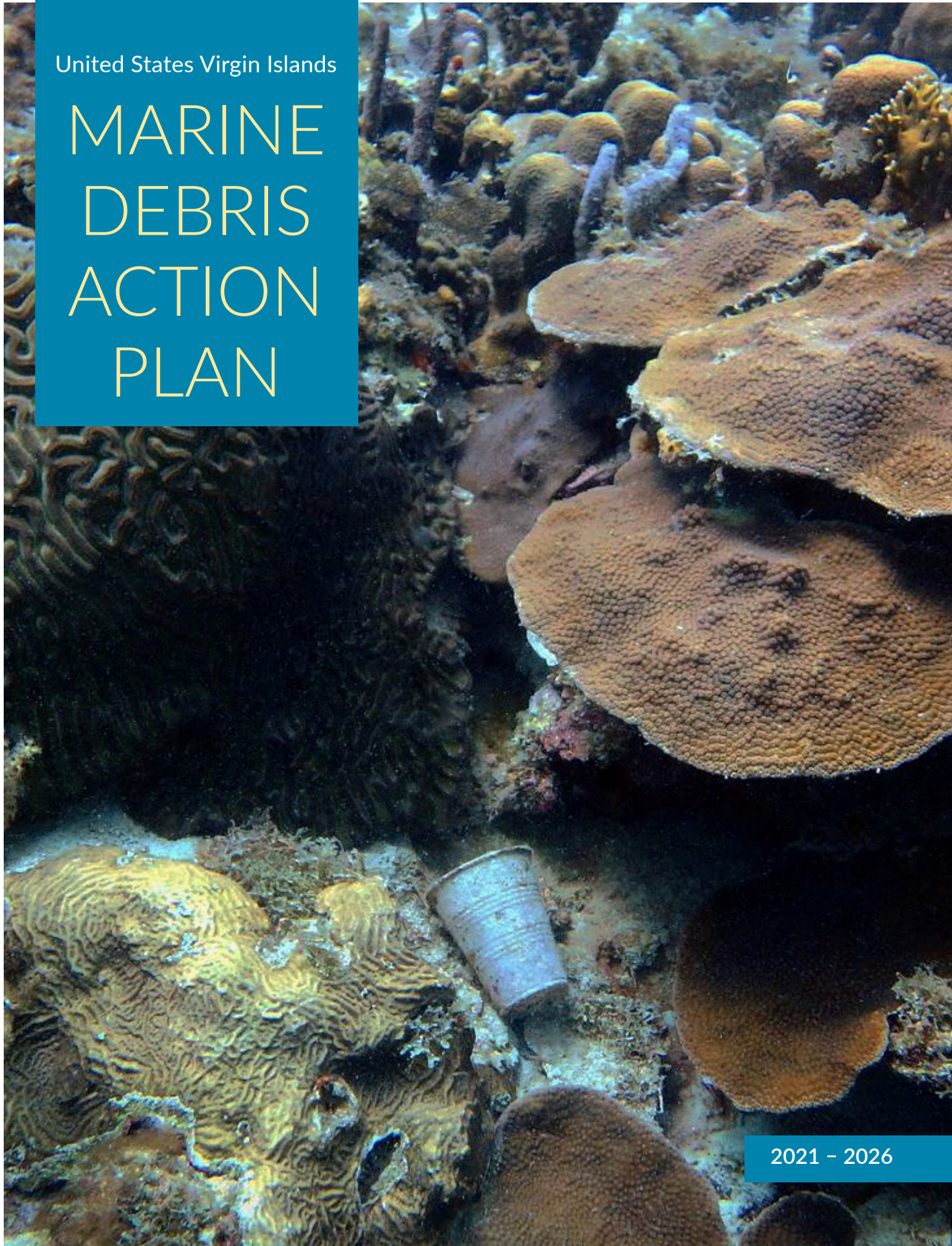


United States Virgin Islands

MARINE DEBRIS ACTION PLAN

2021 - 2026



CONTENTS

4 - 5
ACRONYMS & TERMS

8 - 9
BACKGROUND

11 - 13
WHAT IS THE USVI MARINE DEBRIS ACTION PLAN?

14 - 27
THE USVI MARINE DEBRIS ACTION PLAN GOALS

16 - 17 - Goal 1 Engage and Inform

18 - 20 - Goal 2 Prevent and Reduce

21 - 22 - Goal 3 Remove

23 - 25 - Goal 4 Research

26 - 27 - Goal 5 Coordinate

28 - 29
PLANNING TEAM

30 - 37
APPENDIX



Cover photo: Marine debris by L. Henderson
This page photo credits left to right:
Hermit crab in marine debris "shell", L. Henderson
Brewers Bay beach cleanup, J. Stout
Straws collected at a beach cleanup, K. Edwards
Lindbergh Bay beach cleanup, K.W. Grimes
Littered ghut outflow, J. Stout

ACRONYMS

ADV - Abandoned/Derelict Vessel

BMP - Best Management Practices

CARICOOS - Caribbean Integrated Coastal Ocean Observing System

CBCC - Coral Bay Community Council

CDC - Centers for Disease Control

CFMC - Caribbean Fisheries Management Council

CTA - Caribbean Tourism Association

DOD ONR - United States Department of Defense Office of Natural Resources

DPNR - Department of Planning and Natural Resources

DPNR CZM - Department of Planning and Natural Resources, Division of Coastal Zone Management

DPNR DEE - Department of Planning and Natural Resources, Division of Environmental Enforcement

DPNR DEP - Department of Planning and Natural Resources, Division of Environmental Protection

DPNR DFW - Department of Planning and Natural Resources, Division of Fish and Wildlife

EAST - Environmental Association of St. Thomas and St. John

EEMP - East End Marine Park

ICC - International Coastal Cleanup

MBA - Magens Bay Authority

MDAP - Marine Debris Action Plan

NASA - National Aeronautics and Space Administration

NGO - Non-governmental Organization

NIH - National Institutes Of Health

NOAA - National Oceanic and Atmospheric Administration

NOAA CRCP - National Oceanic and Atmospheric Administration, Coral Reef Conservation Program

NOAA MDP - National Oceanic and Atmospheric Administration, Marine Debris Program

NPS - National Park Service

OC - Ocean Conservancy

OCOVI - Ocean and Coastal Observing – Virgin Islands

SEA - St. Croix Environmental Association

STEER - St. Thomas East End Reserve

TNC - The Nature Conservancy

USCG - United States Coast Guard
US EPA - United States Environmental Protection Agency

US EPA WARC - United States Environmental Protection Agency, Wetland and Aquatic Research Center

USGS WARC - U.S. Geological Survey, Wetland and Aquatic Research Center

USVI - United States Virgin Islands

UVI - University of the Virgin Islands

UVI CGTC - University of the Virgin Islands, Caribbean Green Technology Center

UVI CMES - University of the Virgin Islands Center for Marine and Environmental Studies

UVI CSM - University of the Virgin Islands College of Science and Mathematics

UVI MMES - University of the Virgin Islands Masters in Marine and Environmental Sciences

VI - Virgin Islands

VICS - Virgin Islands Conservation Society

VI DA - Virgin Islands Department of Agriculture

VI DOE - Virgin Islands Department of Education

VI DPP - Virgin Islands Department of Property and Procurement

VI DPW - Virgin Islands Department of Public Works

VI EPSCoR - Virgin Islands Established Program to Stimulate Competitive Research

VI HTA - Virgin Islands Hotel and Tourism Association

VIMAS - Virgin Islands Marine Advisory Service

VI OMB - Virgin Islands Office of Management and Budget

VIPCA - Virgin Islands Professional Charter Association

VITEMA - Virgin Islands Territorial Emergency Management Agency

VIWMA - Virgin Islands Waste Management Authority

COMMON TERMS

Abandoned and Derelict Vessels:

Vessels that are in disrepair that may pose a threat to the public or the environment. **Abandoned** refers to a vessel that has an unidentifiable owner or has surrendered rights of ownership. **Derelict** refers to a dilapidated vessel that has an identifiable owner.

Cleanup:

To remove litter and/or debris from waterways, beaches, and the ocean.

Consumer Debris:

Any piece of litter or trash discarded by individuals after use. Can be discarded in the trash, dump, by littering, incinerating, or putting down the drain.

Land-Based Ocean Debris:

Items that became litter on land and subsequently entered the marine environment.

Marine Debris:

Any persistent solid material that is man-manufactured or processed and directly or indirectly, intentionally or unintentionally, disposed of or abandoned into the marine environment or the Great Lakes.

Microplastics:

Any piece of plastic smaller than 5 mm in the largest dimension.

Single-Use Product:

An item that is conventionally disposed of after one use.



