



# U.S. Virgin Islands Marine Debris Emergency Response Guide: Comprehensive Guidance Document

NOAA Marine Debris Program  
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## List of Acronyms

ACP	Area contingency plan
ADV	Abandoned and derelict vessel
BMP	Best management practice
CBRA	Coastal Barrier Resources Act
CBRS	John H. Chafee Coastal Barrier Resources System
C&D	Construction and demolition debris
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COTP	Captain of the Port (of USCG)
CIA	Central Intelligence Agency
CRRT	Caribbean Regional Response Team
DPNR	Department of Planning and Natural Resources
DPW	Department of Public Works
EEZ	Exclusive economic zone
EFH	Essential fish habitat
EHP	Environmental and historic preservation
EOC	Emergency operations center
EPA	U.S. Environmental Protection Agency
ERMA	Environmental Response Management Application
ESA	Endangered Species Act
ESF	Emergency support function
EWP	Emergency Watershed Protection (of NRCS)
FEMA	Federal Emergency Management Agency
FOSC	Federal on-scene coordinator
GIS	Geographic information system
HHM	Household hazardous material
HHW	Household hazardous waste
ICS	Incident command system
LIDAR	Light detection and ranging
MSD	Marine safety detachment (of USCG)
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NEPA	National Environmental Policy Act
NIMS	National Incident Management System
NMFS	National Marine Fisheries Service (also known as NOAA Fisheries)
NOAA	National Oceanic and Atmospheric Administration
NOS	National Ocean Service (of NOAA)
NPS	National Park Service
NRC	National Response Center
NRCS	Natural Resources Conservation Service
NWR	National Wildlife Refuge (of USFWS)
RCP	Caribbean Regional Oil and Hazardous Substances Pollution Contingency Plan
RIO	Resident inspection office (of USCG)
ROV	Remotely operated vehicle
RP	Responsible party
SHPO	State Historic Preservation Office
SUPSALV	U.S. Navy Supervisor of Salvage and Diving
TEOP	Territorial Emergency Operations Plan
UAV	Unmanned aerial vehicle

USACE	U.S. Army Corps of Engineers
USCG	U.S. Coast Guard
USFWS	U.S. Fish and Wildlife Service
USVI	U.S. Virgin Islands
UVI	University of the Virgin Islands
VICZMP	Virgin Islands Coastal Zone Management Program
VIPA	Virgin Islands Port Authority
VITEMA	Virgin Islands Territorial Emergency Management Agency
VIWMA	Virgin Islands Waste Management Authority
VOAD	Voluntary Organizations Active in Disaster
WAPA	Virgin Islands Water and Power Authority
WICO	The West Indian Company Limited

## Definitions

**Abandoned or junked automobile or other motor vehicle** – A motor vehicle that is inoperable or over eight years old and is left unattended on public property for more than forty-eight hours, or a motor vehicle that has remained illegally on public property for more than forty-eight hours, or a motor vehicle that has remained on private property without the consent of the owner or person in control of such property for more than forty-eight hours (19 V.I.C. § 1552(a)).

**Acute waterway debris incident** – An incident that results in the release of large amounts of waterway debris. This may include natural incidents such as severe storms or anthropogenic incidents such as maritime disasters.

**Area contingency plan (ACP)** – The *Puerto Rico and the U.S. Virgin Islands ACP* defines roles, responsibilities, resources, and procedures necessary to respond to oil and hazardous substances. The ACP is prepared by the Puerto Rico and U.S. Virgin Islands Area Committee for the use of all agencies engaged in responding in a defined geographic area (U.S. Coast Guard [USCG], 2015).

**Captain of the Port (COTP)** – U.S. Coast Guard Captains of the Port and their representatives enforce within their respective areas port safety and security and marine environmental protection regulations, including, without limitation, regulations for the protection and security of vessels, harbors, and waterfront facilities; anchorages; security zones; safety zones; regulated navigation areas; deep water ports; water pollution; and ports and waterways safety (33 C.F.R. § 1.01-30). The U.S. Virgin Islands are in COTP San Juan in Sector San Juan.

**Chemical, biological, radiological, and nuclear-contaminated debris** – Debris contaminated by chemical, biological, radiological, or nuclear materials (Federal Emergency Management Agency [FEMA], 2018a).

**Coastal zone (Area contingency plan [ACP] coastal zone)** – U.S. Coast Guard area of responsibility for response under the National Contingency Plan, with geographic boundaries defined in the *Puerto Rico and the U.S. Virgin Islands ACP*. Inland and coastal areas are divided mostly by road or thoroughfare except for St. John which is delineated by an imaginary line that runs 100 meters inland from the water's edge (USCG, 2015).

**Coastal zone (under U.S. Virgin Islands Coastal Zone Management Program)** – U.S. Virgin Islands' coastal zone includes the entire territory. All land and water areas of the Territory of the United States Virgin Islands extending to the outer limits of the territorial sea (3 nautical miles), specified on the maps identified in section 908, subsection (a) of this chapter, and is composed of two parts, a first tier and a second tier (12 V.I.C. § 902(g); National Oceanic and Atmospheric Administration [NOAA], 2012).

