



U.S. ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF INSPECTOR GENERAL

Quick Reaction Report: EPA Oversight Needed to Ensure Beach Safety in U.S. Virgin Islands

Report No. 14-P-0155

March 31, 2014



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Report Contributors:

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Abbreviations

BEACH Act Beaches Environmental Assessment and Coastal Health Act of 2000
DPNR U.S. Virgin Islands Department of Planning and Natural Resources
EPA U.S. Environmental Protection Agency
OIG Office of Inspector General
USVI U.S. Virgin Islands

Cover photo: A view of Magen's Bay in St. Thomas, U.S. Virgin Islands. (EPA OIG photo)

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At a Glance

Why We Did This Review

This is a quick reaction report that addresses requirements under the Beaches Environmental Assessment and Coastal Health Act of 2000 (BEACH Act). Based on a request from the U.S. Environmental Protection Agency's (EPA's) Region 2 Administrator, we are evaluating whether programs that the U.S. Virgin Islands (USVI) operates meet EPA requirements, and what steps EPA Region 2 has taken to ensure the programs have achieved the intended benefits. Region 2 provided to USVI a grant of more than \$300,000 for weekly monitoring of USVI beaches over fiscal years 2013 and 2014. Any issues to report on the territory's overall performance in the BEACH Act or other environmental programs will be reported separately.

This report addresses the following EPA themes:

- *Making a visible difference in communities across the country.*
- *Protecting water: A precious, limited resource.*

For further information, contact our public affairs office at (202) 566-2391.

The full report is at:
www.epa.gov/oig/reports/2014/20140331-14-P-0155.pdf

Quick Reaction Report: EPA Oversight Needed to Ensure Beach Safety in U.S. Virgin Islands

What We Found

In violation of its agreement under the BEACH Act grant with the EPA, the USVI Department of Planning and Natural Resources (DPNR) did not monitor the beaches on St. Thomas and St. John for pathogens between February 3–16, 2014. Under the grant, beach sampling is supposed to occur on a weekly basis at 23 beaches on these two islands to identify any harmful levels of contamination in the water. In response to our draft report, Region 2 is acting to oversee and assess the USVI beach monitoring program. Region 2 took immediate action to address the lapse in sampling and asked the DPNR to develop a plan for notifying the EPA if sampling ceases again. Region 2 is also working to address the lack of a contract to conduct beach sampling.

The lapse in sampling of USVI beaches created risk that the public was exposed to unsafe levels of bacteria and the environment may have been endangered.

The DPNR restarted beach sampling on February 17, 2014. The lapse in sampling posed potential health hazards to humans and may have endangered the environment. The DPNR issued press releases, which two USVI newspapers printed on February 7 and 14, 2014, indicating that beaches in St. Thomas and St. John had not been monitored the previous week. This action was consistent with DPNR procedures for public notification. However, this may not be adequate notice for tourists visiting the USVI, as they may not read the local newspapers.

Recommendations and Corrective Actions

We recommended that the EPA Regional Administrator, Region 2:

- Immediately take steps to ensure that the USVI beach monitoring and public notification meet EPA guidelines and continue.
- Determine whether the DPNR has a sustainable beach monitoring program in place (for example, with valid contracts for sampling and lab analysis) that will provide continuous beach monitoring and adequate public notification. If it is determined that the USVI beach monitoring program is not sustainable, the EPA should manage the program according to the BEACH Act until the DPNR can demonstrate it can meet all BEACH Act requirements and EPA guidance.

The agency agreed with our recommendations and said actions it already has underway achieve the purpose of the recommendations. In response to recommendation 1, Region 2 stated it held a conference call with the DPNR to discuss the lapse, and requested DPNR prepare a contingency plan. In response to recommendation 2, EPA Region 2 described several areas where the region and the DPNR are working to address the beach monitoring program deficiencies.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE INSPECTOR GENERAL

March 31, 2014

MEMORANDUM

SUBJECT: Quick Reaction Report: EPA Oversight Needed to Ensure Beach Safety in U.S. Virgin Islands
Report No. 14-P-0155

FROM: Arthur A. Elkins Jr.

A handwritten signature in black ink, appearing to read "Arthur A. Elkins Jr.", is written over the printed name.

TO: Judith A. Enck, Regional Administrator
EPA Region 2

This is a quick reaction report prepared by the Office of Inspector General (OIG) of the U.S. Environmental Protection Agency (EPA). The report addresses monitoring requirements under the Beaches Environmental Assessment and Coastal Health Act of 2000 (BEACH Act). This report represents the opinion of the OIG and does not necessarily represent the final EPA position. Final determinations on matters in this report will be made by EPA managers in accordance with established audit resolution procedures.

