



NONTIDAL WETLAND COMPENSATION FUND FISCAL YEAR 2011 REPORT

*Prepared for the
Maryland General Assembly*



Russell Train Programmatic Mitigation Site

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NONTIDAL WETLAND COMPENSATION FUND

ANNUAL REPORT FOR FISCAL YEAR 2011

TABLE OF CONTENTS

Requirement.....	1
Fund Use.....	1
Background.....	1
Nontidal Wetland Protection Act.....	2
Regulatory Program.....	2
Mitigation Program.....	3
Monitoring Program.....	3
Additional Mitigation Opportunities for Nontidal Wetlands.....	3
Federal Compensatory Mitigation Rule.....	4
Summary.....	5
Fiscal Year 2011 Programmatic Mitigation Projects.....	6
Russell Train, Lower Choptank Watershed, Talbot County.....	6
Harris Mill, Deer Creek Watershed, Baltimore County.....	6
Drennan Farm, Little Gunpowder Falls Watershed, Baltimore County.....	7
Fiscal Year 2011 Financial Data.....	8
Nontidal Wetland Impact Data by Watershed.....	9
Voluntary Wetland Gains in Maryland.....	17

NONTIDAL WETLAND COMPENSATION FUND

REQUIREMENT

Section 5-909 (c) (5) of the Environment Article, Annotated Code of Maryland, states that at the end of the fiscal year, the Maryland Department of the Environment (Department or MDE) shall prepare an annual report on the Nontidal Wetland Compensation Fund that includes an accounting of all financial receipts and expenditures to and from the Fund and shall provide a copy of the report to the General Assembly, as provided under §2-1246 of the State Government Article. This report covers Fiscal Year 2011.

FUND USE

The use of the Nontidal Wetland Compensation Fund is established under Section 5-909 (c) (3) and (4) of the Environment Article, Annotated Code of Maryland, which states:

- (3) Funds in the Nontidal Wetland Compensation Fund may be used only for the creation, restoration, or enhancement of nontidal wetlands, including:
 - (i) Acquisition of land;
 - (ii) Acquisition of easements;
 - (iii) Maintenance of mitigation sites;
 - (iv) Purchase of credits in mitigation banks; and
 - (v) Contractual services necessary to accomplish the intent of this paragraph.

- (4) Funds credited and any interest accrued to the Fund:
 - (i) Shall remain available until expended; and
 - (ii) May not be reverted to the General Fund under any other provision of law.

BACKGROUND

Maryland's nontidal wetlands are inland freshwater areas not subject to tidal influence. They typically have water-saturated soils or periodic high groundwater levels and vegetation adapted to wet conditions and periodic flooding. Nontidal wetlands are commonly known as marshes, swamps, bogs, wet meadows, and bottomland forests. There are between 440,000 and 460,000 acres of vegetated nontidal wetlands in Maryland, comprising 7 to 7.4 percent of the State's land mass.

Nontidal wetlands help protect the Chesapeake Bay, the Coastal Bays, and streams by filtering phosphorus, nitrogen and other pollutants from upland runoff. They form natural flood retention areas able to store floodwaters and slowly release them downstream, reducing flood damages

Wetland vegetation helps stabilize streambanks and reduce streambank erosion. Nontidal wetlands provide organic material for the food chain and habitat for fish and wildlife, some of which are endangered. Wetlands are also the exclusive home to many rare plants. They are areas of scenic beauty and provide recreational opportunities for many Marylanders.

Nontidal Wetlands Protection Act

The 1987 Chesapeake Bay Agreement included a commitment to increase the protection of nontidal wetlands. To honor its commitment, Maryland created a special task force to develop a comprehensive wetland protection policy. Due to continued wetland losses and an existing inefficient federal regulatory framework, the task force recommended a new State law. In 1989, the Maryland General Assembly endorsed the task force recommendation by enacting the Nontidal Wetlands Protection Act.

The law was one of the first state laws to declare a goal of "no net loss" of wetland acreage and function and to strive for a net gain in wetlands over time. Additional legislative goals included:

- Protection of waters of the State;
- Prevention of further degradation and losses of nontidal wetlands due to human activity by regulating all activities that may impact a nontidal wetland;
- Mitigation or compensation for authorized nontidal wetland losses; and
- Expedient project reviews by instituting a coordinated application review process and imposing strict application review deadlines.

Since the beginning of Maryland's regulatory program on January 1, 1991 through June 30, 2011, authorized nontidal wetland losses have averaged approximately 41 acres per year. More importantly, however, the program has been able to achieve a net gain in nontidal wetland acreage through compensatory mitigation permit requirements, voluntary efforts of private landowners, and other State initiatives.

Regulatory Program

The Department's wetlands and waterways regulatory program provides State government with an opportunity to promote environmentally sensitive development. Through its permit application review process, MDE attempts to prevent wetland loss by requiring an applicant to evaluate project designs that will avoid wetland impacts. Based on this evaluation of alternatives, if MDE finds that impacts are unavoidable, the applicant is required to utilize the project design that will minimize the wetland impacts and provide appropriate mitigation for those impacts.

