2002 ANNUAL REPORT ON WATERSHED PLANNING AND PERMITTING

SUBMITTED BY
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February 26, 2003

TO: The Honorable Mark R. Warner
Governor of Virginia

The Honorable Members of the General Assembly

FROM: Robert G. Burnley

SUBJECT: REPORT ON WATERSHED PLANNING AND PERMITTING

The Department of Environmental Quality has finalized its annual report on watershed planning and permitting activities and the Watershed Planning and Permitting Coordination Task Force (established under §10.1-1194 of the Code of Virginia). It includes information on Virginia's Total Maximum Daily Load program for impaired waters, EPA's watershed grant initiative, the Chesapeake 2000 Implementation Committee, and the Commonwealth's Water Quality Management Plans. The full text of the report can be found at http://www.deq.state.va.us/regulations/reports.html or by calling Kathy Frahm, Director of Legislative Affairs, at 804-698-4376.

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1. INTRODUCTION

Sections 10.1-1193 through 1197, Article 3, Chapter 11.1 of the Code of Virginia mandate the Department of Environmental Quality, with the assistance of participating state agencies, to coordinate and promote watershed planning and permitting by state and local agencies and authorities.

The legislation also created the Watershed Planning and Permitting Coordination Task Force ("Task Force") composed of the Directors, Commissioners or their designees from the following agencies:

- Department of Environmental Quality - [DEQ]
- Department of Conservation and Recreation - [DCR]
- Chesapeake Bay Local Assistance Department - [CBLAD]
- Department of Mines, Minerals, and Energy - [DMME]
- Department of Forestry - [DOF]
- Department Agriculture and Consumer Affairs - [VDACS]

The Virginia Department of Health [VDH], while not listed as a member of the Task Force in the Code, also participates. This report was prepared in accordance with the requirement to report annually on the watershed planning and permitting activities in Virginia.

2. TASK FORCE ACTIVITIES

While the Task Force did not meet during 2002, Task Force members were engaged in watershed planning activities throughout the year. This report provides an update in four areas of interest, specifically, the Total Maximum Daily Load [TMDL] program, watershed initiatives, Chesapeake Bay program activities, and the water quality management planning process.

3. VIRGINIA TMDL PROGRAM

3.1. BACKGROUND

In 1999, the U.S. Environmental Protection Agency [EPA] signed a Consent Decree in federal district court to settle a lawsuit over the Total Maximum Daily Load [TMDL] program in Virginia. The Consent Decree includes a schedule for TMDL development for a number of impaired waters through April 2010 (Table 1). The numbers in Table 1 indicate waters requiring TMDLs. Since TMDLs must be developed for each pollutant causing an impairment, some waters need multiple TMDLs. Virginia has met the Consent Decree requirements through 2002.

Table 1. Consent Decree Schedule for Impaired Waters

DEQ TMDL Submittal Dates	Consent Decree Schedule for Impaired Waters	Credit Limit for Waters Removed From List
5/1/99	1	0
5/1/00	12	2
5/1/02	30	6
5/1/04 [1]	81	11
5/1/06 [1,2]	220	13
5/1/08 [1,2]	134	14
5/1/10 [1,2]	187	14
Total	**665**	**60**

[1] Includes estimates from 2002 305(b)/303(d) assessment
[2] Includes shellfish impairments

DEQ has statutory responsibility for Virginia's TMDL program. However, development of TMDLs has been a joint responsibility for DEQ and DCR based on a Memorandum of Agreement [MOA] in effect since January 1998. DEQ also has a similar MOA with DMME. DMME has taken the lead in developing several TMDLs for streams in Southwest Virginia that are impaired due to mining activities. Coordination among these Virginia agencies and EPA has been achieved through routine meetings of a TMDL Committee.

3.2. 2002 TMDL Program Activity

The TMDL program structure described above has resulted in the successful completion of 50 TMDLs in 48 impaired waters. Table 2 provides a summary of the completed and EPA-approved TMDLs by river basin and county. The location of these TMDLs is shown on Figure 1.

Additionally, eight previously impaired waters have been shown since 1998 to be meeting the applicable water quality standards and were removed from the impaired waters list ("delisted"). Attachment A to this report contains a detailed TMDL Activity Report as of December 2002, providing information on the specific waterbody, river basin, county, the impairment, and the TMDL completion or delisting date.

The ultimate objective of the TMDL program is to restore water quality to achieve the Commonwealth's water quality standards. After a TMDL is completed and approved by EPA, a TMDL Implementation Plan [TMDL IP] is developed that identifies the type and extent of management actions needed to meet the TMDL pollutant load allocations. To date, 13 TMDL IPs have been completed and are being implemented. Table 3 provides a summary of these TMDL IPs by river basin and county. The location of the TMDL implementation activities can be found on Figure 2. Information about specific TMDLs or TMDL IPs can be found at DEQ's web site under http://www.deq.state.va.us/tmdl/tmdlrpts.html

Table 2. Completed TMDLs by River Basin and County (as of December 15, 2002)

River Basin	County	Number of TMDLs completed
James	Nelson	1
	Albemarle	1
	Cumberland	1
	Bath	1
	Augusta	1
New	Floyd	1
	Montgomery	1
Potomac	Loudoun	4
	Arlington	1
	Fairfax	1
Rappahannock	Fauquier	1
	Culpeper	1
Roanoke	Franklin	7
	Bedford	4
	Campbell	1
Shenandoah	Augusta	3
	Rockingham	11
	Warren	2
	Shenandoah	1
Tennessee/Big Sandy	Washington	5
Total		**49**

