**REPORT OF THE DEPARTMENT OF CONSERVATION AND RECREATION** 

# VIRGINIA WATER QUALITY IMPROVEMENT FUND AND THE COOPERATIVE NONPOINT SOURCE POLLUTION PROGRAM

TO THE GOVERNOR AND THE GENERAL ASSEMBLY OF VIRGINIA



COMMONWEALTH OF VIRGINIA RICHMOND NOVEMBER 2010 Douglas W. Domenech Secretary of Natural Resources



David A. Johnson Director

# **COMMONWEALTH of VIRGINIA**

#### DEPARTMENT OF CONSERVATION AND RECREATION

203 Governor Street Richmond, Virginia 23219-2010 (804) 786-1712

November 3, 2010

The Honorable Robert McDonnell Governor, Commonwealth of Virginia Patrick Henry Building, 3rd Floor 1111 East Broad Street Richmond, Virginia 23219

Members of the Virginia General Assembly General Assembly Building Richmond, Virginia 23219

Dear Governor McDonnell and Members of the General Assembly:

I am pleased to submit this annual report, *Virginia Water Quality Improvement Fund and Cooperative Nonpoint Source Pollution Programs*, in accordance with provisions of the Virginia Water Quality Improvement Act of 1997 (WQIA).

This report describes nonpoint source pollution management program activities undertaken by DCR during 2008 and 2009 with funds from the Water Quality Improvement Fund, as well as anticipated pollution reductions achieved from these activities. The efforts to address nonpoint source pollution highlighted in this report reflect the Commonwealth's commitment to protecting and restoring water quality in rivers, streams, lakes and the Chesapeake Bay.

The WQIA states that the restoration, protection, and improvement of the quality of state waters is a shared responsibility among state and local governments and individuals, and to that end, it establishes the authority for cooperative programs to be undertaken to reduce nonpoint source pollution. In order to accomplish this, DCR assists local governments, soil and water conservation districts, and individuals with technical and financial assistance made available through WQIF grants and other funding sources.

The activities identified in this report will contribute to Virginia's ambitious program for restoring and protecting the Chesapeake Bay and Virginia's rivers and streams. The Department of Conservation and Recreation will continue its partnership with landowners, soil and water conservation districts, local governments, the agricultural industry, the development community, conservation organizations, and staff from other state agencies, including the Department of Environmental Quality and the Department of Forestry, in pursuit of water quality improvements.

Thank you for your leadership and support and look forward to working with you to improve Virginia's water quality.

Respectfully submitted,

1 a. Johnan

David A. Johnson

cc: The Honorable Douglas W. Domenech

# TABLE OF CONTENTS

# Executive Summary

WQIF Historic Appropriations	1
WQIF Interest Appropriation – FY 2008 and FY 2009	1
WQIF Funding Summary – FY 2005, FY 2006, FY 2007, FY 2008 and FY2009	2
Agricultural Cost-Share Allocations and SWCD Agreements	4
Total Maximum Daily Load (TMDL) Targeted Cost-Share Projects	4
Breakdown of 2008 and 2009 Program Year Allocations to Districts	6
WQIF Agricultural Cost-Share Program Measurable Results	8
Conservation Reserve Enhancement Program	10
Conservation Reserve Enhancement Program Summary Tables	11
Nonpoint Source Programs and Project Support	15
Summary	23

For Further Information see: <u>http://www.dcr.virginia.gov/soil\_&\_water/wqia.shtml</u>

#### **Executive Summary**

The Virginia Water Quality Improvement Act (WQIA) was passed during the 1997 legislative session of the Virginia General Assembly and signed into law on March 20, 1997. The Act established the Water Quality Improvement Fund (WQIF) to provide funding for water quality improvements throughout the Commonwealth. The fund is the principal source of state cost-share money to implement the nutrient and sediment reduction "Tributary Strategies" prepared pursuant to the Chesapeake Bay 2000 Agreement and the *Code of Virginia*. The fund also provides grants for on the ground practices to control nonpoint source pollution in watersheds in Virginia that drain to waters other than the Chesapeake Bay, called the "Southern Rivers". In 2008 the General Assembly created a sub-fund of the WQIF called the Virginia Natural Resources Commitment Fund (VNRCF, §10.1-2128.1) that is to be used for agricultural best management practices and associated technical assistance. Section 10.1-104.1 of the *Code of Virginia* states that DCR shall have the lead responsibility for the Commonwealth's nonpoint source pollution management program. This section also assigns responsibility for the distribution of assigned funds, identification and establishment of priorities of nonpoint source related water quality problems, description of the WQIF interest and the administration of a statewide nonpoint source advisory committee.

This report fulfills the Department of Conservation and Recreation's (DCR) legislative requirement under § 10.1–2134 of the *Virginia Water Quality Improvement Act of 1997* (WQIA). This report describes the water quality improvement activities undertaken by DCR during 2008 and 2009. Chapter 21.1 of Title 10.1 of the *Code of Virginia* requires that an annual report be submitted to the Governor and the General Assembly specifying the amounts and recipients of grants made from the Water Quality Improvement Fund (WQIF) and pollution reduction achievements from these grants. WQIF grants awarded to date are provided along with available date on pollutant reductions achieved and estimated pollutant reductions to be achieved from recently funded grant projects.

There were no deposits to the Water Quality Improvement Fund (WQIF) for fiscal years 2002, 2003, and 2004. In fiscal year 2005, a deposit of \$9,417,500 was made to the fund. Additional funding became available through WQIF for nonpoint source implementation in FY 2006. The General Assembly's amended budget included \$7,500,000 and a General Assembly 2005 action allocated an additional \$22,661,600 for a total of \$30,161,600. The General Assembly allocated another \$39,608,800 in FY 2006. In fiscal year 2007, a deposit of \$3,800,000 was made to the fund plus a \$400,000 WQIF interest appropriation. In fiscal year 2008, a \$562,000 interest appropriation was made for two specific projects. No deposit was made to the WQIF in 2008. In fiscal year 2009, \$1,112,300 was allocated for two specific projects. An additional General Assembly action in 2009 allocated \$20,000,000 to the Virginia Natural Resources Commitment Fund (VNRCF), a sub-fund of WQIF.

The majority of available WQIF implementation funds administered by DCR are being directed to the Agricultural BMP (best management practice) cost share program. Implementation funds are also being used to support the Conservation Reserve Enhancement Program and strategic nonpoint source water quality initiatives with the Virginia Department of Forestry. WQIF implementation funds were also distributed via several competitive Requests for Proposals (RFP) for both strategic water quality and cooperative nonpoint projects. WQIF Interest monies are being used to fund the Friends of the Shenandoah River monitoring effort and an update of the agricultural BMP tracking program. VNRCF implementation funds are being directed to the Agricultural BMP cost-share program as well as providing funds to VDOF for water quality initiatives.

# **WQIF Historic Appropriations**

Table 1 below summarizes historic appropriations to the Virginia Water Quality Improvement Fund for nonpoint source pollution reduction implementation programs administered by the Department of Conservation and Recreation.

			-		a DCR provement Fun	d		
Fiscal Year	General Fund and Surplus Appropriations \$ 5,000,000		Reserve Fund (not Available to DCR)	<u> </u>	erest Appropriation (Includes DEQ Transfers)	WQIF Subfund: VNRCF	Ap	tal DCR WQIF opropriations ailable to DCR
FY 1998	\$ 5,000,0	000		\$	-		\$	5,000,000
FY 1999*	\$ 8,390,0	000		\$	-		\$	8,390,000
FY 2000**	\$ 20,585,6	606		\$	1,402,763		\$	21,988,369
FY 2001	\$ 11,000,0	000		\$	1,000,000		\$	12,000,000
FY 2002	\$	-		\$	1,912,292		\$	1,912,292
FY 2003	\$	-		\$	-		\$	-
FY 2004	\$	-		\$	424,695		\$	424,695
FY 2005	\$ 9,417,5		(226,616)	\$	-		\$	9,190,884
FY 2006	\$ 69,773,4			\$	-		\$	60,661,460
FY 2007	\$ 3,800,0	000 \$	6 (199,605)	\$	400,000		\$	4,000,395
FY 2008	\$	- \$	- S	\$	565,000		\$	565,000
FY 2009	\$ 1,112,3			\$	297,972	\$ 20,000,000	\$	21,410,272
TOTAL	\$ 129,078,8	306 \$	6 (9,538,161)	\$	6,002,722	\$ 20,000,000	\$	145,543,367
NOTES:			· · ·		750.000 // / / / / /			ited: 6/15/2010

\* The FY1999 total General Assembly appropriation was \$16,750,000. the budget bill identified that of this total, \$8,390,000 was allocated for FY1999 and \$8,360,000 for FY2000.

\*\* The FY2000 general fund and surplus appropriation includes the FY2000 allocation of \$8,360,000 noted above, plus a \$9,831,250 general fund deposit in FY2000, and an additional \$2,393,356 deposit approved by the Secretary of Natural Resources. FY2000 total includes \$500,000 earmark to DCR-DPRR for Virginia Land Conservation Fund and \$475,000 which DCR latter reallocated to CBay projects funded under the FY1999 project code.

# WQIF Examples of Interest Appropriations – FY 2008 and FY 2009

FY 2008 Interest - Friends of Shenandoah River

In FY2008, a WQIF nonpoint interest appropriation for up to \$65,000, was made for the replacement of obsolete water quality monitoring equipment for the Friends of the Shenandoah River.

*Progress:* In order to verify that the use of funds is consistent with the intentions of the General Assembly, the Department requested a signed letter from the Friends of the Shenandoah River stating how they planned to use the funding and noting the equipment items to be purchases. Funding was dispersed accordingly after this letter was received and approved. The equipment was purchased and is being used by the organization for monitoring.

## FY 2008 Interest - Agriculture BMP Tracking System

In FY 2008, \$500,000 in WQIA interest was appropriated for use by the Department to modernize, simplify, and improve the automated, computerized agricultural best management practice (BMP) tracking system used by DCR and the state's 47 soil and water conservation districts (Districts). The

system includes a database of agricultural BMP information about BMP's installed through the Virginia Agricultural BMP cost share program since 1985. The appropriation act clarified that this funding could be used to conduct independent analysis of the existing system and for improvements or replacement of the current system. In FY 2009, an additional \$500,000 was appropriated for use by the Department to complete Phases 2 and 3 to modernize and improve the new Tracking program funded by the initial allocation.

Progress: DCR coordinated with VITA to contract \$101,571.43 plus up to \$5,000 in travel expenses to BearingPoint, Inc., to conduct a system analysis study to develop recommendations for modernizing the current system (hardware, software and communications) supporting the Virginia Agricultural BMP Cost-Share Program. The contract scope included conducting a baseline analysis of the existing system; documenting current and anticipated information, analysis and reporting needs; and development of a ranked system of alternatives for achieving the recommended system, considering performance, capacity, reliability, user friendliness, supportability, and estimated total cost including acquisition/development, training, and maintenance. BearingPoint's sub-contractor Code X, Inc. identified four possible solutions that include coordinating the allocation of funds, signup of participants, planning for the implementation of the best management practices and coordinating activities of the Districts to be responsive to DCR. The alternative recommendations were evaluated by an appointed committee to determine the most appropriate alternative and phased approach to meet the needs of the DCR and the Districts. The balance of available WOIF interest funds was contracted to World View (via VITA) to cover a portion of the total cost for modernizing the current system based on the final alternatives selected. The new, modernized Agricultural BMP Cost-Share Tracking Program went live in August of 2009.

# WQIF Funding Summary – FY 2006, FY 2007, FY 2008 and FY 2009 (General Fund and Surplus Appropriations; Not Including Interest)

The table below summarizes available WQIF funding and obligations to WQIF program areas. As outlined in the WQIF Guidelines this funding is made available for four categories of nonpoint source pollution control projects. The majority of the funding allocation has been made to support the first category, Agricultural BMP Cost-Share program. From FY 2006 and FY 2007 WQIF funding, a total of \$52.5 million is allocated to support the Agricultural BMP cost share program and over \$3.3 million to support the Conservation Reserve Enhancement Program (CREP). The project categories of Strategic Water Quality Initiatives and Cooperative Nonpoint Source Program Projects with Local Governments received allocations of over \$3.9 million and \$4.4 million.

