



Permitting for Environmental Results (PER) NPDES Profile: U.S. Virgin Islands

PROGRAM RESPONSIBILITY

State of U.S. Virgin Islands: NPDES authority for base program

EPA Region 2: NPDES authority for general permitting, federal facilities, pretreatment, and biosolids

Program Integrity Profile

This profile characterizes key components of the National Pollutant Discharge Elimination System (NPDES) program, including program administration and implementation, environmental outcomes, enforcement, and compliance. EPA considers profiles to be an initial screen of NPDES permitting, water quality, enforcement, and compliance programs based on self-evaluations by the States and a review of national data. EPA will use the profiles to identify program strengths and opportunities for enhancements. For more information, please contact Anita Nibbs, U.S. Virgin Islands, at (340) 773-1082, or Phil Sweeney, EPA Region 2, at (212) 637-3554.

Section I. Program Administration

1. Resources and Overall Program Management

U.S. Virgin Islands:

EPA authorized the U.S. Virgin Islands Territorial Pollutant Discharge Elimination System (TPDES) program in 1976. The Virgin Islands have not been approved for the general permitting, federal facilities, pretreatment, or biosolids components of the NPDES program. The Department of Planning and Natural Resources (DPNR) runs the TPDES program. EPA's Permit Compliance System (PCS) database shows 6 major permits and 67 minor permits in the Virgin Islands. Through an ongoing EPA/DPNR data clean-up effort, the number of minor facilities is expected to decline as inactive facilities are identified and removed from the active database (about 8 minor permits have already been eliminated from the universe through this initiative).

In recent years, EPA has funded the Virgin Islands' water program through a Performance Partnership Grant.

DPNR's current staffing plan identifies two supervisors and seven technical staff with TPDES, water quality, and monitoring responsibilities. The director of the Division of Environmental Protection manages these staff members. In fiscal year (FY) 2004, this division had a budget of \$418,328 for staff and other basic expenses. For permit issuance actions, DPNR reports that one staff person is dedicated completely to permit issuance and three staff persons work on permit issuance as part of their job responsibilities. Historically, EPA has had concerns about staffing shortfalls at DPNR, such as vacancies and staff turnover. To address concerns about the Virgin Islands' program, in 1993 EPA and DPNR signed the Virgin Islands Corrective Action Plan and Agreement, which provided a framework for correcting legal authority deficiencies and for improving program performance. In 2000 the VI

legislature passed adequate statutory revisions to the Territorial Water Law analogous to the Clean Water Act requirements. To date, final proposed regulations have been reviewed and found adequate by EPA Region 2 and are in the process of being reviewed by DPNR. Once this review has been completed, DPNR will issue a public notice of the final regulatory revisions.

EPA Region 2:

EPA has NPDES responsibilities for federal facilities, pretreatment, general permits, and biosolids. There are no EPA permits issued or pending for federal facilities, and there are no known categorical industrial users or significant industrial users subject to EPA pretreatment requirements. See the biosolids section below for information about this program. EPA has not issued any NPDES permits in the Virgin Islands.¹

A number of EPA Region 2 offices share responsibilities for action related to the NPDES program in the Virgin Islands. The Division of Environmental Planning and Protection (DEPP) in New York maintains responsibility for the overall oversight of the VI program. In particular, DEPP is responsible for any proposed program revision and is coordinating a regulation update with DPNR. DEPP is also responsible for the Virgin Islands' performance under the Virgin Islands Corrective Action Plan (VICAP) and for oversight of industrial permit issuance. Finally, DEPP has coordinated two special studies of the St. Croix coastal waters in the vicinity of the Virgin Islands Rum facility in recent years.

The Caribbean Environmental Protection Division (CEPD) in San Juan, Puerto Rico, is responsible for overseeing municipal permit issuance and the Virgin Islands' enforcement program, and for managing the EPA program grant provided to the Virgin Islands. The Division of Environmental Science and Assessment (DESA) in Edison, New Jersey, may at times provide support through sampling, analysis, and quality assurance.

In 1997 Region 2 established the Virgin Islands Field Office, which has two full-time employees (a director and a support staff member).

2. State Program Assistance

Region 2 provides assistance to DPNR by funding a contractor effort (at a cost of approximately \$100,000) to develop an update to the TPDES regulations. EPA technical and legal staff have also participated in this special effort. EPA expects that the Virgin Islands will promulgate regulations and EPA Region 2 will approve them as a program modification. There have not been any efforts in recent years related to authorization of the NPDES program elements that are currently not part of the Virgin Islands' program (federal facilities, pretreatment, and biosolids/sludge).

¹ The National Data Sources column of the Management Report, measure #6, identifies one EPA-issued industrial permit; however, Region 2 has determined that a coding error in the PCS data system (for the Virgin Islands Rum facility) caused this mistake. The coding error has been corrected, and the additional data column in the Management Report shows the correct value.

3. EPA Activities in Indian Country

Not applicable because there are no federally recognized Tribes in the Virgin Islands for which EPA Region 2 has NPDES jurisdiction.

4. Legal Authorities

EPA is conducting a comprehensive review of the State's legal authorities. This review has not yet been completed. As a result, EPA is reserving this section of the profile; when the legal reviews are complete, EPA will update profiles to include the results of the reviews.

5. Public Participation

An evaluation of the State's legal authorities regarding public participation will be included in the legal authority review. As noted above, the legal authority review section of this profile is reserved pending completion of the legal authority review.