Figure 1. Watersheds with Completed TMDLs Approved by EPA - December 2002

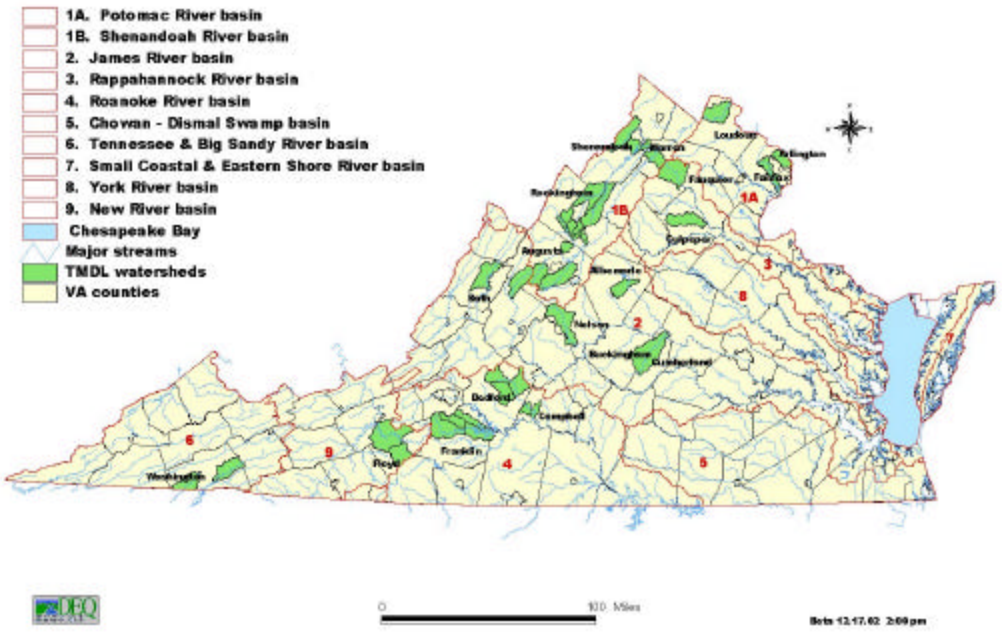


Table 3. Completed TMDL Implementation Plans by River Basin and County (as of December 15, 2002)

Waterbody Name	County	Impaired Miles	Impairment	Date of Implementation Plan
Roanoke River Basin	Franklin			8/23/01
South Fork Blackwater River		9.83	Fecal Coliform	
North Fork Blackwater River		6.05	Fecal Coliform	
Upper Blackwater River		11.48	Fecal Coliform	
Middle Blackwater River		15.78	Fecal Coliform	
Shenandoah River Basin	Rockingham			6/26/01
Muddy Creek/Dry River		7.04	Nitrate	
Muddy Creek		6.47	Fecal Coliform	
Dry River		10.36	Fecal Coliform	
Pleasant Run		6.30	Fecal Coliform	
Mill Creek		2.66	Fecal Coliform	
Tennessee & Big Sandy River Basin	Washington			7/10/01
Byers Creek		1.19	Fecal Coliform	
Hall Creek		5.87	Fecal Coliform	
Hutton Creek		5.24	Fecal Coliform	
Cedar Creek		4.20	Fecal Coliform	

Figure 2. Watersheds with TMDL Implementation Plans - December 2002

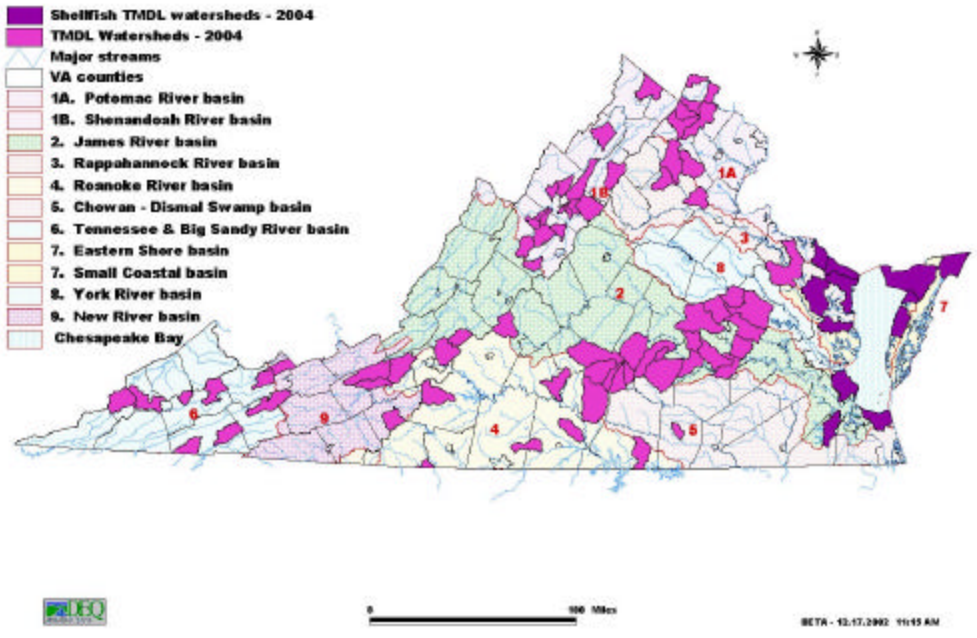
3.3. 2002 TMDL PROGRAM RESTRUCTURING AND FUTURE OUTLOOK

During 2002, DEQ and DCR agreed on a number of changes to improve the efficiency and management of the TMDL program. These changes are already being implemented and will be incorporated into a revised MOA within the next few weeks:

- DEQ will assume sole responsibility for TMDL development after a transition period for the 2004 TMDL submittals. In support of this change, DCR will pass through to DEQ federal funding earmarked for TMDL development.
- DCR will focus its TMDL staff and funding on the implementation of approved TMDLs.
  - The State Water Control Board retains final oversight of TMDL implementation planning.
  - DEQ will develop IPs for urban and other streams with significant permitted discharges.
  - DCR and DEQ will continue working on a guidance manual for developing TMDL IPs.

TMDL development for the 2004 submittals is well under way (Figure 3). During this transition period, DCR will complete TMDLs for eight waters with a total of 11 impairments. DEQ will develop TMDLs for the remaining 73 waters required under the Consent Decree. This number includes 11 waters that the Commonwealth can potentially remove from the 303(d) list of impaired waters (i.e. delist) based on improved water quality or erroneous listing. DEQ will continue to work with DMME on developing TMDLs for waters with mining-related impairments. DEQ will also collaborate with the Department of Health's Division of Shellfish Sanitation to develop TMDLs for a number of waters currently closed to shellfish harvesting.

Figure 3. Virginia's Watersheds with TMDL Development for 2004



4. 2002 EPA WATERSHED GRANT INITIATIVE

4.1. BACKGROUND

On August 20, 2002, EPA published a new nationwide Watershed Initiative in the Federal Register. The goal of the initiative is to "advance the successes of watershed coalitions that have performed watershed assessments and are ready to carry out on-the-ground clean up and restoration projects." Under the initiative, EPA will make available about $21 million for the restoration and protection of waters in up to 20 watersheds across the county. The grant award for each of the 20 projects will range from $300,000 to $1.3 million, depending on the size and need of the project. A 25% match is required. Each state was limited to two intrastate proposals but could submit an unlimited number of interstate proposals.

