Atlantic Ocean Basin

The Atlantic Ocean Basin is comprised of two HUCs (02040303 and 02040304) encompassing the eastern half of Virginia's Eastern Shore whose coastal lagoons and barrier islands are largely unaltered by human impact and are considered the best remaining Atlantic coast wilderness. The basin is located within the Conservancy's Chesapeake Bay Lowlands Ecoregion and has significant acreage protected through local, state, federal and private efforts. Conservation targets include nearshore Atlantic marine fauna, coastal estuarine and lagoon systems, the barrier island systems, migratory shorebirds, waterfowl, land birds and raptors, and breeding barrier island and lagoon birds.

The projects discussed in this section serve as mitigation for permitted impacts within the Atlantic Ocean Basin for which the Fund was used as compensatory mitigation. Complete project descriptions for projects approved prior to 2019 may be found in earlier reports as indicated below. Updates are given for each project as applicable. One project (AO-6) was determined no longer feasible and was withdrawn in 2019. Following that withdrawal, efforts were undertaken to identify and pursue other suitable sites within the Atlantic Ocean basin with several projects evaluated and presented to the IRT in late 2019. Additionally, one SDP was submitted for AO-4 and began the review process with the IRT.

Table 1: Non-Tidal Wetland Project Summary for the Atlantic Ocean Basin

Project Information		NT Wetland (Ac)			Upland (Ac)		Mitigation Acres	Proposed Credits	Completed Credits	Released Credits	Additional Protected Acreage (ac)
Project ID	Status	Rest/Cr	Pres	Enh	Rest	Pres					
AO-4	P	0.00	19.47	0.00	0.00	31.50	50.97	3.52	3.52	0.00	44.03
AO-6	C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sub-totals		**0.00**	**19.47**	**0.00**	**0.00**	**31.50**	**50.97**	**3.52**	**3.52**	**0.00**	**44.03**
Total Acres of Non-Tidal Impacts					**4.99**						
Total Mitigation Liability					**7.18**						
Total Proposed Credits					**3.52**						
Percent of Wetland Acreage Replacement					**0.00**						
Total Released Credits					**0.00**						

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

Table 2: Tidal Wetland Project Summary for the Atlantic Ocean Basin

Project Information		Tidal Wetland	SAV	Oyster	Tidal	Tidal	Mitigation	Proposed	Completed	Released
Project ID	Status	Rest	Rest	Rest	Enh	Pres	Acres	Credits	Credits	Credits
AO-1	C	0.00	10.00	0.00	0.00	0.00	10.00	0.00	2.00	2.00
AO-2	C	0.00	0.00	3.01	0.00	0.00	3.01	0.00	0.60	0.60
AO-3	C	0.00	10.00	0.00	0.00	0.00	10.00	0.00	2.00	2.00
Sub-totals		0.00	20.00	3.01	0.00	0.00	23.01	0.00	4.60	4.60
Total Acres of Tidal Impacts					**1.94**					
Total Mitigation Liability					**1.70**					
Total Proposed Credits					**0.00**					
***Percent of Wetland Acreage Replacement**					**0.00**					
Total Released Credits					**4.60**					

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

*It should be noted that the restoration in this basin is "out of kind" and is credited at a 5:1 ratio

AO-1 Virginia Coast Reserve (SAV Beds)
This project was officially closed in 2018. Please reference the 2007 and 2017 Annual Reports for additional details on this project.

AO-2 Virginia Coast Reserve (Oyster Beds)
The project was officially closed in 2011. Please reference the 2007 Annual Report for additional details on this project.

AO-3 Virginia Coast Reserve (SAV Beds II)
This project was officially closed in 2018. Please reference the 2008 and 2017 Annual Reports for additional details on this project.

AO-4 Oyster (Cubberly)
The purpose of this mitigation site is to provide wetland, stream, and upland buffer preservation on approximately 51 acres of private land placed under deed restriction by the Conservancy. The site is located along Cobb Mill Creek near Oyster Harbor in Northampton County, Virginia. The mitigation site includes 20 acres of forested wetlands along Cobb Mill Creek and 4,966 linear feet of frontage along Cobb Mill Creek and an unnamed tributary to Cobb Mill Creek near Oyster Slip within the barrier island lagoon system. The project is proceeding under the guidance of the Initial Evaluation Letter (IEL) provided by the Corps on August 8, 2012. A wetland delineation of the site was confirmed in 2016. The Conservancy submitted the site development plan on July 02, 2019, and the plan is pending IRT approval. The project is expected to generate 3.52 non-tidal wetland credits. No credits have been released to date. No stream credits are proposed at this site. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

AO-6 Phillips Creek (Branscome, Inc.)
The purpose of this mitigation site was to provide wetland creation, wetland preservation, and upland buffer preservation on the 18-acre Phillips Creek property currently owned by the Conservancy. A wetland delineation for the site was approved by the Corps in January 2017 and a feasibility study was completed in June 2017. An Initial Evaluation Letter from the Corps was provided in January 2018. The Conservancy submitted a draft site development plan in September 2018. Based on information on project feasibility received in 2019, the Conservancy determined the project would be prohibitively expensive and submitted a request in October 2019 to withdraw the project. Approval to withdraw and close the project was received from the Corps on December 17, 2019.

Big Sandy River Basin

The Big Sandy River Basin is comprised of two HUCs (0507202 and 0507201) that flow northwest out of the Appalachian Mountains of Southwestern Virginia into Kentucky and West Virginia. This basin is within the Conservancy's Cumberland and Southern Ridge

and Valley and Central Appalachian Ecoregions.

Table 3: Non-Tidal Wetland Project Summary for the Big Sandy River Basin

Project Information		NT Wetland (Ac)			Upland (Ac)		Mitigation Acres	Proposed Credits	Completed Credits	Released Credits	Additional Protected Acreage (ac)
Project ID	Status	Rest/Cr	Pres	Enh	Rest	Pres					
BS-2	PC	0.15	0.00	0.00	0.00	0.00	0.15	0.00	0.15	0.15	0.00
Sub-totals		**0.15**	**0.00**	**0.00**	**0.00**	**0.00**	**0.15**	**0.00**	**0.15**	**0.15**	**0.00**
Total Acres of Non-Tidal Impacts					**0.11**						
Total Mitigation Liability					**0.15**						
Total Proposed Credits					**0.00**						
Percent of Wetland Acreage Replacement					**141.67**						
Total Released Credits					**0.15**						

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

Table 4: USM Stream Summary for the Big Sandy River Basin

Project Information		Stream Activity (lf)			Upland Buffer (ac)		Mitigation (ac)	Additional Protected (ac)	Proposed Credits	Completed Credits	Released Credits
Project ID	Status	Rest/Enh	Pres	Livestock	Rest	Pres					
BS-2	PC	1,293	0	0	0.00	0.00	0.00	0.00	0	1,293	1,293
Totals		**1,293**	**0**	**0**	**0.00**	**0.00**	**0.00**	**0.00**	**0**	**1,293**	**1,293**
Total Compensation Required				**1,293**							
Total Proposed Credits				**0**							
Total Released Credits				**1,293**							

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

BS-2 Big Sandy Mitigation Bank Credit Purchase

The Nature Conservancy released a request for proposals (RFP) in July 2016 for delivery of 1,300 stream credits in the Big Sandy River Basin. After thoughtful consideration of proposals, the Conservancy, with the IRT support, submitted a request in September 2018 for approval to purchase stream and wetland credits to offset the Fund's liabilities from a pending mitigation bank in the Big Sandy River Basin. The purchase was approved by the Corps on December 21, 2018. The purchase of 1,293 USM credits and 0.153 non-tidal wetland credits was completed in July 2019, following IRT approval of the bank's credit release. The Conservancy plans to request closure of this project in 2020. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

Chesapeake Bay Basin

The Chesapeake Bay Basin is comprised of five HUCs (02080101, 02080102, 02080108, 02080110, and 02080111) that surround one of the largest and most productive bay ecosystems on the east coast of the United States. The basin is located within the Conservancy's Chesapeake Bay Lowlands Ecoregion, and is the focal area of several conservation groups, including the Chesapeake Bay Foundation and the Alliance for the Chesapeake Bay, as well as efforts of federal, state, and local governments. Conservation targets include migratory waterfowl, high-energy beaches, and bayside estuarine systems.

The projects discussed in this section serve as mitigation for permitted impacts within the Chesapeake Bay Basin for which the Fund was used as compensatory mitigation. Complete descriptions of projects approved prior to 2019 may be found in earlier reports as indicated below. Updates are given for each project as applicable. No new projects were proposed in 2019. Within this basin, Site Development Plans were submitted for two sites, monitoring reports were submitted for two additional sites, and closure requests were submitted for another two sites.

Table 5: Non-Tidal Wetland Project Summary for the Chesapeake Bay Basin

Project Information		NT Wetland (Ac)			Upland (Ac)		Mitigation Acres	Proposed Credits	Completed Credits	Released Credits	Additional Protected Acreage (ac)
Project ID	Status	Rest/Cr	Pres	Enh	Rest	Pres					
CB-1	PC	37.73	27.69	0.00	0.14	0.63	66.19	0.00	40.54	40.54	0.00
CB-2	C	0.00	11.18	0.00	0.00	2.79	13.97	0.00	1.26	1.26	0.00
CB-3	C	0.00	59.53	0.00	0.00	0.00	59.53	0.00	5.95	5.95	47.45
CB-4	C	0.00	2.64	0.00	0.00	0.00	2.64	0.00	0.26	0.26	33.81
CB-6	C	0.00	37.14	0.00	0.00	16.18	53.32	0.00	4.52	4.52	0.00
CB-7	C	0.00	3.49	0.00	0.00	0.21	3.70	0.00	0.36	0.36	0.00
CB-8/ YK-4	CR	0.00	506.49	0.00	0.00	78.25	584.74	54.56	54.56	0.00	29.13
CB-10	M	12.30	5.47	0.00	0.00	21.54	39.31	14.93	14.93	5.95	0.77
CB-11	PC	0.00	32.47	0.00	0.00	7.76	41.63	0.00	3.64	3.64	5.47
CB-13	C	0.00	93.00	0.00	0.00	35.00	128.00	0.00	11.05	11.05	158.00
CB-16	PC	0.00	0.59	0.00	0.00	1.16	1.75	0.00	0.12	0.12	42.73
CB-17	P	5.22	97.71	0.30	0.00	28.95	132.18	17.36	12.05	0.00	52.25
CB-19	M	1.37	110.42	0.81	7.01	39.86	159.47	15.14	15.14	14.22	18.92
CB-21	M	17.90	2.44	0.00	0.00	28.75	49.09	18.52	18.52	9.52	0.39
CB-22	P	0.00	5.60	0.00	0.00	33.72	39.32	2.25	2.25	0.00	154.62
Sub-totals		**74.52**	**995.86**	**1.11**	**7.15**	**294.80**	**1374.84**	**122.76**	**185.16**	**97.39**	**543.54**

Total Acres of Non-Tidal Impacts	**67.15**
Total Mitigation Liability	**112.89**
Total Proposed Credits	**93.07**
Percent of Wetland Acreage Replacement	**110.98**
Total Released Credits	**97.39**

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

Table 6: Tidal Wetland Project Summary for the Chesapeake Bay Basin

Project Information		Tidal Wetland	Tidal	Tidal	Upland Buffer	Mitigation	Proposed	Completed	Released	Additional
Project ID	Status	Rest	Enh	Pres	Pres	Acres	Credits	Credits	Credits	Protected
CB-1	PC	0.17	0.00	16.97	0.00	17.14	0.00	1.86	1.86	0.00
CB-2	C	0.00	0.00	30.77	0.00	30.77	0.00	3.08	3.08	0.00
CB-5/CH-12	C	0.00	70.00	0.00	0.00	70.00	0.00	1.40	1.40	0.00
CB-8/YK-4*	CR	0.00	0.00	1.28	0.00	1.28	0.13	0.13	0.00	0.00
CB-13	C	0.00	0.00	33.00	21.00	54	0.00	4.35	4.35	0.00
CB-16	PC	0.00	0.00	3.52	0.00	3.52	0.00	0.36	0.36	0.00
CB-17	P	4.60	3.24	30.74	0.00	38.58	8.96	3.28	0.00	0.00
CB-22	P	0.00	0.00	3.06	0.00	3.06	0.31	0.31	0.00	0.00
Sub-totals		**4.77**	**73.24**	**119.34**	**21.00**	**164.35**	**9.40**	**14.77**	**11.05**	**0.00**

Total Acres of Tidal Impacts	**2.93**
Total Mitigation Liability	**2.93**
Total Proposed Credits	**9.40**
Percent of Wetland Acreage Replacement	**162.8**
Total Released Credits	**11.05**

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

Table 7: Pre-USM Stream Project Summary for the Chesapeake Bay Basin

Project ID	Project Status	Stream Mitigation Area (ac)	Channel Length in Mitigation Area (lf)	Mitigation Activity Description	Additional Protected Acreage (ac)
CB-3*	C	24.24	6,613	Riparian buffer preservation of 6,613 lf along the right bank of Dragon Run with an existing mature wooded buffer extending 100 to 225 feet from the edge of the protected stream and wetland complex.	Reported under the wetlands summary
CB-4*	C	5.55	2,205	Riparian buffer preservation of 2,205 lf along the right bank of Timber Branch Swamp with an existing mature wooded buffer extending 100 feet from the edge of the protected stream and wetland complex.	Reported under the wetlands summary
CB-6*	C	7.12	1,550	Riparian buffer preservation of 1,550 lf along the right bank of Dragon Run with an existing mature wooded buffer extending 200 feet from the edge of the protected stream and wetland complex.	0.00
CB-11*	PC	1.4	1,889	Riparian buffer preservation of 1,889 lf along the right bank of Dragon Run with an existing mature wooded buffer extending 200 feet from the edge of the protected stream and wetland complex.	0.00
CB-19*	M	4.35	333	Riparian buffer preservation along Dragon Run and un-named tributaries with existing buffer extending 200 feet from stream or existing as wetlands.	Reported under the wetlands summary
CB-21*	M	0.00	1,322	Riparian buffer preservation along un-named tributary existing as wetlands.	Reported under the wetlands summary
	Totals	**• 42.66**	**13,912**		**0.00**
Total Impacts (lf)		**1,399**		*Project includes wetland mitigation	
P - Planning / site development review				I - Restoration/Enhancement/Creation activities in progress	
M - Mitigation monitoring				C - Closed	
CR - Pending credit release				PC - Pending project closure	
Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).					

CB-1 Dameron Marsh (Smith 1)

The purpose of this project is to conduct non-tidal wetland establishment, non-tidal and tidal wetland preservation, and upland buffer restoration and preservation at the Dameron Marsh property in Northumberland County. The funding for this project was approved by the Corps on October 9, 1997. The site was purchased by the Conservancy on December 10, 1997. The site is now managed as a State Natural Area Preserve (NAP) by the Virginia Department of Conservation and Recreation (DCR) Natural Heritage Program. Long-term protection is achieved through the dedication and maintenance of the site as a NAP.

Mitigation monitoring of the site was conducted from 2002 to 2011. 2011 was the tenth year of monitoring. In coordination with the Virginia Department of Conservation and Recreation, control of the invasive species *Phragmites australis* (common reed) has been completed within portions of the property since 2001. In 2010, a modified invasive species management plan was adopted to incorporate three more consecutive years of control

efforts. Multiple treatments have occurred every year from 2012 to 2016, thereby greatly reducing the monocultures of common reed on the site. The Conservancy submitted a final credit release request and credit schedule in 2016, followed by an IRT site visit in December 2016. The release and schedule were approved in 2017. The project generated 40.54 non-tidal wetland and 1.86 tidal wetland credits, all of which have been released. The Conservancy submitted a request to close the project in January 2019, and the request is pending IRT approval. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

CB-2 New Point Comfort (Trimmer)
The project was officially closed in 2009. Please reference the 2009 Annual Report for details on this project.

CB-3 Dragon Run (Calhoun 1; Piedmont Farms)
This project was officially closed in 2008. Please reference the 2008 Annual Report for details on this project.

CB-4 Dragon Run (Byrd)
This project was officially closed in 2009. Please reference the 2008 Annual Report for details on this project.

CB-5/CH-12 Eastern Virginia Phragmites Control
This project was officially closed in 2007. Please reference the 2007 Annual Report for details on this project.

CB-6 Dragon Run (Calhoun 2; Piedmont Farms)
This project was officially closed in 2008. Please reference the 2008 Annual Report for details on this project.

CB-7 Dragon Run (Calhoun 3; Piedmont Farms)
This project was officially closed in 2008. Please reference the 2008 Annual Report for details on this project.

CB-8/YK-4 Upper Crab Neck (BP America)
The purpose of this project is to conduct non-tidal wetland and upland buffer preservation at the Upper Crab Neck (BP America) site in York County. The funding for this project was approved by the Corps on April 21, 2005 and on February 22, 2007. The property was donated to the Conservancy by BP America on May 11, 2006. The Conservancy plans to transfer this site to the Virginia Department of Game and Inland Fisheries (DGIF) subject to Corps approval of the deed restriction. No additional monitoring is required for this project.

A delineation of surface waters and wetlands was confirmed by the Corps in April 2002 and the mapping from this delineation was used to estimate wetland and upland acres in Chesapeake Bay Basin and York River Basin using GIS. An updated delineation was confirmed by the Corps in 2016. The project is expected to generate 54.56 non-tidal wetland and 0.13 tidal wetland credits. No credits have been released from the project to date. A credit release request will be submitted in 2020. The Conservancy is negotiating a transfer of the property and will request official closure of the project once the transfer is completed and credits are released.