To accommodate for fluctuations of WQIF appropriations the funding allocations are distributed over multiple program years. The expenditure schedule for this funding is provided in Table 2 below.

Table 2
---------

Г

#### EXPENDITURE SCHEDULE

Projected Funds Expenditure by Fiscal Year				
	FY06	FY07	FY08	FY09
Ag BMP C-S* (see detail below)	\$ 10,000,000	\$ 16,650,000	\$ 18,500,000	\$ 21,600,000
CREP	\$ 2,514,910	\$ 860,000	\$-	
WQ initiatives	\$ 1,250,000	\$ 2,130,000	\$ 600,395	
Coop. NPS Grants	\$ 2,370,000	\$ 3,536,550	\$-	
	\$ 16,134,910	\$ 23,176,550	\$ 19,100,395	\$ 21,600,000

\*Ag BMP C-S Detail for above: Department of Forestry BMP program activities are described under the N Source Programs and Project Support portion of this report.

Chesapeake Bay	FY06	FY07	FY08	FY09
Bay: Base - all practices	4,000,000	4,000,000	3,000,000	1,780,000
Bay: Priority practices	2,000,000	3,000,000	4,000,000	7,120,000
Bay: Contractual FY07-09 w/ FY06 funds	0	2,000,000	2,450,000	2,850,000
Bay: Nut. Mgmt Contracts FY08-10			600,000	600000
Bay: Nut. Mgmt Contracts FY09-11				600000
Bay: Nut. Mgmt Contracts FY10-12				
Bay: Targeted TMDL		750,000	750,000	550,000
Department of Forestry BMPs				150000
BAY Sub-total	6,000,000	9,750,000	10,800,000	13,650,000

Southern Rivers (non-bay)	FY06	FY07	FY08	FY09
SR: Base - all practices	3,000,000	3,000,000	2,000,000	925,000
SR: Priority practices	1,000,000	1,500,000	2,500,000	3,700,000
SR: Contractual FY07-09 w/ FY06 funds		500,000	500,000	1,000,000
SR: Nut. Mgmt Contracts FY08-10			400,000	400000
SR: Nut. Mgmt Contracts FY09-11				400000
SR: Nut. Mgmt Contracts FY10-12				
SR: Targeted TMDL		1,900,000	2,300,000	1,675,000
Department of Forestry BMPs				100000
SR Sub-total	4,000,000	6,900,000	7,700,000	8,200,000
TOTAL C-S PROGRAM	10,000,000	16,650,000	18,500,000	21,850,000

# **Agricultural Cost-Share Allocations and SWCD Agreements**

Virginia's Agricultural Best Management Practice cost share program provides financial assistance as an incentive for the voluntary installation of Best Management Practices (BMP's) to improve water quality. Agricultural BMP's are significant components of all the Chesapeake Bay Tributary Strategies and many Total Maximum Daily Load (TMDL) requirements for impaired streams. The state's 47 Soil and Water Conservation Districts locally deliver the cost share program under the direction of DCR. This delivery system is established in state law (§ 10.1-546.1), as a means of supporting DCR's nonpoint source pollution reduction responsibilities. The program focuses on widespread and targeted implementation of a suite of five priority practices that address pollutants that include sediment, nutrients and pathogens from state waters.

Momentum has built for agricultural BMP's because they provide a cost effective approach to reducing significant amounts of water pollutants. DCR places emphasis on funding practices recommended by the Chesapeake Bay Commission in their report "Cost Effective Practices for the Bay". These practices include cover crops, conservation tillage and nutrient management. DCR has prioritized two other practices with proven water quality benefits: livestock exclusion from streams and the establishment of vegetative riparian buffers. These five priority BMP's are emphasized with SWCD program year funding allocations in order to accomplish the most cost effective BMPs for reducing nonpoint source pollutants.

A consistent approach is utilized statewide for program year funding allocations for agricultural BMPs. Each SWCD receives an allocation of funding for the five priority practices mentioned above, and this amount is specified within the DCR/SWCD Cost-Share grant agreements. SWCDs also receive a lesser amount of "base" level of funding to implement any of the roughly 30 practices contained within the Virginia Agricultural BMP Cost-Share program manual. The final portion of funding provided to each SWCD supports multi-year "contractual" BMPs. Contract BMPs are presently limited to the development and implementation of nutrient management plans. Funding is also targeted to address TMDL's attributed to nonpoint source pollutants from agricultural sources. Table 3 below provides a summary of the TMDL areas receiving targeted WQIF cost-share.

	WQIF (and VNRCF) TMDL Targeted Agricultural Cost-Share												
	TMDL Implementation Projects												
River Basin	HU	TMDL Name	Sub Watershed	City or County:	SWCD	Pollutant(s):							
	B08	Opequon Creek	Opequon Creek	Clarke, Winchester	Lord Fairfax	E. Coli, Sed.							
	B09	Abrams Creek	Abrams Creek	Frederick, Winchester	Lord Fairfax	E. Coli, Sed.							
	B10	Middle River	Middle River	Augusta	Headwaters	E. Coli, Sed.							
	B13	Moffett Creek	Moffett Creek	Augusta	Headwaters	E. Coli, Sed.							
	B14	Christians Creek	Christians Creek	Augusta	Headwaters	E. Coli, Sed.							
Shenandoah	B14	Middle River	Middle River	Augusta	Headwaters	E. Col							
River	B15	Middle River	Middle River	Augusta	Headwaters	E. Coli, Sed.							
	B15	Polecat Draft	Polecat Draft	Augusta	Headwaters	E. Coli							
	B19	Mossy Creek	Mossy Creek	Rockingham	Headwaters	E. Coli/Benthic							
	B24	Long Glade Run	Long Glade Run	Rockingham	Headwaters	E. Coli							
	B28	Naked Creek	Naked Creek	Augusta	Headwaters	FC							
	B30	South River	South River	Augusta	Headwaters	E. Coli							

#### Table 3

Clinch-Powell River	P01	Clinch River Watershed	Clinch River	Tazewell	Tazewell	Sed.
River	N37	New River Basin	Laurel Fork	Tazewell	Tazewell	DO/E.Coli/Sed.
New	N36	New River Basin	Bluestone River	Tazewell	Tazewell	E. Coli, Sed.
	L40	UT-Buffalo Creek	UT-Buffalo Creek	Charlotte	Southside	E.Coli
	L39	Ash Camp Creek Watershed	Ash Camp Creek and Twittys Creek	Charlotte	Southside	E.Coli/Sed.
	L37	Club Creek	Club Creek	Charlotte	Southside	E.Coli
	L36	Turnip Creek	Turnip Creek	Charlotte	Southside	E.Coli
IVIACI	L34	Falling River Watershed	Falling River	Campbell	Robert E. Lee	E. Coli
Roanoke River	L18	Pigg River Watershed	Pigg River	Pittsylvania	Pittsylvania	E.Coli
<b>D</b> 1	L17	Pigg River Watershed	Snow Creek	Pittsylvania		E.Coli
	L16	Pigg River Watershed	Lower Pigg River	Franklin	<u> </u>	E.Coli
	L15	Pigg River Watershed	Big Chestnut Creek	Franklin	l l	E.Coli
	L14	Pigg River Watershed	Upper Pigg River & Story Creek	Franklin		E.Coli
	L13	Pigg River Watershed	Old Womans Creek & Leesville Lake	Pittsylvania		E.Coli
River	K16	Chowan River	UT-Hurricane Branch	Nottoway	Piedmont	Benthic
Chowan	K15	Chowan River	Little Nottoway River	Nottoway		E. Coli
	K14	Chowan River	Nottoway River & Big Hounds Creek	Lunenburg, Nottoway & PE		E. Coli
	J11	Appomattox River Watershed	Deep Creek & West Creek	Nottoway & Amelia	Piedmont	E. Coli
	J09	Appomattox River Watershed	Nibbs Creek	Amelia	Piedmont	E. Coli
	J08	Appomattox River Watershed	Flat Creek	Amelia		E. Coli
River	J06	Appomattox River Watershed	Saylers Creek	PE & Amelia	Piedmont	E. Coli
James	J05	Appomattox River Watershed	Briery Creek	Prince Edward	Piedmont	E. Coli
	J04	Appomattox River Watershed	Busch River			E. Coli
	J03	Appomattox River Watershed	Little Sandy Creek	Prince Edward		E. Coli
	J02	Appomattox River Watershed	Spring Creek	Prince Edward	Piedmont	E. Coli

A breakdown of the 2008 program year allocations to Virginia Soil and Water Conservation Districts through grants for agricultural BMP cost-share funding is provided below in Table 4.

