

**THE U.S. VIRGIN ISLANDS NONPOINT SOURCE  
MANAGEMENT PROGRAM PLAN  
FY 2023 - 2027**



**Magens Bay Beach, St. Thomas, U.S.V.I.**

**The Department of Planning and Natural Resources  
Division of Environmental Protection  
2023 - 2027**

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Clean Water Act section 303(d) 2020 list of impaired waters link:  
[https://www.epa.gov/sites/default/files/2021-01/documents/2020\\_usvi\\_303d\\_list.pdf](https://www.epa.gov/sites/default/files/2021-01/documents/2020_usvi_303d_list.pdf)

Coastal Nonpoint Source Pollution Control Program under the Coastal Zone Act Reauthorization Amendments (CZARA) of 1990 final program findings link:  
[https://coast.noaa.gov/data/czm/pollutioncontrol/media/6217vi\\_fnl.pdf](https://coast.noaa.gov/data/czm/pollutioncontrol/media/6217vi_fnl.pdf)

Attachment A: United States Virgin Islands Earth Change Program Procedures for the Cultivation of Agricultural Property

## EPA Region 2's Letter of Approval & Review of the 2023-27 NPS Program



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 2  
290 BROADWAY  
NEW YORK, NY 10007-1866

November 16, 2023

Mr. Austin F. Callwood  
Director, Environmental Protection  
U.S. Virgin Islands Department of Planning and Natural Resources  
4607 Tutu Park Mall  
St. Thomas, USVI 00802

Re: EPA Region 2 Approval of U.S. Virgin Islands 2023-2027 Nonpoint Source Management Program

Dear Mr. Callwood:

Thank you for your August 18, 2023 submittal of the final revised U.S. Virgin Islands Nonpoint Source Management Program Plan. The U.S. Environmental Protection Agency has reviewed this document in accordance with the April 12, 2013 *Nonpoint Source Program and Grants Guidelines for States and Territories*, which specifies that a revised Nonpoint Source Management Program be submitted to the EPA for review and approval by regional Water Division Directors. We have determined that the U.S. Virgin Islands has satisfied the 8 *Key Components of an Effective State Nonpoint Source Management Program*, as described in Appendix A of the April 12, 2013 guidance. The EPA hereby approves this program plan and it is in effect for FY 2023 through FY 2027. The U.S. Virgin Islands' next revised program plan shall be submitted six months prior to September 30, 2027. The EPA looks forward to working with the U.S. Virgin Islands' Nonpoint Source Program staff to ensure that annual Section 319 workplans are developed in accordance with the goals and objectives identified in the revised document.

Also, I would like to commend the U.S. Virgin Islands Department of Planning and Natural Resources for collaborating with EPA to address and incorporate climate change and Environmental Justice concerns into the revised program plan. We appreciate the ongoing efforts of you and your staff to address nonpoint source concerns in the Territory's waterways. If you have any questions on this matter please feel free to contact me, or have your staff contact Ms. Donna Somboonlakana at 212-637-3700.

Sincerely,

CHRISTIN E ASH Digitally signed by CHRISTINE ASH  
Date: 2023.11.16  
12:57:31 -05'00' For

Javier E. Laureano, Ph.D.  
Director, Water Division

Enclosure:

Copy of Key Components and Summary Information

cc: Sabrina Woofler

### **Background and Summary: Virgin Islands' Nonpoint Source Management Program**

In 2013, EPA released guidance for the Section 319 Nonpoint Source Management Program, which indicated that states should revise their Nonpoint Source Management Program Plans (NPSMPs) every 5 years and submit them to EPA Water Division Directors for approval. EPA's review ensures that Virgin Islands' vision is consistent with the "*Key Components of an effective State Nonpoint Source Management Program*" as delineated below.

A State's NPSMP is designed to guide the development and implementation of annual work plans during the plan's 5- year period. Work plans and reporting measures should reflect the overarching goals, objectives, and partnerships described within the NPSMP.

VI's revised NPSMP explains the focus of implementing its Earth Change nonpoint permitting program and encourages the development and implementation of 9-element watershed plans. This plan will remain effective for Fiscal Years (FY) 2023 through 2027, with a revision due 6 months prior to the end of FY 2027.

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### **KEY COMPONENTS AND SUMMARY INFORMATION**

**Component 1 - PROGRAM GOALS AND OBJECTIVES:** *The state program contains explicit short- and long-term goals, objectives, and strategies to restore and protect surface water and ground water, as appropriate.*

The Virgin Islands Department of Planning and Natural Resources (VIDPNR) recognizes that water pollution is detrimental to public health, wildlife, and aquatic life, and impairs domestic, agricultural, industrial, recreational, and other beneficial uses of the water. The USVI Nonpoint Source (NPS) Program's mission is "to control nonpoint pollution to achieve and maintain beneficial uses of ground and coastal waters by meeting water quality standards established for the Territory's waters and watersheds". This mission is best achieved by implementing its two main long-term goals:

**Goal 1: Control pollution from nonpoint sources to territorial waters.**

**(15-year timeframe):** To achieve this goal, VIDPNR will address priority nonpoint pollution sources, through a combination of regulatory and voluntary programs, to reduce source loads, minimize nutrient runoff from the landscape, and install and maintain best management practices that reduce NPS pollution to waters.

**Goal 2: Protect, maintain, and restore waters of the Territory which are vulnerable to or are impaired by nonpoint source pollution. (15-year timeframe):**

To achieve this goal, VIDPNR will address sedimentation (from dirt roads, farmlands, construction sites, urban encroachments, and other disturbed soils) as sediment is the primary nonpoint source pollutant threatening the Islands' water resources. Additionally, the Department will address bacterial contamination from sources such as failed septic systems, runoff from animal operations, and sewage discharged from boats, all of which can cause serious threats to human health and marine life, and stimulate algal blooms.

To achieve these long terms goals, VIDPNR sets forth the following short-term (< 5 years) goals:

- Goal 1:** Administer the NPS Program and various program directives such as:
- a. Provide support to the Clean Marinas Program to identify areas needing Onsite Waste Treatment (OWT) / pump stations.
  - b. Host a Nonpoint Source Pollution Conference.
  - c. Participate in the National Water Quality Initiative (NWQI) to improve water quality in agricultural waterways.
  - d. Conduct intra-agency coordination regarding coastal and ground water contamination issues.
  - e. Reduce coastal NPS pollutants to protect coral reefs per EPA Region 2's Coral Reef Protection Plan.
  - f. Attend relevant EPA trainings, webinars, and conferences.
  - g. Collect information to prepare the End of Year Report to EPA.
  - h. Evaluate and update the NPS Management Program every 5 years.
- Goal 2:** Identify water quality trends and watersheds impaired or threatened by NPS pollution and develop surface water quality assessment methods and monitoring plans to guide monitoring efforts.
- Goal 3:** Prioritize watersheds for water quality improvement and protection.
- Goal 4:** Develop watershed management plans and other strategic plans to better manage NPS pollution on a watershed basis.
- Goal 5:** Dedicate funds, as available, to implement watershed projects to reduce NPS to Territorial waters and to demonstrate and report water quality improvements.
- Goal 6:** Implement the Earth Change Permitting Program to effectively manage, prevent, and reduce NPS pollution in the Territory.

**Component 2 - PROGRAM PARTNERSHIPS:** *The State strengthens its working partnerships and linkages with state, interstate, tribal, regional, and local entities, private sector groups, citizens groups, and federal agencies.*

VIDPNR understands that partnerships enhance coordination, improve efficiency, facilitate communications, and help identify cooperative activities and programs to better utilize existing resources. The NPSMP measures progress in meeting water quality targets and provides partners tools to evaluate program activities and make any needed adjustments. Partners help provide technical assistance, education, training, and technology transfer needed to achieve the goals of the plan. Some of the program's partners include: VI Department of Agriculture, VI Waste Management Authority, the National Oceanic and Atmospheric Administration (NOAA) Coral Reef Protection Program, EPA, and U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS). These partnerships are complemented by nonprofit organizations and cross-divisional programs within VIDPNR. Some NPS Program partnership highlights include:

**NOAA's Coral Reef Protection Program**

NOAA's Coral Reef Protection Program initiated an effort to assist VIDPNR to update its Environmental Handbook, develop stormwater management standards, and provide guidance on structural design and sizing criteria for stormwater best management practices. The EPA assisted with developing the final phase of the Handbook which was completed in June 2022. NOAA also assists VIDPNR with the development of Watershed Based Plans.

**The Coral Bay Community Council (CBCC)**

CBCC, a nonprofit partner organization, develops and implements a comprehensive set of actions and management strategies to protect Coral Bay from NPS pollution. CBCC hosts watershed meetings and invites relevant federal and local organizations to collaborate and assist with integrating various initiatives to help better address planning, implementation, and adaptive management within priority watersheds.

**USDA NRCS**

USDA's Farm Bill conservation programs administered by the NRCS (such as EQIP, Conservation Reserve and Conservation Stewardship Programs, and Wetlands Reserve Program) support the implementation of agricultural conservation practices as well as a suite of conservation, restoration, and land retirement measures for wetlands, riparian areas, and other areas of critical importance, and aid in the success of water quality improvement efforts.

**Earth Change Rules and Regulations Development with the Department of Agriculture**

The VIDPNR and the VI Department of Agriculture developed Earth Change procedures for the cultivation of property leased from the Department of Agriculture. Sediment from dirt roads, farmlands, construction sites, urban encroachments, and other disturbed soils is the primary NPS pollutant threatening the Islands' water resources. This collaboration will allow the Department to effectively monitor farm development from start to finish.

**USVI NPS Steering Committee**

The USVI NPS Steering Committee consists of VIDPNR representatives, local contractors, engineers, and representatives from NOAA, EPA, USDA, and other agencies. The partners discuss joint development strategies to address impaired waters and focus resources on implementing on-the-ground practices. This Committee has addressed revisions to VI codes in relation to design, construction, and use of septic systems for household sanitation.

**Component 3 - PROGRAM INTEGRATION:** *The state uses a combination of statewide programs and on-the-ground projects to achieve water quality benefits; efforts are well-integrated with other relevant state and federal programs.*

VI's NPS Program implements an Earth Change regulatory program to control NPS pollution in urban and rural areas and implements watershed management tools using both regulatory and non-regulatory components to achieve water quality results. Source control through implementation of best management practices is the most effective means to reduce loads. While most states implement voluntary programs to address nonpoint sources, the VI requires that the public apply for permits when conducting any land-disturbing activities. This program is well integrated with other programs (as discussed in component 2 above) that restore and protect water quality and align priority setting processes and resources to increase efficiency and environmental results.