U.S. Virgin Islands:

DPNR's Water Pollution Control Program does not have a public participation policy.

DPNR publishes public notice of its draft NPDES permits in standard newspapers and provides access to records (including fact sheets, permits, enforcement actions, and correspondence) for the public. The DPNR requests that the public fill out a "Request for Public Inspection of DEP Records" form to view or obtain copies of this information. Although general program information is included on DPNR's Web site, access to permit records is not currently available on the Territory's site.

In the broader water program, DPNR participates in the Virgin Islands Non-Point Source Pollution Committee, the Virgin Islands Marine Park and East End Marine Park Committees, and the Forestry Stewardship Committee. DPNR also conducts community outreach—for example, at the St. Croix Agricultural Fair.

EPA Region 2:

EPA makes NPDES permit and compliance information available on its Web site. Envirofacts is an online point of access to many EPA data systems, including PCS.

EPA began an effort to include State permits (in portable document format [PDF] files) on the Internet in 2003. Instructions for accessing these documents are available at <http://www.epa.gov/npdes/permitdocuments>. As of October 2004, there were no VI permits posted on this site. EPA expects to add major permits issued by the Virgin Islands to this Web site over time.

6. Permit Issuance Management Strategy

U.S. Virgin Islands:

As reported in the Management Report, as of July 2004, 50% of the major permits and 46% of the minor permits were current. Two major permits and 26 minor permits have been expired for more than 2 years, and four minor permits expired more than 10 years ago. High backlog rates have been evident in the Virgin Islands for the past 3 years. EPA Region 2 became concerned over the backlog in the Virgin

Islands and identified deficiencies with PCS data for the Virgin Islands, including possible erroneous entries. In fall 2003 EPA Region 2 and DPNR created a workgroup to address these issues. EPA expects that this effort will eliminate a number of minor permits from the universe (inactive facilities) and will allow input of some permit issuance actions that are not currently included in the database. As a result, this effort should reduce the backlog rates in the database.

Following completion of the workgroup's clean-up effort, EPA will require DPNR to develop a strategy for permit issuance and backlog reduction. DPNR intends to work with EPA Region 2 to develop a priority list of permits and a plan to address the current permit backlog during FY2005. DPNR also looks forward to working closely with EPA Region 2's Legal Counsel to obtain general permitting authority.

Table 1: Percentage of Facilities Covered by Current Permits in the U.S. Virgin Islands

	2000	Nat'l Avg.	2001	Nat'l Avg.	2002	Nat'l Avg.	2003	Nat'l Avg.
Major Facilities	50%	74%	33%	76%	50%	83%	50%	84%
Minor Facilities Covered by Individual Permits	41%	69%	37%	73%	36%	79%	35%	81%
Minor Facilities Covered by Individual or General Permits	N/A	N/A	N/A	N/A	36%	85%	35%	86%

Source: PCS, 12/31/00; 12/31/01; 12/31/02; 12/31/03. (The values in the National Data Sources column of the Management Report, measures #19 and #20, are PCS data as of 6/30/04.)

EPA Region 2:

EPA has not issued any NPDES permits in the Virgin Islands.

7. Data Management

U.S. Virgin Islands:

EPA Region 2 maintains PCS data for DPNR. Currently, Region 2 staff enter the data manually as the data are provided by DPNR staff and dischargers. These data include permitting data, compliance monitoring and enforcement data, and discharge monitoring report (DMR) data. Although the process works, there are notable deficiencies. For example, only about 30% of the latitude/longitude data for outfalls have been provided by DPNR and entered into PCS.

In fall 2003 EPA Region 2 and DPNR created a workgroup to address concerns over the deficiencies in PCS data for the Virgin Islands. To date, the workgroup has progressed to the point where the information in PCS more accurately reflects the active permit universe and includes more data for permit issuance and expiration dates and discharge limits. Efforts are ongoing to complete the cleanup of the PCS database. The workgroup is also to discuss methods to improve standard operating procedures for forwarding information to EPA Region 2 PCS staff and to ensure that data are entered accurately and in a timely manner.

In January 2004 VI staff received access user names and passwords to begin updating PCS directly; however, DPNR does not use PCS as its primary TPDES management tool. DPNR plans to have its PCS accounts reactivated, which will promote better data management (such as improved latitude/longitude data input). The Virgin Islands have decided to develop a local database that will be used to assist in increasing the efficiency of data collection and subsequent input into PCS through an automated upload process. An initial version of the database is expected to be operable in December 2004.

In a separate area, with EPA grant assistance, DPNR is working on a contractor-assisted project, "VI TPDES Permit Compliance System Customization and GIS Enablization." This initiative is expected to enhance watershed management planning and allow EPA Region 2 to enter facility and outfall latitude and longitude data in concert with DPNR.

Although DPNR does not currently have plans to use the Integrated Compliance Information System (ICIS)-NPDES (modernized PCS), EPA Region 2 will encourage DPNR to make use of ICIS-NPDES once it is available. DPNR has indicated an interest in accessing ICIS-NPDES when it becomes available.

EPA Region 2:

Region 2 actions are included above.

Section II. Program Implementation

1. Permit Quality

U.S. Virgin Islands:

In January 2004 DPNR began using an electronic permit reviewer to aid in the permit application review process, and permit writers use peer reviews to ensure the integrity of permits. The electronic permit reviewer is a simple checklist to assist with application completeness reviews. The Virgin Islands follow the NPDES Permit Writer's Handbook to maintain permit quality. All VI permit writers have attended EPA's Basic Permit Writers' Training Course. The Virgin Islands' permit fact sheets are not detailed, but they generally contain sufficient information to support proposed permit requirements.

