

# **VIRGINIA AQUATIC RESOURCES TRUST FUND ANNUAL REPORT - 2014**

**March 31, 2015**

This document serves as the required annual reporting of the status and activities of the Virginia Aquatic Resources Trust Fund. The report includes a summary of the permitted impacts and liabilities; associated mitigation payments; and the projects and the associated credits proposed, constructed/implemented, and released to mitigate those impacts. This report provides information on the history of the Fund (1995-2014) and details specific activities conducted by the program in 2014 (January 1 – December 31, 2014).

The information is divided into the following sections:

**I. Introduction** – Provides general purpose and goals of the program, Conservancy's role and focus, and highlights of the program's continued operation.

**II. Program Summary** – Provides summary information on payments into and credits generated by the program from 1995-2014.

**III. Summary of 2014 Credit Sales, Project Proposals, and Funding Authorizations** – Provides a summary of the credit sales, proposed projects, and funds authorized during 2014.

**IV. Basin Summaries** – Provides overview of basin status through projects, credits, and funding.

**V. Definitions** – Provides program specific definitions used throughout the report.

**VI. References** – Provides links to useful reference documents relevant to the program operation.

## **I. Introduction**

The Virginia Aquatic Resources Trust Fund (Program or Fund) is an in-lieu fee program established to provide compensatory mitigation for permitted wetland and stream impacts in Virginia. The Fund is administered by The Nature Conservancy (Conservancy) in accordance with a Program Instrument (Instrument) approved on July 14, 2011 by the Norfolk District of the United States Army Corps of Engineers (Corps) and the Virginia Department of Environmental Quality (DEQ). The Instrument details the establishment and operational procedures for the Fund and supersedes and replaces the Virginia Aquatic Resources Trust Fund Program MOU, dated December 18, 2003 (2003 Amendment), which had in turn amended the Virginia Wetlands Restoration Trust Fund Program Memorandum of Understanding dated August 18, 1995 (1995 MOU).

### **A. PURPOSE AND GOALS**

The purpose of the Fund is to provide a mechanism for compensatory mitigation for impacts to aquatic resources authorized by relevant federal and state laws and regulations, while maximizing the benefit to the aquatic environment and the public interest. The Program Instrument establishes guidelines, responsibilities and standards for the establishment, use, operation and maintenance of the Program in a way that brings the Program into compliance with revised regulations, as set forth in 33 CFR Part 332, governing compensatory mitigation for activities authorized by Department of Army permits. The

parties intend to achieve no net loss of existing wetland acreage and functions pursuant to Va. Code § 62.1-44.15:21(B), and to accomplish mitigation projects in Virginia efficiently, at meaningful scales, and in beneficial ecological contexts so as to provide for a significant net gain of aquatic resource functions and values wherever possible.

The Program may be used for compensatory mitigation for unavoidable impacts to waters, including wetlands, of the United States and state waters that result from activities authorized under Section 404 and/or 401 of the Clean Water Act (33 U.S.C. § 1251 *et seq.*), the Virginia Water Protection Permit Regulation (9 VAC 25-210 *et seq.*), and/or Section 10 of the Rivers and Harbors Act (33 U.S.C. § 403). More specifically, the Program may be utilized to provide compensatory mitigation for impacts permitted by the Corps or DEQ involving: (a) Corps General Permits; (b) DEQ General Permits; (c) Corps and DEQ Individual Permits and unauthorized activities impacting less than three (3) acres of waters (including wetlands) other than streams and/or less than two thousand (2,000) linear feet of streams; and (d) in other cases if agreed upon by the Corps, DEQ and the Conservancy. The Conservancy may elect to reject any payments for impacts greater than three (3) acres of wetlands and/or two thousand (2,000) linear feet of streams, or payment from impacts to Heritage resources as defined by the Virginia Department of Conservation and Recreation, Division of Natural Heritage. In determining whether to accept a payment for any impact described in the preceding sentence, the Conservancy may consider various factors at its discretion, including but not limited to: (a) the effect of the impact(s) on the Conservancy's conservation priorities, and (b) the Conservancy's ability to mitigate for the impacts in the appropriate watershed.

The purpose of compensatory mitigation is to offset impacts to waters of the U.S. and State waters, including wetlands and streams. Therefore, priority is given to mitigation that replaces lost functions and values of waters, wetlands and streams, as determined by the Interagency Review Team (IRT). Additionally, it is the intent of the signatories to the Program Instrument that the standards of specific compensatory mitigation sites or projects authorized under the Instrument will be equivalent to the standards of mitigation banks. Where possible and appropriate, the Program uses equivalent templates and policies as those used for mitigation banks in Virginia.

## **B. PROGRAM SERVICE AREAS**

The areas in which this Program is authorized to provide compensatory mitigation required by Corps and DEQ permits (Service Areas) are the watersheds of the: Atlantic Ocean, Chesapeake Bay, Chowan River, Lower James River, Middle James River, Upper James River, New River, Potomac River, Rappahannock River, Roanoke River, Shenandoah River, Tennessee River and York River basins. These Service Areas are further described and illustrated in the Compensation Planning Framework for the Fund ([www.nature.org/varf](http://www.nature.org/varf) - Trust Fund Instrument Exhibit A). The Fund's Annual Report tracks and reports program activities, including impacts, payments, and credits based on these larger basins (see Section IV). In its actual operations, Service Areas for specific Fund projects are often geographically limited within the major river watershed, and generally follow the Code of Virginia Section 62.1-44.15:23 which limits bank service areas to the same or adjacent fourth order subbasin within the same major river watershed, with further limitations based on physiographic province as appropriate and approved by the IRT. Please note that impacts from the Big Sandy River were received into the Fund historically, but since 2008, the Fund no longer accepts funds related to, or as compensation for, impacts in the Big Sandy River watershed.

## **C. CONSERVANCY FOCUS**

The Fund solicits, locates, designs, and implements projects in accordance with its approved Compensation Planning Framework. Largely based on the Conservancy's Conservation by Design approach, this framework helps to ensure that the Fund employs a watershed-based approach to compensatory mitigation. While the full Compensation Planning Framework is fairly complex and quite detailed, the hallmark of this approach is identifying a watershed's most ecologically diverse, resilient, and significant aquatic resources and locating and implementing compensatory mitigation projects that

protect and restore those resources. Thus, in addition to the compensatory mitigation provided by the approved wetland and stream projects, many of the Fund projects provide habitat for state and/or federal threatened or endangered species and have documented occurrences of Virginia Department of Conservation and Recreation's Natural Heritage Elements and thus contribute to the protection of Virginia's rare plants, animals, and natural communities. And because they are located together in areas of significant aquatic resources, the Fund's mitigation sites provide greater ecological benefit than would an isolated project with the same mitigation activities. In addition, the large size of many of the projects (including both the mitigation areas and additional protected acreage) provide significant habitat for wildlife that depend upon large, contiguous forest blocks while providing additional buffering protection for aquatic resources. These projects may also provide corridors to connect other preserved properties. Examples of the Fund's contribution to larger conservation efforts include its work within the Clinch River watershed, along the Northwest River, and the Dragon Run ([www.nature.org/varff](http://www.nature.org/varff) - 2011 Annual Report Attachments [D](#) and [E](#)).

#### **D. REGULATORY CHANGES AND TRANSITION**

On April 10, 2008, the Corps and the Environmental Protection Agency (EPA) released the final rule on "Compensatory Mitigation for Losses of Aquatic Resources" (Federal Register Vol. 73, No. 70). The final rule issues "regulations governing compensatory mitigation for activities authorized by permits issued by the Department of the Army." These regulations establish equivalent performance standards for all forms of mitigation, including in-lieu programs. After the release of the final rule, the Conservancy worked with the Corps and DEQ to make the governance and operations changes necessary to comply with the new regulations. These included assigning advance credits and establishing the associated pricing structure, defining the Fund's Compensation Planning Framework, and determining credit releases for approved and successful projects. These and other changes were incorporated into the new Program Instrument, which was released for public comment in February 2011 and finalized and approved by the Corps, DEQ and the Conservancy in July 2011.

Under the 2011 Instrument, much of 2012 and 2013 were devoted to finalizing new protocols to ensure efficient and effective operation of the Fund and approval of new projects. Throughout 2014, the Conservancy, Corps and DEQ devoted considerable time and effort to development of a Site Development Plan (SDP) template which will be used to govern the operation and implementation of individual projects under the new Instrument.

As noted in previous reports, projects addressed in this report include those approved and, in many cases, completed under the previous 2003 MOU in addition to those approved and implemented in accordance with the new Instrument. It should be noted and clearly understood that projects approved under the previous MOU were grandfathered under the 2011 Instrument, and are not subject to many of the new requirements. All projects approved since July 14, 2011, including, all projects in 2014, are subject to the terms outlined in the Instrument.