**Component 4 - PROTECTION AND RESTORATION OF WATERS:** *The state program describes how resources will be allocated between (a) abating known water quality impairments from NPS pollution and (b) protecting threatened and high-quality waters from significant threats caused by present and future NPS impacts.*

VI's NPS Program seeks guidance from its communities to identify, develop, and carry out action plans that restore or protect waters. There are several watershed management plans being planned to address significant threats from existing NPS pollution sources. Partner involvement is coordinated indirectly by using common environmental goals, direction and focus within each partnering entity, and activities are carried out through memoranda of agreements / understandings between entities for specific projects such as those described in Component 2.

VIDPNR predominately spends most of its 319(h)-grant allocation on operating and implementing the Earth Change Permitting Program and, occasionally, has section 319(h) funding to pass through to communities to implement water quality demonstration projects. The Earth Change Permitting Program allows VIDPNR to know exactly where land disturbances are occurring and address them to avoid sediment loading to neighboring waterways. This program is an effective way for the VI to use its limited resources, expeditiously, as well as protect threatened and high-quality waters from present and future NPS impacts.

**Component 5 - WATERSHED PLANNING AND MANAGEMENT:** *The state program identifies waters and watersheds impaired by NPS pollution and priority unimpaired waters for protection. The state establishes a process to assign priority and to progressively address identified watersheds by conducting more detailed watershed assessments, developing watershed-based plans, and implementing the plans.*

The USVI Territorial 305(b) Water Quality Assessment and [303\(d\)](#) list delineate waters in the Territory that do not support all designated uses, identifies the impairment, and assigns a priority ranking (low, medium, high). Total maximum daily loads (TMDLs) and action strategies are then developed to mitigate NPS impaired water bodies in these watersheds.

VIDPNR places a special emphasis on prioritizing 319 resources to address 303(d) listed waters impaired by NPS pollution. Selection factors for priority watersheds include:

- non-attainment of national clean water goals (including exceedances of water quality standards, or impaired drinking water sources, etc.),
- non-attainment of natural resource goals related to aquatic systems, including goals related to habitat, ecosystem health, and aquatic resources,
- indicators of degraded aquatic system conditions (e.g., wetland condition and current and historical loss rates, percent impervious surface, and measures of aquatic habitat), and
- decline in condition of the living and natural resources part of the aquatic system in the watershed (e.g., decline in the populations of rare and endangered aquatic species, decline in healthy populations of fish and shellfish, etc.)



**Component 6 - NONPOINT SOURCE MANAGEMENT PRACTICES AND CONTROL**

***MEASURES:*** *The state implements program components required by section 319(b) of the CWA, and establishes strategic approaches and adaptive management to achieve and maintain water quality standards as expeditiously as practicable. The state reviews and upgrades program components as appropriate. The state program includes a mix of regulatory, non-regulatory, financial, and technical assistance, as needed.*

A watershed management approach is used Territory-wide to update and enhance assessments made under CWA sections 303(d), 305(b), 314, 319(a), and others. This approach assists VIDPNR's NPS Program to better target threatened or impaired waters for protection and remediation work. The NPS Program solicits public comments during the planning and data gathering phases to obtain local knowledge and information about local water quality concerns in the watershed. This process helps VIDPNR to reevaluate conditions and adjust priorities and actions in the watershed accordingly.

The Earth Change permitting program is a nonpoint source enforcement program and the primary mechanism to address sedimentation and erosion from land disturbance activities throughout the VI. The program is designed for residential or commercial development located on one acre or less in size and emphasizes the implementation of NPS pollution controls, including sediment control, erosion mitigation measures, and protection of coastal and groundwater resources. A permit application may be denied based on the absence and/or improper implementation of best management practices at a given site.

**Component 7 - PROGRAM ADMINISTRATION:** *The state manages and implements its NPS management program efficiently and effectively, including financial management.*

VIDPNR effectively implements its NPS Program in accordance with EPA's section 319 guidance to remediate water quality impairments and documents the previous year's activities (nonpoint source compliance and enforcement activities) in annual reports. More than 50% of its funds are spent on personnel assigned to perform NPS related tasks. Funding is also used to support administrative, enforcement, monitoring, assessment and evaluation activities, educational programs and trainings, as established in the Performance Partnership Grant (PPG) work plans. The VI employs appropriate programmatic and financial systems to ensure that 319 dollars in the PPG are used efficiently and consistent with its legal obligations.

**Component 8 - PROGRAM REVIEW AND EVALUATION:** *The state reviews and evaluates its NPS management program using environmental and functional measures of success and revises its NPS management program at least every five years.*

The VI NPS Program's review and evaluation process addresses program management and compliance with the requirements of CWA section 319, the VI's PPG Agreement with EPA, and the VI's Earth Change Permitting Program. The overall program is evaluated by VIDPNR and EPA and updated each year during the PPG award process. VIDPNR is open to appropriate revisions of the NPS Program's milestones and reporting measures depending on emerging needs and has committed to documenting success when attaining water quality standards in watersheds. Additionally, the NPS Management Program Plan will be updated at least every five years.

## LIST OF ABBREVIATIONS

BMP	Best Management Practices
CLWUP	Comprehensive Land and Water Use Plan
CZARA	Coastal Zone Act Reauthorization Amendments of 1990
DEP	Division of Environmental Protection
DOA	Department of Agriculture
DPNR	Department of Planning and Natural Resources
DPW	Department of Public Works
EC	Earth Change
EPA	Environmental Protection Agency
EPH	Environmental Protection Handbook
EQIP	Environmental Quality Incentive Program
FMS	Financial Management System
FSR	Financial Status Report
GIS	Geographic Information System
GPS	Global Positioning System
GRTS	Grants Reporting and Tracking System
GW	Ground Water
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MYMS	Multi Year Monitoring Strategies
NPSP	Nonpoint Source
NRCS	Natural Resources Conservation Service
OWTS	Onsite Wastewater Treatment System

PPA	Performance Partnership Agreement
PPG	Performance Partnership Grant
RFP	Request for Proposals
TPDES	Territorial Pollutant Discharge Elimination System
TMDL	Total Maximum Daily Load
TNC	The Nature Conservancy
TSS	Total Suspended Solids
USDA	United States Department of Agriculture
USGS	United States Geological Survey
UST	Underground Storage Tank
UVI	University of the Virgin Islands
CZMA	Coastal Zone Management Act
CZARA	Coastal Zone Act Reauthorization Amendments of 1990
VIDL	Virgin Islands Development Law
VIRC&D	Virgin Islands Resource Conservation & Development Council
VIRMC	Virgin Islands Resource Management Cooperative
WAPA	Water and Power Authority
WQ	Water Quality

## PREFACE

The **Clean Water Act (CWA)** of 1972 is the primary federal statute in the United States that regulates pollution with a purpose to restore and maintain the chemical, physical, and biological integrity of the nation's waters (33 U.S.C. 1251). To accomplish this goal involves continuous efforts by partners to prevent, mitigate, and educate about point and nonpoint source pollution, to assist publicly owned treatment plants improve wastewater, and to maintain the integrity of our wetlands that enhance water quality, provide habitat, and play a critical role in mitigating the effects of climate change. The 1987 CWA amendments established the Section 319 Nonpoint Source Management Program, which provides grants to states, territories, and Indian Nations to support demonstration projects, technology transfer, education, training, technical assistance, and monitoring to assess the effectiveness of nonpoint source implementation projects and watershed successes. The section 319 program also helps promote greater collaboration among federal, territorial, local governments, and watershed partners to focus on nonpoint source pollution.

This FY 2023-2027 Nonpoint Source Management Program (NPSP MP) revision explains the Virgin Islands (V.I.) methodology to address nonpoint sources through its territory-wide Earth Change permitting program and to focus on addressing nonpoint-impaired watersheds under CWA section 303(d). The recently revised 2022 Virgin Islands' Environmental Protection Handbook (EPH) is part of the NPSP MP, and provides standards to guide the design, installation, and maintenance of post-construction stormwater management and to improve drainage for unpaved roads across the Territory. Stormwater standards are necessary to protect the important water resources of the USVI and strengthen existing permitting programs. The NPSP MP and the EPH are the two guidance documents that provide the Virgin Islands with the tools needed to meet the

elements of a successful NPSP Management Program as listed in the Nonpoint Source Program and Grants Guidelines for States and Territories issued on April 12, 2013.

## **Program History**

The U. S. Virgin Islands (USVI), after performing a nonpoint source assessment, submitted its first nonpoint source management program plan to EPA for approval in 1989. The VI Department of Planning and Natural Resources (VI DPNR) began receiving section 319 funding since funds became available in 1990. This FY 2023-2027 Nonpoint Source Management Program is VIDPNR's forth revision (first revision in 2000) since the program's inception.

USVI's Nonpoint Source Management Program is unique with its Earth Change Permitting Program to help address nonpoint sources more expeditiously. While most states implement voluntary programs to address nonpoint sources, the Virgin Islands requires that the public apply for permits when conducting any land-disturbing activities.

## **EXECUTIVE SUMMARY**

The USVI's NPSP Management Program is established under the leadership of the Government of the U.S. Virgin Islands Department of Planning and Natural Resources, which is the lead agency for the Federal Clean Water Act section 319 Program. Significant territorial and federal partners and program roles are shared with the Department of Agriculture, the Virgin Islands Waste Management Authority, the National Oceanic and Atmospheric Administration's Coral Reef Protection Program, the U.S. Environmental Protection Agency, and USDA's Natural Resources Conservation Service. These partnerships are complemented by local partnerships, nonprofit organizations, and DPNR's Divisional programs. In addition to internal divisional programs such as DPNR's Stormwater, Coastal Zone, and Water Quality Programs, other partners include the University of the Virgin Islands Cooperative Extension Service, the V.I. Marine Advisory Service, the National Park Service, St. Croix Environmental Association, Virgin Islands Conservation Society, Environmental Association of St. Thomas, and the Coral Bay Community Council that hosts the USVI's Watershed Management Working Group Quarterly Meetings.

***The USVI NPSP Program's mission is to control nonpoint pollution to achieve and maintain beneficial uses of ground and coastal waters by meeting water quality standards established for the Territory's waters and watersheds.***

Controlling nonpoint sources of pollution involves working with other programs and partners to develop action work plans, leverage funding, implement projects that will deliver measurable water quality improvement, then track and report on the results.

**The USVI has established a series of Nonpoint Source Program objectives to:**

**Protect and Restore Waters:** Protect and maintain unimpaired waters of the Territory from nonpoint source pollution and restore or prevent further degradation of impaired waters.

**Integrate NPSP Management with other Programs:** Integrate the management of nonpoint pollution sources into applicable territorial and local agency regulatory and non-regulatory programs, and provide overall policy coordination among territorial, local, and federal agencies.