Purpose, Scope and Methodology

Based on a request from the EPA Region 2 Regional Administrator, the OIG is currently conducting an evaluation into the U.S. Virgin Islands (USVI) environmental programs. Our overall objectives are to assess whether programs that the USVI has implemented on the EPA's behalf have met programmatic requirements, and what steps Region 2 has taken to ensure that the programs have achieved the intended environmental and human health benefits. As part of this review, the OIG is evaluating the USVI's performance under the BEACH Act. The OIG may have additional issues to report on the territory's overall performance in implementing the BEACH Act. These issues and our report on other environmental programs will be reported separately.

We performed our work from November 2013 through February 2014 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform our work to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our conclusions based on our evaluation objectives.

To evaluate the BEACH Act program operated by the USVI, we reviewed documents, conducted interviews with personnel and officials from the EPA and the USVI Department of Planning and

Natural Resources (DPNR), interviewed the sampler for beach monitoring, and assessed data collected under the beach monitoring program.

Background

In 2000, the BEACH Act amended the Clean Water Act to address health problems arising out of contamination of public beaches from pathogens, such as disease-causing bacteria. It requires that states, territories and tribes adopt water quality criteria and standards and develop water quality monitoring and notification programs for beaches, including sampling and lab analysis. To carry out these tasks, the EPA provides states and other authorized government entities with federal grant money for monitoring tasks, to develop lists of beaches for sampling and criteria for identifying contaminants. In 2012, the EPA distributed \$9.8 million in grants among U.S. states, territories and tribes to help protect America's beaches.

The USVI accepted an EPA grant of \$303,000 for fiscal years 2013 and 2014 for weekly monitoring of 43 of its 148 beaches on the islands of St. Croix, St. John and St. Thomas. Under the grant, the DPNR is responsible for analyzing the monitoring results and informing the public of instances of beach contamination. The BEACH Act states that, "In the case of a State that has no program for monitoring and notification that is consistent with the performance criteria... the Administrator shall conduct a monitoring and notification program for the listed waters."¹

The USVI coastline is dotted with numerous public beaches. Approximately 200,000 tourists frequent USVI beaches each month. Of the USVI 43 monitoring beaches, 23 are on St. Thomas and St. John while the remaining 20 are on St. Croix. The Virgin Islands Beach Monitoring Program evaluates nearshore water quality by analyzing samples collected from designated beach swimming areas along the shoreline. The sampling program determines whether human pathogenic water quality impairment exists at the designated swimming beaches by monitoring the presence and level of enterococci bacteria, a key indicator of contamination in marine water.

Enterococci contamination leads to skin illnesses in bathers, and enterococci serve as an indicator of other related contaminants that can lead to gastrointestinal and respiratory illnesses in exposed swimmers. Waterborne pathogens such as bacteria, viruses and parasites can contaminate the water and sand at beaches and threaten human health. Contact with or accidental ingestion of contaminated water can cause vomiting, diarrhea and other illnesses, and may be life-threatening for susceptible populations such as children, the elderly and those with impaired immune systems.

Beach pollution comes from many sources: nonpoint source pollution from failing septic systems, pollutants from urban and agricultural land that run into surface water, and pollutants from the boating community. In conjunction with numerous troubled components of the USVI public sewer system, these sources may be creating exposure health risks to swimmers at the territory beaches. Also, extensive coral reefs surround the USVI and are protected by the Endangered Species Act. The presence of fecal contaminants has been linked to coral disease.

The DPNR is responsible for sampling the 43 monitored beaches on a weekly basis, and when a monitored beach exceeds the fecal contamination limit an advisory is issued for that beach in the

¹ 33 U.S.C. § 1346(h).

Friday press release. There were about 2,236 scheduled sampling events in 2012, the most recent year for which complete data are available. The DPNR issued beach advisories 36 times. The DPNR issued advisories for six of the 23 beaches on St. Thomas and St. John, including four advisories at Vessup Bay and two at Coki Beach.

Beach Monitoring on St. Thomas and St. John Ceased for Two Weeks in February

In violation of the terms of its BEACH Act grant with the EPA, the DPNR did not monitor beaches on St. Thomas and St. John between February 3–16, 2014. A lapse in sampling can pose health hazards to humans and may endanger the environment.