CB-9 Guinea Neck Site

This project was officially closed in 2007. Please reference the 2007 Annual Report for details on this project.

CB-10 East River (Brooks/Ober)

The purpose of this project is to conduct non-tidal wetland restoration and upland buffer restoration at the East River (Brooks/Ober) property in Mathews County. The project involves a donation of a conservation easement to the Middle Peninsula Land Trust (MPLT) and donation of fee simple interest to the Conservancy. Long-term protection is achieved through the monitoring and enforcement of the easement by the MPLT.

Funding was secured in 2007 to restore 12.5 acres of forested non-tidal wetlands and 4.2 acres of upland field through vegetation establishment techniques. Reforestation of the site occurred in spring of 2008. The project also includes the preservation of 5.87 acres of non-tidal forested wetland and 18.2 acres of upland forest.

Mitigation monitoring of the site has been conducted since 2007. Year 10 monitoring occurred in 2018. The IRT requested additional hydrology monitoring data within the preservation area, which was initiated in 2017 and continued through 2019 . A final wetland delineation was completed in March 2019, and is pending confirmation. The project is expected to generate 14.93 non-tidal wetland credits, and 5.95 credits have been released to date. The Conservancy will submit the final credit release request in 2020. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

CB-11 Dragon Run (Friends of Dragon Run)

The purpose of this project is to conduct non-tidal wetland and associated upland buffer preservation and stream and associated upland riparian buffer preservation at this site in King and Queen County. The funding for this project was approved by the Corps on December 7, 2006. A subsequent funding approval was granted on June 16, 2008. The Friends of Dragon Run closed the land acquisition of the property on June 5, 2008. Long-term protection of the site will be accomplished through the monitoring and enforcement of an easement by the Virginia Outdoors Foundation (VOF). No additional monitoring is required for this project.

Stream mitigation consists of the preservation of a 200-foot mature forested riparian buffer along the right bank of Dragon Run at the southern end of the property. A wetlands and

surface waters delineation was completed in October 2008, and confirmed on February 12, 2009. An updated delineation was completed in December 2015 and was confirmed by the Corps in August 2016. The site contains 32.47 acres of palustrine forested and scrub-shrub wetlands, as well as 1,889.40 linear feet of stream channel. The project generated 3.64 non-tidal wetland credits, all of which have been released. The project did not utilize USM stream funding so it does not generate USM credit. The Conservancy submitted a request to close this project in January 2019, and the request is pending approval from the IRT.

CB-12 Guilford Shores Site
This project was officially closed in 2008. Please reference the 2008 Annual Report for details on this project.

CB-13 Dameron Marsh/Hughlett Point/Fleet Bay (Thompson et al.)
This project was officially closed in 2009. Please reference the 2009 Annual Report for details on this project.

CB-14 York Complex (Harris Creek Site)
This project was officially closed in 2008. Please reference the 2008 Annual Report for details on this project.

CB-15 Dragon Run Site
This project was officially closed in 2016. Please reference the 2016 Annual Report for details on this project.

CB-16 Jacobus Creek (Hampton)
The purpose of this project is to perform wetland and upland buffer preservation on the bayside of Northampton County, Virginia. On September 24, 2008, the Corps approved this project. The long-term protection of the site was accomplished through the recording of a donated conservation easement to the Conservancy on December 8, 2008. Monitoring and enforcement of the easement will provide the long-term protection. No additional monitoring will be required for this project.

A surface water delineation of the site was conducted in 2013 and 2014 to determine mitigation crediting. This delineation found 0.59 acres of non-tidal forested wetlands and 3.52 acres of tidal emergent wetlands and was confirmed by the Corps in March 2016. The project generated 0.12 non-tidal wetland and 0.37 tidal wetland credits, all of which have been released. The Conservancy will request closure of this project in 2020.

CB-17 Dameron Marsh/Hughlett Point/Fleet Bay (William Thompson)
The purpose of this project is to provide non-tidal and tidal wetland restoration, tidal and non-tidal preservation, and upland buffer preservation of this 223-acre site in Northumberland County, Virginia. On November 2, 2008, the Corps approved funding for

the restoration and preservation of the site. The long-term protection of the site was accomplished through the recordation of a conservation easement held by the Conservancy on December 23, 2008. Long-term protection will be achieved through the monitoring and enforcement of the easement by the Conservancy.

The Conservancy has been working with a design consultant since 2012 on this project. A site development plan was submitted to the IRT for review and approval in 2015. Due to the increased need for tidal credits within this basin, the wetland mitigation plan was redesigned in 2016 to include a larger tidal wetland component. The Conservancy submitted the revised draft SDP in 2018 and received final IRT comments in October 2018. The final revised SDP was submitted in October 2019, and implementation of the design is expected to occur in 2020, following SDP approval. The project is expected to generate 17.36 non-tidal wetland and 8.96 tidal wetland credits. No credits have been released to date. Invasive species management is ongoing and will continue to ensure site success. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

CB-18 Dragon Run Site #2

This project was officially closed in 2016. Please reference the 2016 Annual Report for details on this project.

CB-19 Dragon Run (Carlson)

The purpose of this project is to provide a wetland and upland restoration and stream, wetland and upland buffer preservation on a 176.5-acre property along Dragon Run in Gloucester County and King and Queen County, Virginia. On May 18, 2009, the Corps approved funding for the restoration and preservation of the site. The Conservancy purchased the property in July 2009.

Construction occurred in fall 2014 and planting in winter 2015. Invasive species management is ongoing and will continue to ensure site success. Monitoring and reporting occurred in 2015, 2016, 2017, and 2019 and will continue with Year 7 monitoring in 2021. The project is expected to generate 15.14 non-tidal wetland credits, of which 14.22 credits have been released to date. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

CB-20 Dragon Run Site #3

This project was officially closed in 2016. Please reference the 2016 Annual Report for details on this project.

CB-21 Deep Creek (Level Ponds)

The purpose of this project is to provide wetland restoration and wetland and upland buffer preservation on a 49-acre property in Accomack County, Virginia. On April 19, 2011, the Corps approved funding for the restoration and preservation of the site.

Construction was completed in 2012, and planting of the site was completed in May 2013.

Supplemental plantings were completed in spring 2014and spring 2016. Invasive species management is ongoing and will continue to ensure site success. Year 7 monitoring occurred in September 2019 and will continue with Year 10 monitoring in 2022. The project is expected to generate 18.52 non-tidal wetland credits of which 9.52 credits have been released to date. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

In 2018, an incident of herbicide misapplication was discovered in the areas of the site where a contractor applied the herbicide imazapyr to manage for invasive species. VARTF staff conducted site assessments utilizing transects in 2018 and 2019 to determine the extent of the damage. Assessment results showed impacts to approximately 15 acres of the site with an average tree mortality of 50% from the imazapyr application. VARTF is currently seeking damages from the contractor and is taking proactive corrective action measures to help the site meet success criteria as quickly as possible by planting trees in the most highly impacted areas of the site in spring 2020. Most of the site has a density of healthy trees that will continue to meet success criteria without the need for additional planting, and VARTF staff will continue to assess the site to ensure that all areas are successful.

CB-22 Church Neck (Oliver)

The purpose of this mitigation site is to provide wetland, stream and riparian area preservation on approximately 197 acres of private land which has been placed under easement with the Conservancy. The site is located adjacent to the 1,853 acres protected as part of the Church Neck Conservation Corridor in Northampton County, Virginia. The mitigation site includes 6,432 linear feet of tidal creeks adjacent to the Chesapeake Bay and nearly 8.7 acres of tidal and non-tidal wetlands along Westerhouse Creek, which is part of the Chesapeake Bay Drainage. The project is proceeding under the guidance of the project approval letter and budget approval letter provided by the Corps on December 10, 2012. A wetland delineation was confirmed by the Corps in July 2016. A site development plan was submitted in July 2019 and is pending review and approval from the IRT. The project is expected to generate 2.25 non-tidal wetland credits and 0.31 tidal wetland credits. No credits have been released to date. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

Chowan River Basin

The Chowan River Basin is comprised of five HUCs (03010201, 03010202, 03010203, 03010204, and 03010205) located in southeastern Virginia extending into northeastern North Carolina. It encompasses the northernmost portion of the Albemarle-Pamlico drainage and is among the best developed embayed wetland environments of the outer Mid-Atlantic Coastal Plain Ecoregion estuary and includes much of the original extent of the Great Dismal Swamp. Conservation targets include blackwater swamp aquatic system, riverine and basin swamp forest, brownwater tributaries and rivers, Atlantic white cedar swamp, bottomland hardwood forest, Roanoke logperch, Atlantic pigtoe, red-cockaded woodpecker, and seepage wetlands.

The projects discussed in this section serve as mitigation for permitted impacts within the Chowan River Basin for which the Fund was used as compensatory mitigation. Complete project descriptions for projects approved prior to 2019 may be found in earlier reports as indicated below. Updates are given for each project as applicable. A pre-application for a new non-tidal wetland restoration site was proposed in this basin in 2018, and the initial IRT site visit occurred in early in February 2019 and an Initial Evaluation Letter was provided in December 2019. One new project was proposed with funding approved in 2019, and closure requests were submitted for two additional sites.

Table 8: Non-Tidal Wetland Project Summary for the Chowan River Basin

Project Information		NT Wetland (Ac)			Upland (Ac)		Mitigation Acres	Proposed Credits	Completed Credits	Released Credits	Additional Protected Acreage (ac)
Project ID	Status	Rest/Cr	Pres	Enh	Rest	Pres					
CH-1	PC	0.00	125.08	0.00	0.00	21.24	146.32	0.00	11.48	11.48	0.00
CH-2	C	0.00	51.80	0.00	0.00	2.40	54.20	0.00	5.30	5.30	0.00
CH-3	C	2.66	0.00	0.00	7.60	0.00	10.26	0.00	3.17	3.17	0.00
CH-4	C	0.00	9.45	0.00	0.00	3.75	13.20	0.00	1.13	1.13	0.00
CH-5	C	12.00	706.00	0.00	0.00	6.00	724.00	0.00	82.75	82.75	11.00
CH-6	PC	19.44	7.52	0.00	1.39	2.62	30.97	0.00	20.42	20.42	0.00
CH-7	CR	16.51	0.00	0.00	2.54	0.00	19.05	16.68	16.68	5.94	0.00
CH-8	CR	50.40	79.70	0.00	2.00	0.70	132.80	58.54	58.54	0.00	0.00
CH-9/ LJ-4	CR	71.00	114.90	0.00	0.00	0.00	185.90	82.49	82.49	58.50	0.00
CH-10	CR	27.50	129.71	0.00	0.00	15.13	172.34	41.23	41.23	17.30	0.00
CH-11	CR	21.70	0.00	0.00	1.85	0.00	23.55	21.82	21.82	8.36	0.00
CH-13	C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	150.00
CH-15	CR	0.00	65.01	0.00	0.00	1.96	66.97	6.93	6.93	0.00	0.00
CH-18	P	18.36	14.03	0.00	7.60	0.00	39.99	20.55	0.00	0.00	0.00
Sub-totals		**239.57**	**1303.20**	**0.00**	**22.98**	**53.80**	**1619.55**	**248.24**	**351.94**	**214.35**	**161.00**
Total Acres of Non-Tidal Impacts					**52.40**						
Total Mitigation Liability					**89.66**						
Total Proposed Credits					**158.14**						
Percent of Wetland Acreage Replacement					**457.2**						
Total Released Credits					**214.35**						

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

Table 9: Tidal Wetland Project Summary for the Chowan River Basin

Project Information		Tidal Wetland	Tidal	Tidal	Upland Buffer	Mitigation	Proposed	Completed	Released
Project ID	Status	Rest	Enh	Pres	Pres	Acres	Credits	Credits	Credits
CH-1	PC	0.00	0.00	4.64	0.00	4.64	0.00	0.39	0.39
CB-5/CH-12	C	0.00	70.00	0.00	0.00	70.00	0.00	1.40	1.40
Sub-totals		**0.00**	**70.00**	**4.64**	**0.00**	**74.64**	**0.00**	**1.79**	**1.79**
Total Acres of Tidal Impacts			**0.08**						
Total Mitigation Liability			**0.08**						
Total Proposed Credits			**0**						
Percent of Wetland Acreage Replacement			**0**						
Total Released Credits			**1.79**						

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

Table 10: Pre-USM Stream Project Summary for the Chowan River Basin

Project ID	Project Status	Stream Mitigation Area (ac)	Channel Length in Mitigation Area (lf)	Mitigation Activity Description	Additional Protected Acreage (ac)
CH-15*	PC	0.00	3,694	Riparian buffer preservation along 3,694 lf of the Blackwater River and tributaries, preserved as existing wetlands	0
	Totals	**0.00**	**3,694**		0
Total Impacts (lf)		**911**		*Project includes wetland mitigation	
P - Planning / site development review				I - Restoration/Enhancement/Creation activities in progress	
M - Mitigation monitoring				C - Closed	
CR - Pending credit release				PC - Pending project closure	
Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).					

Table 11: USM Stream Project Summary for the Chowan River Basin

Project Information		Stream Length (lf)	Stream Activity (lf)		Buffer Activity (ac)		Mitigation (ac)	Additional Protected (ac)	Proposed Credits	Completed Credits	Released Credits
Project ID	Status		Rest/Enh	Livestock Exclusion	Rest	Pres					
CH-17*	C	0	0	0	0.00	0.00	0.00	0.00	0	0	0
CH-19	PC	1335	1335	0	0.00	0.00	0.00	0.00	0	1335	1335
Sub-Totals		**1335**	**1335**	**0**	**0.00**	**0.00**	**0.00**	**0.00**	**0**	**1335**	**1335**
Total Compensation Required				**1,532**							
Total Proposed Credits				**0**							
Total Released Credits				**1,335**							
P - Planning / site development review				I - Restoration/Enhancement/Creation activities in progress							
M - Mitigation monitoring				C - Closed							
CR - Pending credit release				PC - Pending project closure							
Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).											
*Project includes wetland mitigation											

CH-1 Northwest River (Kellam Riganto)

The purpose of this project is to conduct non-tidal wetland and upland buffer preservation at the Northwest River (Kellam Riganto) property in the City of Chesapeake. The funding for this project was approved by the Corps on December 20, 1995. Subsequent funding was approved on August 28, 2008.

The site was purchased by the Conservancy on December 22, 1995. Long-term protection is achieved through Conservancy ownership. No additional monitoring is required for this project. An assessment-level wetland delineation of the site was submitted to the Corps and all credits were released in 2013. The project generated 11.48 non-tidal wetland and 0.39 tidal wetland credits, all of which have been released. The Conservancy submitted a request to close the project in January 2019 which is pending approval from the IRT. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

CH-2 North Landing River (Onesimus Ministries)

This project was officially closed in 2007. Please reference the 2007 Annual Report for details on this project.

CH-3 Dismal Swamp (Bruff)

The project was officially closed in 2009. Please reference the 2009 Annual Report for

details on this project.

CH-4 North Landing River (Mayo)
This project was officially closed in 2007. Please reference the 2007 Annual Report for details on this project.

CH-5 Northwest River (Benefits)
The project was officially closed in 2009. Please reference the 2009 Annual Report for details on this project.

CH-6 Northwest River (Hall)
The purpose of this project is to conduct non-tidal wetland and upland buffer restoration and upland buffer preservation at the Northwest River (Hall) property in southern Chesapeake. The funding for this project was approved by the Corps on May 26, 1999. Additional background information is available in the 2008 Annual Report.

Due to the overall success of the site in meeting wetland criteria in most years, the Conservancy conducted a comprehensive wetland delineation of the site to determine mitigation credits in early 2012. The delineation was confirmed by the Corps in the summer of 2012 and all credits were released in 2013. The project generated 20.42 non-tidal wetland credits, all of which have been released. The Conservancy submitted a request to close the project in January 2019 which is pending approval from the IRT. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

CH-7 Nawney Creek (Knight)
The purpose of this project is to conduct non-tidal wetland and upland buffer restoration at the Nawney Creek (Knight) property in Virginia Beach. The funding for this project was approved by the Corps on May 23, 2000. The site was purchased by the Conservancy on September 27, 2000, and long-term protection is achieved through this ownership.

Monitoring was completed in 2003, 2004, 2005, 2007, 2008, 2010, and 2013. Additional supplemental hydrology monitoring was conducted from 2014 to 2019. A final delineation was confirmed by the Corps in June 2016. The project is expected to generate 16.68 non-tidal wetland credits, and 5.94 credits have been released to date. The Conservancy plans to submit a final credit release request in 2020, and will be requesting closure of the project pending release of credits. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

CH-8 Northwest River (Su)
The purpose of this project is to conduct non-tidal wetland restoration and upland buffer restoration and non-tidal wetland and upland buffer preservation at the Northwest River (Su) property in southern Chesapeake. The funding for this project was approved by the Corps on March 16, 2001. Additional funding for this project was approved on February

8, 2008. The site was purchased by the Conservancy on April 28, 2000, and long-term protection is achieved through this ownership. Two adjacent properties (projects CH-5 and CH-6) were acquired in earlier purchases, together representing significant wetland restoration and preservation acres.