## **II. Program Summary 1995-2014.**

From 1995 through December 31, 2014, the Fund has been used to mitigate for non-tidal wetland, tidal wetland, and stream impacts in the fourteen major river basins in Virginia. These impacts have generated \$62,280,600 in mitigation payments as summarized in Table 1. From these mitigation payments, the Corps and DEQ have authorized \$48,636,100 for the Conservancy to complete activities on 124 approved mitigation projects.

**Table 1: The VARTF Account Summary (1995-2014)**

	<b>Mitigation Payments (\$)</b>	<b>Other Revenues (\$)<sup>1</sup></b>	<b>Allocated Funds (to Projects) (\$)<sup>2</sup></b>	<b>Allocated Funds (Other) (\$)<sup>3</sup></b>	<b>Total Balance (\$)</b>
Non-Tidal Wetlands	22,540,300	406,000	17,334,800	n/a	5,611,500
Tidal Wetlands	1,002,400	0	622,000	n/a	380,400
Stream USM	16,304,400	0	6,316,000	n/a	9,988,400
Stream pre-USM	22,433,500	1,929,800	24,363,300	n/a	0
General <sup>4</sup>	n/a	6,848,000	n/a	6,565,000	283,000
<b>TOTALS</b>	<b>62,280,600</b>	<b>9,183,800</b>	<b>48,636,100</b>	<b>6,565,000</b>	<b>16,263,300</b>

<sup>1</sup>Includes proceeds from land sales, interest, and released credit sales.

<sup>2</sup>Includes both spent funds and funds reserved for approved projects, as well as spent staff salaries and expenses.

<sup>3</sup>Includes corrective actions funds, administrative fee, equipment fund, Statewide Development fund, remaining budgeted staff salaries and expenses, and bank service charges.

<sup>4</sup>Includes all financials not tracked by resource.

Table 2 depicts the mitigation liability (in credits) for each resource for the Program through the end of 2014. Additionally, the table shows the number of credits proposed from the numerous mitigation projects approved, the number of credits that have been constructed or completed but not yet officially released, and the number of credits released. It should be noted that stream Unified Stream Methodology (USM) liabilities and credits represent only those impacts incurred and projects approved since the USM was approved and put into use in 2007. Pre-USM payments are discussed in Table 3.

**Table 2: Liabilities and Credit Summary (1995-2014)**

	<b>Mitigation Liability (Credits)<sup>1</sup></b>	<b>Proposed Credits<sup>2</sup></b>	<b>Completed/ Constructed Credits<sup>3</sup></b>	<b>Released Credits<sup>4</sup></b>	<b>Total Credits<sup>5</sup></b>
Non-Tidal Wetlands	469.81	139.67	297.62	588.02	1,025.31
Tidal Wetlands	3.33	6.60	29.16	25.08	60.84
Stream USM	37,567	24,165	3,933	10,807	38,905

<sup>1</sup>Includes all liability accepted by the Fund from 1995 through 2014. This figure does NOT equal the number of impacts into the Fund (either acres for wetlands or linear feet for streams).

<sup>2</sup>Credits expected from Fund projects that have been approved by the IRT but have not yet been constructed/completed or released. These credits may ultimately be released as a result of meeting success criteria. While a certain number is proposed with each project, the actual number of credits released is a factor of design plans, any approved modifications, and the ability of the site to meet success criteria. This number can change.

<sup>3</sup>Credits from projects that have been constructed or completed but which have not yet met success criteria and been released by the IRT.

<sup>4</sup>Credits that have met success criteria, as determined by the IRT. This may include credits that do not address>NNL and are thus are not available for debiting or sale until paired 1:1 with credits that do address>NNL.

<sup>5</sup>Total credits expected based upon successful completion of all approved project sites.

Table 3 shows the number of pre-USM impacts the Fund received and the progress towards completing mitigation projects using the associated mitigation payments. These were impacts received prior to the initiation, approval and use of the USM methodology in January 2007. Due to the lack of standard stream mitigation crediting method prior to the USM, the programmatic goal agreed to by the Corps, DEQ and the Conservancy was to complete a combination of stream restoration, enhancement, and preservation projects with significant ecological benefit. Unlike with the wetland projects and subsequent USM liabilities, “crediting” of stream projects was not done for the Fund until projects were funded by impacts paid through the USM. Therefore, in this and previous annual reports, the mitigation activities for pre-USM stream projects are described with the associated linear footage and protected riparian buffer widths. With the approval of the Program Instrument in 2011, all un-allocated pre-USM stream monies were converted to USM stream liabilities using the established Advance Credit fee for those specific basins.

**Table 3: Pre-USM Summary (1995-2014)**

<b>Impact (linear feet)<sup>1</sup></b>	<b>Proposed Stream Mitigation (linear feet)<sup>2</sup></b>	<b>Constructed/ Protected Mitigation (linear feet)<sup>3</sup></b>	<b>Closed Mitigation (linear feet)<sup>4</sup></b>
167,690	53,738	376,443	223,461

<sup>1</sup>Includes all pre-USM stream impacts received by the Fund.

<sup>2</sup>The remaining amount of linear footage from previously approved projects that has yet to be constructed or protected

<sup>3</sup>Includes all work that has been constructed and/or protected, but have not received project closure status.

<sup>4</sup>Includes all work at sites that have received project closure status.

### **III. Summary of 2014 Credit Sales, Project Proposals, and Funding Authorizations (January 1, 2013 – December 31, 2014)**

As required by the 2008 Mitigation Rule, a complete listing of permits and impacts paid into the Fund, including advance credit sales, is provided below in Table 4. This provides the detail of credit sales and use of the Program as a mitigation provider throughout 2014. The permit number, date of credit sale, location, resource type and amount, as well as the credit type are provided. Credit type is either Advance Credit or Released Credit, as defined in the Definitions section of this report and further in the program Instrument.

**Table 4: Summary of 2014 Permits and Credit Sales**

Permit Number	Sale Date <sup>1</sup>	Basin	HUC	Impact		Required Mitigation		Credit Type <sup>2</sup>
				Wetland (acres)	Streams (lf)	Wetlands (credits)	Streams (credits)	
13-4079	1/23/2014	RO	03010101	0.22		0.23		Adv
14-4003	3/6/2014	AO	02080111	0.18		0.36		Adv
14-4003	3/6/2014	CB	02040303	0.06		0.12		Adv
13-4136	3/6/2014	CB	02080102	0.001		0.001		Adv
NAO-2013-2190	3/21/2014	CH	03010204	2.4		2.4		Adv
NAO-2013-0733	4/8/2014	TN	06010205	0.29	400	0.39	309	Adv
13-1610	5/23/2014	LJ	02080208		360		313	Adv
13-1448	6/10/2014	RO	03010101	2.48		4.22		Adv
14-4058	7/2/2014	SH	02070004	0.01		0.01		Adv
14-4018	7/2/2014	SH	02070004	0.72	1333	0.72	978	Adv
WP4-14-0648	8/12/2014	SH	02070004	0.33		0.33		Adv
WP4-13-1682	8/26/2014	AO	02040303	0.79		0.84		Adv
WP4-13-1298	9/12/2014	CB	02080108		422		312	Adv
14-4041	10/2/2014	NW	05050002		2445		2788	Adv
2012-2386	10/6/2014	TN	02070004	0.18	262	0.18	251	Adv
13-1596	10/8/2014	CB	02080108	0.202		0.101		Adv
NAO2007-03509	10/17/2014	TN	06010205	0.73	1371	0.8	723	Adv
14-4072	10/23/2014	NW	05050001		642		455	Adv
14-4185	10/23/2014	CB	02080108	0.01		0.02		Adv
WP4-14-1025	11/13/2014	SH	02070004		628		624	Adv
14-0832	11/17/2014	CB	02080108	0.055		0.036		Adv
14-0367	12/11/2014	LJ	02080208	0.002		0.002		Adv
<b>Total Advance</b>				<b>8.660</b>	<b>7,863</b>	<b>10.760</b>	<b>6,753</b>	
<b>Total Released</b>						<b>0.000</b>		
<b>Grand Total</b>				<b>8.660</b>	<b>7,863</b>	<b>10.760</b>	<b>6,753</b>	

<sup>1</sup>The date on which the VARTF assumes the mitigation liability. Note, the Trust Fund does not assume any mitigation liability with the sale of released credits.

<sup>2</sup>Adv = Advance credit, Rel = Released credit

<sup>3</sup>Consent agreement

During 2014, the Fund has been used to mitigate for non-tidal wetland, tidal wetland, and stream impacts throughout Virginia. These impacts from the 22 permits detailed in Tables 4 above generated \$3,396,100 in mitigation payments to the Fund as summarized in Table 5. At the end of 2014, the unallocated balance within the Fund was \$16,263,300.

