

NONTIDAL WETLAND COMPENSATION FUND **FISCAL YEAR 2011 REPORT**

Prepared for the Maryland General Assembly



Russell Train Programmatic Mitigation Site

Wetlands and Waterways Program **Water Management Administration** 1800 Washington Boulevard, Suite 430 Baltimore, Maryland 21230

ANNUAL REPORT FOR FISCAL YEAR 2011

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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. Nontidalwetlands 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 2010Encumbrances: \$293,664.00

<u>Harris Mill</u>

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

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

Simon Trades	watership of segment	Impact	Minjeration	Gains	Clains	Ne.J
32-05-03 01	CONAWECO CREEK AREA DRAINAGE	C 0.D	0.0	0.00	0.00	0.00
02-05-03-00	CONAWEGO CREEK AREA	0:00	98:0	0.00	0.00	0.00
02-12-03-01	LOWER SUSQUE! WINA RIVER AREA DRAINAGE	2.08	1.54	3.00	0.00	Ġ
02-12-03-02	DECR CREEK DRAINAGE	-1.17	4.08	14.56	5.91	23.3R
02 12 02-03	OCTORARO CREEK DRAINAGE	29/0	0.53	2.00	0.00	28
02.12-02.04	CONOMINGO DAM SUSQUEHANNA RIVER AREA	-0.69	000	0.00	0.00	-0.49
02:12:02:05	BROAD CREEK DRAINAGE	-0.47	3.00	327)	0.00	S.88
02-12-02-00	LOWER SUSQUEHANNA RIVER AREA	4.40	6,16	23.97	5.07	31.57
02-13-01-03	ATLANTIG OCEAN	3.00	4.03	0:0	909	0.00
42-13-01-02	ASSAWOWAN BAY CRAINAGE	-1.86	0.00	0.30	900	9 8.0
02-13-01-03	ISLE OF WIGHT BAY DRAINAGE	-B4.24	130.81	10.30	16.42	2.87
02-13-01-D4	SINEPLIXENT BAY DRAINAGE	-6.78	3.02	0.90	0 48	-2.71
02-13-01-05	KEWPOST BAY DRAINAGE	-13.88	64.6	0.50	O.S	-B.14
90-10-6	CHINCOTEAGUE BAY DRAINAGE	-2.13	0.10	14.70	8	18.49
03-13-01-110	COASTALARFA	-108.02	62,28	28.10	27.50	8,78
02-13-02-01	POCOMOKE BOUND AREA CHAINAGE	16.6-	0.00	9:0	0.40	-2.57
02-13-02-02	LOWER POCOMOKE RIVER JAREA DRAINAGE	-12,47	4.73	41,30	0.41	34.01
02-13-02-03	UPPER PODOKOKE RIVER AREA DRAINAGE	-6.4⊪	25.20	50 00	OD:	FB.83
02-13-02-04	DIV DAMO CREEK DRAINAGE	40.12	0.00	O O	4.05	51.0
02-13-02-05	NASSAWARSO CREEK DRAINASE		9	4		