Mitigation monitoring was conducted from 2002 to 2011. 2011 represented the tenth year of mitigation monitoring for this project. The Conservancy conducted a comprehensive wetland delineation of the site to determine mitigation credits; this was confirmed by the Corps in June 2012. The Conservancy conducted additional hydrology monitoring in 2012 through 2016 to gather additional data to support credit release. The project is expected to generate 58.54 non-tidal wetland credits. No credits have been released to date; however, the Conservancy submitted a request for credit release in 2017 and the request is pending IRT approval. The Conservancy anticipates closing this project pending release of credits in 2020. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

CH-9/LJ-4 Northwest River (Stephens)
The purpose of this project is to conduct non-tidal wetland restoration and upland buffer restoration and non-tidal wetland and upland buffer preservation at the Northwest River (Stephens) property in Chesapeake. The funding for this project was approved by the Corps on July 17, 2002. The Conservancy proposed to restore wetlands and uplands through site modifications and to preserve wetlands and uplands. The site was purchased by the Conservancy on November 15, 2002, and long-term protection is achieved through this ownership.

Mitigation monitoring of the site has been conducted since 2004. The tenth and final year of monitoring was conducted in 2013. The final delineation was confirmed in December 2013. The project is expected to generate 82.49 non-tidal wetland credits of which58.5 credits have been released to date. The Conservancy submitted a request for release of remaining credits in 2016 and that request is pending IRT approval. The Conservancy anticipates closing this project in 2020 pending final credit release. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

CH-10 Northwest River (Powers)
The purpose of this project is to conduct non-tidal wetland restoration and non-tidal wetland and upland buffer preservation at the Northwest River (Powers) property in Chesapeake. The initial funding for this project was approved by the Corps on March 7, 2003. The Conservancy requested additional funding for acquisition and restoration, which was authorized by the Corps on October 27, 2004. The site was purchased by the Conservancy on January 31, 2001 and the site has been designated as a Natural Area Preserve under the management of Department of Conservation and Recreation (DCR).

Construction occurred in late 2004, followed by planting in spring 2005. Mitigation monitoring and reporting of the site has been conducted since 2005, with the tenth year of monitoring occurring in 2014. Corrective action for invasive species occurred in 2015 to meet success standards. The Conservancy conducted a final delineation of the site to determine mitigation credits in 2015 and this delineation was confirmed by the Corps in

August 2016. The project is expected to generate 41.23 non-tidal wetland credits of which 17.3 credits have been released to date. The Conservancy anticipates submitting a final credit release request and closing this project in 2020. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

CH-11 Nawney Creek (Fentress)
The purpose of this project is to conduct non-tidal wetland and upland buffer restoration at the Nawney Creek (Fentress) property in Virginia Beach. The funding for this project was approved by the Corps on December 19, 2003. The site was purchased by the Conservancy on December 13, 2003, and long-term protection is achieved through this ownership.

The tenth and final year of monitoring was conducted in 2013. A final delineation was conducted in the summer of 2015 and confirmed by the Corps in June 2016. The project is expected to generate 21.82 non-tidal wetland credits of which 8.36 credits have been released to date. The Conservancy plans to submit a final credit release request in 2020 and will be requesting closure of the project pending release of credits. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

CB-5/CH-12 Eastern Virginia Phragmites Control
A summary of the project details is included under the Chesapeake Bay Basin.

CH-13 Northwest River (SP Forests LLC)
This project was officially closed in 2016. Please reference the 2016 Annual Report for details on this project.

CH-14 Raccoon Creek Pinelands Site
This project was officially closed in 2009. Please reference the 2009 Annual Report for details on this project.

CH-15 Blackwater River (Owen)
The purpose of this project is to conduct stream, wetland, and riparian buffer preservation along the Blackwater River in Surry County, Virginia. On September 28, 2009, the Corps approved funding for the costs associated with conducting a stream and wetland delineation along with acquisition of a conservation easement. The overall site is 58 acres, which is comprised of approximately 33.6 acres of wetlands and 1.5 acres of upland buffer that will be preserved in perpetuity, protected from all development, timber harvesting and other land disturbing activities. These areas will be preserved to protect the water quality of the nearby aquatic systems. The long-term protection of the site was accomplished through the recordation of a conservation easement, which was granted to the Conservancy on November 20, 2009. No additional monitoring will be required for this project.

The Conservancy submitted the final surface water delineation in 2016 and this was confirmed by the Corps in August 2016. The project is expected to generate 6.93 non-tidal wetland credits. The Conservancy submitted a credit release request in 2017 which is pending IRT approval. The Conservancy anticipates requesting closure of this project in 2020, pending credit release approval.

CH-16 Nottoway River Site

This project was officially closed in 2016. Please reference the 2016 Annual Report for details on this project.

CH-17 Piney Grove Preserve

This project was officially closed in 2018. Please reference the 2012 and 2017 Annual Reports for details on this project.

CH-18 Nottoway River (Cowling Mine)

The purpose of this mitigation site is to provide wetland creation, upland buffer restoration, and upland buffer preservation on the 40-acre sand mining site currently owned by Cowling, LLC. A proposal was submitted in July 2019 and an Initial Evaluation Letter from the Corps was provided on December 16, 2019. Approximately 20 credits are expected to be generated from the project, though a final number will be provided during the design phase. A site development plan will be submitted in 2020 and property acquisition will also occur in 2020.

CH-19 Cheroenhaka Mitigation Bank Credit Purchase

The Conservancy released a request for proposals (RFP) in November 2018 for a stream mitigation project or stream credit purchase in the Chowan River Basin. After thoughtful consideration of proposals, the Conservancy, with the IRT support, submitted a request in March 2019 for approval to purchase stream credits from the Cheroenhaka Wetland and Stream Mitigation Bank located in Southampton County. The bank submitted a competitive proposal for credit purchase that would enable the Trust Fund to offset most of the existing liabilities in a relatively short amount of time. The bank site also aligns with the VARTF Compensation Planning Framework priority areas. The purchase was approved by the Corps on June 13, 2019. The purchase of 1,335 USM credits was completed on August 28, 2019, following IRT approval of the bank's credit release. The Conservancy plans to request closure of this project in 2020. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

Lower James River Basin

The Lower James River Basin is comprised of two HUCs (02080206 and 02080208) encompassing the portion of the James River from Richmond east to Norfolk. This basin is located within both the Conservancy's Mid-Atlantic Coastal Plain and the Chesapeake Bay Lowlands Ecoregions and is the focal area of several conservation groups, including the James River Association and the Chesapeake Bay Foundation, as well as efforts of federal, state and local governments. Conservation targets include tidal freshwater and brackish marshes, Chesapeake Bay lowlands estuarine and stream systems, waterfowl and colonial nesting waterbirds, blue crabs, and spawning habitat for striped bass, shad, herring, and yellow perch.

The projects discussed in this section serve as mitigation for permitted impacts within the Lower James River Basin for which the Fund was used as compensatory mitigation. Complete project descriptions for projects approved prior to 2019 may be found in earlier reports as indicated below. Updates are given for each project as applicable. No new projects were proposed in 2019. Two projects had credits released and a credit request was submitted for one other project. One project (LJ-14) received approval for the Site Development Plan, which was signed in 2019, along with a funding approval.

Due to historical hydrology modifications, one of the non-tidal projects (CH-9/LJ-4) mitigates for impacts within both the Lower James River Basin and the Chowan River Basin. The total funds authorized by the Corps and crediting value for this project have been appropriately divided between the two basins.

Table 12: Non-Tidal Wetland Project Summary for the Lower James River Basin

Project Information		NT Wetland (Ac)			Upland (Ac)		Mitigation Acres	Proposed Credits	Completed Credits	Released Credits	Additional Protected Acreage (ac)
Project ID	Status	Rest/Cr	Pres	Enh	Rest	Pres					
LJ-1	PC	32.44	214.72	0.00	10.21	3.86	261.23	0.00	54.78	54.78	0.00
LJ-4/CH-9	CR	71.00	114.90	0.00	0.00	0.00	185.90	82.49	82.49	58.50	0.00
LJ-6	C	0.00	64.70	0.00	0.00	29.60	94.30	0.00	7.95	7.95	0.00
LJ-7	P	30.00	23.50	2.50	24.00	4.00	84.00	34.98	0.00	0.00	0.00
LJ-8	C	0.00	368.61	0.00	0.00	47.30	415.91	0.00	33.09	33.09	516.45
LJ-10	M	11.63	20.88	0.00	0.00	89.49	122.00	19.10	19.10	6.56	37.42
LJ-11	PC	0.00	104.21	0.00	0.00	79.11	183.32	0.00	14.81	14.81	74.51
LJ-12	CR	0.00	16.62	0.00	0.00	107.52	124.14	7.04	7.04	0.00	0.00
LJ-13	PC	0.00	5.34	0.00	0.00	0.71	6.05	0.00	0.60	0.60	0.00
LJ-14	P	0.00	1.14	0.00	0.00	0.00	1.14	0.11	0.11	0.00	0.00
LJ-15	C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sub-totals		**145.07**	**934.62**	**2.50**	**34.21**	**361.59**	**1477.99**	**143.73**	**219.97**	**176.29**	**628.38**
Total Acres of Non-Tidal Impacts					**74.10**						
Total Mitigation Liability					**148.23**						
Total Proposed Credits					**78.67**						
Percent of Wetland Acreage Replacement					**195.8**						
Total Released Credits					**176.29**						

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

Table 13: Tidal Wetland Project Summary for the Lower James River Basin

Project Information		Tidal Wetland	SAV	Oyster	Tidal	Tidal	Mitigation	Proposed	Completed	Released
Project ID	Status	Rest	Rest	Rest	Enh	Pres	Acres	Credits	Credits	Credits
LJ-3	C	0.00	0.00	0.34	0.00	0.00	0.34	0.00	0.07	0.07
LJ-8	C	0.00	0.00	0.00	0.00	11.94	11.94	0.00	1.00	1.00
LJ-10	M	40.28	0.00	0.00	0.00	3.51	43.79	42.66	42.66	0.35
LJ-15	C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sub-totals		**40.28**	**0.00**	**0.34**	**0.00**	**15.45**	**56.07**	**42.66**	**43.73**	**1.42**
Total Acres of Tidal Impacts					**2.10**					
Total Mitigation Liability					**2.11**					
Total Proposed Credits					**42.31**					
Percent of Wetland Acreage Replacement					**1,918.10**					
Total Released Credits					**1.42**					

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

Table 14: Pre-USM Stream Project Summary for the Lower James River Basin

Project ID	Project Status	Stream Mitigation Area (ac)	Channel Length in Mitigation Area (lf)	Mitigation Activity Description	Additional Protected Acreage (ac)
LJ-2	C	0.04	104	Stabilized a headcut with a series of step pools serving as grade control within an unnamed tributary to Upham Brook. Stream banks were shaped along 104 lf of channel to provide additional floodplain area.	0.00
LJ-10*	M	37.42	7,699	Removal of a dam on Lake Charles fed by several tributary streams, primarily Kimages Creek. Restoration will be accomplished through the removal of a portion of the existing dam where it intersects the preexisting stream channel and the planting of the wetlands created by this dam breach.	Reported under non-tidal wetland summary
LJ-11*	PC	0.00	6,054	Stream preservation along 6,054 lf of the Chickahominy River unnamed tributaries. Riparian buffer preservation along both banks of the river and streams. Buffer on the Chickahominy exists as wetlands for 300'. Buffer on the tributaries is 200' wide, and portions exist as wetlands.	Reported under non-tidal wetland summary
LJ-12*	PC	0.00	7,578	Two hundred foot buffers will be preserved on both wetland and stream systems along the James River, two unnamed tributaries that flow directly into the James River, and 15 acres of PFO wetlands.	Reported under non-tidal wetland summary
LJ-13*	PC	0.00	1,010	Stream preservation along 232 lf of the James River and 778 lf of Harris Creek. Preservation of riparian buffer on the north bank of the James River and both banks of Harris Creek (portions exist as wetlands).	0.00
Totals		**37.46**	**22,445**		**0.00**
Total Impacts (lf)			**22,361**	*Project includes wetland mitigation	

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

Table 15: USM Stream Project Summary for the Lower James River Basin

Project Information		Stream Length (lf)	Stream Activity (lf)		Buffer Activity (ac)		Mitigation (ac)	Additional Protected (ac)	Proposed Credits	Completed Credits	Released Credits
Project ID	Status		Rest/Enh	Livestock Exclusion	Rest	Pres					
LJ-11*+	M	745	454	0	0.21	6.12	6.50	Reported under the wetlands summary	647	647	520
LJ-14*	P	1844	0	0	6.20	0.00	7.64	2.65	459	459	0
LJ-15*	C	0	0	0	0.00	0.00	0.00	0.00	0	0	0
LJ-16	CR	9605	9605	0	0.00	0.00	0.00	0.00	9605	7700	7700
Totals		**12194**	**10059**	**0**	**6.41**	**6.12**	**14.14**	**2.65**	**10711**	**8806**	**8220**

Total Compensation Required	**11,666**	+Project includes pre-USM and USM funding
Total Proposed Credits	**2,491**	
Total Released Credits	**8,220**	*Project includes wetland mitigation

P - Planning / site development review	I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring	C - Closed
CR - Pending credit release	PC - Pending project closure

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

LJ-1 Chickahominy River (Walters)

This project was officially closed in 2018. Please reference the 2007 and 2017 Annual Reports for additional details on this project.

LJ-2 Chickahominy River (Cheswick Park)

This project was officially closed in 2007. Please reference the 2007 Annual Report for details on this project.

LJ-3 VMRC Oyster Reef

This project was officially closed in 2007. Please reference the 2007 Annual Report for details on this project.

CH-9/LJ-4 Northwest River (Stephens)

The Stephens property (detailed under the Chowan River Basin) is also included as part of Lower James River Basin due to the split drainage.

LJ-5 Isle of Wight Site

This project was officially closed in 2007. Please reference the 2007 Annual Report for details on this project.

LJ-6 Chickahominy River (Rogers-Chenault)

This project was officially closed in 2008. Please reference the 2008 Annual Report for details on this project.

LJ-7 Great Dismal Swamp Northwest Section (Jacobson et al.)

Please reference the 2007 Annual Report for details on this project.

The purpose of this project is to conduct non-tidal wetland restoration and enhancement, upland buffer restoration, and non-tidal wetland and upland buffer preservation at this 84-acre property in Chesapeake. The property contains approximately 54 acres of cropland,

22 acres of forested wetlands and several acres of drained forested wetland and upland forest. In the past a ditch system was installed on this site to lower the ground water table to make farming more successful.

A shallow groundwater table study was conducted at the site during the 2007 growing season. A preliminary design was completed in 2009 and was presented to the City for review. This site has been low priority for development and no actions have been completed to develop the mitigation activities. Therefore, the Conservancy plans to submit a pre-application request to the IRT to assess the current mitigation options at the site as workload and basin needs allow.

LJ-8 Lower Chickahominy River (Church Point Farm, LLC)

This project was officially closed in 2009. Please reference the 2007 and 2009 Annual Reports for details on this project.

LJ-9 James River Site

This project was officially closed in 2010. Please reference the 2007 Annual Report for details on this project.

LJ-10 James River (VCU)

Please reference the 2008 Annual Report for details on this project.

The purpose of this project is to provide restoration of the natural stream channel and wetland habitats resulting from the removal of the dam at the mouth of Kimages Creek on the Virginia Commonwealth University (VCU) Rice Center property. The property is located along the James River in Charles City County.

Restoration of the site was initiated in late 2010 and consisted of the removal of approximately 180 linear feet of the existing dam where it intersects the pre-existing stream channel of Kimages Creek. The project also includes re-establishment of native wetland plant communities in the former impounded areas. Planting was completed in April/May 2014. Several corrective actions, including prescribed burns, cutting, and herbicide application were undertaken in 2013 through 2019. Invasive species management will continue as needed to ensure site success. Management of beaver populations occurred at the site in 2018 and will continue as needed. Supplemental planting to ensure success occurred in 2014 and 2015. Mitigation monitoring of the wetlands began in 2014; Year 7 monitoring will occur in 2020. Year 6 monitoring of the stream will be conducted in 2020. A letter from the Corps dated September 22, 2016 suspended the project until approved corrective action measures could bring the site back into compliance with success standards. An Adaptive Management Plan was submitted in 2017 proposing strategies for success, and the suspension was lifted in November 2017. The project is expected to generate 19.1 non-tidal and 42.66 tidal wetland credits of which 6.56 non-tidal and 0.35 tidal wetland credits have been released to date. A request for release of 10.74 tidal wetland credits was submitted in July 2019 based on Year 5 wetland success and the request is pending IRT approval. The project did not utilize USM stream funding, so it does not generate USM credit. Additional information regarding this

mitigation site may be found in the site cyber repository on RIBITS.

LJ-11 Chickahominy River (Wilson)
The purpose of this project is to conduct a non-tidal wetland, stream preservation, and stream restoration project along the Chickahominy River and tributaries in Henrico and New Kent Counties. The project will provide approximately 189 acres of preservation, and include 104 acres of non-tidal wetland preservation, 85 acres of upland buffer preservation and 6,245 linear feet of stream preservation. Approximately 75 acres will be counted as additional protected acreage. The site is located downstream of LJ-1 and upstream of LJ-6.

Initial funding for preservation activities was approved by the Corps on August 28, 2008. Additional funding was approved in August 2010. The Conservancy completed acquisition of a conservation easement on the property in 2015. A credit release request for the wetland preservation component of this project (Phase I), totaling 14.81 credits, was submitted in 2016 and approved in 2017. All wetland credits have been released from this project. This portion of the project did not utilize USM stream funding, so it does not generate USM credit.

