

**ANNUAL REPORT
ON THE
VIRGINIA WATER QUALITY IMPROVEMENT FUND
POINT SOURCE POLLUTION CONTROL**



**SUBMITTED BY
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DEPARTMENT OF ENVIRONMENTAL QUALITY**

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COMMONWEALTH of VIRGINIA

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February 7, 2005

TO: The Honorable Mark R. Warner, Governor of Virginia
and Members of the Virginia General Assembly

FROM: Robert G. Burnley

SUBJECT: WATER QUALITY IMPROVEMENT FUND ANNUAL REPORT

Under §10.1-2134 of the Virginia Water Quality Improvement Act of 1997 (Chapter 2.1 of Title 10.1 of the Code of Virginia), the DEQ Director is responsible for providing an annual report on the point source component of the VA Water Quality Improvement Fund (WQIF).

This report, covering implementation of the VA WQIF through calendar year 2004, is complete and will soon be available at the following Internet website address:

<http://www.deq.virginia.gov/bay/wqifdown.html>

To receive a printed copy of the report, please contact Robert Ehrhart at DEQ by phone (804-698-4466) or email (rwehrhart@deq.virginia.gov).

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I. EXECUTIVE SUMMARY

This is the eighth submission to the Governor and the General Assembly in response to the statutory requirement (see Appendix A) under §10.1-2134 of the Virginia Water Quality Improvement Act of 1997 (Virginia Code, Chapter 21.1 of Title 10.1) for an annual report on the implementation of the Virginia Water Quality Improvement Fund (WQIF). The DEQ Director is responsible for reporting annually on the point source component of the WQIF.

The report contains a review of program activities, which have continued implementation of the WQIF in Virginia, through calendar year 2004. This includes an update of ongoing projects from 1997 through the grant applications processed for FY 2000 funding, which was the last year that a request for proposals for construction projects was issued.

As specifically required by §10.1-2134 of the Act, this report also lists the recipients and amounts of grants awarded from the WQIF, the specific and measurable reductions in nutrient loads to state waters anticipated once each funded project is constructed and placed into operation, and projections for the amount of continued funding required for the upcoming fiscal year under all fully executed grant agreements. Highlights contained in this report are:

1. In the seven years since its inception, the WQIF has provided grant money for twenty-five projects, which (when fully implemented) will result in the estimated annual point source reduction of 13.7 million pounds of nitrogen and 240,000 pounds of phosphorus to the waters of the Commonwealth.
2. Of the nineteen projects now operating their nutrient reduction systems, all but one has met or exceeded the performance requirements of their WQIF grant agreements.
3. To date, approximately \$98.9 million for point source projects has been obligated through signed grant agreements.
4. From the FY05-06 biennial budget, approximately \$13.3 million dollars was appropriated in FY05 to the WQIF point source program, of which approximately \$5.8 million will be used to fully fund the existing grant obligations. The remaining \$7.5 million will be used first and foremost to provide technical assistance grants associated with planning for new nutrient reduction requirements contained in the discharge permit and/or tributary strategies.
5. As of September 2004 and pursuant to the revised tributary strategy efforts by the Commonwealth of Virginia, the amount of funds needed to fully implement the Tributary Strategy Point Source Actions is approximately \$1.01 billion.

This annual report, as well as the updated status of the WQIF, is available online from DEQ via the Chesapeake Bay Program link (<http://www.deq.virginia.gov/bay/wqifdown.html>), and the General Assembly Reports link (<http://www.deq.virginia.gov/regulations/reports.html>).