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Monthly, April 22, 2013

02-13-02-09 TANCIER BOUNDAREA DIAMMAGE -0.42 0.06 0.04 0.05 02-13-02-07 BIG ANNEMERSTER PRAINAGE -3.17 4.45 0.00 0.00 02-13-02-07 MANDORIN RIVER DRAINAGE -3.12 1.77 0.00 0.00 02-13-02-08 MANDORIN RIVER DRAINAGE -3.12 4.45 0.00 0.00 02-13-02-09 MANDORIN RIVER DRAINAGE -0.24 0.00 0.00 0.00 02-13-02-03 MICANIE BAN DRAINAGE -0.73 0.00 0.00 0.00 02-13-02-03 MACRIE BAN DRAINAGE -0.73 0.00 0.00 0.00 02-13-02-03 MARSHTHODIE RIVER AREA DRAINAGE -1.35 4.41 0.00 0.00 02-13-02-03 MARSHTHODIE RIVER AREA DRAINAGE -1.35 4.45 0.00 0.00 02-13-02-03 MARSHTHODIE RIVER AREA DRAINAGE -1.35 4.43 0.00 0.00 02-13-02-03 MARSHTHODIE RIVER AREA DRAINAGE -1.35 4.43 0.00 0.00 02-13-02-03 MARSHTH	02-13-02-08 02-13-02-07 02-13-02-08		Import	MANU KARADI	Gans	Gans	Tak.
BIG ANNIEMESSEX R VERT CRAINAGE -3.12 -3.12 -3.12 -3.12 -3.00 -3.00 -3.00 -3.12 -3.12 -3.00 -3.00 -3.00 -3.00 -3.12 -3.13 -3.00 -3.13 -3.1	02-13-02-07	TANCIER SOUND AREA DRAINAGE	-0.82	43.08	Q.0	D.04	-3.52
POCCHIOKE RIVER AREA -28 BF 34.25 81.30	90-13-05-08	BIG ANNEMESSEX RIVER DRAINAGE	-3.17	3.45	Q.00	0.00	3.28
DOCCUMORE RIVER AREA -28 BF 34.25 \$7.30 LOWER WILDOMACD RIVER AREA DRAINAGE -0.34 0.00 0.00 W.COMIDO DRECK DRAINAGE -0.75 0.00 0.00 W.COMIDO DRIVER HEADWATERS AREA -7.17 3.33 0.00 W.COMIDO RIVER HEADWATERS AREA -7.17 3.33 0.00 WARSHYHOPE CREEK DRAINAGE -8.22 4.86 28.40 FIBHING BAY AREA DRAINAGE -1.35 4.86 28.40 FIBHING BAY AREA DRAINAGE -1.35 8.64 20.00 INDMÉA SIVER RIVER AREA DRAINAGE -2.03 1.36 2.30 LITTLE CHOPTANA RIVER DRAINAGE -2.25 1.55 3.20 LIDMER CHOSTAINK RIVER AREA DRAINAGE -3.56 1.65 2.30 CHOPTAINK RIVER AREA DRAINAGE -3.46 3.30 81 CHOPTAINK RIVER AREA DRAINAGE -3.46 3.00 81 CHOPTAINK RIVER AREA DRAINAGE -3.46 3.00 81 CHOPTAINK RIVER AREA DRAINAGE -3.46 3.00 81 WILLES RIVER DRAINAGE		MANOKIN RIVER DRAINAGE	-3.12	0.77	d.00	0.38	-1.87
LOWER WICONICO RIVER AREA DRAINAGE -42 63 46.43 0.00 MCONIE BAY DEALINAGE -0.34 0.00 0.00 W.COMICO CREEK DRAINAGE -0.77 3.33 0.00 W.COMICO RIVER HEADWATERS AREA -7.77 3.33 0.00 MARTIDAKE RIVER AREA DRAINAGE -8.23 4.46 26.21 HARRIPHODE CREEK DRAINAGE -8.73 11.41 0.00 TRAARSHAHODE CREEK DRAINAGE -1.35 8.46 26.21 TRAARSHAHODE CREEK DRAINAGE -1.11 B.00 0.00 TRAARSHAHODKE RIVER AREA DRAINAGE -1.24 46.30 1.20 LIVILLE CHOPTANK RIVER AREA DRAINAGE -2.25 1.55 3.20 1.51 LOWER CHOPTANK RIVER AREA DRAINAGE -2.25 1.55 3.20 1.51 3.00 CHOPTANK RIVER AREA DRAINAGE -2.25 1.55 3.00 1.51 3.00 CHOPTANK RIVER AREA DRAINAGE -2.25 1.46 3.00 1.51 3.00 WINGE KIVER DRAINAGE -2.26 0.93 0.93 0.90 <	02-13-02-00	POCOMOKE RIVER AREA	-28.85	82.82	94.30	0.63	89.43
W.COMIC DAY DRAINAGE 0.34 0.00 0.00 W.COMICO CREEK DRAINAGE 0.74 0.00 0.00 W.COMICO CREEK DRAINAGE -7.17 3.33 0.00 W.COMICO RIVER HEADWATERS AREA -7.17 3.33 0.00 MARTIDOKE RIVER AREA DRAINAGE -8.73 17.81 0.00 MARSHYHODE CREEK DRAINAGE -8.73 17.81 0.00 TRAANSDUAKINO RIVER AREA DRAINAGE -1.15 8.64 20.00 LITLE GIDPTANK RIVER AREA -64.94 78.40 46.50 NAMTRONGE RIVER AREA DRAINAGE -20.09 28.82 81 LITLE GIDPTANK RIVER AREA DRAINAGE -27.85 1.85 3.20 LIOWEN CHOPTANK RIVER AREA DRAINAGE -27.85 1.85 3.20 CHOPTANIK RIVER AREA -46.89 66.89 60.24 7.81 MILES RIVER DRAINAGE -2.25 1.66 2.30 CHOPTANIK RIVER AREA DRAINAGE -2.25 1.66 9.00 WYE HAVER DRAINAGE -2.25 0.83 0.00 WILLES RIVER DRAINAGE <t< td=""><td>02-13-03-01</td><td>LOWER WICDMICD RIVER AREA DRAINAGE</td><td>42 83</td><td>46.43</td><td></td><td>1.58</td><td>538</td></t<>	02-13-03-01	LOWER WICDMICD RIVER AREA DRAINAGE	42 83	46.43		1.58	538
W.COMICO CREEK DRAINAGE -0.78 0.00 9.00 W.COMICO RIVER HEADWATERS AREA -7.17 3.33 0.00 NAMTICORE RIVER AREA DIGNINGE -3.23 4.36 26.50 NAMRICORE RIVER AREA DIGNINGE -8.73 134 0.00 TISHING BAY AREA DRAINAGE -8.73 134 0.00 TIRAN SOLUAKINO RIVER AREA GRAINAGE -1.13 46.50 20.00 LITCH CHOPTANK RIVER AREA -1.11 0.00 0.00 NAMTICORGE RIVER AREA -1.11 0.00 0.00 LITCH CHOPTANK RIVER AREA -20.09 28.82 81 LIOWEN CHOPTANK RIVER AREA DRAINAGE -15.53 15.54 23.00 LIOWEN CHOPTANK RIVER AREA -2.25 1.65 2.30 CHOPTANK RIVER AREA -3.48 3.10 81 WILLES RIVER DRAINAGE -2.25 0.93 0.00 WWE HIVEN BARIANGE -2.64 0.93 0.00 WILLES RIVER DRAINAGE -2.65 0.93 0.00 KEMITINGER CHESTER RIVER AREA LRAINAGE 2.67	02-13-03-02	MONIE BAY DRAINAGE	-0.34	0.00	0.00	000	-0.34