#### Table 4

		Program Year 2008 -	sw	CD Allocat	ion	s												
		Prepared 5/25/07		BAY		BAY		BAY		BAY		SR		SR		SR		SR
	-	-	1	-		_		-		-		A014 ( 0000						
	d Total 2008		\$	3M for 2008		\$4M		008 Cont Pr.	-	2008 BAY	⊢	\$2M for 2008	-	.5M for 2008	-	008 \$400K	-	2008 SR
	AY and SR			base All	20	008 Priot. Pr.	\$6	00K NM-1 & 2		otal Program	H	SR base All		SR PP All	(	Cont. PR.	-	tal Program
С	ombined	SWCD								Allocation	-							Allocation
\$	132,974.08	APPOMATTOX RIVER	\$	3,502.43	\$	24,368.57	\$	2,763.71	\$	30,634.71	\$	24,078.63	\$	61,858.05	¢	16,402.69	\$	102,339.37
\$	32,051.08	BIG SANDY	\$	3,302.43	Ψ	24,308.37	Ŷ	2,705.71	9	30,034.71	\$		-	3,723.69	\$ \$	1,217.97	\$	32,051.08
\$	,	BIG WALKER									\$	63,070.32	-	108,626.89	-	6,913.07		178,610.29
\$	,	BLUE RIDGE	\$	6,534.91	\$	3,326.86			\$	9,861.77	\$	144,641.32	-	122,275.11	-	13,484.42	\$	280,400.84
\$	475,130.85	CHOWAN BASIN		,		,				,	\$	10,317.00	\$	349,860.00	-	114,953.85	\$	475,130.85
\$	189,315.40	CLINCH VALLEY									\$	89,759.81	\$	95,325.19	\$	4,230.40	\$	189,315.40
\$	292,494.07	COLONIAL	\$	112,219.39	\$	145,239.68	\$	35,035.00	\$	292,494.07	E	,		,		,		
\$	576,417.00	CULPEPER	\$	310,880.22	\$	249,787.78	\$	15,749.00	\$	576,417.00	E							
\$	154,439.20	DANIEL BOONE		,		,		,			\$	91,738.86	\$	58,660.55	\$	4,039.78	\$	154,439.20
\$	705,000.22	EASTERN SHORE	\$	278,677.73	\$	114,857.07	\$	42,892.14	\$	436,426.93	\$	147,057.28	\$	92,870.05	\$	28,645.96	\$	268,573.29
\$	131,367.51	EVERGREEN	1			-					\$	71,059.30	\$	57,403.72	\$	2,904.50	\$	131,367.51
\$	272,730.93	HALIFAX									\$	137,093.35	\$	114,157.65	-	21,479.93	\$	272,730.93
\$	321,419.36	HANOVER-CAROLINE	\$	104,767.22	\$	158,863.13	\$	57,789.00	\$	321,419.36	E							
\$	617,430.88	HEADWATERS	\$	322,029.46		271,269.65	\$	24,131.76		617,430.88	E							
\$	60,452.89	HENRICOPOLIS	\$	3,499.75	\$	48,703.82	\$	8,249.32	\$	60,452.89	E							
\$	233,412.62	HOLSTON RIVER		,		,	-	,			\$	137,276.82	\$	90,304.64	\$	5,831.15	\$	233,412.62
\$	124,379.33	JAMES RIVER	\$	41,801.36	\$	39,874.52	\$	9,651.65	\$	91.327.53	\$	17,130.71	_	9,181.23	-	6,739.86	\$	33,051.81
\$	344,280.19	JOHN MARSHALL	\$	129,107.58	\$	205,203.61	\$	9.969.00	\$	344,280.19	F	,		-,		-,		
\$	213,325.51	LAKE COUNTRY		,		,		,		,	\$	59,391.15	\$	129,792.54	\$	24,141.83	\$	213,325.51
\$	70,499.46	LONESOME PINE									\$	50,436.13	_	18,218.11	\$	1,845.21	\$	70,499.46
\$	629,488.00	LORD FAIRFAX	\$	134,489.91	\$	474,188.09	\$	20,810.00	s	629,488.00	F		•	,		.,	•	
\$	357,283.87	LOUDOUN	\$	110,478.69	\$	241,818.19	\$	4,987.00		357,283.87	F							
\$	92,425.62	MONACAN	\$	33,496.93	-	45,561.08	\$	13,367.60	-	92,425.62	F							
\$	266,183.59	MOUNTAIN	\$	58,555.29	-	205,745.26	\$	1,883.04	-	266,183.59	E							
\$	266,759.54	MOUNTAIN CASTLES	\$	75,145.78	\$	162,206.58	\$	2,966.00	\$	240,318.35	\$	8,892.71	\$	15,857.74	\$	1,690.74	\$	26,441.19
\$	351,628.82	NATURAL BRIDGE	\$	227,255.42	-	120,639.86	\$	3,733.55	-	351,628.82	F	0,002011	•	,	Ť	.,	•	
\$	232,225.14	NEW RIVER	•	,	1 ·	,	•	-,	-		\$	80,240.58	\$	143,071.93	\$	8,912.63	\$	232,225.14
\$	454,991.88	NORTHERN NECK	\$	217,471.44	\$	136,771.45	\$	100,749.00	\$	454,991.88	Ě		•	,	Ť	0,012.000	•	
\$	10,483.27	NORTHERN VA	\$	6,586.55		3,896.71	\$		\$	10,483.27	E							
\$	107,528.10	PATRICK	•	-,	1 ·	-,	•		Ť		\$	69,178.10	\$	35,095.83	\$	3,254.17	\$	107,528.10
\$	219,812.86	PEAKS OF OTTER	\$	3,504.72	\$	22,435.43			\$	25,940.16	\$		_	95,421.82	\$	3,889.70	\$	193,872.70
\$	449,606.59	PEANUT	\$	62,231.08	\$	203,248.17	\$	25,356.15	\$	290,835.39	\$	47,334.57	\$	81,712.63	\$	29,724.01	\$	158,771.20
\$	106,148.37	PETER FRANCISCO	\$	14,164.37	-	87,022.98	\$	4,961.03	-	106,148.37	F	,		*		*		
\$	235,794.50	PIEDMONT	\$	68,417.92	-	100,921.43	\$	20,210.82	-	189,550.16	\$	26,641.58	\$	17,606.61	\$	1,996.14	\$	46,244.33
\$	297,069.45	PITTSYLVANIA		, -				, –			\$	112,870.39	\$	157,588.62	-	26,610.45	\$	297,069.45
\$	44,609.91	PRINCE WILLIAM	\$	5,960.31	\$	33,367.60	\$	5,282.00	\$	44,609.91	F	,		,	Ľ.			,
\$	357,282.51	ROBERT E. LEE	\$	89,694.83	-	101,212.02	\$	4,882.42	<u> </u>	195,789.28	\$	72,017.21	\$	79,752.33	\$	9,723.69	\$	161,493.23
\$	188,656.55		1	,	ŕ			.,	Ļ.		\$	101,703.16	-	81,663.63	-	5,289.77	\$	188,656.55
\$	,	SHENANDOAH VALLEY	\$	305,558.98	\$	339,143.19	\$	33,392.00	\$	678,094.18	F	,		,	-	,	-	,
\$	379,633.92		1	,	Ĺ.	,	\$		ŀ.	,	\$	176,834.15	\$	190,298.85	\$	12,500.92	\$	379,633.92
\$	,	SOUTHSIDE	1				-				\$	38,434.14	-	132,806.86	-		\$	,
\$	,	TAZEWELL									\$	64,548.62	-	58,831.27	-	1,733.41	-	125,113.30
\$		THOMAS JEFFERSON	\$	143,676.69	\$	225,462.37	\$	14,786.08	\$	383,925.14	F		-		ļ,	.,	-	
\$	-	THREE RIVERS	\$	36,465.17		134,448.16		-	-	253,718.34	F							
\$	-	TIDEWATER	\$	50,158.90	-	58,636.24	\$		-	137,509.14	F							
\$	,	TRI-COUNTY/CITY	\$	53,384.57	-	40,780.32	\$	19,778.00	-	113,942.89	F							
\$		VIRGINIA DARE	\$	4,592.00	+		\$	5,099.22	-	9,691.22	\$	37,583.46	\$	97.034.60	\$	25,695.83	\$	160,313.89
	12,516,302.99				\$	3,998,999.83	\$	,		7,613,302.91	\$	2.000.999.95	_		-			1,903,000.08

A breakdown of the 2009 program year allocations to Virginia Soil and Water Conservation Districts through grants for agricultural BMP cost-share funding is provided below in Table 5.

Table 5

Grand		cations Chesapea	ake Bay (Cl	3)		Southern Rivers (SR)					
Total 2009 -		Chesaper			CB 2009	Goutherni			SR 2009		
CB and SR	SWCD	2009 CB	2009 CB	CB 09	TOTAL	2009 SR	2009 SR	SR 09	TOTAL		
combined		Base	Priority	Contractual	Allocation	Base	Priority	Contractual	Allocation		
	APPOMATTOX RIVER	7,162	28,650	2,764	38,576	19,307	77,230	16,700	113,237		
29,085	BIG SANDY	,	ĺ.	,		5,817	23,268	0	29,085		
168,483	BIG WALKER					33,697	134,786	0	168,483		
289,587	BLUE RIDGE	2,306	9,223		11,528	52,900	211,601	13,557	278,058		
593,137	CHOWAN BASIN					89,638	358,552	144,946	593,137		
183,031	CLINCH VALLEY					35,716	142,865	4,450	183,031		
386,962	COLONIAL	68,385	273,542	45,035	386,962						
676,835	CULPEPER	134,767	539,068	3,000	676,835						
150,048	DANIEL BOONE					29,137	116,547	4,365	150,048		
869,949	EASTERN SHORE	102,037	408,149	42,892	553,078	50,669	202,676	63,526	316,871		
127,147	EVERGREEN					14,783	109,135	3,229	127,147		
257,267	HALIFAX					51,453	205,814	-	257,267		
439,530	HANOVER-CAROLINE	75,148	300,593	63,789	439,530				-		
745,912	HEADWATERS	144,356	577,424	24,132	745,912				1		
78,919	HENRICOPOLIS	14,134	56,536	8,249	78,919						
229,744	HOLSTON RIVER					44,384	177,535	7,825	229,744		
159,679	JAMES RIVER	21,352	85,410	9,652	116,414	6,236	24,942	12,087	43,265		
400,866	JOHN MARSHALL	78,493	320,373	2,000	400,866			,	,		
201,230	LAKE COUNTRY		,	,	,	40,246	160,984	0	201,230		
64,761	LONESOME PINE					22,952	41,809	0	64,761		
756,685	LORD FAIRFAX	147,175	588,700	20,810	756,685		,		,		
388,654	LOUDOUN	77,533	310,134	987	388,654						
121,414	MONACAN	21,609	86,437	13,368	121,414						
313,053	MOUNTAIN	62,234	248,936	1,883	313,053						
310,859	MOUNTAIN CASTLES	56,187	224,748	2,966	283,900	4,989	19,954	2,016	26,959		
414,790	NATURAL BRIDGE	82,211	328,845	3,734	414,790						
219,059	NEW RIVER					43,812	175,247	0	219,059		
632,643	NORTHERN NECK	106,377	425,510	100,756	632,643						
12,256	NORTHERN VA	10,451	1,805	0	12,256						
101,431	PATRICK					20,286	81,145	0	101,431		
215,029	PEAKS OF OTTER	6,065	24,259	0	30,324	36,576	146,304	1,825	184,705		
544,565	PEANUT	67,998	271,991	25,356	365,345	29,954	119,816	29,450	179,220		
129,049	PETER FRANCISCO	24,818	99,270	4,961	129,049						
287,734	PIEDMONT	44,317	177,268	20,211	241,796	8,725	34,898	2,315	45,938		
307,160	PITTSYLVANIA					56,045	224,180	26,935	307,160		
52,149	PRINCE WILLIAM	10,430	41,719	0	52,149						
400,817	ROBERT E. LEE	45,776	183,103	4,882	233,761	30,467	121,869	14,720	167,056		
186,042	SCOTT COUNTY					35,822	143,287	6,933	186,042		
826,088	SHENANDOAH VALLEY	158,539	634,157	33,392	826,088						
358,109	SKYLINE	1				71,622	286,487	0	358,109		
198,694	SOUTHSIDE					35,919	143,675	19,100	198,694		
118,019	TAZEWELL			1	1	23,604	94,415		118,019		
463,597	THOMAS JEFFERSON	89,762	359,049	14,786	463,597						
388,404	THREE RIVERS	59,320	237,279	91,805	388,404		1		1		
194,463	TIDEWATER	32,150	128,599	33,714	194,463						
184,978	TRI-COUNTY/CITY	26,640	138,560	19,778	184,978						
	VIRGINIA DARE	2,266	9,063	5,099	16,428	30,245	120,979	26,021	177,245		
193,673											

CB Base + PP + Contracted Allocation =

n = 9,498,400 Total AG.BMP C/S= \$14,525,000 SR Base + PP + Contracted Allocation 5,025,000

# Measurable Results – Agricultural Cost-Share Program

A summary of the agricultural BMP implementation activities for July 1, 2007 through June 30, 2008 (Table 6) and July 1, 2008 through June 30, 2000 (Table 7) is provided below. This includes data for number of the farmers receiving funding, number of practices installed, acres benefited, the tons of "edge of field" soil loss reduced, pounds of nitrogen reduced, pounds of phosphorus reduced and tons of waste treated, as well as cost share expenditure figures. As a part of Tables 6 and 7 below, the total BMP cost with the farmer's input in dollars for the Chesapeake Bay is included.