Region 2 is usually able to complete at least a cursory review of all DPNR permits. DPNR permits implement EPA's effluent guidelines for the two steam electric plants and the one petroleum refinery. They also implement EPA's secondary treatment requirements for sewage treatment facilities. In the area of water quality-based permitting, the lack of numeric water quality standards has hampered progress. However, water quality standards are now being adopted and, as a result, this is a good time to support a strengthening of the VI water quality-based permitting program. Region 2 will support additional training and program development to assist DPNR.

The Virgin Islands require major facilities with flows of more than 1 million gallons per day to conduct whole effluent toxicity (WET) testing. To date, the Virgin Islands have not conducted "reasonable potential" reviews for WET and have not imposed WET limits in permits.

EPA Region 2:

EPA Region 2 has spent considerable staff and management effort on the Virgin Islands Rum Industries, Ltd. (VIRIL) facility in recent years. VIRIL is a rum manufacturing company on the southern coast of St. Croix. The facility is authorized to discharge up to 138,000 gallons per day of wastewater that receives only minimal treatment to remove some solids. This wastewater is discharged through an ocean outfall to the Caribbean Sea, and the plume can be seen for miles along the southern coast.

The Caribbean Basin Economic Recovery Act (CBERA) of 1983 provides VIRIL with a partial exemption from the NPDES requirements as long as the governor of the Virgin Islands certifies that the discharge will not adversely affect public water supplies or marine biota.

EPA conducted ocean surveys in 2000 and 2002 to study potential adverse effects of the VIRIL discharge on water quality and marine biota. In general, EPA's findings were that the discharge threatened biota because of its oxygen-demanding and light-attenuating properties, and that ambient toxicity was a concern.

EPA entered into a memorandum of understanding with the government of the Virgin Islands in August 2002, which provides a funding source and a framework for study of the VIRIL discharge. Specifically, the memorandum of understanding provides for the evaluation of potential treatment alternatives and addresses the potential implementation of a preferred mitigation measure. As of summer 2004, a contractor was initiating action to conduct these evaluations. EPA anticipates that the work conducted

under the memorandum of understanding will help inform decision-making for the next renewal permit and help determine potential treatment alternatives for the VIRIL wastestream.

2. Pretreatment

U.S. Virgin Islands:

The Virgin Islands are not authorized to implement the pretreatment program.

EPA Region 2:

EPA Region 2 is not aware of any categorical industrial users or significant industrial users in the Virgin Islands.

3. Concentrated Animal Feeding Operations

There are no CAFOs in the Virgin Islands at this time.

4. Stormwater

U.S. Virgin Islands:

The Virgin Islands have not implemented a stormwater permitting program. Pending revisions to TPDES regulations will strengthen DPNR's authority to implement such a program. The Virgin Islands have not issued any permits to control industrial discharge of stormwater. EPA expects that the Virgin Islands will pursue general permit authority and use general permits in a future stormwater permitting program. An estimated schedule of action is for TPDES regulations to be issued in 2005, general permit authority in 2006, and general permit(s) in 2007.

DPNR is implementing an alternative stormwater control program for construction activities under the Coastal Zone Management Program. DPNR's Division of Coastal Zone Management conducts plan reviews and issues permits for lands defined as "Tier 1" (generally, coastline areas, outlying islands, and submerged lands). DPNR's Department of Environmental Protection manages a permitting program for "Tier 2" lands and specifically issues "earth change" permits. Both programs require development of an environmental assessment report for development projects. The programs also require stormwater management practices for all developments that are designed to control runoff volumes to ensure that post-development peak runoff rates and average volumes are similar to pre-development levels. Although regulations have not been promulgated for this program, the Virgin Islands have statutory authority and are implementing the program.

EPA Region 2:

EPA has provided assistance to the Virgin Islands in the development of updated TPDES regulations, which will establish necessary authority for stormwater permitting (see Section I.2 above).

5. Combined Sewer Overflows/Sanitary Sewer Overflows

U.S. Virgin Islands:

There are no combined sewer systems in the Virgin Islands.

Recurring sewer problems occur in the Virgin Islands, including raw sewage discharges from pumping stations in collection systems that feed to the Department of Public Works. DPNR developed standard permit conditions in the mid-1990s regarding reporting and public notification, and these conditions are now included in all permits issued to publicly owned treatment works (POTWs). Any noncompliance that may endanger health or the environment, or any unanticipated bypass, interpreted to include raw sewage discharges or sanitary sewer overflows (SSOs), must be reported within 24 hours. DPNR requires a follow-up written report, written notice of the discharge (including location) using a standardized form to various media outlets within 24 hours, and posting of a sign in the area affected by the discharge as soon as possible but no later than 24 hours after the event.

SSOs have also been subject to federal court intervention. Over the past 4 years they have been frequent. In some cases major pumping stations have been bypassed for several consecutive months. The Virgin Islands do not maintain a tracking system for SSO events.

EPA Region 2:

See Section III.1 (Enforcement Program) for a discussion of EPA action to address sewage overflow problems.

6. Biosolids

U.S. Virgin Islands:

The Virgin Islands do not have biosolids program approval. EPA Region 2 has authority to administer the program. The Virgin Islands have not made plans to seek authorization.