Mitigation, required for all unavoidable impacts that are authorized by MDE, means that the applicant must replace lost wetland acreage, function and value. This is usually accomplished by requiring the creation of new wetlands, restoration of relic wetlands, enhancement of degraded wetlands or some acceptable combination. The Department may also accept monetary compensation if it is determined that mitigation for nontidal wetland losses is not a feasible alternative. The payment is deposited into the State's Nontidal Wetlands Compensation Fund and used by the State to construct nontidal wetlands throughout Maryland.

Mitigation Program

Maryland achieves its “no net loss” goal through a variety of mechanisms including voluntary efforts of private landowners, State initiatives, and the regulatory program. Success often requires consideration of wetland types and values. In the regulatory process, wetland types and values can dictate the extent of avoidance and minimization prior to consideration of compensatory mitigation. The regulatory program achieves "no net loss" through two types of mitigation efforts designed to replace lost wetland acreage and function:

- Permittee mitigation requires a permittee to create, restore, or enhance nontidal wetlands. In instances where a permittee demonstrates that it is impractical to mitigate for wetland losses associated with a project, a permittee may be allowed to pay a specified amount into the State Nontidal Wetland Compensation Fund.
- Programmatic mitigation is performed by the State for nontidal wetland losses generally less than 5,000 square feet or for permittees who have paid into the Nontidal Wetland Compensation Fund.

This report summarizes the use of the Nontidal Wetland Compensation Fund for mitigation activities undertaken by MDE during Fiscal Year 2011.

Monitoring Program

The State is constantly striving to improve its mitigation program. Prior to implementation of Maryland's program, failure of mitigation projects was largely due to insufficient monitoring for hydrology, poor design, and the lack of follow-up by regulatory agencies. The State has analyzed these factors to ensure enhanced success of mitigation projects. To address these issues, the State requires the following:

- Monitoring hydrology to determine suitability of site;
- Design review;
- Five (5) years of post-construction monitoring;
- 85% success rate on vegetative cover;
- A surety bond payable to the State and conditioned upon the successful completion of the mitigation project according to an approved mitigation plan; and
- Long-term protection mechanisms for the site.

The Department completed a comprehensive evaluation of its compensatory mitigation program in 2007. The Department has also expanded a formal assessment protocol to evaluate and document success of mitigation sites, including functional gains.

Additional Mitigation Opportunities for Nontidal Wetlands

Other tools available to offset wetland losses are mitigation banking and consolidated mitigation. Mitigation banking is the restoration, creation or enhancement of wetlands undertaken expressly for the purpose of providing compensation credits for wetland losses from future activities. In 1993, the General Assembly enacted legislation to develop standards and adopt regulations for

the establishment and operation of nontidal wetlands mitigation banks. In addition, MDE adopted mitigation banking regulations in October 1994. Unfortunately, mitigation banking remains an untapped resource in Maryland's wetland protection program.

Consolidated mitigation has also been promoted as an alternative that includes some of the benefits of mitigation banking, while addressing the perceived disadvantages. In this approach, mitigation for several different projects and different permittees may be located at a single site. Individual permittees, however, remain responsible for the success of the mitigation project. Due to requirements imposed by the federal Compensatory Mitigation Rule, consolidated mitigation will be eliminated as a mitigation option after available acreage at existing sites is exhausted, and replaced by sites approved through a formal mitigation banking process.

FEDERAL COMPENSATORY MITIGATION RULE

On April 10, 2008, the U.S. Army Corps of Engineers (USACE) and the U.S Environmental Protection Agency (EPA) published a new Compensatory Mitigation Rule (Mitigation Rule) clarifying how to provide compensatory mitigation for unavoidable impacts to the nation's wetlands and streams. The premise is that the rule will promote greater consistency, predictability and ecological success of mitigation projects under the Clean Water Act. According to EPA, the primary goals of the Mitigation Rule are to:

- Implement environmentally effective standards for compensatory mitigation that are based on best available science and incorporate key National Research Council recommendations for improving the success of compensatory mitigation;
- Create a "level playing field" among the three compensatory mitigation mechanisms through equivalent standards and greater accountability, so that providers of timely, high-quality mitigation are preferred, because there is greater assurance that the compensatory mitigation will be successful;
- Increase the efficiency and predictability of the process of proposing compensatory mitigation and approving new mitigation banks and in-lieu fee programs; and
- Enhance public participation in compensatory mitigation decision-making.