4.2. VIRGINIA SUBMITTAL PROCESS

In Virginia, DEQ called for nominations and received nine very worthwhile proposals, including one interstate proposal (see Table 4 for project summaries). A team of representatives from DEQ and DCR reviewed and ranked the proposals using EPA's evaluation criteria (Attachment B). A second interstate proposal was developed in Maryland by the Potomac Watershed Partnership and was outside of Virginia's review process. On November 19, 2002, Governor Warner recommended the following four proposals to EPA for funding:

- Interstate proposals
  1. Upper Tennessee River EPA Watershed Initiative Grant Proposal, submitted by the Upper Tennessee Roundtable (VA, TN, NC)
  2. Growing Forests for a Greener Potomac, submitted by the Potomac Watershed Partnership (MD, VA)
- Virginia proposals
  1. Elizabeth River Watershed Initiative, submitted by the Elizabeth River Project
  2. James River Watershed Restoration Program, submitted by the James River Association

EPA expects to announce selections in March 2003. The grant award process should be completed the in May 2003.

NOTE: Attachment C contains an update of the Cooperative Watershed Initiatives effort facilitated by DCR. This summary report compiled by DCR describes some of the cooperative watershed planning efforts that are ongoing throughout the Commonwealth. Similar to the proposals submitted under the EPA initiative, the summary report portrays the breadth and scope of watershed initiatives and valuable watershed programs in Virginia.

Table 4. Project Summary for Virginia's EPA Watershed Initiative Proposals

Note: Shaded projects were recommended to EPA by Governor Warner.

Organization Name	Project Title/ Watershed Plan	Project Summary
Upper Tennessee Roundtable	Upper Tennessee River EPA Watershed Initiative Grant Proposal	Proposal to implement 26 projects in VA, TN, and NC; VA projects ($780k) addressing endangered species concerns, mining, stormwater, agriculture, and community outreach
Elizabeth River Project	The Elizabeth River Watershed Initiative	Proposal to implement industrial P2/buffers/stormwater reuse for toxics control, restore Paradise Creek subwatershed, restore 1 ac of wetlands, monitor river trends and community outreach
James River Association	James River Watershed Restoration Program	Proposal to install 30 miles of stream corridor, seek 3,000 acreas of easements, perform stream assessments & monitoring, and develop educational resources
Friends of the Rappahannock	VA Rappahannock Watershed "Low Impact Development" Model Initiative	Proposal to install 18 LID demonstration projects, develop code changes, establish citizen teams, develop nutrient tracking system
Shenandoah Regional Commission	Shenandoah Valley Watershed Initiative	Proposal for pump-out and repair of 1000 septic systems, installing 40 riparian BMPs, Watershed Ombudsman, developing water supply plan and MIF plan
Eastern Shore SWCD	VA Eastern Shore Watersheds Network	Proposal to gather local water quality information for local decision making through enhanced water quality monitoring and small watershed modeling
Pure Water 2000	EPA Watershed Initiative Nomination Proposal (Shenandoah River)	Proposal to facilitate technology transfer among WWTP operators, encourage BMP implementation, conduct 50 septic pump-outs, purchase easements, develop GIS, conduct monitoring, perform outreach
Mattaponi & Pamunkey Rivers Association	The York Watershed Stewardship Watch Network	Proposal to establish basin-wide network of citizen volunteers to steward the resources of the York
Lake Anna Civic Association	The Lake Anna Watershed Initiative	Proposal to expand monitoring activities, determine sources of toxic pollution and extend environmental education

5. CHESAPEAKE 2000 WATERSHED COMMITMENTS IMPLEMENTATION COMMITTEE

5.1. BACKGROUND

The Chesapeake 2000 [C2K] agreement included a commitment to work with local governments, community groups and watershed organizations to develop and implement small watershed management plans in two thirds of the Bay watershed by 2010. To meet this commitment, the Chesapeake Bay Program's Implementation Committee created the Chesapeake 2000 Watershed Commitments Implementation Committee [CWIC]. As a signatory to the C2K agreement, Virginia has established a VA Chesapeake 2000 Watershed Commitments Implementation Committee [VA CWIC]. These two groups are working together to:

- Establish components of a watershed management plan
- Identify the criteria and process for counting watershed management plans
- Determine the best ways to track progress toward the C2K agreement
- Identify the tools that local governments, community groups and watershed organizations need in order to create watershed management plans
- Establish how to most effectively deliver these tools to the local governments, community groups and watershed organizations

5.2. 2002 VA CWIC ACTIVITIES

VA CWIC has met regularly throughout the year to develop the Commonwealth's approach to implementing small watershed management planning. Attachment D describes the approach to small watershed management planning as developed by VA CWIC. This effort has been collaborative, with representatives from CBLAD, DCR, DEQ, DOF, Department of Game and Inland Fisheries [DGIF], Northern Virginia Regional Commission [NVRC], Fairfax County, City of Chesapeake and other community watershed organizations and local governments in attendance. VA CWIC established seven components of a watershed management plan that will be required for the plan to count toward fulfilling the C2K commitment:

- Clearly articulated goals, focusing on improving, enhancing, or protecting water quality and habitat
- Demonstrated stakeholder involvement
- Environmental assessment and institutional inventory
- Data evaluation
- Implementation strategy
- Progress benchmarks
- Plan revision mechanism

These components are the defining measures for the small watershed planning guide that is currently being developed by a workgroup of VA CWIC. A draft is expected to be available for review by mid-January 2003. Attachment E provides examples of watershed planning activities by local governments under guidance from CBLAD.

6. VIRGINIA WATER QUALITY MANAGEMENT PLANNING

During 2002, DEQ worked to adapt the water quality management planning process mandated under section 303(e) of the Clean Water Act to better meet the realities of current water quality planning activities (such as TMDLs) in the Commonwealth. Water Quality Management Plans [WQMPs] address by river basin the following nine elements of water quality management planning:

- TMDLs
- Waste Load Allocations & Water Quality Based Effluent Limits
- Municipal & Industrial Treatment
- Nonpoint Source [NPS] Management & Control Activities
- Management Agencies
- Implementation Measures
- Dredge and Fill Activities
- 209 Water Supply Plans
- Ground Water

At the May 6, 2002 meeting of the State Water Control Board [SWCB], DEQ staff made three proposals pertaining to the state's WQMPs. The Board took the following actions on these proposals:

- Adopted the proposed Virginia Water Quality Management Planning regulation, but suspended the effective data to allow for additional public comment;
- Repealed the existing 18 WQMPs as regulations while retaining them as basin-wide or area-wide plans until they are updated, but suspended the effective date of the repeal to allow for additional public comment; and
- Directed staff to implement the Water Quality Management Planning Public Participation Guidelines as an agency guidance manual and to notify the Board of any future changes or modifications to the document.