EPA Region 2:

The Region 2 New York office has full authority to administer the biosolids program. Region 2 in New York does not receive annual reports from the two major POTWs in the Virgin Islands. One POTW (Department of Public Works - Charlotte Amalie) places its sludge in a lagoon, and the other POTW (Department of Public Works - St. Croix) co-disposes of the sludge in a landfill. Given the sludge disposal method in the Virgin Islands, these two POTWs are not required to submit an annual report. EPA regulations found at title 40 of the Code of Federal Regulations (CFR) part 503 require only POTWs that land apply, surface dispose, or incinerate their sludge to submit annual reports. Placing sewage sludge in a lagoon is considered to be a treatment process, and therefore it is not regulated by 40 CFR part 503. However, Region 2 can request information on sludge disposal by issuing these POTWs an information request letter using its authorities under Clean Water Act section 308.

Section III. NPDES Compliance Monitoring and Enforcement Response

In a separate initiative, EPA's Office of Enforcement and Compliance Assurance (OECA), EPA Regions, and the Environmental Council of the States have developed a tool for assessing State performance in enforcement and compliance assurance to ensure that States meet agreed-upon minimum performance levels and provide a consistent level of environmental and public health protection nationwide. OECA will use the State profiles to focus these efforts and identify areas needing further discussion and evaluation.

1. Enforcement Program

U.S. Virgin Islands:

The U.S. Virgin Islands received NPDES program authorization in 1976. The universe of regulated NPDES facilities consists of six major facilities: two POTWs, two power plants, a rum distillery, and a crude oil refinery. Minor facilities (67, according to PCS) mostly discharge brine wastewater from desalination plants and treated sewage. DPNR has historically lacked trained and experienced enforcement personnel due to turnover and lack of program funding.

The NPDES enforcement program has generally been focused on bringing POTWs into compliance with the Clean Water Act through formal enforcement. When DPNR finds a consistent pattern of noncompliance, it issues a notice of violation (NOV) to the permittee. Formal meetings to discuss the NOV findings are held, and informal discussions in the field are conducted as part of the compliance assistance effort. The Virgin Islands, however, have not been successful in enforcement efforts involving POTWs. In such instances, EPA has taken action through federal court orders to bring violators into compliance. Problems include significant deterioration of the wastewater infrastructure (such as treatment plants, pumping stations, and sewerage systems), insufficient operation and maintenance, and insufficient funding. Regarding industrial facilities, DPNR has historically limited its enforcement to inspections and NOVs. For example, during FY2004, DPNR issued two NOVs and orders for corrective action against the Department of Public Works et al. for unpermitted discharges.

An administrative enforcement order was issued to the Virgin Islands Water and Power Authority's St. Croix facility for an unpermitted release. DPNR issued an NOV, and EPA issued an administrative show cause order to the Virgin Islands Water and Power Authority's St. Thomas facility. EPA and DPNR have historically worked together and continue to jointly work on this enforcement case. DPNR continues to work on orders that were issued in FY2003 and earlier.

In general DPNR complies with the responsibilities for inspection and water sampling activities found in EPA grant work plans. However, DPNR has not escalated its enforcement activities against other territorial governmental entities (such as the Department of Public Works) and major industries (such as VIRIL).

DPNR has not revised its regulations in a timely manner, and thus it cannot pursue enforcement actions in new programs (such as stormwater) because it lacks legal authority.

The Virgin Islands identify violations by reviewing DMRs or by responding to complaints from concerned citizens, community groups, or private organizations. Follow-up investigations (inspections) are conducted to assess whether the situation represents an environmental or human health-related threat. Priorities are established depending on the facility that might be creating the nuisance or violation. Location and availability of internal resources are considered in prioritizing the course of action to be followed.

Unfortunately, the Virgin Islands have an outdated Enforcement Management System that is currently not being followed and requires updating and subsequent implementation. EPA will work with the Virgin Islands on this activity over the next 2 years. At present, compliance/enforcement personnel use whatever information is available on a violator at the time of the initial assessment. Penalties may be adjusted if the necessary information is available. In the assessment, the Virgin Islands consider the number of previous violations and the response to previous violations to correct the problem. When previous enforcement responses have alerted the Virgin Islands to a particular recurrent situation for which their actions do not produce the required results, EPA takes over on the enforcement action.

The Virgin Islands conduct follow-up verification inspections on the agreed deadlines and conduct conferences and meetings with the permittee. Supplemental environmental projects are not currently within the scope of the settlements reached by the Virgin Islands.

EPA Region 2:

In 1984 EPA sued the Virgin Islands' Department of Public Works to address sewage discharge violations and much-needed infrastructure improvements. Since then, the court has mandated the Virgin Islands to take actions to bring the system into compliance with the Clean Water Act. The suit was amended in 1996 and included projects to enhance the sewage infrastructure in the Virgin Islands. In recognition of the territorial infrastructure needs, EPA's enforcement activities have mainly focused on the sewage lift stations and treatment plant operation and maintenance.

The Region has been actively engaged with the Federal District Court regarding noncompliance as it pertains to municipal facilities. EPA has taken the lead in enforcement actions initiated in the Virgin Islands, mainly because sustained compliance has not been achieved at municipal facilities owned by the Virgin Islands. Lack of proper operation and maintenance over several years and financial difficulties have left the sewerage infrastructure in a state of emergency condition (as declared by local VI authorities). Over the past 4 years, the Region has made this effort one of its highest priorities and has achieved substantial progress toward sustained compliance. Over the past 2 years, the Virgin Islands have begun operations at two new sewage treatment plants and rehabilitated another one. The only item pending final resolution from the 1984 suit (as amended in 1996) is the construction of two new secondary sewage treatment plants to replace two primary plants on the islands of St. Thomas and St. Croix. All the other projects originally included in the 1984 decree have either been completed or withdrawn from the agreement with the consent of EPA. EPA is also the lead agency for current enforcement efforts regarding the Virgin Islands Water and Power Authority. Three instances of significant noncompliance are noted in the current quarterly noncompliance report.