**Implement the Earth Change Permitting Program:** The Earth Change permitting program is VI's primary mechanism to locate and expeditiously address all land disturbing activities. Earth Change is a regulatory program designed to address residential or commercial development of facilities less than one acres in size, and emphasizes the implementation of nonpoint source pollution controls, including sediment control, erosion control mitigation and protection of coastal and ground water resources.

**Implement the Watershed Approach:**

- a. **Complete Watershed Assessment Reports:** The Territorial government assesses the condition of its water resources and develops assessment reports to provide a cooperative process for restoring and protecting water quality on a watershed basis.
- b. **Develop Watershed Management Plans:** Watershed Plans are management strategies that contain a comprehensive set of actions to mitigate nonpoint sources of pollution to meet water quality standards. It is encouraged that watershed plans meet the 9-key elements in EPA's Nonpoint Source Program Guidance and listed in Appendix A.
- c. **Implement Watershed Projects:** The VIDPNR will solicit and select NPSP projects for section 319 funds that are coordinated with watershed management efforts. Eligible proposals must coincide with one of the following two categories: Category I -Management Practices and Category II- Education and Outreach to Critical Audiences.
- d. **Monitor Water Quality:** Monitoring data helps assess water quality conditions that can be attributed to the effective implementation of NPSP MPs. The two major nonpoint problems impacting the VI are sedimentation (when soil erodes from land surfaces and is deposited onto other land surfaces or into coastal waters), bacterial contamination from failed septic systems, runoff from animal operations, and sewage discharged from boats causing serious threats to human health.

**Promote the 2022 USVI Environmental Protection Handbook (EPH or, the Handbook):** The VI’s Environmental Protection Handbook is an important part of VI’s Nonpoint Source Management Program as it provides guidance for engineers, agencies, and site owners to manage stormwater in a sustainable manner that is tailored to the unique conditions and climate challenges of the USVI. The Handbook is a tool to address land-based sources of pollution that contribute to erosion of gullies and exposed soils, road surface deterioration, localized flooding, and water quality impairments. The Handbook contains new USVI-specific standards to manage stormwater runoff at construction sites, existing developments, and unpaved roads, and provides instruction on complying with the standards. The Handbook contains territory-wide applications for future development and redevelopment projects and provides territory-appropriate BMPs for watershed planning efforts.

**Provide Guidance and Technical Assistance:** Develop and maintain the capacity of territorial, local agencies, DPNR divisions and other organizations to provide nonpoint source management assistance to communities and landowners through assessment, planning, technical support, implementation, and education.

## **Eight Key Components of an Effective Nonpoint Source Management Program**

The USVI’s comprehensive approach to nonpoint source management, in cooperation with territorial and local agency partners, has made significant progress since the program’s inception. The following eight sections of this USVI Territorial Nonpoint Source Management Program update correspond with the eight key components of an effective NPSP Program as described in EPA’s 2013 Nonpoint Source Program and Grants Guidelines for States and Territories. Each section describes USVI’s activities which satisfy the recommendations of those guidelines to meet the requirements of Section 319 of the Clean Water Act.

### **1.0 PROGRAM GOALS AND OBJECTIVES**

***EPA NPSP Guidelines Key Component 1: The territorial program contains explicit short- and long-term goals, objectives, and strategies to restore and protect surface water and ground water, as appropriate.***

The FY 2023-2027 VI NPSP Management Program Plan is developed in accordance with CWA section 319(b): Management Programs, and contains program goals, objectives, and a schedule of implementation milestones per CWA section 319 (b)(2)(C). The Territory’s long-term goals reflect a strategically focused NPSP management program designed to achieve water quality standards and to maximize water quality benefits as expeditiously as possible.

The short-term objectives consist of activities with annual milestones that are designed to demonstrate progress toward accomplishing our long-term goals. The NPSP management program is a 5-year planning document, and the annual milestones developed help track incremental progress from work accomplished each year. Annual reporting on these milestones enables EPA to determine whether the Territory achieved satisfactory progress in accordance with CWA section 319(h)(8): “No grant may be made under this subsection in any fiscal year to a State which in the preceding fiscal year received a grant under this subsection unless the Administrator determines that such State made satisfactory progress in the preceding fiscal year...”.

## **Program Goals**

Nonpoint source pollution runoff impairs more water bodies than any other pollution source in the Virgin Islands. The topography of the islands, with a combination of short steep slopes that terminate in sensitive wetlands and marine environments, makes the waters particularly vulnerable and susceptible to damage from even the slightest increases in erosion.

The USVI’s NPSP Program has established two overarching long-term goals which form the foundation for establishing shorter-term objectives and annual milestones. These program goals support USVI DPNR’s overall mission: to protect, maintain, and manage the Territory’s natural and cultural resources through the proper coordination of economic and structural development with other local, federal, and non-governmental organizations. These efforts are for the benefit of present and future generations so they will live safer, fuller lives in harmony with their environment and cultural heritage.

### **Program Goal No. 1: Control pollution from nonpoint sources to territorial waters.**

*15 Year Timeframe: Address priority nonpoint pollution sources, through a combination of regulatory and voluntary programs, to reduce source loads, maximize the utilization of nutrients applied to the landscape, and install and maintain watershed projects and best management practices that reduce pollution to waters in all regions of the Territory.*

### **Program Goal No. 2: Protect, maintain, and restore waters of the Territory which are vulnerable to or are impaired by nonpoint source pollution.**

*15 Year Timeframe: Address sediment, from dirt roads, farmlands, construction sites, urban encroachments, and other disturbed soils, as sediment is the primary nonpoint source pollutant threatening the Islands’ water resources. Address bacterial contamination from sources such as failed septic systems, runoff from animal operations, and sewage discharged from boats, all of which can cause serious threats to human health, marine life, and impair water quality with algal blooms.*

**NPSP Program Objectives and Strategic Milestones**

The NPSP MP is the guiding document for NPSP pollution reduction efforts in the VI. The DPNR uses the NPSP MP as a guide for policies and decisions to allocate resources for NPSP pollution reduction. The 2014 Virgin Islands’ NPSP MP was prepared with the assistance of state and federal partners, municipal, industrial, and agricultural stakeholders, environmental and resource protection groups, and Virgin Island citizens. This FY 2023-2027 NPSP MP revision is intended for continued use by all these relevant partners and groups that help address the nonpoint source pollution issues and challenges facing the Territory.

The Earth Change permitting program and watershed-based plan approaches are both used to prevent and reduce NPSP pollution in the Virgin Islands. The NPSP program recognizes two aspects of improving water quality, as stated in the Territory’s long-term goals: a) control NPSP pollution from known water quality impairments and b) prevent significant nonpoint source threats to water quality from present and future activities.

**Objective 1: Administer the Nonpoint Source Program and Various Program Directives.**

<b>Milestones</b>	<b>Tracking Measures</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
Support programs addressing water quality of marinas and identify areas needing Onsite Waste Treatment (OWT) / pump stations.	Conduct outreach meetings and provide information and objectives regarding the promotion of OWT stations at marinas.	X	X			
Host a Nonpoint Source Pollution Conference.	Conduct a Nonpoint Source Pollution Conference in 2026.			X		
Participate in the National Water Quality Initiative (NWQI) to improve WQ in agricultural waters.	Collaborate with EPA/USDA on the Northwest St. Thomas HUC 21020001010010.	X	X	X	X	X
Conduct intra-agency coordination regarding coastal and ground water contamination issues.	Identify and mitigate contamination issues.	X	X	X	X	X



Reduce Coastal Nonpoint Pollutants to protect coral reefs per R2's Coral Reef Protection Plan.	Identify areas where NPSP impacts coral reefs and record number of EC permits issued and watershed projects implemented.	X	X	X	X	X
Attend relevant EPA trainings, webinars, and conferences.	Participate in off island trainings, webinars, and conferences.	X	X	X	X	X
Collect information to prepare the End of Year Report to EPA.	Prepare End of Year report and include all section 319 program activities.	X	X	X	X	X
Evaluate and update the NPSP Management Program every 5 years.	Submit revised draft NPSP Management Plan.					X

**Objective 2: Identify water quality trends and watersheds impaired or threatened by NPSP pollution and develop surface water quality assessment methods and monitoring plans to guide monitoring efforts.**

Milestones	Tracking Measures	2023	2024	2025	2026	2027
Perform a literature review of current monitoring networks and monitoring design strategies.	Catalogued literature reviews	X	X	X	X	X
Collaborate with Water Pollution Control Programs to analyze water sampling data that is linked to nonpoint pollution.	Analyzed water sampling data	X	X	X	X	X
Conduct continual assessment of Terrestrial and coastal waters.	Number of waters assessed	X	X	X	X	X
Evaluate water quality trends based on the number of Earth Change (EC) permits issued in a particular watershed.	Number of EC permits issued in a watershed	X	X	X	X	X

**Objective 3: Prioritize watersheds to focus on water quality improvement and protection.**

<b>Milestones</b>	<b>Tracking measure</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
Prioritize assessed waters using section 303(d) list of impaired waterbodies.	Developed biannual list of nonpoint source impaired waters.		X		X	
Prioritize assessed waters for protection efforts.	Developed biannual list of waters for protection		X		X	
Collaborate with Water Pollution Control Programs and CZM to develop formalized tools to select priority watersheds.	Developed watershed priority matrix	X	X	X	X	X

**Objective 4: Develop watershed management plans and other strategic plans to improve the management of nonpoint pollution sources on a watershed basis.**

<b>Milestones</b>	<b>Tracking Measure</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
Maintain and develop inter- and intra-agency partners that support development of watershed-based plans.	DPNR improves communication between partner groups and inter- and intra-government agencies on watershed plan development	X	X	X	X	X
Maintain DPNR's website to include links to the most current updates to important NPSP program documents.	DPNR's website is updated with links to the NPSP Management Plan and VI's Environmental Protection Handbook	X	X	X	X	X
Track watershed plans and project implementation within the Territory.	Provide links to watershed plans on DPNR's website.	X	X	X	X	X

Improve technical knowledge and expertise about VI’s Environmental Protection Handbook.	Print, distribute, and provide instruction on the use of the VI EPH through meetings, trainings, and webinars.	X	X	X	X	X
Conduct NPSP education and outreach to students, homeowners, municipal officials, architects, heavy equipment operators, contactors.	Number and type of training provided: open house, webinars, training, educational material, etc.	X	X	X	X	X
Participate in relevant special events conducted across the Territory.	Participate in annual Agricultural Fairs, the VI Finance Authority Housing Exposition, Earth Day activities, other events.”	X	X	X	X	X

**Objective 5: Dedicate funds to implement watershed projects to reduce nonpoint source pollution to territorial waters and to demonstrate and report water quality improvements.**

