

Catalyzing Environmental Markets to Accelerate the Implementation of Chesapeake Bay Clean Water Goals: Lessons from Anne Arundel County's Full Delivery Pilot Project

Anne Arundel County Department of Public Works
CWEA Stormwater Conference, May 18, 2017



www.aarivers.org



The County's Regulatory Mandates



MS4 Permit

- ◆ Municipal Separate Storm Sewer System (MS4) Permit (issued by MDE).
- ◆ Issued to each county (and Baltimore City in the state) with a population over 100,000.
- ◆ 5-year cycle, newest permit issued in February 2014.
- ◆ Requires treatment of 20% of the untreated impervious area in the county during the permit cycle. (5,862 acres)

TMDLs (Total Maximum Daily Loads)

- Think of it as a “recommended annual intake” of pollution required by the Clean Water Act.
- Based on models created by EPA.
- Theoretically, no new loads should be allowed to a waterway unless:
 - The waterway is de-listed for impairments.
 - There is a plan in place for de-listing.

Nutrition Facts

Serving Size 1 tsp. (0.5g)
Servings Per Container 550

Amount Per Serving

Calories 0

% Daily Value*

Total Fat 0g **0%**

Sodium 0mg **0%**

Total Carbohydrate less than 1g **0%**

Protein 0g

Not a significant source of calories from fat, saturated fat, trans fat, cholesterol, dietary fiber, sugars, vitamin A, vitamin C, calcium and iron.

*Percent Daily Values are based on a 2,000 calorie diet.

INGREDIENTS: Nitrogen, Phosphorus, & Sediment

Anne Arundel County Restoration Grant Program

- Open to non-profit partners
- Administered through CBT (www.cbtrust.org)
- Awarded \$444,108 in year 1
 - Leveraged \$572,428
 - Cost of about \$14,125 per acre treated
- Awarded about \$900,000 in year 2
 - Leveraging about \$1,135,000
 - Cost of about \$41,000 per acre treated
- Awarding about \$1,000,000 in year 3
 - Cost of about \$16,900 per acre treated

HILLSMERE BIORETENTION



EMPOWERING BELIEVERS
BIORETENTION



HERALD HARBOR RSC

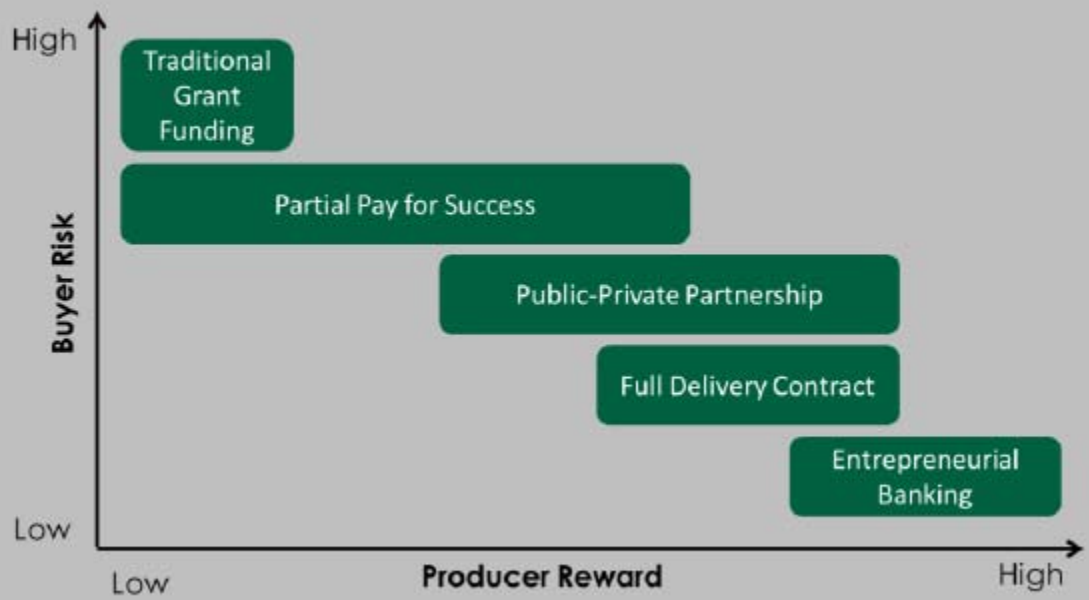




TECHNICAL BRIEF

PAY FOR SUCCESS STRATEGIES FOR WESTERN STATES

PAY FOR SUCCESS STRATEGY RISK-REWARD SPECTRUM



Looking for Additional Ways to Engage the Private Sector

- Created a \$5 million “pay for performance” project in the FY17 budget, requesting an additional \$5 million in FY18.
- Sought “turnkey,” permanently protected (e.g., perpetually eased, transferred to County ownership) practices that the County can count towards MS4/TMDL compliance.
- Solicitation to final award took 8.5 months.