Any instance that may represent an immediate health hazard is first identified and investigated by the Virgin Islands. Depending on the outcome of its investigation, the Virgin Islands may seek EPA's assistance or initiate corrective actions, as necessary, on its own. For the current court action with municipal facilities, the Department of Justice has filed numerous motions to enforce the provisions of

the court order and to seek stipulated penalties. In the Virgin Islands, stipulated penalties are decided by a Federal District Court judge. The Department of Justice files motions with the Federal District Court to ensure project completion. Court hearings are regularly conducted to ensure adherence with the agreed schedules.

Region 2 created the VI field office in 1997, with two full-time employees. EPA's San Juan office maintains enforcement program oversight. In recent years, oversight of the program by means of audits and other evaluation mechanisms has been enhanced to foster improved outcome.

Although there is no current standardized enforcement policy, EPA and DPNR generally agree that NPDES permits have clear and enforceable requirements. DMRs submitted to EPA and DPNR provide a major source of information on compliance. DMR reviews identify instances of noncompliance, which are followed by an appropriate enforcement response. Region 2 recognizes that there has been a gap in the enforcement data currently generated and transmitted to EPA for processing in PCS. EPA will work with DPNR on this over the next year. (The Data Management section above also discusses activities to address data gaps.)

Region 2 uses the EPA Clean Water Act Enforcement Management System to address all EPA lead cases. The system includes penalty assessment.

2. Record Keeping and Reporting

U.S. Virgin Islands:

The Virgin Islands have an outdated Enforcement Management System that is currently not being followed and requires updating and subsequent implementation. EPA will work with the Virgin Islands on this activity over the next 2 years.

EPA Region 2:

Region 2 uses the EPA Clean Water Act Enforcement Management System to address all EPA lead cases. The system includes penalty assessment.

3. Inspections

U.S. Virgin Islands:

Inspections are generally scheduled to ensure appropriate coverage for a small universe of permittees. Targeting strategies are not used. The Virgin Islands do not participate in new EPA initiatives.

EPA Region 2:

EPA maintains an inspection presence in the Virgin Islands. EPA and DPNR coordinate inspection activities. EPA and DPNR inspected five of the six major facilities in 2003.² The major facility that was not inspected at that time is HOVENSA.

² The Management Report, measure #32, shows that DPNR inspected 67% of major facilities (4 of 6) while EPA inspected 50% of major facilities (3 of 6) in 2003. Of the two major facilities that DPNR did not inspect, EPA inspected one.

Management Report measure #33 provides the percentage of minor facility inspections conducted by the Virgin Islands and EPA compared with the combined major and minor inspections conducted. The calculation for this measure covers all types of inspections, including multiple inspections at one facility. The Virgin Islands conducted 46 minor inspections, which is 77% of the 60 total inspections completed by the Virgin Islands. EPA conducted 23 minor inspections, which is 62% of the total inspections completed by EPA.

4. Compliance Assistance

U.S. Virgin Islands:

The Virgin Islands do not dedicate their limited resources toward compliance assistance such as seminars and training; however, they provides question-specific assistance to permittees in phone calls or office visits on topics such as DMR completion. A concerted compliance assistance effort will be needed once the Virgin Islands implement a stormwater program.

DPNR has earmarked \$20,000 in Clean Water Act section 319 funds for its Water Pollution Control Program to develop the Clean Marinas Program. This program is geared toward educational outreach throughout the community, emphasizing best management practices for marinas and boaters. DPNR is also assisting in the development of training for wastewater operators and other industry professionals.

EPA Region 2:

EPA's activities have been geared toward colleges, universities, and hospitals and have taken a comprehensive environmental auditing approach, which includes NPDES.

Section IV. Related Water Programs and Environmental Outcomes

1. Monitoring

Because the Virgin Islands have no streams or lakes, the monitoring program consists of coastal monitoring. The Virgin Islands operate a fixed-station network that can be sampled by boat. One hundred and thirty-nine stations are monitored quarterly for fecal coliforms, turbidity, dissolved oxygen, temperature, visibility, and total suspended solids. Monitoring for toxics is not conducted. The Virgin Islands do not employ a rotating basin approach. The monitoring program is not designed to collect sufficient data to establish a TMDL. Although in some cases the monitoring program data would be sufficient to establish TMDLs, normally the data would need to be supplemented by other sources such as EPA or the U.S. Geological Survey.

DPNR submitted a multiyear monitoring strategy based on EPA's guidance document, "Elements of a State Water Monitoring and Assessment Program," and Region 2 has provided extensive comments and suggestions. DPNR and Region 2 are engaged in an iterative review process; as of November 2004 a second round of review and revisions was under way. Some important issues remain to be resolved, and a firm date for completion of an acceptable strategy is not currently available.