Milestones	Tracking Measures	2023	2024	2025	2026	2027
Publish Request for Proposals (RFP) to solicit projects identified in existing watershed plans.	Number of section 319 projects funded	X			X	
Restore impaired waters and protect healthy waters.	Number of success stories submitted to EPA			X		X
Participate in partnership programs in the VI that focus on NPSP pollution and leverages resources.	Partnerships developed or maintained in the Territory that contributed resources to mitigating nonpoint sources	X	X	X	X	X

Execute and monitor CWA §319(h) sub-award agreements for NPSP implementation projects.	Number of contracts awarded Number of contracts closed	X	X	X	X	X
Maintain the Grant Reporting Tracking System (GRTS) for all §319h funded projects.	Record all 319 funded projects and load reductions, as appropriate, into GRTS	X	X	X	X	X

**Objective 6: Implement the Earth Change Permitting Program to effectively manage, prevent, and reduce NPSP pollution in the Territory.**

Milestones	Tracking Measure	2023	2024	2025	2026	2027
Conduct staff, inspector, engineer, builder, architect, and contractor training utilizing the new EPH with USVI specific design and performance standards for implementing stormwater practices.	Distributed the USVI EPH and provided trainings to inspectors and technicians about mitigating NPSP pollution	X	X	X	X	X
Establish a heavy equipment operator’s BMP workshop.	Conducted heavy equipment workshop		X		X	
Perform review and site assessments of new Earth Change (EC) Minor Land Development Permit applications.	Number of applications reviewed / visited	X	X	X	X	X
Perform site and follow up inspections of permitted construction site facilities per Title 12 Chapter 13 VIC § 536.	Number of inspections conducted at permitted sites	X	X	X	X	X
Respond to citizen complaints about non-permitted facilities per Title 12 Chap 13 VIC § 536 & 538.	Number of complaints addressed	X	X	X	X	X

Review and process new Earth Change (Exemptions Land clearing, Minor, and major Land Development) Permit Applications.	Number of permits issued	X	X	X	X	X
Maintain EC data in GRTS. Include GPS locations, property ownership, permit expiration date.	Recorded EC data in annual report and into GRTS	X	X	X	X	X
Conduct enforcement actions such as Notice of Non-Compliance, Notice of Violations, and Administrative Orders against non-compliant sites per Title 12 Chapter 13 VIC § 536 and 538.	Number of enforcement actions against sites that are non-compliant	X	X	X	X	X
Educate homeowners, businesses, contractors about EC Permits. Explain how EC is directly linked to NPSP issues.	Conducted annual education and outreach events	X	X	X	X	X

## 2.0 PROGRAM PARTNERSHIPS

***EPA NPSP Program Key Component 2: The Territory strengthens its working partnerships and linkages to appropriate state, interstate, tribal, regional, and local entities (including conservation districts), private sector groups, citizens groups, and federal agencies.***

### **Agency and Institutional Partnerships**

This NPSP MP is intended to establish a strategy, with relevant partners, to share information, expertise, funding, and collaborate on steps towards achieving water quality goals. The focus on a geographic area necessitates that implementation projects be based on cooperative partnerships in all levels of government and private and public entities within the region.

The National Oceanic and Atmospheric Administration (NOAA) has developed a strong presence in the Virgin Islands. NOAA, through its Coral Reef Conservation Program, initiated an effort to assist VIDPNR in the update of its Environmental Handbook to develop stormwater management standards and provide guidance on structural design and sizing criteria for stormwater best management practices (BMPs). The USEPA assisted with developing the final phase of the

Handbook which was completed in June 2022. NOAA also assists DPNR with the development of Watershed Based Plans within the Territory.

The Coral Bay Community Council (CBCC) is a non-profit partner organization that develops and implements a comprehensive set of actions and management strategies to protect Coral Bay from nonpoint pollution. CBCC hosts VI Watershed meetings and invites relevant federal and local organizations to collaborate and assist with integrating various Territory initiatives to help address issues regarding the planning, implementation, and adaptive management of priority watersheds. Discussions include but are not limited to understanding and implementing DPNR's Comprehensive Land Use Plan, UVI Hydrologic & Hydraulic (H&H) Studies & Hazard Mitigation Plan, and the UVI & DPNR Marine Debris Plan. Topics include coral reef issues, road projects, drinking water, wastewater, solid waste, and education and outreach.

### **Intergovernmental Agreements**

VI DPNR has formalized Intergovernmental Agreements with Federal partners such as the U.S. Geological Survey (USGS), the USDA's Natural Resource Conservation Service (NRCS), and local governmental agencies. These partners convene regularly to collaborate on developing joint strategies to address impaired waters. USDA's Farm Bill conservation programs (such as EQIP, Conservation Reserve and Conservation Stewardship Programs, and Wetlands Reserve Program) support the implementation of agricultural conservation practices as well as a suite of conservation, restoration, and land retirement measures for wetlands, riparian areas, and other areas of critical importance to the success of water quality improvement efforts.

### **Earth Change Rules and Regulations Development with the Department of Agriculture**

The DPNR and the Department of Agriculture developed Earth Change procedures for the cultivation of property leased from the Department of Agriculture. Sediment from dirt roads, farmlands, construction sites, urban encroachments, and other disturbed soils is the primary nonpoint source pollutant threatening the islands' water resources. This collaboration will allow the department to effectively monitor farm development from start to finish.

### **Inter-Agency Approach**

Coordination within DPNR Divisions helps promote and advocate the importance of planning, addressing local concerns through task force activities, and protecting our valued natural resources. The following Divisions are instrumental in addressing Major permitting projects greater than one acre:

- Division of Coastal Zone Management (CZM)
- State Historic Preservation Office (SHPO) (historical / culturally sensitive areas)
- Division of Fish and Wildlife (F&W) - for protection of endangered species

- Division of Permits - for construction & flood plain management planning.

### **USVI Nonpoint Source Steering Committee**

The USVI NPSP Steering Committee consists of DPNR representatives, local contractors, engineers, representatives from NOAA, EPA, USDA, and other agencies. When convened, the partners discuss joint development strategies to address impaired waters and focus resources on implementing on-the-ground practices. This committee has addressed revisions to the VI codes in relation to design, construction, and use of septic systems for household sanitation.

## **3.0 PROGRAM INTEGRATION**

*EPA NPSP Program Key Component 3: The Territory uses a combination of statewide programs and on-the-ground projects to achieve water quality benefits; efforts are well-integrated with other relevant state and federal programs.*

### **Earth Change Permitting Program**

The Earth Change permitting program is utilized as the primary mechanism to locate and address all land disturbing activities territory wide. Earth Change permits are the VI's primary method to address nonpoint sources of pollution. The program is designed for residential or commercial development of facilities located on one acre or less in size. Facilities that disturb more than one acre are regulated under the stormwater permitting program. The Earth Change program emphasizes the implementation of nonpoint source pollution controls, including sediment control, erosion mitigation measures, and protection of coastal and groundwater resources.

### **EC Permit Application, Review, and Coordination Process**

The EC permit applications received are subject to interagency coordination within the following DPNR divisions:

- Comprehensive and Coastal Zone Planning (CCZP) – for land subdivision and land use re-zoning applications
- Division of Coastal Zone Management (CZM) – Minor applications for development in Tier I in the coastal zone
- State Historic Preservation Office (SHPO) (historical and culturally sensitive areas) – for minor application for development in Tier I in the coastal zone
- Division of Fish and Wildlife (F&W) – for protection of endangered species
- Division of Permits - for construction activities and flood plain management

**Earth Change Inspections** - VI DPNR conducts site inspections, may take photos, and performs follow-up inspections of ongoing permitted construction sites to ensure compliance with permit requirements of Title 12 V.I.C. Chapter 13. VI promptly addresses illegal / unpermitted activities discovered through citizen complaint letters or phone calls. Inspection reports include a brief explanation of the problem that prompted the citizen complaint and how the DPNR handled the complaint. For site inspections, the inspection report contains a checklist to note the topography, location, weather, and the type of BMP(s) used.

**Violations** - Enforcement actions are taken against facilities that are noncompliant. The violators may be cited with, but not limited to, Notices of Non-Compliance (NONC), Notices of Violation (NOV), and Administrative Orders (AO).

### **Section 319 Grant Program**

The Virgin Islands' §319 grant program emphasizes support of community-based planning and implementation projects that address watershed-specific concerns and impairments. Ideally, the NPSP management program addresses water quality concerns at the 12-digit Hydrologic Unit (HUC 12) scale with §319 sub-grants awarded to capable and eligible entities that include, but are not limited to, the following:

1. Local comprehensive planning entities, health departments, or boards
2. Coalitions (formal or informal)
3. Local environmental commissions
4. Designated water quality management planning agencies
5. V.I. and regional entities within the Virgin Islands
6. V.I. government agencies, universities, and colleges
7. Watershed and water resource associations and other local nonprofit organizations recognized under Section 501(c) (3) of the Internal Revenue Code.

The Department will continue to support and encourage development of EPA recommended nine-element watershed plans or alternative plans for watersheds and sub-watersheds. Note however, that for a balanced approach to protection and restoration based upon current data and opportunities, watershed planning should not outpace implementation efforts and alternative approaches must be considered. The NPSP Program will help develop strategies and build capacity in sub-watersheds, with a goal of awarding available funding to implement water quality improvement projects.

### **Territory Guidance Documents**

The Virgin Islands has revised the U.S.V.I. Handbook On-Site Sewage Treatment System that provides new rules and regulations regarding onsite sewage treatment. Legislation is being drafted to assure that existing failing systems will be repaired or replaced.



The University of the Virgin Islands received section 319 funds to develop a field guide that provides a brief description of sediment and erosion control practices, along with installation information during all phases of construction. This field guide has been distributed during Earth Change outreach activities and to homeowners when retrieving their Earth Change permits.

The VI DPNR collaborated with NOAA and EPA to complete an update of the USVI's Environmental Protection Handbook. A Stormwater Working Group composed of agency, community groups, and practitioners developed 21 stormwater management standards to better guide the design, installation, and maintenance of construction and post-construction stormwater management controls for development activities across the Territory. This 2022 Environmental Handbook provides guidance on how to comply with these standards. An additional 10 standards were added to address drainage improvements to unpaved roads. These standards are necessary to protect the important water resources of the USVI and strengthen existing permit programs. Ultimately, DPNR would like to make these standards a requirement for all applicants that are applying for an Earth Change or a TPDES permit.

The Virgin Islands program also contracted with Tetra Tech Inc to provide services that support TMDL development. Tetra Tech was responsible for:

- characterization of land use coefficients for use in determining nonpoint source pollution loadings for parameters such as biological oxygen demand, nutrients, sediment, bacteria, oil/grease, and impervious surfaces
- characterization of guts within watersheds feedings a TMDL water body in relation to their location, daily flow, and conditions
- Provided services for the Water Pollution Control Program regarding modification to the TPDES permit and TMDL calculation models.