W.COMICO RIVER HEADWAYTERS AREA -7.17 3.33 0.00 NAKTIDONE RIVER AREA DRAINAGE -3.23 4.36 26.50 MARSHYHOPE CREEK DRAINAGE -6.73 1°.81 0.00 FISHING BAY AREA DRAINAGE -6.73 1°.81 0.00 TRANSQUAKINO RIVER AREA DRAINAGE -1.11 0.00 0.00 MANTCOKE RIVER AREA DRAINAGE -20.08 28.82 -3.00 LIONGA RIVER AREA DRAINAGE -27.85 18.24 92.00 LIONGA CACECK RAINAGE -27.85 18.24 92.00 LIONGA CACECK CRAINAGE -2.25 1.65 2.30 CHOPTANK RIVER AREA -6.89 60.28 7.84 17 3. CHOPTANK RIVER AREA -6.89 60.28 7.84 17 3. CHOPTANK RIVER AREA -6.89 6.89 6.20 7.81 WYE HILES RIVER OBAINAGE -2.25 1.65 9.91 6.00 WYE HAVER DRAINAGE -2.26 1.85 9.91 6.00 KENTI NAHROWS CHESTER RIVER AREA DRAINAGE -2.69 9.91 <t< td=""><td>02-13-03-03</td><td>W.COMIDO CRECK DRAINAGE</td><td>92 d-</td><td>00'0</td><td>0.00</td><td>000</td><td>-9.26</td></t<>	02-13-03-03	W.COMIDO CRECK DRAINAGE	92 d-	00'0	0.00	000	-9.26
NAMTIDONE RIVER AREA DRAINAGE -3.23 4.37 0.00 MARSHYHOPE CREEK DRAINAGE -8.73 4.86 26.75 FISHING BAY AREA DRAINAGE -1.36 8.64 20.00 TRANSQUAKINO RIVER AREA DRAINAGE -1.11 0.00 46.50 MANTICOKE RIVER AREA -64.99 7.8.10 46.50 LIONGA HIVER CHAINAGE -20.09 28.82 81 LIONGA HIVER CHAINAGE -27.86 13.52 32.00 LIONGE CHOPTAINK RIVER AREA DRAINAGE -15.53 16.6 2.30 CHOPTAINK RIVER AREA -2.25 1.66 2.30 CHOPTAINK RIVER AREA DRAINAGE -2.25 1.66 9.00 WYE HIVER DRAINAGE -2.26 0.93 0.00 KENT MAHROWS - FRIOSPECT BAY DRAINAGE -2.75 0.93	02-13-03-D4	W.COMICO RIVER HEADWATERS AREA	-7.17	3.83	0.00	00:00	-324
MARSHYHOPE CREEK DRAINAGE -8.28 4.86 26.50 FIBHING BAY AREA DRAINAGE -6.73 17.87 0.00 TRANSQUAKIND RIVER AREA DRAINAGE -6.493 778.70 46.50 NAMTKOKGE RIVER AREA DRAINAGE -20.08 28.82 81 LIOWGA AIVER ORAINAGE -20.08 28.82 81 LIOWER CHOPTANK RIVER AREA DRAINAGE -15.53 16.24 92.00 LIDWEN CHOPTANK RIVER AREA DRAINAGE -15.53 16.6 2.30 CHOPTANK RIVER AREA DRAINAGE -66.83 60.29 7.81 ANILES RIVER DRAINAGE -8.48 3.10 81 ANILES RIVER DRAINAGE -2.25 0.83 0.00 WYE HIVER RAREA DRAINAGE -2.26 0.83 0.00 WYE HIVER RARINAGE -2.26 0.83 0.00 WYE HIVER RARINAGE -2.26 0.93 0.00 LOWER CHESTERN BAY AREA DRAINAGE -2.26 0.93 0.00 LOWER CHESTERN BAY AREA DRAINAGE -2.65 0.93 0.00 LOWER CHESTERN BAY AREA DRAINAGE -	02-19-03-05	NANTIDOKE RIVER AREA DRAINAGE	.3.23	4.37	30'0	7,16	330
FIBHING BAY AREA DRAINAGE -6.73 1 - 81 0.00 TRANSQUAKINO RIVER AREA CRAINAGE -1.35 1 - 81 0.00 NAMTICOKE RIVER AREA -64.93 78.10 46.50 JIONGA AIVER OHAINAGE -20.09 28.82 81 JIONGA AIVER OHAINAGE -20.09 28.82 81 LOWEN CHOPTANK RIVER AREA DRAINAGE -15.53 15.24 92.00 LOWEN CHOPTANK RIVER AREA DRAINAGE -2.25 1.65 2.30 CHOPTANK RIVER AREA DRAINAGE -2.25 1.65 2.30 CHOPTANK RIVER AREA -66.83 60.28 7.81 / 7.81 WYE HAVER DRAINAGE -2.25 0.93 0.00 WYE HAVER DRAINAGE -2.26 0.93 0.00 KENT NAHROWS - PROSPECT BAY DRAINAGE -2.64 0.93 0.00 LOWER CHESTER RIVER AREA DRAINAGE -2.64 0.93 0.00 LOWER CHESTER RIVER AREA DRAINAGE -2.64 0.93 0.00	02-13-03-08	MARSHYHOPE CREEK DRAINAGE	-3.28	बुक्त म	28.5£	0.03	28 13
TRANSQUAKINO RIVER AREA -1.35 6.64 Zh.OD NANTKOKE RIVER AREA -64.99 78.10 46.50 JIONGA AIVER OKAINAGE -1.11 D.GD 0.00 LIOWER CHOPTANK RIVER AREA DRAINAGE -20.09 28.82 61 LOWER CHOPTANK RIVER AREA DRAINAGE -15.63 18.24 92.00 TUCKAHOE CRECK DRAINAGE -2.25 1.65 2.30 CHOPTANK RIVER AREA -66.83 60.28 726.17 3 CHOPTANK RIVER AREA -8.48 3.10 81 4 CHOPTANK RIVER AREA -66.83 60.28 7.81 3 WYE HYER DRAINAGE -2.25 0.93 0.05 3 WYE HYER DRAINAGE -2.26 0.93 0.05 3 KENT MAHROWS - FROSPECT BAY DRAINAGE -2.56 0.93 0.00 3 LOWIER CHESTER RIVER AREA GRAINAGE -6.78 1.44 -5.00 3 0	02-13-03-07	FISHING BAY AREA DRAINAGE	-6.73	1.87	0.00	0.59	573
NAMITOOKE RIVER AREA -64.94 78.10 46.50 JIONGA AIVER DHAINAGE -1.11 0.00 0.00 LI I'TLE GHOPTANA RIVER DRAINAGE -20.09 28.82 81 LOWEN CHOPTANK RIVER AREA DRAINAGE -27.85 13.52 82.00 LIPPER CHOPTANK RIVER AREA DRAINAGE -2.25 1.65 2.30 CHOPTANK RIVER AREA -66.89 60.29 728.77 3.00 CHOPTANK RIVER AREA -8.48 3.10 81 3.00 CHOPTANK RIVER AREA -8.48 0.93 0.00 WILES RIVER DRAINAGE -2.26 0.93 0.00 WYE HIVER PRAINAGE -2.26 0.93 0.00 KENTI NAHROWS - PROSPECT BAY DRAINAGE -2.26 0.93 0.00 LOWIER CHESTER RIVER AREA DRAINAGE -6.75 0.93 0.00 LOWIER CHESTER RIVER AREA DRAINAGE -5.00 0.93 0.00 LOWIER CHESTER RIVER AREA DRAINAGE -5.00 0.93 0.00	02-13-03-08	TRANSQUAKINO RIVER AREA CRAINAGE	-1.35	8.64	20.00	t).19	25.48