The Conservancy submitted a proposal in 2013 to add stream restoration activities (Phase II), including dam removal and restoration of 454 linear feet of stream and 0.21 acres of riparian buffer. The Phase II portion of the project is proceeding under the guidance of the site development plan signed in March 2015. Stream restoration construction was completed in early 2017. Minor stream and buffer maintenance activities were completed in December 2019. Year 3 monitoring of the stream restoration was completed in 2019. The project is expected to generate 647 USM credits. A total of 520 USM credits have been released to date, including a request for release of 179 credits submitted in January 2019 and approved by the IRT in December 2019. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

LJ-12 James River (Blair's Wharf)
Please reference the 2008 Annual Report for details on this project.

The purpose of this project is to conduct a stream, wetland and riparian buffer preservation project at Blair's Wharf on the James River, in Prince George County, Virginia. The 124.14-acre property includes 16.62 acres of wetland preservation and 107.52 acres of upland buffer preservation. It also provides protection of 3,963 linear feet frontage along the James River, and 9,311 linear feet along two unnamed tributaries that flow directly into the James River. This property is near the Trust Fund projects LJ-10 and LJ-13, Presquile National Wildlife Refuge, and several Virginia Outdoors Foundation easements and other state and federal land holdings.

The property has been transferred to the U.S. Fish and Wildlife Service. A comprehensive wetland and stream delineation was completed on the property in 2015 and confirmed by the Corps in August 2016. Demolition of a house on the property was completed in 2017. The project is expected to generate 7.04 non-tidal wetland credits. No credits have been released to date. The Conservancy anticipates requesting credit release and project

closure in 2020.

LJ-13 James River (VCU – Harris)
This project was officially closed in 2018. Please reference the 2010 and 2017 Annual Reports for additional details on this project.

LJ-14 Lower Chickahominy (Fowlkes)
The purpose of this mitigation site is to provide wetland and stream preservation and buffer enhancement on approximately 10 acres of land purchased by the Conservancy. The site is located within the boundary of the 5,200-acre Chickahominy Wildlife Management Area managed by the Virginia Department of Game and Inland Fisheries (VDGIF) in Charles City County, Virginia. A surface water delineation for the site was confirmed in December 2013. The mitigation site includes 0.12 acres of non-tidal emergent wetlands and 1.02 acres of non-tidal forested wetlands and 1,844 linear feet of unnamed tributaries to Morris Creek near the mouth of the Chickahominy River which drains to the James River.

The project is proceeding under the guidance of the site development plan submitted in August 2016 and signed in December 2019. The project is expected to generate 0.11 non-tidal wetland and 459 USM credits. No credits have been released to date. The Conservancy will move forward with mitigation activities in 2020. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

LJ-15 Chippokes Creek site
This project was officially closed in 2018. Please reference the 2013 and 2017 Annual Reports for additional details on this project.

LJ-16 Lower James Mitigation Bank Credit Purchase
This project involves the purchase of stream credits from the Lower James Stream Mitigation Bank, located in Surry County. The purchase was approved by the Corps on November 1, 2018. The purchase of 9,605 USM credits will be completed in phases, following IRT approval of the bank's credit releases. A total of 7,700 credits have been purchased to date, including a purchase of 7,000 credits in January 2019.

Middle James River Basin

The Middle James River Basin is comprised of four HUCs (02080203, 02080204, 02080205 and 02080207) encompassing the portion of the James River from the Blue Ridge Parkway east to Richmond. This basin is located within the Conservancy's Piedmont Ecoregion. Conservation targets include small Piedmont streams and tributaries, James spinymussel, isolated wetlands, and working and old growth forests.

The projects discussed in this section serve as mitigation for permitted impacts within the

Middle James River Basin for which the Fund was used as compensatory mitigation. Complete project descriptions for projects approved prior to 2019 may be found in earlier reports as indicated below. Updates are given for each project as applicable. No new projects were proposed in 2019. One request for funding of an existing project was submitted in 2019.

Table 16: Non-Tidal Wetland Project Summary for the Middle James River Basin

Project Information		NT Wetland (Ac)			Upland (Ac)		Mitigation Acres	Proposed Credits	Completed Credits	Released Credits	Additional Protected Acres (ac)
Project ID	**Status**	**Rest/Cr**	**Pres**	**Enh**	**Rest**	**Pres**					
*MJ-1	M	24.78	2.19	0.00	34.70	0.51	62.18	28.70	28.70	26.25	37.97
*MJ-3	C	0.00	87.12	0.00	0.00	12.50	97.00	0.00	9.00	9.00	469.00
*MJ-5-8, 10-11	M	0.00	10.82	0.00	0.00	0.00	10.82	0.00	0.00	0.00	0.00
Sub-totals		**24.78**	**100.13**	**0.00**	**34.70**	**13.01**	**170.00**	**28.70**	**37.70**	**35.25**	**506.97**

Total Acres of Non-Tidal Impacts	**24.29**
Total Mitigation Liability	**44.42**
Total Proposed Credits	**2.45**
Percent of Wetland Acreage Replacement	**102.0**
Total Released Credits	**35.25**

*Project includes stream or tidal wetland mitigation

P - Planning / site development review	I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring	C - Closed
CR - Pending credit release	PC - Pending project closure

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

Table 17: Pre-USM Stream Project Summary for the Middle James River Basin

Project ID	Project Status	Stream Mitigation Area (ac)	Channel Length in Mitigation Area (lf)	Mitigation Activity Description	Additional Protected Acreage (ac)
MJ-1*	PC	53.85	10,365	Restoration and enhancement of 3,239 lf and preservation of 1,083 lf of unnamed tributaries to the North Fork of the Rivanna River. Riparian buffer planting and preservation 200' wide along tributaries. Riparian buffer planting and preservation (250 feet wide) along a total of 6,044 lf of the North Fork (right bank) and South Fork (left bank) of the Rivanna River.	Reported under the wetlands summary
MJ-3*	C	434.00	36,907	Riparian buffer preservation of 8,280 lf on the right bank of the James River with buffer ranging from 100 to 300 feet. Stream system preservation of 12,200 lf of Deep Creek, with buffer 300 feet wide. Stream system preservation of 9,420 lf of headwater tributaries to the James River with buffer of 200 feet along each bank. Stream system preservation of 7,920 lf of a headwater tributary to the James River with an existing mature wooded buffer of 300 feet along each bank.	Reported under the wetlands summary
MJ-4	C	20.00	5,280	Riparian buffer preservation on 1,009 lf of the left bank of the Moorman's River with mature wooded buffer width of 100 feet. Stream system preservation along both banks of 3,254 lf of Slate Branch and tributaries with an existing mature wooded buffer width of 100 feet. Riparian buffer preservation along 1,017 lf of the right bank of Slate Branch with an existing mature wooded buffer width of 100 feet.	59.00
MJ-5-8, 10-11	M	54.62	10,192	Stream restoration along 7,274 lf of Meadow Creek and stream preservation along 2,918 lf of Meadow Creek and unnamed tributaries. Buffer restoration and enhancement of 19 acres and buffer preservation of 36 acres.	0.00
Totals		**562.47**	**62,744**	*Project includes wetland mitigation	**59.00**
Total Impacts (lf)		**32,679**			

P - Planning / site development review	I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring	C - Closed
CR - Pending credit release	PC - Pending project closure

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

Table 18: USM Stream Project Summary for the Middle James River Basin

Project Information		Stream Length (lf)	Stream Activity (lf)		Buffer Activity (ac)		Mitigation (ac)	Additional Protected (ac)	Proposed Credits	Completed Credits	Released Credits
Project ID	Status		Rest/Enh	Livestock Exclusion	Rest	Pres					
MJ-12	C	516	516	0	0.00	0.00	0.00	0.00	0	516	516
Totals		**516**	**516**	**0**	**0.00**	**0.00**	**0.00**	**0.00**	**0**	**516**	**516**

Total Compensation Required	**516**	+Project includes pre-USM and USM funding
Total Proposed Credits	**0**	
Total Released Credits	**516**	*Project includes wetland mitigation

P - Planning / site development review	I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring	C - Closed
CR - Pending credit release	PC - Pending project closure

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

MJ-1 Rivanna River (Lamb)

Please reference the 2007 and 2008 Annual Reports for additional details on this project.

The purpose of this project is to conduct non-tidal wetland and upland buffer restoration, stream restoration and enhancement, and riparian buffer planting activities at the Lamb

property (also known as the Forks of the Rivanna project) in Albemarle County. The project is proceeding under the guidance of the project and budget approval letters provided by the Corps on April 10, 2001, October 20, 2003, and November 19, 2007.

Wetland restoration activities began in 2005. Stream restoration and enhancement activities were completed in 2005 on 3,239 linear feet of unnamed tributaries to the North Fork of the Rivanna River. Planting of live stakes along both tributaries was completed in March 2006. A forested buffer was planted along the wetlands, tributaries, and 6,000 linear feet of the North Fork and South Fork of the Rivanna River in 2003. Due to impacts of invasive species, the buffer was replanted in 2009. Invasive species and beaver management were conducted throughout the monitoring period.

Year 10 monitoring of the wetland restoration area was completed in 2014. The final delineation was confirmed by the Corps in 2015. The wetland restoration and preservation activities generated 26.25 non-tidal wetland credits, all of which have been released. Year 10 geomorphic monitoring of the stream restoration was completed in 2015. The project did not utilize USM stream funding, so it does not generate USM credit. Year 10 monitoring of the stream buffer, wetland buffer, and the live stakes planted along the stream restoration/enhancement reaches occurred in 2019. The wetland buffer activities are expected to generate 2.44 non-tidal wetland credits. The wetland buffer credits have not yet been released. The Conservancy anticipates submitting the final credit release request and project closure request in 2020. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

In 2018, an incident of herbicide misapplication was discovered in the areas of the site where a contractor applied the herbicide imazapyr to manage for invasive species. VARTF staff conducted site assessments utilizing transects in 2018 and 2019 to determine the extent of the damage. Assessment results showed impacts to approximately 32 acres of the site with an average tree mortality of 50% from the imazapyr application. VARTF is currently seeking damages from the contractor and is taking proactive corrective action measures to help the site meet success criteria as quickly as possible by planting trees in the most highly impacted areas of the site in spring 2020. Most of the site has a density of healthy trees that will continue to meet success criteria without the need for additional planting, and VARTF staff will continue to assess the site to ensure that all areas are successful.

MJ-2 Rivanna Watershed site

This project was officially closed in 2007. Please reference the 2007 Annual Report for details on this project.

MJ-3 Beaumont (Sisters of the Blessed Sacrament)

This project was officially closed in 2009. Please reference the 2007 and 2009 Annual Reports for details on this project.

MJ-4 Southern Shenandoah (Bennett)

This project was officially closed in 2009. Please reference the 2007 and 2009 Annual

Reports for details on this project.

MJ-5 Rivanna Watershed (Meadow Creek site 1)
Please reference the 2008 Annual Reports for additional details on this project.

The purpose of the MJ-5, MJ-6, MJ-7, MJ-8, MJ-10, and MJ-11 projects is to conduct stream mitigation on six adjacent sites along Meadow Creek in the City of Charlottesville and Albemarle County. The project is proceeding under the guidance of the project and budget approval letters provided by the Corps on November 16, 2007, December 16, 2008, and December 21, 2009. The project includes stream restoration, enhancement, and preservation, and riparian buffer enhancement and preservation along approximately 7,400 linear feet of Meadow Creek.

Construction began in spring 2012 and was completed in early 2013. Planting was completed in the 2012/2013 dormant season. Supplemental planting was completed in 2014, 2015, and 2017, and streambank maintenance will be completed in early 2020. Invasive species management is ongoing and will continue to ensure site success. Stream cleanups are also held on a regular basis. Year 7 geomorphic, biological, and vegetation monitoring was conducted in 2019, and Year 10 monitoring is scheduled for 2022. The project did not utilize USM stream funding, so it does not generate USM credit. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

MJ-6 Rivanna Watershed (Meadow Creek site 2)
Project description is detailed above at MJ-5.

MJ-7 Rivanna Watershed (Meadow Creek site 3)
Project description is detailed above at MJ-5.

MJ-8 Rivanna Watershed (Meadow Creek site 4)
Project description is detailed above at MJ-5.

MJ-9 Southern Shenandoah site
This project was officially closed in 2009. Please reference the 2009 Annual Report for details on this project.

MJ-10 Rivanna Watershed (Area 3)
Project description is detailed above at MJ-5.

MJ-11 Rivanna Watershed (Area 4)
Project description is detailed above at MJ-5.

MJ-12 Innisfree Mitigation Bank Credit Purchase

This project was officially closed in 2018. Please reference the 2017 Annual Report for details on this project.

Upper James River Basin

The Upper James River Basin is comprised of two HUCs (02080201 and 02080202) encompassing the portion of the James River from the West Virginia border east to the Blue Ridge Parkway. This basin is located within the Conservancy's Central Appalachian Ecoregion. Conservation targets include Central Appalachian river systems (with interest to the Cowpasture River and the associated tributaries), montane, non-alluvial wetlands, cave invertebrate communities, bats, alluvial forests and grasslands, pine-oak-heath woodlands, and Central Appalachian mixed hardwood forests.

The projects discussed in this section serve as mitigation for permitted impacts within the Upper James River Basin for which the Fund was used as compensatory mitigation. Complete project descriptions for projects approved prior to 2019 may be found in earlier reports as indicated below. Updates are given for each project as applicable. One new wetland project was proposed in 2018, and the Initial Evaluation Letter to proceed with this project was provided by the Corps in 2019. The Conservancy submitted the final monitoring report on another project in 2019. No new projects were proposed in 2019

Table 19: Non-Tidal Wetland Project Summary for the Upper James River Basin

Project Information		NT Wetland (Ac)			Upland (Ac)		Mitigation Acres	Proposed Credits	Completed Credits	Released Credits	Additional Protected Acreage (ac)
Project ID	Status	Rest/Cr	Pres	Enh	Rest	Pres					
UJ-1	CR	2.34	0.00	1.78	4.73	5.01	13.86	3.68	3.68	1.07	0.61
UJ-4	P	12.79	0.00	12.77	10.16	0.00	35.72	18.61	0.00	0.00	
Sub-totals		**15.13**	**0.00**	**14.55**	**14.89**	**5.01**	**49.58**	**22.29**	**3.68**	**1.07**	**0.61**

Total Acres of Non-Tidal Impacts	**8.09**
Total Mitigation Liability	**12.60**
Total Proposed Credits	**21.22**
Percent of Wetland Acreage Replacement	**187**
Total Released Credits	**1.07**

P - Planning / site development review	I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring	C - Closed
CR - Pending credit release	PC - Pending project closure

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

Table 20: Pre-USM Stream Project Summary for the Upper James River Basin

Project ID	Project Status	Stream Mitigation Area (ac)	Channel Length in Mitigation Area (lf)	Mitigation Activity Description	Additional Protected Acreage (ac)
SH-3/ UJ-3	C	104.40	7,609	Stream and riparian buffer preservation in the Shenandoah River Basin of 12,894 lf along both banks of Laurel Fork with a buffer ranging from 100-2,000 ft, 7,960 lf along both banks of Barkley Run with buffer widths ranging from 100-900 ft, 2,692 lf along one bank of Schoolhouse Run with buffer widths along the right bank of 100 feet and left bank of 35-100 ft, 2,569 lf along the left bank of Collins Run with a buffer width of 100 ft, and 6,108 lf along both banks of Blights Run with buffer widths on the right bank of 20-100 ft and left bank of 100 ft. Stream and riparian buffer preservation in the Upper James River Basin of 7,609 lf along both banks of Backs Creek and its tributaries with buffer width limited to the property boundary up to 100 ft.	reported under SH-3
	Totals	**104.40**	**7,609**		
Total Impacts (lf)		**0**		*Project includes wetland mitigation	
P - Planning / site development review				I - Restoration/Enhancement/Creation activities in progress	
M - Mitigation monitoring				C - Closed	
CR - Pending credit release				PC - Pending project closure	
Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).					

UJ-1 Warm Springs Mountain/Cowpasture River (Phillips)

Please reference the 2008 Annual Report for additional details on this project.

The purpose of this project is to conduct non-tidal wetland restoration and creation and upland buffer restoration at the Phillips property in Bath County. The restoration of the site was completed in the spring of 2008. The site design included the restoration of 3.09 acres of non-tidal wetlands, the enhancement of 1.78 acres of non-tidal wetlands and the restoration of 3.81 acres of upland forested buffer. Wetlands restoration and creation is supported by groundwater seeps located in a former pasture.

Mitigation monitoring has been conducted since 2009; Year 10 monitoring occurred in 2018. To address invasive plant issues, herbicidal treatment was implemented in 2013, 2014, 2015, 2017, and 2018. Corrective action occurred in the winter of 2016 to replace stems damaged by contractors during treatment efforts in 2015. Additional native seeding and tree tube removal occurred in 2017. Based on conversations with the IRT and a site visit, the Conservancy also installed additional hydrology wells and vegetation monitoring plots and conducted additional monitoring in 2017 (Year 9) to better assess the condition of the project. The project is expected to generate 3.684.43 non-tidal wetland credits of which 1.07 credits have been released to date. A final wetland delineation was completed in September 2019 and was confirmed by the Corps in December 2019. The Conservancy will request release of final credits and project closure in 2020. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

UJ-2 Warm Springs Mountain/Cowpasture River Site
This project was officially closed in 2007. Please reference the 2007 Annual Report for details on this project.

SH-3/UJ-3 Laurel Fork (Rifle Ridge Farm, LLC)
This project mitigates for stream impacts in both the Shenandoah and Upper James River Basins. Projects details are given under the SH-3 description.