Photo by K. Edwards



This page: Photo by K.W. Grimes
 Facing page: Infographic describing the marine debris-related activities that have occurred in the territory dating back to the 1980's.
 Credit: The Planning Team.

Marine Debris in the U.S. Virgin Islands: A Historical Perspective

NOAA MARINE DEBRIS PROGRAM (MDP)

NOAA MDP has funded more than \$4.84 million in grants to USVI organizations, for marine debris removal, education, and prevention. To date, more than 377,500 lbs of marine debris has been removed from USVI shorelines.

PLUS, COASTWEEKS!

VI Coastweeks has cleaned up beaches for 30+ years and removed more than 275,000 lbs of debris from USVI shorelines.

If you walked the length of coastline cleaned, you would have walked more than 508 miles! Since 1986, the effort has expanded to 82 beaches on St. Thomas, St. John, St. Croix and Water Island.



THANK YOU VOLUNTEERS!

2.4 years or 21,000 collective hours. That's how much time volunteers have logged during coast-week clean-ups alone, and those make up only a fraction of the clean-ups that have happened in the USVI.

34 local and federal organizations and counting, have contributed to the efforts outlined here.

PARTNERS Virgin Islands Marine Advisory Service | The Ocean Conservancy | Coral Bay Yacht Club | Coral Bay Community Council | Grapetree Area Property Owners Association | Virgin Islands Department of Planning and Natural Resources | Virgin Islands Division of Coastal Zone Management | Virgin Islands Division of Fish and Wildlife | St. Croix Environmental Association | Boy Scouts of America, St. Croix | Coki Beach Dive Shop | Virgin Islands Conservation Society | Coral World Ocean Park | Virgin Islands National Parks | Friends of VI National Park Service | CRABBS Dive Club | Adventures in Diving Frederiksted | Blue Flag USVI | VI EcoSchools | Virgin Islands Waste Management Authority | US Environmental Protection Agency | The Environmental Finance Center at Syracuse University | The Virgin Islands Recycling Partnership | The National Fish and Wildlife Foundation | US Coast Guard | National Oceanic and Atmospheric Administration | US Army Corps of Engineers | Federal Emergency Management Agency | Ritz Carlton St. Thomas | Clean Sweep Frederiksted | CleanUP St. Croix | Get Trashed St. John | St. Croix Science & Conservation | Marine Rebuild Fund | 4Ocean | University of the Virgin Islands Center for Marine and Environmental Studies | Virgin Islands Established Program for Stimulating Competitive Research

1980 - 2000

The 1980s saw the first-reported marine debris clean-up organized by independent groups in the USVI. Plus, the first annual Virgin Islands Coast-weeks event kicked off and is the longest ongoing, data-collecting clean-ups on record in the territory.

2001 - 2010

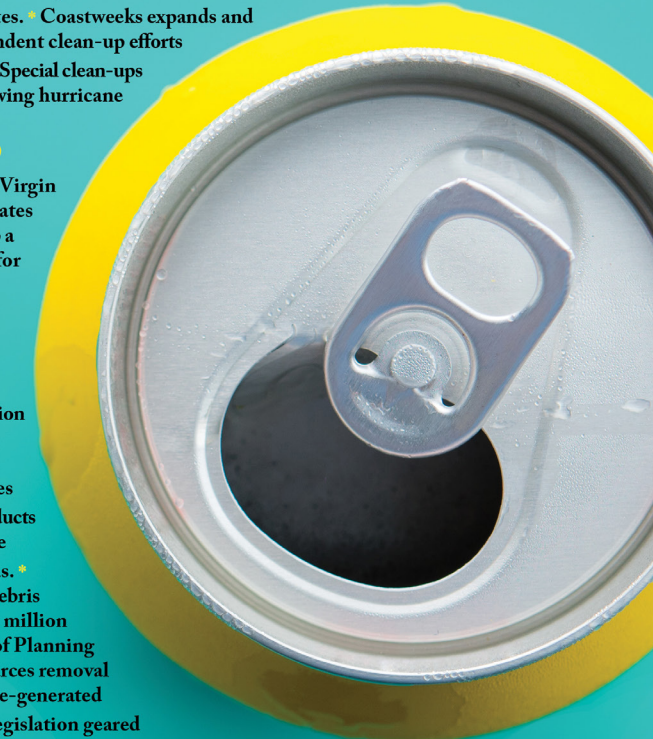
The Virgin Islands Waste Management Authority funds an analysis of USVI landfills to estimate solid wastes. Coastweeks expands and new independent clean-up efforts are launched. Special clean-ups are hosted following hurricane Marilyn.

2011 - 2020

The University of the Virgin Islands (UVI) collaborates with teachers to develop a marine debris curricula for the territory. After hurricanes Irma and Maria in 2017, a Federal Emergency Management Agency-funded response (Emergency Support Function -10) removed large debris, like washed-up boats, and volunteers cleaned beaches and shorelines. UVI conducts the first Great Mangrove

Clean-up on St. Thomas. The NOAA Marine Debris Program funds a \$4.2 million USVI Department of Planning and Natural Resources removal grant of hurricane-generated debris. New legislation geared toward reducing marine debris is instituted. Single-use plastic bags are banned, followed by a ban on plastic straws.

Led by UVI, the Marine Debris Action Plan is funded, along with an expansion of the Great Mangrove Clean-up to all three islands. Additional efforts to address debris include VI Clean Coasts. NOAA MDP & stakeholders develop a Marine Debris Emergency Response Plan for the U.S. Virgin Islands.



What's Next?

The Marine Debris Action Plan

The USVI MDAP is a NOAA-funded effort led by the University of the Virgin Islands that provides a comprehensive framework for identifying objectives, strategies, and recommended actions to ensure that the USVI and its coasts, people and wildlife are free from the impacts of marine debris.

It is a living document that will be updated every five years. As the issues of marine debris change, so will this plan.



OVERVIEW

The National Oceanic and Atmospheric Administration Marine Debris Program (NOAA MDP) defines marine debris as “any persistent solid material that is manufactured or processed and directly or indirectly, intentionally or unintentionally, disposed of or abandoned into the marine environment or the Great Lakes.”

Marine debris can range in size from the very large (e.g., abandoned and derelict vessels) to the very small (e.g., microplastics, plastic pieces or fibers <5 mm in length). Generally, marine debris sources can be classified into two categories:

1. Ocean-based debris from vessels or stationary platforms at sea such as lost, abandoned, or derelict fishing gear.
2. Land-based debris from intentional or unintentional littering and dumping which ends up in oceans and waterways.

Marine debris is a global problem with wide-ranging impacts; once on the shoreline or in the ocean, it becomes a threat to marine ecosystems, wildlife, navigation, the economy, and even human health.

For decades, the United States Virgin Islands (USVI) has been impacted by marine debris. Part of the Lesser Antilles in the Caribbean Sea, the USVI en-

compass more than 133 square miles and consist of four main islands (St. Croix, St. John, St. Thomas & Water Island), and 30+ smaller islets and cays. Volunteer beach cleanup data show that more than 90% of marine debris in the USVI comes from land-based sources (Roper, 2020). This exceeds the global average of 80%. The USVI may have greater amounts of land-based marine debris for many reasons including:

- Most consumer goods are imported and the territory lacks comprehensive recycling or waste export programs.
- Local landfills are unlined, at maximum capacity, and are adjacent to the coastline. Residential waste is disposed of in uncovered roadside bins where overflowing trash is carried to the ocean by the wind and rain-fed ephemeral streams, locally called guts.
- There is a consistent lack of enforcement and enforcement capacity for existing policies.



Photos by J. Stout



- Hurricanes and other natural events produce substantial amounts of marine debris (e.g., Category 5 Hurricanes Irma and Maria struck the territory in September 2017).
- The USVI is home to roughly 87,000 people, but upwards of two million tourists visit each year, increasing consumer demand and waste production in the territory.

For almost as long as marine debris has been a visible issue in the USVI, dedicated local organizations have worked to combat it. Government, private, and non-profit institutions and organizations have been hosting and participating in marine debris removal efforts and activities in the territory since the 1960's. Interviews with local stakeholders reveal past and current efforts (summarized in the infographic on page 7).

To-date, most marine debris efforts in the USVI only target marine debris at the end of the waste stream through ad hoc cleanup events. More recently, local legislation championed by environmental activists, researchers, and natural resource managers has attempted to address the issue upstream with a focus on curbing single-use products. In January 2017, the territory instituted a ban on single-use plastic bags. In October 2019, the territory amended the ban to include plastic straws.