LICTLE CHOPTANA RIVER DRAINAGE -1.11 D.400 D.400 LICTLE CHOPTANA RIVER DRAINAGE -20.09 28.82 81 LOWGER CHOPTANK RIVER AREA DRAINAGE -27.85 15.24 92.00 LUDPER CHOPTANK RIVER AREA DRAINAGE -5.25 1.65 2.30 THICKAHOE CREEK DRAINAGE -66.83 60.24 726.17 3 CHOPTANK RIVER AREA -66.83 60.24 726.17 3 CHOPTANK RIVER AREA DRAINAGE -8.45 3.10 81 3 BASTERN BAY AREA DRAINAGE -2.25 0.93 0.00 3 WYE HÜVER DRAINAGE -2.26 0.93 0.00 3 WYE HÜVER DRAINAGE -2.64 0.93 0.00 3 LÖWER CHESTER RIVER AREA DRAINAGE -3.65 0.93 0.00 3 LÖWER CHESTER RIVER AREA DRAINAGE -3.75 1.44 1.50 3	02-13-03-00	NAMTICOKE RIVER AREA	-64.93	78.10	46.50	4,55	64.16
LITTLE CHIOPETANK RIVER DRANMOE -20.89 28.82 81 LOWIEN CHOPTANK RIVER AREA DRAIMAGE -27.85 13.52 32.00 LOWIEN CHOPTANK RIVER AREA DRAIMAGE -15.53 1.65 2.30 TUCKAHOE CREEK DRAIMAGE -27.25 1.65 2.30 CHOPTANK RIVER AREA -66.89 60.28 726.17 3 CHOPTANK RIVER AREA DRAIMAGE -8.48 3.100 81 3.00 BASTERN BAY AREA DRAIMAGE -2.26 0.83 0.00 WYE HÜNER DRAIMAGE -2.26 0.93 0.90 KENT NAHROWS - FROSPECT BAY DRAIMAGE 2.64 0.93 0.90 LOWER CHESTER RIVER AREA DRAIMAGE -6.78 1.44 50	02-13-04-01	JIONGA RIVER DIMINAGE	1,1	D.dD	0.00	0.01	4.10
LOWER CHESTERINGE -27.85 13.52 32.00 1 UPPER CHOPTANIK RIVER AREA DRAINAGE -15.53 16.24 92.00 1 TUCKAHOE CRECK DRAINAGE -2.25 1.65 2.30 2.30 CHOPTANK RIVER AREA -66.93 60.24 728.17 3 CHOPTANK RIVER AREA DRAINAGE -8.48 3.10 91 3 EASTERN BAY AREA DRAINAGE -8.48 5.83 0.00 3 WYE HÜVER DRAINAGE -2.26 0.93 0.00 3 KENT NAHROWS - PROSPECT BAY DRAINAGE -2.54 0.93 0.00 3 LÖWER CHESTER RIVER AREA DRAINAGE -6.76 0.93 0.93 0.00	02-13-04-02	LI MER GROPTANK RIVER DRAINAGE	-20.09	28.82	8·	12.72	23.26
UPPER CHOPTANK RIVER ARE'A DEAINAGE -15.63 16.24 92.00 TUCKAHOE CRECK DRAINAGE -2.25 1.65 2.30 CHOPTANK RIVER AREA DRAINAGE -4.48 3.10 91 BASTERN BAY AREA DRAINAGE -4.48 3.10 91 WIJES RIVER DRAINAGE -2.26 0.93 0.05 WYE MYER WARRANGE -2.26 0.93 0.00 KENT NAHROWS - FROSPECT BAY DRAINAGE -3.64 0.93 0.00 LOWER CHESTER RIVER AREA DRAINAGE -6.76 1.44 50	02-13-04-03	LOWEN CHOSTANK RIVER AREA DRAINAGE	-27.85	13.52	32.00	11.61	29.46
TUCKAHOE CRECK DRAINAGE -2.25 1.65 2.30 CHOPTANK RIVER AREA -66.83 60.24 728.17 3 CHOPTANK RIVER AREA DRAINAGE -8.48 3.10 1.91 3 EASTERN BAY AREA DRAINAGE -8.48 3.10 1.91 0.00 WYE HÜNER DRAINAGE -2.28 0.93 0.00 KENT NAHROWS - PROSPECT BAY DRAINAGE 2.64 0.93 0.00 LÖWER CHESTER RIVER AREA DRAINAGE -8.76 0.93 0.00	02-13-04-04	UPPER CHOPTANK RIVER AREA DAAINAGE	-15.63	15.24	92.00	12.63	105.24
CHOPTANK RIVER AREA -66.83 60.28 728.17 3 EASTERN BAY AREA DRAINAGE -8.48 3.10 1.91 MILES RIVER DRAINAGE -3.82 0.93 0.0D WYE HAVER DRAINAGE -2.28 0.93 0.0D KENT NAHROWS - PROSPECT BAY DRAINAGE -2.54 0.93 0.0D LÖWER CHESTER RIVER AREA DRAINAGE -6.78 1.44 1.50	02-13-04-05	TUCKAHOE CREEK DRAINAGE	-2.25	1.65	2.30	0.03	1.73
EASTERN BAY AREA DRAINAGE -8.48 3.00 *.91 MILES RIVER DRAINAGE -8.82 0.83 0.00 WYE HIVER DRAINAGE -2.26 0.93 0.00 KENT NAHROWS - PROSPECT BAY DRAINAGE -2.64 0.93 0.00 LOWER CHESTER RIVER AREA DRAINAGE -6.76 1.44 *.50	02-13-04-00	CHOPTANK RIVER AREA	£6.83-	60.24	128.17	37.17	148.61
MILES RIVER DRAINAGE 48.82 0.83 0.00 WYE HÜVER DRAINAGE 2.26 0.93 0.00 KENT NAHROWS - PROSPECT BAY DRAINAGE 2.64 0.93 0.00 LÖWER CHESTER RIVER AREA DRAINAGE 6.76 1.44 7.50	10-50-61-40		8 1 .45	3.00	.	Q.D2	-8.53
WYE HIVER DRAINAGE 2.28 p.61 6.00 KENT NAHROWS - PROSPECT BAY DRAINAGE 2.64 p.93 p.00 LOWER CHESTER RIVER AREA DRAINAGE 6.78 1.44 7.50	02-13-05-07	WILES RIVER DRAINAGE	-8.62 -	0.93	0.00	0.44	-7.25
KENT NAHROWS - FROSPECT BAY DRAINAGE - 2.64 0.93 0.00 LOWIER CHESTER RIVER AREA CRAINAGE - 6.78 1.44 7.50	02-13-05-03	WYE HVER DRAINAGE	-2.26	194	6.00	0.00	4.35
LOWER CHESTER RIVER AREA DRAINAGE 6.78 1.44 7.50	02-13-05-04	KENT NAHROWS - PROSPECT BAY DRAINAGE	2.64	66.0	D.00	CO:D	-1.61
	02-13-05-05	LOWER CHESTER RIVER AREA GRAINAGE	÷.76	1 44	7.50	2.93	-0.92
Manhay, April 22, 2013	Manduy, 1ptl 22, 2013						8 to 2 again

