



## COMMONWEALTH of VIRGINIA

### DEPARTMENT OF ENVIRONMENTAL QUALITY

Street address: 629 East Main Street, Richmond, Virginia 23219

Mailing address: P.O. Box 1105, Richmond, Virginia 23218

Fax (804) 698-4500 TDD (804) 698-4021

[www.deq.virginia.gov](http://www.deq.virginia.gov)

L. Preston Bryant, Jr.  
Secretary of Natural Resources

David K. Paylor  
Director

(804) 698-4000  
1-800-592-5482

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## MEMORANDUM

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**TO:** GOVERNOR TIMOTHY M. KAINÉ  
MEMBERS OF THE VIRGINIA GENERAL ASSEMBLY

**FROM:** DAVID K. PAYLOR 

**SUBJECT:** WATER QUALITY IMPROVEMENT FUND ANNUAL REPORT

**DATE:** JANUARY 1, 2007

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Under §10.1-2134 of the Virginia Water Quality Improvement Act of 1997 (Virginia Code, Chapter 21.1 of Title 10.1), the DEQ Director is responsible for providing an annual report on the point source component of the Virginia Water Quality Improvement Fund (WQIF).

This report, covering implementation of the WQIF Point Source Program through calendar year 2006, 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 e-mail ([rwehrhart@deq.virginia.gov](mailto:rwehrhart@deq.virginia.gov)).

DKP:dlm

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



**DAVID K. PAYLOR, DIRECTOR  
DEPARTMENT OF ENVIRONMENTAL QUALITY**

**JANUARY 2007**

## Table of Contents

|  |              |
|--|--------------|
| List of Tables .....   | ii           |
| <b>I. EXECUTIVE SUMMARY.....</b>   | <b>1</b>     |
| <b>II. VIRGINIA WATER QUALITY IMPROVEMENT ACT .....</b>                  | <b>2</b>     |
| A. Background.....   | 2            |
| B. Point Source Pollution Control Program .....                          | 2            |
| C. Virginia Water Quality Improvement Fund Percentages .....             | 3            |
| D. Appropriations to the Fund .....                                      | 4            |
| E. Point Source Guidelines.....  | 4            |
| <b>III. PROGRAM ACTIVITIES .....</b>                                     | <b>5</b>     |
| A. FY 1998 WQIF Grants.....  | 5            |
| B. FY 1999 WQIF Grants .....   | 5            |
| C. FY 2000 WQIF Grants.....  | 5            |
| D. FY 2005 Activity/Notes .....  | 5            |
| E. FY 2006 Activity/Notes.....   | 6            |
| F. Performance of Completed Projects .....                               | 6            |
| <b>IV. SUMMARY DATA FOR EXECUTED GRANT AGREEMENTS.....</b>               | <b>8</b>     |
| <b>V. TECHNICAL ASSISTANCE GRANT AGREEMENTS .....</b>                    | <b>9</b>     |
| <b>VI. ELIGIBLE DISCHARGERS APPLYING FOR WQIF GRANTS IN FY 2006.....</b> | <b>10</b>    |
| <b>VII. 2006 REVISED WQIF POINT SOURCE GUIDELINES (APPENDIX A).....</b>  | <b>12-18</b> |

## List of Tables

|  |       |
|--|-------|
| Table 1 – Capital Cost Estimates to Construct Nutrient Removal Technology .....          | 3     |
| Table 2 - WQIF Grant Percentages.....  | 3     |
| Table 3 – WQIF Point Source Program Appropriations.....                                  | 4     |
| Table 4 - 2005 Summary of Nitrogen Reduction Performance at WQIF Projects .....          | 7     |
| Table 5 - WQIF Grant Expenditures through FY 2006 for Signed Agreements.....             | 8     |
| Table 6 – Technical Assistance Grants and Expenditures.....                              | 9     |
| Table 7 – Eligible Significant Dischargers applying for WQIF Grants during FY 2006 ..... | 10-11 |

## I. EXECUTIVE SUMMARY

This document is submitted to the Governor and the General Assembly in response to a statutory requirement under §10.1-2134 of the 1997 Virginia Water Quality Improvement Act (the “Act”; Virginia Code, Chapter 21.1 of Title 10.1), for an annual report on the implementation of the 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 through calendar year 2006. This includes an update of ongoing projects from 1997 through the grant applications received for FY 2006 funding; an update to the Request for Proposals for Technical Assistance Grants; general information on current solicitations; and an update to the procedural WQIF Point Source Grant Guidelines issued by the Secretary of Natural Resources.

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

1. Since its inception, the WQIF has provided grants for installation of nutrient removal technology at twenty-five facilities, which will result in the estimated annual point source reduction of 13.7 million pounds of nitrogen and 240,000 pounds of phosphorus discharged to the waters of the Commonwealth when fully implemented (compared to a 1985 baseline).
2. Of the twenty projects now operating their nutrient reduction systems, all but one has achieved the concentration-based performance requirements of their WQIF grant agreement.
3. To date, approximately \$101.5 million in State cost share for point source projects has been offered through signed grant agreements and \$96.7 million has been authorized for reimbursement.
4. Technical Assistance (TA) grants have been drafted for 33 projects with another 3 potential projects to be covered by TA grants. Most of these grant funds came from the FY 2005 appropriation.
5. In September 2005, DEQ began a solicitation for point source grant applications in accordance with new Guidelines issued by the Secretary of Natural Resources. Sixty-four applications were received by the January 26, 2006 deadline, requesting a total cost share amount of approximately \$631 million. In order to process the applications consistently and equitably, and also establish a “readiness-to-proceed” prioritization, DEQ developed Guidance Memorandum #06-2012 (accessible at this webpage: <http://www.deq.virginia.gov/bay/ApplicationReviewProceduresWQIF.pdf>).
6. To date, four agreements have been drafted and the final budget is being negotiated for six other projects. One applicant withdrew their request for grant assistance.

The current estimate of the total capital cost to fully implement the point source components of the Tributary Strategy Plans is estimated to be approximately \$1.7 – 2.0 billion, depending on construction bid prices, basin compliance schedules, and effectiveness of the nutrient credit exchange program. These costs will likely be financed through a combination of WQIF cost share grants, local funds, low interest loans from the Virginia Clean Water Revolving Loan Fund, and other sources.

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 (the “Act”)**

### **A. Background**

In 1997, the Virginia General Assembly passed the Act, which established the WQIF. The primary objective of the WQIF was to reduce the flow of excess nutrients (nitrogen and phosphorus) into the Chesapeake Bay watershed. As part of the interstate Chesapeake Bay Program, Virginia 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 Strategy Plans. Virginia Code §§2.2-218 and 2.2-219 also direct the development and implementation of tributary strategies to restore the water quality and living resources of the Bay and its tributaries.

### **B. 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. Under the original cooperative point source program, DEQ was 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.

