



# **Chesapeake and Atlantic Coastal Bays Trust Fund**

**SFY2009 - SFY2011**

**Annual Work Plan**

**January 2010**

**Report to:**  
**The President of the Senate**  
**The Speaker of the House**  
**The Senate Education, Health, and Environmental Affairs Committee**  
**The Senate Budget and Taxation Committee**  
**The House Environmental Matters Committee**  
**The House Appropriations Committee**

# CHESAPEAKE AND ATLANTIC COASTAL BAYS TRUST FUND

## SFY 2011 ANNUAL WORK AND EXPENDITURE PLAN

### PUROPOSE OF THIS REPORT

Pursuant to Senate Bill 213 of the Maryland General Assembly, the BayStat Subcabinet submits this Annual Work and Expenditure Plan (Work Plan) for the Chesapeake and Atlantic Coastal Bays Trust Fund (Trust Fund).

### CONTAINED IN THIS REPORT

The SFY 2011 Work Plan contains the accounting of all monies distributed from the Trust Fund in State Fiscal Year 2009 (SFY 09), provides the expenditure plan and progress for State Fiscal Year 2010 (SFY 10) and identifies the planned work to be funded with money from the Trust Fund for 2011 (SFY 11), including annual nutrient and sediment reduction targets, performance measures, and accountability criteria (detailed project descriptions are provided in the Fiscal Year Breakout section of this report). The Work Plan includes a section on “contingencies” to account for any unused or un-appropriated funding that remained in the Trust Fund from the prior fiscal year. The contingency section will also provide details on monies re-directed by BayStat to respond to changing conditions, opportunities, scientific developments and/or project performance that occurred over the course of a project year.

### EXECUTIVE SUMMARY

With the reduction in revenue and actions taken to address the State’s structural deficit, the decision to implement the Trust Fund via the intended process, identified within this report, will begin in SFY 12. As a result, the principles and decisions that were used to identify projects and allocate funds for SFY 09 and SFY 10 funding have been applied to SFY 11. Full implementation of the Trust Fund through the six step process is already underway for SFY 12.

To ensure that Trust Fund grants were put to work quickly in the most effective and efficient manner as possible, the BayStat Agencies agreed to use existing granting mechanisms at MDE, MDA and DNR. With the goal of targeting Trust Fund dollars in areas to achieve the greatest results, the BayStat agencies used High, Medium, and Low priority target areas for agricultural management strategies with the greatest nutrient reduction rates, and to identify projects and proposals received through competitive grant programs. At the time the first competitive Request for Proposals (RFPs) were released, in June 2008, it was expected that the State would be able to dedicate up to \$75 Million (SFY 09 and SFY10) for the implementation of non-point source pollution control projects. The response to this first RFP included 90 proposals and over \$125 Million in identified need. It is proposed to apply SFY 11 funding to continue and complete the priority projects that were prioritized and recommended for funding as part of the original selection process. SFY 09, SFY 10 funding and SFY 11 allocations are summarized in table 1 and are further detailed in the Fiscal Year Breakout Section of this report. The table assumes available Trust Fund revenue of \$20 million for FY11.

**Table 1:**

Trust Fund SFY 09-11 Appropriation & Planned Expenditures

<i>Category</i>	<i>SFY09 Allocation in M</i>	<i>SFY10 Allocation in M</i>	<i>SFY11 Planned Expenditures</i>
<b>Strategic Monitoring<sup>1</sup></b>	\$0.25	\$0.20	\$0.40
<b>TOTAL</b>	<b>\$0.25</b>	<b>\$0.20</b>	<b>\$0.40</b>
<b>Agency Direct Costs (1.5%)<sup>2</sup></b>	\$0.00	\$0.00	\$0.30
MDA			
MDE			
DNR			
<b>TOTAL</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.30</b>
<b>Agency Technical Assistance Costs (MDA)<sup>3</sup></b>			
MDA to SCD for BMP Implementation	\$0.85	\$0.68	\$0.68
<b>TOTAL</b>	<b>\$0.85</b>	<b>\$0.68</b>	<b>\$0.68</b>
<b>Urban/Suburban Stormwater Projects (MDE)<sup>4</sup></b>			
St. Mary's SW Retrofit, AA Co.	\$0.10		
Laurel HS LID, PG Co.	\$0.07		
Bear Branch Restoration PG Co.	\$0.90		
Parkside Wetland Retrofit, Balt. City	\$0.65		
Rockfish Raw Bar & Grill, AA Co.	\$0.11		
Tanyard Branch SW Improvement, Talbot Co.		\$0.49	
Western Branch Wetland, PG Co.		\$0.55	
Moore's Run Wetlands, Balt. City			\$1.87
Greenhill/Hillside, PG Co.		\$0.14	
Back River Restoration, Balt Co.		\$0.32	\$0.23
<b>TOTAL</b>	<b>\$1.83</b>	<b>\$1.50</b>	<b>\$2.10</b>
<b>Ag Practices (MDA)<sup>5</sup></b>			
Cover Crops	\$2.83	\$1.90	\$9.52
Forest/Grass Buffers/Wetland Restoration	\$0.25	\$0.00	\$0.80
Animal Waste Management	\$3.00	\$0.98	\$0.80
<b>TOTAL</b>	<b>\$6.08</b>	<b>\$2.88</b>	<b>\$11.12</b>
<b>Targeted Innovative Practices (DNR)<sup>6</sup></b>			
Little Patuxent	\$0.34	\$1.00	\$1.30
Magothy	\$0.00	\$0.36	\$0.48
Wheel Creek	\$0.00	\$0.16	\$0.37
Tred Avon	\$0.00	\$0.00	\$0.48
Watershed 263	\$0.00	\$0.36	\$0.48
Middle Chester	\$0.00	\$0.36	\$0.52
Corsica	\$0.00	\$0.00	\$0.52
Innovative Technology	\$0.25	\$0.25	\$0.25
Natural Filters	\$0.00	\$0.25	\$1.00
<b>TOTAL</b>	<b>\$0.59</b>	<b>\$2.74</b>	<b>\$5.40</b>
<b>GRAND TOTAL</b>	<b>\$9.60</b>	<b>\$8.00</b>	<b>\$20.00</b>

<sup>1</sup>Includes establishment of baseline data, formation of a monitoring strategy, and technical assistance for monitoring pl

<sup>2</sup> Management, administration, and reporting. Agencies waived direct costs for SFY09&10 due to budget restrictions.

<sup>3</sup> Funds Soil Conservation District Staff for BMP technical assistance.

<sup>4</sup> Stormwater BMPs such as retrofits, bioretention, and wetland and stream restoration

<sup>5</sup> Agricultural BMP installation/incentive programs.

<sup>6</sup> Targeted watershed restoration programs, contingency development, and 2 Year Milestone implementation

## INTRODUCTION

After 25 years of dedicated effort to restore the Chesapeake Bay, it is clear that Maryland and our partners are not achieving our goal. While improvements have been realized in some areas, there is now growing evidence that conditions may be worsening in other areas. Maryland will continue to grow, and growth and development will present increasing water quality challenges on the State's water resources and the Chesapeake Bay. For strategies to be successful, they must meet the needs of current and future generations through the integration of environmental protection, social advancement and economic prosperity.

The Trust Fund allows Maryland to accelerate Bay restoration by focusing limited financial resources on the most effective non-point source

pollution control projects as identified in the State's Tributary Strategies and the 2-Year Milestones. State agencies must work with our local and federal partners to administer funding through new and innovative approaches that leverage the funds to the greatest extent possible, target the funds to the most cost effective locations and practices, engage the community at large, and hold everyone accountable. Essential to success is designing an allocation process that accomplishes the above, and allows for the flexibility necessary to take advantage of the constantly changing conditions, opportunities, and scientific developments.



## APPROACH

The allocation objective of the Trust Fund is to distribute funds through a process that is based on the best available scientific information regarding water quality conditions and cost-effectiveness of nutrient and sediment control measures, is transparent and accountable, and results in the greatest possible benefits to the Chesapeake Bay and its tributaries via reductions in non-point source nutrient and sediment loadings. To guide this allocation process, the BayStat agencies will use an allocation process that is designed to be focused, flexible, leveraged, competitive, innovative, engaged, accountable, and adaptive.

A six step process has been developed to meet the above objectives:

- Step 1: Target priority areas and practices
- Step 2: Develop initial Work and Expenditure Plans, and issue RFP's
- Step 3: Evaluate proposals and make initial allocation decisions
- Step 4: Legislative Review and approval
- Step 5: Award and Administer Funds
- Step 6: Review, report, and refine.

## PARTNER ROLES AND RESPONSIBILITIES

The allocation and implementation of the Trust Fund is a collaborative effort between three partners: the BayStat agencies, the Scientific Advisory Panel, and the Legislature.

*ROLE OF BAYSTAT:* BayStat is a powerful tool to assess, coordinate and target Maryland's Bay restoration programs, and to inform citizens on progress. The BayStat agencies are collectively responsible for the administration of the Trust Fund in a manner consistent with statute. BayStat will direct the administration of the Trust Fund in a manner that applies the best science, holds state agencies and grant recipients accountable for managing the fund, and targets activities in the most cost-effective way possible. BayStat developed an annual Work Plan and Expenditure Plan that identifies work and funding for the next fiscal year, targets Tributary Basins and practices within those basins to generate the greatest possible nutrient reductions per Trust Fund dollar, sets annual implementation goals and expected nutrient and sediment reductions, and establishes performance measures and accountability criteria.

*ROLE OF THE SCIENTIFIC ADVISORY PANEL:* A Scientific Advisory Panel will be convened to review and provide scientific guidance to BayStat on 1) the proposed Work Plan for the next fiscal year, 2) distribution of funds from the Trust, 3) categories of grants made in previous fiscal years to assess effectiveness and efficiencies, 4) individual grant applications upon request of BayStat, and 5) any funds awarded non-competitively to assess whether those funds can be awarded competitively in future years.

*ROLE OF THE LEGISLATURE:* The Legislature will have the same review and approval authority over the proposed fund allocation as with any other portion of the Governor's budget. Any changes resulting from that process will be incorporated into the Work and Expenditure plans prior to their finalization and the distribution of funds.

## SUMMARY OF TRUST FUND ACCOMPLISHMENTS TO DATE

The Trust Fund's first year of spending marked the start of several important initiatives and projects. For SFY 09, all \$9.6M have been obligated and the results of these efforts are highlighted:

- Implementation of Urban/Suburban non-point source pollution control projects and agricultural BMPs resulted in an estimated reduction of **366,746 lbs of Nitrogen, 35,199 lbs of Phosphorus, and 4,538 lbs of Sediment** from local watersheds and the Bay.
- Creation of **14** new Soil Conservation District positions to provide on-the-ground technical assistance for the installation of agricultural best management practices.
- **238,839 acres of cover crops** were certified.
- Development of a Trust Fund monitoring strategy to provide guidance for Trust Fund recipients to effectively monitor implementation activities. This strategy will be finalized in February, 2010 for distribution.

- In response to the Trust Fund, the Watershed Assistance Collaborative was developed to advance and prepare local communities for implementation opportunities by leveraging existing resources.

### WATERSHED ASSISTANCE COLLABORATIVE

In recognition that not all jurisdictions currently have the capacity to implement the anticipated level of funding envisioned with the Trust Fund, Maryland’s State Agencies, the Chesapeake Bay Trust, University of Maryland Extension, the University of Maryland Environmental Finance Center, NOAA and the EPA joined together to provide services and technical assistance to local governments to advance implementation projects. By leveraging resources of existing programs, the Watershed Assistance Collaborative exists to provide coordinated capacity building opportunities to local implementers. Once local capacity is developed through the Collaborative, the jurisdictions are better positioned to compete for Trust Fund, federal and nonprofit funding opportunities. This Program has also allowed Trust Fund dollars to be directed as much as possible to implementation, while still developing capacity through other funding opportunities. First year highlights of the Collaborative include:



Led by the Chesapeake Bay Trust, the Watershed Assistance Collaborative awarded a total of \$330,000 for planning and design grants awarded to the following communities:

- Sassafras River Association for project development
- West/Rhode River Riverkeeper for project development
- Octararo River Association for project development
- Choptank Riverkeeper for project development
- Severn River Association for project design
- Spa Creek Conservancy for project design
- Caroline County for Choptank River project development
- Baltimore City Watershed 246 (Baltimore Harbor Watershed Association) for project development
- Harford County for Wheel Creek (Bush River) stream restoration design
- Trout Unlimited for Jones Falls stream restoration design

Through the Collaborative’s Outreach and Training Program, the UMD Environmental Finance Center and other partners are providing project development, financing strategies and stakeholder development assistance to prepare groups for project implementation. Working with the University of Maryland’s SeaGrant Extension, the Watershed Assistance Collaborative is

providing direct assistance to local and county governments and their partners to accelerate nonpoint source pollution reduction efforts with its Watershed Restoration Specialists. These specialists are providing on-going support to Trust Fund Priority Watersheds and other groups to coordinate project implementation, conduct outreach and leverage additional funding opportunities. Over the next year, the Collaborative intends to expand its reach via increased funding support and diversified partnerships including incorporating federal agency assistance.

### **ALIGNING THE TRUST FUND WITH THE STATE'S BAY RESTORATION PRIORITIES (Maryland's 2 -Year Milestones)**

In June, 2009, Maryland adopted the first set of 2-Year Milestones. These 2-Year Milestones are specific actions that will be completed in the near term - by December 31, 2011 – not general goals to be completed decades in the future, and will put Maryland on pace to reach its Bay restoration goals by 2020. For Maryland, the first 2-Year Milestones consist of a suite of 27 specific and accelerated actions that will result in an additional reduction of 3.75 million pounds of nitrogen and 193,000 pounds of phosphorus from reaching the Bay. This is above and beyond the reductions already being realized through existing programs. Importantly, as these specific actions represent the priority non-point source best management practices, the 2-Year Milestones will play an important role in focusing future Trust Fund work plans. For more information on Maryland's 2-Year Milestones, including progress please visit <http://www.baystat.maryland.gov/>.

### **SUMMARY OF CONTINGENCIES**

Recognizing that restoring and protecting the Chesapeake Bay is a complex and constantly changing undertaking, and the demand of the 2-Year Milestones requires the Trust Fund allocation and projects to be re-evaluated continuously to respond to performance, changing conditions, opportunities and scientific development – the need to implement contingencies may occur over the course of the current fiscal year. To ensure transparency, details on contingencies taken and the accounting of all monies distributed from the Trust Fund will be provided as part of the Annual Work Plan submission. In SFY 10, higher than estimated revenue was received late in SFY 09. A total of \$810,000 was allocated proportionally across the approved categories of the SFY 2009 and 2010 Annual Work and Expenditure plan. Details on how these funds were applied are provided in the Fiscal Year 2010 Breakout Section of this report.

### **LOOKING FORWARD**

SFY 11 will be the final transition year as funding will be focused on continuing and completing the projects identified as part of the SFY 09 and 10 Work Plan. Furthermore, the BayStat agencies have begun to implement the allocation process by the six step approach and to distribute all SFY 12 funds through a competitive process to the greatest extent possible. Regarding the treatment of contingencies that occur in a project year, BayStat's contingency plan is to evaluate the progress on the State's 2 Year Milestones and direct funding to fill Milestone gaps.