Although a step in the right direction, these bans do not do enough to reduce land-based marine debris in the USVI. Unfortunately, enactment and enforcement of the bans was delayed due to the 2017 Hurricanes Irma and Maria, and loopholes in the legislation allowed businesses to sidestep the requirements. Furthermore, data collected from

more than 30 years worth of International Coastal Cleanups (ICC) and three years of Great Mangrove Cleanups in the St. Thomas East End Reserve (STEER) suggest that the majority of land-based debris deposited on USVI shorelines consists of plastic beverage bottles and caps, glass beverage bottles and caps, and beverage cans. Coordinated actions are needed to address this misalignment of data and policy and to manage partners working to reduce marine debris in the territory to achieve greater collective impact.

Enter the USVI Marine Debris Action Plan (USVI MDAP): a living document funded by NOAA's Marine Debris Program and created over two years with the assistance of 90 individuals, that coordinates, prioritizes, and plans, future marine debris actions that are needed for lasting debris reduction.



The USVI Marine Debris Action Plan is a living document funded by NOAA MDP that will coordinate current marine debris actions across the territory, and prioritize & plan the future actions needed for lasting debris reduction.

Roper, Z. 2020 Spatial and temporal trends in marine debris from a territory-wide, citizen science-collected dataset (1988-2016) in the U.S. Virgin Islands. University of the Virgin Islands, Masters thesis, pp 68.



Photo by H. Forbes, Jr.

WHAT IS THE US VIRGIN ISLANDS MARINE DEBRIS ACTION PLAN?

ACTION PLAN PURPOSE

A first for all U.S. insular areas, the USVI MDAP is a living document created to protect the USVI's coasts, people, and wildlife from the impacts of marine debris. The USVI MDAP will accomplish this by providing guidance and structure to stakeholders working to address marine debris across the territory, and by strengthening or creating partnerships between local, regional, and national stakeholders. Creation of the USVI MDAP will increase the capacity within the USVI to address marine debris by coordinating individuals and actions, and aligning organizational missions or activities to achieve collective impact.

ACTION PLAN STRUCTURE

Goals

Goals are the broad outcomes desired. The USVI MDAP consists of 5 goals:

1. **Engage and Inform** - Effectively engage and inform the community about marine debris.
2. **Prevent and Reduce** - Prevent and reduce the generation and improper disposal of solid waste to avoid the creation of marine debris.
3. **Remove** - Locate, remove, and properly dispose of marine debris throughout the territory.
4. **Research** - Conduct and use high-quality research to address marine debris issues.
5. **Coordinate** - Effectively coordinate marine debris-related actions throughout the territory and beyond.

Objectives

In the context of the USVI MDAP, objectives are how each goal will be achieved.

Strategies

Strategies define the measurable steps for how each objective will be achieved. Typically, there are several strategies per objective. Each strategy is additionally assigned partners and status.

Partners are entities who are interested in carrying out a given action, pending the availability of resources (funding, staff, time, materials, etc.) or are entities who will ideally be involved in the completion of the strategy. Parties listed can be ones who are currently involved in the strategy, or who are not yet involved but should be. It is important to note that listing partners for actions in this plan does not limit other organizations from becoming involved in an action. As this plan evolves, there will be more opportunities for new partners to participate in these efforts.

Status of a strategy defines the level of progress made to accomplish it; it consists of four potential categories:

1. **Unaddressed** - The strategy needs to be planned, started and established.
2. **Planned** - The strategy has an outlined plan in place for accomplishment, but the plan needs to be executed and has yet to begin.
3. **Started** - Preliminary work towards the strategy has begun, but it requires investment or is only in the early stages of execution.
4. **On-Going** - The strategy is underway, but should have continued support.

ACTION PLAN CREATION PROCESS

Ninety individuals representing over three dozen organizations working in the USVI came together to produce the USVI MDAP. This collaborative effort, led by a core USVI MDAP planning team, resulted in a locally-focused and locally-relevant plan that is both realistic and implementable.

The Process:

1. **Build a Foundation** – The Planning Team, drawing on their collective experiences and knowledge, created a foundation of content for the USVI MDAP (completed July 2020).
2. **Assemble the Team** – A diverse team of territorial stakeholders (private & public organizations, local & federal government, etc.) was established and invited to Workshop 1 (completed Sept 2020).
3. **Refine the Content – Workshop 1** – Stakeholders were brought together to build on the MDAP foundation (completed Oct 2020). See Appendix pages 32-35 for the invited and actual participants. The outcomes of this workshop included:
 - a. Agreement and approval of the 5 goals.
 - b. Refinement of the objectives.
 - c. Development of the strategies to accomplish the objectives.
 - d. Identification of responsible parties involved in completing each strategy.
 - e. Prioritization of the plan’s objectives and strategies.
4. **Incorporate Workshop 1 Input** – The Planning Team synthesized Workshop 1 content from MURAL (a virtual whiteboard application used in the remote workshop) and adapted it into a written USVI MDAP document that was shared back out to stakeholders (completed Nov-Dec 2020). After the workshop, the Planning Team:
 - a. Added newly-suggested strategies or objectives under their respective goals.
 - b. Incorporated edits to the wording of strategies or objectives provided in the foundational plan.
 - c. Re-ordered objectives under each goal and strategy based on averaged priority rankings

provided by workshop participants. Each ranking was also summarized by the contribution of votes from participants representing each goal based on color-coded icons.

- d. Added partners to the plan, as suggested by workshop participants, and filled in additional partners with suggestions from the Planning Team (any content suggested after the workshop is differentiated using blue text in the plan).
 - e. Created and filled-in foundational content for each strategy’s status.
 - f. Reviewed and aligned the plan for consistency internally and with other guiding documents (e.g., USVI Marine Debris Emergency Response Guide: Comprehensive Guidance Document, Abandoned and Derelict Vessel Blue-Ribbon Program for Western U.S. States).
5. **Refine the Content – Workshop 2** – A second stakeholder workshop was held in Aug 2021 to further refine the USVI MDAP and to discuss shared visioning for its implementation, tracking, and sustainability (completed August 2021). See Appendix pages 32-35 for the invited and actual participants. The outcomes of this workshop included:
 - a. Shared visioning for plan implementation.
 - b. Identification of preferred methods to track progress toward the plan’s goals.
 - c. Discussion of ways to sustain this work, moving forward.
 6. **Incorporate Workshop 2 Input** – The Planning Team incorporated feedback from Workshop 2 into the plan. A plain-language infographic describing the plan purpose, process for development, and key messages was developed to accompany the plan during its distribution, a key recommendation from Workshop 2.
 7. **The Final Plan** – The plan was shared to all workshop participants as well as local and federal stakeholders (Dec 2021).

Action Plan Future:

1. **Implement** – The plan outlines actionable strategies at different stages of implementation, some of which are ongoing and others of which will require additional mobilization and/or funding to achieve. Plan implementation will be coordinated by a new position and group identified during the plan creation process: a USVI Marine Debris Coordinator and Advisory Group. Progress may be tracked using a table that identifies leads and partners, the actions required to complete the tasks identified for each strategy, and the action status (planned, started, on-going, unaddressed, or complete).
2. **Communicate** - Stakeholders will share updates regarding the plan at regular meetings (semi-annual or quarterly), organized and led by the USVI Marine Debris Coordinator and Advisory Group.
3. **Continue to Reflect and Revise** – As the issue of marine debris changes, so will this plan. The USVI MDAP will be assessed and revised regularly to keep it updated with new changes that have occurred to address marine debris-related issues. Ideally and if funding permits, the USVI MDAP will be revised every 5 years.



Volunteers sort debris collected at a mangrove cleanup. Photo by J. Stout.