**Coastal zone permit (under U.S. Virgin Islands Coastal Zone Management Program)** – A permit for any development within the first tier of the coastal zone that is required pursuant to section 906 of this chapter (12 V.I.C. § 902(i)).

**Construction and demolition debris (C&D)** – Components of buildings and structures, such as lumber and wood, gypsum wallboard, glass, metal, roofing material, tile, carpeting and other floor coverings, window coverings, pipe, concrete, asphalt, equipment, furnishings, and fixtures (FEMA, 2018a).

**Derelict vessel (Derelict houseboat)** – A vessel or houseboat that has been abandoned, forsaken, or disabled beyond repair (25 V.I.C. § 402(e)).

**Electronic waste (e-waste)** – Electronics that contain hazardous materials, such as computer monitors, televisions, cell phones, and batteries (FEMA, 2018a).

**Eligible applicant** – Entities who may receive public assistance reimbursement funding from the Federal Emergency Management Agency under the Stafford Act. Eligible applicants include state and territorial governments, Indian Tribal Governments, local governments, and private nonprofit organizations that serve a public function and have the legal responsibility to remove the debris (44 C.F.R. § 206.222; FEMA, 2018a).

**Eligible debris** – Debris that is a direct result of a major disaster declared by the president, in the designated disaster area, and whose removal is necessary to eliminate the immediate threat to life, public health and safety, or improved property (FEMA, 2018a).

**Emergency (National Oceanic and Atmospheric Administration Fisheries definition)** – A situation involving an act of God, disasters, casualties, national defense or security emergencies, etc., and includes response activities that must be taken to prevent imminent loss of human life or property (NOAA, 2020c).

**Emergency (Stafford Act definition)** – Any occasion or instance for which, in the determination of the president, federal assistance is needed to supplement state and local efforts and capabilities to save lives and to protect property and public health and safety, or to lessen or avert the threat of a catastrophe in any part of the United States (42 U.S.C. § 5122(1)).

**Emergency (U.S. Army Corps of Engineers definition)** – For emergency permitting, a situation which would result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen, and significant economic hardship if corrective action requiring a permit is not undertaken within a time period less than the normal time needed to process the application under standard procedures (33 C.F.R. § 325.2(e)(4)).

**Emergency (U.S. Virgin Islands definition)** – An unexpected situation that poses an immediate danger to life, health or property and demands immediate action to prevent or mitigate loss or damage to life, health, property or essential public services (12 V.I.C. § 902(m)). The imminent threat or occurrence of any hurricane, tornado, storm, flood, high water, wind-driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, drought, fire, explosion, or other emergency including an emergency occasioned by a threat to homeland security in any part of the Territory which, in the determination of the Governor or the Director requires an integrated and coordinated emergency response from various Territorial Government agencies to save lives and protect public property, public health and safety or to avert or lessen the threat of a major disaster, which may require an emergency declaration by the President or other Federal assistance, but does not cause damage of such severity and magnitude that the Governor requests major disaster assistance from the President pursuant to the Stafford Act (23 V.I.C. § 1004(a)(1)).

**Emergency support function (ESF)** – Used by the Federal Government and many state governments as the primary coordinating structures that group resources and capabilities into functional areas most frequently needed in a national response (U.S. Department of Homeland

Security, 2019). ESFs most commonly applied during response to a waterway debris incident are ESF 3 Public Works and Engineering and ESF 10 Oil and Hazardous Materials Response.

**Environmental sensitivity index map** – Maps produced by the National Oceanic and Atmospheric Administration that provide a concise summary of coastal resources that are at risk if an oil spill occurs nearby. Examples of at-risk resources include biological resources (such as birds and shellfish beds), sensitive shorelines (such as marshes and tidal flats), and human-use resources (such as public beaches and parks; NOAA, 2020d).

**Federally maintained waterways and channels** – A waterway that has been authorized by Congress, and which U.S. Army Corps of Engineers operates and maintains for general (including commercial and recreational) navigation.

**First tier** – Area extending landward from the outer limit of the territorial sea, including all offshore islands and cays, to distances inland as specified in the maps incorporated by reference in section 908, subsection (a) of this chapter (12 V.I.C. § 902(r)).

**Geographic response plan** – Geographic maps which are part of the Area Contingency Plans for oil spills to water and serve as the primary tool used during an initial phase of a response. They are created after identifying the most ecologically sensitive areas, local area knowledge on locations most likely to encounter an oil spill, and economic impact to the community if a location were to be oiled. Working groups determine priorities, and geographic response plans include response strategies (USCG, 2015).

**Hazard to navigation** – An obstruction, usually sunken, that presents sufficient danger to navigation so as to require expeditious, affirmative action such as marking, removal, or re-definition of a designated waterway to provide for navigational safety (33 C.F.R. § 64.06).