Beginning in the first quarter of FY2005, DPNR will expand its monitoring efforts to include offshore waters. It revised the fixed-station monitoring network in FY2004 to include additional known nonpoint source discharges. DPNR will upgrade its monitoring regime as shown in the table below:

Location	Level of Monitoring
Embayment	Routine/intense effort
Nearshore	Routine/moderate effort
Offshore	Minimum effort
TMDL Water Bodies	Routine/intense effort (of custom design)

The Virgin Islands will pursue biological monitoring approaches. Building on an existing coral reef monitoring program initiated by the University of the Virgin Islands, DPNR will seek to create an index of biological indicators specific to the Virgin Islands.

2. Environmental Outcomes

As noted above, the Virgin Islands assess only marine waters. Therefore, the following information applies only to marine waters, which can be defined as either estuaries or offshore open waters. Offshore open water constitutes by far the largest spatial area in the VI marine waters but is of lesser concern than estuaries for NPDES permitting for a number of reasons, including (1) estuaries are more bounded by land than open water and thus have geospatial limits on water flow and circulation patterns, in contrast to open water; (2) estuaries have a higher rate of secondary productivity and subsequent

ecological population density than open water areas; and (3) estuaries have a higher rate of recreational use (thus a higher potential for human exposure to pollutants) per square unit of area than open water.

As a result of the above, DPNR has concentrated primarily on assessment of estuaries. In its 2002 Integrated Report (IR), DPNR reported the percentage of assessed estuaries. This number was modest, ranging from about 4% to 18%, depending on the island. In the 2004 IR, DPNR reported the percentage of total waters assessed, rather than just the estuaries. Therefore, it is not possible to directly measure trends using these two data sets. In addition, the U.S. Fish and Wildlife Service now has jurisdiction over several of the waters in St. John's for which it did not have jurisdiction in 2002, and DPNR probably had limited monitoring in these areas for 2004. Having noted these factors, the percentage of assessed waters in 2004 ranged from about 2% to 7%, depending on the island. If one makes a conservative assumption that the percentage of open waters represents half the total marine waters in the Virgin Islands, the numbers in the 2004 IR may be commensurate with the numbers in the 2002 IR. If one includes some modest factor for waters that were excluded from DPNR monitoring after the U.S. Fish and Wildlife Service gained jurisdiction, it appears that the level of assessment in the Virgin Islands has been constant or is slightly improved from 2002 to 2004.

With respect to what was assessed for compliance with water quality standards, the Virgin Islands assess two designated uses: (1) primary contact recreation, and (2) aquatic life use support. Further, DPNR's ambient water quality monitoring program collects only data for conventional parameters such as dissolved oxygen, temperature, pH, and pathogens. DPNR does not conduct biological assessments or collect toxics data. The results of the 2004 IR show that only about half of the assessed waters attained water quality standards for at least one designated use.

In sum, DPNR's ambient water quality monitoring is sparse and, in general, does not provide a sufficient basis to determine trends. As discussed in the previous section, DPNR is working with Region 2 to upgrade its monitoring strategy.

3. Water Quality Standards

U.S. Virgin Islands:

The Virgin Islands have adopted uses for all their waters, and these uses are consistent with the Clean Water Act's "fishable/swimmable" goals. To protect these uses, the Virgin Islands have also adopted numeric and narrative criteria. The current VI criteria for toxic pollutants are expressed as narrative statements. The Virgin Islands have also adopted an antidegradation policy to protect high-quality waters.

The Virgin Islands are in the process of completing a triennial review of their water quality standards, the first since 1985. The public participation process on the proposed revisions was completed on July 31, 2003. The final adopted revisions are expected in the near term. These revisions will include the adoption of EPA's current Clean Water Act section 304(a) numeric criteria, by reference, as well as EPA's 1986 criteria for enterococci. The proposed revisions are all consistent with EPA's national water quality standards program. The Virgin Islands are also developing nutrient criteria and are examining the relationship of nutrients in the water column and algal growth on coral reefs. EPA Region 2 and DPNR will use the results of this effort to develop nutrient criteria for the waters of the U.S. Virgin Islands consistent with the requirements of the National Nutrient Strategy.

The Virgin Islands have stated that it is a priority to undertake a subsequent water quality standards revision, which will be more comprehensive than the current review/revision. EPA Region 2 expects that once the current water quality standards package has been submitted and reviewed, and an EPA decision rendered, the Virgin Islands will begin work on the next triennial review. Region 2 will work with the Virgin Islands toward the timely completion of the next triennial review.

Potential issues involving the implementation of water quality standards in the Virgin Islands include the implementation of low-level criteria for bioaccumulative toxics, naturally occurring pollutants that might exceed criteria, enterococci criteria, and nutrient criteria, once adopted. Use attainability analyses have not been considered to date. The Virgin Islands' water quality standards do not currently include provisions for implementation or compliance schedules. However, the Virgin Islands have proposed the inclusion of compliance schedule provisions in their water quality standards regulations.

EPA Region 2:

EPA is coordinating closely with the Virgin Islands in the ongoing water quality standards revision process.

4. Total Maximum Daily Loads

U.S. Virgin Islands:

The Virgin Islands are not typical in that they do not have any freshwater watersheds and marine waters are assessed individually. EPA Region 2 believes that to approve a TMDL with a point source component, the TMDL must contain individual wasteload allocations that include sufficient information to establish water quality-based effluent limits.