Banin-Code	Water thed Segment	Регласноя Імпаци	Permittee	Ргоджанечитіс Балы	Other Guins	19%
02-13-05-06	LANGFORD GREEK DRAINAGE	d. P	0.00	0.00	ž.	0.56
02-13-05-07	CORSICA RIVER DRAINAGE	-1.91	1.12	4.0C	0,0	67.Q
02-13-05-08	SOUTHEAST CREEK DRAINAGE	-1.37	0.82	0.00	1.40	063
02 13 05 09	MINOLS CHESTER RIVER AREA DRAINAGE	1.57	D .04	4.20	a.83	7.36
Q2-13 Q5 10	LEPER CHESTER RIVER AREA STAINAGE	-2.36	619	18.30	9.34	24.47
02-13 Q5-11	KENT ISLAND HAY AREA DRAINAGE	-7.49	4 15	11.45	1.00	9.09
02-13-05-00	CHESTER RIVER AREA	43.68	13.06	38.31	24.29	32.78
02-13-06-01	LOWER ELK RIVER AREA DRAINAGE	-0.29	ā i	0.0	00:00	-0.19
t2-13-06-02	BOHEMIA RIVER DRAINAGE	-0.18	0.42	ψ')	00.00	D24
60-90-61-70	UPPER ILK RIVER AREA DRAINAGE	-0.78	0.40	0.00	0.00	-0.76
40-90-61-20	BACK CREEK DRAINAGE	- 0.11	0.00	Q. D (1	0.50	-0.11
02:13:08:05	LITLE FLK CREEK DRAINAGE	-1.28	0.21	0.00	05'0	-1.02
02 13 08-06	BIO ELK CREEK DIMINAGE	-175	3.66	0.00	0.46	2.35
02:13:06:67	CHRISTI VA RIVER DRAINAGE	22 -	0.87	0.00	0,00	-3.35
E2:13:08:08	NORTHEAST RIVER DRAINAGE	-5.40	25	0.00	120	-2.95
C2-13 OB C9	FURNACE GAY DRAINAGE	-5.23	2.45	0.00	900	J.Z2
02-13 08 10	SASSAFRAS RIVER DRAINAGE	-6.59	0.0C	0.00	96.0	-3.23
02-13-06-11	STILLPONI) - PA RLEE AREA DRAINAGE	-fl. 3 3	J0.D	0.00	020	Q.17
02-13-06-00	ELK RIVER AREA	-43.69	9.55	90.0	5.7	-2,62
62 13-07-01	BUSH RIVER DYAINAGE	-13.84	12,465	0.00	1.78	S F
G2 13 07 02	LOWER WINTERS RUN DRAINAGE	-3.75	A.94	05.0	3.00	e1.0
C2 13 67 03	ATIOSSON RESERVOIR DAAINAGE	-5.47	9.70	D:4D	3.00	4.21
Q2-13-07 D4	BY NUM RUK DRAINAGE	-8.90	\$6.00 \$7.00	0.90	3.00	827
Q2-13-Q7 G5	ABRICCEN PROVING GROUND AREA DRAINAGE	40.12	32.56	0:00	3.00	7.57
02-13-07-09	SWAN CREEK DRAINAGE	8 . Ÿ	7.8d	2.20	0.00	3.09
Monday, And 22, 2013	278			4		5 7 7 7 7
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12-12-0-12-0-12-0-12-0-12-0-12-0-12-0-1			reporter	Micaganican	Codado	COMMO	
GUNPOWDER TRVER AREA DRAINAGE -221 3277 8.00 U.QD LOWER OUNPOWDER FALLS DRAINAGE -2.59 8.87 8.00 U.QD UTILE OUNPOWDER FALLS DRAINAGE -2.50 5.837 8.00 U.QD UTILE OUNPOWDER FALLS DRAINAGE -2.50 5.23 0.00 0.00 LOCI HAVIEW RESERVOIR DRAINAGE -2.50 5.23 0.00 0.00 MICCLE RIVER - PROWNS GREEK DRAINAGE -3.51 3.30 0.00 0.00 MICCLE RIVER - PROWNS GREEK DRAINAGE -10.18 3.4 0.00 0.00 BACK RIVER RIVER RIVER AREA -4.56 11.17 6.00 0.00 SODIN GRANAGE -16.13 3.4 0.00 0.00 BACK RIVER RIVER RIVER AREA DRAINAGE -16.13 3.4 0.00 0.00 BACK RIVER RIVER RAREA DRAINAGE -2.59 2.44 11.43 0.00 0.00 LIBERTY RESERVOIR DRAINAGE -3.18 2.04 3.00 0.00 0.00 SOUTH RIVER AREA DRAINAGE -3.19 5.00 0.00 0	02-13-07-00	_	26.87	78.08	2.20	0.76	1.10
LOWER OUNDER FALLS DRAINAGE 2.79	2.13.48.01	GUNPOWITER RIVER AREA DRAINAGE	7	72.05	90 4	É	5
UTILE GUNPENDRANAGE	2.13.48.02	LOWER DUNPOWDER FALLS DRA NAGE	£ 2	8.82	90.0	4	\$ C
UTILE QUARFOWDER FALLS DRAINAGE -276 1,32 10.00 0.00 LOCI I HAVEN RESERVOR DRAINAGE -2,30 5,23 0.00 5,31 PRETTYROUN RESERVOR DRAINAGE -0,70 0,35 0.00 0.00 MICCLE HIVER - BROWNB CHEEK DRAINAGE -3,51 3,30 0.00 0.00 GUINFOWDER RIVER AREA -46,59 171,17 76,89 8,43 0.00 BACK RIVER CRAINAGE -10,18 3,47 0.00 0.00 0.00 BACK RIVER CRAINAGE -10,18 3,47 0.00 0.00 0.00 BACK RIVER CRAINAGE -10,18 3,44 0.00 0.00 0.00 BALTIMORE HARBOR AREA DRAINAGE -18,13 10,14 3,50 0.00 0.00 BALTIMORE HARBOR AREA DRAINAGE -3,16 2,2 3,10 0.00 0.00 SOUTH BRANCH PATATSOO RIVER AREA -77,59 76,40 1,54 0.00 0.00 BEVERN RIVER AREA DRAINAGE -4,50 0.65 0.00 0.00 0.00 WEST	42.10 48.00	BIRD RIVER DRAINAGE	-32,12	58.77	0.00	80'5	SE 65
DOCI HAVEN PRESERVOR DRAINAGE -2.30 5.23 6.00 5.31	02-13-08-04	LITLE GUNPOWDER FALLS DRAINAGE	2.08	1.82	10.50	0.00	10:36
PRETIVABOY RESERVOR DRANAGE 45.70 D.35 40.00 0.00 MIDCLE RIVER - BROWNS DREEK DRAINAGE -3.51 3.3D 40.00 0.10 GUNFOWNER RIVER AKEA -45.59 717.17 70.50 5.32 BACK RIVER DRAINAGE -10.18 3.4* 0.09 0.08 BACK RIVER DRAINAGE -15.13 14.14 8.3G 0.00 BALTIMORE HARBOR AREA DRAINAGE -3.59 17.34 0.00 0.00 BALTIMORE HARBOR AREA DRAINAGE -3.44 11.43 0.00 0.00 PATAPSOD RIVER AAGE -3.59 17.34 0.00 0.00 GOUTH BRANCH PATANGOR RIVER AREA DRAINAGE -3.18 2.04 3.10 0.00 SOUTH BRANCH PATANGOR RIVER AREA DRAINAGE -3.18 2.04 1.54 3.54 BROWIN RIVER AREA DRAINAGE -3.19 0.05 0.00 0.00 BROWIN RIVER AREA DRAINAGE -4.54 0.45 0.00 0.00 BROWIN RIVER AREA DRAINAGE -4.54 0.45 0.00 0.00 WWEST CHICSAP	02::3-08:05	LOCH RAVEN RESERVOIR DRAINAGE	2.30	5.23	4.00	5.31	8.24