With the statutory changes made by the General Assembly in 2005 and the adoption of specific waste load allocations under the Water Quality Management Planning Regulation (9 VAC 25-720), the WQIF grant program has shifted from a voluntary, cooperative approach to become an aid in achieving compliance with regulatory performance requirements. Under the amended Act, WQIF point source grants shall be used solely to finance the costs of design and installation of biological nutrient removal facilities or other nutrient removal technology at publicly-owned treatment works for compliance with the effluent limitations for total nitrogen and total phosphorus as required by the tributary strategy plans or applicable regulatory requirements.

The grant agreement must include numerical effluent concentration limits on nutrient discharges to state waters. Consistent with §62.1-44.19:12 et seq. of the Virginia Code, such concentration limits shall be based upon the technology installed by the facility and expressed as annual average values. Information on development of the Nutrient Regulations and/or performance expectations can be found at: <http://www.deq.virginia.gov/bay/multi.html> .

In February 2006, the WQIF Point Source Program provided support to the Nutrient Credit Exchange Association through a TA grant, which has been extended through next year with additional grant funds. Among the tasks being completed by the Exchange and its engineering consultant are:

- Development of a trading optimization model of significant point source dischargers in Virginia’s portion of the Chesapeake Bay watershed.
- Development and evaluation of multiple trading and scheduling scenarios (including options such as project selection, project sequencing and credit pricing alternatives) for achieving and maintaining compliance with the point source nutrient waste load allocations in each major Bay tributary basin.

Estimations of total construction cost, WQIF grant funding needs and peak demand for financing have been developed under this TA grant. Results provided in June 2006 indicate the following:

**Table 1. Capital Cost Estimates with Nutrient Trading<sup>(1)</sup> and Market Volume Premium<sup>(2)</sup>**  
 (Source: CH2M Hill 6/28/06 Technical Memorandum)

|                           |                        |
|---------------------------|------------------------|
| <b>Total Capital Cost</b> | <b>\$1.974 billion</b> |
| Peak Period (2007-11)     | \$1.367 billion        |
| <b>Total WQIF Grants</b>  | <b>\$961 million</b>   |
| Peak Period (2007-11)     | \$691 million          |

Notes:

1. Nutrient trading is estimated to provide capital cost savings on the order of 22% compared to a non-trading scenario, reduce the Market Volume Premium by about 57%, and lessen the peak demand on financing by almost 34%.
2. When an increased volume of projects floods the market, the result is a strain on the supply of goods and services, decreased competition, and corresponding price increases. Price premiums of as much as 25% might be observed as the volume of work reaches peak levels.

The Exchange and its consultant also evaluated possible cost reductions if compliance schedules are extended. They continue to analyze and refine their cost estimates, and will assist some plant owners in developing the compliance plans required under the recently adopted Watershed General Permit with submittals due by August 2007. Review and approval of the compliance plans could alter the above cost estimates.

**C. Virginia Water Quality Improvement Fund Percentages**

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 Department of Conservation and Recreation (DCR) Director is responsible for nonpoint source grants. Previous provisions of the Act stipulated point source grants shall be 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 cost share now ranges from 35% to 75%, based on the applicant's financial need/stress. To assess the fiscal need/stress of the applicant, as provided in §10.1-2131.E of the Act, grants shall now be awarded based on the ratio of the locality's current annual sewer charges to the "reasonable sewer cost". The reasonable sewer cost for each WQIF grantee is determined using guidelines developed and approved by the State Water Control Board for use with the Virginia Clean Water Revolving Loan Fund.

As provided in §10.1-2131.E of the Act, a grant for the costs of the design and installation of biological nutrient removal facilities or other nutrient removal technology is awarded in the following manner:

**Table 2. WQIF Grant Percentage Based on Current Sewer Charge and Reasonable Sewer Cost**

| <b>Ratio of Annual Sewer Charge to Reasonable Sewer Charge</b> | <b>WQIF Grant Percentage</b> |
|--|------------------------------|
| Less than 0.30   | 35%                          |
| Equal to or greater than 0.30 and less than 0.50               | 45%                          |
| Equal to or greater than 0.50 and less than 0.80               | 60%                          |
| Equal to or greater than 0.80                                  | 75%                          |

D. Appropriations to the WQIF

Table 3 provides the point source appropriations to the WQIF by the General Assembly for fiscal years 1998-2006.

| <b>Table 3 – WQIF Point Source Program Appropriations</b> |   |   |
|---|---|---|
| <b>Period</b>   | <b>WQIF Reserve<br/>(Million Dollars)</b> | <b>WQIF Funds for Point<br/>Source Projects<br/>(Million Dollars)</b> |
| FY 1998   | \$0.00                                    | \$10.00   |
| FY 1999   | \$0.00                                    | \$37.10   |
| FY 2000   | \$0.00                                    | \$25.24   |
| FY 2001   | \$0.00                                    | \$10.30   |
| Interest earned (through FY04)                            | NA  | \$10.47   |
| FY 2005   | \$0.68                                    | \$13.25   |
| Interest earned (FY05)                                    | NA  | \$0.29  |
| FY 2006   | \$3.91                                    | \$67.21   |
| Interest earned (FY06)                                    | \$0.08                                    | \$1.57  |
| FY 2007-08 appropriation                                  | NA  | \$212.80  |
| Interest earned (FY07)                                    | NA  | TBD   |
| <b>TOTAL (Bay Dischargers):</b>                           | <b>\$4.67</b>                             | <b>\$388.23</b>   |
| <b>FY 2007 (Non-Bay Dischargers)</b>                      | NA  | \$17.0  |

E. WQIF Point Source Guidelines

Amendments made to the Act by the 2005 General Assembly necessitated revisions in the Secretary of Natural Resources' WQIF Grant Guidelines, which were published in September 2005. In 2006, the General Assembly again made substantial amendments to the Act, requiring further revisions to the Guidelines (see Appendix A). In summary, the major changes to the Virginia Code were:

- Inclusion of numeric values for annual average, technology-based nutrient limitations;
- Suspension of performance requirements for dischargers qualifying under Virginia's "Environmental Excellence" Program; and,
- Extending eligibility to nonsignificant dischargers, installing nutrient removal technology, to apply for State cost share.

As required by the Act, revised grant guidelines were drafted and provided for a public comment period, which ran from July 24 to September 25, 2006. The following components were included in the process: (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 received comments; and (iv) notice of the availability of draft guidelines and final guidelines to all who request such notice. Two respondents submitted comments and DEQ provided written responses to the Office of the Secretary of Natural Resources along with appropriate revisions to the Guidelines for approval and issuance. The Secretary approved the revised Guidelines in late November 2006.

In 2006, funds were appropriated for the first time to the WQIF Point Source Program to provide grants to local governments located outside the Chesapeake Bay watershed for water quality improvement projects. DEQ staff, in consultation with the Department of Housing and Community Development, is developing appropriate criteria and guidelines for the use of these funds. The eligible project types identified for these funds are:

1. Design and construction of mandated water quality improvement facilities at publicly owned treatment works for projects that would otherwise result in a financial hardship for the residential users of the facilities, based on the reasonable sewer cost guidelines established by the State Water Control Board for the Virginia Water Facilities Revolving Fund;
2. Correction of onsite sewage disposal problems; and
3. Development of comprehensive local and regional wastewater treatment plans, preliminary engineering, and environmental reviews.