VIRGINIA BMP TRACKING SUMMARY

#### Table 6

		Anima	al, Crop and TMDL P					
		Re	porting Period July 1	I, 2007 - June	30, 2008			
		by	Basin (Data summa	rized as of 10/	/17/2008)			
Basin	Number Of Farmers	Number Of Practices	Acres Benefitted	Tons SL Reduced	Pounds N Reduced	Pounds P Reduced	Total BMP Costs	State Cost Share Amount
Albemarle Sound Coastal	19	90	3,710.00	2,535	13,791	2,537	\$ 144,500	\$ 128,233
Atlantic Ocean Coastal	44	233	7,543.10	4,520	24,590	6,244	\$ 297,194	\$ 241,056
Big Sandy	39	39	108.5	339	1,844	339	\$ 148,536	\$ 29,258
Chesapeake Bay Coastal	106	713	21,469.50	12,111	65,886	15,946	\$ 673,508	\$ 657,168
Chowan-Meherrin	48	269	5,850.88	3,373	18,351	4,814	\$ 332,601	\$ 104,363
James-Appomattox	37	374	4,328.21	26,643	144,938	34,857	\$ 579,107	\$ 329,161
James-Rivanna	14	19	588.38	847	4,607	699	\$ 332,268	\$ 193,938
Lower Chowan	7	22	731.8	399	2,171	644	\$ 45,457	\$ 39,921
Lower James	52	242	7,441.58	12,167	66,186	14,051	\$ 495,526	\$ 463,837
Lower Potomac	101	211	5,133.43	15,562	84,659	13,192	\$ 996,328	\$ 708,258
Lower Roanoke	8	14	125.5	273	1,483	376	\$ 23,549	\$ 26,890
Middle James	63	138	3,637.16	12,162	66,159	9,845	\$ 818,279	\$ 521,157
New River	134	480	8,079.47	58,225	316,742	55,816	\$ 1,398,104	\$ 746,928
Potomac-Shenandoah	368	1,181	30,858.04	65,995	359,013	83,269	\$ 3,830,437	\$ 1,826,145
Rappahannock	256	715	20,737.55	158,128	860,219	169,480	\$ 1,497,821	\$ 1,141,995
Roanoke-Dan	81	160	3,111.01	17,241	93,790	19,476	\$ 684,467	\$ 494,810
Tennessee-Clinch	43	54	3,372.90	15,101	82,149	15,666	\$ 857,138	\$ 410,466
Tennessee-Holston	104	170	3,384.60	29,363	159,737	33,007	\$ 897,470	\$ 576,370
Tennessee-Powell	17	19	1,070.20	5,737	31,208	5,737	\$ 407,246	\$ 293,273
Upper Chowan	137	1,271	28,839.80	49,401	268,742	72,849	\$ 1,340,730	\$ 644,665
Upper James	69	147	3,596.44	16,995	92,452	17,208	\$ 675,300	\$ 428,530
Upper Potomac	18	39	1,497.40	3,119	16,965	2,680	\$ 133,275	\$ 102,889
Upper Roanoke	219	445	10,627.55	73,817	401,563	80,491	\$ 2,872,661	\$ 1,660,113
Yadkin	6	17	266.8	1,294	7,041	1,294	\$ 37,026	\$ 30,404
York	108	463	13,820.36	248,403	1,351,312	261,677	\$ 750,145	\$ 595,352
TOTAL	2,098	7,525	189,930.16	833,750	4,535,599	922,192	\$ 20,268,674	\$ 12,395,179
Basin	Total BMP Cost	-	State C/S \$	-	Other C/S \$			Farmer Input \$
Chesapeake Bay Coastal	\$ 673,508		\$ 657,168		\$ 274			\$ 16,066
James-Appomattox	\$ 579,107		\$ 329,161		\$ 71,193			\$ 178,754
James-Rivanna	\$ 332,268		\$ 193,938		\$ 24,790			\$ 113,540
Lower James	\$ 495,526		\$ 463,837		\$ 15,910			\$ 15,779
Lower Potomac	\$ 996,328		\$ 708,258		\$ 2,915			\$ 285,155
Middle James	\$ 1,398,104		\$ 746,928		\$ 127,123			\$ 524,053
Potomac-Shenandoah	\$ 3,830,437		\$ 1,826,145		\$ 711,088			\$ 1,293,205
Rappahannock	\$ 1,497,821		\$ 1,141,995		\$ 1			\$ 355,824
Upper James	\$ 675,300		\$ 428,530		\$-			\$ 246,770
Upper Potomac	\$ 133,275		\$ 102,889		\$ 3,370			\$ 27,016
York	\$ 750,145		\$ 595,352		\$ 3,245			\$ 151,548
Ba	ay \$ 11,361,819		\$ 7,194,200		\$ 11,361,819			\$ 11,361,819

# Table 7

#### VIRGINIA BMP TRACKING SUMMARY Animal, Crop and TMDL Practices - 4th Qtr. PY2009 Reporting Period July 1, 2008 - June 30, 2009 by Basin (Data summarized as of 10/16/2009)

Basin	Number Of Farmers	Number Of Practices	Acres Benefitted	Tons SL Reduced	Pounds N Reduced	Pounds P Reduced	Total BMP Costs	State Cost Share Amount	Other Cost Share Amount	Waste Treated (tons)
Albemarle Sound Coastal	17	70	7,425	3,285	17,871	3,290	\$ 179,468	\$ 156,719	\$-	0
Atlantic Ocean Coastal	36	175	7,866	5,393	29,336	7,364	\$ 354,118	\$ 248,373	\$-	0
Big Sandy	19	19	87	926	5,037	926	\$ 170,757	\$ 68,939	\$ 47,725	6
Chesapeake Bay Coastal	85	696	19,140	9,732	52,942	12,003	\$ 795,300	\$ 702,763	\$ 26,892	1,650
Chowan-Meherrin	37	196	4,438	3,368	18,321	4,827	\$ 237,648	\$ 137,067	\$ 5,694	0
James-Appomattox	55	241	6,602	45,709	248,655	60,779	\$ 1,264,978	\$ 613,367	\$ 86,684	1,735
James-Rivanna	11	12	1,018	3,529	19,196	2,922	\$ 335,362	\$ 232,593	\$-	0
Lower Chowan	5	34	789	395	2,147	645	\$ 47,042	\$-	\$-	0
Lower James	84	638	26,681	11,106	60,416	15,317	\$ 835,889	\$ 775,330	\$-	0
Lower Potomac	90	224	6,060	29,473	160,335	23,978	\$ 1,294,737	\$ 922,014	\$-	2,300
Lower Roanoke	5	7	45	418	2,274	601	\$ 8,999	\$ 8,641	\$-	0
Middle James	67	138	5,572	15,183	82,596	12,702	\$ 1,054,407	\$ 674,253	\$ 65,371	785,440
New River	123	483	6,630	60,995	331,811	58,554	\$ 1,667,558	\$ 795,640	\$ 184,924	0
Potomac-Shenandoah	371	1,047	25,779	59,813	325,384	75,190	\$ 3,383,616	\$ 1,979,141	\$ 520,471	34,392
Rappahannock	212	777	20,807	27,610	150,198	24,648	\$ 1,717,591	\$ 1,389,358	\$-	0
Roanoke-Dan	86	198	4,187	23,603	128,401	25,841	\$ 936,801	\$ 626,570	\$ 48,850	60,050
Tennessee-Clinch	45	83	3,455	23,576	128,255	26,230	\$ 624,912	\$ 347,396	\$ 23,737	0
Tennessee-Holston	137	262	4,411	39,341	214,015	43,079	\$ 2,402,564	\$ 701,528	\$ 1,147,601	490
Tennessee-Powell	5	5	260	1,229	6,686	1,229	\$ 96,209	\$ 67,020	\$ 4,713	0
Upper Chowan	133	1,189	33,336	14,747	80,226	21,190	\$ 1,498,938	\$ 736,001	\$ 9,107	10
Upper James	77	193	4,406	20,527	111,668	21,209	\$ 771,391	\$ 533,444	\$-	487
Upper Potomac	15	53	2,005	12,251	66,646	12,003	\$ 142,488	\$ 101,857	\$-	0
Upper Roanoke	202	472	11,784	43,577	237,057	46,942	\$ 2,987,489	\$ 1,668,740	\$ 320,490	10,061
Yadkin	5	15	168	897	4,879	897	\$ 27,145	\$ 19,621	\$-	0
York	139	627	17,458	42,617	231,836	45,109	\$ 1,964,172	\$ 1,278,270	\$ 281,654	1,412
TOTAL	2,061	7,854	220,410	499,300	2,716,189	547,474	\$ 24,799,578	\$ 14,784,645	\$ 2,773,913	898,032

Basin	Total BMP Cost	State C/S \$	Other	C/S \$	Farmer Input \$
Chesapeake Bay Coastal	\$ 795,300	\$ 702,763	\$ 2	26,892	\$ 65,645
James-Appomattox	\$ 1,264,978	\$ 613,367	\$ 8	36,684	\$ 564,927
James-Rivanna	\$ 335,362	\$ 232,593	\$	-	\$ 102,769
Lower James	\$ 835,889	\$ 775,330	\$	-	\$ 60,559
Lower Potomac	\$ 1,294,737	\$ 922,014	\$	-	\$ 372,723
Middle James	\$ 1,667,558	\$ 795,640	\$ 18	34,924	\$ 686,994
Potomac-Shenandoah	\$ 3,383,616	\$ 1,979,141	\$ 52	20,471	\$ 884,003
Rappahannock	\$ 1,717,591	\$ 1,389,358	\$	-	\$ 328,234
Upper James	\$ 771,391	\$ 533,444	\$	-	\$ 237,947
Upper Potomac	\$ 142,488	\$ 101,857	\$	-	\$ 40,631
York	\$ 1,964,172	\$ 1,278,270	\$ 28	31,654	\$ 404,247
Bay	14,173,082	9,323,776	1,10	0,626	3,748,680

# **Conservation Reserve Enhancement Program (CREP)**

CREP aims to improve water quality and wildlife habitat by offering financial incentives, cost-share and rental payments to farmers who voluntarily restore riparian buffers, filter strips and wetlands. Virginia CREP is an enhancement to the federal Conservation Reserve Program (CRP) program established in 1985 to provide a cost-effective means to address priority agricultural resource problems by targeting federal and state resources to specific geographic regions of particular environmental sensitivity. CREP applications were accepted by the Farm Service Centers within CREP eligible areas until December 31, 2007.

The Virginia CREP program is divided into two regions. The Chesapeake Bay CREP targets Virginia's entire Chesapeake Bay watershed and calls for the installation of 22,000 acres of riparian buffer and filter strips as well as 3,000 acres of wetland restoration. The Southern Rivers CREP aims to establish 13,500 acres of riparian buffer and filter strip plantings and 1,500 acres of wetland restoration. Statewide, these programs are expected to reduce annual nitrogen loads to waterways by more than 710,000 pounds, phosphorus by more than 114,000 pounds and sediment by more than 62,000 tons. To accelerate CREP enrollment in the Chesapeake Bay watershed, additional funding from WQIF is being offered to landowners for a CREP bonus of \$100/acre for 100 foot wide buffers. This initiative is intended to achieve roughly 50% (7,000 acres) with 100 foot buffers. A wetlands bonus payment of \$200/acre is also being offered to Virginia landowners. WQIF funding for the CREP program was provided for the Southern Rivers watershed to add an additional 5,000 acres to its original goal of 10,000.

A summary of Virginia CREP cost share assistance to farmers for the period of July 1, 2007 through June 30, 2008 is provided in the two charts below. Table 8 summarizes acres restored by basin by drainage basin and practice. Table 9 summarizes acres of buffers restored and miles of streams buffered as well as estimated reductions for the tons of soil loss, pounds of nitrogen, and pounds of phosphorus.

A summary of Virginia CREP cost share assistance to farmers for the period of July 1, 2008 through June 30, 2009 is provided in the two charts below. Table 10 summarizes acres restored by basin by drainage basin and practice. Table 11 summarizes acres of buffers restored and miles of streams buffered as well as estimated reductions for the tons of soil loss, pounds of nitrogen, and pounds of phosphorus.