The most significant change required by the Mitigation Rule is that projects provided by all three compensation mechanisms (i.e., permittee-responsible compensatory mitigation, mitigation banks, and in-lieu fee mitigation) must have mitigation plans which include the same 12 fundamental components: objectives; site selection criteria; site protection instruments (e.g., conservation easements); baseline information (for impact and compensation sites); credit determination methodology; mitigation work plan; maintenance plan; ecological performance standards; monitoring requirements; long-term management plan; adaptive management plan; and financial assurances. In addition, the Mitigation Rule requires a watershed approach to locating mitigation. The Mitigation Rule also changes the hierarchy of acceptable mitigation projects. The most preferred option is mitigation bank credits, which are usually in place before the activity is permitted. In-lieu fee program credits are second in the preference hierarchy, because they may involve larger, more ecologically valuable compensatory mitigation projects as compared to permittee-responsible mitigation. Permittee-responsible mitigation is the third option.

The Mitigation Rule became effective on June 9, 2008. According to EPA, the Mitigation Rule revises the requirements for in-lieu fee (ILF) programs in order to address concerns regarding their past performance and equivalency with the standards imposed on mitigation banks and permittee-responsible mitigation. The reforms to improve accountability and performance include:

- 1) An advance planning requirement;
- 2) A cap on the number of advance credits that can be released for sale before an ILF project site is secured and a mitigation plan is approved;
- 3) Improved financial accounting requirements; and
- 4) The same interagency/public review and ecological/administrative requirements as mitigation banks.

While the Mitigation Rule sets strict requirements for all mitigation options, it has additional requirements for mitigation banks and ILF programs. Among other things, an Interagency Review Team (IRT) must review the financial assurances, credit release schedule, service areas, long-term management plan, and reporting information. In-lieu fee programs must include a comprehensive planning framework to be used when selecting mitigation sites. To meet this requirement, MDE will utilize its mitigation prioritization documents and a GIS-based Watershed Resource Registry developed by an interagency workgroup, which included MDE.

The Department's nontidal wetlands ILF Program, which is funded through the Nontidal Wetland Compensation Fund, has been operating since 1991 and is both well-established and successful. Historically, the majority of projects permitted by MDE authorized minor wetland impacts, which required small mitigation projects. The purpose of the ILF Program is to accept monetary payments from permittees with small mitigation requirements, so that MDE can construct larger, more environmentally sustainable projects. Since the Mitigation Rule attempts to transform the ILF Program into a mitigation bank, and the State does not currently operate its program as a bank, Maryland is re-evaluating its existing ILF Program for compliance with the federal Mitigation Rule.

An IRT comprised of the USACE, EPA, the U.S. Fish and Wildlife Service, the National Marine Fisheries Service and the Maryland Department of Natural Resources continues to evaluate MDE's ILF Program. While the USACE has suggested that the Mitigation Rule is very flexible, the results of this review will certainly require MDE to modify its regulations to address a myriad of new federal requirements. Another consequence is that expenditures from the Nontidal Wetlands Compensation Fund will be significantly reduced or completely stopped until the IRT has completed its review, and the USACE and MDE sign an ILF Instrument detailing the operation of a revised State ILF Program.

SUMMARY

The Nontidal Wetland Compensation Fund is a special revenue fund, which was created by the action of the 1989 General Assembly. The fund began receiving revenue in 1991, when the Nontidal Wetlands Regulatory Program went into effect.

Nontidal Wetland Compensation Fund revenues are derived primarily from contributions made to the Fund for permitted wetland losses for which MDE has determined that mitigation is not a feasible alternative for a Permittee.

FISCAL YEAR 2011 PROGRAMMATIC MITIGATION PROJECTS

Russell Train

The Russell Train project has been designed to restore approximately 17 acres of previously drained cropland into nontidal wetland and approximately 36 acres of cropland into forest and warm season grasses. An additional 3 acres of cropland will be converted to a food plot for wildlife habitat. Through a cooperative effort between MDE, the Talbot Soil Conservation District, and the landowner, construction for this site began in late summer 2010. Construction will be completed in 2011, with the planting of warm season grasses occurring in Fall 2011. The project will be enhanced further in Spring 2012 with the planting of trees and shrubs. This site is within Talbot County Critical Area drainage to Broad Creek, in the Lower Choptank watershed (02-13-04-03).



Project Cost:	\$469,670.00
Fiscal Year 2010 Payments:	\$105,000.00
Fiscal Year 2011 Payments:	\$ 71,006.00
Fiscal Year 2010 Encumbrances:	\$293,664.00

Harris Mill

The Harris Mill project has been designed to restore approximately 6.56 acres of previously drained cropland into nontidal wetland and to enhance an additional 0.58 acres of existing nontidal wetland. This project also included plugging a perimeter ditch, which is anticipated to restore an additional 3.86 acres of nontidal wetland. Through a cooperative effort between MDE, the Harford Soil Conservation District, and the landowner, construction for this site occurred in Fall 2010. This site is located in Baltimore County, in the Deer Creek watershed (02-12-02-02).