II. VIRGINIA WATER QUALITY IMPROVEMENT ACT OF 1997

A. Background

In 1997, the Virginia General Assembly passed the Water Quality Improvement Act (Act), which established the Water Quality Improvement Fund (WQIF). A primary objective of the WQIF is to reduce the flow of excess nutrients (nitrogen and phosphorus) into the Chesapeake Bay watershed. As part of the interstate Chesapeake Bay Program the Commonwealth has joined with other Bay states and the Federal government in committing to reduce the input of nutrients through the development and implementation of Tributary Strategies. The Code of Virginia (Title 2.2, Chapter 2, §218 and §219) also directs the development and implementation of tributary strategies to restore the water quality and living resources of the Bay and its tributaries.

No changes/amendments have been made to the Act, which affect the point source program, since the 1999 Virginia General Assembly. These 1999 amendments to §10.1-2129 of the Act require a thirty day public comment period and public hearing to precede the annual allocations of moneys in the WQIF by the Secretary of Natural Resources between the point and nonpoint source pollution programs.

Additionally, when developing grant guidelines, at a minimum the process must include: (i) the use of an advisory committee composed of interested parties; (ii) a sixty day public comment period on draft guidelines; (iii) written responses to all comments received; and (iv) notice of the availability of draft guidelines and final guidelines to all who request such notice.

Under amendments to §10.1-2131 of the Act, the DEQ Director may determine that sufficient monies exist in the WQIF for substantial and continuing progress in implementing the tributary plans. If this determination is made, grants may be authorized from the WQIF for projects other than the design and installation of nutrient reduction technology. To date, no such determination has been made and grants continue to be awarded solely for nutrient reduction projects, as part of the tributary strategy process.

B. Cooperative Point Source Pollution Control Program

The Act recognizes that the protection of the quality of state waters is a shared responsibility among state and local governments and individuals. In order to enhance the purposes of the State Water Control Law and other state laws related to the restoration, protection, and improvement of the quality of state waters, the Act establishes cooperative programs to reduce nutrients and other point and nonpoint sources of pollution.

Under the cooperative point source program, the DEQ is directed to assist local governments and individuals in the control of point source pollution, including nutrient reductions, through technical and financial assistance made available through grants provided from the WQIF. These cooperative programs do not limit in any way the other water quality restoration, protection and enhancement authorities of any agency or local government of the Commonwealth. The voluntary, cooperative approach envisioned by the *original* (year 2000) Tributary Strategies is consistent with the cooperative program established under the Act. In developing the *original* Strategies, point source owners throughout the Chesapeake Bay drainage basin clearly stated their preference for a local-state cooperative partnership approach in developing and implementing the tributary strategy.

Virginia continues our attempt to implement the tributary strategies by, conceptually, offering 50% of the capital cost to install nutrient removal facilities (subject to additional appropriations) and working closely with EPA and other Bay Program partners to integrate the nutrient criteria/standards under development, TMDL requirements, and tributary strategy programs in the Bay restoration effort. Details on this integration process can be found in the *Annual Report on Development and Implementation of the Tributary Strategies* (Office of the SNR) at the following link: <http://www.snr.state.va.us/Initiatives/TributaryStrategies/index.cfm>.

Assuming that each WQIF cost-share grant could cover at least 50% of the eligible costs, Table 1 shows estimated costs for implementing the point source program in each Tributary Strategy contained in the 2004 documents. The estimate for future WQIF funding accounts for existing signed agreements and estimated costs for projects not yet in the WQIF program. The basis for most of the costs was contained in the document, “Nutrient Reduction Technology Cost Estimations for Point Sources in the Chesapeake Bay Watershed” (NRT Report, November 2002), prepared by a task force of Chesapeake Bay Program members. The dollar amounts presented in the NRT report replace estimates used in previous WQIF annual reports. The methodology used to calculate the cost estimates has been extensively updated and also directly involved many of the facility owners and their consulting engineers. For these reasons, the amounts presented in Table 1 are considered more accurate and replace previous estimates.