### **Territory wide Earth Change (EC) Program Procedures for Agricultural Property**

The Territory has employed various tools to minimize the impact of agricultural NPSP pollution. Agriculture is important to the VI economy, and it is essential that the Territory's NPSP management program continues to seek effective and affordable ways to reduce NPSP impacts associated with agricultural production while maintaining a viable and cooperative agricultural industry. NPSP pollutants from agriculture include nutrients from fertilizer, animal waste, pesticides, and other pollutants that have the potential to impact water resources. The goal of reducing NPSP pollution from agricultural activities is attained through inter-agency partnership, education, and regulation. In 2014, the NPSP program developed Earth Change procedures for the cultivation of property leased from the Department of Agriculture to help guide appropriate BMP implementation to reduce NPSP pollution from agricultural activities.

## 4.0 PROTECTION AND RESTORATION OF WATERS

***EPA NPSP Program Key Component 4: The Territory program describes how resources will be allocated between (a) abating known water quality impairments from NPSP pollution and (b) protecting threatened and high- quality waters from significant threats caused by present and future NPSP impacts.***

The NPSP program seeks guidance from its communities to develop and carry out action plans that restore or protect waters by utilizing the resources of all participating agencies and programs. There are several watershed-based plans developed and several more planned to address significant threats from existing nonpoint sources of pollution. The work is coordinated indirectly by common environmental goals, direction and focus within each entity, and activities are carried out through memoranda of agreements (MOAs) and memoranda of understandings (MOUs) between agencies for specific projects.

DPNR predominately spends most of its operating budget to fund the implementation of its Earth Change Program and sometimes accumulates section 319(h) to pass through to communities to implement water quality demonstration projects in Category V watersheds where standards are not being met. The Earth Change Permitting Program allows DPNR to know exactly where land disturbances are occurring throughout the Territory and address them. It also enables evaluation of water quality trends based on the number of EC permits issued in a watershed by the implementation of nonpoint source pollution controls (i.e., sediment control, erosion mitigation measures) to protect coastal and groundwater resources. The EC program is an effective way for the Virgin Islands to use its limited resources, expeditiously.

### Section 319 Funded Nonpoint Source Pollution Projects

The Territory's NPSP program places a special emphasis on prioritizing 319 resources to address 303(d) listed water quality impairments attributed to NPSP pollution. As U.S. EPA guidance changes, the scope and focus of funding also changes to address current priorities such as climate and environmental justice. Most of VI's 319 project funding has been spent on projects that implement NPSP pollution controls and NPSP educational outreach efforts. See Table 1: Section 319 funded NPSP projects from 2002-2016.

Table 1:	319 Nonpoint Source Pollution Projects 2002 - 2016	Fiscal Year
1.	<b>St. Thomas Environmental Association - Total awarded - \$17,002</b> <i>Sedimentation control via Mangrove Restoration in Salt River Watershed</i>	2002
2.	<b>The University of the Virgin Islands - Total awarded: \$28,704</b> <i>NPSP Education for the Youth and Adult Community of St. Croix</i>	2002
3.	<b>The University of the Virgin Islands - Total awarded: \$6,618</b> <i>News Letter</i>	2003

<p><b>4. VI Resource Conservation &amp; Development Council - Total awarded: \$38,000</b> Bethlehem Old Work Reservoir EWP Project - Stabilized the largest active gully and water retention structure. Prevented excessive soil loss from wind and water erosion.</p>	2003
<p><b>5. The University of the Virgin Islands - Total awarded: \$65,822.32</b> <i>Comprehensive Land &amp; Water Maps - VI Conservation Data Center incorporated Land and Water maps into the GIS to automate and update CLWUP's land and water use plan, water use plans maps and intensity district (zoning) maps. Automation of maps CLWUP background data: Subdivision, soils, Land use, steep slopes, and population by census.</i></p>	2003
<p><b>6. We Grow Food Inc St Thomas - Total awarded: \$39,350</b> <i>Retention Ponds in Estate Bordeaux -Rehabilitated 2 storm water retention ponds.</i></p>	2003
<p><b>7. We Grow Food Inc - Total awarded: \$69,350</b> <i>Retention Pond Estate Bordeaux, Phase II</i></p>	2003
<p><b>8. Resource Conservation &amp; Development Council, Inc - Total awarded: \$20,000</b> <i>8<sup>th</sup> VI Regional NPSP Conference</i></p>	2003
<p><b>9. University of the Virgin Islands (UVI) - Total awarded: \$7,984</b> <i>NPSP Committee Operating Budget</i></p>	2003
<p><b>10. VIMAS/CMES - Total awarded: \$52,308</b> <i>Continuation and expansion of the Territorial Biological Monitoring</i></p>	2004
<p><b>11. DPNR-DEP Water Pollution Control Program - Total awarded: \$20,000</b> <i>Clean Marinas Program - 6 pump out facilities were constructed at: Yacht Harbor, Crown Bay, Ramada Yacht Haven, Compass Point, Green Cay and St. Croix Marina. Most sites now closed due to operating costs.</i></p>	2004
<p><b>12. (DOA-DEP) Environmental Quality Incentive Program - awarded \$30,000.00</b> <i>Installed agricultural BMPs to reduce nonpoint source pollution.</i></p>	2004
<p><b>13. Sojourner Sisters Inc - Total awarded: \$40,000</b> <i>Restore St. Croix's Creque Dam to its natural beauty. Received technical assistance from USDA-NRCS</i></p>	2004
<p><b>14. University of the Virgin Islands - Total awarded: \$28,704</b> <i>NPSP Pollution Education for Youth and Adult Community of St. Croix</i></p>	2004
<p><b>15. DPNR NPSP Program - Total awarded: \$20,000</b> <i>Environmental Club</i></p>	2004
<p><b>16. A Hecht Communications Co. - Total awarded: \$20,000</b> <i>Developed Nonpoint Source Educational Video</i></p>	2004
<p><b>17. CMES / VIMAS - Total awarded: \$24,500</b> <i>Sediment Disposition Assessment and Coastal Watershed Impact Area Mapping in Priority Bays and Watersheds in the Virgin Islands</i></p>	2004
<p><b>18. VI School Conservation - Rain Gardens - Total awarded: \$30,000</b> <i>Youth installed Low Impact development projects to mitigate NPSP Pollution Increased environmental awareness and encouraged schools to manage resources on school grounds and community areas.</i></p>	2009
<p><b>19. TMDL data development and gut characterization in priority bays and watersheds in the USVI (Tetra Tech, Inc.) - Total awarded: \$60,643</b> <i>Characterization of land use coefficients to determine NPSP pollution loads for BOD, nitrogen, sediment, bacteria, oil/grease, and impervious surfaces. Characterized guts discharging to TMDL waters in relation to their location, daily flow, and condition.</i></p>	2009-2010
<p><b>20. Coral Bay Community Council - Total awarded: \$74,250</b> <i>Installed BMPs in 2 drainage areas and hosted 2 BMP installation workshops to reduce sediment. This work led to continued design /implementation of watershed management and stabilization techniques to reduce sediment loads to coastal areas.</i></p>	2016

<i>This project reduced sediment to Coral Bay and increased knowledge of appropriate stormwater management techniques.</i>	
<b>21. V.I. Conservation Society - Total awarded: \$74,250</b> <i>NPSP Pollution Educational Project -to inform the public about stormwater and NPSP pollution in Smith and Water Bay and suggests priority projects for mitigation.</i>	2016 Continuous
<b>22. Horsley Witten Group - Total awarded: \$49,990</b> <i>U.S.V.I. Stormwater Standards and Environmental Protection Handbook Update Phase II updates to the handbook consists of specific design criteria, maintenance and typical plans needed to implement the standards.</i>	Completed in 2022

### Marina Water Quality

Another defense against nonpoint source pollution to waters of the Territory is a sustainable Clean Marinas Program. In 2004, the NPSP Program awarded \$20,000.00 to build six (6) pump-out stations at the following facilities Yacht Harbor (renamed Yacht Haven Grande), Crown Bay, Ramada Yacht Haven, Compass Point, Green Cay, and St. Croix Marine. Another 319 grant was used to promote the use of the pump-out stations. DPNR staff conducted a recent survey (Table 2) which revealed that the Territory currently has four operational pump-out stations located at Compass Point, Crown Bay, Green Cay, and St. Croix Marine. Other facilities without stations have bathroom facilities and/or leave the shore.

The NPSP program proposes to expand the preliminary information-gathering survey to include boat owners and other partners (local government agencies, federal agencies, and community leaders) to ascertain the needs of our boating communities’ residents and visitors. The results of the survey will be used to develop a strategic plan that will include re-energizing the VI Clean Marina Program or similar endeavors; continue boaters’ education; mechanisms for locating/advertising pump-out stations; and reasonable access to these facilities.

Table 2: Marinas of the Virgin Islands

Name of Marina	Island	Status of Pump-Out Station
Compass Point Marina	St Thomas	- Has a pump-out station used once/ month - Pump-out is being contracted by the USVI Playland Marina
Crown Bay Marina	St Thomas	- Has pump-out station used once/month - Pump-out is being contracted by USVI Playland Marina
Saga Haven Marina	St. Thomas	- No pump-out station - Small operation houses 25 boats - Bathroom facilities provided on site that is serviced by Lew Henley twice/ week

Yacht Haven Grande	St Thomas	- Pump-out is being contracted by USVI Playland Marina
Frenchtown Marina	St Thomas	- No pump-out station - Vendors either leave the shore or they go to Crown Bay Marina to pump out
Sapphire Beach Resort & Marina	St Thomas	- No response
St. Croix Marina (Gallows bay)	St. Croix	- Has a boatyard - Has a small pump-out unit rarely used - Larger jobs (yachts) are contracted by John Bengals
Salt River Bay Marina	St. Croix	- No answer
Green Cay Marina	St. Croix	- Has a pump-out station not being used - Vendors leave the shore to dump out - Bathroom facilities provided on site

## 5.0 WATERSHED PLANNING AND MANAGEMENT

***EPA NPS Program Key Component 5: The Territory program identifies waters and watersheds impaired by nonpoint source pollution and for priority unimpaired waters for protection. Establish a process to assign priority and progressively address identified watersheds by conducting more detailed watershed assessments, and to develop and implement watershed-based plans.***

The U.S. Virgin Islands Territory 305(b) Water Quality Assessment and 303(d) list delineate waters in the Territory that do not support all designated uses and identifies the most likely pollution source for the impairment. (Link to 2020 section 303(d) list of impaired waters: [https://www.epa.gov/sites/default/files/2021-01/documents/2020\\_usvi\\_303d\\_list.pdf](https://www.epa.gov/sites/default/files/2021-01/documents/2020_usvi_303d_list.pdf))

Total maximum daily loads (TMDLs) and action strategies are developed to mitigate all NPSP impacts to restore these watersheds. The watershed management approach is used territory-wide to update and enhance the quality of assessments made under CWA sections 303 (d), 305 (b), 314, 319 (a), and others. This approach assists DPNR’s NPSP program to better target threatened or impaired waters for protection and remediation work. The Territory’s NPSP program places a special emphasis on prioritizing 319 resources to address 303(d) listed waters impaired by nonpoint source pollution. The VI DPNR intends to target the Territory’s 319 Category V watersheds for intense implementation efforts. Selection factors for prioritized watersheds include:

- non-attainment of national clean water goals (including exceedances of water quality standards, or impaired drinking water sources, etc.)
- non-attainment of natural resource goals related to aquatic systems, including goals related to habitat, ecosystem health, and living resources
- indicators of degraded aquatic system conditions (e.g., wetland condition and current and historical loss rates, percent impervious surface, and measures of aquatic habitat), and
- decline in condition of living and natural resources part of the aquatic system in the watershed (e.g., decline in the populations of rare and endangered aquatic species, decline in healthy populations of fish and shellfish, etc.)