Subsequently, public notice on the revision of the Water Quality Management Planning regulation was given on September 9, 2002 in the Virginia Register and a public meeting was held on October 15, 2002 to seek additional public comment as directed by the Board. After Board approval, DEQ will convene an interagency workgroup to discuss approaches for updating these river basin management plans so that they are consistent with ongoing activities.

NOTE: DEQ staff recommended the final adoption of the two suspended regulatory actions at the last meeting of the SWCB on January 6, 2003. The Board adopted the staff recommendation.

ATTACHMENT A – TMDL Activity Report

TMDL ACTIVITY REPORT (STATUS AS OF DECEMBER 15, 2002)

Note: Shaded TMDLs have ongoing implementation

Watershed ID	Segment Name	City/County	Impaired Miles	Impair-ment	Date of EPA Approval
JAMES RIVER BASIN					
VAV-H01R	James River	Amherst, Bedford Co.	5.71	Fecal coliform	Delisted 8/19/02
VAV-H09R	Montebello Spring Bran.	Nelson Co.	0.02	Benthic	6/27/02
VAV-H16R	Rockfish River	Nelson Co.	4.87	Benthic	Delisted 4/26/01
VAV-H26R	South Fork Rivanna River	Albemarle Co.	3.38	Fecal coliform	Delisted 8/19/02
VAV-H28R	Moore's Creek	Albemarle Co.	6.37	Fecal Coliform	5/24/02
VAV-H29R	Rivanna River	Albemarle Co.	13.21	Fecal coliform	Delisted 8/19/02
VAC-H36R	Willis River	Cumberland Co.	14.30	Fecal Coliform	5/31/02
VAV-I14R	Coursey Springs Bran.	Bath Co.	0.02	Benthic	6/27/02
VAV-I32R	Castaline Spring Bran.	Augusta Co.	0.80	Benthic	6/27/02
VAV-I33R	Kerrs Creek	Rockbridge Co.	11.49	Benthic	Delisted 4/26/01
NEW RIVER BASIN					
VAW-N20R	Dodd Creek	Floyd Co.	2.62	Fecal Coliform	12/11/02
VAW-N21R	Mill Creek	Montgomery Co.	5.68	Fecal Coliform	6/5/02

POTOMAC RIVER BASIN					
VAN-A02R	Catoctin Creek	Loudoun Co.	7.40	Fecal Coliform	5/31/02
VAN-A02R	North Fork Catoctin Creek	Loudoun Co.	10.53	Fecal coliform	5/31/02
VAN-A02R	Upper S Fork Catoctin Creek	Loudoun Co.	11.49	Fecal coliform	5/31/02
VAN-A02R	South Fork Catoctin Creek	Loudoun Co.	6.01	Fecal coliform	5/31/02
VAN-A12R	Four Mile Run	Arlington Co.	8.00	Fecal Coliform	5/31/02
VAN-A15R	Accotink Creek	Fairfax Co.	4.50	Fecal Coliform	5/31/02

RAPPAHANNOCK RIVER BASIN					
VAN-E01R	Thumb Run		7.41	Fecal Coliform	5/31/02
VAN-E09R	Mountain Run	Culpeper	7.58	Fecal Coliform	4/27/01
				Benthic	Delisted 4/18/01

ROANOKE RIVER BASIN					
VAW-L10R	Middle Blackwater River	Franklin Co.	15.78	Fecal Coliform	12/4/01
VAW-L08R	Upper Blackwater River	Franklin Co.	9.83	Fecal Coliform	3/9/01
VAW-L08R	North Fork Blackwater	Franklin Co.	11.48	Fecal Coliform	3/9/01
VAW-L08R	South Fork Blackwater	Franklin Co.	6.05	Fecal Coliform	2/2/01
VAW-L09R	Maggodee Creek	Franklin Co.	21.13	Fecal Coliform	4/27/01
VAW-L10R	Lower Blackwater River	Franklin Co.	20.00	Fecal Coliform	4/27/01
VAW-L11R	Gills Creek	Franklin Co.	27.97	Fecal Coliform	5/31/02
VAW-L23R	Sheeps Creek	Bedford Co.	7.33	Fecal Coliform	2/2/01
VAW-L25R	Elk Creek	Bedford Co.	7.48	Fecal Coliform	2/2/01
VAW-L26R	Machine Creek	Bedford Co.	20.00	Fecal Coliform	2/2/01
VAW-L26R	Little Otter River	Bedford Co.	27.22	Fecal Coliform	2/2/01
VAW-L28R	Big Otter River	Campbell Co.	14.75	Fecal Coliform	2/2/01
VAW-L42R	Dan River	Patrick Co.C113	10.16	Fecal Coliform	Delisted 8/19/02
VAW-L61R	Fall Creek	Danville	2.18	Fecal Coliform	Delisted 8/19/02

SHENANDOAH RIVER BASIN					
VAV-B10R	Cockran Spring	Augusta Co.	0.80	Benthic	6/27/02
VAV-B14R	Christians Creek	Augusta Co.	31.52	Fecal Coliform	5/31/02
VAV-B21R	Dry River	Rockingham Co.	6.47	Fecal Coliform	2/2/01
VAV-B21R	Muddy Creek/Dry River	Rockingham Co.	7.04	Nitrate	4/27/00
VAV-B22R	Muddy Creek	Rockingham Co.	10.36	Fecal Coliform	9/1/99
VAV-B25R	Cooks Creek	Rockingham Co.	13.32	Fecal Coliform	6/5/02
				Benthic	6/5/02
VAV-B26R	Blacks Run	Rockingham Co.	10.74	Fecal Coliform	5/31/02
				Benthic	6/5/02
VAV-B27R	Pleasant Run	Rockingham Co.	6.30	Fecal Coliform	3/9/01
				Benthic	Pending
VAV-B28R	Naked Creek	Augusta Co.	6.75	Fecal Coliform	5/21/02
VAV-B29R	Mill Creek	Rockingham Co.	2.66	Fecal Coliform	3/9/01
				Benthic	Pending
VAV-B41R	S.F. Shenandoah River	Warren Co.	36.45	PCB	10/1/01
VAV-B45R	Holmans Creek	Rockingham & Shenandoah Co.s	10.44	Fecal Coliform	12/5/01
VAV-B47R	Lacey Spring	Rockingham Co.	0.20	Benthic	6/27/02
VAV-B51R	N.F. Shenandoah River	Front Royal	5.33	PCB	10/1/01
VAV-B52R	Orndorff Spring Branch	Shenandoah Co.	0.15	Benthic	6/27/02