Therefore, further revisions will be made to the WQIF Grant Guidelines in early 2007 to govern the eligibility and prioritization of applications for these non-Bay funds, with an emphasis on relieving financial stress in areas where mandated projects will aid in improving water quality.

### **III. PROGRAM ACTIVITIES**

#### **A. FY 1998 WQIF Grants**

During the first year of the WQIF point source program, twelve grants, awarding a total of \$52,333,848, were signed in the Shenandoah and Potomac basins. Since signing the original grants, inflation, changes in the scope of work, and the actual receipt of construction bids altered the total grant commitment to \$65,653,101. Compared to 1985 baseline values, these 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 sized for an average flow of 1.923 MGD.

#### **B. FY 1999 WQIF Grants**

Five grant agreements were signed using funds appropriated for FY 1999; the resulting total for eligible cost-share was \$8,997,339. These point source projects were also located in the Shenandoah-Potomac basin and were designed to reduce annual loads (compared to 1985 baseline values) of nitrogen and phosphorus by 985,000 lbs/year and 157,200 lbs/year, respectively, at design flows.

#### **C. FY 2000 WQIF Grants**

The FY 2000 appropriation was earmarked for projects in the lower Bay tributaries (Rappahannock, York, James, and Small Coastal basins). Eight grant agreements were signed to utilize the available funds, and with only one still under construction the estimated cost share for with these projects is \$23,531,756. In comparison to 1985 baseline values, these projects were designed to reduce annual loads of nitrogen and phosphorus by 6,286,700 lbs/year and 1,380 lbs/year, respectively, at design flow.

#### **D. FY 2005 Activity/Notes**

Of the original 1998 and 1999 projects, construction at all facilities has been completed; but the final

reimbursements for Fairfax Noman-Cole and Stafford-Aquia have not yet been requested. No reimbursements were requested by the Virginia localities sharing in the Blue Plains upgrade, while some funds from that original earmark remain in the WQIF.

Of the eight projects targeted in FY 2000, all but the Spotsylvania-FMC project have completed installation of nutrient reduction facilities. It is the agency's intention to close the FMC grant, which was intended to install biological nutrient removal (BNR) treatment, and incorporate design and cost items into a new agreement covering construction of more stringent nutrient removal technology (approaching state-of-the-art levels). A grant modification/increase for Henrico has been completed. Modification and close-out of the Hanover grant was postponed to incorporate a study and funds associated with interim optimization.

As mentioned in last year's report, a portion of the \$7.5 million appropriated in 2005 was used to cost share actions being driven by the Tributary Strategy process and new DEQ Permit Guidance which directed certain Chesapeake Bay watershed dischargers to meet nutrient-related requirements upon reissuance of their VPDES permit. These permit requirements included a special condition to develop both a **Basis of Design (BoD) Report for Nutrient Removal** and an **Interim Optimization Plan (IOP) for Nutrient Removal**. The BoD Report is a planning document evaluating permanent retrofits to achieve a range of treatment levels, from BNR to state-of-the-art. The IOP is an assessment of operational/process changes, rather than significant capital improvements, which can enhance nutrient reduction capabilities at the existing facility. In order to assist with completion of these two documents, WQIF cost-share assistance was made available to those domestic wastewater dischargers that were considered by DEQ to be a "significant" source of nutrients. State cost-share for these technical assistance grants ranged from a minimum award of 50% up to a maximum amount of 90%, based on two factors - the Commission on Local Government's fiscal stress rating and the locality's "ability to pay". The complete list of technical assistance projects and grant amounts can be found in Table 6 of this report.

#### E. FY 2006 Activity/Notes

In September 2005, DEQ issued a solicitation for grant applications in accordance with new Guidelines issued by the Secretary of Natural Resources. By the January 26, 2006 deadline, 64 applications from eligible significant dischargers (61 for construction grants; 3 for Technical Assistance support of planning reports) totaling about \$631 million were submitted (see Table 7). Applications were also received from 3 non-significant dischargers who were not yet eligible to receive grants, requesting a total of about \$6.2 million in WQIF funds. In order to process the applications consistently and equitably and also establish a prioritization based on "readiness-to-proceed", DEQ issued Guidance Memorandum #06-2012 In September 2006. GM #06-2012 also addresses several other topics, such as the eligibility of specific unit processes comprising the nutrient removal technology, concentration-based performance expectations and methodology for awarding grants above 75%. To date, four agreements have been drafted and the final budget is being negotiated for six other projects.

#### F. Performance of Completed Projects

Using discharge monitoring data for the most recent full calendar year (2005), all grantees achieved their annual average total nitrogen performance requirement, with the exception of one plant. Table 4 presents the Year 2005 nitrogen discharge levels at the completed WQIF facilities:

| <b>Table 4 -2005 Summary of Nitrogen Reduction Performance</b> |                          |                               |                              |
|--|--------------------------|-------------------------------|------------------------------|
| <b>Facility</b>  | <b>Design Flow (MGD)</b> | <b>Annual Avg. Flow (MGD)</b> | <b>Annual Avg. TN (mg/l)</b> |
| Alexandria S.A.  | 54.0                     | 37.37                         | 6.61                         |
| Stafford Co. - Aquia   | 6.5                      | 4.86                          | 7.48                         |
| Arlington  | 40.0                     | 26.24                         | 8.71                         |
| Dale Service Corp #1   | 4.0                      | 3.05                          | 3.38                         |
| Dale Service Corp #8   | 4.0                      | 2.96                          | 4.75                         |
| Pr. Wm. Co. S.A. - H.L. Mooney                                 | 18.0                     | 12.25                         | 5.75                         |
| Henrico  | 75.0                     | 42.77                         | 8.48                         |
| Hopewell*  | 50.0                     | 27.96                         | 22.10                        |
| Leesburg   | 4.85                     | 3.70                          | 5.41                         |
| Spotsylvania Co. – L. Falls Run                                | 8.0                      | 3.26                          | 4.95                         |
| Spotsylvania Co. – Massaponax                                  | 8.4                      | 5.06                          | 3.05                         |
| Staunton - Middle River  | 6.8                      | 3.83                          | 7.53                         |
| Fairfax Co. - Noman-Cole                                       | 67.0                     | 42.11                         | 3.85                         |
| HRRSA - North River  | 16.0                     | 9.93                          | 6.64                         |
| FWSA - Opequon   | 8.4                      | 7.38                          | 5.20                         |
| Chesterfield Co. - Proctors Creek                              | 21.5                     | 15.15                         | 8.42                         |
| Purcellville   | 1.0                      | 0.57                          | 5.98                         |
| SIL Clean Water  | 1.923                    | 1.13                          | 17.19                        |
| ACSA - Stuarts Draft   | 2.4                      | 0.99                          | 5.19                         |
| Hanover Co. - Totopotomoy                                      | 5.0                      | 0.69                          | 5.27                         |

NOTE: \* 21.0 mg/l performance requirement.