Project Cost: \$414,807.00
Fiscal Year 2011 Payments: \$373,327.00

Fiscal Year 2011 Encumbrances: \$ 41,480.00

Drennan Farm

The Drennan Farm project has been designed to restore approximately 3.5 acres of previously drained cropland into wetland. Through a cooperative effort between MDE, the Baltimore County Soil Conservation District, and the landowner, construction for this site was completed between May and July 2011. This site is located in Baltimore County, in the Little Gunpowder Falls watershed (02-13-08-04).



Project Cost: \$121,417.00
Fiscal Year 2011 Payments: \$ 78,922.00

Fiscal Year 2011 Encumbrances: \$42,495.00

STATEMENT OF REVENUES AND EXPENDITURES
FISCAL YEAR 2011
July 1, 2010 - June 30, 2011

REVENUES

Fund Balance as of June, 2010	\$2,901,651.84
Fiscal Year 2011 Revenue	208,069.69
Fiscal Year 2011 Earned Interest	0.00
Fiscal Year 2011 Accrued Revenues	(1,404.80)
Total Fiscal Year 2011 Revenues	\$3,108,316.73

EXPENDITURES

Total Fiscal Year 2011 Expenditures	641,296.44
NONTIDAL WETLAND COMPENSATION FUND BALANCE AS OF JUNE 30, 2011	\$2,467,020.29

NONTIDAL WETLAND IMPACT DATA BY WATERSHED SEGMENT (IN ACRES)

1/1/1991 - 06/30/2012

Basin Code	Watershed Segment	Permanent Impact	Permittee Mitigation	Programmatic Credits	Other Credits	NET
02-05-03-01	CONAWECO CREEK AREA DRAINAGE	0.00	0.00	0.00	0.00	0.00
02-05-03-00	CONAWECO CREEK AREA	0.00	0.00	0.00	0.00	0.00
02-12-02-01	LOWER SUSQUEHANNA RIVER AREA DRAINAGE	-2.05	1.54	3.00	0.00	-0.51
02-12-02-02	DEER CREEK DRAINAGE	-1.17	4.08	14.56	5.91	23.38
02-12-02-03	OCTORARO CREEK DRAINAGE	-0.62	0.53	2.00	0.00	1.91
02-12-02-04	CONYOMKSD DAM SUSQUEHANNA RIVER AREA	-0.69	0.00	0.00	0.00	-0.69
02-12-02-05	BROAD CREEK DRAINAGE	-0.47	3.00	7.35	0.00	6.88
02-12-02-00	LOWER SUSQUEHANNA RIVER AREA	-4.40	6.16	23.91	5.97	31.57
02-13-01-01	ATLANTIC OCEAN	3.00	0.00	0.00	0.00	0.00
02-13-01-02	ASSAWOMPAN BAY DRAINAGE	-0.86	0.00	0.30	0.00	-0.86
02-13-01-03	ISLE OF WIGHT BAY DRAINAGE	-64.28	60.81	10.30	16.42	2.87
02-13-01-04	SINEPUXENT BAY DRAINAGE	-6.78	3.02	0.30	0.16	-2.71
02-13-01-05	NEWPORT BAY DRAINAGE	-13.88	3.49	0.50	0.00	-9.14
02-13-01-06	CHINCO TEAQUE BAY DRAINAGE	-2.13	0.30	16.70	3.92	18.49
02-13-01-00	COASTAL AREA	-108.02	67.29	28.10	27.59	6.76
02-13-02-01	PODOMOKE SOUND AREA DRAINAGE	-0.57	0.00	0.00	0.00	-0.57
02-13-02-02	LOWER PODOMOKE RIVER AREA DRAINAGE	-17.47	4.77	41.30	0.41	34.01
02-13-02-03	UPPER PODOMOKE RIVER AREA DRAINAGE	-6.40	25.20	50.00	0.00	68.80
02-13-02-04	DIV DING CREEK DRAINAGE	-0.12	0.00	0.00	0.00	-0.12
02-13-02-05	MAGSAWANGO CREEK DRAINAGE	-0.44	0.00	0.00	0.00	-0.44