#### Table 8

#### VIRGINIA CREP TRACKING SUMMARY

4th Qtr. PY2008 Reporting Period July 1, 2007 - June 30, 2008 by Non-CP-BMP

(Data summarized as of 10/17/2008)

Drainage	Practice	Number Of Farmers	Number Of Practices	Acres Buffer Restored	Miles Stream Buffered	Tons SL Reduced	Pounds N Reduced	Pounds P Reduced	Total BMP Costs	State CREP Amount	Other Payment Amount	Tax Credit
Chesapeake Bay	CRFR-3	85	95	1,187.60		2,876.87	15,650.13	2,599.65	606,499.31	118,375.75	271,306.80	2,076.97
Chesapeake Bay	CRLF-1	22	30		18.57				8,250.21	0	0	0
Chesapeake Bay	SL-6	69	74		45.76	0	0	0		156,329.31	549,666.54	8,616.77
Chesapeake Bay	WP-2	6	7		1.75	0	0	0	47,247.51	9,737.68	21,623.00	30.5
Chesapeake Bay	WQ-1	19	24	171.6	18.53	123.02	669.2	149.43	26,498.47	5,380.73	12,604.00	61.6
Chesapeake Bay Tota	l	201	230	1,359.20	84.61	2,999.89	16,319.33	2,749.08	688,495.50	289,823.47	855,200.34	10,785.84
Southern Rivers	CRFR-3	123	140	2,463.70		4,568.47	24,852.44	5,729.68	459,540.19	86,746.21	221,009.35	4,451.57
Southern Rivers	CRLF-1	41	53		9.56				18,717.00	0	0	0
Southern Rivers	SL-6	105	120		53.83	0	0	0		105,144.66	853,239.18	32,094.04
Southern Rivers	WP-2	1	1		1.65	0	0	0	22,174.00	1,560.00	0	0
Southern Rivers	WQ-1	29	38	833.65	72.68	61.6	335.07	91.51	32,808.98	6,147.50	12,987.63	0
Southern Rivers Total		299	352	3,297.35	137.72	4,630.07	25,187.51	5,821.19	533,240.17	199,598.37	1,087,236.10	36,545.61
Statewide Total		500	582	4,656.55	222.33	7,629.96	41,506.84	8,570.27	1,221,173.60	489,421.84	1,942,436.40	47,331.45

Legend (use for Tables 8-11)

CRFR-3: Woodland Buffer Filter Area

CRLF-1: Reforestation of Erodible Crop and Pasture land

SL-6: Grazing Land Protection

WP-2: Stream Protection

WQ-1: Grass Filter Strips

CP-21: CREP Filter Strip (Rental only)

CP-22: CREP Riparian Forest Buffer (Rental only)

CP-22B: CREP Wetland Restoration Bonus

CP-29: CREP Wildlife Habitat Buffer (Rental only)

Table 9 Acres o	f Buffer Restored
-----------------	-------------------

			Acres Buffer	Total BMP	State CREP	Other Payment	
Drainage	Basin	Practice	Restored	Costs	Amount	Amount	Tax Credit
Chesapeake Bay	Chesapeake Bay Coa	CP-21	81.3	5,451.00	5,451.00	181	0
Chesapeake Bay	Chesapeake Bay Coa	CP-22	24.9	1,743.00	1,743.00	0	0
Chesapeake Bay	James-Appomattox	CP-22	20.2	1,523.00	1,523.00	0	0
Chesapeake Bay	James-Appomattox	CP-22B		4,630.00	4,630.00	0	0
Chesapeake Bay	James-Rivanna	CP-22	39.3	2,588.00	2,588.00	0	0
Chesapeake Bay	James-Rivanna	CP-29	11.6	732	732	0	0
Chesapeake Bay	Lower Potomac	CP-22	59.3	9,733.00	4,417.00	0	0
Chesapeake Bay	Lower Potomac	CP-22B		3,600.00	3,600.00	0	755.25
Chesapeake Bay	Middle James	CP-21	16.1	805	805	0	0
Chesapeake Bay	Middle James	CP-22	88.5	79,324.86	6,092.00	0	376.77
Chesapeake Bay	Middle James	CP-22B		4,910.00	2,070.00	1,625.00	0
Chesapeake Bay	Middle James	CP-29	15.5	820	820	0	335.95
Chesapeake Bay	Potomac-Shenandoal	CP-21	10.6	742	742	0	0
Chesapeake Bay	Potomac-Shenandoal	CP-22	685.8	7,071.00	7,071.00	0	0
Chesapeake Bay	Potomac-Shenandoal	CP-22B		2,660.00	2,660.00	0	0
Chesapeake Bay	Rappahannock	CP-21	12.8	668.3	896	231	0
Chesapeake Bay	Rappahannock	CP-22	113.7	8,308.00	8,308.00	0	0
Chesapeake Bay	Rappahannock	CP-22B		3,560.00	3,560.00	0	0
Chesapeake Bay	Upper James	CP-21	13.8	1,915.00	915	4,560.00	0
Chesapeake Bay	Upper James	CP-22	210.3	21,598.50	15,364.50	0	0
Chesapeake Bay	Upper James	CP-29	9	450	450	0	0
Chesapeake Bay	York	CP-22	54.8	3,896.00	3,896.00	0	0
Chesapeake Bay Total			1,467.50	166,728.66	78,333.50	6,597.00	1,467.97
Southern Rivers	Albemarle Sound Coa	CP-21	4.9	367.5	367.5	0	0
Southern Rivers	Albemarle Sound Coa	CP-22	5.4	405	405	0	0
Southern Rivers	Atlantic Ocean Coasta	CP-21	23	1,304.00	1,304.00	0	0
Southern Rivers	Chowan-Meherrin	CP-21	32.3	2,135.50	2,135.50	0	0
Southern Rivers	Chowan-Meherrin	CP-22	215.7	15,674.50	15,674.50	0	730.32
Southern Rivers	Lower Chowan	CP-21	17.9	1,253.00	1,253.00	0	0
Southern Rivers	Lower Chowan	CP-22	18.9	1,397.50	1,397.50	0	0
Southern Rivers	New River	CP-22	81.5	9,847.10	6,756.60	25,947.10	0
Southern Rivers	Roanoke-Dan	CP-22	18.5	1,370.00	1,370.00	0	0
Southern Rivers	Tennessee-Clinch	CP-22	70.1	4,970.00	4,970.00	0	0
Southern Rivers	Tennessee-Holston	CP-22	64.1	4,061.00	4,061.00	0	0
Southern Rivers	Upper Chowan	CP-21	110.5	7,080.50	7,080.50	0	0
Southern Rivers	Upper Chowan	CP-22	88.3	8,966.50	6,724.00	1,495.00	0
Southern Rivers	Upper Roanoke	CP-22	167.4	11,460.00	11,460.00	4,051.23	0
Southern Rivers Total			918.5	70,292.10	64,959.10	31,493.33	730.32
				007 000 00			0.000.00
Statewide Total			2,386.00	237,020.76	143,292.60	38,090.33	2,198.29

#### VIRGINIA CREP TRACKING SUMMARY

## Table 10

4th Qtr. PY2009 Reporting Period July 1, 2008 - June 30, 2009 by Non-CP-BMP (Data summarized as of 10/16/2009)

Drainage	Practice	Number Of Farmers	Number Of Practices	Acres Buffer Restored	Miles Stream Buffered	Tons SL Reduced	Pounds N Reduced	Pounds P Reduced	Total BMP Costs	State CREP Amount	Other Payment Amount	Tax Credit
Chesapeake Bay	CRFR-3	109	122	2,304.80		7,884.82	42,893.46	6,415.08	670,190.76	135,068.90	391,716.20	2,398.96
Chesapeake Bay	CRLF-1	11	11		7.62				0	0	0	0
Chesapeake Bay	SL-6	100	115		65.26	0	0	0	1,939,160.75	205,417.61	896,519.00	19,480.73
Chesapeake Bay	WP-1	1	1	2.4		0	0	0	850	210	420	0
Chesapeake Bay	WP-2	11	11		4.51	0	0	0	46,830.00	10,464.33	22,337.00	765.04
Chesapeake Bay	WQ-1	11	13	117	14.85	21.76	118.36	19.52	26,498.71	5,114.30	17,736.80	928.94
Chesapeake Bay Tota		243	273	2,424.20	92.24	7,906.58	43,011.82	6,434.60	2,683,530.22	356,275.14	1,328,729.00	23,573.67
Southern Rivers	CRFR-3	180	210	554.7		3,182.18	17,311.07	3,480.91	405,974.45	49,751.98	187,913.10	16,277.76
Southern Rivers	CRLF-1	5	7		1				0	0	0	0
Southern Rivers	SL-6	189	213		91.69	0	0	0	3,524,107.39	152,100.73	1,565,347.40	85,597.17
Southern Rivers	WQ-1	6	9	32.7	3	31.71	172.51	46.41	5,540.32	1,570.00	2,474.00	0
Southern Rivers Total		380	439	587.4	95.69	3,213.89	17,483.58	3,527.32	3,935,622.16	203,422.71	1,755,734.50	101,874.93
Statewide Total		623	712	3,011.60	187.93	11,120.47	60,495.40	9,961.92	6,619,152.38	559,697.85	3,084,463.50	125,448.60

## **Table 11 Acres of Buffer Restored**

#### VIRGINIA CREP TRACKING SUMMARY

4th Qtr. PY2009 Reporting Period July 1, 2008 - June 30, 2009

by Basin by CP-BMP

(Data summarized as of 10/16/2009)

Drainage	Basin	Practice	Number Of Farmers	Number Of Practices	Acres Buffer Restored	Total BMP Costs	State CREP Amount	Other Payment Amount	Tax Credit
Chesapeake Bay	Chesapeake Bay Coa	CP-21	2	2	3.4	0	238	0	0
Chesapeake Bay	James-Appomattox	CP-22	17	21	339.6	0	8,567.00	9,261.00	1,395.21
Chesapeake Bay	James-Appomattox	CP-22B				0	8,020.00	0	30.45
Chesapeake Bay	James-Rivanna	CP-22	7	7	37	0	2,489.00	0	0
Chesapeake Bay	James-Rivanna	CP-29	1	1	5.1	0	382.5	0	0
Chesapeake Bay	Lower James	CP-21	1	1	2.7	0	189	0	0
Chesapeake Bay	Lower Potomac	CP-21	2	2	11.3	0	755	0	0
Chesapeake Bay	Lower Potomac	CP-22	4	4	16.5	0	1,207.00	0	0
Chesapeake Bay	Lower Potomac	CP-22B				0	300	0	0
Chesapeake Bay	Lower Potomac	CP-29	1	1	7	0	628	1,256.00	0
Chesapeake Bay	Middle James	CP-21	1	1	26.5	0	793.75	0	0
Chesapeake Bay	Middle James	CP-22	11	14	109.4	0	7,589.00	0	0
Chesapeake Bay	Middle James	CP-22B				0	2,130.00	0	0
Chesapeake Bay	Middle James	CP-29	5	7	82.1	0	5,669.00	2,040.00	928.94
Chesapeake Bay	Potomac-Shenandoal	CP-22	40	44	402.1	0	26,084.00	0	0
Chesapeake Bay	Potomac-Shenandoal	CP-22B				0	22,680.00	0	0
Chesapeake Bay	Rappahannock	CP-22	8	8	41.7	0	3,356.00	0	0
Chesapeake Bay	Rappahannock	CP-29	1	1	1	0	50	0	0
Chesapeake Bay	Upper James	CP-21	1	1	2.4	0	168	0	0
Chesapeake Bay	Upper James	CP-22	23	24	184	0	12,018.50	4,988.00	0
Chesapeake Bay	Upper James	CP-22B				0	4,600.00	0	0
Chesapeake Bay	Upper James	CP-29	1	1	0.8	0	40	670	0
Chesapeake Bay	Upper Potomac	CP-22	2	3	17.1	0	855	0	0
Chesapeake Bay	Upper Potomac	CP-22B				0	540	0	0
Chesapeake Bay	York	CP-22	6	6	16.9	0	1,402.50	2,033.00	0
Chesapeake Bay Total			134	149	1,306.60	0	110,751.25	20,248.00	2,354.60
o # D:	o	00.04					0.45		
Southern Rivers	Chowan-Meherrin	CP-21	1	1	3.5	0	245	0	U
Southern Rivers	Chowan-Meherrin	CP-22	4	4	68.3	0	4,812.00	0	U
Southern Rivers	Lower Chowan	CP-21	2	3	14.4	0	940	254	U
Southern Rivers	Lower Chowan	CP-22	1	2	12	0	840	0	0
Southern Rivers	New River	CP-22	41	51	129.2	0	10,303.00	5	10.05
Southern Rivers	Roanoke-Dan	CP-22	8	8	28.1	0	1,778.00	1,812.02	10.35
Southern Rivers	Tennessee-Clinch	CP-22	41			0		4,473.00	1
Southern Rivers	Tennessee-Holston	CP-22	43	51	70.7	0	4,186.00	0	0
Southern Rivers	Tennessee-Powell	CP-22	40	46		0	4,282.50	47,108.50	0
Southern Rivers	Upper Chowan	CP-21	1	3		0	357	0	0
Southern Rivers	Upper Chowan	CP-22	1	1	0.6	0		0	0
Southern Rivers	Upper Roanoke	CP-22	25	25		0		1,338.00	0
Southern Rivers	Upper Roanoke	CP-29	4	4		0		959	0
Southern Rivers	Yadkin	CP-22	1	1	0.1	0		0	0
Southern Rivers Total			213	247	763	0	52,859.00	55,949.52	11.35

## Nonpoint Source Programs and Project Support

Two programs in the WQIF guidelines pertain to nonpoint source programs and project support: 1) Strategic Water Quality Initiatives (SWQI), and 2) Cooperative Nonpoint Source Programs with Local Governments (CNPSP). As stated earlier, there has not been a General Fund allocation to WQIF since FY 2007 except for authorization to utilize interest funds; hence a Cooperative Nonpoint Source Program with Local Governments was not instituted in FY 2008 or FY 2009. Projects were managed that were funded out of the previously allocated WQIF for these programs.