A beta version of the Bay Trust Fund Viewer iMap application is complete. Users can view locations of LIG and MDE Trust Fund projects, project status, and funding amounts. This site will be updated as more information becomes available and will provide details on project activities and the status. The Trust Fund project iMap application can be accessed by visiting <http://www.mesgis.com/baytrustviewer/>.

**THIS PAGE LEFT INTENTIONALLY BLANK**



## STATE FISCAL YEAR BREAKOUT SECTIONS

### SFY09 SUMMARY & BUDGET

The following sections provide greater detail on the work that has been done in SFY 09, the projects currently being implemented in SFY 10, and the plan for SFY 11. Each fiscal year breakout section contains a brief summary, the budget of expenditures, and is followed by individual factsheets for each line item of the budget which includes annual nutrient and sediment reduction targets, performance measures and accountability criteria.

\$9.6 Million was allocated in SFY 09 and obligated and leveraged over \$22 Million in federal, state, and local dollars. These funds were used to begin work on the strategic monitoring initiative, hire 14 new Soil Conservation District (SCD) positions to provide on-the-ground agricultural technical assistance, begin work on 5 of the 10 urban/suburban stormwater projects identified through MDE's RFP, support the cover crop program, and initiate the highest ranked Local Implementation Grant in the Little Patuxent watershed. Project-specific details, including estimated nutrient and sediment reductions can be found on the corresponding project sheets. At the end of SFY09, unanticipated revenue of \$810,000 was identified and was incorporated as part of the expenditure plan for SFY 10.

***"The Chesapeake Bay Trust Fund Local Implementation Grant has been a tremendous help to us. By supplementing the County's capital funds for watershed improvement projects, the Grant has allowed us to accelerate our schedule for getting much needed water quality improvement projects in the ground."***

***Mark S. Richmond, P.E.,  
Howard County Government,  
Storm Water Management Division***

<b>Category</b>	<b>SFY09 Allocation in M</b>
<b>Strategic Monitoring</b>	\$0.25
<b>TOTAL</b>	<b>\$0.25</b>
<b>Agency Direct Costs (1.5%)</b>	\$0.00
MDA	
MDE	
DNR	
<b>TOTAL</b>	<b>\$0.00</b>
<b>Agency Technical Assistance Costs (MDA)</b>	
MDA to SCD for BMP Implementation	\$0.85
<b>TOTAL</b>	<b>\$0.85</b>
<b>Urban/Suburban Stormwater Projects (MDE)</b>	
St. Mary's SW Retrofit, AA Co.	\$0.10
Laurel HS LID, PG Co.	\$0.07
Bear Branch Restoration PG Co.	\$0.90
Parkside Wetland Retrofit, Balt. City	\$0.65
Rockfish Raw Bar & Grill, AA Co.	\$0.11
Tanyard Branch SW Improvement, Talbot Co.	
Western Branch Wetland, PG Co.	
Moore's Run Wetlands, Balt. City	
Greenhill/Hillside, PG Co.	
Back River Restoration, Balt Co.	
<b>TOTAL</b>	<b>\$1.83</b>
<b>Ag Practices (MDA)</b>	
Cover Crops	\$2.83
Forest/Grass Buffers/Wetland Restoration	\$0.25
Animal Waste Management	\$3.00
<b>TOTAL</b>	<b>\$6.08</b>
<b>Targeted Innovative Practices (DNR)</b>	
Little Patuxent	\$0.34
Magothy	\$0.00
Wheel Creek	\$0.00
Tred Avon	\$0.00
Watershed 263	\$0.00
Middle Chester	\$0.00
Corsica	\$0.00
Innovative Technology	\$0.25
Natural Filters	\$0.00
<b>TOTAL</b>	<b>\$0.59</b>
<b>GRAND TOTAL</b>	<b>\$9.60</b>

# TRUST FUND PROJECT REPORT

## STRATEGIC MONITORING (DNR)

FISCAL YEAR: SFY09

### PROJECT OVERVIEW

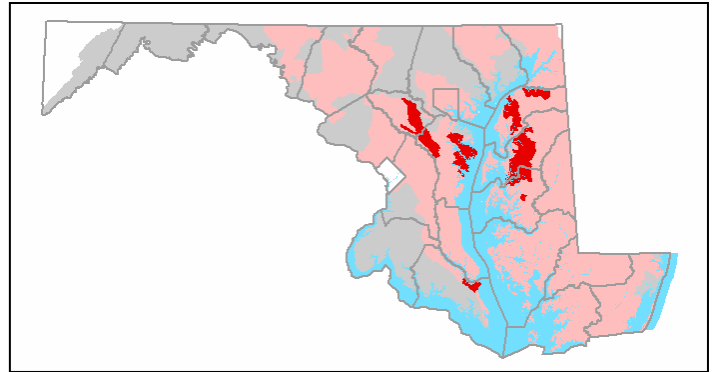
A partnership between the Maryland Department of Natural Resources (DNR) and the University of Maryland Center for Environmental Science (UMCES) was formed to develop an effective monitoring strategy to evaluate and communicate the efficacy of the projects funded through the Trust Fund. This partnership, named the Trust Fund Evaluation Workgroup (TFE) also engaged scientists and resource managers from relevant state institutions and agencies in the region to provide guidance on nonpoint source monitoring and assessment methodologies that demonstrate measurable reductions of nutrients and sediments while leveraging resources.

In addition, resources were used to establish baseline monitoring in two Local Implementation Grant (LIG) watersheds (Wheel Creek and Little Patuxent), and begin work on an interactive map site that tracks project and expenditure progress.

The Strategic Monitoring document drafted by the Trust Fund Evaluation Workgroup is complete and will be distributed with all current projects as well as an attachment with the upcoming RFP for 2012. In addition, DNR has and will continue to work with local jurisdictions to ensure that they implement appropriate monitoring methods to assess the effectiveness of various restoration projects. DNR has constructed two monitoring stations, one in Wheel Creek (Bush River) and one in the Red Hill Branch of the Little Patuxent. Flow monitoring data is being collected to provide baseline water quality data for comparison to water quality samples collected after Local Implementation Grant projects have been completed. *(continued on next page).*

### PROJECT LOCATION:

Statewide (Target Area Emphasis)



### PROJECT CHARACTERISTICS

<b>COUNTY/CITY:</b>	Statewide
<b>WATERSHED(S):</b>	Statewide
<b>SUBWATERSHED(S):</b>	Statewide
<b>PROJECT PARTNERS:</b>	DNR UMCES MES
<b>AGENCY CONTACT:</b>	Jennifer Raulin DNR 410-260-8745 jraulin@dnr.state.md.us

**PROJECT OVERVIEW** (continued from previous page)

The Maryland Biological Stream Survey has coordinated with Harford County Department of Public Works, Bureau of Water Resources Engineering to monitor the biological health of Wheel Creek as it relates to the restoration activities to be conducted under the Trust Fund. In March of 2009 eight stream sites were selected in Wheel Creek (7) and an adjacent control watershed (1). These sites were sampled once in the spring of 2009 (4/21/09) for water chemistry and benthic macroinvertebrates and once in the summer of 2009(7/6-8/09) for fish, crayfish, freshwater mussels, reptiles and amphibians, and physical stream habitat. Also, summer stream temperature and land use in the upstream catchment were collected for each site. Harford County staff participated in the sampling events. These data have been analyzed and are being compiled into a technical memorandum which will be available at the end of January.

A beta version of the Bay Trust Funding Viewer imap application is completed. Users can view locations of LIG and MDE Trust Fund projects, project status, and funding amounts. This site will be updated as more information becomes available. <http://www.mesgis.com/baytrustviewer/>.

<i>PROJECT COMPONENT</i>	Strategic Monitoring/Trust Fund Evaluation	Flow Monitoring	Trust Fund Mapper
<i>LEAD</i>	UMCES/DNR	DNR	MES
<i>ACTIVITY</i>	Monitoring Document & Guidance	Monitoring	Tracking & Accountability
<i>TRUST FUND \$</i>	\$200,000	\$47,860	\$2,160
<i>MATCH \$</i>	\$0	\$0	\$12,300
<i>TOTAL COST</i>	\$200,000	\$47,860	\$14,460
<i>EST. TN REDUCTION</i>	N/A		
<i>EST. TP REDUCTION</i>	N/A		
<i>EST. TSS REDUCTION</i>	N/A		
<i>STATUS / % COMPLETE</i>	71%	25%	100%

# TRUST FUND PROJECT REPORT

## TECHNICAL ASSISTANCE (MDA)

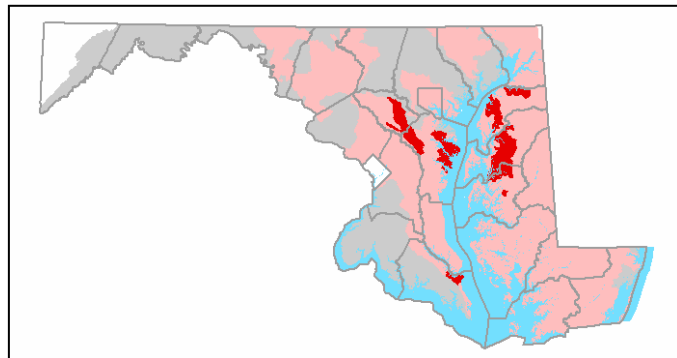
FISCAL YEAR: SFY09

### PROJECT OVERVIEW

Maryland's 2 Year Milestones require the acceleration of on the ground implementation of agricultural conservation practices. Achievement of this goal requires, Soil Conservation Districts to provide adequate technical staff capable of engineering practice plan and design and providing construction over site to assist farmers in implementation.

### PROJECT LOCATION:

Statewide (Target Area Emphasis)



### PROJECT CHARACTERISTICS

**COUNTY/CITY:** Statewide  
**WATERSHED(S):** Multiple  
**SUBWATERSHED(S):** Multiple  
**PROJECT PARTNERS:** Soil Conservation Districts  
**AGENCY CONTACT:** John Rhoderick  
MDA  
410-841-5700  
rhoderjc@mda.state.md.us



<i>PROJECT COMPONENT</i>	Soil Conservation Staff Hiring	Training	Implementation Progress		
<i>LEAD</i>	MDA/SCDs	NRCS/MDA/SCDs	MDA/SCDs		
<i>ACTIVITY</i>	Technical Assistance				
<i>LOCATION (Lat/Long)<sup>1</sup></i>	Statewide				
<i>TRUST FUND \$</i>	\$850,000				
<i>MATCH \$</i>	\$5,875,362				
<i>TOTAL COST</i>	\$6,725,362				
<i>EST. TN REDUCTION</i>	N/A				
<i>EST. TP REDUCTION</i>	N/A				
<i>EST. TSS REDUCTION</i>	N/A				
<i>STATUS / % COMPLETE</i>	90%	50%	Goal Done		
			Plans	45	89
			BMPs	302	303
			CREP	65	24

<sup>1</sup> 14 new Soil Conservation District positions were hired with Trust Fund dollars in the following counties: Alleghany, Anne Arundel, Calvert, Caroline, Cecil, Charles, Dorchester, Harford, Howard, Kent, Somerset, Talbot, Washington, Wicomico

# TRUST FUND PROJECT REPORT

## ST. MARY'S PARISH STORMWATER RETROFIT (MDE)

FISCAL YEAR: SFY09

### PROJECT OVERVIEW

This runoff mitigation project on the St. Mary's Parish property resulted in the construction of 7 rain gardens, a 442 sq. ft. bioretention garden, and infiltration areas for 7 acres of impervious surface. Spa Creek is a major waterway that flows through Annapolis and infrastructure developed mostly prior to stormwater control requirements. Partners included Spa Creek Conservancy, St. Mary's Parish and St. Mary's school.

<i>PROJECT COMPONENT</i>	St. Mary's Parish
<i>LEAD</i>	Spa Creek Conservancy
<i>ACTIVITY</i>	Stormwater Retrofit
<i>TRUST FUND \$</i>	\$100,000
<i>MATCH \$</i>	\$15,500
<i>TOTAL COST</i>	\$115,500
<i>EST. TN REDUCTION</i>	69.0 lbs/yr
<i>EST. TP REDUCTION</i>	11.0 lbs/yr
<i>EST. TSS REDUCTION</i>	2.0 lbs/yr
<i>STATUS / % COMPLETE</i>	100%

### PROJECT LOCATION: Severn River



### PROJECT CHARACTERISTICS

**COUNTY/CITY:** Anne Arundel

**WATERSHED(S):** Severn River

**SUBWATERSHED(S):** Spa Creek

**PROJECT PARTNERS:** Spa Creek Conservancy  
St. Mary's Parish

**AGENCY CONTACT:** Jim George  
MDE  
410-537-3000  
jgeorge@mde.state.md.us



Photo By Mel Wilkins

# TRUST FUND PROJECT REPORT

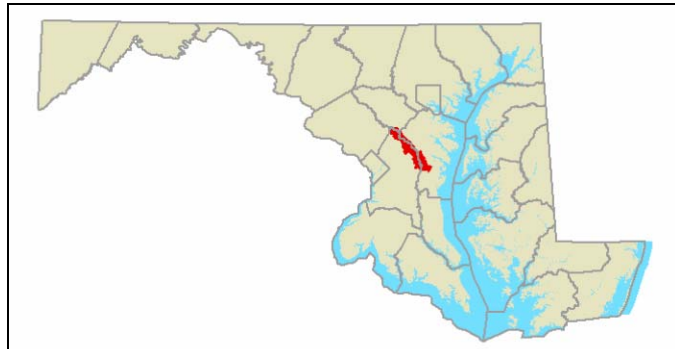
## LAUREL HIGH SCHOOL LOW IMPACT DEVELOPMENT PROJECT (MDE)

FISCAL YEAR: SFY09

### PROJECT OVERVIEW

Part of a larger ecosystem restoration and demonstration initiative that supports the Upper Patuxent Watershed Restoration Action Strategy; Laurel High School will utilize low impact development (LID) techniques to reduce pollutants from 3.6 drainage acres and showcase this project as an educational demonstration of alternative approaches.

### PROJECT LOCATION: Upper Patuxent



<i>PROJECT COMPONENT</i>	Laurel High School LID
<i>LEAD</i>	Prince George's County
<i>ACTIVITY</i>	Storm water Retrofit
<i>LOCATION (Lat/Long)</i>	39.06/-76.52
<i>TRUST FUND \$</i>	\$70,000
<i>MATCH \$</i>	\$234,375
<i>TOTAL \$</i>	\$304,375
<i>EST. TN REDUCTION</i>	14 lbs/yr
<i>EST. TP REDUCTION</i>	3 lbs/yr
<i>EST. TSS REDUCTION</i>	1 lbs/yr
<i>STATUS/% COMPLETE</i>	0%*

### PROJECT CHARACTERISTICS

**COUNTY/CITY:** Prince George's

**WATERSHED(S):** Patuxent River

**SUBWATERSHED(S):** Upper Patuxent

**PROJECT PARTNERS:** Prince George's County

**AGENCY CONTACT:** Jim George  
MDE  
410-537-3000  
jgeorge@mde.state.md.us

\*Based on letter from PG County, this project is delayed until June, 2010 due to ongoing construction at the school.