**Hazardous substance** – (A) any substance designated pursuant to section 311(b)(2)(A) of the Federal Water Pollution Control Act, (B) any element, compound, mixture, solution, or substance designated pursuant to section 9602 of this title, (C) any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act (but not including any waste the regulation of which under the Solid Waste Disposal Act has been suspended by Act of Congress), (D) any toxic pollutant listed under section 307(a) of the Federal Water Pollution Control Act, (E) any hazardous air pollutant listed under section 112 of the Clean Air Act, and (F) any imminently hazardous chemical substance or mixture with respect to which the Administrator has taken action pursuant to section 7 of the Toxic Substances Control Act. The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas; 42 U.S.C. § 9601(14)).

**Hazardous waste** – A solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical or infectious characteristics may: (1) cause or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of or managed (19 V.I.C. § 1552(k); 29 V.I.C. § 495(n)). Regulated under the Resource Conservation and Recovery Act and contains properties that make it potentially harmful to human health or the environment. A



hazardous waste is a waste that appears on one of the four hazardous waste lists in 40 C.F.R. § 261 or exhibits at least one of the following four characteristics: ignitability, corrosivity, reactivity, or toxicity (FEMA, 2018a).

**Household hazardous waste/material (HHW/HHM)** – Hazardous product or material used and disposed of by residential consumers, including some paints, stains, varnishes, solvents, pesticides, and other products or materials containing volatile chemicals that catch fire, react, or explode under certain circumstances, or that are corrosive or toxic (FEMA, 2018a).

**Improved property** – Any structure, facility, or equipment that was built, constructed, or manufactured. Examples include buildings, levees, roads, and vehicles. Land used for agricultural purposes is not improved property (44 C.F.R. § 206.221(d)).

**Incident Command System (ICS)** – A fundamental element of incident management as defined by the National Incident Management System that provides standardization through consistent terminology and established organizational structures (FEMA, 2020).

**Infectious waste** – Waste capable of causing infections in humans and can include contaminated animal waste, human blood, blood products, medical waste, pathological waste, and discarded sharp objects (needles, scalpels, or broken medical instruments; FEMA, 2018a).

**Inland zone (Area Contingency Plan [ACP] inland zone)** – U.S. Environmental Protection Agency area of responsibility for response under the National Contingency Plan, with geographic boundaries defined in the *Puerto Rico and the U.S. Virgin Islands ACP*. Inland and coastal areas are divided mostly by road or thoroughfare except for St. John which is delineated by an imaginary line that runs 100 meters inland from the water's edge (USCG, 2015).

**Major coastal zone permit** – Permit required for development within the coastal zone, which development is not “minor development” as defined in section 910, subsection (c) of this chapter. (12 V.I.C. § 902(s)). A major coastal zone permit is issued except when (1) a development is completely or substantially seaward of the line of mean high tide and is designated by the appropriate Committee of the Commission pursuant to subsection (e), paragraph (5) of this section; or (2) a development is completely landward of the line of mean high tide and satisfies criteria defined in 12 V.I.C. § 910(c).

**Major disaster** – Any natural catastrophe (including any hurricane, tornado, storm, high water, wind-driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm, or drought), or, regardless of cause, any fire, flood, or explosion, in any part of the United States, which in the determination of the president causes damage of sufficient severity and magnitude to warrant major disaster assistance under this Act to supplement the efforts and available resources of states, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby (42 U.S.C. § 5122(2)).

**Major disaster (U.S. Virgin Islands definition)** – The imminent threat or occurrence of any hurricane, tornado, storm, flood, high water, wind-driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, drought, fire, explosion, or other catastrophe including a catastrophe occasioned by a threat to homeland security in any part of the Territory which, in the determination of the governor or the Director requires a coordinated emergency response from various Territorial Government agencies and which causes damage of sufficient severity and magnitude for the Governor to request major disaster assistance from the President pursuant to the

Stafford Act, to supplement the efforts and available resources of the Territorial Government and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby. (23 V.I.C. § 1004(a)(2)).

**Marine debris** – 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 Great Lakes (33 U.S.C. § 1956(3)).

**Minor coastal zone permit** – The permit required for development defined in section 910, subsection (c) of this chapter (12 V.I.C. § 902(t)). A major coastal zone permit is issued except when (1) a development is completely or substantially seaward of the line of mean high tide and is designated by the appropriate Committee of the Commission pursuant to subsection (e), paragraph (5) of this section; or (2) a development is completely landward of the line of mean high tide and satisfies criteria defined in 12 V.I.C. § 910(c).

**National Incident Management System (NIMS)** – Provides a common, nationwide approach to enable the whole community to work together to manage all threats and hazards regardless of cause, size, location, or complexity. NIMS is developed by the Federal Emergency Management Agency to guide all levels of government, nongovernmental organizations, and the private sector to work together to prevent, protect against, mitigate, respond to, and recover from incidents. NIMS defines operational systems, such as the incident command system (ICS), that guide how personnel work together during incidents (FEMA, 2020).