**Table 5: 2014 Financial Summary**

	<b>Mitigation Payments (\$)</b>	<b>Other Revenues (\$)<sup>1</sup></b>	<b>Allocated Funds (\$)<sup>2</sup></b>	<b>Allocated Funds (Other) (\$)<sup>3</sup></b>	<b>Total Balance for 1995-2014 (\$)</b>
Non-Tidal Wetlands	631,200	0	748,500	n/a	5,611,500
Tidal Wetlands	63,100	0	15,000	n/a	380,400
Stream USM	2,701,800	0	785,000	n/a	9,988,400
Stream pre-USM	0	0	0	n/a	0
General <sup>4</sup>	n/a	49,900	n/a	68,100	283,000
<b>TOTALS</b>	<b>3,396,100</b>	<b>49,900</b>	<b>1,548,500</b>	<b>68,100</b>	<b>16,263,300</b>

<sup>1</sup>Includes proceeds from land sales, interest, and released credit sales. Only land sales are tracked and reported according to resource type. Interest and released credits sales are assigned to the Program's general account, as neither carries with it any mitigation liability but both do have to be used to advance the purposes of the Fund.

<sup>2</sup>Includes both funds that have been spent and funds that the IRT has approved for allocation to approved mitigation project in 2014.

<sup>3</sup>Includes corrective actions funds, administrative fee, equipment fund, Statewide Development fund, staff salaries and expenses, and bank service charges.

<sup>4</sup>Includes all Fund monies not tracked by aquatic resource type or by basin.

During 2014, the Fund proposed two projects that have the potential to generate 4,503 stream credits and 2.91 non-tidal wetland credits. Construction was completed on one non-tidal wetland site, and acquisition was completed on one site that is expected to generate non-tidal wetlands. Additionally, the Fund received approval on three wetland sites (YK-2, YK-5, and RO-3) for the release of non-tidal and tidal wetland credits based on meeting success criteria and project milestones as shown in Table 6.

**Table 6: 2014 Mitigation Liabilities and Credit Activities**

	<b>Mitigation Liabilities Received (Credits)<sup>1</sup></b>	<b>Proposed Credits<sup>2</sup></b>	<b>Completed/ Constructed Credits<sup>3</sup></b>	<b>Released Credits<sup>4</sup></b>
Non-Tidal Wetlands	10.62	2.91	3.85	21.23
Tidal Wetlands	0.13	0	0	0.48
Stream USM	6,753	4,503	0	0

In 2014, the IRT authorized \$1,548,500 for the Conservancy to complete activities on two new projects and additional funding for four previously approved mitigation projects, as described below in Table 7.

<b>Table 7: Projects Approved and Funding Authorized in 2014</b>					
<b>Project ID</b>	<b>Project Name</b>	<b>Resource Type</b>	<b>New Proposed USM Stream Crediting (credits)</b>	<b>New Proposed Wetland Crediting</b>	<b>Funds Authorized</b>
CB-17*	Dameron Marsh/Hughlett Point/ Fleet Bay (Thompson, William)	wetland	n/a	0	\$ 320,000
CB-19*	Dragon Run (Carlson)	wetland	n/a	0	\$ 228,000
MJ-1*	Rivanna River (Lamb)	wetland	n/a	2.91	\$ 155,500
SH-6	Shenandoah River (Cedar Creek)	stream	4,503	n/a	\$ 785,000
UJ-1*	Warm Springs Mtn/Cowpasture River (Phillips)	wetland	n/a	0	\$ 35,000
YK-5*	Cumberland Marsh	wetland	n/a	0	\$ 25,000
<b>Totals:</b>			<b>4,503</b>	<b>2.91</b>	<b>\$ 1,548,500</b>

\*Indicates additional funding approved for projects that had been proposed and approved prior to 2014



## IV. Summary of Credit Sales, Project Proposals, and Funding Authorizations per Basin

As stated in its Instrument, the Fund tracks and reports its activities, including impacts, payments, and credit balances, based on Virginia's major river basins. This section of the report consists of this basin-specific information, usually presented in three tables for each basin. Additional information about these tables is provided below, including a discussion of issues that may arise from reporting credit balances on a basin-wide basis when actual, operational service areas are smaller than the entire basin.

**A. Basin Financial Summary Tables** – The first table provided for each basin outlines the funding information related to each resource type (non-tidal wetlands, tidal wetlands, USM streams, and pre-USM streams). Funding information is provided for mitigation payments, funds returned through land sales, funds allocated to approved projects, and the resulting balances.

It is important to note that the pre-USM information in these tables is provided simply to give the reader information on how much funding the Program received for this resource type through historic mitigation payments. The Fund receives no pre-USM payments at present (nor will it in the future), and all existing pre-USM monies have been allocated to approved projects.

**B. Basin Pre-USM Impacts and Mitigation Activity Summary Tables** – These tables provide information on pre-USM impacts and associated mitigation activities on a basin-wide basis. While these projects do not have a credit-based mitigation liability and will not generate credits when completed, they do represent on-going work by the Fund to address pre-USM mitigation impacts.

The tables include the amount of impacts received by the Fund between 1995 and 2011. They also identify the amount of stream length (linear footage) from approved projects that have not been completed to date (either constructed or protected), along with the stream length (linear footage) from those projects that have been constructed or protected. The final column in the table identifies the amount of linear footage from projects that have completed all aspects of the project and are closed.

**C. Basin Liabilities and Credit Balance Summary Tables** – Following the 2008 federal mitigation rule and the approval of the Instrument, the operational currency of the Fund has been wetland and stream credits. These tables provide the Fund's version of a basin-wide credit ledger and address mitigation liabilities and credits within each basin for non-tidal wetlands, tidal wetlands, and USM streams.

These tables provide information on the status of the Fund's credit liabilities and balances in a given basin, including total and no net loss (NNL) liabilities, released credits, released credits applied to liabilities, sold released credits, available released credits, and remaining credit release potential based on approved projects.

Below, please find some explanations for the information that is provided in each row of the Basin Liabilities and Credit Balance Summary Tables. Section V (Definitions) may provide additional useful information.

Row Identifier	Notes
Total Credit Liability (including advance credit liability)	Includes all liabilities accepted by the Fund in this basin from 1995 through 2012, including liabilities from Advance Credit sales.
<i>Total No Net Loss (NNL) Liability (including advance credit liability)</i>	A subset of Total Credit Liability. While expressed in credits, NNL Liability for wetlands equals the number of acres impacted. For streams, NNL is ½ of Total Credit Liability.
Released Credits addressing NNL	For wetlands, credits generated by restoration and/or creation activities. For streams, credits generated by restoration and/or enhancement activities.
Released Credits not addressing NNL	The Fund is required to address mitigation liabilities using at least 50% NNL credits. Thus, the number of Released Credits not addressing NNL can be less than or equal to but cannot exceed the number of Released Credits addressing NNL.
Total Released Credits	The Fund's credits are not released in a given service area unless all the liabilities (including NNL liability) in that service area have been met. The Fund's operational Service Areas may be smaller than and not equal to the entire basin.
Released Credits Applied to Total Liability	Since an individual project's Service Area may not equal the full basin, released credits within a basin may not be approved to service all the liabilities within the full basin.
Released Credits Available	Assuming Total Credit Liability and NNL liability are met, Total Available Released Credits = Total Released Credits – Released Credits Applied to Liability – Sold Released Credits.
Advance Credits Available	Advance Credits will only be sold in areas not serviceable by released credits.
Credits available for release when they can be paired 1:1 with wetland creation/restoration credits OR stream restoration/enhancement credits	These are credits that have met success criteria and are ready for release. The IRT will officially release them when they can be paired 1:1 with Released Credits addressing NNL. Until then, these credits are held in reserve.
Potential Credits	The remaining number of credits from approved Fund project sites that may be released if they meet success criteria (does not include figure from row above).

There are challenges with reporting credit balances at a basin wide level when liabilities and credit balances are ultimately calculated at the scale of smaller Service Areas. When the Fund tracks its liabilities, determines released credit balances, or sells released credits to address a specific impact, the smaller project-specific Service Areas are determinative, not the overall basin. Indeed, credits in a basin's total come from individual projects that may have smaller, more confined geographic service areas. Thus, while these tables report figures such as "Total Available Released Credits" for each basin, in many cases not all of those credits are available to mitigate for impacts across the entire basin. For purposes of demonstration, consider this hypothetical example: Basin X has a total of 100 credits released and available for sale. But 60 of those credits can only service the northern half of that basin, while the remaining 40 credits service the southern half. One hundred credits is an accurate figure overall, but it is not directly relevant at the scale that these credits will actually be debited and sold.