Table 1 – State Cost Share Needs to Fully Implement the 2004 Tributary Strategy (TS) Point Source Actions	
	Estimated 50% Grant Amount
Shenandoah/Potomac Funding Needs	\$223,443,000
Rappahannock Funding Needs	\$38,369,000
York Funding Needs	\$13,348,000
James Funding Needs	\$227,055,000
Eastern Shore Funding Needs	\$4,857,000
Est. Total Grant Funds for Point Source Actions	\$507,072,000

C. Virginia Water Quality Improvement Fund (WQIF)

The Act established the WQIF to provide grants to local governments, soil and water conservation districts, and individuals for point and nonpoint source pollution prevention and reduction programs. Under the Act, the DEQ Director is responsible for point source grants and the Director of the Department of Conservation and Recreation (DCR) is responsible for nonpoint source grants. In accordance with the Act, existing point source grants provide at least 50% of the cost of design and installation of biological nutrient removal (BNR) facilities or other nutrient removal technology at publicly owned treatment works (POTW). The only two exceptions to the requirement that the grantee be a POTW -- SIL Clean Water, Inc. and Dale Service Corporation -- share a special (one time) appropriation for private sewage facilities serving residential areas that exceed 0.5 MGD in design capacity. In both cases, the grant amount did not equal 50% of the final grant eligible costs due to the limited amount of the special appropriation.

1. Appropriations to the WQIF

Table 2 provides the point source appropriations to the WQIF by the General Assembly for fiscal years 1998-2004. For FY 1998 and 1999, point source funds were targeted for projects in the Shenandoah/Potomac Tributary Strategy. In FY 2000, the point source allocation to the WQIF was for use in implementing nutrient reduction strategies for the lower Bay tributaries (Rappahannock, York, James, and Small Coastal basins).

No additional appropriations were made to the WQIF point source program from FY 2001 thru FY 2004; however, accrued interest has been returned to the fund for use on existing grant agreements in the amount of approximately \$10.15 million. At the time this report was prepared and for FY 2004 to date, about \$480,000 in interest had been earned on the balance.

Table 2 – WQIF Appropriations	
Point Source Program	
FY 1998	\$10.00 million
FY 1999	\$37.10 million
FY 2000	\$25.24 million
FY 2001	\$10.30 million
Interest earned (thru '04 YTD)	\$ 10.28 million
FY 2005	\$13.3 million
TOTAL:	\$106.22 million

2. Multi-Year Projects

As with most capital outlay projects, the WQIF projects have taken several years to complete. Thus, it was anticipated that the grant monies needed to fully fund these multi-year projects would be spread out over several years. To implement the tributary strategies and ensure that monies allocated to the WQIF are put to use as soon as possible, DEQ and the point source owners took the approach of signing agreements for multi-year grants that may, in total, exceed the amount of grant funds currently in the WQIF. Under this approach, the grant agreement that each owner signs with DEQ specifies that the availability of monies in the Fund is subject to appropriation by the General Assembly and that at times there may not be sufficient monies in the Fund to permit prompt (or entire) disbursement of grant funds owed to the Grantees.

The agreements also contain provisions to minimize the potential for disruption in disbursements of the grant funds. The grantees and DEQ have continued to work together to forecast the estimated disbursements from the WQIF and made this information publicly available for use in the State budgetary process. For the fiscal years: 2002-04, DEQ had to manage allocation of available grant funds to ensure an equitable distribution among all impacted grantees for that fiscal year. With the appropriation in 2005, disbursements for the existing signed obligations have been restored.

Additionally, the agreements contain language to ensure completion of the construction and start-up, regardless of the amount of grant funds reimbursed.

III. PROGRAM ACTIVITIES

A. FY 1998 WQIF Grants

During the first year of the WQIF point source program (FY 1998), twelve grants, committing a total of \$52,333,848 in state cost share, were signed in the Shenandoah and Potomac basins based on estimated costs. Since signing the original grants, inflation, changes in the scope of work, and the actual receipt of construction bids have increased the total grant commitment to \$66,429,636. These point source projects were designed to reduce annual loads of nitrogen by 6.4 million pounds, and phosphorus by 88,000 pounds at design flows. A technical assistance grant for \$546,000 was provided to SIL Clean Water for the planning and design phases of a joint public-private venture for land application designed for an average flow of 1.923 MGD.