Category V watersheds are watersheds that do not meet or are in imminent danger of not meeting clean water and other natural resource standards or objectives, per the draft 2022 303(d) list, and are listed in Table 3 below.

**Table 3: Category V Watersheds, Sub-watersheds, Marinas, and Reefs**

<b>St. Croix</b>	<b>St. Thomas</b>	<b>St. John</b>
Frederiksted Harbor	Botany Bay	Caneel Bay
Prosperity	Stumpy Bay	Hawksnest Bay
Sprat Hall	Santa Maria Bay	Trunk Bay
Cane Bay	Caret Bay	Cinnamon Bay
Baron Bluff	Hull Bay	Round Bay
Salt River Lagoon	Magens Bay	Coral Harbor
Salt River Bay	Mandahl Bay (Marina)	Fish Bay
St. Croix-By-the-Sea	Mandahl Bay	Great Cruz Bay
Princess	Water Bay	Cruz Bay
Christiansted Harbor	Smith Bay	Southwest St. John
Long Reef	Red Bay	
Beauregard Bay	Vessup Bay	
Buccaneer Beach	Great Bay	
Punnett Bay	Cowpet Bay	
Punnett Point	Nazareth Bay	
Tamarind Reef/Southgate Lagoon	Benner Bay Lagoon Marina	
Green Cay Beach	Mangrove Lagoon	
Southgate	Frenchman Bay	
Teague Bay Backreef	Limetree Bay	
Buck Island Backreef	Morningstar Bay	
Grapetree Bay	St. Thomas Harbor	
Turner Hole Backreef	Gregerie Channel	
Madam Carty Backreef	Sprat Bay	
Bugby Hole Backreef	Hassel Island at Haulover Cut to Regis Point	

Canegarden Bay	Krum Bay	
Hess Oil VI Harbor	Lindbergh Bay	
Limetree Bay	Perseverance Bay	
Martin-Marietta Alumina Harbor	Brewers Bay	
Manning Bay/Estate Anguilla Beach		
Hovensa		
Diamond		
Long Point Bay		
Good Hope Beach		
Sandy Point		

These watersheds will be prioritized for NPSP mitigation, especially those with existing Watershed Management Plans (WMPs), as well as other priority designations such as territorial or federal parks. In 2019, DPNR obtained funding through the Federal Emergency Management Authority (FEMA) Hazard Mitigation Grant Program (HMGP) to assess three high priority watersheds of concern on St. Thomas, five high priority watersheds of concern on St. Croix, and additionally, one priority watershed on St. Thomas later added to the project. The goal of the project was to identify and evaluate watershed-specific issues and develop attainable solutions to improve water quality and reduce flooding. Other watersheds previously received WMPs through DPNR or NGO partners. Each Watershed Management Plan is implemented with a wide range of partners, including Federal, Territory and Local government representatives, industry, and environmental organizations. Table 4 below lists the watersheds with WMPs and their creation dates.

**Table 4: Existing Watershed Management Plans**

Island	Watersheds with Mgmt. Plans	Plan Creation	Plan URL
St. Croix	Long Point Bay	2022	<a href="https://dpr.vi.gov/wp-content/uploads/2023/05/Long-Point-Bay-Watershed-Management-Plan.pdf">https://dpr.vi.gov/wp-content/uploads/2023/05/Long-Point-Bay-Watershed-Management-Plan.pdf</a>
	Diamond	2022	<a href="https://dpr.vi.gov/wp-content/uploads/2022/11/Diamond-Watershed-Management-Plan.pdf">https://dpr.vi.gov/wp-content/uploads/2022/11/Diamond-Watershed-Management-Plan.pdf</a>
	Bethlehem	2022	<a href="https://dpr.vi.gov/wp-content/uploads/2022/11/Bethlehem-Watershed-Management-Plan.pdf">https://dpr.vi.gov/wp-content/uploads/2022/11/Bethlehem-Watershed-Management-Plan.pdf</a>
	Salt River Bay	2022	<a href="https://dpr.vi.gov/wp-content/uploads/2023/05/Salt-River-Bay-Watershed-Management-Plan.pdf">https://dpr.vi.gov/wp-content/uploads/2023/05/Salt-River-Bay-Watershed-Management-Plan.pdf</a>
	Kingshill/Hovensa	2022	<a href="https://dpr.vi.gov/wp-content/uploads/2022/11/Hovensa-Watershed-Management-Plan.pdf">https://dpr.vi.gov/wp-content/uploads/2022/11/Hovensa-Watershed-Management-Plan.pdf</a>
	East End Marine Park Watersheds	2011	<a href="https://dpr.vi.gov/wp-content/uploads/2023/08/St.-Croix-East-End-Marine-Park-WatershedPlan.pdf">https://dpr.vi.gov/wp-content/uploads/2023/08/St.-Croix-East-End-Marine-Park-WatershedPlan.pdf</a>
St. Thomas	Cyril E. King Airport	2022	<a href="https://dpr.vi.gov/wp-content/uploads/2022/11/Cyril-E-King-Airport-Watershed-Management-Plan.pdf">https://dpr.vi.gov/wp-content/uploads/2022/11/Cyril-E-King-Airport-Watershed-Management-Plan.pdf</a>

	St. Thomas Harbor	2022	<a href="https://dpr.vi.gov/wp-content/uploads/2022/11/St-Thomas-Harbor-Watershed-Management-Plan.pdf">https://dpr.vi.gov/wp-content/uploads/2022/11/St-Thomas-Harbor-Watershed-Management-Plan.pdf</a>
	Bolongo Bay	2022	<a href="https://dpr.vi.gov/wp-content/uploads/2023/05/Bolongo-Bay-Watershed-Management-Plan.pdf">https://dpr.vi.gov/wp-content/uploads/2023/05/Bolongo-Bay-Watershed-Management-Plan.pdf</a>
	STEER	2013	<a href="https://dpr.vi.gov/wp-content/uploads/2023/08/St.-Thomas-East-End-Reserve-Watershed-Plan.pdf">https://dpr.vi.gov/wp-content/uploads/2023/08/St.-Thomas-East-End-Reserve-Watershed-Plan.pdf</a>
St. John	Coral Bay	2021	<a href="https://coralbaycommunitycouncil.org/2021-plan/coral-bay-watershed-management-plans/">https://coralbaycommunitycouncil.org/2021-plan/coral-bay-watershed-management-plans/</a>
	Fish Bay	2001	<a href="https://library.oarcloud.noaa.gov/noaa_documents.lib/CoRIS/USVI-Fish_Bay_WMP_Final.pdf">https://library.oarcloud.noaa.gov/noaa_documents.lib/CoRIS/USVI-Fish_Bay_WMP_Final.pdf</a>

The VI NPSP §319 grant program supports territory-wide implementation projects and NPSP pollution awareness projects that address nonpoint issues in Category V watersheds. Territory-wide efforts include:

- Statewide Water Quality Monitoring Strategy
- Ambient water quality monitoring
- Volunteer Water Quality Monitoring Program
- Interactive Watershed Mapping
- Water Quality Reporting
- Water Quality Short Course
- Watershed Priority Tool
- Water quality and/or protection forums and associated committees
- Nonpoint Source Pollution Conference
- NPSP Management and Educational Projects
- Nonpoint Source School Conservation Projects
- Annual Coastal Week Cleanup
- Installation of watershed signs around the Territory

The DPNR has had several in-house and EPA collaborative initiatives to help streamline and create effective program and budget approaches to focus on improving water quality. As part of its watershed approach, the Territory focuses on addressing its Category V watersheds through VI’s Earth Change Permitting program and by passing through section 319 funds to local watershed partners. The Territory’s watershed approach includes the utilization of VIDPNR’s Nonpoint Source Advisory Committee comprised of watershed partners who share local information and help make recommendations to provide direction for local watershed planning and management.

Water quality goals are based on EPA’s collaborative framework for implementing the Clean Water Act Section 303(d) Program. The project will explore opportunities to remediate water quality through means other than TMDLs or try to make the TMDL more encompassing of other programs. In developing the TMDLs, the corrective measures are listed that need to be addressed to achieve water quality standards.



## 6.0 NONPOINT SOURCE MANAGEMENT PRACTICES AND CONTROL MEASURES

*EPA NPSP Program Key Component 6: Implement all program components required by section 319(b) of the Clean Water Act and establish strategic approaches and adaptive management to achieve and maintain water quality standards as expeditiously as practicable. Review and upgrade program components that may include a mix of regulatory, non-regulatory, financial, and technical assistance, as needed.*

The Virgin Islands aims to involve the most pertinent programs in the decision-making process that impacts overall environmental quality, including groundwater and surface water quality. The NPSP program coordinates its activities with the Earth Change Permitting Program, Groundwater Program, Stormwater TPDES program, and the Coastal NPSP Pollution Control Program under the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA).

**Earth Change Permitting Program** - The Earth Change permitting program is the Virgin Islands' nonpoint source enforcement program that is utilized as the primary mechanism to address land disturbance activities expeditiously within the Territory. The program is designed for residential or commercial development of facilities located on one acre or less in size. Facilities that disturb more than one acre will be regulated under the stormwater permitting program. The Earth Change program emphasizes the implementation of NPSP pollution controls, including sediment control, erosion mitigation measures, and protection of coastal and groundwater resources. A permit application may be denied based on the absence and/or improper implementation of best management practices. This includes the inappropriate placement of onsite sewage treatment systems or substandard erosion control measures. For more information, see Key Component 3 above.

**Implement Best Practices** - A principal requirement of Section 319 is to identify and implement best management practices (BMPs) and measures to reduce nonpoint source pollution. Additional requirements address identification of programs and partners to conduct BMP implementation of watershed projects on a watershed basis and leverage sources of financial assistance to conduct the work.