# TRUST FUND PROJECT REPORT

## BEAR BRANCH WATERSHED STREAM STABILIZATION (MDE)

FISCAL YEAR: SFY09

### PROJECT OVERVIEW

This project consists of 2 water quality basins to trap pollutants and sediments from 955 drainage acres and restore 3,500 linear feet of stream due to bank erosion and failed stormwater management facilities in Laurel Lakes. This initiative is a joint effort between Prince George’s County and the City of Laurel.

### PROJECT LOCATION: Upper Patuxent



PROJECT COMPONENT	Bear Branch
LEAD	Prince George’s County
ACTIVITY	Stream Restoration
TRUST FUND \$	\$900,000
MATCH \$	\$500,000
TOTAL COST	\$1,400,000
EST. TN REDUCTION	1,133 lbs/yr
EST. TP REDUCTION	163 lbs/yr
EST. TSS REDUCTION	23 lbs/yr
STATUS / % COMPLETE	0%*

### PROJECT CHARACTERISTICS

**COUNTY/CITY:** Prince George’s

**WATERSHED(S):** Patuxent River Upper

**SUBWATERSHED(S):** Bear Branch

**LAT/LONG:** 39.06/-76.53

**PROJECT PARTNERS:** Prince George’s County  
City of Laurel

**PROJECT CONTACT:** Jim George  
MDE  
410-537-3000  
jgeorge@mde.state.md.us

\*Construction scheduled to begin January, 2010.



# TRUST FUND PROJECT REPORT

## PARKSIDE WETLAND RETROFIT (MDE)

FISCAL YEAR: SFY09

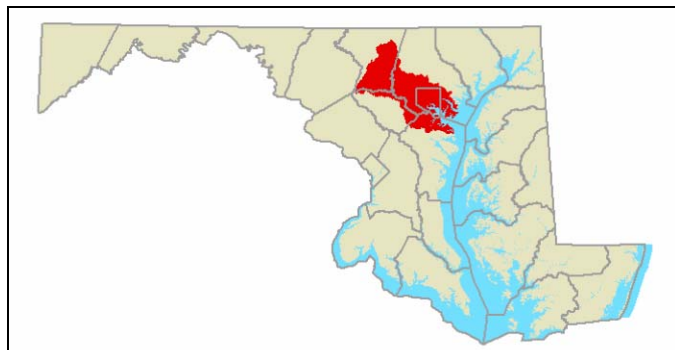
### PROJECT OVERVIEW

Parkside wetland retrofit will capture runoff from 130 drainage acres, improve water quality and reduce downstream impacts. Implementation of this project supports the objectives of the Back River Watershed Plan of 1997 and the Upper Back River Watershed Action Plan of 2008 and helps to reach the nonpoint source TMDL.

<i>PROJECT COMPONENT</i>	Parkside Wetland Construction
<i>LEAD</i>	Herring Run Watershed Association
<i>ACTIVITY</i>	Wetland Creation
<i>TRUST FUND \$</i>	\$650,000
<i>MATCH \$</i>	\$525,000
<i>TOTAL COST</i>	\$1,175,000
<i>EST. TN REDUCTION</i>	333 lbs/yr
<i>EST. TP REDUCTION</i>	66 lbs/yr
<i>EST. TSS REDUCTION</i>	18 lbs/yr
<i>STATUS / % COMPLETE</i>	0%*

\*Project has been withdrawn by applicant; BayStat will reprogram funds for a project in the same watershed.

### PROJECT LOCATION: Patapsco/Back Rivers



### PROJECT CHARACTERISTICS

**COUNTY/CITY:** Baltimore City  
**WATERSHED(S):** Patapsco/Back Rivers  
**SUBWATERSHED(S):** Herring Run  
**PROJECT PARTNERS:** Baltimore City DPW  
Herring Run Watershed Association  
**AGENCY CONTACT:** Jim George  
MDE  
410-573-3000  
jgeorge@mde.state.md.us

# TRUST FUND PROJECT REPORT

## ROCKFISH RAW BAR & GRILL STORMWATER RETROFIT (MDE)

FISCAL YEAR: SFY09

### PROJECT OVERVIEW

This project is a partnership between the Spa Creek Conservancy (SCC) and the owners of the Rockfish Raw Bar & Grill. The property, developed before stormwater management regulations, has a goal of 0% runoff and will have 4 rain gardens, a harvest and reuse water system, and rain barrels becoming a showcase for other businesses in the watershed.

<i>PROJECT COMPONENT</i>	Rockfish Bar & Grill Stormwater Retrofit
<i>LEAD</i>	Spa Creek Conservancy
<i>ACTIVITY</i>	Stormwater Retrofits
<i>TRUST FUND \$</i>	\$110,000
<i>MATCH \$</i>	\$33,060
<i>TOTAL COST</i>	\$143,060
<i>EST. TN REDUCTION</i>	5 lbs/yr
<i>EST. TP REDUCTION</i>	1 lbs/yr
<i>EST. TSS REDUCTION</i>	0 lbs/yr
<i>STATUS / % COMPLETE</i>	In design

### PROJECT LOCATION: Severn River



### PROJECT CHARACTERISTICS

**COUNTY/CITY:** Anne Arundel

**WATERSHED(S):** Severn River

**SUBWATERSHED(S):** Spa Creek

**PROJECT PARTNERS:** Spa Creek Conservancy  
Rockfish Raw Bar & Grill

**AGENCY CONTACT:** Jim George  
MDE  
410-573-3000  
jgeorge@mde.state.md.us

# TRUST FUND PROJECT REPORT

## MARYLAND COVER CROP PROGRAM (MDA)

FISCAL YEAR: SFY09

### PROJECT OVERVIEW

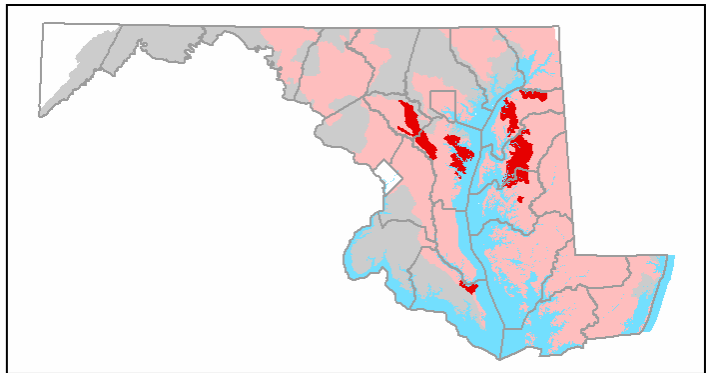
The Cover Crop Program is central to Maryland's current 2 Year Milestone goals of achieving a 3.75 million pound reduction of nitrogen and 193,000 pounds of phosphorus. Although the Chesapeake Bay Restoration Fund provides a significant and dedicated funding source for this program, additional resources are required to achieve ambitious goals of having cover crops annually established on nearly half of all cropland statewide.

Maryland applied input from the scientific community to incentivize acres where maximum nutrient reductions can be realized. Maryland also contracted with the University of Baltimore, Schaeffer Policy Center to survey both participants and non-participants in the farm community to determine what program adjustments may boost participation.

By and large farmers are supportive of the program but their participation is influenced mostly by the time available after harvest to establish a cover crop, market considerations and weather.

### PROJECT LOCATION:

Statewide (Target Area Emphasis)



### PROJECT CHARACTERISTICS

<b>COUNTY/CITY:</b>	State Wide
<b>WATERSHED(S):</b>	Multiple
<b>SUBWATERSHED(S):</b>	Multiple
<b>PROJECT PARTNERS:</b>	Soil Conservation Districts Participating agricultural producers
<b>PROJECT CONTACT:</b>	Louise Lawrence MDA 410-841-5700 lawrenl@mda.state.md.us

Although MDA designs the program annually based on the best information available in the spring, conditions occurring over the next 4-5 months influence the capacity of farmers to implement cover crops on enrolled acres.



PROJECT COMPONENT	Application	Approvals	Fall Certification	Spring Certification <sup>1</sup>	Process Payments
LEAD	MDA/SCDs	MDA	MDA/SCDs	MDA/SCDs	MDA
ACRES <sup>2</sup>	398,225	387,022	237,144	238,839	N/A
LOCATION (Lat/Long)	Statewide	Statewide	Statewide	Statewide	Statewide
COST <sup>3</sup>	\$20,245,345	\$19,997,444	\$11,185,373	\$10,714,778	
EST. TN REDUCTION	1,166,733 <sup>4</sup>				
EST. TP REDUCTION	47,768 <sup>4</sup>				
EST. TSS REDUCTION	N/A				
STATUS/% COMPLETE	100%	100%	100%	100%	

<sup>1</sup> Spring certification acres represent all acres verified by the program including those not eligible for payment.

<sup>2</sup> Programmatic activities for all funding resources

<sup>3</sup> Total Cost includes \$3,083,000 from Trust Fund, \$7,458,335 from BRF, and \$234,000 from other sources

<sup>4</sup> Totals include BRF and other match funding

## ENROLLMENT DETAILS

County	Applications Received FY09			Applications Approved FY09			Fall Certified FY09		Spring Claim for Payment FY09		
	App Rec 09 No.	App Rec 09 Acres	App Rec 09 Dollars	App App 09 No.	App App 09 Acres	App App 09 Dollars	FC 09 No.	FC 09 Acres	SCFP 09 No.	SCFP 09 Acres	SCFP 09 Dollars
Allegany	11	412.50	\$19,105.00	18.00	1,320.00	\$100,810.00	7	211.25	7	211.25	\$9,589.50
Anne Arundel	16	1,875.00	\$98,645.00	11.00	412.50	\$19,105.00	13	754.39	13	758.39	\$35,765.75
Baltimore	53	8,538.00	\$471,795.00	51.00	8,025.00	\$439,390.00	44	5,036.48	41	4,100.03	\$175,961.35
Calvert	29	2,810.51	\$117,410.60	29.00	2,780.51	\$117,410.60	24	1,621.35	23	1,602.78	\$64,553.30
Caroline	144	24,286.00	\$1,039,695.00	99.00	16,190.49	\$862,291.05	125	17,598.83	132	19,806.10	\$695,790.85
Carroll	140	23,362.00	\$1,266,755.00	38.00	7,142.60	\$347,405.50	108	13,741.73	111	13,987.16	\$643,448.50
Cecil	101	16,535.49	\$874,666.05	140.00	23,216.00	\$1,254,450.00	83	13,664.17	80	13,621.61	\$604,832.65
Charles	38	7,198.20	\$353,063.50	144.00	24,354.00	\$1,040,970.00	32	3,929.19	32	3,932.42	\$153,323.60
Dorchester	127	25,193.80	\$1,210,397.50	129.00	25,543.80	\$1,228,247.50	107	18,337.44	107	18,107.91	\$768,249.20
Frederick & Catoclin	260	44,986.07	\$1,872,093.55	256.00	43,556.47	\$1,800,426.55	215	18,734.36	210	19,015.44	\$822,832.50
Garrett	11	665.00	\$40,315.00	11.00	665.00	\$40,315.00	8	484.34	7	387.69	\$20,262.70
Harford	33	10,471.00	\$633,745.00	94.00	10,396.00	\$661,300.00	64	5,859.40	64	6,190.16	\$308,704.90
Howard	24	2,201.14	\$111,526.90	23.00	2,193.74	\$108,504.90	18	1,279.48	18	1,333.54	\$53,176.20
Keat	169	39,062.32	\$2,340,878.90	166.00	38,257.32	\$2,288,443.90	154	26,763.69	144	26,545.90	\$1,375,469.10
Montgomery	49	18,340.00	\$928,050.00	49.00	18,490.00	\$928,050.00	43	7,183.92	36	6,403.85	\$273,105.70
Prince George's	34	3,144.68	\$155,876.00	36.00	3,333.68	\$164,741.00	26	1,819.10	25	1,729.79	\$71,666.10
Queen Anne's	151	33,962.70	\$1,798,698.50	151.00	33,287.70	\$1,775,048.50	123	17,928.45	124	19,395.50	\$832,898.25
St. Mary's	71	13,852.00	\$613,475.00	67.00	8,897.14	\$443,780.05	59	6,368.91	51	8,214.54	\$335,941.85
Somerset	68	8,345.34	\$447,044.05	72.00	13,882.00	\$614,375.00	52	7,991.65	59	6,279.81	\$249,231.50
Talbot	123	47,913.20	\$2,394,605.00	120.00	41,533.20	\$2,304,310.00	108	31,565.34	108	30,979.19	\$1,457,179.90
Washington	71	11,089.90	\$621,679.50	74.00	11,279.90	\$632,529.50	51	5,882.52	50	5,785.80	\$257,648.00
Wicomico	90	21,455.47	\$1,145,027.00	88.00	21,101.47	\$1,127,867.00	68	13,430.17	68	13,546.26	\$703,307.00
Worcester	86	31,924.50	\$1,790,197.50	80.00	29,364.50	\$1,637,072.50	61	16,351.13	61	16,904.00	\$801,839.45
<b>Total</b>	<b>1,959</b>	<b>398,224.82</b>	<b>\$20,345,344.55</b>	<b>1,946.00</b>	<b>387,022.42</b>	<b>\$19,997,443.55</b>	<b>1,593</b>	<b>237,143.89</b>	<b>1,571</b>	<b>238,839.12</b>	<b>\$10,714,777.85</b>

# TRUST FUND PROJECT REPORT

MARYLAND CONSERVATION RESERVE ENHANCEMENT PROGRAM: STATE ENROLLMENT INCENTIVE (MDA)  
FISCAL YEAR: SFY09

## PROJECT OVERVIEW

The Conservation Reserve Enhancement Program (CREP) is central to Maryland's current 2 year Milestone goals for achieving 3.75 million pound reduction of nitrogen and 193,000 pounds of phosphorus. BMPs targeted include grass and forest streamside buffers, wetlands and permanent stabilization of highly erodible land. Water quality bonds provide the state's share of funding to implement these BMPs. Trust Fund is used to provide the \$100 per acre signing incentive for new and re-enrolled acres.