UJ-4 James River (Cole)
The purpose of this project is to conduct non-tidal wetland restoration, enhancement, and preservation, and upland buffer restoration and preservation on the Cole property in Augusta County. A pre-application and proposal were submitted in 2018. The proposal was approved, and the project was placed on Public Notice in November 2018. An Initial Evaluation Letter was provided to the Conservancy in early 2019 and a subsequent notice to proceed was given in June 2019 The Conservancy began initial development tasks in 2019 including delineation and feasibility plan to further define the scope of this project.

The initial proposal for this site is to conduct wetland restoration on up to four separate areas on a 544-acre property. The overall scope of the project may generate up to 18 credits through non-tidal wetland and upland buffer restoration and enhancement. Initial feasibility studies will refine the scope of the project to be pursued in 2020.

New River Basin

The New River Basin is comprised of two HUCs (05050001 and 05050002). This basin is located within the Conservancy's Central Appalachian Ecoregion. Conservation targets include small, Central Appalachian streams and tributaries and general locations encompassing habitat for known Virginia Department of Conservation and Recreation Natural Heritage elements.

The projects discussed in this section serve as mitigation for permitted impacts within the New River Basin for which the Fund was used as compensatory mitigation. Complete project descriptions for projects approved prior to 2019 may be found in earlier reports as indicated below. Updates are given for each project as applicable. No new projects were proposed in 2019. One project submitted annual monitoring report and the Site Development Plan for another project was coordinated with the IRT.

Table 21: Non-Tidal Wetland Project Summary for the New River Basin

Project Information		NT Wetland (Ac)			Upland (Ac)		Mitigation Acres	Proposed Credits	Completed Credits	Released Credits	Additional Protected Acreage (ac)
Project ID	Status	Rest/Cr	Pres	Enh	Rest	Pres					
NW-3	P	4.19	0.00	6.74	22.27	5.83	39.03	8.21	0.29	0.00	16.80
Sub-totals		**4.19**	**0.00**	**6.74**	**22.27**	**5.83**	**39.03**	**8.21**	**0.29**	**0.00**	**16.80**
Total Acres of Non-Tidal Impacts					**5.04**						
Total Mitigation Liability					**6.92**						
Total Proposed Credits					**8.21**						
Percent of Wetland Acreage Replacement					**83.1**						
Total Released Credits					**0.00**						

P - Planning / site development review — I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring — C - Closed
CR - Pending credit release — PC - Pending project closure

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

Table 22: Pre-USM Stream Project Summary for the New River Basin

Project ID	Project Status	Stream Mitigation Area (ac)	Channel Length in Mitigation Area (lf)	Mitigation Activity Description	Additional Protected Acreage (ac)
NW-1	M	11.73	5,048	Stream enhancement, livestock exclusion, riparian area enhancement, and riparian area preservation along 5,048 lf of the New River and tributaries	0.00
	Totals	**11.73**	**5,048**		**0.00**
Total Impacts (lf)		**5,048**		*Project includes wetland mitigation	

P - Planning / site development review — I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring — C - Closed
CR - Pending credit release — PC - Pending project closure

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

Table 23: USM Stream Project Summary for the New River Basin

Project Information		Stream Length (lf)	Stream Activity (lf)		Buffer Activity (ac)		Mitigation (ac)	Additional Protected (ac)	Proposed Credits	Completed Credits	Released Credits
Project ID	Status		Rest/Enh	Livestock Exclusion	Rest	Pres					
NW-1	M	2718	1609	2718	1.34	4.97	6.31	0.00	1880	1880	1763
NW-3	P	6803	4527	6803	0.03	3.66	3.69	reported under NTW	8051	124	0
Totals		**9521**	**6136**	**9521**	**1.37**	**8.63**	**10.00**	**0.00**	**9931**	**2004**	**1763**
Total Compensation Required			**5,440**		+Project includes pre-USM and USM funding						
Total Proposed Credits			**8,168**								
Total Released Credits			**1,763**		*Project includes wetland mitigation						

P - Planning / site development review — I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring — C - Closed
CR - Pending credit release — PC - Pending project closure

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

NW-1 New River (Phipps)

Please reference the 2011 Annual Report for additional details on this project.

The purpose of this project is to conduct stream and riparian buffer enhancement and livestock exclusion activities along the New River and tributaries in Grayson County, Virginia. The project is proceeding under the guidance of the project and budget approval letters provided by the Corps on June 22, 2011 and June 20, 2012. Stream enhancement and livestock exclusion activities were completed in summer/fall 2013. Planting was completed during the 2013/14 dormant season. Invasive species management is ongoing and will continue to ensure site success. Year 5 monitoring of the mitigation activities was completed in 2018, and Year 7 monitoring will occur in 2020. The project is funded in part using USM funds and is expected to generate 1,880 USM credits. A total of 1,763 credits

have been released to date. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

NW-3 Reed Island Creek (Webb)
Please reference the 2016 Annual Report for additional details on this project.

The purpose of this project is to conduct stream and wetland mitigation on a 60-acre property in Carroll County, VA. The property contains 6,504 linear feet of frontage on unnamed tributaries to Grassy Creek, and approximately 16 acres of floodplain which contains evidence of prior conversion of wetlands to pasture. Mitigation activities will include removal of livestock, stream restoration and preservation, wetland restoration and enhancement, and buffer restoration and preservation. An important goal of this project is also to protect, and where possible, expand habitat for the bog turtle.

The Conservancy submitted a prospectus for the project in August 2015. The project is proceeding under the guidance of the Initial Evaluation Letter (IEL) provided by the Corps on March 8, 2016. The property was acquired by TNC in March 2016. A stream and wetland delineation of the site was confirmed in August 2016. The site development plan was submitted in December 2018. Revisions based on IRT comments were submitted in September 2019 and the plan is pending approval. The project is expected to generate 8.21 non-tidal wetland credits and 8,051 USM credits. No credits have been released to date. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

Potomac River Basin

The Potomac River Basin is comprised of three HUCs (02070008, 02070010, and 02070011) encompassing the Lower Potomac east of the Blue Ridge to the Bay. This basin is located within the Conservancy's Piedmont Ecoregion. Conservation targets include small Piedmont streams and tributaries, sportfish and nongame fish populations, and estuarine and riverine systems.

The projects discussed in this section serve as mitigation for permitted impacts within the Potomac River Basin for which the Fund was used as compensatory mitigation. Complete project descriptions for projects approved prior to 2019 may be found in earlier reports as indicated below. Updates are given for each project as applicable. One new wetland restoration project was proposed in 2018 and a complete proposal was submitted for public notice in 2019. For one project, annual monitoring report, final delineation, credit request and closure request were submitted in 2019. The Site Development Plan and a closure request were submitted for two other projects in this basin. No new projects were proposed in 2019.

Table 24: Non-Tidal Wetland Project Summary for the Potomac River Basin

Project Information		NT Wetland (Ac)			Upland (Ac)		Mitigation Acres	Proposed Credits	Completed Credits	Released Credits	Additional Protected Acres (ac)
Project ID	Status	Rest/Cr	Pres	Enh	Rest	Pres					
*PO-1	PC	44.23	36.40	12.26	0.87	55.89	149.65	0.00	53.17	53.17	10.35
*PO-5	PC	7.08	0.00	1.23	10.23	0.78	19.32	8.31	8.31	4.91	Reported under the streams summary
*PO-6	C	0.00	385.00	0.00	0.00	144.00	529.00	0.00	39.16	39.16	0.00
*PO-7	C	0.00	60.00	0.00	0.00	49.28	109.28	0.00	7.44	7.44	0.00
Sub-totals		**51.31**	**481.40**	**13.49**	**11.10**	**249.95**	**807.25**	**8.31**	**108.08**	**104.68**	**10.35**

Total Acres of Non-Tidal Impacts	**20.58**
Total Mitigation Liability	**31.75**
Total Proposed Credits	**3.40**
Percent of Wetland Acreage Replacement	**249.3**
Total Released Credits	**104.68**

*Project includes stream or tidal wetland mitigation

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

Table 25: Tidal Wetland Project Summary for the Potomac River Basin

Project Information		Tidal Wetland (Ac)			Upland (Ac)		Mitigation Acres	Proposed Credits	Completed Credits	Released Credits	Additional Protected Acres (ac)
Project ID	Status	Rest/Cr	Pres	Enh	Rest	Pres					
*PO-6	C	0.00	108.00	0.00	0.00	0.00	108.00	0.00	8.96	8.96	0.00
*PO-7	C	0.00	9.00	0.00	0.00	0.00	9.00	0.00	0.00	0.00	0.00
Sub-totals		**0.00**	**117.00**	**0.00**	**0.00**	**0.00**	**117.00**	**0.00**	**8.96**	**8.96**	**0.00**

Total Acres of Tidal Impacts	**2.11**
Total Mitigation Liability	**2.11**
Total Proposed Credits	**0.00**
Percent of Wetland Acreage Replacement	**0.0**
Total Released Credits	**8.96**

*Project includes stream or tidal wetland mitigation

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

Table 26: Pre-USM Stream Project Summary for the Potomac River Basin

Project ID	Project Status	Stream Mitigation Area (ac)	Channel Length in Mitigation Area (lf)	Mitigation Activity Description	Additional Protected Acreage (ac)
PO-1*	C	7.24	1,600	Priority 1 relocation of 300 lf and Priority 2 restoration of 650 lf of an unnamed tributary to Chotank Creek with an existing mature wooded buffer ranging from 50 to over 200 feet along each bank. Livestock exclusion fencing installed to protect 1,600 lf of stream channel and a small pond.	0.00
PO-2	M	5.20	1,608	Priority 1 restoration of 1,608 lf along two unnamed tributaries to Dogue Creek. The channels buffered by an existing mature forest (with several small areas of buffer enhancement) ranging from 50 to 150 feet along each bank.	0.00
PO-5	PC	22.00	7,326	Livestock exclusion, channel restoration and riparian buffer restoration activities along 7,326 lf of Bolling Branch and tributaries. In addition, stream and buffer preservation along 131 lf of an unnamed tributary.	77.69
PO-6	C	306.00	79,445	Stream system preservation along both banks of 53,175 lf of twelve unnamed tributaries to Accokeek and Potomac Creeks with an existing mature wooded buffer. Riparian buffer preservation along 26,270 lf of one bank of Accokeek and Potomac Creeks with an existing mature wooded buffer.	737.00
PO-7	C	238.00	30,797	Stream system preservation along both banks of 22,863 lf of five unnamed tributaries to Accokeek and Potomac Creeks with an existing mature wooded buffer. Riparian buffer preservation along 7,934 lf of one bank of Accokeek and Potomac Creeks with an existing mature wooded buffer.	746.00
Totals		**578.44**	**120,776**		**1560.69**
Total Impacts (lf)		**73,142**		*Project includes wetland mitigation	
P - Planning / site development review				I - Restoration/Enhancement/Creation activities in progress	
M - Mitigation monitoring				C - Closed	
CR - Pending credit release				PC - Pending project closure	
Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).					

Table 27: USM Stream Summary for the Potomac River Basin

Project Information		Stream Activity (lf)			Upland Buffer (ac)		Mitigation (ac)	Additional Protected (ac)	Proposed Credits	Completed Credits	Released Credits
Project ID	Status	Rest/Enh	Pres	Livestock	Rest	Pres					
PO-8	P	24,182	6,718	6,658	173.00	17.00	190.00	625.00	33,959	1,998	0
Totals		**24,182**	**6,718**	**6,658**	**173.00**	**17.00**	**190.00**	**625.00**	**33,959**	**1,998**	**0**
Total Compensation Required				**7,403**							
Total Proposed Credits				**33,959**							
Total Released Credits				**0**							
P - Planning / site development review				I - Restoration/Enhancement/Creation activities in progress							
M - Mitigation monitoring				C - Closed							
CR - Pending credit release				PC - Pending project closure							
Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).											

PO-1 Caledon (Nash)

Please reference the 2008 Annual Report for additional details on this project.

The purpose of this project is to conduct non-tidal wetland restoration and preservation,

upland buffer restoration and preservation, stream restoration, and livestock exclusion activities at the Nash property in King George County. The Conservancy proposed to reverse the existing ditching effects and restore the forest cover in the pastureland at the property and to restore the proper dimension, pattern, and profile to the degraded segment of an unnamed tributary to Chotank Creek. The stream portion of this project was completed successfully and closed in 2007. Please reference the 2007 Annual Report for details on this portion of the project.

The goal of the wetland mitigation activities was to restore and enhance the livestock pasture area to a mixture of wetlands (approximately 56 acres) and upland buffer (approximately 1 acre) and to preserve approximately 36 acres of forested wetland and 56 acres of upland. Restoration work was completed in 2003 and the site was planted in 2004. A supplemental planting was completed in 2010 in the southern portion of the project site.

Mitigation monitoring of the site was conducted from 2004 to 2013. The tenth and final year of mitigation monitoring was completed in 2013. A final surface water delineation was confirmed by the Corps in 2015. The project generated 53.17 non-tidal wetland credits, all of which have been released. A project closure request was submitted to the IRT in January 2019 and is pending approval. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

PO-2 Dogue Creek (Kingstowne)
Please reference the 2007 Annual Report for additional details on this project.

The purpose of this project is to conduct stream restoration and riparian buffer enhancement activities at a property in Fairfax County. The project is proceeding under the guidance of the project and budget approval letters provided by the Corps on October 6, 2006 and February 2, 2007. Stream restoration construction was completed in early 2011. Mitigation activities entailed restoration of 1,608 linear feet of tributaries to Dogue Creek and invasive species control and planting along the stream banks and riparian buffer. Post-restoration invasive species management has been ongoing throughout the monitoring period. A minor repair to an in-stream structure was completed in early 2017. The Year 10 monitoring of the stream and buffer will be completed in 2020. The project did not utilize USM stream funding so it does not generate USM credit. The Conservancy will submit a request to close the project following Year 10 monitoring. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

PO-3 Goose Creek Site
This project was officially closed in 2016. Please reference the 2016 Annual Report for details on this project.

PO-4 Goose Creek Site
This project was officially closed in 2007. Please reference the 2007 Annual Report for details on this project.

PO-5 Goose Creek (Bluewildlife, LLC)
Please reference the 2007 Annual Report for additional details on this project.

The purpose of this project is to conduct non-tidal wetland enhancement and creation and stream and buffer restoration, enhancement and preservation activities at the Bluewildlife property in Fauquier County. The project is proceeding under the guidance of the project and budget approval letters provided by the Corps on July 27, 2007 and February 17, 2009.

The stream and wetland restoration activities were completed in spring 2009. The project generated 7.08 acres of non-tidal wetland restoration/creation and 1.23 acres of non-tidal wetland enhancement. The project also generated 7,195 linear feet of stream restoration, 131 linear feet of stream preservation, 30 acres of buffer restoration, and 3 acres of buffer preservation. Invasive species and beaver management have been ongoing throughout the monitoring period. Year 10 monitoring occurred in 2018. The final surface water delineation was completed in April 2019 and confirmed by the Corps in June 2019. The project is expected to generate 8.31 non-tidal wetland credits of which 4.91 credits have been released to date. The Conservancy submitted a request for release of remaining credits in June 2019 and a request to close the project in September 2019. Both requests are pending IRT approval. The project did not utilize USM stream funding so it does not generate USM credit. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

PO-6 Crow's Nest (Stafford Lakes Partnership, Phase I)
This project was officially closed in 2009. Please reference the 2008 and 2009 Annual Reports for details on this project.

PO-7 Crow's Nest Phase II
This project was officially closed in 2009. Please reference the 2008 and 2009 Annual Reports for details on this project.

PO-8 Goose Creek (Cattail L.C.)
The purpose of this project is to provide stream restoration, enhancement, and preservation, upland buffer restoration and preservation, and livestock exclusion on 29,000 linear feet of stream on an approximately 816-acre site in Loudoun County, Virginia. This property contains unnamed tributaries of Crooked Run, a major tributary of Goose Creek, which is a state scenic waterway and Conservancy priority waterway.

The vast majority of the streams on the site have little to no buffer and have been directly impacted from current or past agricultural activities including straightening and ditching. The history of intensive farming activities on the site have spurred widespread channel instability that has led to the degradation of in-stream and riparian habitat, and overall poor water quality conditions throughout the project area over time.

The Conservancy received approval from the IRT to complete conservation easement acquisition and feasibility analysis on the property in 2011. The project is proceeding under the guidance of the project approval letter and budget approval letter provided by the Corps on April 15, 2011. The Conservancy completed initial preservation activities and removal of livestock with acquisition of a conservation easement over the riparian areas in 2011. A surface water delineation was completed and confirmed in 2015. A concept design was developed in late 2015. The Conservancy submitted a pre-application for Phase II of the mitigation site, which includes stream and buffer restoration, enhancement and preservation activities in February of 2016. A site visit with the agencies was held in October 2016. The Conservancy submitted a site development plan for the project in June 2019, and the plan is pending IRT approval. The project is expected to generate approximately 34,000 USM credits. No credits have been released to date. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

Rappahannock River Basin

The Rappahannock River Basin is comprised of two HUCs (02080103 and 02080104) encompassing the headwaters of the Rappahannock and Rapidan rivers east to the Chesapeake Bay. This basin is located within both the Conservancy's Piedmont and Chesapeake Bay Lowlands ecoregions. Conservation targets include small, Blue Ridge foothill streams and inner Piedmont streams, tributaries, and rivers, anadromous fishes, freshwater mussels, seepage wetlands, tidal freshwater system, migratory land birds and raptors, Coastal Plain mixed pine-hardwood forest matrix, Piedmont forest matrix, and calcareous forest.