Region 2 was aware that the DPNR did not have a contract with the company collecting beach monitoring samples and had not paid the company for sampling work since July 2012. Region 2 senior officials provided documentation that they had contacted the DPNR repeatedly regarding this issue over the past year, with no results. However, neither the DPNR nor Region 2 had developed a contingency plan for collecting samples, analyzing results and posting warnings should the sampling cease, as eventually happened in February 2014. When we discussed the lapse in sampling with the responsible Region 2 staff on February 6, 2014, the person was unaware that sampling had not taken place.

We have noted that the absence of a valid sampling contract that establishes standards and performance requirements could call into question the validity of beach monitoring samples collected without a contract and creates risk. However, Region 2 stated in its response to this report that it does not believe the validity of the sample collection was compromised due to the lack of a contract. Since we issued our draft report, EPA Region 2 informed us that DPNR has assigned department employees to collect samples until they develop a permanent arrangement for sampling.

When the sampling lapsed, the DPNR issued press releases, which two USVI newspapers printed on February 7 and 14, 2014, indicating that beaches in St. Thomas and St. John had not been monitored for those weeks.² This followed DPNR procedures for public notification. However, this may not be adequate notice for tourists visiting the USVI, as they may not read the local newspapers and thus may be unaware of beach safety.

The absence of beach monitoring on St. Thomas and St. John can pose a potential health hazard to swimmers at those beaches. Under the BEACH Act, the EPA must conduct a monitoring and notification program in the absence of an active program by the USVI. Consequently, the EPA needed to ensure that the USVI beach monitoring program resumed, and that contamination is reported to the public in a manner that is easily accessible to both residents and tourists.

² Virgin Island Daily News available at <http://virginislandsdailynews.com>, and VI Source - St. John available at <http://stjohnsource.com>.

Recommendations

We recommend that the Regional Administrator, Region 2:

1. Immediately take steps to ensure that the USVI beach monitoring and public notification meet EPA guidelines and continue.
2. Determine whether the DPNR has a sustainable beach monitoring program in place (for example, with valid contracts for sampling and lab analysis) that will provide continuous beach monitoring and adequate public notification. If it is determined that the USVI beach monitoring program is not sustainable, the EPA should manage the program according to the BEACH Act until the DPNR can demonstrate it can meet all EPA guidelines.

Agency Comments and OIG Evaluation

We received comments on the draft report from the Region 2 Administrator (appendix A). The agency agreed with our recommendations and said actions it already has underway achieve the purpose of the recommendations.

In response to recommendation 1, Region 2 stated it held a conference call with the DPNR to discuss the lapse, during which the DPNR stated it intended to continue using its staff to perform sample collection until a contract is in place. The region also requested that the DPNR prepare a written contingency plan that will go into effect if its beach grant contractors—either sample collection or analytical—become unavailable for any reason. Region 2 said that the DPNR plan shall include prompt notification to the EPA in the event that a contractor is no longer performing services. Region 2 requested that this plan be submitted by February 28, 2014, and the DPNR provided a plan on that date. Region 2's actions are responsive to this recommendation. Recommendation 1 is resolved and closed.

In response to recommendation 2, EPA Region 2 concurred with the importance of having a sustainable beach monitoring program in the USVI. Region 2 said that, "Programmatically, Region 2 believes the DPNR to be capable of running a beach monitoring program with adequate public notification." However, Region 2 also included in its response a detailed description of the issues surrounding the DPNR's ability to operate such a program. The deficiencies described by Region 2 included financial issues, lack of a current contract for beach sampling, issues with laboratory availability and capacity, and issues with maintaining and updating signs on beaches.

The region's response also described several areas where the region and the DPNR are working to address the beach monitoring program deficiencies.

In a meeting to discuss the region's comments on our draft report, Region 2 indicated it would complete its actions in response to recommendation 2 by September 30, 2014. The region provided acceptable corrective actions for recommendation 2 and the recommendation is resolved and open pending completion of corrective actions.

We have no objections to the further release of this report to the public. We will post this report to our website at <http://www.epa.gov/oig>.

If you or your staff have any questions regarding this report, please contact Carolyn Copper, Assistant Inspector General for Program Evaluation, at (202) 566-0829 or copper.carolyn@epa.gov; or Dan Engelberg, Director, Water Evaluations, at (202) 566-0830 or engelberg.dan@epa.gov.