**National Oil and Hazardous Substances Pollution Contingency Plan (National Contingency Plan, NCP)** – Federal Government’s blueprint for responding to both oil spills and hazardous substance releases (U.S. Environmental Protection Agency [EPA], 2019c).

**Natural waterway** – A waterway that is not improved or maintained (FEMA, 2018a).

**Navigable waterways** – Navigable waterways include both those waterways which are federally maintained and those waterways which are not federally maintained. U.S. Army Corps of Engineers defines navigable waters of the United States as those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. A determination of navigability, once made, applies laterally over the entire surface of the waterbody, and is not extinguished by later actions or events which impede or destroy navigable capacity (33 C.F.R. § 2.36; 33 C.F.R. § 329.4).

**Obstruction** – Anything that restricts, endangers, or interferes with navigation (33 C.F.R. § 64.06).

**Oil** – Oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil (33 U.S.C. § 1321(a)(1)).

**Pollutant or contaminant** – Includes, but not limited to, any element, substance, compound, or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring; except that the term “pollutant or contaminant” shall not include petroleum,

including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of paragraph (14) and shall not include natural gas, liquefied natural gas, or synthetic gas of pipeline quality (or mixtures of natural gas and such synthetic gas; 42 U.S.C. § 9601(33)).

**Pollutant(s)** – Dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water (12 V.I.C. § 182(b)). Shall include, but not be limited to, oil of any kind and in any form, gasoline, pesticides, ammonia, chlorine and other hazardous materials (12 V.I.C. § 703(7)).

**Pollution** – Such contamination, or other alteration of the physical, chemical or biological properties, of any waters of the United States Virgin Islands, including change in temperature, taste, color, turbidity, or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive, or other substance into any such waters as will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life; or the man-made or man-induced alteration of the chemical, physical, biological or radiological integrity of any such waters (12 V.I.C. § 182(a)). The presence in the outdoor atmosphere or waters of the territory of any one (1) or more substances or pollutants, in quantities which are or may be potentially harmful or injurious to human health or welfare, animal or plant life, or property or which may unreasonably interfere with the enjoyment of life or property, including outdoor recreation (12 V.I.C. § 703(8)).

**Putrescent debris** – Debris that will decompose or rot, such as animal carcasses and other fleshy organic matter (FEMA, 2018a).

**Recoverable debris** – Generally any documented vessel, vehicle, recreational vehicle, or shipping container traceable to an owner (U.S. Army Corps of Engineers, 2010). The capability and likelihood of being recovered from solid waste for a commercial or industrial use (19 V.I.C. § 1552(u)).

**Second tier** – The interior portions of the Islands of St. Thomas, St. John and St. Croix, including all watersheds and adjacent land areas not included in the first tier (12 V.I.C. § 902(y)).

**Severe marine debris event** – An atypically large amount of marine debris caused by a natural disaster, including a tsunami, flood, landslide, or hurricane, or other source (33 U.S.C. § 1956(6)).

**Shorelines of the United States Virgin Islands (Shorelines)** – The area along the coastlines of the United States Virgin Islands from the seaward line of low tide, running inland a distance of fifty (50) feet; or to the extreme seaward boundary of natural vegetation which spreads continuously inland; or to a natural barrier; whichever is the shortest distance. Whenever the shore is extended into the sea by filling or dredging, the boundary of the shorelines shall remain at the line of vegetation as previously established (12 V.I.C. § 402(b); 12 V.I.C. § 902(z)).

**Soil, mud, and sand** – Soil, mud, and sand deposited after floods, landslides, winds, and storm surges on improved public property and public rights-of-way (FEMA, 2018a).

**Stafford Act** – The Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended, provides the authorities and funding for federal support to state, local, tribal, and territorial entities

in responding to presidential major disaster and emergency declarations (U.S. Department of Homeland Security, 2019).

**State of emergency** – A public declaration by the Governor to mitigate, prepare for, respond to, or recover from an emergency or major disaster. Such public declaration shall be in the form of an executive order or proclamation pursuant to section 1005 of this chapter (23 V.I.C. § 1004(a)(3)).

**Submerged and filled lands** – All lands in the United States Virgin Islands permanently or periodically covered by tidal waters up to, but not above, the line of mean high tide, seaward to a line three geographical miles distant from the coastline of the United States Virgin Islands, and all artificially made, filled in, or reclaimed lands, salt ponds and marshes which were formerly permanently or periodically covered by tidal waters (12 V.I.C. § 902(cc)).

**Territory seaward boundary** – U.S. Virgin Islands seaward boundary is the 3 nautical mile territorial sea (NOAA, 2012).

**Trust lands** – All submerged and filled land conveyed pursuant to Public Law 93-435, 88 Statutes 1210, by the United States to the Government of the United States Virgin Islands to be administered in trust for the benefit of the people of the United States Virgin Islands (12 V.I.C. § 902(dd)).

**Unseaworthy vessel (Unseaworthy houseboat)** – A vessel or a houseboat itself or its appliances or appurtenances that are not safe or adequate for the purposes for which they are intended or ordinarily used (25 V.I.C. § 402(n)).