TENNESSEE & BIG SANDY RIVER BASIN					
VAS-O05R	Byers Creek	Washington Co.	1.19	Fecal Coliform	2/2/01
VAS-O05R	Cedar Creek	Washington Co.	5.24	Fecal Coliform	2/2/01
VAS-O05R	Hall Creek	Washington Co.	5.87	Fecal Coliform	2/2/01
VAS-O05R	Hutton Creek	Washington Co.	4.20	Fecal Coliform	2/2/01
VAS-O07R	Little Creek	Washington Co.	5.52	Fecal Coliform	6/5/02
VAS-Q11R	McClure River	Dickenson Co.	13.00	Fecal Coliform	Delisted 8/19/02

ATTACHMENT B – Project Review Summary for 2002 EPA Watershed Initiative

PROJECT REVIEW SUMMARY FOR 2002 EPA WATERSHED INITIATIVE

Organization Name	Project Title/ Watershed Plan	Project Summary	Project Period	EPA Request	Avg Rank	Exceed match	10 page narrative
Upper Tennessee Roundtable (Interstate)	Upper Tennessee River EPA Watershed Initiative Grant Proposal	Proposal to implement 26 projects in VA, TN and NC; VA projects ($780K) addressing endangered species concerns, mining, stormwater, agriculture, and community outreach	3 years	$ 1,300,000.00	1	YES - 52%/48%	YES
Elizabeth River Project	The Elizabeth River Watershed Initiative	Proposal to implement industrial P2/buffers/stormwater reuse for toxics control, restore Paradise Creek subwatershed, restore 1 acre of wetlands, monitor river trends and community outreach	3 years	$ 1,200,000.00	2	YES - 35%	YES
James River Association	James River Watershed Restoration Program 2003-2006	Proposal to restore 30 miles of stream corridor, seek 3,000 acres of easements, perform stream assessments & monitoring, and develop educational resources	3 years	$ 831,458.00	3	YES - 26%	YES
Friends of the Rappahannock	VA Rappahannock Watershed "Low Impact Development" Model Initiative	Proposal to install 18 LID demonstration projects, develop code changes, establish citizen teams, develop nutrient tracking system	3 years	$ 710,000.00	4	YES - 35%	YES
Shenandoah Regional Commission	Shenandoah Valley Watershed Initiative	Proposal for pump-out and repair of 1000 septic systems, installing 40 riparian BMPs, Watershed Ombudsman, developing water supply plan and MIF plan	3 years	$ 1,300,000.00	4	YES - 51%	YES
Eastern Shore S&WCD	VA's Eastern Shore Watersheds Network: A Proactive Approach to Preventing Watershed Impairments	Proposal to gather local water quality information for local decision making through enhanced water quality monitoring and small watershed modeling	2 years	$ 301,000.00	6	NO - 21%	YES
Pure Water 2000	EPA Watershed Initiative Nomination Proposal (Shenandoah River)	Proposal to facilitate technology transfer among WWTP operators, encourage BMP implementation, conduct 50 septic pump-outs, purchase easements, develop GIS, conduct monitoring, perform outreach	2 years	$ 1,280,000.00	7	YES - 30%	YES
Mattaponi & Pamunkey Rivers Association	The York Watershed Stewardship Watch Network	Proposal to establish a basin-wide network of citizen volunteers to steward the resources of the York	2 years	$ 301,920.00	7	NO - 20%	NO
Lake Anna Civic Association	The Lake Anna Watershed Initiative	Proposal to expand monitoring activities, determine sources of toxic pollution,and extend environmental education	1 year	$ 300,000.00	7	YES - 50%	YES

ATTACHMENT C – Cooperative Watershed Initiatives 2002

COOPERATIVE WATERSHED INITIATIVES 2002

CHESAPEAKE BAY WATERSHED

Shenandoah Watershed

The *Shenandoah Valley Pure Water 2000 Forum* [Forum] serves as the watershed conservation roundtable for the Shenandoah watershed. The membership of this organization reflects the interest of business, local government, state and federal agencies, and agriculture and environmental grounds.

The Forum hosted its annual meeting on April 16, 2002. Groundwater issues, citizen access to water quality monitoring data, and the commercial production of a fertilizer product from poultry litter were some topics that were presented. Dr. Patrick Michaels, VA's state climatologist, also gave a report on the drought. The Forum initiated a Wastewater Treatment Plant Network and hosted two workshops for the group of approximately 60 wastewater treatment plant operators, engineers, policy-makers, and interested citizens. The Forum will continue its efforts to bring stakeholders in the Shenandoah watershed together by holding a basin wide event at James Madison University in May 2003.

The Forum also sponsored a mini-grant program that has supported numerous local projects aimed at addressing specific nonpoint source pollution issues, including septic system maintenance, creation of riparian buffers, urban nutrient management through lawn care, and citizen water quality monitoring.

In addition, the Forum partnered with Headwaters, Lord Fairfax, and Shenandoah Valley Soil and Water Conservation Districts [SWCDs] to submit an application to the US Department of Agriculture [USDA] to become a Resource Conservation and Development Council [RC&D].

Many stakeholders in the Shenandoah Watershed, including DCR staff, Forum members, and localities, participated in the Shared Potomac Conference, hosted by the Interstate Commission on the Potomac River Basin [ICPRB], on November 11, 2002 in Leesburg, VA. The goals of the conference were to increase awareness of the issues relating to water quality goals for the Bay, to illuminate inter-relationships between programs, initiatives, and people, and to forge alliances within the sub-basins in preparation for the new Tributary Strategies. DCR will continue to work with the ICPRB to seek opportunities for cooperative efforts.

Potomac Watershed

The *Potomac Watershed Roundtable* [Roundtable] and its five committees hosted meetings throughout the year. Active roundtable committees include Erosion and Sediment Control and Stormwater Programs, Communications and Public Outreach, Finance, Nutrients, and Tributary Strategy Implementation. The Roundtable offered recommendations to EPA on TMDLs, to the

state on Shenandoah Potomac Interim Cap Strategy, and the General Assembly's Commission on the Environment on how to improve implementation of erosion and sediment control and stormwater programs.

