businesses and conservation organizations focused on improving the environment. The bill makes a comprehensive suite of changes to state contracting law, environmental funds, and grants that will help achieve Maryland's Chesapeake Bay, forest conservation, climate, and environmental goals, and increase the state budget.

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increasing the state budget.

Billions in private finance are flowing into

\$200 billion in carbon offset work to \$4 billion

in U.S. wetland and stream restoration. This bill will

business with the goal of helping

Maryland attract at least \$100 million of new private finance.

policyinnovation.org/cfa

Passage of the legislation was led by Senator Sarah Elfreth, Delegate Regina Burse, and

led by

co-sponsors Senator Jim Rosapepe, Delegate Dana Stein, Delegate Kumar Barve, Delegate

Guy

Guzzone, Senator Will Smith, and Senator Katie Fry Hester.

Conservation Finance Act

Recognize watersheds as state infrastructure

New type of state contract (Pay for success) allows states to simply buy environmental outcomes at the end of project

New definition of 'environmental outcome' makes carbon, water quality, etc. a purchasable 'good'

First definition in law for blue infrastructure; first green infrastructure definition to include climate resilience

Water infrastructure loans for forest preservation and management

Nonprofits and for profits eligible for loan guarantees for land protection

Sets up a program to buy \$25 million/year of water quality credits (paid on delivery)

Prioritizes projects with quantifiable co-benefits (local jobs, soil carbon, EJ)

Promotes partnerships between private restoration companies and nonprofits

New state commission on Green and Blue Infrastructure

Requires state to prioritize sale of hazardous dam removal mitigation credits

Creates task force on local government natural asset accounting (i.e. what is the value and depreciation of trees and waters)



In Colorado Revised Statutes, add part 4 to article 37

AN ACT

relating to the administration of "pay for success" contracts for state agencies.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:

KNOWN AND MAY BE

AMEND TITLE 29 OF THE DELAWARE CODE RELATING TO PAY FOR SUCCESS CONTRACTS.

24-37-401. Success

CITED AS THE "PAY FOR SUCCESS"

Success contracts. A Pay for Success contract is an agreement between a State agency or an investor under which an investor will provide upfront capital to fund a development initiative. The State agency agrees to repay the program intermediary if the economic development initiative meets the performance measures and the program evaluator will determine if the performance measures and the program intermediary, the program intermediary will contract with the investor and the entity or entities that will provide the service, program, or economic development initiative.

The Commonwealth of Massachusetts

Section 35VV. (a) There shall be established and set up on the books of the commonwealth a trust to be known as the Social Innovation Financing Trust Fund for the purpose of funding contracts to improve outcomes and lower costs for contracted government services, hereinafter referred to as "pay for success contracts", subject to the requirements of subsection (b).

outcomes, manage a service, program, the investor, who will develop development initiative.

SUBJECT: Public finance

BE IT ENACTED BY THE PEOPLE OF THE STATE OF OKLAHOMA:

SECTION 1. NEW LAW A new section of law to be codified in the Oklahoma Statutes as Section 9010.1 of Title 62, unless there is created a duplication in numbering, reads as follows:

This act shall be known and may be cited as the "Pay for Success Act".

policyinnovation.org/publications/purchasing-environmental-progress

Conservation Finance Act

policyinnovation.org/cfa

Recognize water as a public utility and state infrastructure

New type of state contract (Pay for success) allows states to simply buy environmental outcomes at a fixed price for a project

New definition of 'environmental outcome' makes carbon, water quality, etc. a purchasable 'good'

First definition in law for blue infrastructure; first green infrastructure definition to include climate resilience

Water infrastructure loans for forest preservation and management

Nonprofits eligible for loan guarantees for land protection

Program to buy water quality credits

Prioritizes projects with quantifiable co-benefits (local jobs, soil carbon, EJ)