Based on these unavoidable reporting issues with a basin-wide credit ledger and the fact that this annual report provides a snapshot in time of credit balances, it is recommended that the reader consult the RIBITS website (<http://geo.usace.army.mil/ribits/index.html>) for up to date information on released credit balances and associated Service Areas. Additional information regarding individual project crediting is also available at the Program website ([www.nature.org/vartf](http://www.nature.org/vartf); see Project Credit Balances per Basin).

## Atlantic Ocean

Within the Atlantic Ocean basin, the Fund has four approved projects to address wetland impacts. Three of the projects approved involve submerged aquatic vegetation restoration and oyster restoration. The results of these projects are not shown on the following tables, as they are considered 'out of kind' mitigation. To date, there have been no stream impacts within this basin.

**Table 8: Atlantic Ocean Basin Financial Summary (1995-2014)**

	<b>Mitigation Payments</b>	<b>Land Sales</b>	<b>Allocated Funds (to Projects)</b>	<b>Total Balance</b>
Non-Tidal Wetlands	\$414,400	\$0	\$79,800	\$334,600
Tidal Wetlands	\$227,700	\$0	\$188,500	\$39,200
Stream USM	\$0	\$0	\$0	\$0
Pre-USM Stream	\$0	\$0	\$0	\$0
<b>TOTALS</b>	<b>\$642,100</b>	<b>\$0</b>	<b>\$268,300</b>	<b>\$373,800</b>

**Table 9: Atlantic Ocean Basin Liabilities and Credit Balance Summary (1995-2014)**

	NON-TIDAL WETLANDS	TIDAL WETLANDS	STREAM - USM	
Total Credit Liability (including advance credit liability)	6.41	1.11	0	Liabilities
<i>Total No Net Loss (NNL) Liability (including advance credit liability)</i>	<i>4.32</i>	<i>1.11</i>	<i>0</i>	
Released Credits addressing NNL	0.00	0.00	0	Released Credits and Liability Status
Released Credits not addressing NNL	0.00	0.00	0	
Total Released Credits	0.00	0.00	0	
Basin NNL Liability Met?	No	No	N/A	
Basin Total Liability Met?	No	No	N/A	
Release Credits Applied to Total Liability	0.00	0.00	0	AvailableCredits
Released Credits Sold	0.00	0.00	0	
Released Credits Available	0.00	0.00	0	
Advance Credits Available	0.69	1.90	5,000	
Credits available for release when they can be paired 1:1 with wetland creation/restoration credits OR stream restoration/enhancement credits	0.00	0.00	0	Credit Potential
Potential Credits	3.65	0.00	0	

## Big Sandy River

The Fund no longer accepts impacts from the Big Sandy, but has remaining liabilities that need to be addressed. The Conservancy continues pursuing development of a project in response to an RFP that was issued in October 2011. Previous decisions were made to allow use of some stream funds from the Big Sandy to fund several projects in the Tennessee River basin. The mitigation activities summaries for those projects are included on Table 44.

**Table 10: Big Sandy River Basin Financial Summary (1995-2014)**

	<b>Mitigation Payments</b>	<b>Land Sales</b>	<b>Allocated Funds (to Projects)</b>	<b>Total Balance</b>
Non-Tidal Wetlands	\$8,000	\$0	\$0	\$8,000
Tidal Wetlands	\$0	\$0	\$0	\$0
Stream USM	\$460,300	\$0	\$21,300	\$439,000
Pre-USM Stream	\$251,600	\$0	\$251,600	\$0
<b>TOTALS</b>	<b>\$719,900</b>	<b>\$0</b>	<b>\$272,900</b>	<b>\$447,000</b>

**Table 11: Big Sandy River Basin Pre-USM Impacts and Mitigation Activity Summary (1995-2014)**

<b>Impact (linear feet)<sup>1</sup></b>	<b>Proposed Stream Mitigation (linear feet)<sup>2</sup></b>	<b>Constructed/ Protected Mitigation (linear feet)<sup>3</sup></b>	<b>Closed Mitigation (linear feet)<sup>4</sup></b>
<b>1,972</b>	-	-	-

**Table 12: Big Sandy River Basin Liabilities and Credit Balance Summary (1995-2014)**

	NON-TIDAL WETLANDS	STREAM - USM	
Total Credit Liability (including advance credit liability)	0.15	0	Liabilities
<i>Total No Net Loss (NNL) Liability (including advance credit liability)</i>	<i>0.11</i>	<i>0</i>	
Released Credits addressing NNL	0.00	0	Released Credits and Liability Status
Released Credits not addressing NNL	0.00	0	
Total Released Credits	0.00	0	
Basin NNL Liability Met?	No	N/A	
Basin Total Liability Met?	No	N/A	
Release Credits Applied to Total Liability	0.00	0	AvailableCredits
Released Credits Sold	0.00	0	
Released Credits Available	0.00	0	
Advance Credits Available	n/a	n/a	
Credits available for release when they can be paired 1:1 with wetland creation/restoration credits OR stream restoration/enhancement credits	0.00	0	Credit Potential
Potential Credits	0.00	0	

## Chesapeake Bay

The Chesapeake Bay basin has seen considerable non-tidal wetland impacts, and the Conservancy has pursued twenty-two projects within this basin. Several of these projects are well established, several others are newly constructed and in the first years of mitigation monitoring, and yet another is expected to be constructed in 2015 following approval of site development plans by the IRT. The first USM stream impacts within this basin were received in 2014.

**Table 13: Chesapeake Bay Basin Financial Summary (1995-2014)**

	Mitigation Payments	Land Sales	Allocated Funds (to Projects)	Total Balance
Non-Tidal Wetlands	\$6,387,900	\$182,300	\$4,398,600	\$2,171,600
Tidal Wetlands	\$390,200	\$0	\$248,600	\$141,600
Stream USM	\$124,800	\$0	\$14,000	\$110,800
Pre-USM Stream	\$272,600	\$85,000	\$357,600	\$0
<b>TOTALS</b>	<b>\$7,175,500</b>	<b>\$267,300</b>	<b>\$5,018,800</b>	<b>\$2,424,000</b>

**Table 14: Chesapeake Bay Basin Pre-USM Impacts and Mitigation Activity Summary (1995-2014)**

Impact (linear feet) <sup>1</sup>	Proposed Stream Mitigation (linear feet) <sup>2</sup>	Constructed/ Protected Mitigation (linear feet) <sup>3</sup>	Closed Mitigation (linear feet) <sup>4</sup>
<b>1,399</b>	<b>17,000</b>	<b>1,133</b>	<b>10,368</b>



**Table 15: Chesapeake Bay Basin Liabilities and Credit Balance Summary (1995-2014)**

	NON-TIDAL WETLANDS	TIDAL WETLANDS	STREAM - USM	
Total Credit Liability (including advance credit liability)	89.40	1.21	0	Liabilities
<i>Total No Net Loss (NNL) Liability (including advance credit liability)</i>	<i>47.44</i>	<i>0.93</i>	<i>0</i>	
Released Credits addressing NNL	37.11	0.00	0	Released Credits and Liability Status
Released Credits not addressing NNL	25.96	0.00	0	
Total Released Credits	63.07	0.00	0	
Basin NNL Liability Met?	No	No	N/A	
Basin Total Liability Met?	No	No	N/A	
Release Credits Applied to Total Liability	63.07	0.00	0	AvailableCredits
Released Credits Sold	0.00	0.00	0	
Released Credits Available	0.00	0.00	0	
Advance Credits Available	19.11	1.86	4,688	
Credits available for release when they can be paired 1:1 with wetland creation/restoration credits OR stream restoration/enhancement credits	0.00	10.52	0	Credit Potential
Potential Credits	146.01	12.36	0	

## Chowan River

The Fund has pursued many non-tidal wetland restoration projects within this basin. As a result, there are a number of wetland credits released and available for sale to service the eastern HUC's within this basin. Advance credits are available for sale in areas of the basin where Released Credits are not yet available.