Since coming on-line in 2001, the SIL Clean Water facility near Timberville has had difficulty meeting its nutrient discharge requirements. The plant exceeded its annual nutrient load allowances every year since the discharge began and monetary assessments for repayment of a portion of the grant due to non-performance were ordered. SIL failed to pay the assessments (now totaling \$282,482), so they have been referred to the Attorney General's Office for collection. In October 2006, the Attorney General's Office filed a lawsuit against SIL Clean Water for continuing violations of their discharge permit.

Table 5 on the following page shows the annual nitrogen and phosphorus loads discharged in 2005 by the grantees' treatment facilities, compared to the waste load allocations that each plant will be limited to under recently amended point source nutrient control regulations. It should be noted that in 2005, thirteen facilities were discharging annual phosphorus loads lower than their allocations, and 15 plants were below their nitrogen load allocations. This is due to a combination of operating the cost-shared nutrient removal treatment systems and current discharge flows that are lower than the full design capacity of the plants.

**TABLE 5. SUMMARY DATA FOR EXECUTED GRANT AGREEMENTS:** Information on awards, expenditures, remaining obligations, and current (2005) nutrient discharges compared to SWCB-approved Total Nitrogen (TN) and Total Phosphorus (TP) waste load allocations (WLA).

| Grantee / Plant                      | WQIF Grant Effective Date | Grant Amount | Total Expenditures to Date | Projected Remaining Expenditures | 2005 Phos. (lbs/yr) | TP WLA (lbs/yr) | 2005 Nitrogen (lbs/yr) | TN WLA (lbs/yr) |
|--------------------------------------|---------------------------|--------------|----------------------------|----------------------------------|---------------------|-----------------|------------------------|-----------------|
| ACSA-Stuarts Draft STP               | 11/12/00                  | \$1,382,783  | \$1,382,783                | \$0                              | 3,664               | 3,655           | 15,352                 | 48,729          |
| Alexandria S.A. STP                  | 3/16/98                   | \$19,702,869 | \$19,702,869               | \$0                              | 5,535               | 29,603          | 754,432                | 493,381         |
| Arlington Co. STP                    | 10/10/98                  | \$10,816,973 | \$10,816,973               | \$0                              | 4,906               | 21,928          | 695,068                | 365,467         |
| Chesterfield Co.– Proctors Creek STP | 6/26/01                   | \$965,560    | \$965,560                  | \$0                              | 56,875              | 41,115          | 385,141                | 411,151         |
| Dale Service Corp. STP #1            | 5/26/99                   | \$1,901,057  | \$1,901,057                | \$0                              | 858                 | 2,522           | 30,893                 | 42,029          |
| Dale Service Corp. STP #8            | 5/26/99                   | \$2,115,053  | \$2,115,053                | \$0                              | 980                 | 2,522           | 43,009                 | 42,029          |
| Fairfax Co. (Blue Plains STP)        | 12/22/97                  | \$1,387,500  | \$381,988                  | \$1,005,512                      | NA                  | NA              | NA                     | NA              |
| Fairfax Co. – Noman Cole STP         | 5/20/98                   | \$10,399,500 | \$9,852,041                | \$547,459                        | 7,873               | 36,729          | 494,877                | 612,158         |
| Fauquier Co – Remington STP          | 7/11/01                   | \$886,138    | \$615,000                  | \$271,138                        | 3,441               | 2,284           | 6,096                  | 30,456          |
| F.W.S.A. – Opequon STP               | 6/8/98                    | \$2,754,618  | \$2,754,618                | \$0                              | 10,963              | 7,675           | 115,890                | 102,331         |
| Hanover Co. – Totopotomoy STP        | 5/18/01                   | \$2,109,770  | \$2,092,721                | \$17,049                         | 1,797               | 21,319          | 11,190                 | 182,734         |
| HRRSA - North River STP              | 4/27/98                   | \$2,850,937  | \$2,850,937                | \$0                              | 10,997              | 19,004          | 202,323                | 253,391         |
| Henrico WWTF                         | 7/4/01                    | \$9,127,255  | \$8,865,490                | \$261,765                        | 121,186             | 114,209         | 1,101,869              | 1,142,085       |
| Hopewell WWTP                        | 11/6/00                   | \$2,418,647  | \$2,418,647                | \$0                              | 69,398              | 76,139          | 1,886,187              | 1,827,336       |
| Leesburg STP                         | 7/16/98                   | \$6,568,389  | \$6,568,389                | \$0                              | 12,067              | 9,137           | 62,134                 | 121,822         |
| Loudoun Co. S.A. (Blue Plains STP)   | 12/1/97                   | \$365,500    | \$169,626                  | \$195,874                        | NA                  | NA              | NA                     | NA              |
| PWCSA – H.L. Mooney STP              | 3/19/98                   | \$8,672,193  | \$8,672,193                | \$0                              | 4,032               | 13,157          | 210,907                | 219,280         |
| Purcellville STP                     | 8/19/99                   | \$1,614,556  | \$1,614,556                | \$0                              | 378                 | 1,371           | 9,841                  | 18,273          |
| SIL Clean Water (T.A. Grant)         | 4/26/99                   | \$546,000    | \$546,000                  | \$0                              | NA                  | NA              | NA                     | NA              |
| SIL Clean Water MRRS                 | 12/2/99                   | \$1,983,890  | \$1,983,890                | \$0                              | 59,231              | 1,754           | 52,873                 | 23,390          |
| Spotsylvania Co. – FMC STP           | 4/19/01                   | \$1,767,000  | \$48,936                   | \$1,718,064                      | NA                  | 4,934           | NA                     | 65,784          |
| Spotsylvania Co. – Massaponax STP    | 4/19/01                   | \$4,294,553  | \$4,294,553                | \$0                              | 2,741               | 7,309           | 47,426                 | 97,458          |
| Stafford Co. – Aquia STP             | 6/8/98                    | \$351,962    | \$304,242                  | \$47,720                         | 1,742               | 4,386           | 110,133                | 73,093          |
| Stafford Co. – Little Falls Run STP  | 4/19/01                   | \$1,962,833  | \$1,962,833                | \$0                              | 5,398               | 7,309           | 52,401                 | 97,458          |
| Staunton Middle River STP            | 6/8/98                    | \$1,236,660  | \$1,236,660                | \$0                              | 16,860              | 6,213           | 87,564                 | 82,839          |
| VT Swine Study                       | N/A                       | \$120,368    | \$120,368                  | \$0                              | NA                  | NA              | NA                     | NA              |
| Totals:                              |                           | \$98,302,564 | \$94,237,983               | \$4,064,581                      |                     |                 |                        |                 |