The projects discussed in this section serve as mitigation for permitted impacts within the Rappahannock River Basin for which the Fund was used as compensatory mitigation. Complete project descriptions for projects approved prior to 2019 may be found in the earlier reports as indicated. Updates are given for each project as applicable. One new project was proposed in 2018 with a funding request submitted in 2019. Two project received credit releases and no new projects were proposed in 2019.

Table 28: Non-Tidal Wetland Project Summary for the Rappahannock Basin

Project Information		NT Wetland (Ac)			Upland (Ac)		Mitigation Acres	Proposed Credits	Completed Credits	Released Credits	Additional Protected Acreage (ac)
Project ID	Status	Rest/Cr	Pres	Enh	Rest	Pres					
RP-5	PC	0.00	0.67	0.00	0.00	4.23	4.90	0.00	0.28	0.28	0.00
RP-8	C	0.00	11.49	0.00	0.00	8.31	19.80	0.00	1.56	1.56	56.30
RP-9	C	0.00	7.60	0.00	0.00	14.00	21.60	0.00	1.20	1.20	53.00
RP-10	C	0.00	7.30	0.00	0.00	25.50	32.80	0.00	2.85	2.85	54.60
RP-11	PC	17.15	5.16	0.60	8.46	2.92	34.29	0.00	18.62	18.62	20.48
RP-12	C	2.92	0.00	0.00	0.00	0.00	2.92	0.00	2.92	2.92	0.00
Sub-totals		**20.07**	**32.22**	**0.60**	**8.46**	**54.96**	**116.31**	**0.00**	**27.43**	**27.43**	**184.38**

Total Acres of Non-Tidal Impacts	**10.21**
Total Mitigation Liability	**19.28**
Total Proposed Credits	**0.00**
Percent of Wetland Acreage Replacement	**196.6**
Total Released Credits	**27.43**

*Project includes stream or tidal wetland mitigation

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

Table 29: Tidal Wetland Project Summary for the Rappahannock River Basin

Project Information		Tidal	Tidal	Tidal	Upland Buffer	Mitigation Acres	Proposed Credits	Completed Credits	Released Credits	Additional Protected Acreage (ac)
Project ID	Status	Rest	Enh	Pres	Pres					
RP-1	C	0.00	80.00	0.00	0.00	80.00	0.00	1.60	1.60	0.00
Sub-totals		**0.00**	**80.00**	**0.00**	**0.00**	**80.00**	**0.00**	**1.60**	**1.60**	0.00

Total Acres of Tidal Impacts	**0.04**
Total Mitigation Liability	**0.04**
Total Proposed Credits	**0**
Percent of Wetland Acreage Replacement	**0**
Total Released Credits	**1.6**

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

Table 30: Pre-USM Stream Project Summary for the Rappahannock River Basin

Project ID	Project Status	Stream Mitigation Area (ac)	Channel Length in Mitigation Area (lf)	Mitigation Activity Description	Additional Protected Acreage
RP-2	C	28.00	7,742	Riparian buffer planting (approximately 100 to 300 feet wide) along both banks of 2,000 lf of stream channel. Livestock exclusion fencing installed to protect 7,742 lf of unnamed tributaries to Mountain Run and a pond.	0.00
RP-3	C	NA	NA	Installed an Alaskan steep-pass structure in White Oak Run to allow the migration of anadromous fishes.	NA
RP-4+	PC	1090.00	264,738	Riparian buffer preservation of 59,712 linear feet along both banks and 33,887 lf along one bank of the Rappahannock River. Riparian buffer preservation of 32,290 lf along both banks and 20,591 lf along one bank of the Rapidan River. Riparian buffer preservation along 118,259 lf of both banks of unnamed tributaries to the two rivers. Protected buffers are 100 foot wide predominantly mature woodlands. Funding for this project is both pre-USM and USM.	2978.62
	Totals	**1118.00**	**272,480**		**2978.62**
Total Impacts (lf)		**10,771**		*Project includes wetland mitigation	

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

+Project includes pre-USM and USM funding

Table 31: USM Stream Summary for the Rappahannock River

Project Information		Stream Activity (lf)			Upland Buffer (ac)							
Project ID	Status	Rest/Enh	Pres	Livestock Exclusion	Rest	Pres	Mitigation (ac)	Additional Protected Acreage (ac)	Total Channel Length (lf)	Proposed Credits (CC)	Completed Credits	Released Credits
RP-4+	PC	0	39,559	0	0.00	163.00	163.00	0.00	39,559	7,167	7167	6450
RP-15	P	3320	4,147	7420	26.00	0.00	26.00	64.65	7,420	7,347	0	0
Sub-totals		**3,320**	**43,706**	**7,420**	**26.00**	**163.00**	**189.00**	**64.65**	**46,979**	**14,514**	**7,167**	**6,450**

Total Compensation Required	**6,714**	+Project includes pre-USM and USM funding
Total Proposed Credits	**8,064**	
Total Released Credits	**6,450**	

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

RP-1 Rappahannock River Phragmites Control
This project was officially closed in 2007. Please reference the 2007 Annual Report for details on this project.

RP-2 Linden Farm
This project was officially closed in 2008. Please reference the 2008 Annual Report for details on this project.

RP-3 Rappahannock River Fish Passage
This project was officially closed in 2007. Please reference the 2007 Annual Report for details on this project.

RP-4 Upper Rappahannock (City of Fredericksburg)
The purpose of this project is to conduct stream and the associated upland riparian buffer preservation along a significant length of the Rappahannock and Rapidan Rivers (and associated tributaries) on a property owned by the City of Fredericksburg. The project is proceeding under the guidance of the project and budget approval letters provided by the Corps on July 27, 2006, December 15, 2006, February 22, 2007, and May 7, 2008. The Conservancy and partners purchased a conservation easement on approximately 4,232 acres along the two major rivers. The Conservancy, the Virginia Outdoors Foundation, and the Virginia Department of Game and Inland Fisheries co-hold the easement.

This project was partially funded with USM funding and is expected to generate 7,167 USM credits. A total of 6,450 credits have been released to date. The Conservancy anticipates submitting a request for release of final credits and project closure following confirmation of the surface water assessment in 2020. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

RP-5 Rappahannock River (Wellford)
The purpose of this project is to conduct non-tidal wetland and upland buffer preservation at the Wellford property in Richmond County. The funding for this project was approved by the Corps on April 21, 2005. Subsequent funding was approved on August 28, 2008. The Conservancy proposed to buy the timber rights for an 18-acre portion of the property including wetlands and upland buffer. The property was placed under easement on April 5, 2005, which is held and monitored by the Virginia Outdoors Foundation (VOF). Long-term protection of this site is achieved through the monitoring and enforcement of this easement by VOF. No additional monitoring is required for this project.

A wetland delineation of the mitigation area was completed in 2008. This project generated 0.28 non-tidal wetland credits, all of which have been released. A credit release request was submitted in 2016 and was approved in June 2019. The Conservancy anticipates requesting project closure in 2020.

RP-6 Rapidan River Site
This project was officially closed in 2007. Please reference the 2007 Annual Report for details on this project.

RP-7 Upper Rappahannock Forest Block Site
This project was officially closed in 2009. Please reference the 2009 Annual Report for details on this project.

RP-8 Upper Rappahannock Forest Block (Collawn, R.)
This project was officially closed in 2009. Please reference the 2009 Annual Report for details on this project.

RP-9 Rappahannock River (Rose)
This project was officially closed in 2009. Please reference the 2009 Annual Report for details on this project.

RP-10 Rappahannock River (Rose II)
This project was officially closed in 2009. Please reference the 2009 Annual Report for details on this project.

RP-11 Mountain Run (EBX)
The purpose of this project is to conduct a non-tidal wetland restoration and creation, wetland enhancement and preservation and upland buffer restoration, enhancement and preservation adjacent to Mountain Run in Orange County. Please reference the 2008 Annual Report for additional background information on this site.

Construction of the wetlands mitigation project was completed in April 2009. This project is being managed through a full delivery contract. All aspects of the project through the monitoring and delivery of credits will be handled under this contract. Mitigation monitoring has been conducted for this site since 2009. Year 10 monitoring occurred in 2018. The project generated 18.62 non-tidal wetland credits, all of which have been released. A final credit release request was submitted in January 2019 and approved in December 2019. The Conservancy will submit a request for project closure in 2020. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

RP-12 Rappahannock River (Norman's Ford – Jamie Craig)
This project was officially closed in 2008. Please reference the 2008 Annual Report for details on this project.

RP-13 Rappahannock River Site
This project was officially closed in 2011. Please reference the 2011 Annual Report for details on this project.

RP-15 Hazel River (Adduci)
The purpose of this project is to conduct stream and wetland mitigation on a property along the Hazel River in Culpeper County. The Conservancy submitted a proposal for the project in June 2018 and the project is proceeding under the guidance of the Initial Evaluation Letter (IEL) provided by the Corps on October 18, 2018. The Conservancy purchased the 117-acre property in December 2018.

The property has been in agricultural use for many years and is currently used to pasture cattle. The cattle have access to all waterways on the property. Portions of the tributaries on the property exhibit significant streambank erosion and instability, an inappropriate and unstable pattern, and a lack of suitable habitat features and riffle-pool complexes. The floodplain consists of heavily grazed pasture with minimal woody vegetation. Several invasive species have been documented in the buffer area. Mitigation activities will include livestock exclusion, stream restoration, stream preservation, and buffer re-establishment along approximately 4,107 linear feet of Hazel River and 3,341 linear feet of tributaries to Hazel River. The initial site delineation was confirmed in December 2019. An existing conditions and feasibility assessment were also completed in December 2019. The property has potential for wetland mitigation in addition to stream mitigation, and the Conservancy anticipates submitting a request to add wetland mitigation to the project in early 2020. The Conservancy also plans to proceed with design work and anticipates submitting the site development plan in 2020. Based on the existing conditions and feasibility assessment, the project is expected to generate 7,347 USM credits and 5.3 non-tidal wetland credits. No credits have been released to date. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

Roanoke River Basin

The Roanoke River Basin is comprised of seven HUCs (03010101, 03010102, 03010103, 03010104, 03010105, 03010106 and 0304010) encompassing the Roanoke headwaters and the Dan River draining south into North Carolina. This basin is located within both the Conservancy's Piedmont and Central Appalachian Forest ecoregions. Conservation targets include Ridge and Valley rivers, calcareous seeps/fens, basic mesic forests, acidic oak pine forests, calcareous woodlands/forests, and warm water fish communities including orangefin madtom, Roanoke hogsucker, bigeye jumprock, Roanoke logperch and riverweed darter.

The projects discussed in this section serve as mitigation for permitted impacts within the Roanoke River Basin for which the Fund was used as compensatory mitigation. Complete project descriptions for projects approved prior to 2019 may be found in earlier reports as indicated below. Updates are given for each project as applicable. Funding requests for two projects were submitted in 2019, with one new project and associated funding approved.

Table 32: Non-Tidal Wetland Project Summary for the Roanoke River Basin

Project Information		NT Wetland (Ac)			Upland (Ac)		Mitigation Acres	Proposed Credits	Completed Credits	Released Credits	Additional Protected Acres (ac)
Project ID	Status	Rest/Cr	Pres	Enh	Rest	Pres					
RO-3*	M	4.15	4.53	0.42	3.13	3.74	15.97	5.16	5.16	2.26	0.00
RO-9*	P	3.40	0.41	3.47	2.53	0.00	9.81	4.83	0.00	0.00	0.00
RO-11	PC	6.00	0.00	0.00	0.00	0.00	6.00	6.00	6.00	0.00	0.00
Sub-totals		**13.55**	**4.94**	**3.89**	**5.66**	**3.74**	**31.78**	**15.99**	**11.16**	**2.26**	**0.00**

Total Acres of Non-tidal Impacts	**9.26**
Total Mitigation Liability	**15.1**
Total Proposed Credits	**13.73**
Percent of Wetland Acreage Replacement	**146.33**
Total Released Credits	**2.26**

*Project includes stream or tidal wetland mitigation

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

Table 33: Pre-USM Stream Project Summary for the Roanoke River Basin

Project ID	Project Status	Stream Mitigation Area (ac)	Channel Length in Mitigation Area (lf)	Mitigation Activity Description	Additional Protected Acreage (ac)
RO-1	C	36.50	5,220	Riparian buffer preservation along 2,379 lf of the right bank of Little Stony Creek with an existing mature wooded buffer width of 200 feet. Within this reach, riparian buffer preservation along 659 lf of the left bank with an existing mature wooded buffer width of primarily 125 feet. Stream system preservation along both banks of 2,841 lf of three unnamed tributaries to Little Stony Creek with an existing mature wooded buffer width of 200 feet (except for several areas of a minimum 125 foot buffer).	16.50
RO-2	C	3.96	788	Riparian buffer preservation along 788 lf of the right bank of Little Stony Creek with an existing mature wooded buffer width of 200 feet. Within this reach, riparian buffer preservation along 300 lf of the left bank with an existing mature wooded buffer width of 50 feet.	9.79
*RO-3	M	11.37	3,586	Stream restoration along 3,150 lf of the South Fork of the Goose Creek, preservation of 436 lf of South Fork Goose Creek and tributaries, and riparian buffer restoration and preservation along the entire project length.	0.00
RO-5	C	102.90	13,022	Riparian buffer preservation along 13,022 lf of Dry Branch and tributaries. Invasive species removal and reforestation along 800 lf of Dry Branch.	461.10
Totals		**154.73**	**22,616**		**487.39**

Total Impacts (lf)	**4,635**

*Project includes wetland mitigation

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

Table 34: USM Stream Summary for the Roanoke River Basin

Project Information		Stream Activity (lf)			Upland Buffer (ac)		Mitigation (ac)	Additional Protected (ac)	Proposed Credits	Completed Credits	Released Credits
Project ID	Status	Rest/Enh	Pres	Livestock	Rest	Pres					
RO-6	M	0	6,770	0	13.80	164.20	178.00	44.00	2,367	2,367	1,800
RO-7	PC	2,500	0	0	0.00	0.00	0.00	0.00	0	2,500	2,500
RO-9	P	2,776	0	2,776	7.90	0.00	7.90	0.00	4,372	0	0
Totals		**5,276**	**6,770**	**2,776**	**21.70**	**164.20**	**185.90**	**44.00**	**6,739**	**4,867**	**4,300**
Total Compensation Required				**7,944**			+Project includes pre-USM and USM funding				
Total Proposed Credits				**4,939**							
Total Released Credits				**4,300**							
P - Planning / site development review				I - Restoration/Enhancement/Creation activities in progress							
M - Mitigation monitoring				C - Closed							
CR - Pending credit release				PC - Pending project closure							
Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).											

RO-1 Apple Orchard Mountain (Edwards)

This project was officially closed in 2008. Please reference the 2008 Annual Report for details on this project.

RO-2 Apple Orchard Mountain (City of Bedford)

This project was officially closed in 2008. Please reference the 2008 Annual Report for details on this project.

RO-3 Goose Creek-Roanoke (Bedford County)

Please reference the 2008 Annual Report for additional details on this project.

The purpose of this project is to conduct non-tidal wetland and stream mitigation at Montvale Park in Bedford County. The project is proceeding under the guidance of the project and budget approval letters provided by the Corps on February 22, 2007, February 8, 2008, and December 16, 2008. The project will generate approximately 4 acres of wetland restoration/creation, 0.4 acres of wetland enhancement, 5 acres of wetland preservation, and restoration and preservation of the associated wetland buffer areas. The project will also generate 3,150 linear feet of stream restoration.

Stream and wetland restoration construction was completed in August 2010. Soon after construction completion, the restored stream suffered damage following a storm in September 2010. Repairs were completed and the site was planted in early 2013. Supplemental planting was completed in 2014, 2015, and 2016 to increase density where needed. Minor stream maintenance was also completed in 2016 and 2018. Additional supplemental planting was conducted in early 2017 and 2018 in locations where streambank maintenance was conducted, and in 2017 to replace stream buffer plantings impacted by storm events in 2016. Further stream maintenance is scheduled to occur in early 2020. Invasive species control has been ongoing and will continue as needed to ensure site success. Beaver have been noted on the site and management began in late 2017 and will continue as needed to ensure success. Year 7 monitoring was conducted in 2019 and Year 10 monitoring will occur in 2022. The project is expected to generate 5.16 non-tidal wetland credits of which 2.26 credits have been released to date. The project did not utilize USM stream funding so it does not generate USM credit. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

RO-4 Turkeycock Mountain (Grassy Fork site)
This project was officially closed in 2016. Please reference the 2016 Annual Report for details on this project.

RO-5 Poor Mountain (Sanzone)
This project was officially closed in 2018. Please reference the 2008 and 2017 Annual Reports for additional details on this project.

RO-6 Roanoke Headwaters (Blake)
Please reference the 2009 Annual Report for additional details on this project.

The purpose of this project is to conduct stream system preservation, streambank enhancement, and riparian buffer enhancement on Mill Creek and tributaries in the Roanoke Headwaters in Montgomery County, Virginia. The project is proceeding under the guidance of the project and budget approval letters provided by the Corps on September 28, 2009, August 11, 2010, July 22, 2011 and August 3, 2016. Mitigation activities at the site include buffer preservation and enhancement (invasive species removal and planting) along approximately 6,748 linear feet of Mill Creek and tributaries. Autumn olive (*Elaeagnus umbellata*) removal and planting with native trees and shrubs was conducted in 2011 and 2012.