**Table 16: Chowan River Basin Financial Summary (1995-2014)**

	<b>Mitigation Payments</b>	<b>Land Sales</b>	<b>Allocated Funds (to Projects)</b>	<b>Total Balance</b>
Non-Tidal Wetlands	\$1,787,300	\$116,300	\$1,891,800	\$11,800
Tidal Wetlands	\$35,100	\$0	\$6,300	\$28,800
Stream USM	\$471,400	\$0	\$475,800	(\$4,400)
Pre-USM Stream	\$94,700	\$0	\$94,700	\$0
<b>TOTALS</b>	<b>\$2,388,500</b>	<b>\$116,300</b>	<b>\$2,468,600</b>	<b>\$36,200</b>

**Table 17: Chowan River Basin Pre-USM Impacts and Mitigation Activity Summary (1995-2014)**

<b>Impact (linear feet)<sup>1</sup></b>	<b>Proposed Stream Mitigation (linear feet)<sup>2</sup></b>	<b>Constructed/ Protected Mitigation (linear feet)<sup>3</sup></b>	<b>Closed Mitigation (linear feet)<sup>4</sup></b>
<b>911</b>	-	<b>6,460</b>	-

**Table 18: Chowan River Basin Liabilities and Credit Balance Summary (1995-2014)**

	NON-TIDAL WETLANDS	TIDAL WETLANDS	STREAM - USM	
Total Credit Liability (including advance credit liability)	81.48	0.08	1,307	Liabilities
<i>Total No Net Loss (NNL) Liability (including advance credit liability)</i>	<i>45.70</i>	<i>0.07</i>	<i>654</i>	
Released Credits addressing NNL	124.30	0.00	0	Released Credits and Liability Status
Released Credits not addressing NNL	90.44	0.00	0	
Total Released Credits	214.74	0.00	0	
Basin NNL Liability Met?	Yes	No	No	
Basin Total Liability Met?	Yes	No	No	
Release Credits Applied to Total Liability	76.45	0.00	0	AvailableCredits
Released Credits Sold	0.02	0.00	0	
Released Credits Available	138.27	0.00	0	
Advance Credits Available	0.00	1.94	5,000	
Credits available for release when they can be paired 1:1 with wetland creation/restoration credits OR stream restoration/enhancement credits	0.00	1.40	0	Credit Potential
Potential Credits	90.40	0.00	4,823	

## Lower James River

The Fund has pursued a number of wetland restoration sites within the Lower James basin, and has received appropriate credit releases from several projects. With completion of a large restoration site and credit releases in 2013, the Fund now has released non-tidal wetland credits available for sale in the Lower James River basin.

**Table 19: Lower James River Basin Financial Summary (1995-2014)**

	<b>Mitigation Payments</b>	<b>Land Sales</b>	<b>Allocated Funds (to Projects)</b>	<b>Total Balance</b>
Non-Tidal Wetlands	\$4,594,100	\$0	\$3,898,800	\$695,300
Tidal Wetlands	\$89,800	\$0	\$98,700	(\$8,900)
Stream USM	\$3,205,100	\$0	\$2,245,200	\$959,900
Pre-USM Stream	\$2,405,800	\$0	\$2,405,800	\$0
<b>TOTALS</b>	<b>\$10,294,800</b>	<b>\$0</b>	<b>\$8,648,500</b>	<b>\$1,646,300</b>

**Table 20: Lower James River Basin Pre-USM Impacts and Mitigation Activity Summary (1995-2014)**

<b>Impact (linear feet)<sup>1</sup></b>	<b>Proposed Stream Mitigation (linear feet)<sup>2</sup></b>	<b>Constructed/ Protected Mitigation (linear feet)<sup>3</sup></b>	<b>Closed Mitigation (linear feet)<sup>4</sup></b>
<b>20,361</b>	<b>4,861</b>	<b>18,680</b>	<b>104</b>

**Table 21: Lower James River Basin Liabilities and Credit Balance Summary (1995-2014)**

	NON-TIDAL WETLANDS	TIDAL WETLANDS	STREAM - USM	
Total Credit Liability (including advance credit liability)	132.69	0.43	7,136	Liabilities
<i>Total No Net Loss (NNL) Liability (including advance credit liability)</i>	<i>70.34</i>	<i>0.43</i>	<i>3,568</i>	
Released Credits addressing NNL	91.62	0.00	0	Released Credits and Liability Status
Released Credits not addressing NNL	71.44	0.00	0	
Total Released Credits	163.06	0.00	0	
Basin NNL Liability Met?	Yes	No	No	
Basin Total Liability Met?	Yes	No	No	
Release Credits Applied to Total Liability	132.69	0.00	0	AvailableCredits
Released Credits Sold	0.00	0.00	0	
Released Credits Available	30.37	0.00	0	
Advance Credits Available	20.00	2.00	8,933	
Credits available for release when they can be paired 1:1 with wetland creation/restoration credits OR stream restoration/enhancement credits	0.00	1.37	0	Credit Potential
Potential Credits	120.54	15.00	12,876	

## Middle James River

In 2012, the Fund also completed construction on its largest stream restoration project to date at Meadow Creek. Monitoring of stream and wetland sites continued through 2014.

**Table 22: Middle James River Basin Financial Summary (1995-2014)**

	<b>Mitigation Payments</b>	<b>Land Sales</b>	<b>Allocated Funds (to Projects)</b>	<b>Total Balance</b>
Non-Tidal Wetlands	\$1,731,700	\$74,900	\$758,300	\$1,048,300
Tidal Wetlands	\$0	\$0	\$0	\$0
Stream USM	\$429,700	\$0	\$90,900	\$338,800
Pre-USM Stream	\$5,030,300	\$147,500	\$5,177,800	\$0
<b>TOTALS</b>	<b>\$7,191,700</b>	<b>\$222,400</b>	<b>\$6,027,000</b>	<b>\$1,387,100</b>

**Table 23: Middle James River Pre-USM Impacts and Mitigation Activity Summary (1995-2014)**

<b>Impact (linear feet)<sup>1</sup></b>	<b>Proposed Stream Mitigation (linear feet)<sup>2</sup></b>	<b>Constructed/ Protected Mitigation (linear feet)<sup>3</sup></b>	<b>Closed Mitigation (linear feet)<sup>4</sup></b>
<b>32,679</b>	<b>-</b>	<b>18,217</b>	<b>42,187</b>

**Table 24: Middle James River Basin Liabilities and Credit Balance Summary (1995-2014)**

	<b>NON-TIDAL WETLANDS</b>	<b>STREAM - USM</b>	
Total Credit Liability (including advance credit liability)	37.40	516	<b>Liabilities</b>
<i>Total No Net Loss (NNL) Liability (including advance credit liability)</i>	<i>20.45</i>	<i>258</i>	
Released Credits addressing NNL	16.96	0	<b>Released Credits and Liability Status</b>
Released Credits not addressing NNL	9.81	0	
Total Released Credits	26.77	0	
Basin NNL Liability Met?	No	No	
Basin Total Liability Met?	No	No	
Release Credits Applied to Total Liability	26.77	0	<b>AvailableCredits</b>
Released Credits Sold	0.00	0	
Released Credits Available	0.00	0	
Advance Credits Available	10.00	5,000	
Credits available for release when they can be paired 1:1 with wetland creation/restoration credits OR stream restoration/enhancement credits	0.00	0	<b>Credit Potential</b>
Potential Credits	4.26	0	

## Upper James River

Work in the Upper James has been limited to non-tidal wetlands, with just a few acres of impacts in the basin. There have been no stream impacts paid into the Fund.

**Table 25: Upper James River Basin Financial Summary (1995-2014)**

	<b>Mitigation Payments</b>	<b>Land Sales</b>	<b>Allocated Funds (to Projects)</b>	<b>Total Balance</b>
Non-Tidal Wetlands	\$288,100	\$0	\$229,200	\$58,900
Tidal Wetlands	\$0	\$0	\$0	\$0
Stream USM	\$0	\$0	\$0	\$0
Pre-USM Stream	\$0	\$0	\$0	\$0
<b>TOTALS</b>	<b>\$288,100</b>	<b>\$0</b>	<b>\$229,200</b>	<b>\$58,900</b>

**Table 26: Upper James River Pre-USM Impacts and Mitigation Activity Summary (1995-2014)**

<b>Impact (linear feet)<sup>1</sup></b>	<b>Proposed Stream Mitigation (linear feet)<sup>2</sup></b>	<b>Constructed/ Protected Mitigation (linear feet)<sup>3</sup></b>	<b>Closed Mitigation (linear feet)<sup>4</sup></b>
-	-	-	<b>7,609</b>



**Table 27: Upper James River Basin Liabilities and Credit Balance Summary (1995-2014)**

	<b>NON-TIDAL WETLANDS</b>	<b>STREAM - USM</b>	
Total Credit Liability (including advance credit liability)	7.34	0	<b>Liabilities</b>
<i>Total No Net Loss (NNL) Liability (including advance credit liability)</i>	<i>4.73</i>	<i>0</i>	
Released Credits addressing NNL	0.00	0	<b>Released Credits and Liability Status</b>
Released Credits not addressing NNL	0.00	0	
Total Released Credits	0.00	0	
Basin NNL Liability Met?	No	N/A	
Basin Total Liability Met?	No	N/A	
Release Credits Applied to Total Liability	0.00	0	<b>AvailableCredits</b>
Released Credits Sold	0.00	0	
Released Credits Available	0.00	0	
Advance Credits Available	7.95	5,000	
Credits available for release when they can be paired 1:1 with wetland creation/restoration credits OR stream restoration/enhancement credits	0.00	0	<b>Credit Potential</b>
Potential Credits	4.20	0	

## New River

The New River basin has seen a small amount of wetland impacts, and has one approved stream project to address the existing liabilities in the basin. The stream project was constructed in 2013. Additional projects are under development to address wetland impacts and the large volume of stream impacts that come in during 2014.