**TABLE 6. LIST OF TECHNICAL ASSISTANCE GRANTS OFFERED:** for preliminary design and/or interim optimization of the existing facilities. These grants were offered in response to DEQ Guidance Memorandum 05-2009 and/or other agency initiatives

| <b>Project</b>  | <b>TA Grant Amount</b> | <b>Amount Paid to Date</b> |
|---|------------------------|----------------------------|
| <i>Fiscal Year 2005 Grants</i>                                |                        |                            |
| Onancock STP  | \$45,000               | \$45,000.00                |
| Waynesboro STP  | \$73,500               | \$69,825.00                |
| Buena Vista STP   | \$108,000              | \$108,000.00               |
| Warsaw STP  | \$30,263               | \$28,750                   |
| Cape Charles STP  | \$82,620               | \$82,620.00                |
| Warrenton STP   | \$19,462               | \$19,462.00                |
| MSA-Lexington/Rockbridge STP                                  | \$71,285               | \$59,804.89                |
| Clifton Forge STP   | \$27,010               | \$0.00                     |
| Stoney Creek S.D. STP   | \$38,600               | \$29,118.18                |
| Kilmarnock STP  | \$40,250               | \$34,338.50                |
| Lynchburg STP   | \$273,600              | \$257,686.31               |
| Spotsylvania - L. Falls Run STP                               | \$43,953               | \$0.00                     |
| Stafford – Aquia STP  | \$42,057               | \$0.00                     |
| HRRSA – North River STP                                       | \$251,843              | \$244,178.84               |
| Alexandria S.A. WWTP  | \$70,600               | \$60,001.45                |
| Purcellville STP  | \$27,513               | \$27,513.00                |
| FWSA-Parkins Mill STP   | \$69,564               | \$69,564.00                |
| Amherst (Town) STP  | \$26,828               | \$26,828.00                |
| Arlington Co. STP   | \$363,009              | \$363,009.00               |
| Hopewell RWWTF  | \$194,423              | \$160,762.00               |
| Montross-Westmoreland STP                                     | \$11,200               | \$11,200.00                |
| Covington STP   | \$37,216               | \$30,351.70                |
| Luray STP   | \$33,653               | \$25,659.00                |
| Farmville STP   | \$85,712               | \$85,712.00                |
| Dale Service Corp.  | \$41,000               | \$38,500.00                |
| Augusta Co. S.A.  | \$157,736              | \$125,579.34               |
| Rivanna W&SA- Moores Creek STP                                | \$35,964               | \$0.00                     |
| New Market STP  | \$57,500               | \$34,904.00                |
| New Kent Co.  | \$52,555               | \$0.00                     |
| Mt. Jackson STP   | \$48,725               | \$48,725.00                |
| Berryville STP  | \$78,394*              | \$0.00                     |
| Subtotal  | \$2,539,035            | \$2,087,092.21             |
| <i>Fiscal Year 2006 Grants</i>                                |                        |                            |
| Nutrient Credit Exchange Assoc.                               | \$300,000              | \$290,997.96               |
| Clean Fuels Study   | \$233,000              | \$110,561.88               |
| VA Tech Ctr. for Organizational and Technological Advancement | \$50,000*              | \$0.00                     |
| Tangier STP   | \$19,080               | \$13,761.23                |
| Richmond STP  | \$119,250*             | \$0.00                     |
| Subtotal  | \$721,330              | \$415,321.07               |
| Total   | \$3,260,365            | \$2,502,413.28             |

NOTE: \* indicates amount from draft agreement

**TABLE 7. LIST OF ELIGIBLE SIGNIFICANT DISCHARGERS, WHICH APPLIED FOR GRANTS DURING THE FY 2006 SOLICITATION**

| <b>Applicant</b>                  | <b>Basin</b> | <b>WQIF Grant Amount Requested on Application</b> |
|-----------------------------------|--------------|---|
| Cape Charles WWTP                 | E. Shore     | \$9,652,500                                       |
| Onancock WWTP                     | E. Shore     | \$6,318,000                                       |
| Tangier (Tech. Assistance Grant)  | E. Shore     | \$27,000  |
| Amherst STP                       | James        | \$5,589,180                                       |
| Buena Vista STP                   | James        | \$22,200,000                                      |
| Covington STP                     | James        | \$4,371,000                                       |
| Crewe STP                         | James        | \$10,452,000                                      |
| Farmville STP                     | James        | \$836,411   |
| Henrico Co. WWTP                  | James        | \$2,236,850                                       |
| Hopewell WWTF                     | James        | \$33,975,000                                      |
| HRSD-Army Base STP                | James        | \$60,618,300                                      |
| Lexington-Rockbridge Reg. WQCF    | James        | \$7,125,000                                       |
| Lynchburg STP                     | James        | \$7,590,000                                       |
| Richmond (Tech. Assistance Grant) | James        | \$3,532,230                                       |
| RW&SA-Moore's Creek STP           | James        | \$9,035,964                                       |
| So. Central WWA                   | James        | \$16,780,725                                      |
| ACSA-Fishersville STP             | Potomac      | \$8,317,452                                       |
| ACSA-Middle River STP             | Potomac      | \$6,652,489                                       |
| ACSA-Stuarts Draft STP            | Potomac      | \$2,189,713                                       |
| ACSA-Weyers Cave STP              | Potomac      | \$10,703,467                                      |
| Alexandria S.A. WWTP              | Potomac      | \$23,585,522                                      |
| Arlington Co. WPCF                | Potomac      | \$91,640,000                                      |
| Colonial Beach STP                | Potomac      | \$3,262,500                                       |
| Dahlgren S.D. WWTP                | Potomac      | \$682,200   |
| Dale Serv Corp. STP #1            | Potomac      | \$1,922,100                                       |
| Dale Serv Corp. STP #8            | Potomac      | \$2,135,000                                       |
| Fairfax Co.-Noman-Cole PCF        | Potomac      | \$1,069,250                                       |
| Fairview Beach STP                | Potomac      | \$528,600   |
| FCW&SA-Vint Hill WWTF             | Potomac      | \$1,670,505                                       |
| FWSA-Opequon WRF                  | Potomac      | \$13,650,700                                      |
| FWSA-Parkins Mill WWTF            | Potomac      | \$11,559,275                                      |
| HRRSA-North River WWTF            | Potomac      | \$25,545,525                                      |
| LCSA-Broad Run WRF                | Potomac      | \$23,571,000                                      |
| Leesburg WPCF                     | Potomac      | \$2,188,000                                       |
| Luray STP                         | Potomac      | \$1,204,800                                       |
| Mt. Jackson STP                   | Potomac      | \$621,876   |
| New Market STP                    | Potomac      | \$9,900,000                                       |
| Purcellville-Basham Simms WWTF    | Potomac      | \$8,640,000                                       |
| Purkins Corner WWTP               | Potomac      | \$3,690,000                                       |
| PWCSA-H.L. Mooney WWTF            | Potomac      | \$25,355,000                                      |
| Stafford Co-Aquia WWTP            | Potomac      | \$2,622,150                                       |
| Stoney Creek S.D. STP             | Potomac      | \$6,825,000                                       |
| Waynesboro STP                    | Potomac      | \$17,047,800                                      |
| Woodstock STP                     | Potomac      | \$11,600,000                                      |