Projects awarded funding under the Strategic Water Quality Initiatives Program will be selected based on either priorities established by the DCR Director with approval from the Secretary of Natural Resources or through a competitive selection process. All projects funded under the Cooperative Nonpoint Source Programs with Local Governments are selected through a competitive process. Total project funding awards are split with a maximum allocation of 60% of funded activities in the Chesapeake Bay watershed and a minimum of 40% awarded to project activities in the Southern Rivers watersheds.

The chart below details the expenditure schedule by program year for the funding allocations to the WQIF program for Strategic Water Quality Initiatives and Cooperative nonpoint Source Programs with Local Governments. Grant projects are often run longer than one year and are initiated at various times. Projects are identified in the chart below under the program year that the project allocation and/or funding commitment was made by DCR.

#### Table 12

Program Year		FY99-04 WQIA **	FY	05 WQIA	FY	06 WQIA	FY06 cab WQIA	FY	(07 WQIA		TOTAL
SWQI: Virginia Department of Forestry BMPs (DOF)*			\$	250,000	\$	250,000		\$	250,000	\$	750,000
SWQI: Virginia Tech - Precision Phosphorus Feeding			\$	145,000	\$	255,000				\$	400,000
SWQI: Chesapeake Club					\$	225,000				\$	225,000
SWQI: NRCS Cooperative Agreements					\$	500,000	\$1,500,000	\$	300,000	\$	2,300,000
SWQI: Greening the Capitol - NFWF match			\$	50,000						\$	50,000
SWQI: Virginia Poultry Litter Transport Incentive Program					\$	300,000				\$	300,000
SWQI: State Fair Grounds - WQ Demo Project			\$	11,009	\$	20,496				\$	31,505
SWQI: Ewing Centralized Wastewater Project					\$	10,000				\$	10,000
SWQI: Non-Bay Water Quality Projects					\$	189,504		\$	50,395	\$	239,899
SWQI: 2006 WQIF RFP - Grants**	\$	333,357	\$1	,105,000						\$	1,438,357
SWQI: 2007 WQIF RFP - Grants							\$1,500,000			\$	1,500,000
CNPSP: 2006 WQIF RFP - Grants					\$2	2,500,000				\$	2,500,000
CNPSP: 2007 WQIF RFP - Grants							\$ 2,036,550			\$	2,036,550
TOTAL	\$	333,357	\$1	,561,009	\$ 4	4,250,000	\$ 5,036,550	\$	600,395	\$1	1,781,311
NOTE: SWQI = Strategic Water Quality Initiatives; CNPSP = Cooperative Nonpoint Source Pollution											
* VDOF funding for FY09 was allocated from VNRCF budget. Description of activity included in this section.											
** WQIF funding for 2006 SWQI RFP grants included an additiona	\$3:	33,357 of fu	nds	from WC	IA a	allocations	s awarded to l	DCR	before FY0	5	

#### WATER QUALITY INITIATIVES AND COOPERATIVE NON-POINT PROJECTS: DETAILS FOR COMMITMENTS

# **Strategic Water Quality Initiatives Projects**

**Virginia Department of Forestry (DOF),** *Water Quality Improvement Fund Grant Allocations* (2006 grant award of \$500,000 included \$250,000 each from FY 2005 and FY 2006 funds; 2007 grant award of \$250,000 and 2009 award from VNRCF of \$250,000). This project supports two forestry NPS pollution programs. A silvicultural best management practice cost-share program is administered and targeted to watersheds containing TMDL stream segments and other priority watersheds. Funding is available to Virginia loggers for 50 percent of actual cost (not to exceed \$2,000) for approved stream crossings. If the stream crossing includes the purchase of a portable bridge, the 50 percent funding level increases to a maximum of up to \$4,000 of the actual costs. DOF funded 91 logging BMP projects through the 2006 grant award and another 52 through the 2007 award. DOF also offered an open request for proposals for a Regional Grants Program to fund urban canopy demonstration projects and streamside restoration including riparian forest buffer plantings, riparian forest buffer plantings where the Conservation Reserve Enhancement Program is not eligible; and vegetative stormwater mitigation projects such as "rain gardens". The funding range was \$1,000 to \$10,000. The Department began using the 2009 funds in November 2009. To date, a total of 12 BMPs have been installed.

**Virginia Tech Department of Dairy Science,** *Precision Phosphorus Feeding: Targeted Environmental Solutions for Virginia Dairy Farms* (2006 grant award of \$400,000 includes \$145,000 of FY 2005 and \$255,000 of FY 2006 funding). The impact of intensive animal production on soil and water has been identified as a primary source of impairment of Virginia's rivers. The increasing imbalance in nutrients applied to land is due largely to the escalation in imported feeds high in nutrients. Incentive payments are being offered on a per cow basis for farms that reduce the phosphorus levels in feed. To encourage participation, a scaled incentive program is used, with payments of \$6 per milking cow per year for farms overfeeding phosphorus by 15% or less, and \$12 per milking cover per year for farms overfeeding by less than 5%. Incentive payments will be offered for two years, not to exceed \$4,800 per farm per year (\$9,600 over the lifetime of the three year farm contracts). Producers receiving the payment will be expected to continue the practice at their own expense in year 3 of the contract. This project has been successful, but needed to be extended through June 2010 for completion.

**Chesapeake Club, Spring 2008, Richmond and Hampton Roads (\$125,000)** – The successful Chesapeake Club campaign aimed at reducing over-fertilizing of lawns by suburban homeowners was brought to the Richmond and Hampton Roads markets in spring 2008. The *Virginia Chesapeake Bay Nutrient and Sediment Reduction Tributary Strategy* specifically calls for conducting this type campaign in these areas. This campaign was created by the EPA's Chesapeake Bay Program and its partners Virginia and Washington, D.C. initially ran in the Northern Virginia / D.C. market in 2005 and 2006. The WQIF funding is being used to purchase television and newspaper advertising and to conduct post campaign surveys to help evaluate the effectiveness. Last year's survey results showed that approximately 60 percent of those responding to the survey saw messages concerning fertilizer and the Chesapeake Bay. In Hampton Roads, people fertilizing in the spring dropped from 56 percent to 44. In both markets 44 percent said they would use less fertilizer and 35 percent in the Richmond and 36 percent in Hampton Roads said they would fertilize fewer times during the year. The \$125,000 in WQIF funding was used to contract with Lewis Media of Richmond for media buys. Additional funding is being provided from other sources to supplement the WQIF funding for media buys and for Opinion Works of Annapolis, MD to conducting pre- and post- advertising campaign surveys.

**2010 Chesapeake Club, Summer 2009 NFWF Match (\$100,000)** – The 2010 Chesapeake Club campaign is an update of the successful social marketing campaign run in previous years. The project proposes to target behaviors related to residential stormwater management (rain barrels, rain gardens, downspout disconnection, conservation landscaping, etc) by developing messages based in research and creating a campaign to again

reach homeowners in an urban and suburban setting. In addition to traditional media used in the initial Chesapeake Club, this project will research and develop strategies using changing technologies and personal media including YouTube, Facebook, MySpace and others to further delineate audiences, providing them with a more personalized message. This project would take place in the Washington D.C., Hampton Roads and Richmond media markets. Chesapeake Club has previously run in each market. We anticipate that the Washington D.C. market will also impact the Baltimore market. In addition to the \$100,000 from WQIF, the National Fish and Wildlife Foundation has provided \$500,000 for the project.

**NRCS Cooperative Agreements (\$2,300,000)** - Starting in 2006 DCR entered into a contractual relationship with the United States Department of Agriculture – Natural Resources Conservation Service (USDA-NRCS) to provide engineering services, training and technical assistance services to support both Virginia's Agricultural Total Maximum Daily Load (TMDL) Program as well as Virginia's Agricultural BMP Cost-share Program. This relationship continued to be in effect through 2009. The technical assistance furnished by NRCS was directed to local Soil and Water Conservation Districts (SWCD) and DCR staff to provide for more effective implementation of agricultural incentive programs that result in water quality improvements. Tasks included training of SWCD employees to ensure that they are qualified to effectively assist farmers in their communities to implement on-the-ground BMPs.

**Greening the Capitol - NFWF match (\$50,000)** Innovative Stormwater Management on Virginia's Capitol Grounds. The Virginia Department of Conservation and Recreation received several National Fish and Wildlife Foundation (NFWF) grants in 2009 through the Chesapeake Bay Innovative Nutrient and Sediment Reduction Grant program. "Greening Capitol Grounds" in Richmond Virginia was awarded \$798,988 from NFWF which required a match of approximately \$1.4 million. The Water Quality Improvement Fund will contribute \$50,000 to pay for the rainwater harvesting component of the project. These costs include modification of the existing StormTrap to direct water to fountains and irrigation system.

**Virginia Poultry Litter Transport Incentive Program (\$300,000)** The Virginia Poultry Litter Transport Incentive Program is funded by the VADCR and the Virginia Poultry Federation as an effort to facilitate the efficient use of poultry litter as a crop nutrient source in areas that can most benefit from those nutrients. The goal of this program is to encourage the development of self-sustaining poultry litter markets in areas outside of the main poultry producing counties of the state. Applicants wishing to receive incentive payments who plan to land-apply poultry litter must have a nutrient management plan and land with a need for phosphorus applications based on soil test results. The program was initiated in late 2007. Between that time and June, 2009; 8,045 tons of litter were transferred from Page and Rockingham Counties to producers in other areas of the Commonwealth who showed, through soil tests, their needs for the nutrients in the litter and applied the litter according to a nutrient management plan. Some of this litter was transported totally outside the Chesapeake Bay watershed. Thus far a total of \$59,806 in incentive payments was given to facilitate this litter transport. The transport program funding is derived from state Water Quality Improvement Act funds (50%) and from the six poultry companies operating in Virginia (50%).

**State Fair Grounds - WQ Demo Project (\$31,505)** The Virginia State Fair Grounds Water Quality Demonstration Project. The new Meadow Event Park, location for Virginia's annual state fair, in Caroline County is prime location for demonstrating natural resource conservation and water quality improvement projects. Hosting for the first time in 2009, Virginia's 155th state fair, the venue provided opportunity for initial projects to begin. The availability of strategic water quality initiative funding through WQIA will allow DCR to become a part of this vital outreach opportunity to approximately a quarter-million Virginians annually.

**Ewing Centralized Wastewater Project (\$10,000).** This project provides \$10,000 to match over \$391,000 of state (non WQIF) and private resources to install a community decentralized wastewater project that will serve 23 homes and 2 businesses. This system will serve the community of Ewing in Lee County Virginia and is in the Indian Creek watershed. Currently raw sewage from straight pipes and failing septic systems are discharging into Indian Creek, an impaired stream as listed by VADEQ on the 2008 303(d) and 305 (b) Integrated Report.