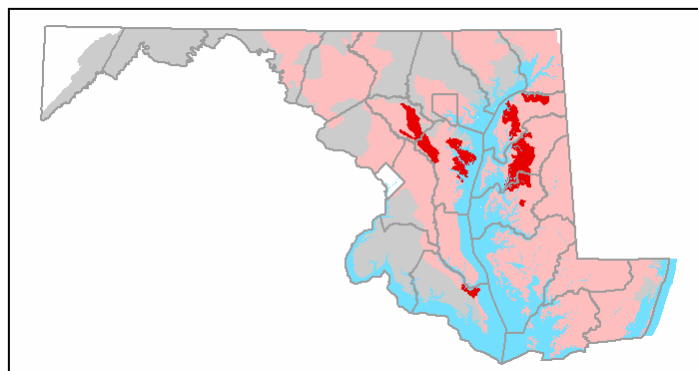
PROJECT COMPONENT	New Enrollment	Re-enrollment
LEAD	MDA/SCDs	MDA/SCDs
ACRES <sup>1</sup>	12.8	66.4
LOCATION (Lat/Long)	Statewide	Statewide
SIGNING BONUS COST	\$1,280	\$6,640
TRUST FUND COST <sup>1</sup>		\$0
NMP FINES		\$7,920
EST. TN REDUCTION		9,100 <sup>2</sup> lbs/yr
EST. TP REDUCTION		871 <sup>2</sup> lbs/yr
EST. TSS REDUCTION		158 <sup>2</sup> lbs/yr
STATUS/% COMPLETE <sup>2</sup>		100%

<sup>1</sup> \$250,000 CREP bonus allocation used to fund cover crops, since new CREP delayed and became effective May 12, 2009

<sup>2</sup> Calculation based on average reduction from implementation of acres receiving bonus payment

## PROJECT LOCATION:

Statewide (Target Area Emphasis)



## PROJECT CHARACTERISTICS

**COUNTY/CITY:** Statewide

**WATERSHED(S):** Multiple

**SUBWATERSHED(S):** Multiple

**PROJECT PARTNERS:** Soil Conservation Districts  
Participating agricultural producers

**PROJECT CONTACT:** Louise Lawrence  
MDA  
410-841-5700  
lawrenl@mda.state.md.us



# TRUST FUND PROJECT REPORT

## ANIMAL WASTE MANAGEMENT (MDA)

FISCAL YEAR: SFY09

### PROJECT OVERVIEW

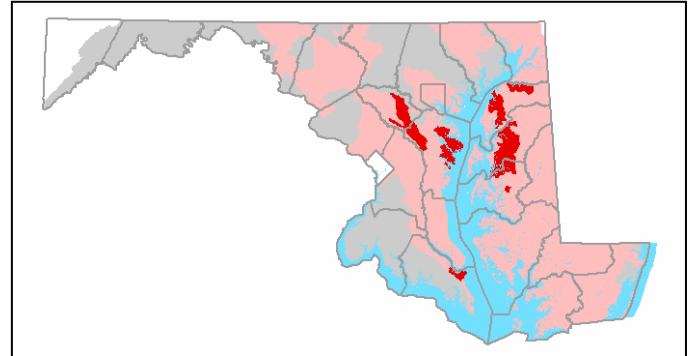
Maryland 2 year Milestones emphasizes the acceleration of BMPs that address animal waste management. Specific BMPs include poultry and livestock animal waste storage, poultry heavy use areas, defined as concrete pads adjacent to waste storage and houses to facilitate clean up and prevent leaching.

PROJECT COMPONENT	Implementation Completed	Implementation Approved/Pending
LEAD	MDA/SCDs	MDA/SCDs
BMPs <sup>2</sup>	Animal waste storage/HUAs	Animal waste storage/HUAs
LOCATION (Lat/Long)	Statewide	Statewide
TRUST FUND \$	\$3,000,000	
MACS \$	\$7,230,883	
TOTAL \$	\$10,230,883	
EST. TN REDUCTION	20,000 lbs/yr <sup>1</sup>	
EST. TP REDUCTION	20,000 lbs/yr <sup>1</sup>	
EST. TSS REDUCTION	N/A	
STATUS/% COMPLETE <sup>4</sup>	12%	88%

<sup>1</sup> Calculation based on reduction from BMPs approved/installed with CBTF implementation only

### PROJECT LOCATION:

Statewide (Target Area Emphasis)



### PROJECT CHARACTERISTICS

COUNTY/CITY:	Statewide
WATERSHED(S):	Multiple
SUBWATERSHED(S):	Multiple
PROJECT PARTNERS:	Soil Conservation Districts Participating agricultural producers
AGENCY CONTACT:	Louise Lawrence MDA 410-841-5700 lawrenl@mda.state.md.us



# TRUST FUND PROJECT REPORT

## LITTLE PATUXENT LOCAL IMPLEMENTATION GRANT (DNR)

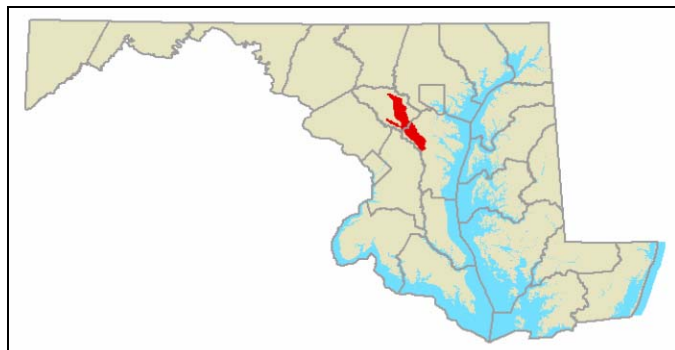
FISCAL YEAR: SFY09

### PROJECT OVERVIEW

In response to the Local Implementation Grant RFP, Howard County, Columbia Association, and General Growth properties joined together to create the Little Patuxent Restoration Partnership (LPRP). LPRP offers solutions to problems such as untreated impervious surfaces, stream erosion, nutrient loads, and sedimentation through implementation of their local watershed restoration plans.

With limited funding in this initial year, Howard County chose to begin baseline monitoring in the Red Hill Branch. This subwatershed was selected by the County to implement a significant number of nonpoint source pollution reduction projects and initiatives in order to show a measurable decrease in nutrients and sediment entering the watershed. Funds will be used for project specific monitoring (Salterforth Pond, Bramhope Lane stream) as well as watershed scale monitoring (Meadowbrook Park). *(continued on next page)*

### PROJECT LOCATION: Little Patuxent



### PROJECT CHARACTERISTICS

<b>COUNTY/CITY:</b>	Howard County
<b>WATERSHED(S):</b>	Little Patuxent
<b>SUBWATERSHED(S):</b>	Red Hill Branch Wilde Lake
<b>PROJECT PARTNERS:</b>	Howard County Columbia Association
<b>PROJECT CONTACT:</b>	Jennifer Raulin DNR 410-260-8745 jraulin@dnr.state.md.us



Photo By Amanda Rockler

Wilde Lake, stream reach C, outfall restoration site. When completed, the restored stream will no longer be a source of sediment and pollutants for the Little Patuxent River. The proposed landscaping will help restore and fortify the existing stream buffer.

**PROJECT OVERVIEW** (continued from previous page)

Accomplishments to date include: development of a refined sampling protocol, permit acquisition for a weir installation for flow monitoring, coordination with DNR to install additional weirs for monitoring, and a Brampton Hills community meeting was conducted (15 attendees) to discuss the current monitoring project as well as upcoming restoration projects in the queue for this area.

Columbia Association has begun work on the Wilde Lake Reach C Stabilization project which will provide water quality benefits and flow attenuation, through vegetative enhancements and channel stability. This project was designed and permitted by Howard County and the State in 2004. A re-permit request has been submitted to the County, Soil Conservation District, and MDE and assuming no delays with the permits, is on track to begin work January, 2010.

<i>PROJECT COMPONENT</i>	Salterforth Pond BMP Retrofit	Bramhope Lane Stream Restoration	Meadowbrook Park	Wilde Lake Reach C
<i>LEAD</i>	Howard Co.	Howard Co.	Howard Co.	Columbia Association
<i>ACTIVITY</i>	Monitoring	Monitoring	Monitoring	Stream Stabilization (1700 ft.)
<i>LAT/LONG</i>	39.238485/-76.809821	39.23549/-76.823569	39.247018/-76.823569	39.2236070/-76.8789534
<i>TRUST FUND \$</i>	\$140,000			\$200,000
<i>MATCH \$</i>	\$80,000			\$450,000
<i>COST</i>	\$220,000.00			\$650,000
<i>EST. TN REDUCTION</i>	N/A	N/A	N/A	34.0 lbs/yr
<i>EST. TP REDUCTION</i>	N/A	N/A	N/A	6.0 lbs/yr
<i>EST. TSS REDUCTION</i>	N/A	N/A	N/A	4,335.0 lbs.yr
<i>STATUS/% COMPLETE</i>	25%	25%	18%	Permit Phase/ 33%



# TRUST FUND PROJECT REPORT

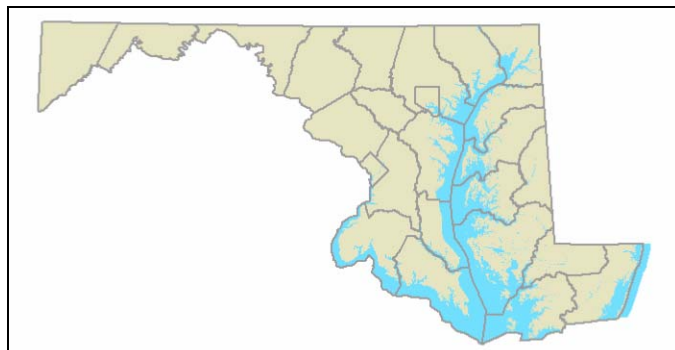
## INNOVATIVE TECHNOLOGY/CONTINGENCY DEVELOPMENT (DNR)

FISCAL YEAR: SFY09

### PROJECT OVERVIEW

At the 2007 Executive Council Meeting, both the State of Maryland and the EPA agreed to the importance of advancing innovative technology necessary to identify and test environmental technologies to advance Bay restoration. Through the Trust Fund, in partnership with University of Maryland (UMD), Maryland has established a competitive grants program to support this commitment. *(continued on next page)*

### PROJECT LOCATION: Statewide



### PROJECT CHARACTERISTICS

**COUNTY/CITY:** Statewide

**WATERSHED(S):** Multiple

**SUBWATERSHED(S):** Multiple

**PROJECT PARTNERS:** University of Maryland

**AGENCY CONTACT:** Sarah Lane  
DNR  
410-260-8788  
slane@dnr.state.md.us

<b>PROJECT COMPONENT</b>	SFY09 Innovative Technology
<b>LEAD</b>	UMD/DNR
<b>ACTIVITY</b>	Innovative Technology
<b>LOCATION (Lat/Long)</b>	N/A
<b>TRUST FUND \$</b>	\$250,000
<b>MATCH \$</b>	\$0
<b>TOTAL \$</b>	\$250,000*
<b>EST. TN REDUCTION</b>	N/A
<b>EST. TP REDUCTION</b>	N/A
<b>EST. TSS REDUCTION</b>	N/A
<b>STATUS/% COMPLETE</b>	100%

\* Match provided by EPA

## **PROJECT OVERVIEW** *(continued from previous)*

The Innovative Technology Fund was established with the goal of accelerating Bay restoration through the improvement of water quality in new and innovative ways.

To date:

- Zymetis, Inc, a biotechnology company that has developed breakthrough & enabling enzyme technology for the blossoming biofuels industry; and
- Traffax, Inc, a software company that can impact the reduction of car emissions through better traffic data that allows for route diversion during congestion, as well as improved signal operation in urban networks.

For the Research & Development fund, several projects have begun:

- Avihome, LLC- Plenum Floor Ventilation for Poultry Houses; new flooring will result in a drier fecal product that will concentrate the nitrogen waste from the chicken therefore reducing its potential to pollute the environment in the form of runoff and ammonia emission.
- Proparts, LLC- Proparts' proposed wind turbine technology will reduce greenhouse gases by reducing household electrical demand on coal fired power plants, by producing zero emissions.
- Stancills, LLC- seeks to develop a green roof media that functions well for stormwater management, provides a healthy environment for green roof plant species, capable of withstanding environmental stresses, is made from at least 20% recycled materials to reduce the embodied energy in production and is lighter in weight than other green roof media competitors
- Maryland Environmental Plastics, LLC- MEP is designing a biodegradable aerodynamic seedling "pot" which would allow for more efficient and successful buffer, submerged aquatic vegetation and wetland planting via aerial application.

**THIS PAGE LEFT INTENTIONALLY BLANK**

## STATE FISCAL YEAR BREAKOUT SECTIONS

### SFY10 SUMMARY & BUDGET

\$8.0 Million has been allocated for SFY 10 and has leveraged over \$16 Million in federal, state, and local dollars to date. Funding has been earmarked and work has begun on four new urban/suburban stormwater projects, continued funding and training for the SCD Technical Assistance positions as well as for cover crop and animal waste management programs. 5 of the 7 Local Implementation Grant watersheds are now working on implementing their nonpoint source reducing proposals. Project-specific details, including estimated nutrient and sediment reductions can be found on the corresponding factsheets. For several projects, commencement has been delayed as funding levels dropped in the Trust Fund. It was difficult to proceed with project partners when funding amounts were not secure. In order to reduce further delay, BayStat agencies agreed to a \$25M budget and a proportional reduction strategy if funding levels were to drop. This plan is now in place should this same issue arise in SFY 11 and will be represented in the contingency section of the SFY 2012 Work Plan. The spending plan for SFY 10 as well as SFY 09 contingencies can be found in the adjacent chart. The additional revenue from SFY 09 was divided proportionately amongst funding categories and represent approximately 10% of the SFY 10 budget. Should additional dollars be generated and/or unspent dollars remain, BayStat's contingency plan is to evaluate the progress on the State's 2 Year Milestones and direct funding to fill milestone gaps.



<i>Category</i>	<b>SFY10 Allocation in M</b>	<b>SFY09 Revenue</b>
<b>Strategic Monitoring</b>	\$0.20	\$0.02
<b>TOTAL</b>	<b>\$0.20</b>	<b>\$0.02</b>
<b>Agency Direct Costs (1.5%)</b>	\$0.00	\$0.00
MDA		
MDE		
DNR		
<b>TOTAL</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Agency Technical Assistance Costs (MDA)</b>		
MDA to SCD for BMP Implementation	\$0.68	\$0.07
<b>TOTAL</b>	<b>\$0.68</b>	<b>\$0.07</b>
<b>Urban/Suburban Stormwater Projects (MDE)</b>		
St. Mary's SW Retrofit, AA Co.		
Laurel HS LID, PG Co.		
Bear Branch Restoration PG Co.		
Parkside Wetland Retrofit, Balt. City		
Rockfish Raw Bar & Grill, AA Co.		
Tanyard Branch SW Improvement, Talbot Co.	\$0.49	
Western Branch Wetland, PG Co.	\$0.55	
Moore's Run Wetlands, Balt. City		
Greenhill/Hillside, PG Co.	\$0.14	
Back River Restoration, Balt Co.	\$0.32	\$0.15
<b>TOTAL</b>	<b>\$1.50</b>	<b>\$0.15</b>
<b>Ag Practices (MDA)</b>		
Cover Crops	\$1.90	
Forest/Grass Buffers/Wetland Restoration	\$0.00	\$0.27
Animal Waste Management	\$0.98	\$0.02
<b>TOTAL</b>	<b>\$2.88</b>	<b>\$0.29</b>
<b>Targeted Innovative Practices (DNR)</b>		
Little Patuxent	\$1.00	\$0.13
Magothy	\$0.36	
Wheel Creek	\$0.16	
Tred Avon	\$0.00	
Watershed 263	\$0.36	
Middle Chester	\$0.36	
Corsica	\$0.00	
Innovative Technology	\$0.25	
Natural Filters	\$0.25	\$0.15
<b>TOTAL</b>	<b>\$2.74</b>	<b>\$0.28</b>
<b>GRAND TOTAL</b>	<b>\$8.00</b>	<b>\$0.81</b>

# TRUST FUND PROJECT REPORT

## STRATEGIC MONITORING (DNR)

FISCAL YEAR: SFY10

### PROJECT OVERVIEW

SFY10 and SFY11 dollars in Strategic Monitoring will continue to be spent on collecting baseline monitoring data in Local Implementation Grant (LIG) watersheds as well as improving on communication and assistance regarding the recently completed Strategic Monitoring document.