MIDCLE HIVER - BROWNS DREEK DRAINAGE -3.51 3.3D 6.00 0.00 GUNFOWDER RIVER AREA -45.59 171.77 76.8D 6.33 BACK RIVER DRAINAGE -10.18 3.4* 0.09 0.08 BOOCK RIVER DRAINAGE -10.18 3.4* 0.09 0.00 BACK RIVER DRAINAGE -16.13 14.14 8.3G 0.00 BALTIMORE HARBOR AREA DRAINAGE -3.69 17.84 5.00 0.60 BALTIMORE HARBOR AREA DRAINAGE -8.44 11.43 0.00 0.60 OWYVINIS FALLS DRAINAGE -8.44 11.43 0.00 0.60 PATAPROD RIVER AREA DRAINAGE -3.18 2.04 3.00 0.00 SOUTH BRANCH RAEA AREA DRAINAGE -3.18 2.04 3.54 0.00 BRANCH RIVER AREA DRAINAGE -3.05 0.43 0.00 0.01 BRANCH RIVER AREA DRAINAGE -3.06 0.43 0.00 0.01 BRANCH RIVER AREA DRAINAGE -4.54 0.43 0.00 0.01 BRANCH RIVER AREA DRAINAGE	02-13-08-06	PRETTYBOY RESERVOR DRAINAGE	6 .79	0.35	Ð.OÐ	0.0	45.4
GUNPOWDER RIVER AKEA -45.40 111.17 10.18 5.23 BACK RIVER DFAINAGE -10.18 3.4* 0.09 0.08 BODMUN ZFREKD DRAINAGE -0.23 0.41 0.09 0.08 BODMUN ZFREKD DRAINAGE -0.23 0.41 0.09 0.20 JONES FALLS DRAINAGE -3.59 12.84 5.00 0.64 JONES FALLS DRAINAGE -8.41 11.41 0.00 0.64 OWYNNIS FALLS DRAINAGE -8.41 11.41 0.00 0.65 PATAPROD RIVER - LOWER N. BRANCH ARFA -24.67 2.78 0.00 0.21 LIBERTY RESERVOIR DPAINAGE -10.03 3.51 0.00 0.00 SQUTH BRANCH PATAPSOD RIVER AREA -77.50 76.40 16.50 1.54 MAGOTHY RIVER AREA DRAINAGE -2.15 1.18 0.10 0.01 SCUTH RIVER AREA DRAINAGE -4.50 0.45 0.10 0.01 WEST RIVER AREA DRAINAGE -4.50 0.05 0.01 0.01 WHER DRAINAGE WEST CHENDERAKE AREA -3.0	Q23-QD-07	MIDGLE RIVER - BROWNS CREEK DRAINAGE	18.6.	3.30	4.00	0.00	46.04
BACK RIVER DRAINAGE -10.18 3.4" 0.09 D.08 SODKIN CREEK DRAINAGE -0.23 0.44) 0.09 D.00 BALTIMORE HARBOR AREA DRAINAGE -16.13 19.14 3.50 D.00 JOMES FALLS DRAINAGE -8.59 17.14 3.50 D.00 JOMES FALLS DRAINAGE -8.44 11.42 0.00 D.64 GWYNINS FALLS DRAINAGE -24.67 27.81 0.00 D.64 GWYNINS FALLS DRAINAGE -24.67 27.81 0.00 D.00 GOUTH BRANCH PATANSOD RIVER DRAINAGE -3.19 2.04 3.00 0.00 GOUTH BRANCH RAREA DRAINAGE -2.75 1.18 0.00 0.00 BEVERNY RIVER AREA DRAINAGE -3.19 0.69 0.10 0.57 SEVERNY RIVER AREA DRAINAGE -4.54 0.43 0.10 0.00 WEST RIVER AREA DRAINAGE -4.50 0.43 0.10 0.00 WEST GRANDAREA DRAINAGE -4.50 0.43 0.00 0.00 WEST GRANDARINAGE -4.50 <td< td=""><td>02-13-08-10</td><td>GUNPOWDER RIVER AREA</td><td>45.50</td><td>111.17</td><td>10.50</td><td>6,33</td><td>41.47</td></td<>	02-13-08-10	GUNPOWDER RIVER AREA	45.50	111.17	10.50	6,33	41.47
SODICIAN CPREEK DRAINIAGE -D.23 0.441 0.00 D.5D BALTIMORE HARBOR AREA DRAINIAGE -16.13 14.14 8.50 D.00 JONES FALLS DRAINIAGE -3.59 12.34 5.00 D.64 OWYNINS FALLS DRAINIAGE -24.67 27.31 0.00 D.63 PATAPBICD RIVER - LOWER IN. BRANCH AREA -24.67 27.31 0.00 D.21 LIBERTY RESERVOIR DALAINAGE -3.18 2.04 3.00 D.00 SOUTH BRANCH AREA DRAINAGE -77.50 76.40 16.59 7.54 MAGOTHY RIVER AREA DRAINAGE 2.77 1.18 0.00 0.00 SEVERN RIVER AREA DRAINAGE 4.54 0.43 0.00 0.00 WEBST RIVER AREA DRAINAGE 4.54 0.43 0.00 0.00 WEBST RIVER AREA DRAINAGE 4.54 0.43 0.00 0.00 WEBST RIVER AREA DRAINAGE 4.54 0.43 0.00 0.00 O'THER DRAINAGE WEST CHESAPEAKE AREA 2.063 40.38 2.30 0.00	02-3-09-01	BACK RIVER DRAINAGE	-10.18	. * .	0.00	B 3:0	- B. 71
BALTIMORE HARBOR AREA DRAINAGE -16.13 19.14 8.3G D.3D JONES FALLS DRA NAGE -3.5B 12.84 5.00 D.64 JONES FALLS DRA NAGE -8.44 11.43 0.00 D.63 GWYNINS FALLS DRA NAGE -24.67 27.81 0.00 D.63 FATAPBOD RIVER - LOWER N. BRANCH AREA -24.67 27.81 0.00 D.00 SCUTH BRANCH PATARSOD RIVER AREA -77.50 76.40 16.30 4.54 MAGOTHY RIVER AREA DRAINAGE 27.7 1.18 0.00 0.00 SEVERN RIVER AREA DRAINAGE 4.54 0.45 0.00 0.01 WEBT RIVER AREA DRAINAGE 4.54 0.45 0.00 0.01 WEBT RIVER AREA DRAINAGE 4.54 0.45 0.00 0.01 OTHER DRAINAGE WEST CHESAPEAKE AREA 4.96 0.43 0.00 0.01	53-09-62	SODKIN CREEK DRAINAGE	-0.23	0.40	0.00	05.0	Q.17
JOMES FALLS DRA NAGE -3.59 12.84 5.00 D64 OWYTANDS FALLS DRAINAGE -8.44 11.43 0.00 D63 PATAPBOD RUVER - LOWER N. BRANCH ANFLA -24.67 27.81 0.00 D21 LIBERTY RESERVOIR DPAINAGE -10.03 8.51 0.00 D.00 SQUTH BRANCH PATATSCO RIVER DRAINAGE -3.18 2.04 3.10 0.00 PATAPSCO RIVER AREA -77.50 76.40 16.50 1.54 MAGOTHY RIVER AREA DRAINAGE 2.77 1.18 0.10 0.00 SEVERIN RIVER AREA DRAINAGE 8.50 0.40 0.00 0.01 WEST RIVER AREA DRAINAGE 4.94 0.43 0.00 0.01 WEST RIVER AREA DRAINAGE 4.94 0.43 0.00 0.01 WEST RIVER AREA DRAINAGE 4.94 0.43 0.00 0.01 OTHER DRAINAGE WEST CHESAPEME AREA -30.63 40.38 -30 0.00	63-13-09-63	BALTIMORE HARBOR AREA DRAINAGE	-16.13	10,14	8.90	OD:O	2.51
OWYTNINS FALLS DRAINAGE -8.44 11.47 0.00 0.63 FATAPBOO RIVER - LOWER N. BRANCH ARFA -24.67 27.81 0.00 0.21 LIBERTY RESERVOIR DRAINAGE -3.18 2.04 3.00 0.00 GOUTH BRANCH PATAITSCO RIVER DRAINAGE -3.18 2.04 3.00 0.00 PATAPSCO RIVER AREA -77.50 76.40 16.20 7.54 MAGOTHY RIVER AREA DRAINAGE -2.77 1.18 0.10 3.80 SEVERN RIVER AREA DRAINAGE -8.50 0.43 0.10 0.67 SCUTH RIVER AREA DRAINAGE -4.94 0.43 0.10 0.01 WEBST RIVER AREA DRAINAGE -4.94 0.43 0.00 0.01 O'HER DRAINAGE WEST CHESAPEAKE AREA -30.63 40.88 7.30 0.00	02-13-09-64	JONES FALLS DRA NAGE	-3.59	12.154	9.00	D64	14.59