## SWQI – Non-Bay Water Quality Projects (\$239,899)

Projects addressing a sweet of water quality issues including stormwater retrofits, streambank stabilization and buffer establishment and education and outreach are being completed in the Southern Rivers or 'non-bay' areas of the Commonwealth.

# **Competitive Water Quality Implementation Grant Program**

DCR manages two grant award programs utilizing water quality improvement funds. Awards are intended to reduce pollution through partnerships with local governments, community groups and others. The grants focus on implementing Virginia's Chesapeake Bay Tributary Strategies as well as improving waters throughout Virginia that do not meet water quality standards (TMDL waters). Grants are awarded for projects within the Chesapeake Bay watershed as well as watersheds in Virginia that drain outside the Chesapeake Bay watershed, the "Southern Rivers." These awards support two Water Quality Improvement Fund programs: Cooperative Nonpoint Source Pollution Programs with Local Governments and Strategic Nonpoint Source Water Quality Initiatives. Two completive Requests for Proposals (RFPs) were conducted in 2006 and 2007. **74 projects** have received funding through the DCR 2006 and 2007 Water Quality Improvement Fund. Over **\$7.47 million** of state funds will be **matched locally by over \$11.3 million**. The total value of the FY2006/FY2007 WQIF projects to reduce NPS pollution is **more than \$20.3 million**. These projects were still active as of June 30, 2009 so final results are not yet available.

## WQIF RFP Cooperative Nonpoint Source Grants (CNPSP) (\$4,536,550)

Request for proposals were issued in 2006 and 2007 and 42 cooperative nonpoint projects were awarded throughout the Commonwealth to localities, Virginia state agencies, non-profits and soil and water conservation districts. These projects are in varying stages of completion. Collectively these projects are addressing residential septic issues from straight pipes and failing septic systems; abandoned or orphaned mine land; urban stormwater; wetland and stream restoration. Some of these projects are developing programs to address long-term implementation of water quality programs such as developing stormwater ordinances, septic maintenance programs or stream bank buffer protection. See program and project summaries below.

# WQIF RFP Strategic Water Quality Initiative Grants (SWQI) (\$2,938,357)

Request for proposals were issued in 2006 and 2007 and 32 strategic water quality initiative projects were awarded throughout the Commonwealth to localities, Virginia state agencies, non-profits and soil and water conservation districts. These projects are in varying stages of completion. Collectively these projects are addressing residential septic issues from straight pipes and failing septic systems; abandoned or orphaned mine land; urban stormwater; wetland and stream restoration. See program and project summaries below

# Summary of the FY06 and FY07 WQIF Water Quality Competitive Grants

• Chesapeake Bay watershed projects will result in estimated annual NPS reductions of over **255,794 pounds** of nitrogen, **15,990 pounds of phosphorus, and 4,314 tons of sediment.** All projects funded are contributing to the Chesapeake Bay Tributary Strategy goals. Implementation initiatives in Chesapeake Bay

watershed projects will help to address over **30 TMDL** impairments associated with NPS pollution, in addition to major river basin TMDLs.

- Southern Rivers watershed projects will result in estimated annual NPS reductions of over **20,771 pounds** of nitrogen, **5,540 pounds of phosphorus, and 6,734 tons of sediment.** Implementation initiatives in Southern Rivers watershed projects will help to address over **40 TMDL** impairments associated with NPS pollution.
- Assistance will be provided to **5,500 homeowners** to reduce impacts of septic related waste on water quality. Straight pipe discharge will be eliminated and/or failing systems replaced or repaired at **409 homes.** Alternative decentralized systems will treat waste from many of these homes. Assistance will be provided to pumpout over to 5,000 systems. In addition, financial assistance will be provided to at least 189 low and moderate-income homeowners for septic system pump-outs. **Two localities** in the Chesapeake Bay Preservation Area will use WQIF funding to bring their septic maintenance programs into compliance with the state program.
- Stream restoration activities will be conducted on over **32,0155 linear feet** to reduce sediment erosion from at least **37 sites** throughout Virginia. Over **42.0 miles of riparian buffer** at least **35** feet wide will be established or enhanced to filter pollutants from runoff before they entire the waterways. **Two localities** will establish riparian buffer initiatives including a buffer mitigation banking program in Albemarle County and a RPA signage program in Stafford County.
- Reclamation of over **twenty-five acres of abandoned coal or orphaned mineral mining sites** will help to address benthic TMDL impairments associated with resource extraction on **eight stream segments**: Guest River, PawPaw Creek, Callahan Creek, Russell Prater Creek, and Bull Creek Contrary Creek, Dumps Creek, and North Fork Powell River. **Five acres of wetlands** will be created to reduce nitrogen loads from a mining operation on the Chickahomony River in Charles City County.
- Two localities, Madison County and Southampton County, will establish a new stormwater management program and ordinance that encourage low impact development principles. Three localities plan to incorporate low impact development principles into existing stormwater management programs and/or components of local comprehensive plans. There are 88 low impact development demonstration sites and 59 retrofits to existing stormwater management BMPs for water quality benefits from projects around the state. Programs targeted to educating residential homeowners will distribute over 500 rain barrels.

## Table 13 - Summary of WQIF RFP Projects Funded in 2006 and 2007

DCR Grant Number Name of Project	Project Title		Grant Award	Attach D - NPS Tracking Form	Target BMPs to be Installed (Identified in grant agreement)
CHESAPEAKE BAY - COOPERATIVE NO	DNPOINT SOURCE PROGRAMS (CNPS)				()
WQIA-2006-05	Riparian Buffer Restoration Initiative	\$	159,000.00	Riparian/Wetland	471 acres converted or enhanced buffer
Albemarle County	•	Ψ	100,000.00	Ripanan/Weiland	
WQIA-2006-06	Dawn Decentralized Wastewater Treatement /	\$	200,000.00	Septic	152 individual septic systems replaced
Caroline County	Septic Connections	Ψ	200,000.00	Серис	
WQIA-2006-07	Low Impact Design Project	\$	169,000.00	Urban	4 LID demo sites
Chesterfield Co Office of Water Quality		Ψ	109,000.00	Orban	
WQIA-2006-08	Enhancing City Programs for Stream Health:	\$	144,500.00	Urban	A) Street sweeper removes 572,000 lbs sediment
City of Harrisonburg	Blacks Run / Cooks Creek	Ψ	144,500.00	Orban	B) 10 pet waste stations
WQIA-2006-09	Winters Branch SWM Enhancement and Stream	\$	134,000.00	Urban,	1 SWM BMP retrofit - forbay and wetland planting
City of Manassas	Valley Restoration	Ψ	134,000.00	Riparian/Wetland	Town Dim Teron - Iorbay and wettand planting
WQIA-2006-10	Lewis Creek Watershed SW Nutrient & Sediment	\$	76,500.00	Urban	3 LID demos - 2 bioretention filters, 1 rain garden
City of Staunton	Removal Demo Project	Ψ	70,300.00	Orban	· •
WQIA-2006-11	Water Quality Enhancment Project & Community			Urban,	6 solar powered lake aerators on 2 SWM ponds, SWM
City of Virginia Beach	Conservation Partnership	\$	175,000.00	Riparian/Wetland	pond retrofit, vegetated riparian buffer restoration
				Ripanan/Wetianu	
WQIA-2006-12	Community Conservation Partnership Incentive	\$	150,000.00	Urban	30 urban BMPs installed
James City County	Program	φ	150,000.00	Ofball	So urban Bivir's installed
WQIA-2006-13	Restoration of Stream Water Quality in Priority	\$	100.000.00	Urban,	A) BMP retrofits to treat runoff from 500 acres
Prince William County	Watersheds	Φ	100,000.00	Riparian/Wetland	B) Stream restoration on 500 linear feet
WQIA-2006-14	Implementing the Strategy: The Rappahannock	\$	90,000.00	Septic	Septic replacement and repairs
Rappahannock County	River Starts Here	φ	90,000.00	Seplic	
WQIA-2006-15	Implementation of the Stafford County	\$	70,000,00	Urbon	A) 1 acre permeable paving demo
Stafford County	Rappahannock Watershed Plan	Φ	70,000.00	Urban	<ul> <li>B) 2000 linear feet riparian buffer restoration</li> </ul>
WQIA-2006-16	Comprehensive Watershed Management	\$	142.000.00	NI/A	N/A
Town of Orange	Program	φ	142,000.00	N/A	N/A
2007-WQIF-03	LID Patrofit at Eviating Commercial Development	¢	10,000,00	Linkan	installed 400 SF biofilter, 1750 ft bioretention swale, 24 ft
Augusta County	LID Retrofit at Existing Commercial Development	Ф	40,000.00	Urban	french drain
2007-WQIF-04	Dawn Decentralized Wastewater Treatment /	\$	125 000 00	Contin	alternative waste septic system to replace 28 failing septic
Caroline County	Septic Replacement	Ф	125,000.00	Septic	systems
2007-WQIF-05	Or with Diversion and Diversion	¢	75 000 00	Qa atia	
Caroline County	Septic Pumpout Program	\$	75,000.00	Septic	1500 septic pumpouts per year for 2 years
2007-WQIF-06 City of Falls Church - Dept of Env. Services	Impervious Surface Effectiveness Demo Project s	\$	93,000.00	Urban	8 stormwater detention/retention activities, 20 biofiltration filter boxes, 750 linear feet pervious trail, 500 rain barrels.
2007-WQIF-07 City of Manassas	Winters Branch SWM Enhancement & Stream Valley Restoration & City-Wide SWM Oper.	\$	150,350.00	Urban	650 acres treated with sediment forebay and water quality retension and wetland planting
2007-WQIF-08	· · · · · · · · · · · · · · · · · · ·				
City of Norfolk - Dept. of Public Works	Old Dominion University Wetland Restoration	\$	165,000.00	Wetland/Stream	restore 1.1. acres wetland and in-stream habitat
2007-WQIF-09					6 raingardens, 2 retrofits of 8 detention ponds and install
City of Waynesboro	Waynesboro Regional Water Quality Initiative	\$	34,064.00	Urban	10 rain barrels
2007-WQIF-10	Countywide Notification & Tracking of Septic				septic pumpout and maintenance program for over 10,000
County of Matthews	Pumpout Program	\$	25,000.00	Septic	homes
2007-WQIF-11	Natural Stream Channel Restoration in the Upper				
Culpeper SWCD	Rappahannock River Basin	\$	73,600.00	Wetland/Stream	stabilize 3,000 feet of stream
2007-WQIF-12	Huntley Meadows Central Wetland Restoration;	\$	90,000.00	Wetland/Stream	create wetland to treat stormwater from 800 acres,
Fairfax County Park Authority	Turkeycock Run Stream Restoration	Ψ	00,000.00	Wolland, Oli Call	stabilize 2600 feet of stream
2007-WQIF-13					restored 1000 feet of stream buffer and stabilize, replace
Harrisonburg Parks & Rec.	Blacks Run Stream Bank Restoration	\$	29,100.00	Wetland/Stream	300 feet of impervious surface.
¥					•
2007-WQIF-14 Headwaters SWCD	Residential Septic Management in Select TMDL Watersheds	\$	148,395.00	Septic	pump-out of 275 septic tanks, 10 installations of alternative septic systems, repari of 25 failing septic systems.