**Vegetative debris** – Whole trees, stumps, trunks, branches, limbs, and other leafy material (FEMA, 2018a).

**Vehicles and vessels** – Vehicles and vessels damaged, destroyed, displaced, or lost as a result of a disaster. These vehicles and vessels may eventually be abandoned because of the damage incurred or because the original owners have relocated. Vehicles and vessels may be classified as debris if they block public access and critical facilities (FEMA, 2018a).

**Vessel** – Includes every description of watercraft or other contrivance used, or capable of being used, as a means of transportation on water, whether self-propelled or otherwise, and includes barges and tugs (12 V.I.C. § 703(12); 25 V.I.C. § 1). Every description of watercraft or other artificial contrivance, not more than 150 feet in length, used or capable of being used as means of transportation on water (25 V.I.C. § 402(o)).

**Waters of the United States Virgin Islands** – All waters within the jurisdiction of the United States Virgin Islands including all harbors, streams, lakes, ponds, impounding reservoirs, marshes, water-courses, water-ways, wells, springs, irrigation systems, drainage systems and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, situated wholly or partly within or bordering upon the United States Virgin Islands, including the territorial seas, contiguous zones, and oceans (12 V.I.C. § 182(f)).

**Waterway debris** – Any solid material, including but not limited to vegetative debris and debris that could be exposed to or release oil, hazardous substances, pollutants, or contaminants, that enters a waterway following an acute incident and poses a threat to the natural or man-made environment. This may include shoreline and wetland debris and debris in some inland, non-tidal waterways.

**White goods** – Discarded household appliances such as refrigerators, freezers, air conditioners, heat pumps, ovens, ranges, washing machines, dryers, and water heaters. May contain refrigerants, mercury, or compressor oils that must be removed before disposal (FEMA, 2018a).

# 1 Introduction

## 1.1 Purpose

The purpose of this document is to improve preparedness for response and recovery operations following an acute waterway debris incident in the U.S. Virgin Islands (USVI). The term acute waterway debris incident is used to describe an incident—either natural or anthropogenic—that results in the release of large amounts of waterway debris. This document outlines existing response structures at the territory and federal levels to facilitate a coordinated, well-managed, and immediate response to waterway debris incidents impacting shorelines and waterways in the U.S. Virgin Islands.

Individual organization roles and responsibilities are presented in text form and in a consolidated one-page [flowchart](#) which functions as a decision tree for waterway debris response. Additionally, organization jurisdictions are presented in a [map](#) in this document. A dynamic version of this jurisdiction map is also available [online](#) (NOAA, 2021). The document also includes an overview of permitting and compliance requirements that must be met before waterway debris removal work begins. This information is synthesized in a one-page reference [handout](#).

Determining responsibility for waterway debris response and removal can be complicated and may involve multiple agencies and overlapping jurisdictions. Additionally, the removal lead may change depending on the type of incident and the debris location. Because all incidents are different, some aspects of waterway debris response are subjective and not solely dependent on prevailing roles and authorities. This is especially true following a major, catastrophic, or unprecedented incident. This document seeks to capture the most likely response structure and actions with the understanding that flexibility is an inherent component of an effective response.

The *U.S. Virgin Islands Marine Debris Emergency Response Guide: Comprehensive Guidance Document (Guide)* serves as a complete reference for waterway debris response in the U.S. Virgin Islands. The accompanying *Field Reference Guide* only includes the most pertinent information for quick reference in the field and during response operations.

## 1.2 Scope of Guide

The *Guide* addresses potential acute waterway debris incidents affecting the U.S. Virgin Islands. Throughout this document, the term waterway debris is used in lieu of the term marine debris. In 33 U.S.C. § 1956(3), marine debris is defined 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 Great Lakes. Although vegetative debris is not included in the legal definition for marine debris, stakeholders have identified it as a common debris stream of concern following natural disasters. To account for both marine debris and vegetative debris in this document, the term waterway debris is used to describe any solid material, including but not limited to vegetative debris and debris that could be exposed to or release oil, hazardous substances, pollutants, or contaminants, that enters a waterway following an acute incident and poses a threat to the natural or man-made environment. This may include shoreline and wetland debris and debris in some inland, non-tidal waterways. The intent of this *Guide* is to address waterway debris resulting from acute episodic incidents, such as disaster debris, rather than chronic waterway debris issues.

### 1.3 *Guide Maintenance*

The *U.S. Virgin Islands Marine Debris Emergency Response Guide* is a living document subject to change as additional information becomes available and updates are needed. The *Guide* will be maintained by the National Oceanic and Atmospheric Administration's (NOAA) Marine Debris Program in coordination with stakeholders in the U.S. Virgin Islands. Contact information will be verified annually, and the *Guide* will undergo a formal review every three years. The *U.S. Virgin Islands Marine Debris Emergency Response Guide* and subsequent versions will be posted on the NOAA Marine Debris Program website at <https://marinedebris.noaa.gov/> (NOAA, 2020g).