USVI MARINE DEBRIS ACTION PLAN STATUS

By the numbers

90 CONTRIBUTORS

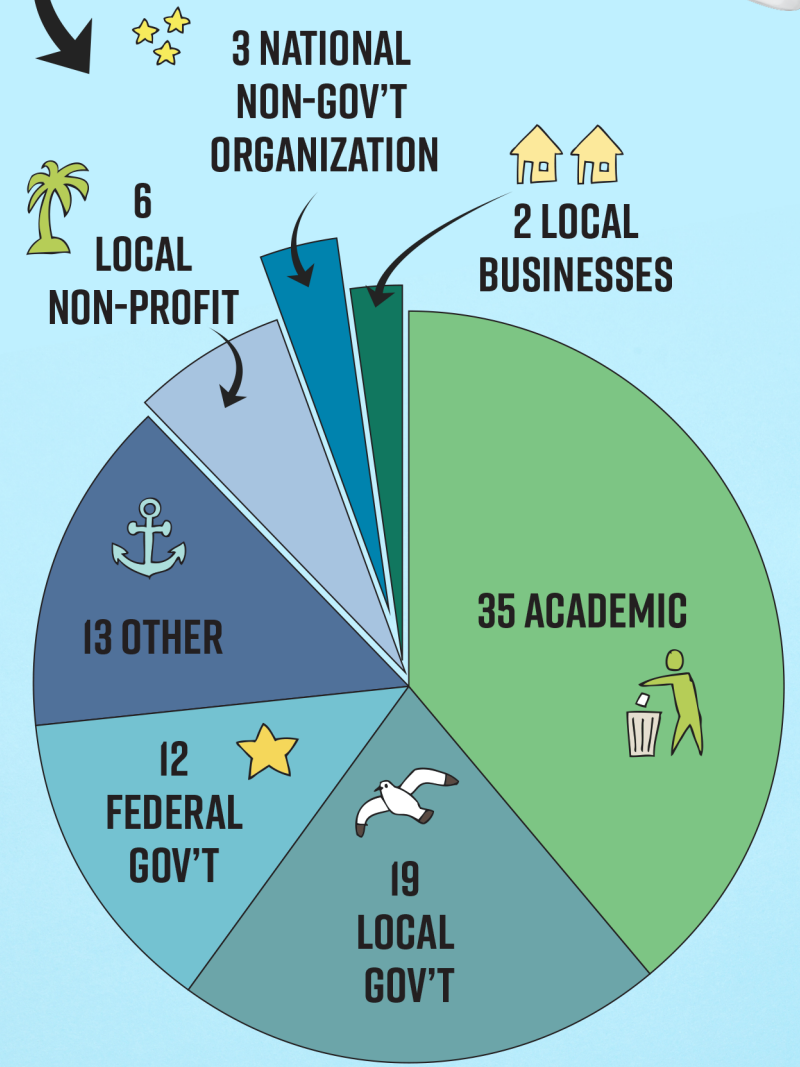
80 Stakeholders
10 Planning Team

4 REVISIONS

5 GOALS

16 OBJECTIVES

86 STRATEGIES



4 Established
23 Started
4 Planned
47 Unaddressed
8 On-going
4 Mixed Status



Photo by J. Stout.

USVI MARINE DEBRIS ACTION PLAN GOALS



GOAL 1 ENGAGE AND INFORM

Effectively engage and inform the community about marine debris



GOAL 2 PREVENT AND REDUCE

Prevent and reduce the generation and improper disposal of solid waste to avoid the creation of marine debris



GOAL 3 REMOVE

Locate, remove and properly dispose of marine debris throughout the territory.



GOAL 4 RESEARCH

Conduct and use high-quality research to address marine debris issues.



GOAL 5 COORDINATE

Effectively coordinate marine debris-related actions throughout the territory and beyond.



Photo by J. Stout.

| GOAL 1. ENGAGE AND INFORM | | |
|--|--|----------|
| Effectively engage and inform the community about marine debris. | | |
| Objective 1.A. Engage the local community (youth to senior citizens) by encouraging participation in solution-oriented activities that prevent, reduce, or remove marine debris. | | |
| Strategies | Partners | Status |
| Strategy 1.A.1. Organize, implement and support waste reduction and reuse programs. | VINE, VIWMA, DPNR, EAST, Rotary Clubs (Those that have an environmental focus) EcoSchools | Started |
| Strategy 1.A.2. Organize and implement data-driven community cleanups, like Coastweeks and the Great Mangrove Cleanups. | DPNR, UVI, VIWMA, OC, Various non-profit organizations to include: schools, churches, clubs, groups, etc., VIMAS | On-going |
| Strategy 1.A.3. Support (e.g. funding, leadership and guidance, data collection and analysis) citizen science and volunteer-based marine debris projects to collect marine debris data to supplement research efforts. | VIWMA, VIMAS, VI-EPSCoR, EcoSchools, VI DOE, DPNR CZM | Started |

| Objective 1.B. Increase territory-wide education and outreach efforts on marine debris composition, abundance, sources, transport, impacts and solutions. | | |
|--|--|-------------|
| Strategies | Partners | Status |
| Strategy 1.B.1. Educate and incentivize teachers and students to take actions to prevent and reduce marine debris. | VI DOE, VI Children's Museum, Coral World Ocean Park, VINE, VIMAS, VI EPSCoR, DPNR, EcoSchools | Started |
| Strategy 1.B.2. Formulate a targeted, territory-wide, data-driven, marine debris marketing/media campaign. | VIWMA, DPNR CZM, VINE, UVI, VI-EPSCoR, Tourism/HTA | Unaddressed |
| Strategy 1.B.3. Share the newly-created USVI Marine Debris Curricula through Marine Debris Educator Workshops, building on those held in 2016 and 2018. | DPNR, VIWMA, UVI, EPSCoR, SEA, VI DOE, VINE, EcoSchools, VIMAS | Planned |
| Strategy 1.B.4. Create targeted, user-specific educational materials, demonstrations, and/or hold workshops for commercial fisherman, boat owners and crew (e.g., recreational, live-aboards, charters) and shipping vessels, among others, about BMPs to prevent marine debris. | VIWMA, DPNR, VINE, VIMAS, VI-EPSCoR, CFMC, VIPCA, USCG, OC | Unaddressed |
| Strategy 1.B.5. Invite local participation in marine debris-related events (e.g. NOAA Marine Debris Program Art Contest, Reef Fest, Marine Debris Cleanups (Coastweeks, Great Mangrove Cleanups), USVI Glass Recovery Project). | DPNR, VIWMA, SEA, Art Related Organizations (Virgin Islands Council on the Arts), Schools (VI DOE), VINE, VIMAS, VI-EPSCoR | Started |
| Strategy 1.B.6. Create and deliver a marine debris workshop for USVI senators and their staff. | VI Senate, UVI, VIMAS, DPNR, VIWMA | Unaddressed |
| Objective 1.C. Assess the impacts of current marine debris educational activities to inform, improve, and guide new activities and programs. | | |
| Strategies | Partners | Status |
| Strategy 1.C.1. Evaluate the impacts of educational activities using formative and summative results. | VI DOE, VIWMA, Environmental Educators, Eco Schools, UVI, VIMAS, VI-EPSCoR, DPNR CZM | Unaddressed |
| Strategy 1.C.2. Incorporate lessons learned into the design of education and outreach projects and activities. | UVI, VIMAS, VI-EPSCoR, DPNR CZM, DPNR DFW, VIWMA | Started |



Photo by K.W. Grimes

| GOAL 2. PREVENT AND REDUCE | | |
|---|---|-------------|
| Prevent and reduce the generation and improper disposal of solid waste to avoid the creation of marine debris. | | |
| Objective 2.A. Improve waste management practices and policies to prevent land-based debris from reaching the marine environment. | | |
| Strategies | Partners | Status |
| Strategy 2.A.1. Incorporate signage at heavily-trafficked beaches and/or beaches that are marine debris hotspots, that explains marine debris impacts, solutions, and fines for violations. | DPNR CZM, VIMAS, VI Sports Parks and Rec, VIWMA, Dept of Tourism, DPNR DEP, DFW | Planned |
| Strategy 2.A.2. Implement a bottle redemption program. | VIWMA, DPNR CZM | Started |
| Strategy 2.A.3a. Identify and assess the potential for material sorting sites throughout the territory. | VIWMA, DPNR CZM, DPNR DEP | Unaddressed |
| Strategy 2.A.3b. Create accessible drop off and pick up areas for hard to dispose of waste, batteries, electronics, etc. | VIWMA, DPNR CZM, DPNR-DEP | Unaddressed |
| Strategy 2.A.4. Provide and regularly maintain additional trash receptacles with lids, along sidewalks, at high-use beaches, and at other places with heavy foot traffic. | VIWMA, VIMAS, DPNR CZM, VI Sports Parks and Rec, Dept of Tourism | Started |
| Strategy 2.A.5. Create a territory-wide, adopt-a-beach/shoreline program for local groups to regularly clean and maintain local beaches/shorelines. | DPNR CZM, SEA, Friends of the Park (NPS and EEMP) | Unaddressed |
| Strategy 2.A.6. Develop regular waste audits of landfills and assessments of bin site numbers and locations to inform and improve waste management practices. | VIWMA, Hired Contractors, EPA | Unaddressed |