B. FY 1999 WQIF Grants

Five grant agreements were signed using funds appropriated for FY 1999; a total of \$9,052,137 was obligated for eligible cost-share. These point source projects were also located in the Shenandoah/Potomac basin and were designed to reduce, respectively, annual loads of nitrogen and phosphorus 985,000 lbs/year and 157,200 lbs/year at design flows.

C. FY 2000 WQIF Grants

\$25.24 million (see Table 2) was appropriated for FY 2000, to be used exclusively for financing the design and installation of nutrient removal facilities at POTWs in the lower Bay tributaries (Rappahannock, York, James, and Small Coastal basins). To offset the loss of available funds resulting from the transfer of interest to DCR, the DEQ Director authorized using \$1.5 million of unobligated FY 2000 funds for projects in the Shenandoah/Potomac basin.

Of the 15 eligible applications submitted for FY 2000 funds, 9 requests were targeted as priority projects for grant award. Of those 9 priority projects, eight grant agreements were executed. Only the grant agreement prepared for the City of Richmond was not executed, as the City was uncertain of their ability to achieve the performance standards for total nitrogen in conjunction with Combined Sewer Overflow control. These point source projects were designed to reduce, respectively, annual loads of nitrogen and phosphorus by 6,286,706 lbs/year and 1,381 lbs/year at design flows.

D. FY 2004-05 Activity/Notes

Approximately \$5.8 million was appropriated in FY05 to fully satisfy the grant obligations executed by the Commonwealth for the Shenandoah/Potomac projects. This action allowed all previously deferred requisitions to be fully paid and the process of reimbursing costs incurred by the grantees has been fully restored. Additionally, emphasis was placed on closing out 5 projects (ACSA-Stuarts Draft, Leesburg, Purcellville, Dale Service Corp. #1, Dale Service Corp. #8) with relatively small balances. Of the 5, only Purcellville remains and the grant has been formally modified to reflect a revised/final eligible amount. Finally, no reimbursement of funds was requested by the Virginia localities sharing in the Blue Plains upgrade in FY 2004.

Disbursement of funds in association with the lower tributary projects was without incident in FY 2004. About \$135,000 in interest earned on the remaining funds was assigned to the lower tributary projects in anticipation of additional needs by Henrico County. As of FY 2005, about \$450,000 remains available for cost overruns (or increases) on the four remaining grants still open for the lower tributary projects.

In addition to the \$5.8 million appropriation referenced above, another \$7.5 million was appropriated for new projects. Because of actions being driven out of the tributary strategy process, new DEQ Permit Guidance directed certain Chesapeake Bay watershed dischargers to meet nutrient-related requirements upon reissuance of their VPDES permit. These requirements are intended to "hold-the-line" - on nutrient discharges under a special condition which requires both a **Basis of Design Report for Nutrient Removal** and an **Interim Optimization Plan for Nutrient Removal** - until several, other rulemakings are complete. In order to assist with completion of these two documents, WQIF cost-share assistance was made available to those domestic wastewater discharges that are considered by DEQ to be a "significant" source of nutrients. State cost-share for these technical assistance grants could range from a minimum award of 50% up to a maximum amount of

90%, based on two factors - the Commission on Local Government fiscal stress rating and the locality's "ability to pay".

As previously mentioned, the NRT Report contains costs for most significant nutrient point sources. Based on new and much more challenging load allocations agreed to by the Bay Program partners in April 2003 and the Tributary Strategies drafted in 2004, the NRT Report was used as a primary source to estimate costs for implementing point source reductions.

If additional appropriations are not made to the WQIF Point Source Program, it is projected that the WQIF will not have sufficient funds available to cost-share the needed point source nutrient reduction projects recommended in the revised Tributary Strategies.