Basin Code	Watershed Segment	Permitted Impact	Permitted Mitigation	Programmatic Gain	Other Gains	NET
02-13-02-06	TANCYER SOUND AREA DRAINAGE	-0.82	0.08	0.00	0.04	-1.52
02-13-02-07	BIG ANNEMESSEX RIVER DRAINAGE	-3.17	3.45	0.00	0.00	3.28
02-13-02-08	MANOKIN RIVER DRAINAGE	-3.12	0.77	0.00	0.36	-1.97
02-13-02-00	POCOMOKE RIVER AREA	-28.85	34.25	91.30	6.83	99.43
02-13-03-01	LOWER WICOMICO RIVER AREA DRAINAGE	-42.83	46.43	0.00	1.58	5.38
02-13-03-02	MCKNIE BAY DRAINAGE	-0.34	0.00	0.00	0.00	-0.34
02-13-03-03	W.COMICO CREEK DRAINAGE	-0.76	0.00	0.00	0.00	-0.26
02-13-03-04	W.COMICO RIVER HEADWATERS AREA	-7.17	3.33	0.00	0.00	-3.24
02-13-03-05	NANTIDOKO RIVER AREA DRAINAGE	-3.23	4.37	0.00	2.16	3.30
02-13-03-06	MARSHYHOPE CREEK DRAINAGE	-3.28	4.86	26.50	0.03	28.11
02-13-03-07	FISHING BAY AREA DRAINAGE	-8.73	1.87	0.00	0.59	5.73
02-13-03-08	TRANSQUAKIND RIVER AREA DRAINAGE	-1.35	8.84	20.00	0.19	25.46
02-13-03-00	NANTIDOKO RIVER AREA	-64.93	78.10	46.50	4.55	64.16
02-13-04-01	JONGA RIVER DRAINAGE	-1.11	0.00	0.00	0.01	-1.10
02-13-04-02	LITTLE CHOFTANK RIVER DRAINAGE	-20.09	28.82	0.81	12.72	23.26
02-13-04-03	LOWER CHOFTANK RIVER AREA DRAINAGE	-27.85	13.52	32.00	11.81	29.48
02-13-04-04	UPPER CHOFTANK RIVER AREA DRAINAGE	-15.63	16.24	92.00	12.63	105.24
02-13-04-05	TUCKAHOE CREEK DRAINAGE	-2.25	1.65	2.30	0.00	1.73
02-13-04-00	CHOFTANK RIVER AREA	-66.93	60.28	128.11	37.17	106.61
02-13-05-01	EASTERN BAY AREA DRAINAGE	-8.46	3.00	0.81	0.02	-3.55
02-13-05-02	MILFORD RIVER DRAINAGE	-8.62	0.83	0.00	0.44	-7.25
02-13-05-03	WYVE RIVER DRAINAGE	-2.26	0.81	6.00	0.03	4.35
02-13-05-04	KENT NAHROWS - PROSPECT BAY DRAINAGE	-2.64	0.03	0.00	0.03	-1.61
02-13-05-05	LOWER CHESTER RIVER AREA DRAINAGE	-6.76	1.44	0.50	2.93	-0.82

Basin-Code	Waterbody Segment	Perennial Inflow	Permitted Abstraction	Programmatic Gains	Other Claims	NBY
02-13-05-06	LANCFORD CREEK DRAINAGE	-0.54	0.00	0.00	1.52	0.96
02-13-05-07	CORSICA RIVER DRAINAGE	-1.91	1.12	0.00	0.00	-0.79
02-13-05-08	SOUTHEAST CREEK DRAINAGE	-1.37	0.82	0.00	1.40	0.65
02-13-05-09	MIDDLE CHESTER RIVER AREA DRAINAGE	1.57	0.04	0.20	8.89	7.36
02-13-05-10	UPPER CHESTER RIVER AREA DRAINAGE	-2.36	0.19	18.30	8.34	24.47
02-13-05-11	KENT ISLAND BAY AREA DRAINAGE	-7.49	4.16	11.40	1.00	9.09
02-13-05-00	CHESTER RIVER AREA	-43.68	13.06	39.31	24.29	32.78
02-13-06-01	LOWER CLK RIVER AREA DRAINAGE	-0.29	0.10	0.00	0.00	-0.19
02-13-06-02	BOHEMIA RIVER DRAINAGE	-0.18	0.42	0.00	0.00	0.24
02-13-06-03	UPPER ILK RIVER AREA DRAINAGE	-0.79	0.00	0.00	0.00	-0.76
02-13-06-04	BACK CREEK DRAINAGE	-0.11	0.00	0.00	0.00	-0.11
02-13-06-05	LITTLE FLK CREEK DRAINAGE	-1.23	0.21	0.00	0.00	-1.02
02-13-06-06	BIG ELK CREEK DRAINAGE	-1.75	3.85	0.00	0.45	2.36
02-13-06-07	CHRISTINA RIVER DRAINAGE	-1.22	0.87	0.00	0.00	-0.35
02-13-06-08	NORTHEAST RIVER DRAINAGE	-5.90	1.81	0.00	0.21	-2.88
02-13-06-09	FURNACE BAY DRAINAGE	-7.23	2.45	0.00	0.00	0.22
02-13-06-10	SASSAFRAS RIVER DRAINAGE	-0.59	0.00	0.00	0.36	-0.23
02-13-06-11	STILLPONID - PAULEE AREA DRAINAGE	-0.33	0.00	0.00	0.00	0.17
02-13-06-00	ELK RIVER AREA	-13.69	9.55	0.00	1.52	-2.62
02-13-07-01	BUSH RIVER DRAINAGE	-13.84	12.48	0.00	3.78	-0.62
02-13-07-02	LOWER WINTERS RUN DRAINAGE	-3.75	4.94	0.00	3.00	5.19
02-13-07-03	ATOBSON RESERVOIR DRAINAGE	-5.47	9.70	0.00	3.00	4.23
02-13-07-04	RYNUM RUN DRAINAGE	-8.80	6.84	0.00	3.00	-3.22
02-13-07-05	ASBREEK PROVING GROUND AREA DRAINAGE	-10.12	32.85	0.00	3.00	7.57
02-13-07-09	SWAN CREEK DRAINAGE	-8.89	7.89	2.20	3.00	3.09