| Strategy 2.A.7. Increase management of and enforcement at beaches and shorelines to reduce the generation of debris and ensure its proper disposal. | DPNR CZM, VIWMA | Planned |
|--|------------------------------------|-------------|
| Objective 2.B. Promote behavioral changes that result in the reduction and proper disposal of personal waste (e.g. waste from the general public and businesses). | | |
| Strategies | Partners | Status |
| Strategy 2.B.1. Establish funding sources for waste management improvement between private and government sectors. | VIWMA, Waste Haulers | Unaddressed |
| Strategy 2.B.2. Implement a social nudge campaign that promotes the proper disposal of waste and reduces the creation of marine debris (e.g. littering from vehicles, home and yard hurricane preparation). | DPNR DEP, VIMAS/CMES | Unaddressed |
| Strategy 2.B.3. Implement monthly curbside, white debris collection days. | VIWMA | Unaddressed |
| Strategy 2.B.4. Create incentive programs (e.g. % off, punch card) to reward customers for bringing their own reusable items, such as cups or cutlery. | Restaurants & Bars | Unaddressed |
| Strategy 2.B.5. Enforce improper waste disposal violations and increase associated fines. | DPNR DEP, DPNR DEE, VIWMA | Started |
| Strategy 2.B.6. Promote zero waste initiatives in household, workplace, and business environments. | VIWMA, DPNR, VIPCA, VIMAS/CMES | Started |
| Strategy 2.B.7. Implement residential waste sorting practices to allow residents to sort waste at home by type (glass, green waste, other compostable materials, etc.) to provide materials for existing or future planned programs that re-purpose these. | VIWMA, DPNR DEP | Unaddressed |
| Objective 2.C. Prevent and reduce the creation (accumulation) of ocean-based debris including abandoned and derelict vessels (ADV) and derelict fishing gear, among others. | | |
| Strategies | Partners | Status |
| Strategy 2.C.1. Establish a derelict gear and ADV retrieval program that includes a pilot project for vessel and gear recycling or other beneficial use. | DPNR CZM, DPNR DFW, VIMAS/CMES | Unaddressed |
| Strategy 2.C.2. Redesign, install and maintain fishing line collection bins at popular recreational fishing locations. | DPNR DFW | Started |
| Strategy 2.C.3. Enforce fines for ADV. | DPNR DEP, DPNR DEE | Unaddressed |
| Strategy 2.C.4. Require all vessels registered in the USVI to carry insurance, including wreck removal insurance above the value of the vessel. | DPNR DEP, DPNR DEE, VI Legislature | Unaddressed |
| Strategy 2.C.5. Create signage for marinas and fishing supply stores that explain marine debris impacts, solutions, and fines for violations. | DPNR CZM, Blue Flag Marine Program | Unaddressed |

| | | |
|--|-----------------------|---------------|
| Strategy 2.C.6. Circulate NOAA's USVI Emergency Marine Debris Response Guide and other storm preparedness resources to relevant stakeholders. | DPNR, USCG, NOAA MDAP | Unaddressed |
| Strategy 2.C.7. Review current vessel registration and transfer processes for potential integration of Secondary Liability laws and seaworthiness assessments. | DPNR, USCG | Unaddressed |
| Objective 2.D. Strengthen existing marine debris policies, legislation, and enforcement to prevent and reduce the generation of marine debris. | | |
| Strategies | Partners | Status |
| Strategy 2.D.1. Incentivize use of sustainable products for government agencies and local businesses. | DPNR DEP | Started |
| Strategy 2.D.2. Empower other enforcement agencies, in addition to the Virgin Islands Waste Management Authority, to issue tickets for violations and include this in legislation pertaining to marine debris. | Senators | Unaddressed |
| Strategy 2.D.3. Collaborate across Government of the Virgin Islands departments to provide awareness of and training on all acts and bills that require enforcement of marine debris issues. | DPNR DEP | Unaddressed |
| Strategy 2.D.4. Amend legislation to reflect current data pertaining to territorial marine debris (e.g. Bill No. 31-0379 with Amendment No. 32-740). | Seantors | Unaddressed |



Photo by H. Forbes, Jr.

GOAL 3. REMOVE Locate, remove, & properly dispose of marine debris.

Objective 3.A. Locate and remove ADV, fishing gear, and other ocean-based debris.

| Strategies | Partners | Status |
|---|---|-------------|
| Strategy 3.A.1. Maintain an effective system for reporting territorial ocean-based debris, especially for those items requiring specialized methods or equipment to remove (e.g., large fish traps, hurricane debris, large lengths of line). | DPNR, VIWMA | On-going |
| Strategy 3.A.2. Increase efficiency and minimize environmental impacts of debris removal by circulating BMPs and providing related trainings to government agencies and debris removal companies. | DPNR | Started |
| Strategy 3.A.3. Develop a strategy for how ADV owners can responsibly plan removal of vessels (including potential creation of a Vessel Turn-in Program) and identify the cost. | DPNR DEE, DPRN CZM, VIWMA | Unaddressed |
| Strategy 3.A.4. Implement NOAA's BMPs for abandoned boats and other large items. | DPNR, USCG | Started |
| Strategy 3.A.5. Coordinate with local organizations to locate and efficiently remove high priority ADV's throughout the territory (e.g., plan multiple removals in the same area to negotiate cost reductions). | DPNR DEE, Port Authority, Salvage Companies | Started |
| Strategy 3.A.6. Create and maintain a territorial ADV database. | DPNR with assistance of contractors | Started |

| Objective 3.B. Create opportunities for citizen scientists to remove and document ocean- and land-based sources of marine debris. | | |
|--|---------------------------------------|-------------|
| Strategies | Partners | Status |
| Strategy 3.B.1. Use existing data to prioritize cleanup sites. | UVI, DPNR CZM | Started |
| Strategy 3.B.2. Design USVI-specific, crowd-sourced projects that document marine debris. | DPNR CZM | Unaddressed |
| Strategy 3.B.3. Increase the use of smartphone applications for marine debris reporting (e.g. Clean Swell, Marine Debris Tracker, etc.). | UVI, VINE, OC | Started |
| Strategy 3.B.4. Ask participants and organizers to collect cleanup event data using the ICC data card, Clean Swell App, etc. | UVI, DPNR CZM, OC, Cleanup Organizers | Started |
| Strategy 3.B.5. Convert marine debris cleanup data into effective visuals and other plain-language products to be paired with an outreach campaign that communicates the value of data collection. | UVI, DPNR CZM, OC | Started |
| Objective 3.C. Develop and share BMP to remove marine debris, including identification of on- and off-island emergency staging and disposal sites. | | |
| Strategies | Partners | Status |
| Strategy 3.C.1. Develop BMPs for coastal property managers (e.g. private home owners, business owners, quasi-governmental agencies) for the proper removal of debris on their properties. | DPNR CZM, VIWMA | Unaddressed |
| Strategy 3.C.2. Share NOAA's BMPs for Removal of Debris from Wetlands and Other Intertidal Areas to relevant stakeholders. | DPNR CZM | Started |
| Strategy 3.C.3. Address at-capacity landfills within the territory. | VIWMA | Started |
| Strategy 3.C.4. Create a territorial waste management sustainability plan. | DPNR, VI DPW, VI DPP | Unaddressed |
| Strategy 3.C.5. Pre-identify and permit staging sites for ADV removals that involve fiberglass and other hazardous materials. | DPNR, VI DPW, VI DPP | Unaddressed |



Photo by J. Stout

| GOAL 4. RESEARCH Conduct and use high-quality research to address marine debris issues. | | |
|--|---|-------------|
| Objective 4.A. Use research results to inform relevant policy, legislation, and education and outreach activities. | | |
| Strategies | Partners | Status |
| Strategy 4.A.1. Incorporate locally-relevant marine debris data into public and private school curricula and classroom presentations given by environmental educators. | Dept of Education, UVI, VIMAS, VINE, VI EPSCoR, DPNR CZM, VIWMA | On-going |
| Strategy 4.A.2. Create new or modify existing legislation to address marine debris based on local and other relevant research. | VI Legislature, EPA, Researchers, DPNR CZM | Unaddressed |
| Strategy 4.A.3. Present information about marine debris using relevant, local data at community events (e.g. Reef Fest, Eco Fair, or the Earth Day Fair). | VIMAS, Dept of Education, VI EPSCoR, DPNR CZM, DPNR DFW, UVI | On-going |

Objective 4.B. Study the composition, abundance, sources, transport, and impacts of marine debris on organisms, habitats, and people at multiple spatial and temporal scales.