The 2nd annual Potomac Watershed Forum was attended by over 150 participants from local government, planning districts, SWCDs, non-governmental organizations, the development industry, agriculture, and state and federal government. A major event in the Potomac, the Nutrient Utilization Symposium was held on February 15, 2002. Sponsored by the Roundtable, the Potomac Council, and DCR, the event attracted over 100 decision-makers in the sewage treatment, livestock, and commercial fertilizer industry. The symposium examined current and potential technologies that manage nutrients derived from animal manure, biosolids and commercial fertilizers.

York Watershed

The *York Watershed Forum* hosted meetings in April and June 2002, with a primary focus on the topic of the Chesapeake Bay "environmental endpoints". Experts from VIMS and DEQ presented overviews of draft documents describing the bay-wide water quality criteria and designated use areas; and an emphasis was placed on the chlorophyll criteria. A plan was developed to redirect the focus for the upcoming year toward TMDL development and implementation in the basin.

Rappahannock Watershed

The *Rappahannock Conservation Council* [Council] and the *Rappahannock River Basin Commission* [Commission] co-hosted the 5th annual Rappahannock River Basin Summit July 23-25, 2002 through three regional one-day events. The estimated 150 stakeholders attending the events were exposed to and discussed water quantity concerns including the drought, groundwater supplies, and the Rappahannock model water supply planning project. In addition, presentations were given and discussed relating to water quality issues such as stormwater controls and low impact development.

Four workgroups, under the guidance of the Council and the Commission, have initiated and carried out a number of projects. An Erosion & Sediment Control/Stormwater Program Administrators Forum attended by local government program administrators from twelve counties, the City of Fredericksburg, and the Town of Colonial Beach was held by the Development Impact Workgroup. The Rural Conservation Group held a series of classes for realtors throughout the Rappahannock watershed entitled "Enhancing Property Values Through Natural Resources". Approximately 80 realtors have gone through this course and strong support exists for additional training in the future. The Water Allocation Group has sponsored a study and development of a model by Virginia Tech designed to allow local governments the ability to establish and implement a regional water supply plan. It is hoped that the results of this Rappahannock model will be strong enough to be taken statewide.

James Watershed

James Watershed DCR staff worked with SWCD in the three sub-basin watershed roundtables the Upper James, Piedmont James and Lower James River Roundtables.

Upper James Watershed

Environmental education was a priority for the *Upper James Roundtable* [Roundtable] and in working with DCR and other groups, mini-grants were awarded to organizations for environmental education and capacity building projects. A river celebration event for stakeholders was hosted by the Roundtable on August 10, 2002.

Piedmont James Watershed

The *Piedmont James River Roundtable's* [Roundtable] Tributary Strategy Steering Committee hosted a series of meetings intended to gather public input on the development of the James River Tributary Strategy Implementation Plan. Emphasis was placed on finding solutions for previously identified non-point source pollution problems through youth and adult education strategies. Three groups were formed by the Roundtable: adult education, science and technology, and youth education for the purpose of increasing the public's awareness of water quality issues.

As a result of the adult education workgroup's water quality protection efforts, Southern States agreed to include a bag label encouraging landowners to follow application directions in an effort to reduce over-fertilization of lawns. The youth education workgroup surveyed teachers within the Piedmont region to determine water quality education classroom needs. The SWCDs will use the results to assist schools with watershed and water quality education based on need and interest and also as a tool for grant application development.

Lower James Watershed

The Roundtable is facilitated by the Hampton Roads Planning District Commission and is supported by DCR, four SWCDs, and the localities. Numerous meetings were hosted by the Roundtable and topics included Chesapeake 2000 [C2K] Bay Agreement regulatory actions, state budget and legislative actions, reports on C2K implementation by local governments, and Tributary Strategy revisions. In addition DEQ staff briefed participants on C2K environmental endpoints and the use attainability analysis. The Roundtable supported innovative cropping systems research and demonstrations for poultry litter continuous no-till and long term no-till wheat scab control as well as urban soil quality demonstration plots. Three separate cooperative watershed initiative projects currently underway in the Lower James Basin and led by the City of Norfolk include the Elizabeth River Restoration Program, Powhatan Creek Watershed Management Plan, and the Lynnhaven River Watershed Group.

SOUTHERN RIVERS

Big Sandy Watershed

The *Big Sandy River Basin Coalition* [Coalition] consists of Virginia, West Virginia and Kentucky. The 5th annual Coalition meeting was held on April 5-6, 2002. The primary focus of the meeting was on the intent to establish an Interstate Commission. On September 12, 2002, a meeting was held at Breaks Interstate Park to assess the available support among political leaders in all three states to pursue the establishment of an Interstate Commission. Based on those attending the meeting, the support was overwhelmingly in favor of establishing the Commission. In addition, the Coalition is taking the necessary steps to become a 501(c)(3) "non-profit" organization.

Upper Tennessee Watershed

Funds were secured by Virginia, Tennessee, and North Carolina to hire two coordinators, one serving Virginia and a second one serving Tennessee and North Carolina, for the *Upper Tennessee River Roundtable* [UTRR]. Since that time, a coordinator has been hired by the UTRR. Recently the UTRR submitted a grant proposal for EPA's 319 Watershed Initiative Grant. The proposal was selected as one of two "interstate" proposals that would be forwarded on to EPA for consideration against other states across the country. The UTRR is also in the process of refining the Strategic Plan so that components of the Plan are stated more clearly and can be used more readily for grant writing purposes, implementation of projects, etc.

New River Watershed

The *New River Watershed Roundtable* [Roundtable] evolved from the tri-state American Heritage Rivers Initiative and the resulting project-based New River Work Plan. The Roundtable is a grassroots forum promoting partnership and information for water quality with over 150 members from citizen groups, districts, agencies, businesses, localities, nonprofit groups, and academia. The members are working to develop the New River Watershed Strategic Plan. Subcommittees are focusing on funding, personnel, education, Karst and Stormwater, and urban development. The Roundtable will assist DCR and DEQ in the implementation of TMDLs for the impaired tributaries of the New River.