TMDLs are developed for waters listed on the Virgin Islands' 2002 list of impaired water bodies prepared under Clean Water Act section 303(d) based on the Virgin Islands' assessment of priority. The schedule is being updated. All TMDLs submitted to EPA Region 2 have been approved. In 2003 the Virgin Islands submitted 3 TMDLs of the 36 water/pollutant combinations listed on its 2002 section 303(d) list. All three were for dissolved oxygen impairment, and all were approved by EPA Region 2. No wasteload allocations were included in the TMDLs because the POTWs serving these areas were being eliminated through connection to a regional facility. EPA Region 2 and DPNR continue to work together to establish TMDLs for all waters and pollutants included on the Virgin Islands' 2002 section 303(d) list in accordance with the schedule contained in the list.

TMDL production, based on the schedule in the Virgin Islands' 2002 section 303(d) list, is about a year slower than scheduled. This is because EPA Region 2 is assisting the Virgin Islands in using contractors for TMDL work. This has slowed the process. Four TMDLs scheduled for completion in 2003 are expected to be completed in 2004, and four TMDLs that were expected to be completed in 2004 will be rescheduled based on the priority assigned them in the Virgin Islands' 2004 section 303(d) list scheduled to be completed on or before April 1, 2004.

Three additional TMDLs were approved in September 2004 for Salt River Bay, St. Croix. DPNR plans to begin focusing on implementation for the Benner Bay/Mangrove Lagoon TMDLs and the development of the Magens Bay TMDL, among others, in FY2005.

No TMDLs are being delayed because of concerns with point sources.

As noted in the permit quality section above, in the area of water quality-based permitting, the lack of numeric water quality standards has hampered progress. However, water quality standards are now being adopted, and as a result, this is a good time to support a strengthening of the VI water quality-based permitting program. Region 2 will support additional training and program development to assist DPNR.

At present, DPNR does not have procedures in place to conduct water quality-based permitting for toxics in advance of a TMDL.

EPA Region 2:

As noted above, Region 2 is supporting the Virgin Islands' TMDL program through contract support.

5. Safe Drinking Water Act

U.S. Virgin Islands:

DPNR has conducted some wellhead protection activities on St Croix. Most residents of St. Croix (total population of about 50,000) receive drinking water from a desalination plant operated by the Virgin Islands Water and Power Authority. This surface water supply is supplemented by groundwater from a series of Water and Power Authority wells. Wellhead protection areas have been delineated for these well fields, but they have been found to encompass no discharging facilities that could constitute a threat. There are additional water supply systems on St. Croix associated with a number of hotels and condominiums served by groundwater. To date, delineations and inventories of pollution threats have not been developed for these wells. On St. Thomas, a number of water companies withdraw and sell groundwater, but no source water protection activities have been conducted.

EPA Region 2:

As a Territory, the Virgin Islands are is not eligible for set-aside funding from EPA under the Drinking Water State Revolving Loan Fund for source water assessments.

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DEP Programs

Air Pollution Control & Title V
Drinking Water State Revolving Fund
Financial Programs & Grants
Ground Water
Non-Point Source
Pesticide Control
Public Water System Supervision
Quality Assurance/Quality Control
Small Business Technical Assistance
Solid Waste
Super Fund
Underground Storage Tank
Water Pollution Control
Water Quality Management Planning
Wellhead Protection Program

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Virgin Islands

			Profile Section	GPRA Goal	Nat. Avg.	National Data Sources		Additional Data	
						State Activities	EPA Activities	State Activities	EPA Activities
NPDES Progress									
Universe	1	# major facilities (6,690 total)	I.1		n/a	6	0		
	2	# minor facilities covered by individual permits (42,057 total)	I.1		n/a	67	0		
	3	# minor facilities covered by non-storm water general permits (39,183 total)	I.1		n/a	0	0		
	4	# priority permits (TBD)	I.6			--	--		
	5	# pipes at facilities covered by individual permits (142,761 total)	I.7		n/a	135	--		
	6	# industrial facilities covered by individual permits (32,505 total)	I.1		n/a	46	1	47	0
	7	# POTWs covered by individual permits (15,197 total)	I.1		n/a	9	0		
	8	# pretreatment programs (1,482 total)	II.2		n/a	n/a	0		
	9	# Significant Industrial Users (SIUs) discharging to pretreatment programs (22,158 total)	II.2		n/a	n/a	0		
	10	# Combined Sewer Overflow (CSO) permittees (831 total)	II.5		n/a	0	--		
	11	# CAFOs (current and est. future) (17,672 total)	II.3		n/a	0	--		
	12	# biosolids facilities (TBD '05)	II.6			--	--		
NPDES Program Administration	13	State or Region assessment of State NPDES program (none (N)/assessment (A)/profile (P))	I.1	50 states 2004	n/a	A, P	P		
	14	% pipes at facilities covered by individual permits w/ lat/long in PCS	I.7		46.3%	28.9%	--		
	15	State CAFO legal authority expected (mo/yr)	II.3	2005	n/a	n/a	n/a		
	16	# Withdrawal petitions/legal challenges (22 total)	I.4		n/a	0	n/a		
	17	DMR data entry rate	I.7		95%	100%	--		
	18	# permit applications pending (1,011 total)	I.6		n/a	0	--		
NPDES Program Implementation	19	% major facilities covered by current permits	I.6	90%	83.7%	50.0%	n/a		
	20	% minor facilities covered by current individual or non-storm water general permits	I.6	90% 12/04	87.0%	46.3%	n/a		
	21	# major facilities w/permits expired >10 yrs. (56 total)	I.6		n/a	0	0		
	22	% priority permits issued as scheduled (TBD '05)	I.6	95% 2005		--	--		
	23	% pretreatment programs inspected/audited during 5 yr. inspection period	II.2		85.3%	n/a	n/a		
	24	% SIUs w/control mechanisms	II.2		99.2%	n/a	n/a		
	25	% of CSO permittees with long-term control plans developed or required	II.5	75% 2008	82.2%	n/a	--		
	26	% CAFOs covered by NPDES permits	II.3		35%	n/a	--		
	27	% biosolids facilities that have satisfied part 503 requirements (TBD '05)	II.6			--	--		
	28	# Phase I storm water permits issued but not current (76 total)	II.4		n/a	0	n/a		
	29	# Phase I storm water permits not yet issued (5 total)	II.4		n/a	0	n/a		
	30	Phase II storm water small MS4 permits current (Y/N/D (draft)) (35 States)	II.4	100% states 2008	n/a	n/a	n/a		
	31	Phase II storm water construction permit current (Y/N/D (draft)) (49 States)	II.4	100% states 2008	n/a	n/a	n/a		
NPDES Compliance Monitoring and Enforcement Response	32	% major facilities inspected	III.3		71%	67%	50%		
	33	(inspections at minors) / (total inspections at majors and minors)	III.3		76%	77%	62%		
	34	% major facilities in significant non-compliance (SNC)	III.1		20%	100%	--		
	35	% SNCS addressed by formal enforcement action (FEA)	III.1		14%	0%	--		
	36	% SNCS returned to compliance w/o FEA	III.1		70%	17%	--		
	37	# FEAs at major facilities (666 total)	III.1		n/a	0	2		
	38	# FEAs at minor facilities (1,660 total)	III.1		n/a	0	1		