E. Performance of Completed Projects

The annual average total nitrogen performance requirement of 8.0 mg/l is being achieved at all sixteen plants (see Table 4) that have been operating BNR for ten or more months; the annual performance requirement of 21.0 mg/l is also being achieved at the Hopewell WWTF.

Additionally, better performance than required has occurred at many of the plants, due to the fact the facilities are operating (on average) at 75% of their design capacity. Plants discharging the lowest nitrogen concentrations are generally operating at 65%-85% of the design capacity. The performance at several of these plants is highlighted in Table 4. As future wastewater flows to the plants increase, it is possible there will be a decline in the overall treatment efficiency, but the annual performance requirements will still likely be met.

Table 3 – Status of WQIF Point Source Projects Not Yet Completed		
<i>Facilities in Potomac/Shenandoah</i>	<i>Size (MGD)</i>	<i>Status</i>
Fairfax-Blue Plains	31.0	Plant retrofit complete; upgrade for nitrification reliability pending. ('04 Yearly avg. TN = 6.35 mg/l)
Loudoun County SA-Blue Plains	13.8	Plant retrofit complete; upgrade for nitrification reliability pending. ('04 Yearly avg. TN = 6.35 mg/l)
Fairfax Co.-Noman Cole	67.0	Partial BNR facilities online 9/02 ('04 YTD avg. TN= 6.25 mg/l)
Prince William Co. SA-Mooney	18.0	BNR partially online in 2002 ('04 YTD avg. TN = 5.22 mg/l)
<i>Facilities in Southerly Tributary Basins</i>	<i>Size (MGD)</i>	<i>Status</i>
FMC (Spotsylvania Co.)	5.4	Initial Design has commenced
Henrico	75	BNR Partially Online May 2003
Totopotomoy (Hanover Co.)	5	BNR Online July 2004 (no data available)

**Table 4 – 2004 Summary of Nitrogen Reduction Performance
at WQIF Point Source Projects**

Facility	Design Flow (MGD)	2003 Avg. TN (mg/l)	2004 Avg. TN (mg/l)*	% of design flow; 2003	% of design flow; 2004	% below 8.0 mg/l in 2004
Alexandria SA	54.0	7.31	7.63	78%	70%	5%
Aquia	6.5	7.41	7.47	67%	66%	7%
Arlington	40.0	8.47	8.74	82%	72%	-9%
Dale Service Corp #1	4.0	3.63	3.06	82%	76%	62%
Dale Service Corp #8	4.0	4.65	3.16	72%	75%	60%
H.L. Mooney	18.0	7.53	5.22	75%	69%	35%
Hopewell**	50.0	15.9	22.6	54%	56%	-8%
Leesburg	4.35	5.90	6.00	86%	74%	25%
Little Falls Run	8.0	4.61	5.85	44%	41%	27%
Massaponax	8.4	6.82	4.96	66%	60%	38%
Middle River	6.8	5.70	7.06	74%	60%	12%
North River (HRRSA)	16.0	6.86	8.97	85%	70%	-12%
Opequon (FWSA)	8.4	5.72	4.89	95%	92%	39%
Proctors Creek	21.5	6.58	6.35	87%	83%	21%
Purcellville	1.0	NA	4.92	NA	49%	39%
SIL Clean Water	See Narrative that follows					
Stuarts Draft (ACSA)	2.4	4.52	4.48	70%	47%	44%

* through October 2004; ** 21.0 mg/l performance standard

One project, the SIL Clean Water Modular Reclamation Reuse System (MRRS), has had difficulty meeting its annual nutrient reduction requirements since the performance period began in 2001. DEQ determined that the facility exceeded its annual nutrient load allowances in the years 2001-2003 and monetary assessments (for repayment of a portion of the grant) were ordered. SIL failed to pay these assessments, so they have been referred to the Office of the Attorney General for collection. In August 2003, SIL was ordered to submit a Corrective Action Plan to ensure future compliance with the performance requirements of the WQIF agreement. The submitted Plan was deemed unacceptable by DEQ. Options to secure performance under the grant are being considered. Analysis of 2004 performance is also now underway.