**Table 28: New River Basin Financial Summary (1995-2014)**

	<b>Mitigation Payments</b>	<b>Land Sales</b>	<b>Allocated Funds (to Projects)</b>	<b>Total Balance</b>
Non-Tidal Wetlands	\$416,700	\$0	\$32,200	\$384,500
Tidal Wetlands	\$0	\$0	\$0	\$0
Stream USM	\$1,908,400	\$0	\$318,400	\$1,590,000
Pre-USM Stream	\$290,300	\$0	\$290,300	\$0
<b>TOTALS</b>	<b>\$2,615,400</b>	<b>\$0</b>	<b>\$640,900</b>	<b>\$1,974,500</b>

**Table 29: New River Basin Pre-USM Impacts and Mitigation Activity Summary (1995-2014)**

<b>Impact (linear feet)<sup>1</sup></b>	<b>Proposed Stream Mitigation (linear feet)<sup>2</sup></b>	<b>Constructed/ Protected Mitigation (linear feet)<sup>3</sup></b>	<b>Closed Mitigation (linear feet)<sup>4</sup></b>
<b>3,078</b>	-	<b>5,039</b>	-

**Table 30: New River Basin Liabilities and Credit Balance Summary (1995-2014)**

	<b>NON-TIDAL WETLANDS</b>	<b>STREAM - USM</b>	
Total Credit Liability (including advance credit liability)	6.92	5,089	<b>Liabilities</b>
<i>Total No Net Loss (NNL) Liability (including advance credit liability)</i>	<i>5.04</i>	<i>2,545</i>	
Released Credits addressing NNL	0.00	0	<b>Released Credits and Liability Status</b>
Released Credits not addressing NNL	0.00	0	
Total Released Credits	0.00	0	
Basin NNL Liability Met?	No	No	
Basin Total Liability Met?	No	No	
Release Credits Applied to Total Liability	0.00	0	<b>AvailableCredits</b>
Released Credits Sold	0.00	0	
Released Credits Available	0.00	0	
Advance Credits Available	0.00	385	
Credits available for release when they can be paired 1:1 with wetland creation/restoration credits OR stream restoration/enhancement credits	0.00	0	<b>Credit Potential</b>
Potential Credits	0.00	1,880	

## Potomac River

There has been considerable mitigation activity in the Potomac River basin, especially with stream impacts. The Fund has developed several wetland sites that have generated Released Credits, including some that are currently available for sale. Several stream projects were pursued to address pre-USM stream impacts. Monitoring is ongoing for the restoration sites, although these sites do not generate stream credits.

**Table 31: Potomac River Basin Financial Summary (1995-2014)**

	<b>Mitigation Payments</b>	<b>Land Sales</b>	<b>Allocated Funds (to Projects)</b>	<b>Total Balance</b>
Non-Tidal Wetlands	\$1,508,500	\$0	\$1,508,500	\$0
Tidal Wetlands	\$216,400	\$0	\$53,200	\$163,200
Stream USM	\$2,654,900	\$0	\$140,800	\$2,514,100
Pre-USM Stream	\$9,010,700	\$0	\$9,010,700	\$0
<b>TOTALS</b>	<b>\$13,390,500</b>	<b>\$0</b>	<b>\$10,713,200</b>	<b>\$2,677,300</b>

**Table 32: Potomac River Basin Pre-USM Impacts and Mitigation Activity Summary (1995-2014)**

<b>Impact (linear feet)<sup>1</sup></b>	<b>Proposed Stream Mitigation (linear feet)<sup>2</sup></b>	<b>Constructed/ Protected Mitigation (linear feet)<sup>3</sup></b>	<b>Closed Mitigation (linear feet)<sup>4</sup></b>
<b>73,142</b>	<b>31,877</b>	<b>10,451</b>	<b>110,242</b>

**Table 33: Potomac River Basin Liabilities and Credit Balance Summary (1995-2014)**

	NON-TIDAL WETLANDS	TIDAL WETLANDS	STREAM - USM	
Total Credit Liability (including advance credit liability)	13.65	0.41	5,394	Liabilities
<i>Total No Net Loss (NNL) Liability (including advance credit liability)</i>	<i>8.79</i>	<i>0.41</i>	<i>2,697</i>	
Released Credits addressing NNL	13.29	0.00	0	Released Credits and Liability Status
Released Credits not addressing NNL	13.29	0.00	0	
Total Released Credits	26.58	0.00	0	
Basin NNL Liability Met?	Yes	No	No	
Basin Total Liability Met?	Yes	No	No	
Release Credits Applied to Total Liability	13.64	0.00	0	AvailableCredits
Released Credits Sold	1.90	0.00	0	
Released Credits Available	11.04	0.00	0	
Advance Credits Available	5.00	1.70	10,000	
Credits available for release when they can be paired 1:1 with wetland creation/restoration credits OR stream restoration/enhancement credits	33.31	9.71	0	Credit Potential
Potential Credits	11.31	0.00	0	

## Rappahannock River

The Fund has pursued a number of wetland projects within the Rappahannock River basin, which have generated credits in excess of the existing liability and has Released Credits available for sale.

**Table 34: Rappahannock River Basin Financial Summary (1995-2014)**

	<b>Mitigation Payments</b>	<b>Land Sales</b>	<b>Allocated Funds (to Projects)</b>	<b>Total Balance</b>
Non-Tidal Wetlands	\$1,471,600	\$0	\$1,471,600	\$0
Tidal Wetlands	\$18,000	\$0	\$2,000	\$16,000
Stream USM	\$2,613,500	\$0	\$439,500	\$2,174,000
Pre-USM Stream	\$2,029,300	\$7,000	\$2,036,300	\$0
<b>TOTALS</b>	<b>\$6,132,400</b>	<b>\$7,000</b>	<b>\$3,949,400</b>	<b>\$2,190,000</b>

**Table 35: Rappahannock River Basin Pre-USM Impacts and Mitigation Activity Summary (1995-2014)**

<b>Impact (linear feet)<sup>1</sup></b>	<b>Proposed Stream Mitigation (linear feet)<sup>2</sup></b>	<b>Constructed/ Protected Mitigation (linear feet)<sup>3</sup></b>	<b>Closed Mitigation (linear feet)<sup>4</sup></b>
<b>10,771</b>	<b>-</b>	<b>264,738</b>	<b>7,742</b>

**Table 36: Rappahannock River Basin Liabilities and Credit Balance Summary (1995-2014)**

	NON-TIDAL WETLANDS	TIDAL WETLANDS	STREAM - USM	
Total Credit Liability (including advance credit liability)	19.28	0.04	5,592	Liabilities
<i>Total No Net Loss (NNL) Liability (including advance credit liability)</i>	<i>10.21</i>	<i>0.04</i>	<i>2,796</i>	
Released Credits addressing NNL	19.68	0.00	0	Released Credits and Liability Status
Released Credits not addressing NNL	5.61	0.00	0	
Total Released Credits	25.29	0.00	0	
Basin NNL Liability Met?	Yes	No	No	
Basin Total Liability Met?	Yes	No	No	
Release Credits Applied to Total Liability	19.28	0.00	0	AvailableCredits
Released Credits Sold	0.00	0.00	0	
Released Credits Available	6.01	0.00	0	
Advance Credits Available	5.00	1.96	7,194	
Credits available for release when they can be paired 1:1 with wetland creation/restoration credits OR stream restoration/enhancement credits	0.00	1.60	6,450	Credit Potential
Potential Credits	1.86	0.00	817	

## Roanoke River

The Fund has only had moderate wetland impacts within the Roanoke River basin, and has constructed one wetland restoration site to address a significant portion of the liability. Several stream projects have been implemented to address stream impacts. In early 2013, the Conservancy was approved to purchase stream credits from an existing bank to address some of the existing liabilities. Wetland credits were released from one site in 2014 (RO-3).