Watershed Code	Watershed Segment	Permanant Impact	Permittee Mitigation	Programmatic Gains	Other Gains	NET
02-13-07-00	BUSH RIVER AREA	-73.94	73.08	2.20	0.76	1.10
02-13-08-01	GUNPOWDER RIVER AREA DRAINAGE	-2.21	32.77	0.00	0.00	30.56
02-13-08-02	LOWER GUNPOWDER FALLS DRAINAGE	-2.99	8.82	0.00	0.02	6.25
02-13-08-03	BIRD RIVER DRAINAGE	-32.12	58.77	0.00	0.00	26.65
02-13-08-04	LITTLE GUNPOWDER FALLS DRAINAGE	-2.06	1.82	10.50	0.00	10.36
02-13-08-05	LOCIL HAVEN RESERVOIR DRAINAGE	-2.30	5.23	0.00	5.31	8.24
02-13-08-06	PRETTYBOY RESERVOIR DRAINAGE	-0.70	0.36	0.00	0.00	-0.34
02-13-08-07	MIDDLE RIVER - BROWN'S CREEK DRAINAGE	-3.81	3.30	0.00	0.00	-0.31
02-13-08-00	GUNPOWDER RIVER AREA	-43.90	111.17	10.80	6.33	81.41
02-13-09-01	BACK RIVER DRAINAGE	-10.18	3.4	0.00	0.08	-6.71
02-13-09-02	SODKLY CREEK DRAINAGE	-0.23	0.40	0.00	0.00	0.17
02-13-09-03	BALTIMORE HARBOR AREA DRAINAGE	-15.13	10.14	8.50	0.00	2.51
02-13-09-04	JONES FALLS DRAINAGE	-3.59	12.94	5.00	0.64	14.59
02-13-09-05	GWYNNIS FALLS DRAINAGE	-8.44	11.43	0.00	0.63	2.62
02-13-09-06	PATAFSCO RIVER - LOWER N. BRANCH AREA	-21.61	21.81	0.00	0.21	0.41
02-13-09-07	LIBERTY RESERVOIR DRAINAGE	-10.03	8.50	0.00	0.00	-1.50
02-13-09-08	SOUTH BRANCH PATAFSCO RIVER DRAINAGE	-3.18	2.04	3.00	0.00	1.85
02-13-09-00	PATAFSCO RIVER AREA	-77.50	76.40	16.50	1.54	16.94
02-13-10-01	MAGOTHY RIVER AREA DRAINAGE	-2.11	1.18	0.00	3.83	2.21
02-13-10-02	SEVERN RIVER AREA DRAINAGE	-8.50	0.89	0.00	0.67	-5.14
02-13-10-03	SOUTH RIVER AREA DRAINAGE	-4.94	0.43	0.00	0.01	-4.50
02-13-10-04	WEST RIVER AREA DRAINAGE	-4.90	5.20	0.00	0.01	0.30
02-13-10-05	OTHER DRAINAGE WEST CHESAPEAKE AREA	-20.63	40.88	0.30	0.00	21.65