**TABLE 7. LIST OF ELIGIBLE SIGNIFICANT DISCHARGERS, WHICH APPLIED FOR  
PROJECTS DURING THE FY 2006 SOLICITATION**  
(Continued)

| <b>Applicant</b>                     | <b>Basin</b> | <b>WQIF Grant Amount<br/>Requested on Application</b> |
|--------------------------------------|--------------|---|
| Culpeper WWTP                        | Rappahannock | \$5,463,847   |
| FCW&SA-Remington WWTP                | Rappahannock | \$2,291,025   |
| Fredericksburg WWTF                  | Rappahannock | \$5,928,524   |
| HRSD-Urbanna STP                     | Rappahannock | \$1,635,600   |
| Kilmarnock WWTP                      | Rappahannock | \$2,270,700   |
| Marshall WWTP                        | Rappahannock | \$1,540,687   |
| Montross-Westmoreland WWTP           | Rappahannock | \$759,113   |
| Orange STP                           | Rappahannock | \$8,737,000   |
| Spotsylvania Co.-FMC WWTF            | Rappahannock | \$945,000   |
| Tappahannock WWTP                    | Rappahannock | \$3,400,000   |
| Warrenton STP                        | Rappahannock | \$4,501,980   |
| Warsaw STP                           | Rappahannock | \$3,867,150   |
| Hanover Co.-Ashland STP              | York         | \$1,293,810   |
| Hanover Co.-Doswell STP              | York         | \$1,420,563   |
| Hanover Co.-Totopotomoy              | York         | \$4,925,230   |
| Hanover Co. (Tech. Assistance Grant) | York         | \$26,250  |
| HRSD-Matthews Courthouse STP         | York         | \$2,091,600   |
| HRSD-West Point STP                  | York         | \$4,872,000   |
| HRSD-York River STP                  | York         | \$54,035,325  |
| New Kent Co.-Parham Landing WWTP     | York         | \$2,488,750   |
| <b>Grand Total</b>                   |              | <b>\$631,214,238</b>                                  |

# **APPENDIX A**

## **2006 Revised WQIF Grant Guidelines – Point Source Projects**

(Approved by the Secretary of Natural Resources, November 2006)

### **CHAPTER I: PROGRAM COMPONENTS**

#### **I. Goals and Objectives**

The main objectives of the Water Quality Improvement Fund (WQIF) point source program are as follows:

1. Concentrate efforts on implementing point source nutrient control actions proposed in the tributary strategy plans, as defined by Virginia Code §10.1-2117, and assist eligible facility owners in complying with applicable regulatory requirements for reducing nutrient discharges in the Chesapeake Bay watershed.
2. Make the WQIF compatible and consistent with the Virginia Clean Water Revolving Loan Fund (VCWRLF) Program administered by the Department of Environmental Quality (DEQ) Construction Assistance Program (CAP).
3. Enhance customer service and convenience by integrating the WQIF procedures, to the maximum extent possible, with those in use by the CAP. This may include:
  - schedules for application, review, and award;
  - general notifications, solicitation letters, and public participation methods;
  - application information and documentation for reimbursement requests;
  - criteria for prioritizing projects;
  - definitions for eligible components of the scope of work;
  - assessment of “reasonable sewer costs” as defined by Virginia Code §10.1-2177; and,
  - construction evaluations on active projects.
4. Subsequent to cost-sharing the design and installation of nutrient removal technology at eligible publicly owned treatment works and as available funding allows, support other projects related to point source pollution controls that are clearly demonstrated as likely to achieve measurable and specific water quality improvements.
5. Assist with identifying other potential funding sources for the local share of projects.
6. Support and enhance the point source pollution program through separate technical assistance funding made available to local governments and individuals.

#### **II. Project Prioritization - Funding Distribution**

The Virginia Water Quality Improvement Act (the “Act”) directs the Secretary of Natural Resources to develop:

- written guidelines for distribution and conditions of WQIF awards; and
- criteria for prioritizing funding requests outside the Bay watershed.

For projects located in the Chesapeake Bay watershed, the Act requires that the Director of the Department of Environmental Quality enter into grant agreements with all facilities designated as significant dischargers or eligible nonsignificant dischargers that apply for grants. To supplement these guidelines, DEQ has developed guidance for the purpose of assuring use of a consistent and equitable decision making process in reviewing applications, prioritizing agreement drafting/negotiation, and determining eligible scopes of work and appropriate cost-share percentages. The current version of the guidance is Guidance Memo No. 06-2012, and is available on DEQ’s web site: <http://www.deq.virginia.gov/waterguidance/bay.html>

For projects located outside the Chesapeake Bay watershed, the criteria for prioritizing funding requests include:

- the pounds of nutrient reduction for each project;
- whether the location of the project is within a watershed or subwatershed with documented nutrient loading problems or adopted nutrient reduction goals;
- whether the location of the project is within a watershed with a documented water quality impairment; and
- availability of other funding mechanisms.

### **III. Project Eligibility**

The WQIF is currently a special-purpose grant program, and the type and location of a point source project eligible for funding is specified under §10.1-2131 of the Act. Until all tributary strategy plans are developed and implemented, grants shall only be made for the purpose of financing the cost of design and installation of nutrient removal technology at publicly-owned treatment works designated by DEQ as a significant discharger or eligible nonsignificant discharger. For purposes of these guidelines, publicly-owned treatment works that use the Public - Private Education Facilities and Infrastructure Act (§56-757.1, et seq.) to facilitate design and installation of nutrient removal technology shall be eligible for WQIF grant funds available pursuant to §10.1-2129.A.2 of the Act. A tributary strategy plan is considered “implemented” regarding point source actions when the plan’s recommended point source nutrient controls have been installed.

Funding for projects other than nutrient removal technology within the Chesapeake Bay watershed is permitted if the Director of the DEQ determines that there is sufficient funding available for substantial and continuing progress in implementing the tributary strategies (§10.1-2131.C. of the Act). Such eligible projects must clearly demonstrate the likelihood of achieving measurable and specific water quality improvements.

The General Assembly may designate through the Appropriations Act the allocation of funds deposited into the Fund. These designations may detail circumstances under which a grantee is eligible for funding, who otherwise would not be eligible according to these guidelines. Information on any such special appropriations and eligibility criteria contained in a future Appropriations Act will be included in the Request for Proposals soliciting WQIF Point Source Grant Applications.

### **IV. Allowable Costs**

Under the Act, WQIF point source grants shall be used solely to finance the costs of design and installation of nutrient removal technology at publicly-owned treatment works for compliance with the effluent limitations for total nitrogen and total phosphorus as required by the tributary strategy plans or applicable regulatory requirements. The program will allow nutrient removal technology systems to be sized to treat the flow in any reasonable and necessary expansion of the wastewater facility, which is generally limited to a 20-year design life. In general, associated pre-design and final design costs will be eligible for cost share. Joint or regional projects that involve more than one publicly-owned facility are eligible and encouraged where cooperative arrangements exist and economies of scale may be realized.