**Table 37: Roanoke River Basin Financial Summary (1995-2014)**

	<b>Mitigation Payments</b>	<b>Land Sales</b>	<b>Allocated Funds (to Projects)</b>	<b>Total Balance</b>
Non-Tidal Wetlands	\$850,800	\$0	\$308,300	\$542,500
Tidal Wetlands	\$0	\$0	\$0	\$0
Stream USM	\$1,680,100	\$0	\$970,900	\$709,200
Pre-USM Stream	\$564,000	\$190,900	\$754,900	\$0
<b>TOTALS</b>	<b>\$3,094,900</b>	<b>\$190,900</b>	<b>\$2,034,100</b>	<b>\$1,251,700</b>

**Table 38: Roanoke Basin Pre-USM Impacts and Mitigation Activity Summary (1995-2014)**

<b>Impact (linear feet)<sup>1</sup></b>	<b>Proposed Stream Mitigation (linear feet)<sup>2</sup></b>	<b>Constructed/ Protected Mitigation (linear feet)<sup>3</sup></b>	<b>Closed Mitigation (linear feet)<sup>4</sup></b>
<b>4,635</b>	<b>-</b>	<b>17,915</b>	<b>6,008</b>



**Table 39: Roanoke River Basin Liabilities and Credit Balance Summary (1995-2014)**

	<b>NON-TIDAL WETLANDS</b>	<b>STREAM - USM</b>	
Total Credit Liability (including advance credit liability)	14.89	4,534	<b>Liabilities</b>
<i>Total No Net Loss (NNL) Liability (including advance credit liability)</i>	<i>6.57</i>	<i>2,267</i>	
Released Credits addressing NNL	0.03	2,616	<b>Released Credits and Liability Status</b>
Released Credits not addressing NNL	0.03	850	
Total Released Credits	0.06	3,466	
Basin NNL Liability Met?	No	Yes	
Basin Total Liability Met?	No	No	
Release Credits Applied to Total Liability	0.06	3,466	<b>AvailableCredits</b>
Released Credits Sold	0.00	0	
Released Credits Available	0.00	0	
Advance Credits Available	0.21	5,000	
Credits available for release when they can be paired 1:1 with wetland creation/restoration credits OR stream restoration/enhancement credits	0.62	0	<b>Credit Potential</b>
Potential Credits	5.06	1,467	

## Shenandoah River

The Fund implemented a wetland restoration project in 2012 to address the majority of the wetland impacts within this basin. Several stream projects have been developed and are in the monitoring phase. A new stream project SH-6 was approved in 2014 to address the remaining stream liability in the Shenandoah basin.

**Table 40: Shenandoah River Basin Financial Summary (1995-2014)**

	Mitigation Payments	Land Sales	Allocated Funds (to Projects)	Total Balance
Non-Tidal Wetlands	\$870,700	\$0	\$597,500	\$273,200
Tidal Wetlands	\$0	\$0	\$0	\$0
Stream USM	\$1,668,400	\$0	\$1,161,500	\$506,900
Pre-USM Stream	\$1,614,100	\$1,466,900	\$3,081,000	\$0
<b>TOTALS</b>	<b>\$4,153,200</b>	<b>\$1,466,900</b>	<b>\$4,840,000</b>	<b>\$780,100</b>

**Table 41: Shenandoah River Basin Pre-USM Impacts and Mitigation Activity Summary (1995-2014)**

Impact (linear feet) <sup>1</sup>	Proposed Stream Mitigation (linear feet) <sup>2</sup>	Constructed/ Protected Mitigation (linear feet) <sup>3</sup>	Closed Mitigation (linear feet) <sup>4</sup>
12,128	-	4,941	32,223

**Table 42: Shenandoah River Basin Liabilities and Credit Balance Summary (1995-2014)**

	<b>NON-TIDAL WETLANDS</b>	<b>STREAM - USM</b>	
Total Credit Liability (including advance credit liability)	12.85	4,240	<b>Liabilities</b>
<i>Total No Net Loss (NNL) Liability (including advance credit liability)</i>	<i>10.54</i>	<i>2,120</i>	
Released Credits addressing NNL	2.19	802	<b>Released Credits and Liability Status</b>
Released Credits not addressing NNL	1.49	89	
Total Released Credits	3.68	891	
Basin NNL Liability Met?	No	No	
Basin Total Liability Met?	No	No	
Release Credits Applied to Total Liability	3.68	891	<b>AvailableCredits</b>
Released Credits Sold	0.00	0	
Released Credits Available	0.00	0	
Advance Credits Available	3.76	8,147	
Credits available for release when they can be paired 1:1 with wetland creation/restoration credits OR stream restoration/enhancement credits	0.00	0	<b>Credit Potential</b>
Potential Credits	8.91	4,995	

## Tennessee River

The Fund implemented construction on a sizable wetland restoration site in 2012. Year one monitoring was completed in 2013 and credits were released from this site (TN-8). Several stream projects have been developed and are expected to be constructed in 2015 following IRT approval of site development plans.

**Table 43: Tennessee River Basin Financial Summary (1995-2014)**

	<b>Mitigation Payments</b>	<b>Land Sales</b>	<b>Allocated Funds (to Projects)</b>	<b>Total Balance</b>
Non-Tidal Wetlands	\$1,042,000	\$0	\$963,500	\$78,500
Tidal Wetlands	\$0	\$0	\$0	\$0
Stream USM	\$1,082,400	\$0	\$432,300	\$650,100
Pre-USM Stream	\$706,900	\$0	\$706,900	\$0
<b>TOTALS</b>	<b>\$2,831,300</b>	<b>\$0</b>	<b>\$2,102,700</b>	<b>\$728,600</b>

**Table 44: Tennessee River Basin Pre-USM Impacts and Mitigation Activity Summary (1995-2014)**

<b>Impact (linear feet)<sup>1</sup></b>	<b>Proposed Stream Mitigation (linear feet)<sup>2</sup></b>	<b>Constructed/ Protected Mitigation (linear feet)<sup>3</sup></b>	<b>Closed Mitigation (linear feet)<sup>4</sup></b>
<b>5,332</b>	<b>-</b>	<b>18,569</b>	<b>6,000</b>

**Table 45: Tennessee River Basin Liabilities and Credit Balance Summary (1995-2014)**

	<b>NON-TIDAL WETLANDS</b>	<b>STREAM - USM</b>	
Total Credit Liability (including advance credit liability)	28.16	2,457	<b>Liabilities</b>
<i>Total No Net Loss (NNL) Liability (including advance credit liability)</i>	<i>19.93</i>	<i>1,229</i>	
Released Credits addressing NNL	3.08	0	<b>Released Credits and Liability Status</b>
Released Credits not addressing NNL	2.59	0	
Total Released Credits	5.67	0	
Basin NNL Liability Met?	No	No	
Basin Total Liability Met?	No	No	
Release Credits Applied to Total Liability	5.67	0	<b>Available Credits</b>
Released Credits Sold	0.00	0	
Released Credits Available	0.00	0	
Advance Credits Available	3.37	2,562	
Credits available for release when they can be paired 1:1 with wetland creation/restoration credits OR stream restoration/enhancement credits	0.00	0	<b>Credit Potential</b>
Potential Credits	20.26	1,240	

## York River

Several wetland projects have been implemented to address the wetland liability within the York River basin. There is one tidal restoration project in the ground to address the tidal impacts within this basin. Credit releases of tidal and non-tidal credits for two sites were approved in 2014 (YK-2 and YK-5). This provides Released Credits for the York River basin that are now available for sale. There have been relatively few stream impacts in this basin.

**Table 46: York River Basin Financial Summary (1995-2014)**

	<b>Mitigation Payments</b>	<b>Land Sales</b>	<b>Allocated Funds (to Projects)</b>	<b>Total Balance</b>
Non-Tidal Wetlands	\$1,168,500	\$32,500	\$1,196,700	\$4,300
Tidal Wetlands	\$25,200	\$0	\$24,700	\$500
Stream USM	\$5,400	\$0	\$5,400	\$0
Pre-USM Stream	\$163,200	\$32,500	\$195,700	\$0
<b>TOTALS</b>	<b>\$1,362,300</b>	<b>\$65,000</b>	<b>\$1,422,500</b>	<b>\$4,800</b>

**Table 47: York River Basin Pre-USM Impacts and Mitigation Activity Summary (1995-2014)**

<b>Impact (linear feet)<sup>1</sup></b>	<b>Proposed Stream Mitigation (linear feet)<sup>2</sup></b>	<b>Constructed/ Protected Mitigation (linear feet)<sup>3</sup></b>	<b>Closed Mitigation (linear feet)<sup>4</sup></b>
<b>1,282</b>	<b>-</b>	<b>10,300</b>	<b>978</b>

**Table 48: York River Basin Liabilities and Credit Balance Summary (1995-2014)**

	NON-TIDAL WETLANDS	TIDAL WETLANDS	STREAM - USM	
Total Credit Liability (including advance credit liability)	17.29	0.06	9	Liabilities
<i>Total No Net Loss (NNL) Liability (including advance credit liability)</i>	<i>9.12</i>	<i>0.06</i>	<i>5</i>	
Released Credits addressing NNL	23.77	0.48	0	Released Credits and Liability Status
Released Credits not addressing NNL	1.40	0.00	0	
Total Released Credits	25.17	0.48	0	
Basin NNL Liability Met?	Yes	Yes	No	
Basin Total Liability Met?	Yes	Yes	No	
Release Credits Applied to Total Liability	17.29	0.06	0	AvailableCredits
Released Credits Sold	0.00	0.00	0	
Released Credits Available	7.88	0.42	0	
Advance Credits Available	10.00	2.00	5,000	
Credits available for release when they can be paired 1:1 with wetland creation/restoration credits OR stream restoration/enhancement credits	0.00	0.00	0	Credit Potential
Potential Credits	16.13	2.48	0	