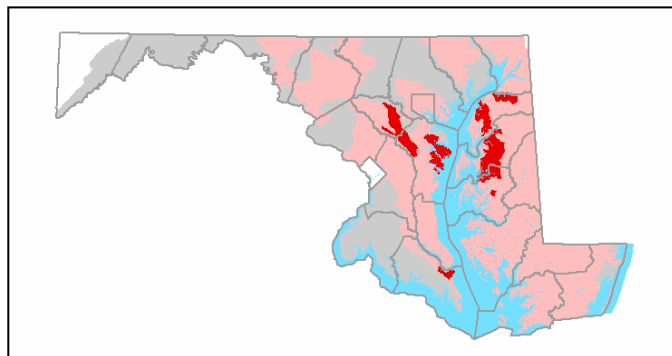
UMCES and DNR, the two leads on the Trust Fund Evaluation Workgroup (TFE) are currently investigating the costs associated with conducting baseline monitoring in two LIG watersheds, the Magothy River and Middle Chester. In addition, TFE workgroup members agreed UMCES should initiate the development of a Monitoring Strategy guide that will include high-quality graphics and figures, and likely include practical examples.

In addition, Maryland Environmental Service will begin work on Phase II of the Trust Fund map application, which will allow faster updating of project status and expenditures.

Specific activities for SFY11 have been difficult to identify due to revenue changes and budget cuts. However, UMCES and DNR continue to have discussions on finding a balance between on-the-ground monitoring needs and reporting/synthesizing data requirements to track progress of the Trust Fund.

### PROJECT LOCATION:

Statewide (Target Area Emphasis)



### PROJECT CHARACTERISTICS

**COUNTY/CITY:** Statewide  
**WATERSHED(S):** Statewide  
**SUBWATERSHED(S):** Statewide  
**PROJECT PARTNERS:** DNR  
UMCES  
MES  
**AGENCY CONTACT:** Jennifer Raulin  
DNR  
410-260-8745  
jrauln@dnr.state.md.us

<i>PROJECT COMPONENT</i>	Strategic Monitoring/Trust Fund Evaluation	Baseline Monitoring	Trust Fund Mapper Phase II
<i>LEAD</i>	UMCES	DNR	MES
<i>ACTIVITY</i>	Monitoring Document & Guidance	Monitoring	Tracking & Accountability
<i>LOCATION (Lat/Long)</i>	N/A	TBD	N/A
<i>TRUST FUND \$</i>	TBD	TBD	TBD
<i>MATCH \$</i>	TBD	TBD	TBD
<i>TOTAL COST</i>	TBD	TBD	TBD
<i>EST. TN REDUCTION</i>	N/A		
<i>EST. TP REDUCTION</i>	N/A		
<i>EST. TSS REDUCTION</i>	N/A		
<i>STATUS / % COMPLETE</i>	0%	0%	0%

# TRUST FUND PROJECT REPORT

## TECHNICAL ASSISTANCE (MDA)

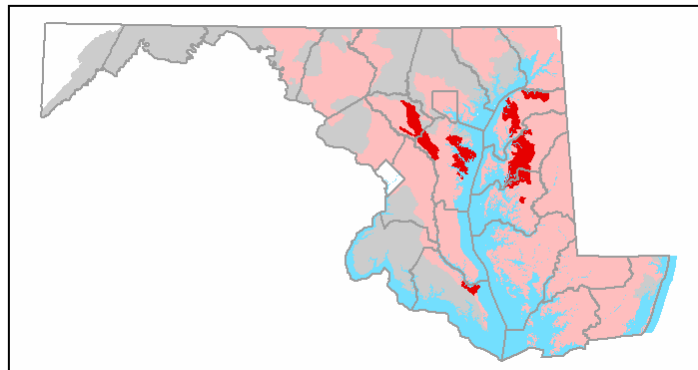
FISCAL YEAR: SFY10

### PROJECT OVERVIEW

Maryland's 2 Year Milestones require the acceleration of on the ground implementation of agricultural conservation practices. Achievement of this goal requires Soil Conservation Districts to provide adequate technical staff capable of engineering, practice plan and designs, and providing construction and construction over site to assist farmers in implementation. Level of effort will continue dependant on funding level in FY11.

### PROJECT LOCATION:

Statewide (Target Area Emphasis)



### PROJECT CHARACTERISTICS

**COUNTY/CITY:** Statewide  
**WATERSHED(S):** Multiple  
**SUBWATERSHED(S):** Multiple  
**PROJECT PARTNERS:** Soil Conservation Districts  
**AGENCY CONTACT:** John Rhoderick  
MDA  
410-841-5700  
rhoderjc@mda.state.md.us



<i>PROJECT COMPONENT</i>	Soil Conservation Staff Hiring	Training	Implementation Progress (3months)		
<i>LEAD</i>	MDA/SCDs	NRCS/MDA/SCDs	MDA/SCDs		
<i>ACTIVITY</i>	Technical Assistance				
<i>LOCATION (Lat/Long)</i>	Statewide				
<i>TRUST FUND \$</i>	\$680,000				
<i>MATCH \$</i>	\$5,672,762				
<i>TOTAL COST</i>	\$6,522,762				
<i>EST. TN REDUCTION</i>	N/A				
<i>EST. TP REDUCTION</i>	N/A				
<i>EST. TSS REDUCTION</i>	N/A				
<i>STATUS / % COMPLETE</i>	95%	80%	Goal Done		
			Plans	90	25
			BMPs	602	78
			CREP	120	66



# TRUST FUND PROJECT REPORT

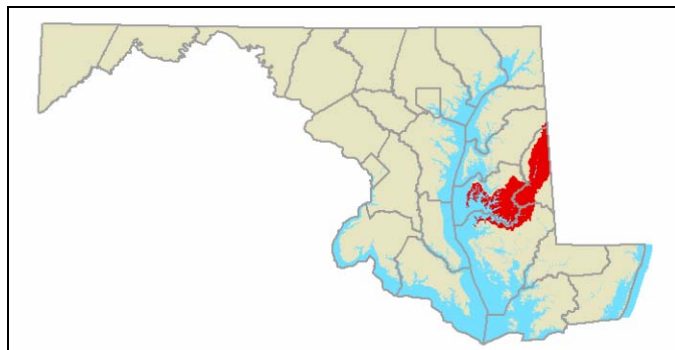
## TANYARD BRANCH STORMWATER IMPROVEMENT (MDE)

### FISCAL YEAR: SFY10

#### PROJECT OVERVIEW

A construction of a 1.8 acre pond/wetland BMP will serve a drainage area of 75 acres to reduce excessive nutrient from stormwater entering the Tanyard Branch. This and other partner projects with Talbot County will provide a significant reduction in pollutants and visible debris by means of a proposed stormwater BMP, bag filter, implementation of community education programs, and providing habitat to Bay oysters. It is proposed that this watershed would also receive SFY11 Local Implementation Grant funds via the Trust Fund.

#### PROJECT LOCATION: Choptank River



<i>PROJECT COMPONENT</i>	Tanyard Branch
<i>LEAD</i>	Town of Easton
<i>ACTIVITY</i>	Wetland
<i>TRUST FUND \$</i>	\$490,000
<i>MATCH \$</i>	\$56,000
<i>TOTAL COST</i>	\$546,000
<i>EST. TN REDUCTION</i>	113 lbs/yr
<i>EST. TP REDUCTION</i>	23 lbs/yr
<i>EST. TSS REDUCTION</i>	6 lbs/yr
<i>STATUS / % COMPLETE</i>	0%*

#### PROJECT CHARACTERISTICS

**COUNTY/CITY:** Talbot

**WATERSHED(S):** Choptank

**SUBWATERSHED(S):** Tred Avon River

**PROJECT PARTNERS:** Town of Easton

**AGENCY CONTACT:** Jim George  
MDE  
410-537-3000  
jgeorge@mde.state.md.us

\* Scheduled to begin early 2010.

# TRUST FUND PROJECT REPORT

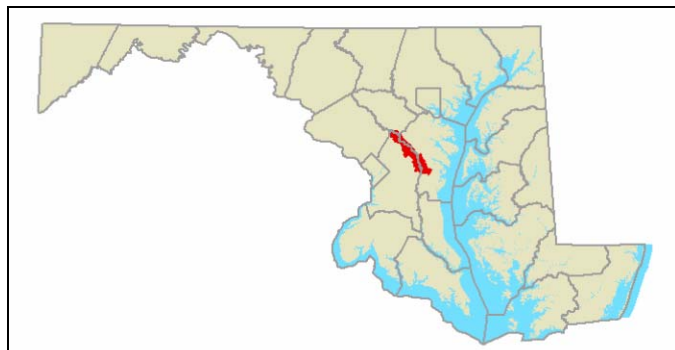
## WESTERN BRANCH ENVIRONMENTAL WETLAND RESTORATION (MDE)

FISCAL YEAR: SFY10

### PROJECT OVERVIEW

Located in Upper Marlboro, Maryland, this project will restore 16 acres of floodplain wetlands and 6 acres of wooded riparian habitat at the Equestrian Center, Courthouse, and Fisherman’s Parking Lot for a total of 106.3 drainage acres. This ecosystem restoration project has a primary goal of improving conditions for aquatic life and people in the Western Branch watershed by restoring in-stream, riparian and wetland habitats. This will be achieved through excavation of basins on the floodplain, amendment of soils to impede drainage, planting sites with cover crops to control erosion and the planting of native vegetation.

### PROJECT LOCATION: Upper Patuxent



### PROJECT CHARACTERISTICS

**COUNTY/CITY:** Prince George’s

**WATERSHED(S):** Patuxent River

**SUBWATERSHED(S):** Western Branch

**PROJECT PARTNERS:** Prince George’s County  
Army Corps of Engineers

**AGENCY CONTACT:** Jim George  
MDE  
410-537-3000  
jgeorge@mde.state.md.us

<i>PROJECT COMPONENT</i>	Western Branch
<i>LEAD</i>	Prince George’s County
<i>ACTIVITY</i>	Wetland Restoration
<i>TRUST FUND \$</i>	\$550,000
<i>MATCH \$</i>	\$2,482,675
<i>TOTAL COST</i>	\$3,032,675
<i>EST. TN REDUCTION</i>	150 lbs/yr
<i>EST. TP REDUCTION</i>	30 lbs/yr
<i>EST. TSS REDUCTION</i>	8 lbs/yr
<i>STATUS / % COMPLETE</i>	0%*

\* Scheduled to begin early 2010

# TRUST FUND PROJECT REPORT

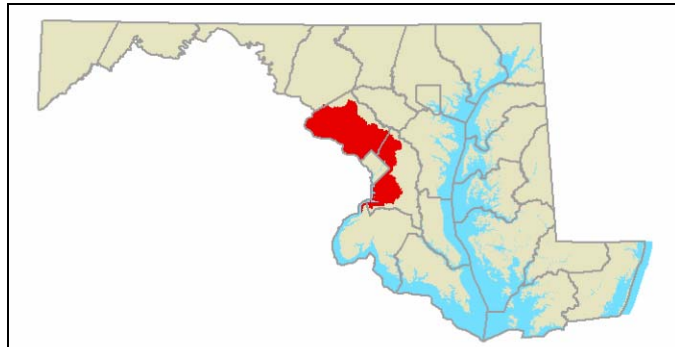
## GREENHILL/HILLSIDE ROADS STREAM RESTORATION PROJECT (MDE)

### FISCAL YEAR: SFY10

#### PROJECT OVERVIEW

Based on recommendations from the Greenbelt Lake Watershed Assessment and Wildlife Management Plan, this stream restoration will grade stream banks, install a coastal plain outfall, construct a series of step pools and two bed sills, and remove a failing culvert to solve excessive sediment and silt loading at a pedestrian path crossing. The stabilization work will reduce sediment and nutrient loads to downstream waterways and will promote groundwater infiltration in the coastal plain outfall.

#### PROJECT LOCATION: Middle Potomac



#### PROJECT CHARACTERISTICS

**COUNTY/CITY:** Prince George's  
**WATERSHED(S):** Middle Potomac  
**SUBWATERSHED(S):** Anacostia River  
**PROJECT PARTNERS:** City of Greenbelt  
**AGENCY CONTACT:** Jim George  
MDE  
410-537-3000  
jgeorge@mde.state.md.us

<i>PROJECT COMPONENT</i>	Greenhill/Hillside
<i>LEAD</i>	Greenbelt
<i>ACTIVITY</i>	Stream Restoration
<i>TRUST FUND \$</i>	\$140,000
<i>MATCH \$</i>	\$80,000
<i>TOTAL COST</i>	\$220,000
<i>EST. TN REDUCTION</i>	125 lbs/yr
<i>EST. TP REDUCTION</i>	6 lbs/yr
<i>EST. TSS REDUCTION</i>	1 lbs/yr
<i>STATUS/% COMPLETE</i>	0%*

\* Scheduled to begin early 2010

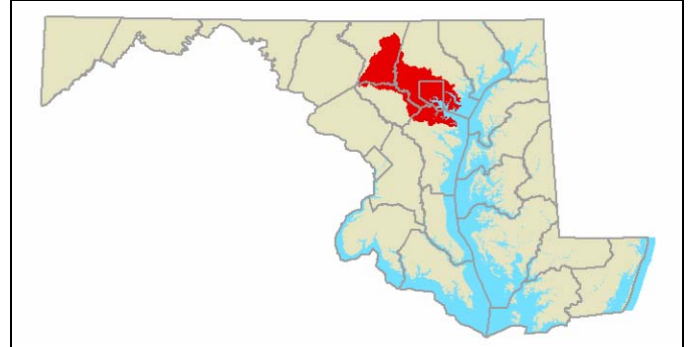
# TRUST FUND PROJECT REPORT

**BACK RIVER WATERSHED RESTORATION – REDHOUSE RUN AT ST. PATRICK’S STREAM RESTORATION (MDE)  
FISCAL YEAR: SFY10 & 11**

## PROJECT OVERVIEW

This stream restoration project utilizes natural channel design techniques to restore 3,000 linear feet between Raspe Avenue and Twilight Court, improve habitat and reduce nonpoint source pollutant load in a reach that is degraded by urbanization, floodplain encroachment, and invasive vegetation. These techniques will restore multiple ecological functions through reduction of sediment by armoring in high shear stress areas, reduction in nutrient loads through vegetative uptake and biochemical processes, improvement in biodiversity resulting from bedform features and temperature moderation, and groundwater recharge through reconnection of the floodplain. The project supported by the Back River Watershed Plan and the Upper Back River Small Watershed Action Plan of 2008.