Supplemental planting was conducted in early 2016 to increase density where needed. Invasive species management has been ongoing throughout the monitoring period. Year 7 monitoring was conducted in 2017. Year 10 monitoring will occur in 2020. The project is expected to generate 2,367 USM credits of which 1,800 credits have been released to date. The Conservancy anticipates submitting a request for final credit release and project closure in 2020. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

RO-7 Turkeycock Mountain (Roanoke Stream Credit Purchase)
This project involved the purchase of 2,500 stream credits from the Roanoke River Stream and Wetland Mitigation Bank, located in Franklin and Henry Counties. The project is proceeding under the guidance of the Initial Evaluation Letter (IEL) provided by the Corps on January 15, 2013. The credit purchase was completed in 2013 and the project closure request was submitted and approved in 2017.

RO-8 Roanoke River Site
This project was officially closed in 2018. Please reference the 2016 and 2017 Annual Reports for additional details on this project.

RO-9 Bluestone Creek Site
Please reference the 2017 Annual Report for additional details on this project.

The purpose of this project is to conduct stream and wetland mitigation on a 17-acre property in Charlotte County, VA. The property contains 2,331 linear feet of frontage on an unnamed tributary to Tanyard Branch, which drains to Bluestone Creek, a TNC aquatic portfolio waterway.

Mitigation activities will include removal of livestock, stream restoration, wetland restoration, and buffer restoration. The Conservancy submitted a pre-application for the project in July 2017 and submitted the proposal in August 2018. The Initial Evaluation Letter (IEL) was received on December 11, 2018. This project is being managed through a full delivery contract. All aspects of the project through the monitoring and delivery of credits will be handled under this contract. The topographic and geomorphic survey was completed in October 2019, and the initial site delineation was confirmed by the Corps in December 2019. TNC anticipates moving forward with design work and submitting the site development plan (SDP) in 2020. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

RO-10 Big Otter Creek Site

Project did not move forward past Proposal stage. No additional reporting for this project is provided.

RO-11 Roanoke River Bannister Bend

The Conservancy proposed to purchase non-tidal wetland credits from Bannister Bend Mitigation Bank in December 2019. The Conservancy will purchase 6.0 wetland credits from the Bank site located in Pittsylvania County. These credits will offset the remaining liabilities within the Roanoke River basin.

The Conservancy had been searching for additional wetland mitigation projects to offset the basin liability for a number of years and had most recently released a request for proposals for mitigation projects or credit purchase in the Roanoke River Basin in November 2018. No bids were submitted.

Banister Bend Mitigation Bank negotiated a competitive price for the sale of 6.0 wetland credits to the Conservancy. The Bank site aligns with the revisions to the VARTF Compensation Planning Framework, which are still in progress. The approved geographic service area of the bank includes most of the Roanoke River basin.

The purchase was approved by the Corps on December 17, 2019. The purchase of credits will be completed in 2020. The Conservancy plans to request closure of this project in 2020. Additional information regarding this mitigation site may be found in the bank site cyber repository on RIBITS.

Shenandoah River Basin

The Shenandoah River Basin is comprised of four HUCs (02070004, 02070005, 02070006, and 02070007) encompassing the headwaters of the Shenandoah River to the Potomac River. This basin is located within the Conservancy's Central Appalachian Forest Ecoregion. Conservation targets include Blue Ridge stream and tributaries, Central Appalachian mixed hardwood forest matrix, cave invertebrate communities, endangered wood turtles, freshwater mussels, and sportfish and nongame fish populations.

The projects discussed in this section serve as mitigation for permitted impacts within the Shenandoah River Basin for which the Fund was used as compensatory mitigation. Complete project descriptions for projects approved prior to 2019 may be found in earlier reports as indicated below. Updates are given for each project as applicable. In 2019, a request to close one project and a proposal to expand another project to include wetland mitigation activities were submitted.

Table 35: Non-Tidal Wetland Project Summary for the Shenandoah River Basin

Project Information		NT Wetland (Ac)			Upland (Ac)		Mitigation Acres	Proposed Credits	Completed Credits	Released Credits	Additional Protected Acres (ac)
Project ID	Status	Rest/Cr	Pres	Enh	Rest	Pres					
*SH-3 / UJ-3	C	0.00	18.00	0.00	0.00	0.00	18.00	0.00	1.49	1.49	0.00
SH-4	CR	10.42	0.00	0.00	0.00	7.26	17.68	11.20	11.20	8.59	0.72
SH-6	P	6.49	0.00	2.62	10.49	0.00	19.60	8.36	0.00	0.00	reported under the streams summary
Sub-totals		**16.91**	**18.00**	**2.62**	**10.49**	**7.26**	**55.28**	**19.56**	**12.69**	**10.08**	**0.72**
Total Acres of Non-Tidal Impacts					**13.11**						
Total Mitigation Liability					**16.33**						
Total Proposed Credits					**10.97**						
Percent of Wetland Acreage Replacement					**129.0**						
Total Released Credits					**10.08**		*Project includes stream or tidal wetland mitigation				

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

Table 36: Pre-USM Stream Project Summary for the Shenandoah River Basin

Project ID	Project Status	Stream Mitigation Area (ac)	Channel Length in Mitigation Area (lf)	Mitigation Activity Description	Additional Protected Acreage (ac)
SH-1	PC	16.10	1,745	Livestock exclusion and riparian buffer planting 200 feet wide along each bank of 1,745 linear feet of Buffalo Marsh Run. Channel banks along this reach stabilized with live stakes.	94.00
SH-2+	M	9.95	3,973	Restoration, enhancement, and preservation of 3,973 linear feet of Blacks Run, Seibert Creek, and an unnamed tributary. Riparian buffer planting ranging from 20 to 200 feet wide along both banks of Blacks Run, 20 to 80 feet wide along both banks of Seibert Creek, and 50 to 110 feet wide along both banks of the unnamed tributary. Funding for this project is both pre-USM and USM.	0.00
SH-3 / UJ-3*	C	482.60	32,223	Riparian buffer preservation along 13,144 lf of the both banks of Laurel Fork, and along left bank of 3,847 lf of Collins Run, and along both banks of 4,563 lf of Buck Creek. Stream system preservation along both banks of 8397 lf of three unnamed tributaries to Laurel Fork; both banks of 2255 lf of an unnamed tributary to Laurel Fork; both banks of 6108 lf of Blights Run; and both banks of 3,046 lf of two unnamed tributaries to Buck Creek.	1076.00
	Totals	**508.65**	**37,941**		**1170.00**
Total Impacts:		**12,128 lf**			

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

+Project includes pre-USM and USM funding
*Project includes wetland mitigation

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

Table 37: USM Stream Summary for the Shenandoah River Basin

Project Information		Stream Activity (lf)			Upland Buffer (Ac)		Mitigation	Additional	Proposed	Completed	Released
Project ID	Status	Rest/Enh	Pres	Livestock	Rest	Pres	(ac)	Protected (ac)	Credits	Credits	Credits
SH-2+	M	1040	0	0	2.77	0.00	2.77	0.00	1,331	1331	1308
SH-5	C	0	1,465	0	0.00	10.85	10.85	9.74	0	483	483
SH-6	P	1450	7,437	8887	57.90	0.00	57.90	56.25	7209	0	0
Totals		**2490**	**8902**	**8887**	**60.67**	**10.85**	**71.52**	**65.99**	**8540**	**1814**	**1791**
Total Compensation Required					**4,530**						
Total Proposed Credits					**7,232**						
Total Released Credits					**1791**						

+Project includes pre-USM and USM funding

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

SH-1 Cedar Creek (Mowery)

Please reference the 2007 Annual Report for additional details on this project.

The purpose of this project is to conduct stream and riparian buffer enhancement at the Mowery property (also known as the Ogden's Cave project) in Frederick County. The Conservancy proposed to exclude cattle from the stream and plant a woody riparian buffer

and live stakes along approximately 1,745 linear feet of Buffalo Marsh Run. The restoration activities were completed in spring of 2007. The project is proceeding under the guidance of the project and budget approval letters provided by the Corps on June 21, 2006 and September 28, 2006.

Invasive species management was ongoing throughout the monitoring period. Year 10 monitoring was conducted in 2017. The Conservancy submitted the final site delineation in June 2018 and the delineation was confirmed by the Corps in March 2019. The Conservancy requested project closure in September 2019, and the request is pending approval. The project did not utilize USM stream funding so it does not generate USM credit. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

SH-2 Blacks Run (City of Harrisonburg)
Please reference the 2007 and 2008 Annual Reports for additional details on this project.

The purpose of this project is to conduct stream restoration, enhancement, and preservation, and buffer restoration and preservation along Blacks Run, Seibert Creek, and an unnamed tributary to Seibert Creek at Purcell Park in the City of Harrisonburg. The project is proceeding under the guidance of the project and budget approval letters provided by the Corps on December 7, 2006 and September 24, 2008.

The stream restoration and buffer planting activities were completed in spring 2009. A minor repair to an in-stream structure was completed in early 2017. Invasive species management was ongoing throughout the monitoring period. Supplemental planting occurred in early 2019. Year 10 monitoring was conducted in 2019. The project is partially funded with USM funding and expected to generate 1,331 USM credits. A total of 1,308 credits have been released to date. The Conservancy anticipates submitting the final credit release request and requesting project closure in 2020. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

SH-3/UJ-3 Laurel Fork (Rifle Ridge Farm, LLC)
This project was officially closed in 2009. Please reference the 2007 and 2009 Annual Reports for additional details on this project.

SH-4 Shenandoah Mountain/Cow Knob (Smith)
Please reference the 2008 Annual Report for additional details on this project.

The purpose of this project is to conduct non-tidal wetland restoration activities on a portion of a 200-acre property located in Fulks Run, Virginia. Long-term protection of the site will be accomplished through the monitoring and enforcement of the conservation easement on the property. The project will include a total of approximately 10.4 acres of wetland mitigation, including an appropriate mix of upland buffer (100-foot minimum), and emergent, scrub/shrub and forested wetland community types. This project is being managed through a full delivery contract. All aspects of the project through the monitoring and delivery of credits will be handled under this contract.

The final mitigation plan was completed in 2010. An approved conservation easement with Potomac Conservancy was recorded in October of 2011. Wetland restoration activities commenced in May of 2012 and were completed in July of 2012. Planting of woody vegetation was conducted prior to the onset of the 2013 growing season. An Adaptive Management Plan was submitted by the contractor to the IRT in 2016 to address planting and invasive success and was approved by the IRT in January 2017. Implementation of these adaptive strategies began in 2017.

Year 7 monitoring was completed in 2019, and Year 10 monitoring will occur in 2022. The project is expected to generate 11.2 non-tidal wetland credits, and 8.59 credits have been released to date. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

SH-5 Cedar Creek (Swartz)

This project was officially closed in 2018. Please reference the 2008 and 2017 Annual Reports for additional details on this project.

SH-6 Shenandoah River (Cedar Creek)

Please reference the 2014 Annual Report for additional details on this project.

The purpose of this project is to conduct stream restoration and preservation, livestock exclusion, wetland creation, enhancement and preservation, and riparian buffer restoration along Cedar Creek and unnamed tributaries in Warren County. The project is proceeding under the initial evaluation letters (IELs) provided by the Corps on February 4, 2014, and October 9, 2019. The initial proposal was for stream mitigation activities. The Conservancy submitted a proposal to add wetland mitigation to the project in April 2019, which was approved in October 2019. The property is owned by the Shenandoah Valley Battlefields Foundation and the stream mitigation area was protected with a conservation easement recorded in June 2015. An overlay easement will be placed on the expanded mitigation site to include wetland mitigation.

A surface water delineation was confirmed in September 2014 and updated and re-confirmed in 2019. Pre-planting invasive species management began in 2015, and invasive species management will continue as needed to ensure site success The Conservancy submitted the site development plan (SDP) for the project in 2016 and received comments from the IRT. Design work for the stream restoration and wetland mitigation activities was completed in 2019, and the Conservancy expects to submit a revised SDP in early 2020. The project is expected to generate 7,209 USM stream credits and 8.36 non-tidal wetland credits. No credits have been released to date. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

Tennessee River Basin

The Tennessee River Basin is comprised of four HUCs (06010205, 06010206, 06010101, and 06010102) encompassing the headwaters of the Clinch, Holston, and Powell Rivers draining south into Tennessee. This basin is located within the Conservancy's Cumberland and Southern Ridge Valley Ecoregion. Conservation targets include endemic mussels and associated assemblages, Appalachian bogs, fens and seeps, Southern Appalachian forest matrix, upper Tennessee fish community, bats, karst communities, calcareous river-fronting slope communities and limestone and dolomite barrens.

The projects discussed in this section serve as mitigation for impacts within the Tennessee River Basin for which the Fund was used as compensatory mitigation. Complete project descriptions for projects approved prior to 2019 may be found in earlier reports as indicated below. Updates are given for each project as applicable. One new projects and funding request were proposed in 2019. Monitoring reports and associated credit requests were submitted for two projects and one closure request for another project was submitted in 2019.

Table 38: Non-Tidal Wetland Project Summary for the Tennessee River Basin

Project Information		NT Wetland (Ac)			Upland (Ac)		Mitigation	Proposed	Completed Credits	Released Credits	Additional Protected Acres (ac)
Project ID	Status	Rest/Cr	Pres	Enh	Rest	Pres					
TN-3	C	0.00	0.00	4.01	0.00	2.11	6.12	0.00	1.44	1.44	0.00
TN-8	CR	18.20	0.00	6.60	9.50	1.70	36.00	22.17	22.17	12.98	0.00
Sub-totals		**18.20**	**0.00**	**10.61**	**9.50**	**3.81**	**42.12**	**22.17**	**23.61**	**14.42**	**0.00**
Total Acres of Non-tidal Impacts				**21.34**							
Total Mitigation Liability				**29.75**							
Total Proposed Credits				**9.19**							
Percent of Wetland Acreage Replacement				**85.29**							
Total Released Credits				**14.42**							

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

Table 39: Pre-USM Stream Project Summary for the Tennessee River Basin

Project ID	Project Status	Stream Mitigation Area (ac)	Channel Length in Mitigation Area (lf)	Mitigation Activity Description	Additional Protected Acreage (ac)
TN-1	C	15.50	6,000	Riparian buffer preservation of 4,000 lf along the right bank of the Clinch River and 2,000 lf along both banks of Cub Creek with an existing mature wooded buffer ranging from 75 to 100 feet wide. Livestock exclusion fencing installed to protect the same reaches of the Clinch River and Cub Creek.	284.50
TN-2	C	6.00	1,590	Priority 1 relocation of 1,281 lf of Rattle Creek and preservation of 309 lf. Riparian buffer planting ranging from 35 to 250 feet along each bank for the length of the channel. Reconfiguration of an off-line pond and buffer plantings approximately 25 feet wide from the pond. Livestock exclusion fencing installed to protect 1,590 linear feet of the stream and the pond.	0.00
TN-5	PC	13.70	3,201	Stream channel and riparian buffer preservation along 3,201 linear feet of the Clinch River. Riparian buffer preservation will include an existing forested buffer ranging from 130 to 200 feet wide.	14.59
TN-9	M	10.01	2,455	Stream channel and riparian buffer preservation and enhancement along 2,455 linear feet of the Powell River and tributary. Riparian buffer preservation and enhancement will include a 200 foot buffer on the south bank of the Powell River and a 100 foot buffer along both banks of the tributary.	28.99
TN-10*	M	35.72	8,272	Livestock exclusion, stream channel and riparian buffer preservation and enhancement along 8,272 linear feet of the Powell River and Hardy Creek. Riparian buffer preservation and enhancement will include a 200 foot buffer on the Powell River and Hardy Creek.	Reported under USM summary
	Totals	**80.93**	**21518**		**328.08**
Total Impacts (lf)		**5,332**		*Project includes pre-USM and USM funding	
P - Planning / site development review				I - Restoration/Enhancement/Creation activities in progress	
M - Mitigation monitoring				C - Closed	
CR - Pending credit release				PC - Pending project closure	
Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).					

Table 40: USM Stream Summary for the Tennessee River Basin

Project Information		Stream Activity (lf)			Upland Buffer (ac)						
Project ID	Status	Rest/Enh	Pres	Livestock	Rest	Pres	Mitigation (ac)	Additional Protected (ac)	Proposed Credits	Completed Credits	Released Credits
TN-10+	M	0	2,757	2,757	7.18	4.84	12.02	236.26	1,903	1,903	1,793
TN-11	M	0	7,091	0	8.60	70.80	83.45	77.55	1,529	1,529	1,359
Totals		**0**	**9,848**	**2,757**	**15.78**	**75.64**	**95.47**	**313.81**	**3,432**	**3,432**	**3,152**
Total Compensation Required (TCR)					**3,335**						
Total Proposed Credits (CC)					**280**						
Total Released Credits					**3,152**		+Project includes pre-USM and USM funding				

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

TN-1 Gray's Island (Holston Land Company)

This project was officially closed in 2007. Please reference the 2007 Annual Report for details on this project.

TN-2 Barns Chapel (Garry Smith Enterprises, Inc.)

This project was officially closed in 2018. Please reference the 2008 and 2017 Annual Reports for additional details on this project.

TN-3 Barns Chapel (Atwell)

This project was officially closed in 2007. Please reference the 2007 Annual Report for details on this project.

TN-4 Upper Clinch River Site

This project was officially closed in 2007. Please reference the 2007 Annual Report for details on this project.