Promotes partnerships between private restoration companies and nonprofits

New state commission on Green and Blue Infrastructure

Requires state to prioritize sale of hazardous dam removal mitigation credits

Requires state to value and protect the value of trees and forests

THE SECRETARY:

(1) USING ELIGIBLE FUNDING SOURCES, MAY PURCHASE ENVIRONMENTAL OUTCOMES, AS DEFINED IN § 8-2A-01 OF THIS TITLE, THAT PROVIDE FOR COST-EFFECTIVE LONG-TERM OR PERMANENT GREEN OR BLUE INFRASTRUCTURE PROJECTS THAT:

(I) IMPROVE THE WATER QUALITY OF MARYLAND'S PORTION OF THE CHESAPEAKE BAY; AND

**(II) ARE LOCATED IN THE SUSQUEHANNA RIVER WATERSHED;
AND**

(2) SHALL CONSULT WITH THE SECRETARY OF THE ENVIRONMENTAL AGENCY OF THE STATE IN WHICH THE PROJECT IS LOCATED TO ENSURE THAT:

(I) THE STATE SUPPORTS THE PROJECT; AND

(II) FOR THE PURCHASED ENVIRONMENTAL OUTCOMES, THERE IS MUTUAL AGREEMENT AS TO THE ALLOCATION OF CREDITS TO THE CHESAPEAKE BAY TOTAL MAXIMUM DAILY LOAD'S WATERSHED IMPLEMENTATION PLANS.



General Miscellaneous - Conowingo Watershed
Implementation Plan - Nutrient Reduction - Approve use
of FY 2023 PayGo Funding to address EPA required 0.18
million pounds of nitrogen reduction within the
Susquehanna watershed, using pay for success contracting,
addressing nutrient loads upstream of the Chesapeake
Bay, in Cecil and Harford Counties, and in portions of the
watershed in Pennsylvania. **Amount: \$25,000,000.**



DRAMATICALLY INCREASING THE PACE AND SCALE OF CONSERVATION IN THE 2023 FARM BILL

PRIORITIZE CONSERVATION OUTCOMES

NRCS should create options to directly purchase the most cost-effective quantified conservation benefits. This could save taxpayers money, ensure progress on environmental goals, and give producers greater flexibility. Changes to RCPP could give the Secretary the authority to **directly purchase quantified units of improvement to air, soil, or water.** Either through RCPP or a standalone program, the Farm Bill should provide flexible grants to the states already successfully buying conservation outcomes from farmers. Additionally, the bill should create a subpart of CIG for developing infrastructure for outcomes purchasing models. This would provide the necessary resources to states to develop and implement new, effective models for conservation outcomes.



Inflation Reduction Act

Environmental
Quality Incentives

Conservation
Stewardship

Regional
Conservation
Partnership

Agricultural
Conservation
Easement

FY2023: \$250M

FY2023: \$250M

FY2023: \$250M

FY2023: \$100M

FY2024: \$1.75B

FY2024: \$500M

FY2024: \$800M

FY2024: \$200M

FY2025: \$3B

FY2025: \$1B

FY2025: \$1.5B

FY2025: \$500M

FY2026: \$3.45B

FY2026: \$1.5B

FY2026: \$2.4B

FY2026: \$600M

(iii) the funds shall be available for 1 or more agricultural conservation practices or enhancements that the Secretary determines directly improve soil carbon, reduce nitrogen losses, or reduce, capture, avoid, or sequester carbon dioxide, methane, or nitrous oxide emissions, associated with agricultural production;

Future Opportunities

Models

Financing

Aggregators

Watershed

Outcome Banks



“Opportunities exist to improve the effectiveness of pollution reduction efforts and accelerate improvements in living resources” -CAST CESR



So, what can you do?

- Refocus agriculture and environmental programs onto results, including RCPP
- Enable environmental outcomes purchasing in the procurement code and get money!
- Encourage watershed partnerships and other demand for outcomes



Questions?

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Thank you!