PATAPBECO RIVER - LOWER N. BRANCH ARFA -24.61 27.81 0.00 0.21 LIBERTY RESERVOIR DAAINAGE -3.18 2.0x 3.00 0.00 0.00 SOUTH BRANCH PATAINSCO RIVER DRAINAGE -3.18 2.0x 3.00 0.00 0.00 PATAPSCO RIVER AREA DRAINAGE -77.50 76.40 16.50 1.54 MAGOTHY RIVER AREA DRAINAGE -2.77 1.18 0.00 3.90 SEVERIN RIVER AREA DRAINAGE -3.50 0.00 0.00 0.01 WEBT RIVER AREA DRAINAGE -4.90 5.20 0.00 0.01 O'HER DRAINAGE WEST CHESAPEAKE AREA -30.63 7.30 0.00 0.00	02-13 09-65	OWYNNS FALLS DRAINAGE	-B-44	11.43	0.00	0.63	2.82
LIBERTY RESERVOIR DRAINAGE -10.03 8.5:1 0.00 0.00 SOUTH BRANCH PATAINSCO RIVER DRAINAGE -3.18 2.04 3.00 6.00 PATAPSCO RIVER AREA -77.50 77.50 76.40 16.50 7.54 MAGOTHY RIVER AREA DRAINAGE -2.77 1.18 0.10 3.50 SEVERN RIVER AREA DRAINAGE -6.50 0.10 0.07 WHEST RIVER AREA DRAINAGE -4.94 0.43 0.10 0.01 OTHER DRAINAGE WEST CHESAPEAKE AREA -30.63 40.88 7.30 0.00	2-13-09-06	PATAPBOD RIVER - LOWER N. BRANCHARLA	-24.67	2/.81	0.00	D.21	3.41
SQUTH BRANCH PATAINSCO RIVER DRAINAGE -3.18 2.0x 3.00 0.00 PATAPSCO RIVER AREA -77.50 76.40 16.50 7.54 MAGOTHY RIVER AREA DRAINAGE -2.77 1.18 0.00 3.80 SEVIETN RIVER AREA DRAINAGE -8.50 0.69 0.00 0.01 WEBT RIVER AREA DRAINAGE -4.90 5.20 0.00 0.01 OTHER DRAINAGE WEST CHESAPEAKE AREA -30.63 40.88 7.30 0.00	02-13 09:07	LIBERTY RESERVOIR DRAINAGE	-10.93	1,0,6	0.00	D:GD	2.5
PATAPSCO RIVER AREA -77.50 76.40 16.50 1.54 MAGOTHY RIVER AREA DRAINAGE -2.77 1.18 0.00 3.93 SEVERN RIVER AREA CRAINAGE -6.50 0.69 0.00 0.67 SCATH RIVER AREA DRAINAGE -4.94 0.43 0.00 0.01 WHER TRIVER AREA DRAINAGE -4.90 5.20 0.00 0.01 OTHER DRAINAGE WEST CHESAPEAKE AREA -20.63 40.88 7.30 0.03	02-13-09-00	SOUTH BRANCH PATAINSCO RIVER DRAINNGE	-3.18	2.0%	31.00	QD:Q	1.85
MAGOTHY RIVER AREA DRAINAGE 2.77 1.18 0.00 3.95 SEVERIN RIVER AREA CRANAGE 4.54 0.43 0.10 0.57 WEBT RIVER AREA DRAINAGE 4.54 0.43 0.10 0.01 O'HER DRAINAGE WEST CHCSAPEAKE AREA -30.63 40.38 7.30 0.03	42-13-19-20	PATAPSCO RIVER AREA	-77,50	76.40	16.50	7.54	16.94
SEVERN RIVER AREA CRANAGE 4.54 0.69 0.00 0.67 SOUTH RIVER AREA CRANAGE 4.54 0.43 0.01 0.01 WEBT RIVER AREA DRAINAGE 4.50 5.20 0.00 0.01 OTHER DRAINAGE WEST CHICSAPEAKE AREA -30.63 40.88 7.30 0.00	42-13-10-01	MAGOTHY RIVER AREA DRAINAGE	2.0	1.18	0.00	383	2.21
SOUTH RIVER AREA CRAINAGE 4.94 0.43 0.10 0.01 WEBT RIVER AREA DRAINAGE 4.90 5.20 0.00 0.01 O*HER DRAINAGE WEST CHESAPEAKE AREA -20.63 40.88 7.30 0.00	02-13-10-02	SEVERN RIVER AREA DRA NADE	\$5.50 \$	0.59	0.00	29'0	5.14
WEBT RIVER AREA DRAINAGE 4.90 5.20 D.00 0.03 O* HER DRAINAGE WEST CHCSAPEAKE AREA -30.63 40.88 *.30 0.03	02-13-10-03	SOUTH RIVER AREA CRAINAGE	¥5.	0.43	0.00	10.0	4.50
OTHER DRAINAGE WEST CHESAP≣AXE AREA -20.63 40.88 .30 0.00	02-13-10-04	WEST RIVER AREA DRAINAGE	867	9.20	0.00	000	0.30
	02-13-10-05	OTHER DRAINAGE WEST CHESAPEAKE AREA	-30.63	40.38	3.30	0.03	21.65
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	January and A	Імрасі	Miljention	Carins	Gains.	
02-13-10-00	WEST CHESAPEAKE BAY AREA	-29.74	(8.48	1.30	4-6	14.52
02-13-11-01	PATUXENT RIVER! OWER AREA DRAINAGE	\$2 '0 2-	18.89	90'0	Q.15	324
02-13-11-02	PATUXENT RIVER WIDDLE AREA DRAINAGE	4 ,17	B.09	9.00	0.00	10.92
02-13-11-03	WESTERN BRANCH PRA'NAGE	-24.80	17.83	0.00	4.24	2.13
02:13:11:04	PATUXENT RIVER UPPER AREA DRAINAGE	87.8	22.74	00'0	97:0	14.00
02:12-11-05	LITTLE PATLXENT RIVER DRAINAGE	3197	54.85	2.75	4.25	29.68
02:12:11:06	MIDDLE PATJXCNT RIVER DRAINAGE	-983	23.12	0.00	D.E1	10.30
02 12 11-07	ROCKY GORGE DAM AREA DRAINAGE	-3.62	3.98	0.10	O CO	0.34
D2-13 *1 08	BRIGHTON DAM AREA DRAINAGE	-0.57	93. 58.	0.80	O CD	0.31
02-13-11-00	PATUXENT RIVER AREA	-104.00	143.10	41,75	9.70	69.61
02-13-99-98	UPPER CHESAPEAKE BAY	d.D	0.30	0.00	0,ng	0.00
0>-3-89-97	MICDLE CHESAPEAKE BAY	0.00	00.0	D.OD	gurg	0.60
85-68-6,-20	LOWER CHESAPEAKE BAY	0.00	0.00	4.00	000	O.GD
02-13-8B-00	CHESAPHANF BAY	97.09	999	0.00	60.5	0,00
02-14-01-64	POTOMAC RIVER LOWER TIDAL DRAINAGE	-2 54	2.57	07:0	020	0.03
02-14-01 02	POTOMAC RIVER MIDDLE AREA DRAINAGE	-8.39	0.09	0.00	000	-0.5p
02-14-01-03	81, MARY'S RIVER AREA CHAINAGE	45.72	6.24	0.00	0.51	0.03
02-14-01-04	HRETON BAY DRAIVAGE	-2.90	1.20	0.00	9.00	1.70
02-14-01-05	ST CLEMENTBAY DRAINAGE	-0.159	0.00	060	4.0b	63.0
02-14-01-08	WICOMICO RIVER DRAINAGE	-1.16	0.00	0.00	0.03	-1,46
02-14-01-07	GILBERT SWAMP DRAWAGE	₩ 9	2.70	3.60	0.21	5.52
03-14-01-08	ZEKIÁH SWAXIP DRAINAGE	9.32	15.60	90.0	2.03	ପ୍ୟନ
00-14-01-00	PORT TOBACCO RIVER DRAINAGE	19:6:	43.60	000	0.18	34.17
02.14-01.10	NANIFIMON CREEK DRAWAGE	000	;	;		;