F. Other Activity (Swine Operations Study)

Item 428 from the 1999 Budget Appropriations Act required the DEQ, in cooperation with the Department of Agriculture and Consumer Services, the Department of Conservation and Recreation, and the Virginia Cooperative Extension Service, to create a pilot program to evaluate alternative approaches for operating intensive swine operations with particular focus on the effective reduction of odors and pollution without reducing profitability. DEQ-OWP has reviewed the final report and has recommended a total WQIF expenditure of \$120,368 in conjunction with its review of the final report.

IV. SUMMARY DATA FOR EXECUTED GRANT AGREEMENTS

As required by §10.1-2134 of the Act, this report lists the projections for the amount of continued funding required for the coming fiscal year under all fully executed grant agreements. This revised information is provided in Table 5.

Table 5 – Projected WQIF Grant Expenditures for Signed Agreements											
Grantee / Plant	Grant Amount	Expenditures FY 1998 thru FY 2004 (7/1/97- 6/30/04)	Expenditures to date in FY 2005 (7/1/04- to date)	Total Expenditures to Date	Projected Expenditures Remaining for FY 2005 (to 6/30/04)	Projected Expenditures for FY 2005 (7/1/03- 6/30/05)	Projected Expenditures Past FY 2005	Expected Nutrient Load Reduction		WQIF Grant Effective Date	Operational Status
								Nitrogen	Phosphorus		
								(lbs per year)			
ACWSA-Stuarts Draft	\$1,382,783	\$1,381,142	\$1,641	\$1,382,783	\$0	\$0	\$0	134,000	12,200	11/12/00	BNR online
Alexandria S.A. STP	\$20,147,914	\$18,099,830	\$796,128	\$18,895,958	\$1,201,000	\$50,956	\$0	2,055,000	N/A	03/16/98	Online: 4/03
Arlington Co. STP*	\$10,816,973	\$10,346,128	\$470,845	\$10,816,973	\$0	\$0	\$0	146,000	N/A	10/10/98	BNR online
Chesterfield Co.– Proctors Crk STP	\$965,560	\$965,560	\$0	\$965,560	\$0	\$0	\$0	700,665	N/A	06/26/01	BNR Online
Dale Service Corp STP #1	\$1,901,057	\$1,806,004	\$95,053	\$1,901,057	\$0	\$0	\$0	377,500	N/A	5/26/99	BNR online
Dale Service Corp STP #8	\$2,115,053	\$2,006,987	\$108,066	\$2,115,053	\$0	\$0	\$0	328,800	N/A	5/26/99	BNR online
Fairfax Co. (Blue Plains STP)*	\$1,387,500	\$381,988	\$0	\$381,988	\$0	\$0	\$1,005,512	751,000	N/A	12/22/97	BNR online
Fairfax Co. – Noman Cole STP	\$10,399,500	\$8,545,402	\$0	\$8,545,402	\$1,554,098	\$300,000	\$0	1,632,000	N/A	5/20/98	Partial BNR online
Fauquier Co – Remington STP	\$886,138	\$615,000	\$0	\$615,000	\$271,138	\$0	\$0	33,156	1,381	7/11/01	2004
Fred/Winchester S.A. – Opequon STP	\$2,754,618	\$2,754,618	\$0	\$2,754,618	\$0	\$0	\$0	279,000	26,000	6/8/98	BNR online
Hanover Co. – Totopotomoy	\$2,109,770	\$1,968,862	\$40,166	\$2,009,028	\$100,742	\$0	\$0	73,911	N/A	05/18/01	BNR online
H'burg/Rckgham S.A. - North River STP	\$2,850,937	\$2,850,937	\$0	\$2,850,937	\$0	\$0	\$0	521,000	49,000	4/27/98	BNR online
Henrico WWTF	\$8,906,687	\$8,644,876	\$220,614	\$8,865,490	\$41,197	\$0	\$0	1,233,512	N/A	7/04/01	03/05 (Est.)
Hopewell WWTP	\$2,418,647	\$2,414,671	\$3,976	\$2,418,647	\$0	\$0	\$0	3,957,000	N/A	11/6/00	BNR online
Leesburg STP	\$6,568,389 ¹	\$6,453,953	\$114,436	\$6,568,389	\$0	\$0	\$0	81,000	N/A	7/16/98	BNR online