| Strategies | Partners | Status |
|---|---|---------------------------------------|
| Strategy 4.B.1. Identify major local sources of and pathways for marine debris using both empirical and modeling studies. | EPA, UVI, SeaGrant, CBCC, DPNR CZM, DPNR DFW, DPNR DEP, DPNR DEE, VIMAS, USGS | Aspects On-Going; Aspects Unaddressed |
| Strategy 4.B.2. Identify sites that are most susceptible to marine debris accumulation and what factors contribute to their susceptibility. | DPNR CZM, NPS, VIMAS, UVI, USGS, OCOVI, CARICOOS | Aspects On-Going; Aspects Unaddressed |
| Strategy 4.B.3. Identify and prioritize marine debris knowledge gaps for the territory. | NIH (Oceans and Human Health), UVI, DPNR CZM, NOAA MDP | Aspects On-Going; Aspects Unaddressed |
| Strategy 4.B.4. Conduct marine debris data collection in all marine habitats (e.g. seagrass, reefs, mangroves). | DPNR CZM, UVI/CMES, VIMAS, DFW | Unaddressed |
| Strategy 4.B.5. Assess the economic, cultural, social, and health impacts of marine debris on the USVI community. | CTA, CDC, Dept of Tourism, UVI, Hotel and Tourism Association | Unaddressed |
| Strategy 4.B.6. Assess the role of emerging issues on marine debris (e.g., Sargassum, COVID-19, disasters). | NOAA MDP, UVI, DPNR CZM, DPNR DFW | Unaddressed |

Objective 4.C. Use and adapt, new and existing technology and tools to improve marine debris data consistency, accuracy, and prediction capabilities.

| Strategies | Partners | Status |
|---|---|-------------|
| Strategy 4.C.1. Standardize the cleanup experience (e.g., data collection and quality assurance, watershed education, common messaging) and create “next steps” to encourage cleanup volunteers to take action. | UVI, NOAA MDP, VIMAS, DPNR CZM | Unaddressed |
| Strategy 4.C.2. Explore remote sensing technologies and applications to identify and quantify marine debris. | NASA, DOD, ONR, UVI, DPNR-CZM, DPNR-DFW | Planned |
| Strategy 4.C.3. Record number of people, hours spent cleaning, and actual area cleaned to systematically document effort at cleanup events. | VIMAS, DPNR CZM, VIPCA, UVI | On-going |
| Strategy 4.C.4. Explore technologies to monitor micro and nanoplastics such as flow cytometry and advanced microscopy. | UVI, NOAA MDP, EPA | Unaddressed |



Photo by H. Forbes, Jr.

GOAL 5. COORDINATE
Effectively coordinate marine debris-related actions throughout the territory & beyond.

Objective 5.A. Improve communication and coordination among territorial, regional, and federal marine debris stakeholders.

| Strategies | Partners | Status |
|--|--|-------------|
| Strategy 5.A.1. Create and convene the USVI Marine Debris Advisory Group to include key stakeholders (e.g., VIWMA enforcement, DPNR (inclusive of divisions), UVI, businesses, NGOs, VITEMA, USCG). | DPNR CZM, UVI | Unaddressed |
| Strategy 5.A.2. Create a database to coordinate physical resources that are available and accessible across stakeholders. | USVI Marine Debris Advisory Group, VINE | Unaddressed |
| Strategy 5.A.3. Create and maintain a centralized, publicly-available, up-to-date repository for USVI marine debris cleanup and research materials and include trainings to key stakeholders on their use. | USVI Marine Debris Advisory Group, VINE, DPNR CZM | Unaddressed |
| Strategy 5.A.4. Identify and use appropriate communication tools to improve coordination of resources across stakeholders. | USVI Marine Debris Advisory Group | Unaddressed |
| Strategy 5.A.5. Create and maintain a publicly-available calendar of marine-debris related events. | USVI Marine Debris Advisory Group, VINE, VI EPSCoR | Unaddressed |

| | | |
|---|--|-----------------------------------|
| Strategy 5.A.6. Develop and coordinate common, data-driven messaging for legislation, policies, etc. | USVI Marine Debris Advisory Group | Unaddressed |
| Strategy 5.A.7. Increase and strengthen partnerships and collaboration among territorial, regional, and federal researchers, agencies, and stakeholders for marine debris-related projects. | DPNR CZM, UVI, CBCC, NOAA | On-going |
| Strategy 5.A.8. Integrate territory-based marine debris efforts into federal and global marine debris programs and initiatives. | UVI, DPNR CZM, USVI Marine Debris Advisory Group | Aspects On-going; Aspects Planned |
| Strategy 5.A.9. Facilitate regional exchanges among marine debris professionals to identify common, regional, marine debris problems and solutions, and receive training in removal best practices and/or research methodologies. | NOAA MDP, DPNR CZM, DPNR DFW, DPNR DEP, UVI | Unaddressed |
| Objective 5.B. Secure sustained funding to support the objectives of the USVI MDAP. | | |
| Strategies | Partners | Status |
| Strategy 5.B.1. Create dedicated revenue streams within existing funding structures, like port fees or mooring ball fees, for the removal of marine debris. | DPNR CZM, DPNR DEE, DPNR DFW | Started |
| Strategy 5.B.2. Create and fund a full-time Marine Debris Coordinator position. | DPNR CZM, UVI | Unaddressed |
| Strategy 5.B.3. Submit joint proposals among USVI marine debris stakeholders to achieve USVI MDAP objectives. | UVI, NGOs, DPNR CZM, DPNR DFW, DPNR-DEP, VIWMA | On-going |
| Strategy 5.B.4. Align and leverage public and private partnerships to increase marine debris funding. | UVI, NGOs, DPNR CZM, DPNR DFW, DPNR DEP, Businesses, DoE | Started |
| Strategy 5.B.5. Include funding to support revision of this document every 7 years, through DPNR's annual funding requests to NOAA's Office for Coastal Management's National Coastal Zone Management Program Section 306A State & Territorial Cooperative Agreement. | DPNR CZM, NOAA | Unaddressed |
| Strategy 5.B.6. Establish a quick and flexible mechanism for moving funds from the territory government to appropriate departments and other entities. | VI Legislature, VI OMB | On-going |
| Strategy 5.B.7. Explore potential cost recovery for marine debris removal (e.g., ADVs) for government agencies from financially-viable responsible parties. | DPNR, USCG, private insurance companies, VI Legislature | Unaddressed |

| | | |
|--|--|---------------|
| Objective 5.C. Coordinate to revise marine debris legislation, policies, and other guiding documents to reflect current and local marine debris data. | | |
| Strategies | Partners | Status |
| Strategy 5.C.1. Review existing territorial coastal policy documents, agency work plans, and disaster preparedness plans for emergency debris, for consistency and alignment with the USVI MDAP. | DPNR CZM, DPNR DFW, DPNR DEP, VIWMA, VITEMA, USVI Marine Debris Advisory Group | Unaddressed |
| Strategy 5.C.2. Evaluate the efficacy of existing and proposed USVI marine debris-related resources, policies, and legislation at achieving USVI MDAP objectives | DPNR CZM | Unaddressed |
| Strategy 5.C.3. Benchmark with other islands to better understand their processes, potential solutions, and how those align to current USVI practices. | DPNR CZM | Unaddressed |
| Strategy 5.C.4. Propose new data-driven policies and legislation to prevent and reduce marine debris. | VI Legislature, USVI Marine Debris Advisory Group | Unaddressed |



Volunteers and organizers from the Uller Muller School at the Lindbergh Bay cleanup express their disgust for marine debris. Photo by K. Edwards

PLANNING TEAM



Dr. Kristin Wilson Grimes
Principal Investigator
Director, Virgin Islands Water Resources Research Institute; Research Assistant Professor of Watershed Ecology, Center for Marine and Environmental Studies, University of the Virgin Islands



Howard Forbes, Jr.
Co-Principal Investigator
Coordinator, Virgin Islands Marine Advisory Service, University of the Virgin Islands



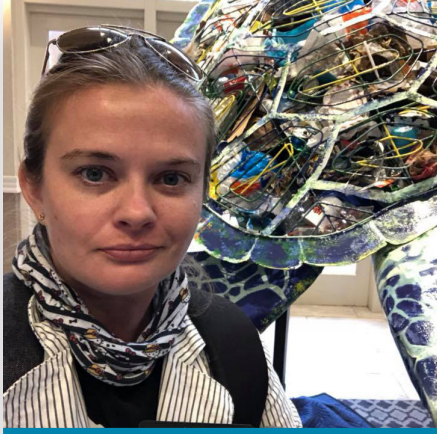
Allie Durdall
Program Partner
Watershed and Marine Specialist, Center for Marine and Environmental Studies, University of the Virgin Islands



Leslie Henderson
Program Partner
USVI Coastal Zone/Coral Management Liaison, Lynker/CSS Team on contract to NOAA's Office for Coastal Management



Jarvon Stout
Program Partner
Community Engagement Specialist, Virgin Islands Established Program to Stimulate Competitive Research



Kitty Edwards
Program Partner
Education & Outreach Coordinator, DPNR- Division of Coastal Zone Management

THROUGH COLLABORATION AND PARTNERSHIP, WE CAN PREVENT AND REDUCE MARINE DEBRIS.