## 2 Waterway Debris in the U.S. Virgin Islands

### 2.1 Waterway Debris Incidents in the U.S. Virgin Islands

The U.S. Virgin Islands is an unincorporated territory of the United States comprised of approximately 50 islands and cays in the northeastern Caribbean Sea about 40 miles east of Puerto Rico (Central Intelligence Agency [CIA], n.d.; Encyclopedia Britannica, 2020). St. Thomas, St. John, and St. Croix are the largest islands, with the capital Charlotte Amalie on St. Thomas. The islands are situated along a key shipping lane for the Panama Canal, and St. Thomas has one of the best natural deep-water harbors in the Caribbean (CIA, n.d.).

The U.S. Virgin Islands has approximately 175 miles of coastline, and while the population density is relatively low, most residents are concentrated in coastal areas around Charlotte Amalie on St. Thomas and Christiansted on St. Croix (CIA, n.d.; NOAA, n.d.). In 2015, the estimated population of the territory was 105,000, which is dwarfed in comparison to the number of cruise ship passenger (1,878,847) and airline passenger arrivals (764,174; Virgin Islands Territorial Emergency Management Agency [VITEMA], 2016). Because residents and an average 2.5 to 3 million tourists per year are concentrated in low-lying coastal areas, the U.S. Virgin Islands is particularly vulnerable to loss of life and property after a disaster (CIA, n.d.; VITEMA, 2016).

Since 1953 there have been 26 disaster declarations in the U.S. Virgin Islands, including 17 hurricanes, three floods, and three severe storms—all of which could result in disaster debris entering adjacent waterways (Figure 1; FEMA, 2019). Many earthquakes and tsunamis have also occurred in the northeastern Caribbean, and because the terrain on St. Thomas and St. John is mostly hilly or mountainous, the islands are at risk of landslides which could result in large amounts of sediment and debris entering coastal waterways (U.S. Geological Survey, 2001; VITEMA, 2016). The Virgin Islands Territorial Emergency Management Agency (VITEMA) states that it is very likely that a tsunami would eventually affect all coasts of the territory no matter where the source area was located (2016).

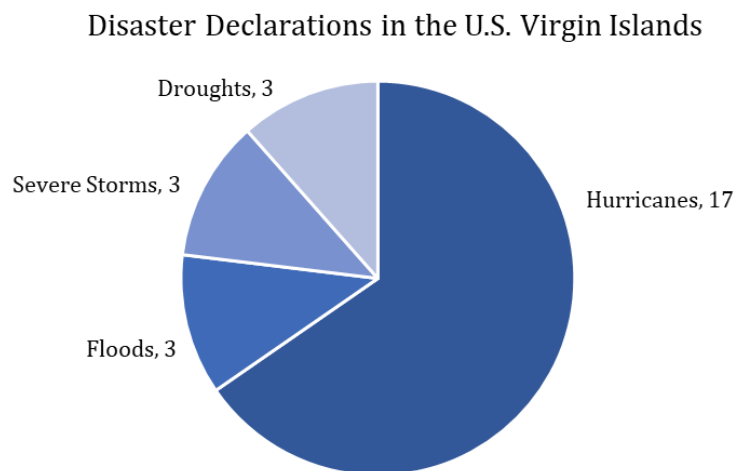


Figure 1. Disaster declarations by type in the U.S. Virgin Islands from 1953-2019. Data adapted from the Federal Emergency Management Agency, 2019.



The U.S. Virgin Islands has a long history of natural disasters and the need for response and removal of waterway debris. In 1867, eyewitnesses reported a 23-foot tsunami wave in Frederiksted, St. Croix that left a large naval vessel on top of a pier (U.S. Geological Survey, 2001). Then in 1995, Hurricane Marylyn resulted in ten deaths and left thousands homeless as nearly all 12,000 homes on St. Thomas and 5,000 on St. Croix were destroyed or damaged (VITEMA, 2016). More recently, on September 6, 2017 Hurricane Irma became one of the strongest Atlantic hurricanes on record and passed over St. Thomas and St. John as a Category 5 hurricane, resulting in high storm surge and flooding and damaging infrastructure (CIA, n.d.; FEMA, 2018b; NOAA, 2018a). Less than two weeks later, Hurricane Maria passed southeast of Saint Croix as a Category 5 storm, inflicting catastrophic damage with heavy winds and flooding rains (CIA, n.d.; FEMA, 2018b; NOAA, 2019b). Both Hurricanes Irma and Maria left considerable amounts of debris in their wake, and are ranked among the top five most costly disasters in the United States (Figure 2; NOAA, 2020a).