## PROJECT LOCATION: Patapsco/Back Rivers



## PROJECT CHARACTERISTICS

**COUNTY/CITY:** Baltimore County  
**WATERSHED(S):** Patapsco/Back Rivers  
**SUBWATERSHED(S):** Back River  
**PROJECT PARTNERS:** Baltimore Co. Dept. of Environmental Protection  
**AGENCY CONTACT:** Jim George  
MDE  
410-537-3000  
jgeorge@mde.state.md.us

<i>PROJECT COMPONENT</i>	Back River Restoration
<i>LEAD</i>	Baltimore Co. DEPRM
<i>Activity</i>	Stream Restoration
<i>TRUST FUND \$</i>	\$700,000
<i>MATCH \$</i>	\$300,000
<i>TOTAL \$</i>	\$1,000,000
<i>EST. TN REDUCTION</i>	606 lbs/yr
<i>EST. TP REDUCTION</i>	32 lbs/yr
<i>EST. TSS REDUCTION</i>	5 lbs/yr
<i>STATUS/% COMPLETE</i>	0%*

\* Scheduled to begin early 2010

# TRUST FUND PROJECT REPORT

## MARYLAND COVER CROP PROGRAM (MDA)

FISCAL YEAR: SFY10

### PROJECT OVERVIEW

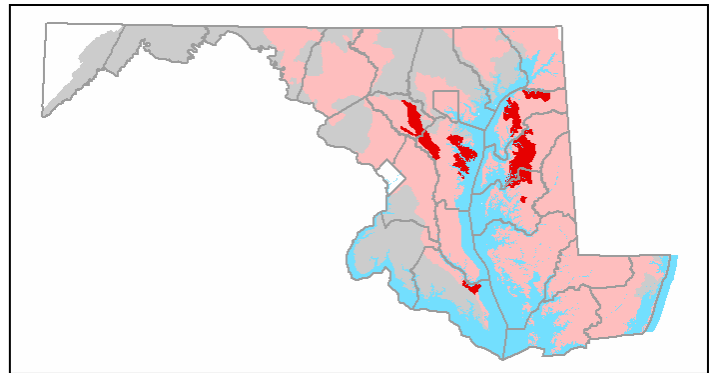
The Cover Crop Program is central to Maryland's current 2 year Milestone goals for achieving 3.75 million pound reduction of nitrogen and 193,000 pounds of phosphorus. Although the Chesapeake Bay Restoration Fund provides a significant and dedicated funding source for this program, additional resources are required to achieve ambitious goals of having cover crops annually established on nearly half of all cropland statewide.

Maryland applied input from the scientific community to incentivize acres where maximum nutrient reductions can be realized. Maryland has requested that the Chesapeake Bay Program re-examine nutrient reduction efficiencies as applied to targeted management scenarios and also examine efficiencies for commodity small grains that are not fall fertilized.



### PROJECT LOCATION:

Statewide (Target Area Emphasis)



### PROJECT CHARACTERISTICS

**COUNTY/CITY:** Statewide

**WATERSHED(S):** Multiple

**SUBWATERSHED(S):** Multiple

**PROJECT PARTNERS:** Soil Conservation Districts  
Participating agricultural producers

**PROJECT CONTACT:** Louise Lawrence  
MDA  
410-841-5700  
lawren@mda.state.md.us

By and large farmers are supportive of the program but their participation is influenced mostly by the time available after harvest to establish a cover crop, market considerations and weather conditions.

<i>PROJECT COMPONENT</i>	Application	Approvals	Fall Certification	Spring Certification	Process Payments
<i>LEAD</i>	MDA/SCDs	MDA	MDA/SCDs	MDA/SCDs	MDA
<i>ACRES</i>	330,500	330,500	TBD	TBD	N/A
<i>LOCATION (Lat/Long)</i>	Statewide	Statewide	Statewide	Statewide	Statewide
<i>COST</i>	\$16,220,309	\$16,220,309	TBD	TBD	TBD
<i>EST. TN REDUCTION</i>	TBD				
<i>EST. TP REDUCTION</i>	TBD				
<i>EST. TSS REDUCTION</i>	N/A				
<i>STATUS/% COMPLETE</i>	100 %	100 %	100 %	100 %	100 %

# TRUST FUND PROJECT REPORT

MARYLAND CONSERVATION RESERVE ENHANCEMENT PROGRAM: STATE ENROLLMENT INCENTIVE (MDA)  
FISCAL YEAR: SFY10

## PROJECT OVERVIEW

The Conservation Reserve Enhancement Program (CREP) is central to Maryland's current 2 year Milestone goals for achieving 3.75 million pound reduction of nitrogen and 193,000 pounds of phosphorus. BMPs targeted include grass and forest streamside buffers, wetlands and permanent stabilization of highly erodible land. Water quality bonds provide the state's share of funding to implement these BMPs. Trust Funds are used to provide the \$100 per acre signing incentive for new and re-enrolled acres.

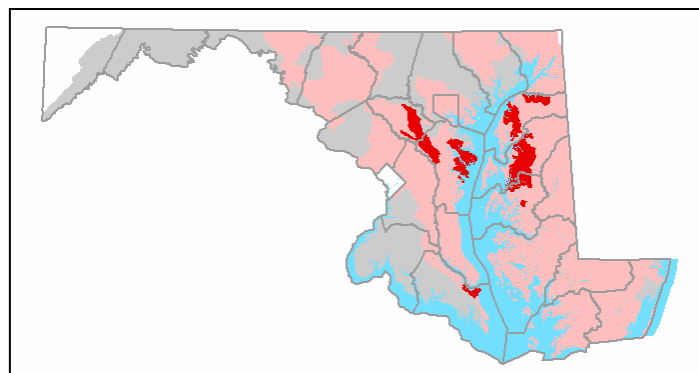
PROJECT COMPONENT	New Enrollment	Re-enrollment
LEAD	MDA/SCDs	MDA/SCDs
ACRES <sup>1</sup>	408.4	1,435.4
LOCATION (Lat/Long)	Statewide	Statewide
SIGNING BONUS COST	\$40,840	\$143,540
EST. TN REDUCTION	212,027	
EST. TP REDUCTION	20,284	
EST. TSS REDUCTION	3,688	
STATUS/% COMPLETE <sup>2</sup>	100%	100%

<sup>1</sup> FY10 as of 12/31/09

<sup>2</sup> Executed contract, signing incentive processed.

## PROJECT LOCATION:

Statewide (Target Area Emphasis)



## PROJECT CHARACTERISTICS

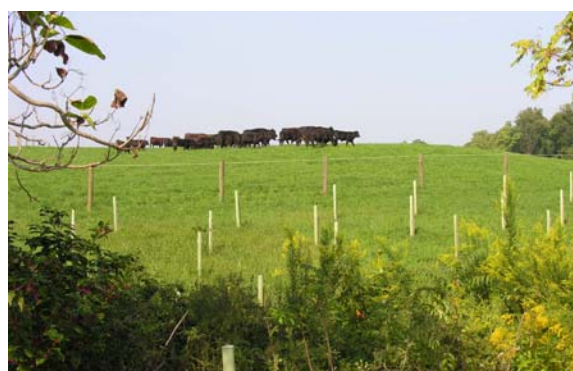
**COUNTY/CITY:** Statewide

**WATERSHED(S):** Multiple

**SUBWATERSHED(S):** Multiple

**PROJECT PARTNERS:** Soil Conservation Districts  
Participating agricultural producers

**PROJECT CONTACT:** Louise Lawrence  
MDA  
410-841-5700  
lawrenl@mda.state.md.us



**SIGNING BONUS DETAIL- 7/1/09-12/31/09**

<i>COUNTY</i>	<i>NEW ACRES ENROLLED</i>	<i>BONUS PAYMENT</i>	<i>REENROLLED ACRES</i>	<i>BONUS PAYMENT</i>
<i>Caroline</i>	5	\$500	4.4	\$440
<i>Carroll</i>	191.2	\$19,120	132.7	\$13,270
<i>Cecil</i>	0	\$0	546.9	\$54,690
<i>Frederick</i>	77.5	\$7,750	166	\$16,660
<i>Kent</i>	7	\$700	51.4	\$5,140
<i>Montgomery</i>	6.3	\$630	17.1	\$1,710
<i>Queen Anne</i>	26.1	\$2,610	418.9	\$41,890
<i>Talbot</i>	41.9	\$4,190	78.3	\$7,830
<i>Washington</i>	41.6	\$4,160	12.3	\$1,230
<i>Wicomico</i>	\$2.5	\$250	12.3	\$1,230
<i>Worcester</i>	9.3	\$40,840	\$12.3	\$1,230
<b>TOTAL</b>	408.4	\$40,840	1435.4	\$143,540



# TRUST FUND PROJECT REPORT

## ANIMAL WASTE MANAGEMENT (MDA)

FISCAL YEAR: SFY10

### PROJECT OVERVIEW

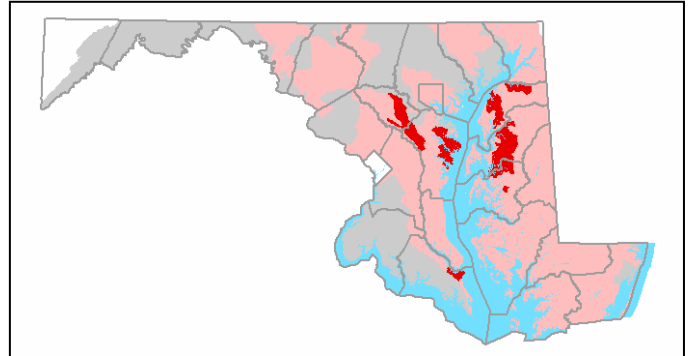
Maryland's 2 Year Milestones emphasize the acceleration of BMPs that address animal waste management. Specific BMPs include poultry and livestock animal waste storage, poultry heavy use areas, defined as concrete pads adjacent to waste storage and houses to facilitate clean up and prevent leaching.

<b>PROJECT COMPONENT</b>	Implementation Completed	Implementation Approved/Pending
<i>LEAD</i>	MDA/SCDs	MDA/SCDs
<i>BMPs</i>	0	0
<i>LOCATION (Lat/Long)</i>	Statewide	Statewide
<i>TRUST FUND \$</i>	\$980,000	
<i>MACS \$</i>	\$7,000,000	
<i>TOTAL \$</i>	\$7,980,000	
<i>EST. TN REDUCTION</i>	6,000 lbs/yr <sup>1</sup>	
<i>EST. TP REDUCTION</i>	6,000 lbs/yr <sup>1</sup>	
<i>EST. TSS REDUCTION</i>	N/A	
<i>STATUS/% COMPLETE<sup>4</sup></i>	0%	0%

<sup>1</sup> Calculation based on reduction from BMPs approved/installed with CBTF implementation only

### PROJECT LOCATION:

**Statewide (Target Area Emphasis)**



### PROJECT CHARACTERISTICS

**COUNTY/CITY:** Statewide

**WATERSHED(S):** Multiple

**SUBWATERSHED(S):** Multiple

**PROJECT PARTNERS:** Soil Conservation Districts  
Participating agricultural producers

**AGENCY CONTACT:** Louise Lawrence  
MDA  
410-841-5700  
lawrenl@dma.state.md.us



# TRUST FUND PROJECT REPORT

## LITTLE PATUXENT LOCAL IMPLEMENTATION GRANT (DNR)

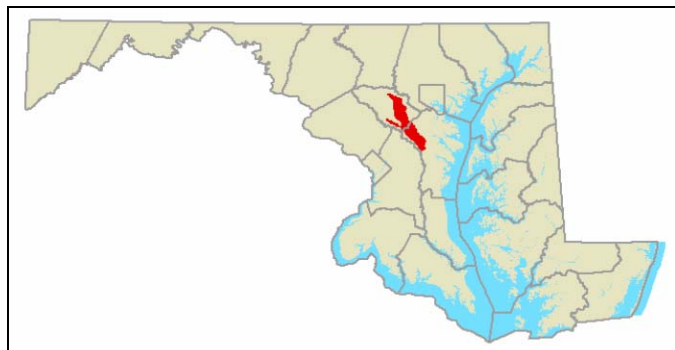
### FISCAL YEAR: SFY10

#### PROJECT OVERVIEW

The Little Patuxent Restoration Partners (LPRP) are working together to implement a multi-year, multi-initiative plan to restore multiple subwatersheds within the Little Patuxent River Watershed. LPRP offers solutions to address problems such as untreated impervious surfaces, stream erosion, nutrient loads, and sedimentation.

With \$595,000 in SFY10 Trust Fund dollars, Howard County has identified eight stormwater projects and a public outreach and education initiative. The County has estimated that the cost of the eight projects and outreach will be \$873,000. The County has \$278,000 earmarked for these projects in its FY10 capital or operating budget, and therefore, is requesting a total Trust Fund grant of \$595,000 for these projects. The current SFY10 Trust Fund request by the County is, therefore, for 68% of the proposed nine new projects. *(continued on next page)*

#### PROJECT LOCATION: Little Patuxent



#### PROJECT CHARACTERISTICS

**COUNTY/CITY:** Howard County

**WATERSHED(S):** Little Patuxent

**SUBWATERSHED(S):** Red Hill Branch  
Wilde Lake

**PROJECT PARTNERS:** Howard County  
Columbia Association

**PROJECT CONTACT:** Jennifer Raulin  
DNR  
410-260-8745  
jrauln@dnr.state.md.us



Photo by Amanda Rockler

Atholton Park- The main parking lot and entrance road to Atholton Park does not currently receive water quality treatment. A bioretention facility will pick up most of the untreated impervious areas and pre-treat runoff prior to its discharge to the stream, thus providing water quality treatment that is not currently being available. The facility will also help to reduce the volume of water leaving the site, which will help the stream.

**PROJECT OVERVIEW** (continued from previous)

Combining the County’s FY09 and FY10 requests as well as several projects underway at the time of the Trust Fund award to LPRP, the County has identified 16 projects costing a total of \$3,407,000. \$735,000 from the Trust Fund has been awarded thus far over the two year life of the Trust Fund grant, the County has only requested 22% of the funds needed to perform the 16 projects. Of the \$3,407,000 noted above the County has been able to procure grants from sources other than the Trust Fund of \$1,079,000.

Columbia Association (CA) has identified 18 nonpoint source reduction projects for the \$535,000.00 allocated with SFY10 Trust Fund dollars. These projects are currently being vetted through CA’s Board for inclusion in their capital budget. Upon approval (anticipated to be February, 2010), DNR will execute a contract for the construction of these projects. Please note: funding levels and estimated nutrient and sediment reductions for these projects are not included in this fact sheet.