As provided in §10.1-2131.C. of the Act, the cost for design and installation nutrient removal technology (including reclamation/reuse) at publicly-owned treatment works meeting the nutrient reduction goal in an approved tributary strategy plan or applicable regulatory requirement and incurred prior to execution of a grant agreement is eligible for reimbursement from the WQIF. Such expenses must be necessary and attributable to the project and the debt must be incurred or construction begun after June 2000 (when the Chesapeake 2000 Agreement established the revised nutrient reduction goals aimed at removing the Bay and its tidal tributaries from the “Impaired Waters List” by 2010). Reimbursement shall be made pursuant to an executed agreement consistent with the Act. If the original source of funding for the nutrient reduction facilities was the Virginia Clean Water Revolving Loan Fund (VCWRLF), the WQIF grant shall be applied to the principal of any outstanding balance of the loan.

The purchase of land, easements, and/or rights-of-way are not allowable costs, nor are any legal, administrative, and engineering expenses related to these purchases, unless the land is an integral part of the treatment process. Other stipulations on allowability of cost may also apply, and all costs are reviewed and considered on a case-by-case basis.

## **V. Reimbursement**

Disbursement of grant funds is made on a periodic reimbursement basis not more frequently than once per month. Invoices must substantiate all requests for disbursement of grant funds. All payment requests must be reviewed and approved by DEQ staff prior to actual disbursement of funds. Reimbursement requests must be submitted in duplicate, one copy to the appropriate DEQ Regional Office and one copy to DEQ's Chesapeake Bay Program.

The availability of grant funds in the WQIF for point source pollution control projects is subject to appropriation by the General Assembly and allocations made by the Secretary of Natural Resources. In the event of a shortfall, the Commonwealth is strongly committed to managing the WQIF to ensure full funding of all executed agreements and to following an equitable process for distribution of available funds among all grantees. This distribution process (such as Pro Rata of estimated construction expenses) will be addressed in more detail in the agreement signed with each grant recipient.

## **VI. State Cost Share Percentage**

As provided in §10.1-2131.E of the Act, grants shall be awarded in the following manner:

1. In communities for which the ratio of annual sewer charges to reasonable sewer cost is less than 0.30, the Director of the Department of Environmental Quality shall authorize grants in the amount of 35 percent of the costs of the design and installation of nutrient removal technology;
2. In communities for which the ratio of annual sewer charges to reasonable sewer cost is equal to or greater than 0.30 and less than 0.50, the Director shall authorize grants in the amount of 45 percent of the costs of the design and installation of nutrient removal technology;
3. In communities for which the ratio of annual sewer charges to reasonable sewer cost is equal to or greater than 0.50 and less than 0.80, the Director shall authorize grants in the amount of 60 percent of the costs of design and installation of nutrient removal technology; and
4. In communities for which the ratio of annual sewer charges to reasonable sewer cost is equal to or greater than 0.80, the Director shall authorize grants in the amount of 75 percent of the costs of the design and installation of nutrient removal technology.

The "reasonable sewer cost" for each WQIF grantee will be determined using guidelines developed and approved by the State Water Control Board for use with the VCWRLF. The grantee's annual sewer charge shall be defined as the average yearly expense for residential sewer service per housing unit that is currently being charged at the time application is made for WQIF cost-share. The above ratios will be calculated by dividing the current annual sewer charge by the reasonable sewer cost. Where multiple jurisdictions are provided sewer service through a regional district, authority or an inter-municipal sewer agreement, a weighted average of the median household income and a weighted average sewer charge will be calculated for comparison to the "reasonable sewer costs." These factors will be based on the current conditions regarding the portion of plant capacity presently used by each jurisdiction and location of residents served. Annual sewer charges and back-up documentation will be requested as part of each application.

The Director may approve a point source grant application request that exceeds the authorized grant amount outlined in §10.1-2131.E. of the Act and described above in Section F.1-4. Whenever a grant application exceeds the authorized grant amount outlined above, or when there is no stated limitation on the amount of the grant, the Director shall consider the comparative revenue capacity, revenue efforts and fiscal stress as reported by the Commission on Local Government.

## **VII. Grant Agreement**

A legally binding and enforceable agreement between the recipient and the DEQ shall govern all WQIF point source

grants. Unless there are extenuating circumstances, a grant agreement will be signed only after the applicant has submitted an acceptable Preliminary Engineering Report (PER) to DEQ for review and approval. Having details on the selected nutrient removal technology option identified in the PER will allow for determination of the eligible scope of work and grant award. In accordance with §10.1-2131 of the Act, the agreement shall include the following:

1. Numerical technology based effluent concentration limitations on nutrient discharges to state waters based upon the technology installed by the facility. Consistent with Virginia Code §62.1-44.19:12, such concentration limits shall be expressed as annual average values.

If, pursuant to Virginia Code §10.1-1187.6, the State Water Control Board approves an alternative compliance method to technology-based concentration limitations in VPDES permits, the concentration limitations above shall be suspended subject to the terms of such approval.

2. Enforceable provisions related to the maintenance of the numerical concentrations that will allow for exceedences of 0.8 mg/L for total nitrogen or no more than 10 percent, whichever is greater, for exceedences of 0.1 mg/L for total phosphorus or no more than 10 percent, whichever is greater, and for exceedences caused by extraordinary conditions. The enforceable provisions will also include contractual or stipulated penalties in an amount sufficient to ensure compliance with the agreement, which may include repayment with interest for any non-performance or breach. Stipulated penalties will be calculated based on all past and current WQIF money awarded (except for the 2005 technical assistance grants) and the calculation of penalties may factor in the remaining useful service life of the system installed by deducting any years elapsed since the CTO was issued for the previous nutrient removal technology project.
3. Recognition of the authority of the Commonwealth to make the Virginia Water Facilities Revolving Fund (Virginia Code §62.1-224) available to local governments for their local share of the cost of designing and installing nutrient removal technology, based on financial need and subject to availability of revolving loan funds, priority ranking, and revolving loan distribution criteria.

Grant agreements shall be made available for public review and comment for a period of no less than 30 days but no more than 60 days prior to execution. In addition to the standard terms and conditions of a state contract for financial assistance (including, but not limited to, project scope, schedules, budget and reimbursement provisions), the agreement shall:

1. provide for payment of the total amount of the grant, subject to the availability of funds;
2. govern design and installation;
3. require the grantee to complete installation of the nutrient removal facilities and place them into service regardless of the amount of grant funds received; and
4. require proper long-term operation, monitoring and maintenance of funded projects, including design and performance criteria.