Roanoke River Watershed

The *Upper Roanoke River Roundtable* [Roundtable] has been established and is bringing together government, conservation groups, and industry in an effort to address issues from the headwaters to Leesville Lake. A *Water Conservation Alliance* [Alliance] was formed by the Smith Mountain Lake Association. The mission of the Alliance, which consists of 23 groups including DCR, is to involve upstream and downstream stakeholders and search for consensus on ways to influence the management of water levels and water quality throughout the Roanoke River Basin.
Virginia has joined with North Carolina to form a bi-state *Roanoke River Advisory Commission*,

[Commission] officially established this year through General Assembly legislation in both states. The 19 Commission members for Virginia will meet December 16, 2002 to kick-off the Virginia portion of the Commission by getting organized, discussing future plans and priorities and electing a chairman and vice-chairman.

Albemarle and Chowan Watersheds

The *Southern Watersheds Management Program* [SWAMP] is a watershed management and planning forum with Virginia's Albemarle Watershed and is comprised of entities including the Cities of Virginia Beach and Chesapeake, Hampton Roads Planning District Commission, the Virginia Dare SWCD and multiple state and federal agencies. SWAMP fosters coordination and collaboration amongst stakeholders to sustain the rural characteristics of the southern watershed while promoting responsible and environmentally sound water resource and land use planning. SWAMP successes include Memorandums of Agreement for water use conflicts and information exchange; multi-jurisdictional comprehensive, natural resource based planning tools; zoning ordinance modification and coordination; and demonstrated commitments by key stakeholders to the collaborative process.

A *Chowan River Roundtable* [Roundtable] is in the process of being formed to address key issues including the coordinator of water quality monitoring, integration of conservation programs, coordination with North Carolina, and fostering collaborative projects to improve the Chowan's water quality and habitat. The Roundtable development is being lead by the J.R. Horsley SWCD. A Roundtable steering committee is established and a workshop is planned.

Chesapeake Bay and Atlantic Ocean Coastal Watersheds

Over the past three years, with assistance and funding from DCR, DEQ and others, the Eastern Shore SWCD has facilitated the coming together of a diverse group of stakeholders, known as *Virginia's Eastern Shore Watersheds Network* [Network]. This diverse group has crafted a strong partnership among researchers, resource agencies, businesses, planners, elected officials, and citizens. The Network has evolved from the planning process of the Tributary Strategy for Chesapeake Bay waters to begin to address broader water resource issues. The Network will continue to support initiatives undertaken for the Tributary Strategy; however, their focus also includes the development of far-reaching goals for water quality initiatives in research, restoration, and citizen education and involvement for all Eastern Shore waters. The Network is working to assure long-term continuity of collaborative programs and to create the capacity to deal with the issues and needs facing local watersheds.

The vision defined by the Network is for "…healthy, sustainable water resources on the Virginia's Eastern Shore." The Network describes its mission, "The *Network* is a diversity of partnerships promoting the stewardship of the Virginia's Eastern Shore watersheds. This stewardship is accomplished through coordinating planning, implementation, research and educational outreach of water resource conservation, restoration, and enhancement efforts."

ATTACHMENT D – VA CWIC Approach to Small Watershed Management Planning

VA CHESAPEAKE 2000 WATERSHED COMMITMENTS IMPLEMENTATION COMMITTEE
(VA CWIC)

Approach to Small Watershed Management Planning

As the Commonwealth's lead agency in implementing NPS pollution programs, the Department of Conservation and Recreation (DCR) has been providing support to community watershed organizations and local governments in their efforts for over 10 years. It has been recognized for some time now, that implementing nonpoint source pollution reduction programs using a watershed-based planning approach would have a greater impact on efforts to significantly reduce nonpoint source (NPS) pollution. By supporting local planning efforts, Watershed Conservation Roundtables, citizen involvement, and community watershed organizations, DCR has fostered collaborative efforts to develop the best nonpoint source pollution reduction strategies for each watershed.

Throughout the last two years, and especially over the past year, there has been a greater, more focused, effort to develop a statewide watershed management strategy that involves developing a specific plan for a watershed based on the ecological, economic, and social resources available. The impetus for this effort began with the signing of the Chesapeake 2000 agreement (C2K). The governors of Virginia, Maryland, and Pennsylvania, the mayor of the District of Columbia, the chairman of the three-state legislative Chesapeake Bay Commission and the administrator of the U.S. Environmental Protection Agency signed this ambitious pact. C2K identifies goals to improve Living Resources Protection and Restoration, Vital Habitat Protection and Restoration, Water Quality Protection and Restoration, and to target and implement Sound Land Use practices, as well as to encourage Stewardship and Community Engagement. There are more that 105 commitments in C2K, many focusing on engaging local governments and community watershed organizations in watershed and sound land use management planning. The specific commitment involving watershed management planning follows:

Commitment 2.2.1-Watershed Management Planning
"By 2010, work with local governments, community groups and watershed organizations to develop and implement locally supported watershed management plans in two-thirds of the Bay watershed covered by this Agreement. These plans would ***address the protection, conservation and restoration of stream corridors, riparian forest buffers and wetlands for the purposes of improving habitat and water quality****, with collateral benefits for optimizing stream flow and water quality."*

Background

In order to achieve this commitment, the Chesapeake Bay Program's Implementation Committee created the Chesapeake 2000 Watershed Commitments (CWIC) Task Force. The Virginia delegation to this Bay Program taskforce is referred to as the VA CWIC Task Force. These Taskforces have worked together to:

- Establish components of a watershed management plan.
- Identify the criteria and process for counting watershed management plans.

- Determine the best ways to track progress towards the C2K Agreement.
- Identify the tools that local governments, community groups and watershed organizations need in order to create watershed management plans.
- Establish how to most effectively deliver these tools to the local governments, community groups and watershed organizations.

❖ A **watershed management plan** is defined as *a detailed vision and strategy to coordinate and integrate the programs, tools, resources, and needs of multiple stakeholder groups within a watershed to conserve, maintain, protect and restore the habitat and water quality of the watershed.*

VA CWIC has established the following as components (for a detailed explanation of these components, please see Appendix A, attached) of a watershed management plan that will count towards fulfilling this commitment: (These components are the defining measures for the small watershed management planning guide, currently being developed by a workgroup of VA CWIC, draft available for review by Mid-January 2003.)

- Clearly articulated goals, focusing on improving, enhancing, or protecting water quality and habitat
- Demonstrated stakeholder involvement
- Environmental and institutional inventory
- Data evaluation
- Implementation strategy
- Progress benchmarks
- Plan revision

VA CWIC has met regularly throughout the year to discuss and develop the Commonwealth's approach to implementing small watershed management planning. This effort has been collaborative, with representatives from CBLAD, DEQ, DOF, DGIF, Northern VA Regional Planning Commission, Fairfax Co., City of Chesapeake, and other community watershed organizations and local governments in attendance. DCR agency representatives regularly attend Bay Program CWIC meetings to ensure consistent collaboration between Bay Program and states efforts.