<i>PROJECT COMPONENT</i>	Dorsey Building	Atholton Park	Cedar Lane Park	Font Hill Park	Sewall’s Orchard	Brampton Hills	St. Johns Green	Paul Mill Road	Public Outreach & Education
<i>LEAD</i>	Howard Co.	Howard Co.	Howard Co.	Howard Co.	Howard Co.	Howard Co.	Howard Co.	Howard Co.	Howard Co.
<i>ACTIVITY</i>	Bioretention SW retrofit	Bioretention SW retrofit	Bioretention SW retrofit	Floating Wetlands (Innovative practice)	Floating Wetlands (Innovative practice)	Stream Restoration	SW Pond Retrofit	Stream Restoration	Outreach & Education
<i>LAT/LONG</i>	39.236944/-76.826944	39.18611/-76.865833	39.233611/-76.883611	39.271389/-76.859722	39.198333/-76.825833	39.24444/-76.81	39.294167/-76.843889	39.266389/-76.8475	Red Hill Branch
<i>TRUST FUND \$</i>	\$74,000	\$70,000	\$70,000	\$31,000		\$80,000	\$40,000	\$200,000	\$30,000
<i>MATCH \$</i>	\$46,000	\$50,000	\$50,000	\$42,000		\$20,000	\$10,000	\$50,000	\$10,000
<i>TOTAL \$</i>	\$120,000	\$120,000	\$120,000.	\$73,000		\$100,000	\$50,000	\$250,000	\$40,000.
<i>EST. TN REDUCTION</i>	1,435.0 lbs/yr								
<i>EST. TP REDUCTION</i>	252.0 lbs/yr								
<i>EST. TSS REDUCTION</i>	4,842.0 lbs/yr								
<i>STATUS/% COMPLETE</i>	Design Phase/7%	Design Phase/7%	Design Phase/7%	0%	0%	Permit Phase/8%	Construction/8%	Design Phase/7%	Design Phase/6%

# TRUST FUND PROJECT REPORT

## MAGOTHY LOCAL IMPLEMENTATION GRANT (DNR)

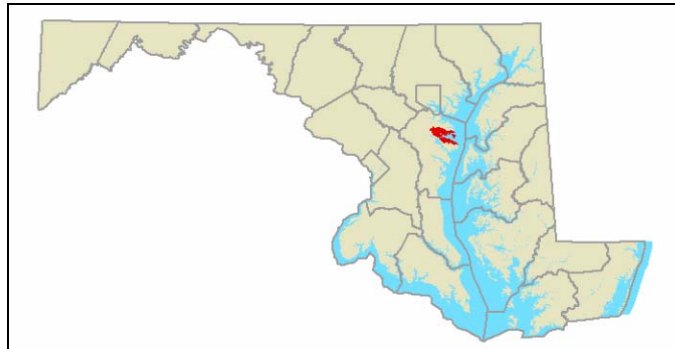
FISCAL YEAR: SFY10

### PROJECT OVERVIEW

Starting with SFY 10 Trust Fund dollars, Anne Arundel County will embark on a multi-year, comprehensive effort to rehabilitate and restore water quality and ecosystem function to three degraded subwatersheds of the Magothy River Watershed (Maryland 8 digit: 02131001). Those subwatersheds, Cypress Creek, Dividing Creek, and Mill Creek, are within the Trust Fund identified priority subwatersheds of the Lower Western Shore Tributary Basin. These subwatersheds contain primarily residential and commercial land cover and exhibit imperviousness ranging from 24 to 31 percent. Much of this land was developed prior to stormwater management measures and, in those developed areas with stormwater management facilities, the facilities are not necessarily designed or functioning to provide water quality benefits.

Anne Arundel County and its partners, the Greater Severna Park Watershed Action Group, the Magothy River Association, Anne Arundel Community College, and the University of Maryland's Chesapeake Biological Laboratory, will implement projects addressing issues such as untreated impervious surfaces, as well as the sedimentation and nutrient loads associated with stormwater runoff and in-stream erosion. The general approach is to leverage the collective knowledge and influence of the partners to implement specific innovative and cost-effective projects to address and assess the aforementioned problems. *(continued on next page)*

### PROJECT LOCATION: Magothy



### PROJECT CHARACTERISTICS

**COUNTY/CITY:** Anne Arundel

**WATERSHED(S):** Magothy River

**SUBWATERSHED(S):** Cypress Creek

**PROJECT PARTNERS:** Anne Arundel County  
Greater Severna Park Watershed Action Group  
Magothy River Association  
Anne Arundel Community College  
UMD- CBL

**AGENCY CONTACT:** Jennifer Raulin  
DNR  
410-260-8745  
jraulin@dnr.state.md.us

**PROJECT OVERVIEW** (continued from previous)

During this grant implementation year, up to 5 restoration projects within the Cypress Creek subwatershed will be developed. These projects are both innovative and cost-effective, and will address the above mentioned nonpoint source issues. Restoration projects targeted for the Cypress Creek subwatershed include the retrofit of stormwater management facilities to provide water quality as well as quantity management, and implementation of stormwater management at selected locations that are currently unmanaged. The projects will implement a step pool storm conveyance systems (SPSC) in lieu of piped stormwater outfalls to streams, install bioretention practices for unmanaged impervious areas, retrofit a stormwater management pond as a step pool and wetland seepage system, and construct in-stream enhancements to provide for removal of a concrete trapezoidal channel and implementation of a step pool conveyance system.

These projects are designed to maximize water quality and to ameliorate the nutrient and sediment loads currently carried to the tidal Magothy River via nontidal Cypress Creek. Moreover, these projects will provide enhancements to the proposed County project that will restore the North Branch of Cypress Creek. SFY 11 funding will continue with construction of the designed projects as well as other stormwater management projects in other subwatersheds of the Magothy.

<b>PROJECT COMPONENT</b>	Cypress Creek Recreation Area	Dunkeld Manor	Parking Lot Retrofit	County Park & Ride	N. Cypress Creek Retrofit
<b>LEAD</b>	Anne Arundel Co.	Anne Arundel Co.	Anne Arundel Co.	Anne Arundel Co.	Anne Arundel Co.
<b>ACTIVITY</b>	Bioretention SW retrofit	Regenerative Stormwater Conveyance SW retrofit	Regenerative Stormwater Conveyance SW retrofit	Bioretention SW retrofit	Regenerative Stormwater Conveyance SW retrofit
<b>LOCATION (Lat/Long)<sup>1</sup></b>	39.0716/-76.5430	39.0767/-76.5366	39.0739/-76.5451	39.0796/-76.5465	39.0769/-76.5422
<b>TRUST FUND \$</b>	\$360,000				
<b>MATCH \$</b>	TBD				
<b>TOTAL \$</b>	TBD				
<b>EST. TN REDUCTION</b>	260 lbs/yr				
<b>EST. TP REDUCTION</b>	15 lbs/yr				
<b>EST. TSS REDUCTION</b>	9 lbs/yr				
<b>STATUS/% COMPLETE</b>	Construction/0%	Construction/0%	Design /0%	Design/0%	Design/0%

<sup>1</sup>Lat/Long are approximate

# TRUST FUND PROJECT REPORT

## WHEEL CREEK (BUSH RIVER) LOCAL IMPLEMENTATION GRANT (DNR)

FISCAL YEAR: SFY10

### PROJECT OVERVIEW

The Wheel Creek watershed (unofficially named) is centrally located in Harford County, approximately 3 miles south of the Town of Bel Air. It is a second order tributary to Winters Run (MDEDIGIT 02130702) and Atkisson Reservoir (MDE8DIGIT 02130703) in the Bush River watershed (MDE6DIGIT 021307). Wheel Creek is situated along the eastern edge of the Piedmont physiographic province, drains 435 acres, and contains approximately 27% impervious cover. A mixture of commercial and high density residential land uses dominate the headwaters of the watershed. The remainder of the watershed's land use is dominated by medium and low density residential. The Harford Glen Environmental Education Center, which is part of the Harford County Public School system, is predominately forested and is located in the lower reaches of the Wheel Creek watershed. *(continued on next page)*

### PROJECT LOCATION: Bush River



### PROJECT CHARACTERISTICS

**COUNTY/CITY:** Harford

**WATERSHED(S):** Bush River

**SUBWATERSHED(S):** Wheel Creek (unofficially named)

**PROJECT PARTNERS:** Harford County  
Chesapeake Bay National Estuarine Research Reserve  
Regional Watershed Restoration Specialist

**PROJECT CONTACT:** Carrie Decker  
DNR  
410-260-8723  
cdecker@dnr.state.md.us



Photo by: Christine Buckley

**PROJECT OVERVIEW** (continued from previous)

Changes in the hydrologic and sediment regimes associated with historic cleaning of forests for agriculture and subsequent commercial and residential development have caused Wheel Creek and its tributaries to undergo significant morphological changes throughout the watershed. Changes in hydrology, as well as alternations to the stream and adjacent floodplain to accommodate development, have contributed to unstable channel conditions. The unstable conditions include incision of the streambed, streambank erosion, widening of the channel, lateral migration, and aggradation throughout much of the watershed. These channel adjustments have contributed a significant amount of sediment to downstream reaches and to Atkisson Reservoir which had already lost over 80% of its storage capacity by 1980.

Project components to be implemented in year one include: 1 stormwater retrofit design; 1 degradation stream channel restoration design; stewardship and outreach to the community including 5 to 10 rain garden installations; and biological, physical and chemical monitoring of the area for the life span of the project to demonstrate before and after nutrients and sediments levels.

This project began November 1, 2009 with a Watershed Assistance Grant (\$34,000) through the Chesapeake Bay Trust and DNR has been approved for a stream restoration design grant to augment Local Implementation Grant funding.

<i>PROJECT COMPONENT</i>	Project monitoring	Upper Reach 1 Stream Restoration	Stormwater Retrofit	Stewardship & Rain Garden Projects
<i>LEAD</i>	Harford Co. CBNERRS, DNR	Harford Co.	Harford Co.	CBNERRS & RWS
<i>ACTIVITY</i>	Monitoring	Design	Design	Design & Implementation
<i>TRUST FUND \$</i>	\$25,000	\$50,000	\$30,000	\$55,000
<i>MATCH \$<sup>1</sup></i>	\$88,000	\$49,756	\$36,991	\$55,000
<i>TOTAL COST</i>	\$113,000	\$99,756	\$66,991	\$110,000
<i>EST. TN REDUCTION</i>	260 lbs/yr			
<i>EST. TP REDUCTION</i>	15 lbs/yr			
<i>EST. TSS REDUCTION</i>	9 lbs/yr			
<i>STATUS / % COMPLETE</i>	15%	0%	0%	0%

<sup>1</sup> Includes County match & WAGP funding

# TRUST FUND PROJECT REPORT

## WATERSHED 263 LOCAL IMPLEMENTATION GRANT (DNR)

FISCAL YEAR: SFY10

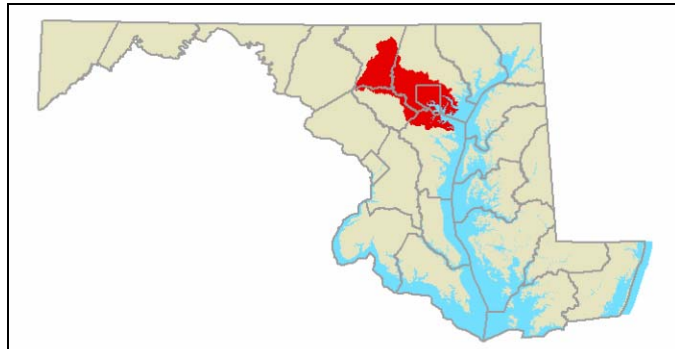
### PROJECT OVERVIEW

Baltimore City, Parks and People Foundation, and their partners are working together to implement a multi-year, multi-initiative plan to restore all sub watersheds located within the Gwynns Falls watershed (Maryland 8 digit: 02130905).

The Watershed 263 Management Plan (referred to as the “Plan”) prepared for the City, offers solutions to address problems such as untreated impervious surfaces, nutrient loads, and sedimentation. The general approach of the Plan is to leverage the collective power of the City administration and community groups by implementing specific innovative and cost-effective projects to address the aforementioned problems.

With limited funding available for SFY 10, the City has identified four initial Environmental Site Design (“ESD”) projects and will add 2-4 additional projects after site screening is completed (Examples in Appendix D). *(continued on next page).*

### PROJECT LOCATION: Patapsco/Back Rivers



### PROJECT CHARACTERISTICS

**COUNTY/CITY:** Baltimore City

**WATERSHED(S):** Patapsco/Back

**SUBWATERSHED(S):** Gwynns Falls

**PROJECT PARTNERS:** Baltimore City DPW  
Parks & People Foundation.

**AGENCY CONTACT:** Carrie Decker  
DNR  
410-260-8723  
cdecker@dnr.state.md.us



Photo by: Amanda Rockler

Treat the storm water between the existing Gwynns Falls Trail bikeway and the existing sidewalk at Bush Street in Watershed 263 (Subshed O). Goal is to construct a series of Right-of-Way bioretention bump-outs. Approximately 50-100 feet in length.



Photo by: Amanda Rockler

The project will treat the runoff from a 1.3-acre drainage area within Watershed 263 by building a site specific BMP to green/landscape the lot and treat the storm water. (This BMP site is a Baltimore City-owned, vacant lot at the corner of Fayette and Mount Streets).



**PROJECT OVERVIEW** (continued from previous)

The projects will provide water quality benefits, specifically nutrient removal, and flow attenuation, through vegetative and structural retrofits. The expected benefit is reduced sediment, phosphorus, and nitrogen flowing into Baltimore’s storm sewer system, which empties into the impaired Gwynns Falls, and then flows into the Middle Branch of the Patapsco River.

The implementation work for this grant is mainly centered around removing imperious surface and creating bioretention and similar stormwater retrofits, including rain gardens. Parks and People Foundation will be providing stakeholder outreach and education, as well as small –scale restoration projects serving as demonstration sites.

<i>PROJECT COMPONENT</i>	Community outreach, Education & bioretention projects	Site 1- Fayette & Mount Streets	Site 2- Fayette & Monroe Streets	Site 3- The Park at Lanvale & Gilmor Sts.	Site 4- Bush St.
<i>LEAD</i>	P&P	Baltimore City DPW	Baltimore City DPW	Baltimore City DPW	Baltimore City DPW
<i>ACTIVITY</i>	Outreach & Education	Design & Construction Bioretention	Design & Construction SW retrofit	Design & Construction Bioretention	Design & Construction SW retrofit
<i>LOCATION (Lat/Long)</i>	Multiple	39.289538/-76.643758	39.289439/-76.647148	39.289439/-76.647148	39.2982/-76.6436
<i>TRUST FUND \$</i>	\$72,000	\$41,244	\$14,000	\$67,977	\$115,480
<i>MATCH \$</i>	\$0	\$40,000	\$20,000	\$50,000	\$80,000
<i>TOTAL COST</i>	\$72,000	\$81,244	\$34,000	\$117,977	\$195,480
<i>EST. TN REDUCTION</i>	2 lbs/yr				
<i>EST. TP REDUCTION</i>	82 lbs/yr				
<i>EST. TSS REDUCTION</i>	2,445 lbs/yr				
<i>STATUS / % COMPLETE</i>	0%	10%	10%	10%	10%

# TRUST FUND PROJECT REPORT

## MIDDLE CHESTER LOCAL IMPLEMENTATION GRANT (DNR)

FISCAL YEAR: SFY10

### PROJECT OVERVIEW

Kent County government (KC), Chester River Association (CRA), Kent County Soil and Water Conservation District/NRCS (KSCD), University of Maryland (UMD), MD Department of Agriculture (MDA), Ducks Unlimited (DU), and Washington College (WC) hereafter referred to collectively as the Middle Chester Partners (MCP), are working together to implement a multi-year, multi-initiative plan to restore the Middle Chester watershed (Maryland 8 digit: 02130509). The Middle Chester offers the best current measurement data, an existing Watershed Restoration Action Strategy (WRAS), and the greatest opportunity to leverage other programs and initiatives.