Our Planning Team is made up of individuals focused on the issue of marine debris in the USVI. The Team includes scholars, outreach specialists, and creative professionals representing academia, federal and local agencies, and non-profits. Our shared goal was to draft a plan that is inclusive, timely, and impactful. To do this we invited a broad range of people to help write and revise the plan. We believe the final product benefited from this inclusive approach.

Thank you to all of the individuals who contributed to this living document! With your continued support it will protect the USVI's coasts, people, and wildlife from marine debris for years to come.



Avia Huisman
Program Partner
Marine Debris Specialist, University of the Virgin Islands



Maggie Rios-Motiani
Program Partner
Marine Debris Specialist, University of the Virgin Islands



Zola Roper
Program Partner
SEAS Islands Alliance Workforce Fellow, University of the Virgin Islands



Elisa Bryan
USVI MDAP Communications Lead
Communications Specialist, Virgin Islands Established Program to Stimulate Competitive Research

APPENDIX

WORKSHOP ATTENDEES

| INVITEE | AFFILIATION | WORKSHOP 1 | WORKSHOP 2 |
|-------------------------|--|-------------|-------------|
| Jendahye Antoine | UVI | Yes | No |
| Katie Ayre | UVI MMES | Yes | Not invited |
| Oriel Blake | VIPCA / Rebuild Fund | Yes | Not invited |
| Natasha Bestrom | UVI MMES | Yes | Not invited |
| Marvin Blyden | USVI Legislature | No | Yes |
| Marilyn Brandt | UVI CMES | Yes | No |
| Elisa Bryan | VI EPSCoR | Yes | Yes |
| Jason Budsan | EAST / VICS | Yes | Yes |
| Arelys Chaparro | UVI | Yes | Not invited |
| Jenna Cheramie | UVI MMES | Yes | Not invited |
| Sharon Coldren | CBCC | Yes | Yes |
| Juan Cruz | DPNR DEE | Yes | No |
| Edwin Cruz-Rivera | UVI CSM | Yes | No |
| Lawanda Cummings | VI EPSCoR | Yes | Yes |
| Lindsay Dade | UV | Yes | Not invited |
| Tiffany Del Valle | UVI | Yes | Not invited |
| Caroline de Vries | Graduate in Sustainability Management, USVI Resident | | Yes |
| Allie Durdall | UVI CMES | Yes | Yes |
| Kristina Edwards | DPNR CZM | Yes | Yes |
| Simone Edwards-Williams | Office of Senator Sarauw | Not invited | Yes |
| Rossie Ennis | UVI CMES | Yes | No |
| Kristen Ewen | US NPS (St. Croix) | Yes | No |
| Howard Forbes, Jr. | VIMAS | Yes | Yes |
| Alfonso Garcia, Jr. | DPNR DFW | Yes | Not invited |
| Adam Glahn | UVI CMES | Yes | Not invited |
| Amy Gohres | NOAA MDP | Yes | No |
| Kristin Grimes | UVI CMES | Yes | Yes |
| Sennai Habtes | UVI CMES | Yes | No |
| Kayla Halliday | UVI MMES | Yes | Not invited |
| Lisa Hamilton | VI HTA | Yes | No |
| Kelly Harrigan | VI EPSCoR | Yes | No |
| Sarah Heidmann | UVI CMES | Yes | No |
| Leslie Henderson | NOAA CRCP | Yes | Yes |
| Marlon Hibbert | DPNR | No | Yes |
| Ashley Hill | NOAA MDP | Yes | Yes |
| Juelis Hodge | Ivanna Eduora Kean High School | Not invited | Yes |
| Allison Holevoet | UVI MMES | Yes | Not invited |
| Avia Huisman | UVI MMES | Not invited | Yes |
| Cordelle Jacobs | VIWMA | No | Yes |
| Celeste Jarvis | TNC | Yes | No |
| Paul Jobsis | UVI CMES | Yes | Yes |
| Kimberly Junkins | VIWMA | Not invited | Yes |
| Elizabeth Kadison | UVI CMES | Yes | Not invited |
| Christy Kehoe | NOAA MDP | Yes | Not invited |

| INVITEE | AFFILIATION | WORKSHOP 1 | WORKSHOP 2 |
|---------------------|-----------------------------------|-------------|-------------|
| Makayla Kelso | UVI MMES | Yes | Not invited |
| Sarah Kollar | Ocean Conservancy | Yes | No |
| Nicole Krampitz | UVI MMES | Yes | Not invited |
| Rudolph Krigger | Office of Senator Blyden | Not invited | Yes |
| Danielle Lasseigne | US EPA WARC | Yes | No |
| Carlyn Lawrence | VIWMA | Yes | Not invited |
| Ashlee Lillis | TNC | Yes | No |
| Hilary Lohmann | DPNR CZM | Yes | No |
| Liza Margolis | VI EPSCoR | Yes | Not invited |
| Reagan Mason | UVI MMES | Yes | Not invited |
| Andrew McGregor | UVI MMES | Yes | Not invited |
| Vanessa McKague | UVI CMES | Yes | No |
| Camille McKayle | UVI | No | Yes |
| Sophia McKenzie | UVI CSM | Yes | Yes |
| Rachel McKinley | CBCC | Yes | No |
| Kyle Murphy | Virgin Islands Source | Yes | No |
| Rick Nemeth | UVI CMES | Yes | No |
| Amber Packard | UVI CMES | Yes | Yes |
| Valerie Peters | Blue Flag USVI | Yes | Yes |
| Michelle Peterson | UVI CSM | Yes | No |
| Renata Platenberg | UVI CSM | Yes | Yes |
| Julia Plotkin | DPNR DFW | Yes | Yes |
| Caroline Pott | DPNR CZM | Yes | Yes |
| Melody Rames | VIWMA | Yes | Not invited |
| Maggie Rios-Motiani | UVI CMES | Yes | Yes |
| She'na Ritter | VIWMA | Yes | Not invited |
| Yaritza Rivera | NOAA MDP | Yes | No |
| Caroline Rogers | USGS WARC | Yes | No |
| Jason Rolfe | NOAA MDP | Yes | No |
| Zola Roper | UVI CMES | Yes | Not invited |
| Ashley Ruffo | NOAA | Yes | Not invited |
| Naomi Scott | UVI | Yes | Not invited |
| Benjamin Schwartz | Playland Marine LLC | Yes | No |
| Charmin Springer | VIWMA | Yes | No |
| Tabitha Stadler | EPIC Islands | Not invited | Yes |
| Ariel Stolz | UVI CGTC | Yes | No |
| Jarvon Stout | VI EPSCoR | Yes | Yes |
| Marcia Taylor | VIMAS | Yes | No |
| Bradley Thomas | VIWMA | Yes | Not invited |
| Alyssa Toms | Red Hook Dive Center | Yes | Not invited |
| Kerrin Toner | DPNR CZM | Yes | Yes |
| Kelcie Troutman | DPNR CZM | Yes | Yes |
| Benito Vegas | National Park Service | Not invited | Yes |
| Matthew Warham | Coral Reef Initiative Coordinator | Not invited | Yes |
| Jamie Yrigoyen | US Fish & Wildlife Service | Yes | Not invited |

ADDITIONAL INVITEES WHO DIDN'T ATTEND

| INVITEE | AFFILIATION | WORKSHOP 1 | WORKSHOP 2 |
|------------------------------|---|-------------------|-------------------|
| Robin Albritton..... | The Ocean Conservancy | X | X |
| Nicole Angeli | DPNR DFW..... | X | X |
| Pamela Balash | St. Thomas Diving Club..... | X | Not invited |
| Commander Ann Bassolino..... | USCG | X | Not invited |
| Viktor Brandtneris | UV CMES | X | X |
| Hubert Brumant | MBA | X | X |
| Lorraine Buckley | UVI CSM | X | X |
| Vernon Callwood..... | Charlotte Amalie High School | X | X |
| Jim Casey | US EPA..... | X | X |
| Tina Conrad..... | Low Key Watersports | X | X |
| Amy Dempsey..... | Bio Impact..... | X | Not invited |
| Carlton Dowe..... | Port Authority | X | X |
| Don & Susan Dudley | Red Hook Dive Center..... | X | X |
| Howard Forbes, Sr..... | DPNR DEE..... | X | Not invited |
| Mark Gestwicki..... | Friends of the VI National Park | Not invited | X |
| Anne Marie Gibbs | St. Croix Educational Complex | X | Not invited |
| Kenny Gittens | USVI Legislature | X | X |
| Greg Guannel..... | UVI CGTC | X | X |
| Michele Guannel | UVI CSM | X | X |
| Zandy Hillis-Starr..... | US NPS (St. Croix) | X | Not invited |
| Lev Horodyskyj | UVI CSM | X | Not invited |
| Peter Jackson | Coki Beach Dive Club | X | X |
| Javan James..... | USVI Legislature | X | X |
| Janella John | Office of Senator Carrion..... | Not invited | X |
| Stuart Ketcham | UVI | X | Not invited |
| Alice Krall | VIWMA..... | X | Not invited |
| Tonia Lovejoy..... | Friends of the VI National Park | X | X |
| Joanne Luciano | UVI | X | Not invited |
| Jessica Magras-Parris | DPNR..... | X | Not invited |
| MST 1 Tarnawski | USCG MSD St. Thomas | Not invited | X |
| Phillip Nelthropp..... | All Saints Cathedral School | X | X |
| Anita Nibbs | DPNR DEP..... | X | Not invited |
| Jean-Pierre Oriol..... | DPNR..... | X | X |
| Steven Payne, Sr..... | USVI Legislature | X | X |
| Adisha Penn..... | VI Source..... | Not invited | X |
| Cecile Penn..... | The Addelita Cancryn Junior High School | X | X |
| Shaun Pennington | Virgin Islands Source | X | X |
| Clayton Pollock..... | US NPS (St. Croix) | X | Not invited |
| Ashley Pomeranz | VI Green Team | X | X |
| Stephen Ratchford | UVI CSM | X | X |
| Yasmine Salem | Charlotte Amalie High School | X | Not invited |
| Todd Sampsell | Friends of the VI National Park | X | Not invited |
| Janelle Sarauw | USVI Legislature | X | X |