Basin-Code	Hydrological Segment	Permittee Impact	Permittee Mitigation	Programmatic Credits	Other Credits	NET
02-13-10-00	WEST CHESAPEAKE BAY AREA	-99.74	68.78	1.30	6.48	14.32
02-13-11-01	PATUXENT RIVER LOWER AREA DRAINAGE	-20.25	18.89	0.00	0.15	-3.21
02-13-11-02	PATUXENT RIVER MIDDLE AREA DRAINAGE	-4.17	8.09	0.00	0.00	10.92
02-13-11-03	WESTERN BRANCH DRAINAGE	-24.80	17.83	0.00	4.24	-2.73
02-13-11-04	PATUXENT RIVER UPPER AREA DRAINAGE	-8.79	22.74	0.00	0.05	14.00
02-13-11-05	LITTLE PATUXENT RIVER DRAINAGE	-31.97	54.85	2.75	4.25	29.68
02-13-11-06	MIDDLE PATUXENT RIVER DRAINAGE	-9.83	20.12	0.00	0.01	10.30
02-13-11-07	ROCKY GORGE DAM AREA DRAINAGE	-3.62	3.98	0.00	0.00	0.34
02-13-11-08	BRIGHTON DAM AREA DRAINAGE	-1.97	0.88	0.00	0.00	0.31
02-13-11-00	PATUXENT RIVER AREA	-104.00	143.10	11.75	8.70	69.61
02-13-09-00	UPPER CHESAPEAKE BAY	0.00	0.00	0.00	0.00	0.00
02-13-09-01	MIDDLE CHESAPEAKE BAY	0.00	0.00	0.00	0.00	0.00
02-13-09-02	LOWER CHESAPEAKE BAY	0.00	0.00	0.00	0.00	0.00
02-13-09-00	CHESAPEAKE BAY	0.00	0.00	0.00	0.00	0.00
02-14-01-01	POTOMAC RIVER LOWER TIDAL DRAINAGE	-2.04	2.57	0.00	0.00	0.03
02-14-01-02	POTOMAC RIVER MIDDLE AREA DRAINAGE	-0.39	0.00	0.00	0.00	-0.39
02-14-01-03	ST. MARY'S RIVER AREA DRAINAGE	-6.72	6.24	0.00	0.51	0.03
02-14-01-04	BRETON BAY DRAINAGE	-2.90	1.20	0.00	0.00	-1.70
02-14-01-05	ST. CLEMENS BAY DRAINAGE	-0.89	0.00	0.00	0.00	-0.89
02-14-01-06	WICOMICO RIVER DRAINAGE	-1.16	0.00	0.00	0.00	-1.16
02-14-01-07	GILBERT SWAMP DRAINAGE	-0.98	2.70	3.60	0.21	5.52
02-14-01-08	ZELKAH SWAMP DRAINAGE	-9.32	15.89	0.00	2.03	8.40
02-14-01-09	PORT OBACCO RIVER DRAINAGE	-9.81	49.80	0.00	0.18	34.17
02-14-01-10	NANJEMOY CREEK DRAINAGE	-0.63	0.85	0.00	0.00	2.12

Basin-Code	Watershed Segment	Permanant Impact	Permittee Mitigation	Programmatic Credit	Other Credits	NET
02-14-01-11	MATTAWOMAN CREEK DRAINAGE	-26.17	37.00	13.63	0.00	42.33
02-14-01-12	LOWER POTOMAC RIVER - VIRGINIA DIRS.	0.00	0.00	0.00	0.00	0.00
02-14-01-00	LOWER POTOMAC RIVER AREA	-53.02	128.65	17.63	2.83	86.66
02-14-02-01	POTOMAC RIVER UPPER AREA DRAINAGE	-4.25	1.62	0.00	0.00	-4.75
02-14-02-02	POTOMAC RIVER MONTGOMERY COUNTY AREA	-4.82	0.40	6.00	11.39	7.97
02-14-02-03	P SCATAWAY CREEK DRAINAGE	-21.03	16.58	2.20	0.00	-2.24
02-14-02-04	OXON CREEK DRAINAGE	-0.47	0.26	3.00	0.00	-0.21
02-14-02-05	ANACOSTIA RIVER DRAINAGE	-72.81	86.69	3.00	1.60	15.48
02-14-02-06	ROCK CREEK DRAINAGE	-8.24	3.27	0.00	0.26	-4.72
02-14-02-07	CABIN JOHN CREEK DRAINAGE	-1.77	1.12	0.00	0.00	-0.65
02-14-02-08	SENECA CREEK DRAINAGE	-9.13	25.16	0.00	0.83	16.85
02-14-02-09	WASHINGTON METROPOLITAN AREA - VIRGINIA DR	0.00	3.00	0.00	0.00	0.00
02-14-02-00	WASHINGTON METROPOLITAN AREA	-124.99	134.95	8.70	14.07	32.73
02-14-03-01	POTOMAC RIVER FREDERICK CO. AREA	-0.40	0.00	0.00	0.00	-0.40
02-14-03-02	LOWER MONOCACY RIVER DRAINAGE	-6.50	9.22	37.50	0.11	36.23
02-14-03-03	UPPER MONOCACY RIVER DRAINAGE	-2.81	1.37	0.00	0.00	-0.84
02-14-03-04	DOUBLE MITE CREEK DRAINAGE	-3.50	4.22	18.58	0.00	19.20
02-14-03-05	CATOCTIN CREEK DRAINAGE	-1.30	0.00	0.66	0.17	-0.17
02-14-03-06	MIDDLE POTOMAC RIVER AREA - VIRG NA DIRS.	0.30	0.00	0.00	0.00	0.00
02-14-03-00	MIDDLE POTOMAC RIVER AREA	-14.47	11.41	58.74	0.26	66.02
02-14-05-01	POTOMAC RIVER WASHINGTON CO. AREA	-1.48	0.73	0.00	0.00	1.36
02-14-05-02	ANTIETAM CREEK DRAINAGE	-0.54	0.00	1.00	0.00	0.46
02-14-05-03	MARSH RUN DRAINAGE	-0.11	0.00	0.00	0.00	-0.11
02-14-05-04	CONGOCHEAUGUE CREEK DRAINAGE	-0.95	0.82	0.00	0.00	-0.13