TN-5 Pinnacle (Rich)

The purpose of this project is to complete a stream mitigation project on the Rich Tract in Russell County, Virginia. Stream preservation will be conducted on approximately 3,393 linear feet of stream channel. Funding for this project was approved by the Corps on June 16, 2008. The landowner sold the Conservancy 28.29 acres of property, providing a buffer ranging from approximately 130 feet to over 200 feet adjacent to the main stem of the Clinch River. Long-term protection of the site will be achieved through a deed restriction. Conservancy staff completed a surface water delineation of the site on April 20, 2009 and the Corps provided confirmation in January 2010. Based on the delineation, the 28.29-acre property contains 13.7 acres of riparian buffer mitigation area and 14.59 additional protected acres. The property preserves 3,201 linear feet of the Clinch River. The project did not utilize USM stream funding, so it does not generate USM credit. The Conservancy transferred ownership of the property to the Virginia Department of Conservation and Recreation in February 2017. A project closure request was submitted on January 16, 2019 and is pending IRT approval.

TN-6 Rich Mountain Site

This project was officially closed in 2016. Please reference the 2016 Annual Report for

details on this project.

TN-7 Upper Clinch River Site
This project was officially closed in 2011. Please reference the 2011 Annual Report for details on this project.

TN-8 North Fork Holston (KCI / Johnson & Waddle)
The purpose of this project is to complete a 31.9-acre wetland mitigation project on two tracts in Smyth County, Virginia. Funding for this project was approved by the Corps on August 11, 2010. This project is being managed through a full delivery contract. All aspects of the project through the monitoring and delivery of credits will be handled under this contract.

The project consists of wetland restoration, creation, and enhancement activities on properties owned by two separate landowners. The properties are located in close proximity to one another and adjacent to the North Fork Holston River, approximately 8.5 miles northeast of Saltville, Virginia. Combined, the project parcels encompass approximately 262 acres, much of which is dedicated to agriculture and pastureland. Combined, wetland mitigation activities on the project parcels will provide for restoration/creation of 19.8 acres of wetlands, and enhancement of 1.0 acre of existing wetlands. An additional 100-foot upland buffer will be established. The mitigation area has been placed under a conservation easement.

Land protection activities were finalized in January 2012, and the final mitigation plan was completed in June of 2012. Wetland restoration activities commenced in September of 2012 and were completed in December of 2012. Planting of woody vegetation was conducted in early 2013, prior to the growing season. A supplemental planting also occurred in early 2017.

Year 7 monitoring was completed in 2019. Year 10 monitoring will occur in 2022. This project is expected to generate 22.17 non-tidal wetland credits of which 12.98 credits have been released to date. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

TN-9 Cedars (Brooks)
Please reference the 2010 Annual Report for additional details on this project.

The purpose of this project is to conduct stream and riparian buffer preservation and stream buffer enhancement on a 42-acre property containing frontage on the Powell River and a tributary to the Powell River in Lee County. The project is proceeding under the guidance of the project and budget approval letters provided by the Corps on July 2, 2010. Buffer planting was completed in early 2011. The boundary of the mitigation site was updated in 2017 to reflect a boundary survey. The boundary update extended the buffer into the adjacent field. As a result, a supplemental planting was conducted in early 2017 to fill in this previously unplanted area.

Year 7 monitoring of the buffer enhancement area was conducted in 2017. Year 10 monitoring will occur in 2020. Invasive species management has been ongoing throughout the monitoring period. The project did not utilize USM stream funding, so it does not generate USM credit. The Conservancy anticipates submitting a request to close the project in 2020. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

TN-10 Cedars (Bowen)

The purpose of this project is to conduct stream preservation, buffer enhancement, and livestock exclusion on Hardy Creek and the Powell River in Lee County, Virginia. The project is proceeding under the guidance of the project and budget approval letters provided by the Corps on July 22, 2011. Mitigation activities include livestock exclusion, buffer preservation and buffer planting along the Powell River and Hardy Creek.

Livestock exclusion fencing was installed in early 2013 and buffer planting occurred in early 2017. Invasive species management began in 2013 and will continue as needed to ensure success. The site development plan was submitted in August 2015 and was signed in March 2018. Year 3 monitoring was conducted in 2019. This project was partially funded using USM funds and is expected to generate 1,903 USM credits. A total of 1,793 credits have been released to date, including a request for release of 166 credits which was submitted in June 2019 and approved in December 2019. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

TN-11 Pinnacle (Underwood)

The purpose of this mitigation site is to provide stream and riparian area preservation and enhancement on a site located adjacent to the Pinnacle Natural Area Preserve in Russell County, Virginia. The mitigation activities include buffer planting and preservation along the Clinch River and tributaries. The project is proceeding under the guidance of the Initial Evaluation Letter (IEL) provided by the Corps on August 8, 2012.

The site development plan was submitted in February 2016 and was signed in October 2018. Invasive species management began in 2013 and will continue as needed to ensure success. The buffer planting was completed in December 2016. Year 3 monitoring was conducted in 2019. This project is expected to generate 1,529 USM credits, and 1,359 credits have been released to date, including a request for release of 141 credits which was submitted in June 2019 and approved in December 2019. The Conservancy also submitted a request for release of 29 credits associated with Year 3 monitoring success in December 2019, and that request is pending IRT approval. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

TN-12 South Fork Holston River site

The purpose of this mitigation project was to provide wetland restoration, enhancement, and preservation, and stream buffer restoration and enhancement on 16.3 acres of floodplain located in Washington County and draining to the adjacent Middle Fork Holston River. A pre-application request was submitted by the Conservancy in January 2016 and a subsequent IRT site visit was held in February 2016. A wetland delineation was

performed in June 2016 and confirmed by the Corps in September 2016. The Conservancy submitted a Proposal to the IRT and went to Public Notice in June 2017. Due to probable historic resources onsite, the IRT recommended not moving forward with this project.

York River Basin

The York River Basin is comprised of three HUCs (02080105, 02080106, and 02080107) encompassing the headwaters of the Mattaponi, Pamunkey and York rivers draining east into the Bay. This basin is located within both the Conservancy's Piedmont and Chesapeake Bay Lowland ecoregions. Conservation targets include tidal freshwater systems, small Piedmont streams and tributaries, bald cypress forests, anadromous fishes, migratory land birds and raptors, seepage wetlands, Coastal Plain mixed pine-hardwood forest matrix, and calcareous forests.

The projects discussed in this section serve as mitigation for permitted impacts within the York River Basin for which the Fund was used as compensatory mitigation. Complete project descriptions for projects approved prior to 2019 may be found in earlier reports as indicated below. Updates are given for each project as applicable. No new projects were proposed in 2019. Two project closure requests were submitted in 2019.

Table 41: Non-Tidal Wetland Project Summary for the York River Basin

Project Information		NT Wetland (Ac)			Upland (Ac)		Mitigation Acres	Proposed Credits	Completed Credits	Released Credits	Additional Protected Acres (ac)
Project ID	**Status**	**Rest/Cr**	**Pres**	**Enh**	**Rest**	**Pres**					
YK-1	CR	0.00	6.24	0.00	0.00	14.56	20.80	0.00	1.35	1.35	0.00
YK-2	CR	68.77	24.66	1.50	32.08	42.65	169.66	0.00	79.64	79.64	32.97
*YK-3	C	0.00	2.11	0.00	0.00	2.15	4.26	0.00	0.32	0.32	34.32
CB-8/ YK-4*	CR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.19
*YK-5	CR	4.58	0.00	0.00	0.00	0.00	4.58	4.58	4.58	0.00	0.00
*YK-6	CR	0.00	29.88	0.00	0.00	10.84	40.72	0.00	3.53	3.53	31.78
YK-7	C	0.00	0.00	0.00	0.00	18.00	18.00	0.00	0.90	0.90	0.00
YK-10	C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	128.00
Sub-totals		**73.35**	**62.89**	**1.50**	**32.08**	**88.20**	**258.02**	**4.58**	**90.32**	**85.74**	**240.26**
Total Acres of Non-Tidal Impacts					**9.12**						
Total Mitigation Liability					**17.29**						
Total Proposed Credits					**4.58**						
Percent of Wetland Acreage Replacement					**804.3**						
Total Released Credits					**85.74**		*Project includes stream or tidal wetland mitigation				

P - Planning / site development review
M - Mitigation monitoring
CR - Pending credit release
I - Restoration/Enhancement/Creation activities in progress
C - Closed
PC - Pending project closure

Table 42: Tidal Wetland Project Summary for the York River Basin

Project Information		Tidal Wetland (Ac)			Upland (Ac)		Mitigation Acres	Proposed Credits	Completed Credits	Released Credits	Additional Protected Acres (ac)
Project ID	Status	Rest/Cr	Pres	Enh	Rest	Pres					
*YK-5	CR	3.44	0.00	0.00	0.00	0.00	3.44	3.44	3.44	0.62	0.00
Sub-totals		**3.44**	**0.00**	**0.00**	**0.00**	**0.00**	**3.44**	**3.44**	**3.44**	**0.62**	**0.00**
Total Acres of Tidal Impacts					**1.61**						
Total Mitigation Liability					**1.68**						
Total Proposed Credits					**2.82**						
Percent of Wetland Acreage Replacement					**214**						
Total Released Credits					**0.62**		*Project includes stream or tidal wetland mitigation				

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

Table 43: Pre-USM Stream Project Summary for the York River Basin

Project ID	Project Status	Stream Mitigation Area (ac)	Channel Length in Mitigation Area (lf)	Mitigation Activity Description	Additional Protected Acreage (ac)
YK-1*	PC	0.00	3,950	Riparian buffer preservation of 3,950 lf along the right bank of the Po River with a mature wooded buffer existing as wetlands.	Reported under the wetlands summary
YK-3*	C	7.42	978	Riparian buffer preservation of 978 lf along the right bank of Dragon Run with an existing mature wooded buffer extending 200 feet from the edge of the protected stream and wetland complex.	Reported under the wetlands summary
YK-5*	M	5.30	5,330	Dam removal and stream restoration of 1,730 lf of channel and riparian buffer restoration along 3,600 lf along Holt's Creek the Pamunkey River.	0.00
YK-6*	PC	0.00	4,537	Riparian buffer preservation along 4,537 lf of one bank of the Mattaponi River with existing forested buffer extending as wetlands.	Reported under the wetlands summary
	Totals	**12.72**	**14,795**		**0.00**
Total Impacts (lf)		**1,282**		*Project includes tidal or non-tidal mitigation activity	

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

Table 44: USM Stream Summary for the York River Basin

Project Information		Stream Activity (lf)			Upland Buffer (ac)		Mitigation (ac)	Additional Protected (ac)	Proposed Credits	Completed Credits	Released Credits
Project ID	Status	Rest/Enh	Pres	Livestock	Rest	Pres					
YK-11	C	9	0	0	0.00	0.00	0.00	0.00	0	9	9
Totals		**9**	**0**	**0**	**0.00**	**0.00**	**0.00**	**0.00**	**0**	**9**	**9**
Total Compensation Required				**9**			+Project includes pre-USM and USM funding				
Total Proposed Credits				**0**							
Total Released Credits				**9**							

P - Planning / site development review
I - Restoration/Enhancement/Creation activities in progress
M - Mitigation monitoring
C - Closed
CR - Pending credit release
PC - Pending project closure

Additional Protected Acreage refers to acreage included under the protective instrument placed on the property by the program which does not qualify for mitigation due to specified allowable activities (e.g., silviculture, agriculture).

YK-1 Po River (Leonard)
The purpose of this project is to conduct a non-tidal wetland, stream, and upland buffer preservation project at the Po River property in Spotsylvania County. The funding for this project was approved by the Corps on March 28, 2003. The property was purchased by the Central Virginia Battlefields Trust (CVBT) and placed under easement in February of 2003. The easement is held and monitored by the Virginia Department of Conservation and Recreation (DCR). Long-term protection will be achieved in accordance with the conservation easement. No additional monitoring is required for this project.

An initial delineation of surface waters and wetlands was conducted on the site in December 2006. An updated wetland delineation was completed in April 2014. The Corps provided confirmation of the delineation in November 2014. This project generated 1.35 non-tidal wetland credits, all of which have been released. The Conservancy anticipates requesting project closure in 2020.

YK-2 Mattaponi River (Gwathmey 1)
The purpose of this project is to conduct a non-tidal wetland and upland buffer restoration, wetland enhancement and wetland and upland preservation project at the Gwathmey project in King William County. The initial funding for this project was approved by the Corps on February 5 and 20, 2004. Goals for the project include restoration/creation of 67.5 acres of forested wetlands on approximately 76.9 acres of former agricultural land, which was abandoned in 2004. Restoration efforts began in 2006 and included plugging of field ditches, creation of several seasonally flooded ponds, construction of a berm system, deep ripping of the surface soil, and planting of 44,450 bare root seedlings and 9,600 shrubs. Long-term protection will be achieved in accordance with the conservation easement which is held and monitored annually by the Conservancy.

Mitigation monitoring has been conducted on the site since 2007 and Year 10 monitoring occurred in 2016. Corrective actions to address invasive plants were undertaken in 2013 through 2016. A final wetland delineation was confirmed by the Corps in October 2016. This project generated 79.64 non-tidal wetland credits, all of which have been released. The Conservancy anticipates requesting project closure in 2020. Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

YK-3 Dragon Run (Beldon)
The project was officially closed in 2009. Please reference the 2009 Annual Report for more details on this project.

CB-8/YK-4 Upper Crab Neck (BP North America)
The details of this project are included under the Chesapeake Bay River Basin summary.

YK-5 Cumberland Marsh (Healthvest, Inc.)
The purpose of this project is to conduct non-tidal wetland, tidal wetland, and stream restoration at the Cumberland Marsh Preserve in New Kent County. The funding was initially approved by the Corps on July 1, 2005, with additional funds approved on February

22, 2007 and August 11, 2010. The Conservancy has owned and managed the preserve since December 28, 1993. The preserve is comprised of a mixture of freshwater tidal marsh, open-water impoundments and wooded upland, and provides habitat for wetlands species and migrating waterfowl, as well as a large population of the federally-threatened sensitive joint vetch (*Aeschynomene virginica*). Long-term protection of the site is achieved through ownership by the Conservancy.

Feasibility studies completed in 2007 confirmed that the dam and impoundment were not structurally stable, and that their removal combined with restoration of a natural stream channel and associated wetlands would benefit water quality and habitat. Design and construction plans were completed in 2009. The project involved removal of two earthen embankment dams located on an unnamed tributary to Holts Creek, which in turn drains to the Pamunkey River. Wetland, stream and buffer restoration activities began in late autumn 2010. In addition to the proposed restoration activities at the impoundments, TNC enhanced the wooded riparian buffer along sections of Holt's Creek and the Pamunkey River through the planting of additional hardwoods to extend the existing wooded buffers to 100-200 feet.

Monitoring of wetland vegetation and stream channel stability has been conducted since 2011. Year 7 wetland and stream monitoring occurred in 2017 and Year 10 will occur in 2020. Year 10 monitoring of the buffer enhancement area was conducted in 2019, and the Conservancy submitted a requested in December 2019 to discontinue stream buffer monitoring, which is pending IRT approval. The project is expected to generate 4.58 non-tidal wetland credits and 3.44 tidal wetland credits. No non-tidal wetland credits, and 0.62 tidal wetland credits have been released to date. The project did not utilize USM stream funding, so it does not generate USM credit. Invasive species treatment is ongoing and will continue as needed to ensure site success. A supplemental planting occurred in early 2018.

In 2018, an incident of herbicide misapplication was discovered in the areas of the site where a contractor applied the herbicide imazapyr to manage for invasive species. VARTF staff conducted site assessments utilizing transects in 2018 and 2019 to determine the extent of the damage. Assessment results showed impacts to approximately 1.5 acres of the forested wetland portion of the site with an average tree mortality of 50% from the imazapyr application. VARTF is currently seeking damages from the contractor and is taking proactive corrective action measures to help the site meet success criteria as quickly as possible by planting trees in the most highly impacted areas of the site in spring 2020. Most of the site has a density of healthy trees that will continue to meet success criteria without the need for additional planting, and VARTF staff will continue to assess the site to ensure that all areas are successful.

Additional information regarding this mitigation site may be found in the site cyber repository on RIBITS.

YK-6 Mattaponi River (Atwood)

The purpose of this project is to conduct stream and non-tidal wetland preservation on approximately 72.5 acres located near the town of Aylett in King William County. The site is bordered by the Mattaponi River. The funding for the appraisal was approved by the

Corps on August 12, 2005, with subsequent funding for easement acquisition approved on May 2, 2006. The Conservancy completed negotiations with the landowner and signed the easement at the end of 2009. A final delineation was conducted in April 2014. The Corps provided confirmation of the delineation in December 2014. The project generated 3.53 non-tidal wetland credits, all of which have been released. The Conservancy anticipates submitting a request to close this project in 2020.

YK-7 Mattaponi River (Gwathmey 3)
This project was officially closed in 2009. Please reference the 2009 Annual Report for details on this project.

YK-8 Mattaponi River (Bach 1)
This project was officially closed in 2009. Please reference the 2009 Annual Report for details on this project.

YK-9 Mattaponi River Site 2
This project was officially closed in 2009. Please reference the 2009 Annual Report for details on this project.

YK-10 Mattaponi River (Bach 2)
This project was officially closed in 2009. Please reference the 2009 Annual Report for details on this project.

YK-11 York River Mitigation Bank Credit Purchase
This project was officially closed in 2018. Please reference the 2017 Annual Report for details on this project.