Status of Recommendations and Potential Monetary Benefits

RECOMMENDATIONS						POTENTIAL MONETARY BENEFITS (in \$000s)	
Rec. No.	Page No.	Subject	Status ¹	Action Official	Planned Completion Date	Claimed Amount	Agreed-To Amount
1	4	Immediately take steps to ensure that the USVI beach monitoring and public notification meet EPA guidelines and continue.	C	Regional Administrator, Region 2	2/28/14		
2	4	Determine whether the DPNR has a sustainable beach monitoring program in place (for example, with valid contracts for sampling and lab analysis) that will provide continuous beach monitoring and adequate public notification. If it is determined that the USVI beach monitoring program is not sustainable, the EPA should manage the program according to the BEACH Act until the DPNR can demonstrate it can meet all EPA guidelines.	O	Regional Administrator, Region 2	9/30/14		

¹ O = recommendation is open with agreed-to corrective actions pending
 C = recommendation is closed with all agreed-to actions completed
 U = recommendation is unresolved with resolution efforts in progress

Agency Comments on Draft Report

February 28, 2014

MEMORANDUM

SUBJECT: Region 2 Comments on OIG Quick Reaction Report

FROM: Judith A. Enck
Regional Administrator

TO: Carolyn Copper
Assistant Inspector General
Office of Program Evaluation

Thank you for the opportunity to comment on the Office of the Inspector General's Quick Reaction Report on the U.S. Virgin Islands Department of Planning and Natural Resources (DPNR) Beaches Monitoring and Notification Program, dated February 19, 2014.

Region 2's responses to each recommendation in the report are as follows:

OIG Recommendation #1

"We recommend that the Region 2 Administrator immediately take steps to ensure that the USVI beach monitoring and public notification meet EPA guidelines and continue."

Region 2 Response

Region 2 concurs and has addressed the Beaches program with DPNR. A conference call between EPA and DPNR was held on February 21, 2014. DPNR informed EPA that its beach grant sampling contractor for St. Thomas/St. John stopped collecting samples for a two-week period due to the failure of DPNR to make payment. DPNR is now using its own staff, trained in sample collection, to perform these duties. DPNR estimates it will take up to six months to effectuate a new contract for sample collection. DPNR intends to continue using its staff to perform sample collection until a new contract is in place.

EPA requested from DPNR a written contingency plan in the event its beach grant contractors, either sample collection or analytical, becomes unavailable for any reason. The plan is to contain prompt notification to EPA in the event a contractor is no longer performing services. The

timeframe for prompt notification is to be defined. EPA requested this plan be submitted by February 28, 2014.

OIG Recommendation #2

"We recommend that the Region 2 Administrator determine whether DPNR has a sustainable beach monitoring program in place (for example, with valid contracts for sampling and lab analysis) that will provide continuous beach monitoring and adequate public notification. If it is determined that the USVI beach monitoring program is not sustainable, the EPA should manage the program according to the BEACH Act until DPNR can demonstrate it can meet all EPA guidelines."

Region 2 Response

Region 2 concurs with the importance of having DPNR maintain a sustainable beach monitoring program. We are aware of the financial management problems that have plagued DPNR. On September 30, 2011, EPA issued an audit resolution letter addressing DPNR's response to findings raised in Single Audits performed by Ernst & Young LLP, Certified Public Accountants, as required by the Single Audit Act, for Fiscal Years 2007 and 2008. These audits raised numerous compliance and crosscutting internal control issues relating to all of DPNR's programs. Our letter suspended DPNR from Automated Standard Application for Payments and placed it on a reimbursement method of payment. Shortly thereafter DPNR objected and claimed it would be unable to pay its bills in advance of receiving EPA funds, and requested relief. In addition, DPNR stated that it had implemented adequate internal controls and procedures for managing federal funds. In 2012 EPA agreed to place all of DPNR's grants on a "modified reimbursement" method of payment. Also, at the DPNR Commissioner's request, EPA conducted an on-site review in January 2012 to verify whether DPNR had implemented appropriate corrective actions and adequate internal controls and procedures for managing federal funds. The on-site review resulted in numerous findings and additional questioned costs. Region 2 has been working with DPNR since fiscal year 2011 to address its financial and grant management issues and we continue to press for improvements.

EPA's ongoing reviews of DPNR's payment requests continue to identify significant concerns and have resulted in questioned and disallowed costs. Since being placed on the modified reimbursement method of payment, DPNR has been slow in submitting payment requests for the Beach program. Requests that have been submitted are missing information and are lacking approvable supporting documentation. Among other issues, DPNR did not provide copies of valid contract agreements as part of the supporting documentation. EPA's October 30, 2013 response to its payment request package is attached.