	r and saved as Borenie	Impact	Мідрийн	Galter	Cains.	io c
02-74-01-11	MATTAWOMAN CREFK DRAINAGE	-28.17	57.00	13.63	0.00	42.33
02-14-07-12	LOWER POTCMAG HIVER - VIRGINIA DRG.	D:CD	9.00	0.05	0.00	C.0D
02-14-01-00	LOWER POTOMAG RIVER AREA	-63.02	129.65	97.50	2.93	90.66
02-14-02-01	POTOMAG RIVER UPPER AREA DIKANAGE	425	69.1	09'0	4.00	4.75
02-14-02-03	POTOMAC RIVER MONTGOMERY COUNLY AREA	182	0.40	079	11.39	18.5
32-14-02-03	P SCATAWAY CREEK DIAJNAGE	-21,03	16.58	2.20	0.00	42.24
02-14-02-04	DXON CREEK DRAINAGE	.0.47	0.26	3.00	0.00	-0.21
02-14-02-05	ANACOSTIA RIVER DRAINAGE	-72,81	4B.89	3000	1.80	15.48
02-14-02-06	ROCK CREEK DRAINAGE	-8.24	3.27	0.00	0.26	472
02-14-02-07	CABIN JOHN CREEK DRAINAGE	-1.37	1.12	0.00	0.00	-0.65
02-14-02-08	SENECA CREEK DRAINAGE	£16-	25.16	0.00	0.83	16.85
02-14-02-09	WASHINGTON METROLOUTAN AREA - VIRGINIA DR	0.00	J.00	0.00	D'GD	90.00
02-14-02-00	WASHINGTON METROPOLITAN AREA	-124.49	134.95	8.70	14.07	32.73
02-14-03-01	POTOMAC RIVER FREDERICK CO. AREA	0 ,0	00.0	0.40	0.00	-0.40
02-14-03 02	LOWER MONOGACY RIVER DRAINAGE	99.99	22.0	97.50	11.0	38.23
02-14-03 03	UPPER MONOCACY RIVER DRAINAGE	-2.81	1.37	4.00	000	-0.94
62-14-63-64	DOUBLE PLPE CREEK DRAIMAGE.	3.50	4 72	18.58	000	19.20
02-14-03-05	CATOCHIN CREEK DRAINAGE	-1.30	0.00	97.0	710	-0.17
02-14-03-0B	MIGHE POTOWAC RIVER AREA - MRG NA DRG.	0::0	4.0U	0.00	OD Q	0.03
02-14-03-00	MIDDLE POTDMAC RIVER AREA	-14.47	14,47	56.74	0.26	20'99
02-14-06 01	POTOMAG RIVES WASHINGTON CO. AREA	4.48	0.13	0.00	0.03	1.36
02-14-05-02	ANTIETAM CRECK DRAINAGE	Ą. %	0.00	1.00	0.00	0.48
62-14-05-03	MARSH RUN DRAWASE	-0.11	D.4D	3 <u>0</u> 0	0.0	11.0
62-14-03-04	CONOCOCHEAGUE CREEK DRAINAGE	-0.95	0.85	8	8	

NAT	746.118				Page R of B
					Vage
remotic Other Gains Gains	142.85				
Program	484.02				
Persittee	1013.86				
Permunent	-894.65				
Watershed Segment					210
Havin-Code	Grand Total				Monday, April 22, 2017

VOLUNTARY WETLAND GAINS IN MARYLAND BY CALENDAR YEAR 1998-2011

ACTIVITY AND					тоты
WETLAND TYPE	1998-2008	2009	2010	2011	TOTAL
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