**Training and Educational Outreach** - Education is important for all levels of watershed management activities to communicate information on nonpoint sources and BMPs. The DPNR continues to engage in various educational outreach activities and sponsors conferences and workshops geared towards a wide range of participants on territory-wide priorities (e.g., construction, stormwater runoff, onsite treatment, etc.). Educating the public about VI's Earth Change program is important to carry out its mission of mitigating and preventing nonpoint sources of pollution in the Territory. VI DPNR visits local high schools and gives presentations to science/biology classes about the mission of the Earth Change program and its initiatives to help

reduce soil erosion and sedimentation through education and enforcement. Other educational opportunities are conducted through various trainings, workshops, webinars, and outreach events especially when the DPNR finds it necessary to educate specific groups. DPNR also participates in annual Agricultural Fairs, Earth Day activities, and Small Business Environmental Assistant Week. Training is conducted through partnerships between state and local agencies (typically Soil and Water Conservation Districts), planning, and health agencies.

**Partner Collaboration** – The NPSP program engages with several stakeholders across the Territory such as the St. Croix Environmental Association (SEA), the Environmental Association of St. Thomas (EAST), the Coral Bay Council (CBC), The Nature Conservancy (TNC), and Virgin Islands Conservation Society (VICS) to help formalize partnerships with local entities. Governmental agencies/programs such as USDA-NRCS, DPNR-DEP, DPNR-Permits, DEP-Water Quality, DEP-Water Pollution, DPNR-Flood Plain Management, DPNR-CZM, Caribbean Environmental Protection Division CEPD, and National Oceanic Atmospheric Administration (NOAA) are also invited to participate to integrate NPSP goals with other programs.

**Stormwater Program** - The Stormwater program is currently implemented under the Phase I Stormwater Regulations. However, these regulations are not inclusive of all stormwater flows. It is the goal of stormwater program to ensure that flows into coastal waterbodies do not adversely impact the designated uses of these waterbodies. There are currently regulations for stormwater discharges through the TPDES program where stormwater discharges are permitted as point sources with specified permit limitations and conditions. The permitting of stormwater flows requires the use of best management practices and infrastructure to ensure that these flows meet the permit limits. Sedimentation and Erosion Control regulations are water quality-based and includes requirements for 80% reduction of site Total Suspended Solids (TSS) levels, and which are categorically applied to land-disturbing activities of greater than (1) acre, territory-wide.

**Funding Sources** – Funding sources include allotments from the USDA’s Environmental Quality Incentive Program (EQIP), the Clean Vessel Act (funded by CZMA), and programs of the Clean Water Act. The Territory is not eligible to establish a State Revolving Funds Program due to the lack of consistent household and income data. Therefore, the Territory’s allotted funds are based on a CW SRF allotment formula. This limitation is noted in the Federal register Vol. 62, No. 54 notices for March 20, 1997, which explains that the Territory of Guam, Territory of American Samoa, the Commonwealth of the Northern Mariana Islands, and the Virgin Islands do not operate CW SRF programs but instead receive their SRF allotments for use as construction grants under title II of the Clean Water Act. (Pub. L, 101-144, as amended by Pub. L., 101-320). Such jurisdiction may receive hardship assistance for the entire cost of a project benefiting a qualifying community or to supplement a construction grant that is made for a project benefiting a qualifying community.

**Monitoring and other evaluation efforts to help determine program effectiveness** – The Virgin Islands has an extensive network of ambient stations and conducts special surveys, including biological assessments, through the watershed management planning process. DPNR has also funded many research studies at the University of the Virgin Islands, using 319 funds to further evaluate the effects of different landscape features on field-edge runoff before it enters receiving waterways. These activities allow DPNR to predict future water quality trends and estimate changes that have occurred due to management efforts.

## 7.0 PROGRAM ADMINISTRATION

*EPA NPSP Program Key Component 7: The Territory manages and implements its NPSP management program efficiently and effectively, including necessary financial management.*

The Territory's Nonpoint Source (NPSP) Pollution Control Program operates consistent with the statutory mandates pursuant to the 1987 Federal Clean Water Act (CWA) and the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA) for the purpose of guiding the development and implementation of coastal NPSP management efforts. Under Section 319(h), states, territories, and tribes are provided annual grant allotments and can administer a subaward or subgrant process with eligible entities to implement a wide variety of activities including technical assistance, financial assistance, education, training, technology transfer, demonstration projects, and monitoring to assess the success of nonpoint source implementation projects.

Pursuant to OMB Circular No. A-102, *Grants and Cooperative Agreements with States and Local Governments*, the Commissioner establishes adequate fiscal controls and accounting procedures to assure proper disbursement of and accounting for funds appropriated to carry out provisions of the CWA.

The VI DPNR uses a subaward agreement that sets forth responsibilities between VI DPNR and the Subrecipient. Section 319 funding is used to encourage the building of watershed management partnerships and to implement management practices for NPSP controls that have been proven to work in the proposed project area or in another area with similar conditions.

Management measures are economically achievable methods to reduce NPSP pollution and reflect the greatest degree of pollutant reduction achievable through the implementation of that best available nonpoint source control practices, technologies, processes, siting criteria, operating methods, or other alternatives (as defined in section 6217(g) of CZARA).

### **Funding and Reporting on NPSP Implementation Projects.**

#### **319 Project Proposal Review and Process for Awarding Grants**

NPSP Implementation Project grants will be awarded under the authority of the VIDPNR. The VIDPNR will publish a Request for Proposals in print and electronic media throughout the USVI.

Competition for 319 funds is strong, and the NPSP proposal review process provides funding to those projects that maximize environmental benefits. The strong competition ensures the 319-leveraging ability for other funding sources is maximized. The VI DPNR will evaluate the proposals based on criteria set forth in the “**Guidelines for Proposals.**” DPNR will review the project proposals, select projects for funding, develop sub-award agreements, review reports from project participants, and award project funds.

Once the selection process is complete, VIDPDR will send an acceptance letter followed by the “Government of the Virgin Islands Notification of Grant Award (NGA).”

The VI DPNR has established a Financial Management System (FMS) to ensure that the Territory meets its financial reporting obligations. The procurement procedures are compliant with Virgin Islands Code (VIC) Title 31 Chapter 23 and employs EPA-approved programmatic and financial accounting systems to ensure that federal and territorial funds are used consistent with legal requirements. Entities awarded funding under this program may be required to provide at least 20 percent of the total project cost in dollars or in-kind services. All project data is entered into the National Grants Reporting and Tracking System (GRTS).

## **8.0 PROGRAM REVIEW AND EVALUATION**

***EPA NPSP Program Key Component 8: The Territory reviews and evaluates its NPSP management program using environmental and functional measures of success and revises its NPSP management program at least every five years.***

The VI NPSP Program’s review and evaluation process addresses program management and compliance with the requirements of Section 319 (environmental objectives and milestone measures), the VI’s PPG Agreement with EPA, and the VI’s Earth Change Permitting Program. The VI DPNR develops annual workplans for implementation, conducts an Earth Change Permitting program to mitigate all land disturbing activities and passes through section 319 funds to protect and restore impaired waters throughout the Territory. The overall administration of the CWA section 319 nonpoint source management program is contained within the Performance Partnership Agreement between EPA and the VI while funds are provided through the accompanying Performance Partnership Grant (PPG). The overall program is evaluated and updated each year in the PPA/PPG process and is continually open to appropriate revision of the NPSP program’s milestones and reporting measures.

### **Program Management Tracking, Assessment, and Revision**

The milestones and measures of progress associated with each of the NPSP Program objectives are presented in Key Component 1 of this NPSP Management Program Plan. Several key components of the NPSP MP are continuously updated such as the process for selecting watershed projects for state financial assistance. The Request for Proposals (RFP) for each category of watershed projects is revised based on funding priorities and impacts the project selection. Another

important example is the revision of VI's Environmental Protection Handbook, that provides guidance for engineers, agencies, and site owners to manage stormwater in a sustainable manner that is tailored to the unique conditions and climate challenges of the USVI.

Most importantly, the EPA evaluates VI DPNR's overall administration of its NPSP Program within the Performance Partnership Agreement and Grant (PPA/PPG). This annual agreement allows for appropriate revision of the program milestones and reporting measures. These continuous and annual program review and evaluation activities are complemented by an overall NPSP Program update at least every five years.

### **Water Quality Assessment**

The Watershed Assessment Program is coordinated with EPA and is evaluated and revised to ensure consistency with overall federal goals and objectives. Water quality assessment procedures are consistent with those in the Quality Assurance Project Plan (QAPP).

The importance of water quality assessments is to provide a comprehensive indication about the water quality condition for waters throughout the Territory. This would include the documentation of good quality waters and an analysis of long-term water quality trends. Observing water quality trends related to nonpoint source pollution can help inform on the effectiveness of site-specific restoration and protection measures. Where resources allow, DPNR will conduct water quality assessments associated with Earth Change permits to see whether partial or full restoration of a waterbody, through its associated NPSP watershed projects, will result in a partial or full waterbody restoration or a section 319 Nonpoint Source Success Story.

### **Continuous Update of Nonpoint Source Program Tools**

**USVI's 2022 VI Environmental Protection Handbook** - Part of VI's NPSP Management Plan, the Handbook is an important tool to train engineers, inspectors, contractors, watershed groups, and the public on sustainable practices to help mitigate nonpoint source pollution runoff. The Handbook is used to guide the design, sizing criteria, installation, and maintenance of post-construction stormwater best management practices and to improve drainage for unpaved roads across the Territory. Erosion and sedimentation resulting from improper construction and land clearing activities is a major nonpoint source problem in the Virgin Islands. Studies show that by controlling erosion and soil loss on construction sites, unpaved roads, and other cleared areas will reduce pollution in the waters of the Virgin Islands. The VIDPNR completed the 2022 Handbook revision with assistance from NOAA and EPA.

**USVI's Onsite Sewage Treatment Systems Handbook** - The contribution of bacterial contamination caused by failed onsite septic systems, runoff from livestock operations, and sewage discharged from boats are nonpoint source issues of concern that has prompted VIDPNR, through its Coastal NPSP Pollution Control Program, to develop a handbook to introduce new rules and regulations regarding onsite sewage treatment and dispersal. The VI's existing regulations were

updated to include several alternative systems which are becoming more prevalent as new technology emerges. The impact of the revised regulation will enable the use of effective alternatives to preserve water quality and reduce the effects of NPSP in the Territory.