| INVITEE | AFFILIATION | WORKSHOP 1 | WORKSHOP 2 |
|-------------------------------|---|------------|-------------------|
| Alexandra Silva..... | Virgin Islands Montessori School and International Academy | X | Not invited |
| Dalma Simon | EAST..... | X | X |
| Cleopatra Skerrit..... | All Saints Cathedral School | X | X |
| Tyler Smith | UVI CMES | X | X |
| Alice Stanford..... | UVI CSM | X | X |
| Teresa Turner..... | UVI CSM | X | X |
| Jennifer Valiulis | SEA..... | X | X |
| Corinne Van Rensselaer | Rotary EAST..... | X | X |
| Merle Vanterpool..... | Lockhart Elementary School | X | Not invited |
| Benito Vegas..... | NPS..... | X | Not invited |
| Kim Waddell | VI EPSCoR | X | X |
| Alan Wentworth..... | Sea Tow | X | Not invited |
| Tameca White | Charlotte Amalie High School | X | X |
| Shamika Williams-Henley | VI DOE | X | X |
| Doug Wilson..... | UVI | X | Not invited |



Photo by E. Bryan

WORKSHOP 1



Participant Agenda September 29 and October 2, 2020 USVI Marine Debris Action Plan Virtual Workshop

Workshop Overview | The USVI Marine Debris Action Plan (MDAP) is a living document created to protect the USVI's coasts, people, and wildlife from the impacts of marine debris. To accomplish this, the plan uses a framework of Goals, Objectives, and Strategies. This framework will provide guidance and structure to stakeholders working to address the pipeline of marine debris across the territory. This workshop is designed to give those stakeholders an opportunity to provide input and feedback on the draft USVI MDAP, specifically its Objectives and Strategies, which have been developed over the last year.

Workshop Purpose | During this workshop, participants will refine the Objectives and Strategies under the 5 main Goals of the USVI Marine Debris Action Plan.

ACTION PLAN GOALS

- **Engage and Inform** - Effectively engage and inform the community about marine debris.
- **Prevent and Reduce** - Prevent and reduce the improper disposal and generation of marine debris.
- **Remove** - Locate, remove, and properly dispose of marine debris throughout the territory.
- **Research** - Conduct and use high-quality research to address marine debris issues.
- **Coordinate** - Effectively coordinate marine debris-related actions throughout the territory and beyond.



Participant Agenda Day 1 - Tuesday, September 29, 2020 8:45am-12pm, AST

- | | |
|---------|--|
| 8:45am | Workshop Preparation (15 min) Screening of introductory videos on tools used in the workshop (not required if pre-work was completed) |
| 9:00am | Welcome Address and Introductions (30 min) Opening remarks, team introductions, and participant roll-call |
| 9:30am | Session 1 (25 min) Small group break-out sessions to refine Objectives |
| 9:55am | Break (5 min) |
| 10:00am | Session 2 (45 min) Small group break-out sessions to refine Strategies and identify responsible parties |
| 10:45am | Share Out (35 min; 5 min each group) Small groups share outcomes of Session 1 & 2 with the larger group |
| 11:20am | Break (10 min) |
| 11:30am | Session 3 (25 min) Virtual Gallery Walk to share and comment on the Objectives and Strategies of other Goals |
| 11:55am | Wrap-Up (5 min) Day 1 Review, Day 2 Preview |
| 12:00pm | Adjourn |



Participant Agenda

Day 2 - Friday, October 2, 2020 9am-11am, AST

- 9:00am **Welcome** (15 min) Roll call, Icebreaker, Day 1 review & first raffle winner
- 9:15am **Session 4** (40 min) Small group break-out sessions (same groups as Day 1) to prioritize-rank the objectives from each goal.
- 9:55am **Break** (10 min)
- 10:05am **Session 5** (30 min) Small group break-out session (same groups as Day 1); participants will prioritize-rank the strategies of their original goal, plus other goals' strategies.
- 10:35am **Reflection** (20 min) Large group discussion to reflect on the past two days; what is left to do and recommendations for the MDAP Team.
- 10:55am **Wrap-Up & Next Steps** (5 min) Next steps and announce final raffle winners!
- 11:00am **Adjourn** Thank you!



Workshop 1 used Zoom and MURAL to engage participants and gather stakeholder input.



Volunteers and organizers at the Great Mangrove Cleanup of St. Thomas East End Reserves, 2018. Photo by J. Stout.

WORKSHOP 2



Participant Agenda August 26, 2021 USVI Marine Debris Action Plan Virtual Workshop 2

Workshop Overview & Purpose | The USVI Marine Debris Action Plan (MDAP) is a living document created to protect USVI coasts, people, and wildlife from the impacts of marine debris. This second workshop is designed with several goals in mind: (1) continue to grow and strengthen the marine debris stakeholder network within the territory and beyond, (2) provide stakeholders with an update on USVI Marine Debris Action Plan revision, since Workshop 1 in October 2020, and (3) together, determine how we turn the USVI Marine Debris Action Plan into action, including how we track progress and communicate, moving forward.

Connection Information | Please see below for connection information.

Pre-Work Google Document

<https://docs.google.com/document/d/15BxtRaR9-CaKDXvKqyxQASpmNMzqBHsxTcsFJWimfIQ/edit>

Workshop Zoom

<https://zoom.us/j/92032124195>

Meeting ID: 920 3212 4195

One tap mobile

+13017158592,,92032124195# US (Washington DC)

+13126266799,,92032124195# US (Chicago)

Workshop Jamboards

Icebreaker: https://jamboard.google.com/d/1QL5nE_HEVe1dtylXj91cb6m7SnY7bzqVzBpu9rIRWJY/edit?usp=sharing

Session 1:

<https://jamboard.google.com/d/1A74F561Sw9J2-VsILfoX9F-mmGr9mVn2QFF38orQx8M/viewer?f=0>

Session 2:

https://jamboard.google.com/d/1e-OxDZ4JpJT9AR5bJP_nAZdCcXIVSMs_aa7NmBZT1qQ/edit?usp=sharing

Session 3:

https://jamboard.google.com/d/1fXvBblp4nxy3mEHvMgjaUyreYX_DU07pXZaDvcjeFQ/edit?usp=sharing



Participant Agenda Thursday, August 26, 2021 9:00 am-12 pm, AST

- 8:55am **Workshop Preparation** (5 min) Please sign in early, so we are ready to begin at 9:00am
- 9:00am **Welcome, Logistics & Introductions** (35 min) Opening remarks, workshop housekeeping, how we got here, and participant introductions through an icebreaker activity.
- 9:35am **Session 1** (50 min) Shared Visioning Activity and discussion in small and large group break-out sessions.
- 10:30am **Break** (10 min)
- 10:40am **Session 2** (40 min) Tracking Progress through discussion in small and large group break-out sessions.
- 11:20am **Session 3** (35 min) Sustaining the Work through discussion in small and large group break-out sessions.
- 11:55am **Wrap-Up & Next Steps** (5 min) Workshop summary, next steps, and announcement of raffle winners!
- 12:00pm **Adjourn** Thank you for your time and valuable contributions to the workshop!



Photo by K. Edwards

Session 2: How might we measure and track progress towards the goals and objectives outlined in the USVI Marine Debris Action Plan, keeping our shared vision in mind?





Photo by K.W. Grimes