Basin Code	Watershed Segment	Permanent Impact	Permittee Mitigation	Programmatic Credits	Other Credits	NET
02-14-05-05	LITTLE CONODOCHEAGUE CREEK DRAINAGE	0.00	0.00	0.00	0.00	0.00
02-14-05-06	LICKING CREEK DRAINAGE	0.00	0.00	0.00	0.00	0.00
02-14-05-07	TONDLOWAY CREEK	-0.09	0.00	0.00	0.00	-0.09
02-14-05-08	POTOMAC RIVER ALLEGANY CO. AREA	-0.07	0.00	0.00	0.00	-0.07
02-14-05-09	LITTLE TONOLOWAY CREEK DRAINAGE	0.00	0.00	0.00	0.00	0.00
02-14-05-10	SIDELING HILL CREEK DRAINAGE	0.00	0.00	0.00	0.00	0.00
02-14-05-11	FIFTEEN MILE CREEK	-0.02	0.00	0.00	0.00	-0.02
02-14-05-12	TOWN CREEK DRAINAGE	-0.25	0.00	0.00	0.00	-0.25
02-14-05-13	UPPER POTOMAC RIVER AREA - W. VIRGINIA	0.00	0.00	0.00	0.00	0.00
02-14-05-00	UPPER POTOMAC RIVER AREA	-3.45	0.95	1.00	0.00	-1.50
02-14-10-01	LOWER NORTH BRANCH POTOMAC RIVER AREA	-4.89	5.77	0.00	0.05	1.13
02-14-10-02	EVITTS CREEK DRAINAGE	-1.49	1.55	0.50	2.40	3.06
02-14-10-03	WILLS CREEK DRAINAGE	-0.85	0.47	0.00	0.00	-0.38
02-14-10-04	GEORGES CREEK DRAINAGE	-1.35	0.92	0.00	0.00	-0.43
02-14-10-05	UPPER N. BRANCH POTOMAC RIVER AREA	-0.17	0.11	0.00	4.20	4.14
02-14-10-06	SAVAGE RIVER DRAINAGE	-0.83	0.00	0.00	0.55	-0.09
02-14-10-07	N. BRANCH POTOMAC RIVER AREA W. VIRGINIA	0.00	0.00	0.00	0.00	0.00
02-14-10-00	NORTH BRANCH POTOMAC RIVER AREA	-9.19	8.62	0.60	7.20	7.44
05-02-02-01	YOUCHIOCHENY RIVER DRAINAGE	-1.05	0.10	0.00	0.00	-0.95
05-02-02-02	LITTLE YOUCHIOCHENY RIVER DRAINAGE	-1.55	1.59	0.00	0.00	-0.11
05-02-02-03	DEEP CREEK LAKE DRAINAGE	-0.74	0.00	0.00	0.00	-0.74
05-02-02-04	CASSELLMAN RIVER DRAINAGE	-1.01	0.35	1.00	1.80	2.28
05-02-02-00	YOUCHIOCHENY RIVER AREA	-4.47	2.04	1.00	1.80	0.47

Navis-Code	Waterfront Segment	Permanent Impact	Permit/Use Mitigation	Programmatic Gains	Other Gains	NAV
Grand Total						
		-894.65	1013.86	484.02	142.85	746.08

**VOLUNTARY WETLAND GAINS IN MARYLAND BY CALENDAR YEAR
1998-2011**

ACTIVITY AND WETLAND TYPE					TOTAL
	1998-2008	2009	2010	2011	
Restoration Forest Nontidal Wetland	5,232.69	199.74	40.38		5,472.81
Restoration Shrub Nontidal Wetland	91.45	19.34			110.79
Restoration Emergent Nontidal Wetland	3,741.85	22.87	97.55	49.20	3911.47
Restoration Unknown Nontidal Wetland Type	205.55	9.80		34.40	249.75
Restoration Tidal Wetland	30.31		1.10		31.41
Creation Forested Nontidal Wetland	243.85		6.00		249.85
Creation Emergent Nontidal Wetland	444.73	12.70	58.77	2.40	518.6
Creation Shrub Nontidal Wetland	21.00				21.00
Creation Unknown Nontidal Wetland Type	191.74				191.74
Creation Tidal Wetland	246.62	94.83	16.64	58.1327	416.22
Enhancement Forested Nontidal Wetland	1,772.66	266.00	353.40	315.40	2707.46
Enhancement Shrub Nontidal Wetland	8.00				8.00
Enhancement Emergent Nontidal Wetland	855.79	211.00	9.30	153.00	1,229.09
Enhancement Unknown Nontidal Wetland Type	789.30	760.00	41.00		1,590.30
Enhancement Tidal Wetland	121,327.97	826.80	10,926.48	0.2492	133081.5
TOTAL	135,203.51	2,423.08	11,550.62	612.78	149,789.99