In EPA's "Response to Congress on the Use of Decentralized Wastewater Treatment Systems" (1997), EPA concluded that decentralized systems are an integral part of our nation's wastewater infrastructure and can protect public health and water quality if they are properly planned, sited, designed, installed, and maintained. In 2003, EPA published, "Voluntary National Guidelines for Management of Onsite and Clustered (Decentralized) Wastewater Treatment Systems": [https://www.epa.gov/sites/default/files/2015-06/documents/septic\\_guidelines.pdf](https://www.epa.gov/sites/default/files/2015-06/documents/septic_guidelines.pdf) and in 2005, published the, "Handbook for Managing Onsite Clustered (Decentralized) Wastewater Treatment Systems": [http://observatoriaigua.uib.es/repositori/sa\\_manualeu2.pdf](http://observatoriaigua.uib.es/repositori/sa_manualeu2.pdf)

**Sediment and Erosion Control on Construction Sites Field Guide:** The University of the Virgin Islands Cooperative Extension Service developed this Field Guide (<https://coralreef.gov/assets/transportation/sederosuvi.pdf>) with CWA section 319(h) funds. It provides sediment and erosion control practices along with installation information that should be followed during all phases of construction: before, during, and after land clearing and construction.

**Nonpoint Source Pollution Conference:** This forum is used to share information, gather ideas, and improve communication about NPSP pollution issues. The conference convenes partners involved in NPSP pollution management from state, federal, and municipal governments, private sector, academia, and watershed organizations.

## Appendix: EPA's Nine Elements for 319 Funded Watershed Plans

a. Identify the causes and sources of pollution to be controlled to achieve the estimated load reductions for the watershed. Provide source estimates to the extent that they are present in the watershed (e.g., X number of dairy cattle feedlots need upgrading, the number of cattle per facility; Y acres of row crops needing improved nutrient management or sediment control; or Z linear miles of eroded streambank needing restoration).

b. Estimate pollutant loading to the watershed and the expected load reductions, understanding the variability and difficulty in precisely predicting the performance of management measures over time. Estimates should be provided at the same level as in item (a) above (i.e., the total reduction expected for dairy cattle feedlots; row crops; eroded streambanks).

c. Describe the nonpoint source measures to be implemented to achieve the estimated load reductions in targeted areas. Map or describe the critical areas where measures need to be implemented.

d. Estimate the amount of technical and financial assistance, and the relevant authorities needed to implement the watershed plan such as the 319 program, State Revolving Fund, USDA's Environmental Quality Incentives Program, Conservation Reserve Program, and other relevant Federal, State, local and private funds available to assist in implementing this plan.

e. Develop an information/education component to enhance public understanding of the project and encourage early and continued participation in selecting, designing, and implementing the NPSP management measures.

f. Develop a project schedule for implementing the NPSP management measures identified in this plan that is reasonably expeditious.

g. Describe the interim, measurable milestones for determining whether NPSP management measures or other control actions are being implemented.

h. Identify indicators to measure progress. A set of criteria used to determine whether load reductions are being achieved over time and that substantial progress is being made towards attaining water quality standards.

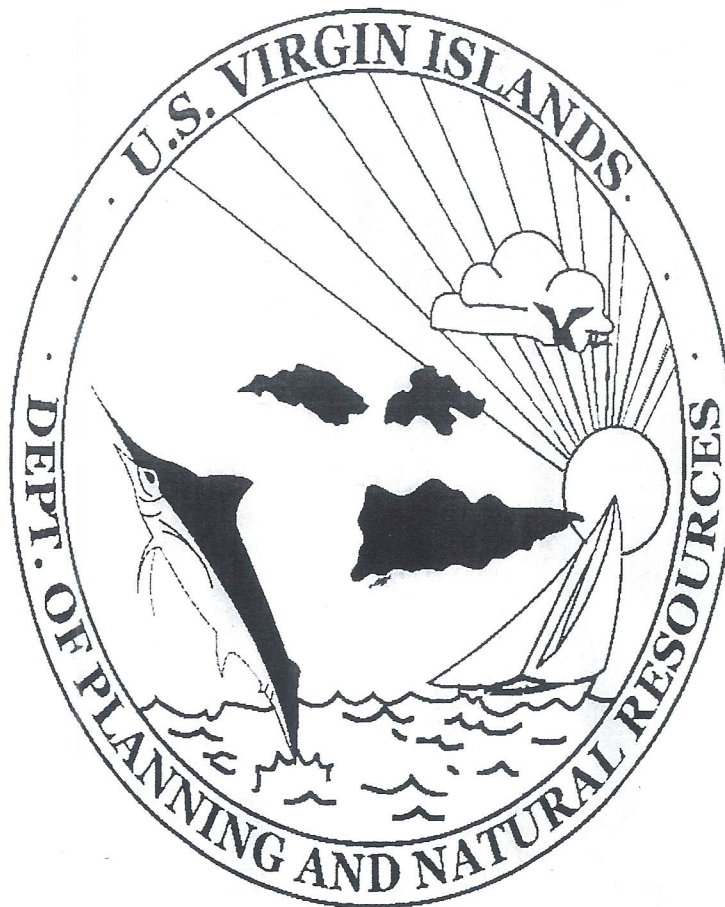
i. Develop a monitoring component to evaluate the effectiveness of the implementation efforts over time and measured against the criteria established under item (h).

## **LIST OF ATTACHMENTS**

Attachment A: United States Virgin Islands Earth Change Program Procedures for the Cultivation of Agricultural Property, regarding Title 12, Chapter 13, Subsection 535 by Department of Planning & Natural Resources-NPSP Program, February 2014



UNITED STATES VIRGIN ISLANDS  
EARTH CHANGE PROGRAM PROCEDURES  
FOR THE  
CULTIVATION OF AGRICULTURAL PROPERTY  
TITLE 12, CHAPTER 13, SUBSECTION 535



GOVERNMENT OF THE U.S. VIRGIN ISLANDS

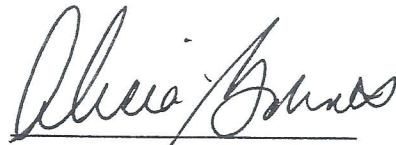
EARTH CHANGE PROCEDURES  
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EARTH CHANGE PROGRAM PROCEDURES  
FOR THE  
CULTIVATION OF PROPERTY LEASED FROM DEPARTMENT OF AGRICULTURE  
TITLE 12, CHAPTER 13, SUBSECTION 535

Dated: 2/11, 2014

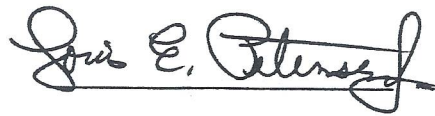
Approved:



Alicia V. Barnes, Commissioner

Department of Planning and Natural  
Resources

Approved:



Louis E. Petersen, Jr., Ph.D

Department of Agriculture

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**Purpose**

- (a) The purpose of this document is to establish programmatic procedures to include the application, inspection, certification, and reporting, for the exemption of an Earth Change permit for agricultural land clearing in order to achieve the following general intentions and purpose of the Government of the United States Virgin Islands:
- (1) To remove unnecessary bureaucracy and requirements that impedes farmers from expeditiously cultivating their property used for agricultural purposes.
  - (2) To ensure and implement best management practices to minimize effects of non-point source pollution from agricultural activities.

**Definitions**

Unless it is otherwise provided the following terms when used in these rules and regulations shall have the meaning as herein defined:

- (a) A farmer for purposes of these procedures means any individual, partnership, firm, cooperative or corporation that has a valid lease with the Department of Agriculture and is engaged in any business listed in this section, whose income is wholly or partially derived from the production of food, including but not limited to:
- (1) The tilling of the soil to raise any fruit, grain, vegetable, hay, or fodder; or
  - (2) The propagation of vegetable seeding and fruit tree saplings; or
  - (3) The raising of livestock for meat, poultry, eggs, milk, or other dairy products; or
  - (4) The construction of dams for the cultivation of fish or other agricultural related purposes

**Qualification Standards**

- (a) A qualified applicant is any person registered (farmer's license) with the Department of Agriculture as a farmer and holds legal interest in a subject's property and can provide legal proof of ownership or interest.

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**Application Requirements for Land Clearings up to five (5) acres**

- (1) Name and Mailing address of the owner(s) of the property to be cleared.
- (2) E-mail and Phone numbers of the owner(s) and equipment operator of the property to be cleared.
- (3) Plot Number
- (4) Estate
- (5) Acreage
- (6) A copy of business license the legal proof of ownership or interest
- (7) Heavy Equipment Operator
- (8) If property is located in Tier 1, the Coastal Zone Management Office shall be notified prior to the start of the project.

**Application Requirements for Land Clearings over (5) acres**

1. Name and Mailing address of the owner(s) of the property to be cleared.
2. E-mail and Phone numbers of the owner(s) and equipment operator of the property to be cleared.
3. Plot Number
4. Estate
5. Acreage
6. A copy of business license the legal proof of ownership or interest
7. Heavy Equipment Operator
8. Completed Soil and Water Conservation Plan or Highly Erodible Land report inclusive of all recommended best management practices and present to applicant;
9. Completed Stormwater Prevention Plan (SWPP)
10. If property is located in Tier 1, the Coastal Zone Management Office shall be notified prior to the start of the project.

**Land Clearing Procedures for less than five (5) acres**

- (a) The applicant completes a land clearing application and submits to the Department of Agriculture;
- (b) The Department of Agriculture certifies that the application is complete and contacts the Department of Planning and Natural Resources Division of Building Permits (DPNR-DBP) in order to schedule and complete assessment of the property within five (5) working days
- (c) DPNR-DBP staff conducts an assessment and completes Earth Change Site Assessment Checklist

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- (d) DPNR-DBP staff transmits a form letter along with completed checklist indicating the land clearing is approved and work can commence
- (e) The Department of Agriculture notifies the DPNR-DBP when land clearing is complete
- (f) DPNR-DBP staff will conduct a final site visit to verify that land clearing was carried out in accordance with the recommended best management practices

**Land Clearing Procedures for more than five (5) acres**

- (a) The applicant completes a land clearing application and submits to the Department of Agriculture;
- (b) The Department of Agriculture certifies that the application is complete, secures a Soil Conservation Plan or Highly Erodible Land report from the US Department of Agriculture Natural Resources and Conservation Service, and submits the Department of Planning and Natural Resources Division of Building Permits (DPNR-DBP).
- (c) DPNR-DBP/DEP staff conducts a review of the Soil Conservation Plan or Highly Erodible Land report to determine any possibility of impairment USVI water bodies and indicate whether the project can be exempted from a SWPP.
- (d) DPNR-DBP staff conducts an assessment and completes Earth Change Site Assessment Checklist. (to be developed)
- (e) DPNR-DBP staff transmits a form letter along with completed checklist indicating the land clearing is approved and work can commence
- (f) The Department of Agriculture notifies the DPNR-DBP when land clearing is complete
- (g) DPNR-DBP staff will conduct a final site visit to verify that land clearing was carried out in accordance with the recommended best management practices

S.P.