Proposal Requirements

- ◆ Not prescriptive of practice, just had to be approved by MDE for crediting towards MS4 permit.
- ◆ Had to be on private property.
- ◆ All “mitigation, natural resource, and water quality improvement credits” associated with the project belong to the County.

Proposal Requirements (cont.)

- ◆ Had to be within the MS4 geography.
- ◆ Projects had to be completed after the solicitation.
- ◆ Proposals had to include 5 years of functional maintenance, if applicable.

Proposal Characteristics

- ◆ Received 5 proposals.
- ◆ 3 proposals were deemed technically qualified.
- ◆ Proposals included a variety of eligible practices:
 - ◆ Stream restoration
 - ◆ Stormwater facility retrofits
 - ◆ Septic to sewer conversion
 - ◆ Re-forestation

Stream Restoration

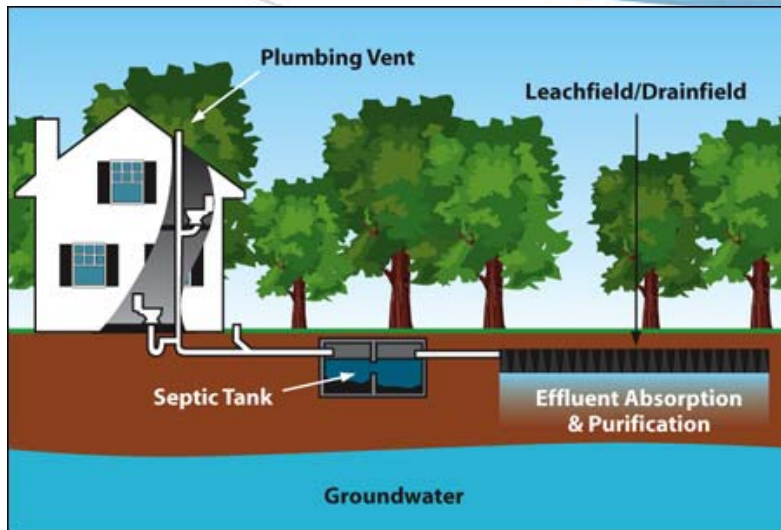


Stormwater Retrofits





Septic to Sewer Conversion



Full Delivery RFP Outcomes

- ◆ Proposers found, and locked up, interested landowners (project had to be on private property).
- ◆ Proposers offered a wide range of practices, and thought creatively about site specific solutions.
- ◆ Costs per acre treated were very competitive with going County rates.
- ◆ A pipeline of feasible, worthy, third party projects has been initiated.

Costs Per Acre Treated

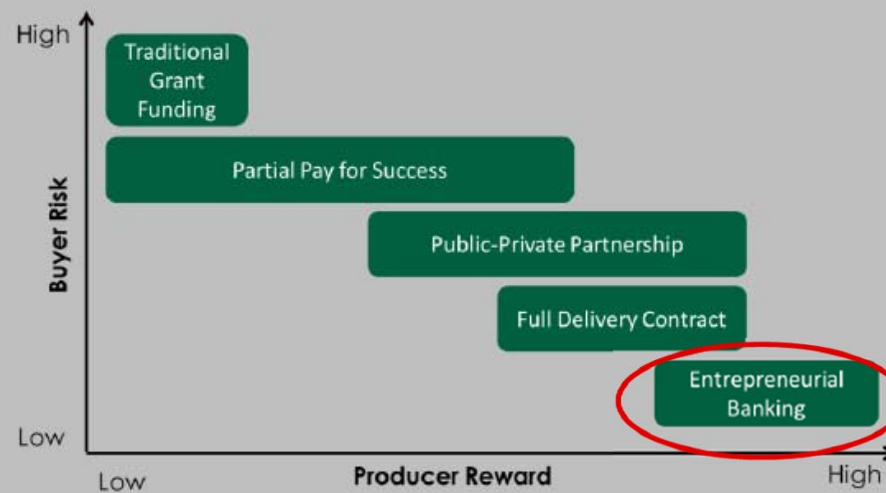
Practice	Cost per Acre
Bioretention retrofits	~\$200k
Stormwater pond retrofits	~\$75k
Stream restoration	~\$50k
Full Delivery submittals, not selected	~\$53k - \$65k
Full Delivery award	~\$20k

Treated acres provided through the Full Delivery award: ~188 for \$3.8M



Next Steps

PAY FOR SUCCESS STRATEGY RISK-REWARD SPECTRUM





Questions?

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