As implementation methods have been developed, it has become apparent that meeting C2K commitment 2.2.1 will result in the implementation of several other C2K commitments. During a recent exercise of the Implementation Committee (IC) to ensure maximum efficiency among the Bay Program's approach to C2K, it was requested that members of the IC vote on keystone commitments. (A commitment was defined as keystone if it was "a central commitment that has the potential to drive others [which' if met, also achieves or greatly facilitates achieving other commitments. Or, if not met, seriously jeopardizes the progress of other commitments.") The result of this exercise identified 2.2.1 as a keystone commitment by a majority vote. This can significantly impact the implementation of watershed management planning in Virginia. As resources are increasingly needed to promote and educate local governments and community watershed organizations about watershed management planning, we can continually work with the Bay Program to ensure adequate resources are available.

ATTACHMENT E – Watershed Planning Activities by Local Governments

Chesapeake Bay Local Assistance Department: Watershed Planning Initiatives

Special Watershed Plans

Both Chesterfield County and Henrico County embraced a watershed planning approach to meet Chesapeake Bay Preservation Act and Stormwater Management requirements.

Chesterfield County's Swift Creek Watershed Plan

The Watershed Management Master Plan was developed to protect Swift Creek Reservoir while allowing intense development within the Swift Creek watershed. This watershed encompasses 61.9 square miles and is divided in to eight sub-watersheds. The plan utilizes both regional ponds, of which there are 14, distributed along the perennial streams and approximately 20 smaller ponds on non-perennial streams. These ponds will remove seventy nine percent of the phosphorus threshold requirements.

The plan uses less traditional regional management techniques to make up for the remaining twenty nine percent removal requirement. Where the flood plains are wide, structures are placed in the flood way to slow the flow of stormwater moving through the area, lengthening detention time and enhancing the pollutant removal function. The Plan calls for ten stream restoration/buffer enhancement sites, these are places where the stream is badly degraded or the current stormwater control devices can be enhanced to better utilize the buffers pollutant removal ability. There are seven stormwater wetlands to be constructed and 16 areas referred to as non-RPA riparian corridor management areas that will be placed under protection, requiring a 50-foot buffer be left along the headwater streams.

Henrico County's Regional Stormwater Management Plan

From 1991-2000 approximately 500 on-site BMPs were constructed in the County. While the larger ones met the required pollutant removal goals, the smaller BMPs generally failed to function as expected due to poor design and lack of maintenance. Because the County has many areas that have been developed prior to any stormwater consideration, these areas have severely degraded stream systems and the on-site BMP approach did nothing to help these degraded streams.

Because of this, Henrico County took a very broad approach to watershed management. The plan involves: stream channel restoration and protection, buffer establishment, urban stormwater retrofits and regional stormwater controls. The program still requires effective on-site BMP facilities for the larger more intensely developed sites; however, the program will reduce the number of ineffective BMPs by

allowing alternative SWM approaches. The County inventoried

all streams and created four categories of streams, from healthy streams to very degraded. This stream assessment also allowed the County to identify and inventory illicit discharge sites, illegal dumps and exposed/possibly leaking sanitary sewer lines. These additional issues are also addressed in the program.

Watershed Planning through the Comprehensive Plan

Localities within Tidewater Virginia are required to enhance their comprehensive plans by adding an environmental element which looks at the following issues: physical constraints to development, including a discussion of the relationship between soil limitations and existing and proposed land uses; protection of the potable water supply, including groundwater resources and threats to water supplies; the relationship between land use and commercial and recreation fisheries and other aquatic resources; the siting of docks and piers; public and private access to waterfront areas and their effect on water quality; mitigation of the impacts of land uses and its associated pollution upon water quality; shoreline and streambank erosion; and the potential for water quality improvements through the reduction of existing pollution sources and redevelopment efforts. These comprehensive plan elements which focus on water quality meet the recommendations from CWIC for watershed plans.

Special Projects: Better Site Design

Friends of the Rappahannock

In the Spring of 2001, the Chesapeake Bay Local Assistance Department awarded $21,678 in grant funds to the non-profit Friends of the Rappahannock (FOR) to begin an advocacy and education process with the local governments of the City of Fredericksburg and the Counties of Spotsylvania and Stafford regarding changes that could be made in local land use ordinances to reduce water quality impacts through site design and management.

The project was designed to allow FOR and the local governments to build on the momentum generated by the Rappahannock Better Site Design Roundtable consensus process. The Rappahannock Better Site Design Roundtable was an initiative of the Friends of the Rappahannock, in conjunction with the Center for Watershed Protection, that brought together a wide cross-section of stakeholders from local government, the development community and environmental interests to develop consensus on key principles for reducing water quality impacts through site design and management.

As part of this grant, FOR worked with planning staff in each of the three jurisdictions to determine which of the consensus principles would have the greatest chance of being favorably received by the respective Planning Commissions and Boards of Supervisors. As a result, Spotsylvania County implemented a major ordinance change to allow clustering, and at the time the grant period ended, was

poised to follow through with amendments to their frontage requirements, and amendments to permit the use of Low Impact Development (LID) techniques.

Stafford County's planning and code compliance staff were preparing to submit language to the Planning Commission and Board of Supervisors for a significant new stormwater amendment that included the LID approach. In the city of Fredericksburg, a major developer switched to the LID approach as a direct result of FOR's advocacy during the grant period.

Also as part of this grant, FOR conducted a training workshop on LID / Better Site Design concepts for elected officials basin-wide, in partnership with several local, state, and federal agencies. The workshop was well attended, and the feedback was largely favorable, although some attendees thought the LID presentation was too general. At the close of the grant, FOR indicated that it intended to conduct similar presentations in the future that would include more specifics on LID implementation.

Virginia Better Site Design Case Studies: James City County and Richmond County

The Chesapeake Bay Local Assistance Department awarded a grant to the Center for Watershed Protection to conduct two case studies on the impediments to Better Site Design. This project entailed a thorough analysis of current local ordinances, state and local regulations, development processes and procedures within each county and detailed surveys of county staff, the development community and others. The case study analysis includes a list of barriers to successful implementation of better site design principles as well as a list of recommendations for each county to pursue.