## V. DEFINITIONS

1. **ADMINISTRATIVE FEE** - Monies provided to the Conservancy, amounting to 8% of deposited funds, which are deemed to represent and reimburse reasonable overhead and related administrative cost of administering the Fund. Prior to approval of the 2011 Program Instrument the fee was 3%.
2. **ADVANCE CREDITS** - Credits that are not associated with a compensatory mitigation project and are available for sale prior to initiation of a mitigation project in accordance with the approved Instrument.
3. **ALLOCATED FUNDS** - Monies from the Program Account that have been authorized, by the IRT, for use on specific projects or needs of the Program. These funds are no longer available for use towards other projects or purposes.
4. **AVAILABLE CREDITS** - Credits that have been approved for use by the Corps and DEQ and have not been attributed to permits. Available Credits may be Advance Credits or Released Credits.
5. **CORRECTIVE ACTION FUNDS** - As used in Table 1, this identifies a portion of the Program funds that are reserved and available to fund site management or corrective action activities on existing projects. These funds are expected to accommodate sites that were approved prior to the requirement for formalized budgets for long-term management and to cover catastrophic events. This budget item was approved and reported in the 2011 VARTF Annual Report.
6. **CLOSED PROJECTS** –These project finances are no longer being tracked on an annual basis. All credits that will be derived from these projects have been released, but "closed" does NOT mean that all credits have been sold, as released credits from the project may still be available for sale by the Program.
7. **COMPENSATION** – Actions taken which have the effect of mitigating for, or substituting some form of, aquatic resource lost or significantly disturbed due to a permitted activity; generally aquatic resource preservation, restoration, enhancement or creation.
8. **COMPLETED or CONSTRUCTED CREDITS** –Represents an ESTIMATE of credits that have been protected (preservation activities) or constructed (restoration or enhancement activities) through site development activities. These estimates represent activity and progress of the Fund's mitigation projects, but are distinct and different from credits that have been formally released by the IRT.
9. **CREDIT** – A unit of measure representing the accrual or attainment of aquatic resource function, condition or other performance measure at a Mitigation Site. It is also used to represent the mitigation liability of the Program.
10. **DEBIT** – A unit of measure representing the reduction of available Credits corresponding to the loss of aquatic resource functions at an impact or project site.
11. **EQUIPMENT FUND** – This portion of the Program funds were identified and approved for use to acquire and maintain GPS units.
12. **FUNCTIONS** – The physical, chemical and biological ecosystem processes of an aquatic resource without regard to its importance to society.
13. **HYDROLOGIC UNIT CODE** – Divisions of the watersheds of the United States. For the purposes of this Agreement, Hydrologic Unit Code ("HUC") shall refer to those divisions as defined by the United States Geological Survey ("USGS").
14. **IN-LIEU FEE PROGRAM ACCOUNT (THE "ACCOUNT")** – An account at a financial institution which contains any and all monies, including any interest associated with the sale or transfer of Credits in accordance with this Agreement. Funds in this account can only be used to provide compensatory mitigation (including selection, acquisition, design, implementation, administration and management of Mitigation Projects).



15. IN-LIEU FEE MITIGATION PROGRAM ("PROGRAM" OR "FUND") – The Virginia Aquatic Resources Trust Fund as proposed in this Agreement is referred to herein as the "Program."
16. INTERAGENCY REVIEW TEAM (or "IRT") – An interagency group of federal, state, tribal, and/or local regulatory and resource agency representatives that participates in the development of a Site Development Plan and oversees the establishment, use and operation of a Mitigation Site with the Corps and DEQ serving as Chair(s).
17. LEDGER – An accounting of mitigation credits and debits.
18. MITIGATION – The process of sequentially avoiding impacts, minimizing impacts and compensating for impacts to aquatic resources that could not be avoided or minimized. "Mitigation" is often used as shorthand for compensatory mitigation.
19. MITIGATION LIABILITY – The full liability assigned to the Program or basin which incorporates assessment methodologies (stream – USM) and standard ratios (wetland – wetland type ratios). This liability does not usually equal the amount of impacts into the Program or basin, but is modified based on the assessment methods utilized and required by the regulatory agencies.
20. MITIGATION PLAN – A detailed portion of the Site Development Plan that identifies specifically how aquatic resources and associated upland buffers will be restored, created, enhanced, preserved, managed and maintained on the Mitigation Site.
21. MITIGATION PERFORMANCE – The outcome of applying success criteria to a Mitigation Site in terms of identified goals and objectives.
22. MITIGATION PROJECT – The entire compensatory mitigation project, including all activities described in the Mitigation Plan and undertaken on the Mitigation Site to generate Credits.
23. MITIGATION SITE ("SITE") – A site or sites where aquatic resources are restored, created, enhanced or preserved expressly for the purpose of providing compensatory Mitigation for authorized impacts to similar resources.
24. No Net Loss Liability (NNL) – The restoration or enhancement liability associated with wetland and stream impacts. For wetlands, the no-net loss liability is equal to the acreage of wetland impacts. For streams, the no-net loss liability is equal to ½ the total compensation requirement.
25. POTENTIAL CREDITS – As used in the Basin Liabilities and Credit Balance Summary Tables, Potential Credits equal the total expected credits from all approved mitigation projects based on the Site Development Plan or similar specifics approved by the IRT, less any Released Credits from those approved mitigation projects. The difference between Potential and Proposed Credits is that Potential Credits include Constructed/Completed Credits, whereas Proposed Credits do not.
26. PROPOSED CREDITS– As used on Tables 2 and 6, Proposed Credits equal the total expected credits from all approved mitigation projects based on the Site Development Plan or similar specifics approved by the IRT, less any Constructed/Completed Credits and/or Released credits from those approved mitigation projects.
27. PROGRAM INSTRUMENT ("AGREEMENT") - The legal document between the Conservancy, the Corps, and DEQ governing the establishment, operation and use of the Virginia Aquatic Resources Trust Fund; the In-Lieu Fee program instrument described under Corps regulations at 33 CFR §332.8(a)(1).
28. RELEASED CREDITS – Credits associated with Mitigation Sites that have met their success criteria, as determined by the IRT.
29. RELEASED CREDITS ADDRESSING NNL – Those credits that are derived from restoration or creation activities (wetlands) or through restoration or enhancement activities (streams) that can be used to offset the wetland acreage and stream function that is lost through impacts to these resources.
30. RELEASED CREDITS NOT ADDRESSING NNL – Those credits derived from enhancement or preservation activities (wetlands) or through preservation activities (streams) that can be

used to offset mitigation liability, but do not address the lost wetland acreage or stream function.

31. SERVICE AREAS – The geographic area for which the Program or mitigation site can be used to compensate for impacts. Programmatically, these are given at the larger scale of major river watersheds. Individual mitigation sites may have more restricted areas that generally service the same or adjacent fourth order subbasin within the same major river watershed. All Service Areas are approved by the IRT.
32. SITE DEVELOPMENT PLAN (“SDP”) – The overall plan governing establishment, restoration, creation, enhancement and/or preservation of aquatic resources and associated upland buffers on the Mitigation Site.
33. STAFF SALARIES AND EXPENSES – This portion of the Program’s funds are established on a three-year cycle to support the Conservancy positions that manage and implement Fund projects. These budget items are allocated to the General Account, but are debited from the resources for the staff time spent on specific project types (basins and resource).
34. STATEWIDE DEVELOPMENT FUND – This portion of the Program’s funds were established to fund initial activities and development of projects, prior to the formal proposal and approval of individual sites. This budget item was approved and previously discussed in the 2011 VARTF Annual Report.
35. SUCCESS CRITERIA – The minimum standards required to meet the objectives for which the Site was established.

## **VI. Reference Documents – [www.nature.org/vartf](http://www.nature.org/vartf)**

### Trust Fund Instrument

- VARTF Program Instrument
- Exhibit A – Compensation Planning Framework
- Exhibit B – Advance Credits
- Exhibit C – Standard Ratios
- Exhibit D – Fee Schedule

### Trust Fund Annual Reports and Supporting Documentation

- 2013 Main Report
- 2012 Main Report
- 2011 Main Report
- Supporting Documentation
  - Map of Virginia Aquatic Resources Trust Fund Project Sites
  - Summaries of Virginia Aquatic Resources Trust Fund Approved Projects by Major River Basins
  - Project Credit Balances and Service Areas within Major River Basins
  - Map of Chowan Conservation Corridor
  - Map of Dragon Run Conservation Corridor