### **VIII. Technical Assistance Grants**

Under §10.1-2131 of the Act, the DEQ Director may, at any time, authorize grants, including grants to institutions of higher education, for Technical Assistance (TA) related to nutrient reduction. The criteria used in making determinations for award of TA grants are:

- If the proposals are for work such as pilot demonstration projects and engineering studies for nutrient reduction (e.g., Basis of Design Reports).
- If the proposals will advance the understanding about, and the capabilities of, nutrient-reduction systems.
- If the results of the proposal lead to more cost-effective implementation actions for point sources.
- If the proposal for planning and/or design work is associated with a retrofit project and the applicant is not eligible to receive a construction grant, the TA grant will be limited to a cost-share of no more

than 10% of the total construction cost (or cost for design, whichever is less) and must lead to approved plans and specifications.

- If the proposal is associated with evaluating and implementing measures to optimize or enhance existing operations (e.g., interim optimization plans). Projects of this type will generally involve only treatment process or system revisions, rather than changes at the facility that involve construction.

## **CHAPTER II: SUMMARY OF PROGRAM REQUIREMENTS**

### **I. Introduction**

This section provides a brief synopsis of the program requirements as they relate to other statutory or regulatory requirements included by reference, such as procurement law, and plans and specifications approval, so that grantees are fully aware of them and can act accordingly.

### **II. Procurement**

All procurement made during the course of planning, design, and construction of the grant project must be purchased, acquired, or contracted for in accordance with the Virginia Public Procurement Act, Virginia Code Chapter 43 of Title 2.2. The WQIF point source program requires all participants to follow the provisions of the Procurement Act regardless of locality size. Use of alternative project delivery methods is allowable, such as design-build or reliance on the Public-Private Education Facilities and Infrastructure Act (Virginia Code Chapter 22.1 of Title 56), so long as review procedures, eligibility requirements and record keeping are in accordance with provisions of the Procurement Act.

### **III. Local Share**

Prior to grant award, sufficient documentation must be provided by the applicant to demonstrate that the local share of the project is, or will be, available to fulfill the grantee's obligations under the agreement. Examples of acceptable forms of local share include, but are not limited to, general obligation revenue bonds, other state or federal grant funds or loans, and municipal budget items and revenue streams.

### **IV. Pre-Design Studies/Pilot Testing**

Eligible pre-design tasks include any essential studies prior to final design, such as bench or pilot scale testing of conventional or innovative technologies, and cost-effectiveness analysis.

The grantee or its consultant will develop a Preliminary Engineering Report (PER) or planning document, which assesses the current situation, projects future needs, develops alternatives, estimates the monetary costs, and presents a selected plan.

### **V. Design/Construction**

The design and drafting of plans and specifications must conform to the Virginia Sewage Collection and Treatment (SCAT) Regulations (9 VAC 25-790 et. seq.). Close contact with the applicable Regional Offices of the DEQ is helpful in reducing delays at this stage. Since it is likely that installation of the nutrient reduction system is part of a larger scale or more complex plant upgrade or expansion project, a Preliminary Engineering Conference with DEQ is strongly recommended prior to full-scale design. Final plans and specifications must be submitted for review, comment, and approval to DEQ. Processing of the plans and specifications will proceed as outlined in the SCAT Regulations, ultimately leading to the issuance of a Certificate to Construct.

The grantee may then proceed to advertise for construction bids, and is encouraged to hold a pre-bid conference so that the project can be presented to bidders and any questions they may have can be resolved. The bidding document must be structured to the extent practicable such that the cost for eligible project components can be

readily determined. The grantee is responsible for, and must retain records that document, the use of proper bidding and bid selection when securing construction services. During construction the grantee must provide project inspection, documented with reports, to track construction progress, quality, and conformance with plans and specifications.

DEQ will conduct periodic (usually monthly) Interim Project Evaluations (IPE) to provide routine monitoring of WQIF construction projects. The IPE will assess compliance with program requirements by verifying that: the project is being managed properly, construction is generally in accordance with the approved plans and specifications, and disbursement requests coincide with actual work in place.

## **VI. Post-Construction/Operation and Maintenance**

In addition to awarding the grant, the agreement signed by the grantee and DEQ shall govern the long-term operation and maintenance of the facilities installed with grant funds. Section 10.1-2131.C. of the Act specifies that grant agreements related to nutrient control shall include: (i) numerical technology based effluent concentration limitations, based upon the technology installed by the facility and (ii) enforceable provisions related to the maintenance of numerical concentrations for exceedances of 0.8 mg/L for total nitrogen or no more than 10%, whichever is greater, for exceedances of 0.1 mg/L for total phosphorus or no more than 10%, whichever is greater, and (iii) for exceedances caused by extraordinary conditions (defined in the agreement). The numerical concentrations referenced in (i) and (ii) will be expressed as annual average concentrations.

All grant agreements will contain a provision that requires the owner to monitor their discharge and report the applicable nutrient concentrations so that performance can be tracked. If nutrient monitoring requirements are not already contained in the plant's discharge permit, the agreement will specify the same sampling frequencies and analytical methods used in the VPDES permit program.

## **CHAPTER III: GRANTEE SELECTION**

### **I. Application Solicitation**

The annual point source grant cycle begins with the distribution of this guidance document and a solicitation for applications. The deadline for submission of applications is provided in the application form and will allow at least 45 days for proposal development. Applications must be sent to:

Virginia Department of Environmental Quality  
P.O. Box 1105  
Richmond, VA 23218  
ATTN: WQIF Program Manager

### **II. Grant Priority Funding List Requirements**

Funds appropriated to the WQIF for projects located in the Chesapeake Bay watershed can only be used to finance the cost to design and install nutrient removal technology at eligible publicly-owned treatment works. DEQ staff will prioritize the eligible applications using the criteria in Chapter I, Section II, of these Point Source Program Guidelines and applicable DEQ guidance, assess the cost-effectiveness of proposed actions, and review the proposals to ensure consistency with tributary strategy goals or applicable regulatory requirements. Such prioritization will recognize the requirement under §10.1-2131.B. of the Act that the Director shall enter into grant agreements with all facilities designated as significant dischargers or eligible nonsignificant dischargers that apply for grants. DEQ staff may present the prioritized list of qualified proposals to the State Water Control Board for their information and comment, along with recommendations for funding. Final approval and funding decisions will be made by the DEQ Director who has the responsibility and authority to award grants under this program in accordance with §10.1-2122 of the Act.

The state is strongly committed to manage the award and allocation of grants to ensure full funding of all executed agreements, as well as to follow an equitable process for distribution of available funds among all grantees in the event of a shortfall. The distribution process will be addressed in the agreement signed with each grant recipient.

In subsequent years, new projects will be added to the priority list. Once the needs for cost-sharing the design and installation of nutrient removal technology at eligible publicly owned treatment works are satisfied, or it is determined by the DEQ Director that there is sufficient funding above that required for substantial and continuing progress in implementation of the Tributary Strategy Plans, grant applications will be considered for any point source project that is clearly demonstrated as likely to achieve measurable and specific water quality improvements. At that stage, the Act requires that potential grant projects be prioritized, in accordance with specified criteria in §10.1-2129, and other factors the Secretary of Natural Resources deems appropriate. No project can receive financial assistance under the WQIF unless it is on the priority-funding list. However, it is not a requirement that projects receive cost share assistance in priority order.