Beginning in June 2012, Region 2 received calls from the owner of DPNR's contract laboratory (Ocean Systems labs), who was pleading for our assistance in receiving long-overdue payments for water sample analyses the company did for the PPG and beach grants. She explained that she had not been paid by DPNR and was on the verge of going out of business because she was unable to pay her bills. Similarly, beginning in February 2013, the owner of the water sampling firm (Auset Water Testing) contacted the Regional Administrator's office on numerous occasions over the past

year regarding lack of payment from DPNR (see attached correspondence). While EPA has no jurisdiction over DPNR's legal relationships with its contractors, we have tried to help facilitate the discussion between these firms and DPNR. In fact, DPNR now has a current contract with its contract laboratory, and Region 2 has recently authorized payment for the lab services. We have not yet authorized payment for the sampling services, however. We are waiting for sufficient documentation demonstrating that DPNR adhered to proper procurement regulations. It is important to note here that DPNR's problems with delayed payments to its contractors predate the imposition of the modified reimbursement method of payment and that the sampling and reporting of beach water monitoring results continued until recently, even with this problem.

Programmatically, Region 2 believes DPNR to be capable of running a beach monitoring program with adequate public notification. In addition to postings in local newspapers, DPNR's Beaches workplan states, "the press releases are printed in the local news papers, aired on the local radio news, posted on the department's website and published on other local online periodicals." This meets the performance criteria as stated in the June 2002 *National Beach Guidance and Required Performance Criteria for Grants*, Chapter 5: Public Notification and Risk Communication, 5.3.4 How to Notify: "A functional equivalent at the point of access could be a visual notice or personal interaction such as a flag at a beach or interaction with beach or park personnel. Other functionally equivalent measures not provided at the point of access include mass media (newspapers, television, and radio), Internet web sites, telephone hotlines, and technical reports." DPNR has issued press releases in a timely manner. We agree that a sign at the beach would increase public notification, however DPNR has had difficulties maintaining and updating signs. We will urge DPNR to come up with a plan to address this issue.

The lack of a current contract for sample collection is an issue that we will work to resolve. However, this situation does not compromise the validity of beach monitoring results, as the samples were collected in accordance with an approved quality assurance project plan, and analyzed by a laboratory that has demonstrated proficiency in performing analyses for microbiological contaminants. The OIG should be aware that Ocean Systems Laboratory, with facilities on both St. Thomas and St. Croix, is the only commercially available laboratory in the U.S. Virgin Islands (VI) that can provide analytical services for microbiology. Due to the short holding times involved from sample collection to analyses for microbiology (six hours), off-island laboratories cannot provide such services. Two years ago, Region 2 initiated a Caribbean Science Consortium, designed to encourage coordination between governmental, academic and private laboratories and foster growth in laboratory capabilities in the Caribbean. A workshop will be held this September in Puerto Rico bringing together interested parties.

As a member of the Science Consortium, the University of the Virgin Islands (UVI) had expressed an interest in doing laboratory analysis to support environmental programs in the VI. In February 2013, Region 2 conducted an on-site gap analysis of the UVI Environmental Analysis Laboratory located on the St. Thomas campus and held a "Laboratory Considerations" meeting on the St. Croix campus for their planned laboratory. The approach to the Laboratory on the St. Thomas campus was to assess the organization and operations against the guidance and requirements of EPA's "Manual for the Certification of Laboratories Analyzing Drinking Water," fifth edition, and identify any gaps. EPA issued a report listing these gaps and noted actions needed to help guide the laboratory. There was no UVI Laboratory Facility on St. Croix; however, plans were underway

for the construction of one. The EPA review team held a meeting on the St. Croix Campus with VIDPNR and University representatives to review analytical needs and discuss the next steps needed to develop a laboratory program. Additional efforts will be made by Region 2 to bring additional critical laboratory services to the VI.

Because tourists are frequent beachgoers in USVI, it is important to have signage or other information at the beach site to inform beachgoers who are not likely reading local media reports. Although the Beach Act does not require the closing of a beach, other states, such as New Jersey, have adopted into their State Sanitary Code the requirement that all coastal bathing beaches close when bacteria levels exceed water quality standards. Once a beach is closed, signage is placed at the beach site and people are not permitted to enter the water. This approach would be the most protective of public health and should be evaluated.

If you have any questions on the attached comments, please contact me at 212-637-5000 or John Svec of my staff at (212) 637-3699.

Attachments

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