Facilitated by the Environmental Finance Center, the MCP identified 3 focus areas which represent the greatest needs/threats to water quality: septics, agriculture, and wetland restoration (see below). Subcommittees were created and priority projects were identified after several meetings. With the assistance of University of Maryland Sea Grant Extension (MDSG), these subcommittees will continue to meet throughout this multi-year grant to identify additional projects, improve processes, and make strategic decisions with limited funding. This scope represents one year of what is expected to be a multi-year initiative. *(continued on next page)*

### PROJECT LOCATION: Middle Chester



### PROJECT CHARACTERISTICS

<b>COUNTY/CITY:</b>	Kent County
<b>WATERSHED(S):</b>	Middle Chester River
<b>SUBWATERSHED(S):</b>	Multiple
<b>PROJECT PARTNERS:</b>	Kent County Chester River Association Ducks Unlimited University of Maryland MDA
<b>AGENCY CONTACT:</b>	Jennifer Raulin DNR 410-260-8745 jrauln@dnr.state.md.us

**PROJECT OVERVIEW** (continued from previous page)

The main goals of the initial year of Trust Funding in the Middle Chester:

- Septics: Fully fund repairs of 10 failing septic systems in the Critical Area of the Middle Chester watershed, and facilitate enrollment of these properties in the Bay Restoration Fund for septic system upgrade assistance;
- Wetland Restoration: Spray 30 acres of Morgan Creek to remove phragmites; and restore 2 wetland ponds on agricultural land; and
- Agriculture: Plant 200 acres of switchgrass in buffers and explore innovative uses for switchgrass as a biofuel as well as pilot a precision agriculture project involving Greenseeker technology.

<i>PROJECT COMPONENT</i>	Wetland Restoration 2 Sites	<i>Phragmites</i> Eradication	Repair failing septics	Switchgrass Buffer Planting	Precision Agriculture
<i>LEAD</i>	DU	Kent Co.	Kent Co.	CRA	MDA/CRA
<i>ACTIVITY</i>	Wetland Restoration	Wetland Restoration	Septics	Ag BMP	Ag BMP
<i>TRUST FUND \$</i>	\$66,000	\$3,500	\$106,000	\$68,000	\$108,000
<i>MATCH \$</i>	\$16,000	\$ 0	\$0	\$40,000	\$0
<i>TOTAL \$</i>	\$76,000	\$3,500	\$106,000	\$108,000	\$108,000
<i>EST. TN REDUCTION</i>	104 lbs/yr			TBD <sup>1</sup>	
<i>EST. TP REDUCTION</i>	1 lbs/yr			TBD <sup>1</sup>	
<i>EST. TSS REDUCTION</i>	350 lbs/yr			TBD <sup>1</sup>	
<i>STATUS/% COMPLETE</i>	20%	0%	25%	8%	0%

<sup>1</sup> Sites are currently being selected for these initiatives

# TRUST FUND PROJECT REPORT

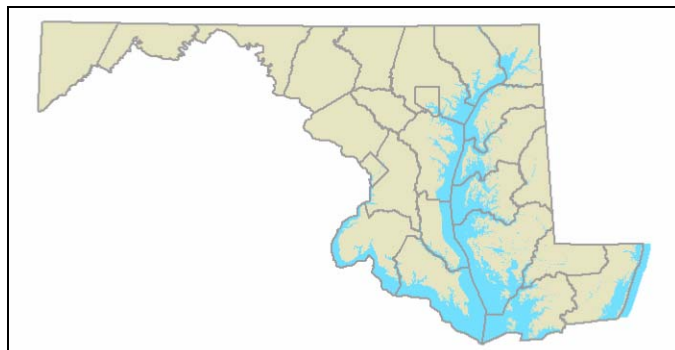
## INNOVATIVE TECHNOLOGY/CONTINGENCY DEVELOPMENT (DNR)

FISCAL YEAR: SFY10

### PROJECT OVERVIEW

At the 2007 Executive Council Meeting, both the State of Maryland and the EPA agreed to the importance of advancing innovative technology necessary to identify and test environmental technologies to advance Bay restoration. Through the Trust Fund, in partnership with University of Maryland (UMD), Maryland has established a competitive grants program to support this commitment. The Innovative Technology Fund was established with the goal of accelerating Bay restoration through the improvement of water quality in new and innovative ways.

### PROJECT LOCATION: Statewide



### PROJECT CHARACTERISTICS

**COUNTY/CITY:** Statewide

**WATERSHED(S):** Multiple

**SUBWATERSHED(S):** Multiple

**PROJECT PARTNERS:** University of Maryland

**AGENCY CONTACT:** Sarah Lane  
DNR  
410-260-8788  
slane@dnr.state.md.us

The partners are currently evaluating projects through their review process. With the advent of the 2 Year Milestones, SFY10 funding will be focused on companies that address the milestones.

# TRUST FUND PROJECT REPORT

## NATURAL FILTERS IMPLEMENTATION ON LOCAL PUBLIC LANDS (DNR)

FISCAL YEAR: SFY10

### PROJECT OVERVIEW

The project focuses on the installation of vegetative filters on public lands to help achieve the accelerated Bay restoration goals set forth in the 2 year milestones. Projects may include, but are not limited to: forested and/or grass buffers on county or municipal park land; enhancement or conversion of stormwater facilities to wetland function; and school greening projects that include the conversion of asphalt or cement to forested or grass buffers, etc.



Photos By Kristen Fleming

### PROJECT LOCATION: Statewide



### PROJECT CHARACTERISTICS

**COUNTY/CITY:** Multiple

**WATERSHED(S):** Multiple

**SUBWATERSHED(S):** Multiple

**PROJECT PARTNERS:** Jones Falls Watershed Association  
Gwynns Falls Watershed Association  
Carroll Co. Bureau of Resource Management  
Harford Co. Parks & Rec  
Maryland Nat'l Park & Planning Commission –  
Montgomery Co.,  
Washington Co. SCD

**PROJECT CONTACT:** Kristen Fleming  
Maryland Department of Natural Resources  
410-260-8813  
kfleming@dnr.state.md.us

<i>PROJECT COMPONENT</i>	Essex Farm Park	Sudbrook Park	Leister Park	Bark Hill	Eldersburg Senior Center	Walter's Mill/Deer Creek	Potomac & Patuxent Sites	Smithsburg WWTP	Kirkwood Park
<i>LOCATION</i>	Baltimore County	Baltimore County	Carroll County	Carroll County	Carroll County	Harford County	Montgomery County	Washington County	Town of Hancock
<i>ACTIVITY</i>	Buffer Planting	Buffer Planting	Reforestation	Reforestation	Reforestation	Buffer Planting	Buffer Planting	Buffer Planting	Buffer Planting
<i>TRUST FUND \$</i>	\$225,000								
<i>MATCH \$</i>	\$55,540								
<i>TOTAL \$</i>	\$280,540								
<i>EST. TN REDUCTION</i>	1,058 lbs/yr								
<i>EST. TP REDUCTION</i>	78 lbs/yr								
<i>EST. TSS REDUCTION</i>	14 lbs/yr								
<i>STATUS/ % COMPLETE</i>	10%								

## STATE FISCAL YEAR BREAKOUT SECTIONS

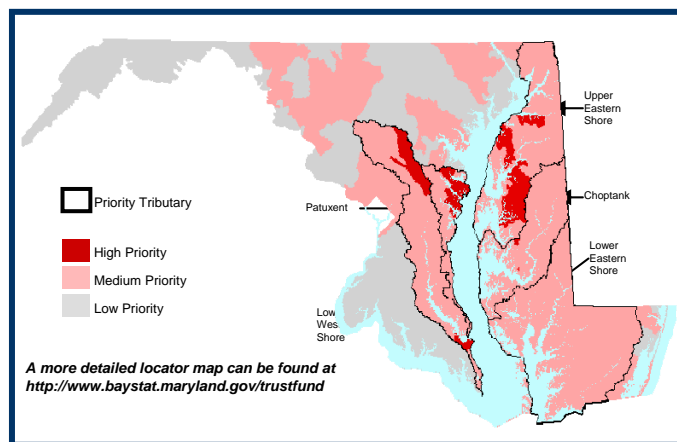
### SFY 11 PLANNED EXPENDITURES

Full implementation of the proposed allocation process required a transitional period, in which case the allocation process was delayed at the beginning of SFY 09. At the time the first competitive Request for Proposals (RFPs) were released, June 2008, for SFY 09 and SFY 10 to identify local implementation opportunities, it was expected that the State would be able to dedicate up to \$75 Million for the implementation of non-point source pollution control projects. The level of response to this first RFP included 90 proposals and over \$125 Million in identified need. The SFY 11 allocation is developed for a \$20 Million budget and will be focused on completing as many of the projects identified in SFY 09 and SFY 10 Work Plan. As the State is honoring their commitment to these local implementation projects and the process used to identify them, the targeting strategy for SFY 11 is consistent with what was used previously.

#### TARGETING STRATEGY:

The BayStat Program developed priority funding areas using information from UMCES' Chesapeake Bay Report Card, the USGS SPARROW model, and best professional judgment. The Chesapeake Bay Report Card is an assessment of the health of the Chesapeake Bay ecosystem developed by university, state and federal scientists. The report card combines multiple indicators (regarding water quality and habitat) of an ecosystem's health

into a single health score for 15 regions in the Bay. Summary data from the Report Card were used to identify five of Maryland's ten Tributary Basins that had the poorest Chesapeake Bay health scores and are significantly impacted by nonpoint source pollution. High Priority watersheds within the five Tributary Basins were then selected using the U.S. Geological Survey's SPARROW model of surface water quality. SPARROW estimates of delivered nitrogen yields for watersheds within the Patuxent, Lower Western Shore, Upper Eastern Shore, Choptank and Lower Eastern Tributary Basins were compared, and 46 subwatersheds were selected as High Priority. Medium Priority watersheds were selected using three criteria. First, all of the watersheds within the Patuxent, Lower Western Shore, Upper Eastern Shore, Choptank, and Lower Eastern Shore Tributary Strategy basins that were not identified as High Priority watersheds were selected as Medium Priority watersheds. Then, SPARROW data (estimated delivered nitrogen) for all of the remaining watersheds in the Chesapeake Bay drainage area were compared, and the highest loading basins were selected as Medium Priority. And finally, professional judgment was used to select the Anacostia, Chincoteague and Isle of Wight Bay as Medium Priority watersheds. The Anacostia watershed was selected as it "connected" other Medium Priority areas. The Coastal Bay watersheds were selected based on the expertise of scientists in that region. All of the remaining watersheds in the Chesapeake and Coastal Bay watersheds are listed as Low Priorities.



## IMPLEMENTATION DETAILS

The SFY 11 Work Plan is based on a \$20 Million allocation. Cover crops would receive \$9.52 million, animal waste management BMPs \$800,000, and \$800,000 for CREP signing bonuses. Urban best management practice projects would receive a total of \$2.10 million in FY 11 for Moore's Run Wetland project in Baltimore City, and Back River Restoration in Baltimore County, which would complete the top ranked proposals received through the urban stormwater RFP released in 2009. DNR would continue funding the Little Patuxent, Magothy, Wheel Creek, Watershed 263, Middle Chester, and begin funding for Tred Avon and the Corsica River local implementation restoration projects. In addition, SFY 11 funding would be used to support the implementation of natural filters (forest and wetlands) on state and county public lands as called for in Maryland's 2 Year Milestone. Strategic Monitoring would receive \$400,000, and \$250,000 would be used to support an innovative technologies grant program to identify and test new technologies necessary to accelerate the development of environmental technologies that can be directly applied to accelerate Bay restoration. \$680,000 will be used to support contract staff at the local soil conservation districts to help implement agricultural best management practices and \$300,000 to cover agency costs for administering Trust Fund grants.

<i>Category</i>	<b>SFY11</b>		
	<i>Allocation in M</i>	<i>N Red (lbs/yr)</i>	
<b>Strategic Monitoring</b>		\$0.40	
	<b>TOTAL</b>	<b>\$0.40</b>	
<b>Agency Direct Costs (1.5%)</b>		\$0.30	
	MDA		
	MDE		
	DNR		
	<b>TOTAL</b>	<b>\$0.30</b>	
<b>Agency Technical Assistance Costs (MDA)</b>			
	MDA to SCD for BMP Implementation	\$0.68	
	<b>TOTAL</b>	<b>\$0.68</b>	
<b>Urban/Suburban Stormwater Projects (MDE)</b>			
	Moore's Run Wetlands	\$1.87	1,213
	Back River Restoration	\$0.23	606
	<b>TOTAL</b>	<b>\$2.10</b>	
<b>Ag Practices (MDA)</b>			
	Cover Crops	\$9.52	1,415,306
	Forest/Grass Buffers/Wetland Restoration	\$0.80	12,093
	Animal Waste Management	\$0.80	167,364
	<b>TOTAL</b>	<b>\$11.12</b>	
<b>Targeted Innovative Practices (DNR)</b>			
	Little Patuxent	\$1.30	1,131
	Magothy	\$0.48	325
	Wheel Creek	\$0.37	365
	Tred Avon	\$0.48	2,902
	Watershed 263	\$0.48	267
	Middle Chester	\$0.52	14,213
	Corsica	\$0.52	946
	Innovative Technology	\$0.25	
	Natural Filters	\$1.00	23,225
	<b>TOTAL</b>	<b>\$5.40</b>	
	<b>GRAND TOTAL</b>	<b>\$20.00</b>	<b>1,639,956</b>



*Martin O'Malley, Governor*



Maryland's Chesapeake and Coastal Program | Maryland Department of Natural Resources  
Tawes State Office Building, E-2 | 580 Taylor Avenue | Annapolis, Maryland 21401  
Toll free in Maryland: 1-877-620-8DNR ext. 8732  
Out of state call: 410-260-8732 | Fax: (410) 260-8739 | TTY users call via the MD Relay  
Email: [customerservice@dnr.state.md.us](mailto:customerservice@dnr.state.md.us) | [www.dnr.state.md.us/ccp](http://www.dnr.state.md.us/ccp)

This publication was produced by staff supported by the Maryland Coastal Zone Management Program pursuant to National Oceanic and Atmospheric Administration Award No. NA08NOS4190170.

This publication is funded (in part) by a grant/cooperative agreement from the National Oceanic and Atmospheric Administration (NOAA). The views expressed herein are those of the author(s) and do not necessarily reflect the views of NOAA or any of its sub-agencies.

Project was paid for with funds from the United States Environmental Protection Agency, Chesapeake Bay Implementation Grant. Although this project is funded in part by the U.S. EPA, it does not necessarily reflect the opinion or position of the EPA.