2007-WQIF-15					
Madison County BOS	Stormwater Management Project	\$	26,000.00	N/A	create stormwater ordinance
2007-WQIF-16	Middle Peninsual Regional Onsite Wastewater	•	00.000.00	0 1	
Middle Peninsula PDC	Treatment and Disposal Funding Phase II	\$	80,000.00	Septic	13 failing septic systems repaired or replaced
2007-WQIF-17	Gunnell's Run Horse Farm Manure Composting				
Northern Virginia SWCD	Faciliy (Prev Title: Tamarack Stables)	\$	25,254.00	Agriculture	manure compost faciity
2007-WQIF-18					
Piedmont SWCD	Nottoway County Homeowner Septic Repair Program	\$	42,150.00	Septic	13 septic tanks pumped-out and 10 systems repaired
2007-WQIF-19					
Prince William SWCD	Chesapeake Bay - Friendly Horse Farm Project	\$	121,399.00	Agriculture	60 acres of improvements for buffers and stream crossings
2007-WQIF-20	Sontia System Cost Share Program Evinensian	\$	122.060.00	Sontio	200 septic systems pumped-out, 20 repaired and 6
Rappahannock County Government	Septic System Cost-Share Program Expansion	φ	122,960.00	Septic	replaced
2007-WQIF-21	Gold Mine Creek Clean Up	\$	38,087.00	Septic	7 septic sytem repaires, 2 replacements and 2 alternative
Thomas Jefferson SWCD		Ŧ	,		septic systems installed
SOUTHERN RIVERS - COOPERATIVE N	ONPOINT SOURCE PROGRAMS (CNPS)				
WQIA-2006-30	Powell River Watershed Wastewater Reduction				
Lee County Board of Supervisors	Project	\$	200,000.00	Septic	71 straight pipes
WQIA-2006-31 Roanoke Co - Parks. Recreation & Tourisn	Mudlick Creek Urban Stream Restoration at Garst	\$	148,000.00	Riparian/Wetland	250 linear feet stream restoration
WQIA-2006-32	Stormwater Assessment & Bioretention Retrofit	\$	52,000.00	Urban	4 biofiltration practices - 1 rain garden, 2 infiltration
Town of Cedar Bluff	Project	Ŧ	,		trenches, 1 vegetated buffer
WQIA-2006-33 Town of Tazewell	Upper Clinch River Stormwater Management Project	\$	200,000.00	Urban	6 rain gardens and 40 gabions
WQIA-2006-34	Countywide Sewage Management Planning and				
Wise County	Public Outreach	\$	160,000.00	Septic	13 straight pipes
2007-WQIF-30	Retrofit to Existing Impervious Areas with	•	00.050.00	l luis e u	
City of Danville	Bioretention	\$	28,656.00	Urban	3 bioretention basins treating 3 acres
2007-WQIF-31	Roanoke Water Quality Enhancements	\$	83,500.00	Urban,	restore 1200 feet of riparian buffer, restore 140 feet of
City of Roanoke		Ψ	00,000.00	Wetland/STream	stream and wetland basin treating 140 acres
2007-WQIF-32	Virginia Beach Water Quality Coordination &	\$	133,932.00	Urban, Wetland/Stream,	install rain garden and retention pond treating 22,000 feet,
City of Virginia Beach	Program Enhancement Project	φ	155,952.00	Agriculture	install 4 acres of riparian buffer
				Agricaliare	
2007-WQIF-33	Stabilization Project at Clear Creek Golf Course	\$	55,347.00	Wetland/Stream	1365 feet of stream bank stabilized and 2882 feet of
Holston River SWCD	and Installation of Pet Waste Disposal Systems				riparian buffer restored
2007-WQIF-34	Mudlick Creek Urban Stream Restoration at Garst				
Roanoke County, Dept of Community Dev.		\$	110,000.00	Wetland/Stream	2900 linear feet of stream restored and stabilized
2007-WQIF-35	Southampton County Stormwater Management				LID installed treatign 493 acres, 4 acre wetland pond
Southampton County	and LID Demonstration Project	\$	135,000.00	Urban	installed.
Southampton County					
<b>CHESAPEAKE BAY - STRATEGIC WATE</b>	ER QUALITY INITIATIVES (SWQI)				
WQIA-2006-17	Sarah Creek Watershed NPS Water Quality	\$	F2 000 00	Septic,	A) 175 septic systems pumped
Chesapeake Bay Foundation	Partnership	¢	52,000.00	Riparian/Wetland	B) 10 riparian buffer acres installed (thru Ag c-sh)
WQIA-2006-18	Water Quality Improvements in Woods Creek	\$	36,000.00	Urban	6 bioretention and biofiltration systems installed
City of Lexington	Watershed	Ŷ	00,000.00		
WQIA-2006-19 Culpeper County	Stormwater Management Ordinance and LID	\$	42,000.00	Urban	1 LID demo site - funding supports engineering
WQIA-2006-20	Demo Project				A) 50 rain barrels
James River Association	Extreme Stream Makeover	\$	60,000.00	Urban	B) 7 rain gardens
WQIA-2006-21	Middle Peninsula Regional On-Site Wastewater	•	100 000 00	0 "	
Middle Peninsula PDC	Treatment & Disposal	\$	100,000.00	Septic	# OF SYSTEM TARGETED?
WQIA-2006-22	Wetlands Restoration and Learning Laboratory	\$	60,000.00	Riparian/Wetland	3-acres wetland restoration
Poquoson City Schools	reaches restoration and Estiming Eaboratory	Ý	00,000.00		
WQIA-2006-23	Common Sense Solutions to Water Pollution	\$	58,000.00	Urban	A) 8 rain gardens (or buffers)
Shenandoah Valley SWCD					B) 50 rain barrels

WQIA-2006-24 Valley Conservation Council	Shenandoah Riparian Protection Program	\$ 100,000.00		Protection of 5 to 15 miles of riparian buffer depending on width of 35 minimum up to 100-feet.
WQIA-2006-25 Virginia Wesleyan College	Green Roof Demonstration Project - Smithdeal Residential Hall	\$ 50,000.00	Urban	1 green roof
WQIA-2006-26 Western Virginia Land Trust	Upper James River Riparian Protection Partnership	\$ 100,000.00		Protection of 11 miles of stream bank with 50-foot buffers or ~ 16 miles with 35-foot buffers
<b>CHESAPEAKE BAY - STRATEGIC WATE</b>	R QUALITY INITIATIVES (SWQI)			
2007-WQIF-22 Cabell Brand Center	Rainwater Harvesting to Abate Stormwater Runoff	\$ 109,372.00	Urban	rainwater harvesting from 97,000 square feet roof and urban buildings
2007-WQIF-23 Christopher Newport University	Tomahund Created Wetland Treatment Project	\$ 68,848.00	Wetland/Stream	create 5 acres of wetland to treat 50 acres of abandoned mine land and 250 acres of active mine land
2007-WQIF-24 Lands & Waters, Inc.	Unity of Fairfax Stormwater Management Plan	\$ 30,000.00	Urban	create wetland, install 4500 sf green roof
2007-WQIF-25 Mount Zion Baptist Church	Mount Zion Baptist Church Expansion Project: The Vision	\$ 112,680.00	Urban	install 13 rain gardens and permeable grass pavers.
2007-WQIF-26 Southside Virginia Family YMCA	Better Site Designing, Building Strong Communities	\$ 144,741.00	Urban	rainwater harvesting from 22,000 sf impervious surface, urban nutrient management
2007-WQIF-27 Virginia DMME, Division of Mineral Mining	Cofer Prospect: Acid Mine Drainage Reclamation	\$ 100,000.00	Mine Land Reclamation	reclaim 4 acres of orphaned mine land

SOUTHERN RIVERS - STRATEGIC WAT	ER QUALITY INITIATIVES (SWQI)				
WQIA-2006-35	Big Sandy River Basin Coalition Restoration	¢	70 000 00	Riparian/Wetland,	A) 500 linear feet of streambank restoration
Big Sandy River Basin Coalition	Project	\$	70,000.00	Mining	B) 2 AML reclamation sites (4 acres)
WQIA-2006-36 Big Sandy SWCD	Knox Creek Restoration Project	\$	95,000.00	Septic, Riparian/Wetland, Mining	<ul> <li>A) 10 septic tank repairs</li> <li>B) 10 septic pumpouts</li> <li>C) 1,500 feet streambank stabilization</li> <li>D) 2 AML reclamation sites (4 acres)</li> </ul>
WQIA-2006-37 Department of Mines, Mineral, & Energy	Arno Sedimentation Maintenance & Craborchard Brach Outslopes Projects	\$	60,000.00	Mining	2 AML reclamamation sites
WQIA-2006-38 Department of Mines, Mineral, & Energy	Norton Gully Maintenance Project	\$	80,000.00	Mining Riparian	Correct sedimentation problem in eroding channel
WQIA-2006-39 Lonesome Pine SWCD	Guest River Restoration Project	\$	100,000.00	Septic, Mining	A) 10 septic repairs / replacements B) 2 AML reclamation sites
WQIA-2006-40 New River Highlands RC&D Council	New River Streambank Stabilization	\$	100,000.00	Riparian/Wetland	16 demonstration projects on streambank and channel stabilization
WQIA-2006-41 Upper Tennessee River Roundtable	Southwest Virginia Growth Readiness Initiative	\$	90,000.00	Urban	7 LID demo projects
WQIA-2006-42 Virginia Tech	Reducing Urban Stormwater Impacts within the Strouble Creek Watershed	\$	85,000.00	Urban	2 Infiltration BMPs
WQIA-2006-43 Western Virginia Land Trust	Upper Roanoke and Little River Riparian Partnership	\$	100,000.00	Riparian/Wetland	Protection of 11 miles of stream bank with 50-foot buffers or ~ 16 miles with 35-foot buffers
2007-WQIF-36 Dan River Basin Association	Dan River Watershed Riparian Buffer Enhancement	\$	32,875.00	Wetland/Stream	* 3,500 square feet riparian buffer (April - June 2008) * 4,000 square feet riparian buffer (April - June 2008)
2007-WQIF-37 FishAmerica Foundation	Power Dam Removal Project	\$	200,000.00	Urban	remove dam and accumulated toxic sediment
2007-WQIF-38 New River-Highlands RC&D	New River Streambank Restoration - Phase II	\$	96,150.00	Wetland/Stream	restore 6.6 ft pf stream
2007-WQIF-39 Upper Tennessee River Roundtable	Upper Powell Stormwater Management and Abandoned Mined Land Reclamation Project	\$	97,340.00	Urban, Mine Land Reclamation	LID retrofits for 2.32 acres, 7 acres of AML reclaimed, 200 feet of stream restored
2007-WQIF-40 Virginia Dept of Game and Inland Fisheries	Southern Rivers Restoration Project	\$	200,000.00	Wetland/Stream	7000 feet of stream restored
2007-WQIF-41 VA DMME, Div. of Mined Land Reclamation	Hurricane Fork Gob Piles	\$	140,000.00	Mine Land Reclamation	200 feet of riparian buffer installed and 4 acres of mine land reclaimed
2007-WQIF-42 Virginia Polytechnic Institute	Stroubles Creek Stream Restoration	\$	167,200.00	Wetland/Stream	7290 linear feet of stream restored and riparian buffer restored.

## **Summary**

The Water Quality Improvement Act represents the most effective means of funding water quality improvement projects and program advancements in the Commonwealth. While no direct deposits to the fund were made during 2008, targeted agricultural cost share funding was made available to Virginia producers through the state Agricultural BMP cost share system administered by DCR and delivered by the 47 Soil and Water Conservation Districts. A total of \$18.5 million dollars was distributed through this system.

In addition, WQIF interest dollars is funding improvements to the Agricultural BMP cost share data base. This critical tracking and monitoring system is used by Districts to report their respective BMP on the ground work and to accurately track their efforts. Also, \$65,000 was allocated to the Friends of the Shenandoah for replacing obsolete monitoring equipment. This very active and important river group is doing important work in the area of citizen monitoring along one of the Commonwealth's most important rivers.

Within the Strategic Initiatives portion of WQIF, \$250,000 was allocated to the Virginia Department of Forestry for their work in silvicultural BMPs including reimbursing loggers for purchasing portable bridges for stream crossings. Also in the DOF program is a riparian non-CREP portion that funds buffer plantings and stream restoration work.

The addition of a new sub-fund, the Natural Resources Commitment Fund (NRCF), will permit more direct targeting of future funding to agricultural cost share practices. For the Strategic Initiatives and Cooperative Nonpoint Source portions of WQIF, specific allocations will have to be made to advance any future programmatic efforts.