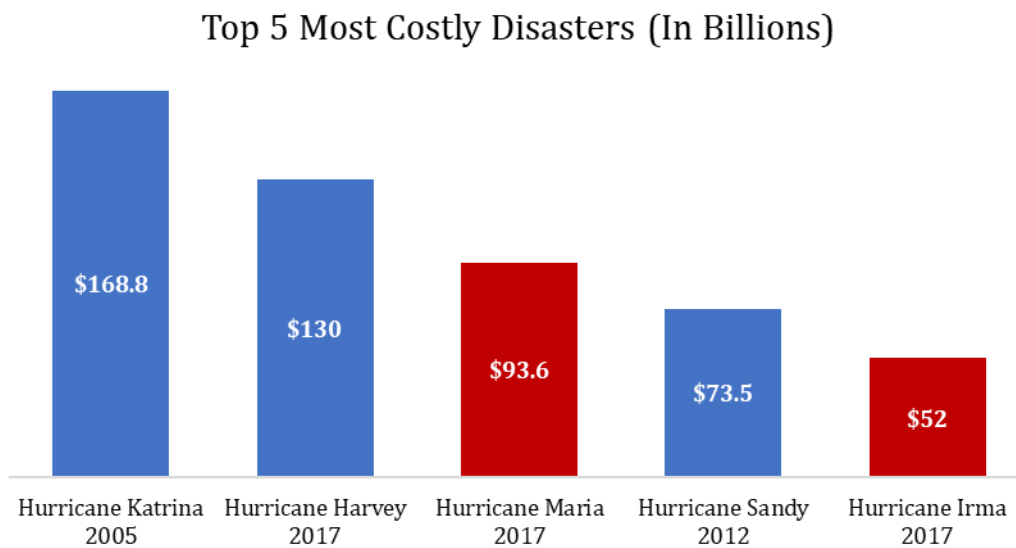


Figure 2. The top five costliest disasters (in Consumer Price Index-adjusted estimated cost in billions) from 1980-2019. Disasters impacting the U.S. Virgin Islands are highlighted in red. Data adapted from National Oceanic and Atmospheric Administration, 2020a.

Disaster debris was a significant problem after the 2017 hurricane season, leaving more than one million cubic yards of debris in the U.S. Virgin Islands (U.S. Army, 2018). Of that debris, 479 displaced vessels were salvaged or recovered as part of the U.S. Coast Guard’s multi-agency operation (NOAA, 2018b). As of this publication, removal of waterway debris from Hurricanes Irma and Maria is still ongoing.

## 2.2 Solid Waste Management in the U.S. Virgin Islands

Exacerbating the issue of waterway debris response and removal are the limited disposal options in the U.S. Virgin Islands. There is strong local opposition to the incineration of disaster debris, and both of the territory’s two landfills—Bovoni Municipal Solid Waste Landfill on St. Thomas and Anguilla Municipal Solid Waste Landfill on Croix—are nearing capacity and had been ordered to close or come into compliance by 2022 (EPA, 2019b). After the 2017 hurricane season, disaster

debris was taken by barge to be disposed of off-island (U.S. Army, 2018). The U.S. Environmental Protection Agency (EPA), the Federal Emergency Management Agency (FEMA), and the University of the Virgin Islands (UVI) collaborated to complete a municipal solid waste characterization study as a first step toward creating a comprehensive solid waste management program for the territory (EPA, 2019a; EPA, 2019b). EPA also recently approved the U.S. Virgin Islands' municipal solid waste landfill permit program, which will allow the territory to expand existing landfills and construct new landfills to ensure that solid waste is sustainably managed (EPA, 2019a).

### 2.3 Prominent Debris Types

Some agency authorities are dependent on both the location and type of debris. Therefore, response to debris in the U.S. Virgin Islands may vary depending on the debris type to be removed. Primary debris types generated after a disaster as defined by FEMA (FEMA, 2018a) include the following:

- Chemical, biological, radiological, and nuclear-contaminated
- Construction and demolition (C&D)
- Electronic waste (e-waste)
- Hazardous waste
- Household hazardous waste/material (HHW/HHM)
- Infectious waste
- Putrescent debris
- Soil, mud, and sand
- Vegetative debris
- Vehicles and vessels
- White goods

A description of each debris type is included in the [Definitions](#) section of this document. While it is difficult to predict the exact mix of waterway debris that will be generated after a disaster, different types of hazard incidents generally result in different debris types. Table 1 includes an overview of typical debris streams for several natural hazards. Although Table 1 only covers natural hazards, man-made hazards such as an accident during waterway commerce are also concerns. The type and quantity of waterway debris generated after a disaster is highly dependent on land use and existing infrastructure along the coastline of the U.S. Virgin Islands. For example, protected undeveloped areas within Virgin Islands National Park on St. John are likely to generate vegetative debris, whereas developed areas in Charlotte Amalie are likely to generate construction and demolition debris. Increased development in the floodplain will increase the likelihood of waterway debris following a natural hazard event.

Table 1. Typical debris streams for different types of hazard incidents. Data adapted from Federal Emergency Management Agency, 2007.