¹ Contract modification #3 has been signed and reflects final eligible costs; the grant increased from \$6,477,734

Table 5 – Projected WQIF Grant Expenditures for Signed Agreements

Grantee / Plant	Grant Amount	Expenditures FY 1998 thru FY 2004 (7/1/97- 6/30/04)	Expenditures to date in FY 2005 (7/1/04- to date)	Total Expenditures to Date	Projected Expenditures Remaining for FY 2005 (to 6/30/04)	Projected Expenditures for FY 2005 (7/1/03- 6/30/05)	Projected Expenditures Past FY 2005	Expected Nutrient Load Reduction		WQIF Grant Effective Date	Operational Status
								Nitrogen (lbs per year)	Phosphorus (lbs per year)		
Loudoun Co. S.A. (Blue Plains STP)	\$365,500	\$169,626	\$0	\$169,626	\$0	\$195,874	\$0	213,000	N/A	12/1/97	BNR online: 01/00
PWCSA – Mooney STP	\$9,094,338	\$6,948,117	\$1,661,348	\$8,609,465	\$484,873	\$0	\$0	477,000	N/A	3/19/98	Partially online: 06/03
Purcellville STP	\$1,614,556 ²	\$1,604,413	\$0	\$1,604,413	\$10,143	\$0	\$0	32,600	3,100	8/19/99	BNR online
SIL Clean Water (Tech Ass't Grant)	\$546,000	\$546,000	\$0	\$546,000	\$0	\$0	\$0	N/A	N/A	4/26/99	Complete: Sept. 1999
SIL Clean Water Spray System	\$1,983,890	\$1,983,890	\$0	\$1,983,890	\$0	\$0	\$0	178,000	138,000	12/2/99	MRRS online
Spotsylvania Co. – FMC STP	\$1,767,000	\$48,936	\$48,936	\$48,936	\$1,200,000	\$518,064	\$0	59,682	N/A	4/19/01	12/06 (Est.)
Spotsylvania Co. – Massaponax STP	\$4,294,553	\$4,025,170	\$269,383	\$4,294,553	\$0	\$0	\$0	110,522	N/A	4/19/01	Online: 01/03
Stafford Co. – Aquia STP	\$351,962	\$304,242	\$0	\$304,242	\$17,720	\$30,000	\$0	110,000	N/A	6/8/98	BNR online
Stafford Co. – Lil' Falls Run STP	\$1,962,833 ³	\$1,962,833	\$0	\$1,962,833	\$0	\$0	\$0	118,258	N/A	4/19/01	BNR online
Staunton Middle River STP	\$1,236,660	\$1,236,600	\$0	\$1,236,660	\$0	\$0	\$0	91,000	13,000	6/8/98	BNR online
VT Swine Study	\$120,368	\$120,368	\$0	\$0	\$0	\$0	\$0	N/A	N/A	N/A	N/A
Totals:	\$96,986,353	\$86,223,320	\$3,830,592	\$89,884,668	\$4,880,911	\$1,094,894	\$1,005,512	13,693,606	242,681		

² Contract modification #3 has been signed and reflects final eligible costs; grant increased from \$1,604,413