Explanation of Column Headers:

Profile Section: For each measure, this column lists the section of the profile where the program area (including any additional data for the measure) is discussed.

National Data Sources: The information in these two columns is drawn from two types of sources:

(1) EPA-managed databases of record for the national water program, such as PCS, the National Assessment Database, and the National TMDL Tracking System. NPDES authorities are responsible for populating PCS with required data elements and for assuring the quality of the data. EPA is working to phase in full use of NAD and NTS as national databases.

(2) Other tracking information maintained by EPA Headquarters for program areas such as CAFOs, CSOs, and storm water.

The [definitions document](#) accompanying this Management Report provides a detailed definition of each data element in the National Data Sources columns.

Additional Data: These columns provide additional data in cases where information from other data sources differs from National Data Sources. Additional data should generally adhere to the same narrative definitions as data in the National Data Sources, and should be derived using similar processes and criteria. Our goal is to work with the States on these discrepancies to ensure consistent and accurate reporting. A State contact is available who can respond to queries. The profiles discuss each additional data element.

State Activities: Information in these columns reflects activities conducted by the State program. (Shaded cells in these columns indicate that the work may not be entirely the State's responsibility, but a breakdown of the data into EPA and State responsibilities is unavailable.)

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NPDES Management Report, Fall 2004

Virgin Islands

		Profile Section	GPRA Goal	Nat. Avg.	National Data Sources		Additional Data		
					State Activities	EPA Activities	State Activities	EPA Activities	
Water Quality Progress									
Universe	39	River/stream miles (3,419,857 total)	IV.2		n/a	0	n/a		
	40	Lake acres (27,775,301 total)	IV.2		n/a	0	n/a		
	41	Total # TMDLs in docket at end of FY 2003 (52,795 total)	IV.4		n/a	36	--		
	42	# TMDLs committed to in FY 2003 management agreement (2,435 total)	IV.4		n/a	4	0		
	43	# Watersheds (2,341 total)	IV.2		n/a	--	--		
Water Quality Administration	44	On-time Water Quality Standards (WQS) triennial review completed (42 States)	IV.3		n/a	N	n/a		
	45	# WQS submissions that have not been fully acted on after 90 days (32 total)	IV.3	<25% submissions	n/a	n/a	0		
Water Quality Implementation	46	State is implementing a comprehensive monitoring strategy (Y/N) (TBD)	IV.1	all states 2005	--	--	--		
	47	% river/stream miles assessed for recreation	IV.2		13.8%	n/a	n/a		
	48	% river/stream miles assessed for aquatic life	IV.2		22.0%	n/a	n/a		
	49	% lake acres assessed for recreation	IV.2		49.4%	n/a	n/a		
	50	% lake acres assessed for aquatic life	IV.2		48.5%	n/a	n/a		
	51	# outstanding WQS disapprovals (23 total)	IV.3		n/a	0	n/a		
	52	WQS for E. coli or enterococci for coastal recreational waters (12 States)	IV.3	35 states 2008	n/a	N	n/a		
	53	WQS for nutrients or Nutrient Criteria Plan in place (13 States)	IV.3	25 states 2008	n/a	N	n/a		
	54	Cumulative # TMDLs completed through FY 2003 (10,807 total)	IV.4		n/a	3	--		
	55	# TMDLs completed in FY 2003 (2,929 total)	IV.4		n/a	3	0		
Environmental Outcomes	56	# TMDLs completed through FY 2003 that include at least one point source WLA (5,036 total)	IV.4		n/a	--	--		
	57	% Assessed river/stream miles impaired for swimming in 2000	IV.2		--	n/a	n/a		
	58	% Assessed lake acres impaired for swimming in 2000	IV.2		--	n/a	n/a		
	59	# Watersheds in which at least 20% of the water segments have been assessed and, of those assessed, 80% or more are meeting WQS (440 total)	IV.2	600 2008	n/a	--	--		

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