		Typical Debris Streams								
		Vegetative	Construction & Demolition	Personal Property/ Household Items	Hazardous Waste	Household Hazardous Waste	White Goods	Soil, Mud, and Sand	Vehicles and Vessels	Putrescent
Disaster Type	Hurricanes/Typhoons	X	X	X	X	X	X	X	X	X
	Tsunamis	X	X	X	X	X	X	X	X	X
	Tornadoes	X	X	X	X	X	X		X	X
	Floods	X	X	X	X	X	X	X	X	X
	Earthquakes		X	X		X	X	X		

### 3 U.S. Virgin Islands Waterway Debris Response Flowchart

The “U.S. Virgin Islands Waterway Debris Response Flowchart” provides a visual one-page representation of organization roles and responsibilities. The flowchart functions as a decision tree for waterway debris response with color-coded endpoints. Yellow endpoints represent response to waterway debris that could be exposed to or release oil, hazardous substances, pollutants, or contaminants. Blue endpoints represent response to waterway debris that is not exposed to and does not have the potential to release oil, hazardous substances, pollutants, or contaminants. Endpoints within the green shaded area indicate that response may occur under Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) authorities and/or funding.

The intent of the flowchart is to outline the most likely response structure with the understanding that flexibility is an inherent component of an effective response. For detailed information regarding individual organization roles and responsibilities, see [Section 4](#). Select agency authorities are presented in [Appendix 8.3](#).



## 4 Roles and Responsibilities

Determining responsibility for waterway debris response and removal can be complicated and may involve multiple agencies and overlapping jurisdictions. The response lead may change depending on the type of incident, the magnitude of the incident, and the debris location. Emergency response in the U.S. Virgin Islands is in accordance with the National Incident Management System (NIMS), and the Incident Command System (ICS) is the standard for on-scene emergency management (VITEMA, 2016). The *Virgin Islands Territorial Emergency Operations Plan (TEOP)* describes how the territorial government, federal government, non-governmental organizations, and private sector will operate before, during, and after a disaster that impacts the U.S. Virgin Islands (VITEMA, 2016).

Emergency operations in the U.S. Virgin Islands are initiated at the lowest level able to effectively respond to the waterway debris incident (VITEMA, 2016). There are no local municipal or county governments, and therefore the territorial government is the lowest jurisdictional level. The Virgin Islands Territorial Emergency Management Agency (VITEMA) manages emergency response for the territory, and the Federal Government may supplement territorial response actions when their resources have been exceeded or when unique capabilities are needed (VITEMA, 2016). Under the Stafford Act, the governor may request a presidential disaster declaration if the territory's capabilities are exceeded. After the president issues a declaration that a major disaster exists, it authorizes the Federal Emergency Management Agency (FEMA) to provide financial assistance to territorial governments and private nonprofit organizations that serve a public function.

Like the Federal Government, the U.S. Virgin Islands uses the Emergency Support Function (ESF) concept to apply territorial resources and assign agency responsibilities. ESFs most commonly applied during response to a waterway debris incident are ESF 3 Public Works and Engineering and ESF 10 Oil and Hazardous Materials Response. Table 2 outlines agencies responsible for supporting ESF 3 and ESF 10.

Table 2. Lead territorial and federal agencies for Emergency Support Functions 3 and 10. Data adapted from Virgin Islands Territorial Emergency Management Agency, 2016.

Emergency Support Function (ESF)	Lead Territorial Agency Support Agencies	Lead Federal Agencies
ESF 3 Public Works and Engineering	<b>Department of Public Works (DPW)</b> Department of Planning and Natural Resources (DPNR) Department of Sports, Parks, and Recreation VI Waste Management Agency (VIWMA) VI Water and Power Authority (WAPA)	Federal Emergency Management Agency (FEMA) U.S. Army Corps of Engineers (USACE)
ESF 10 Oil and Hazardous Materials Response	<b>Department of Planning and Natural Resources (DPNR)</b>	U.S. Coast Guard (USCG) U.S. Environmental Protection Agency (EPA)

During an emergency or major disaster, the governor is authorized to remove debris from public or private land or water if it may threaten public health or safety (23 V.I.C. § 1015). As a support

agency under ESF 3 and the agency responsible for management of territory-owned submerged lands, the Department of Planning and Natural Resources (DPNR) typically leads the territory's response to waterway debris outside of areas managed by the Virgin Islands Port Authority (VIPA). DPNR is also authorized to remove vessels that are a threat to navigation or the environment or are deemed unseaworthy or derelict (12 V.I.C. § 715(2)(a); 19 V.I.C. § 1559; 25 V.I.C. § 404; 25 V.I.C. § 408). During debris response operations, DPNR may coordinate with the Department of Public Works (DPW) for debris removal and the Virgin Islands Waste Management Authority (VIWMA) for final disposal.

Territorial and federal agency roles and responsibilities as they relate to waterway debris response are outlined in the following sections followed by responsibilities of private landowners and other organizations. For a visual one-page representation of the most likely response structure, see "U.S. Virgin Islands Waterway Debris Response Flowchart" in [Section 3](#). A list of select agency authorities applicable to waterway debris response is presented in [Appendix 8.3](#), and a map of agency jurisdictional authorities can be found in [Section 4.5](#). Additionally, contact information and response capabilities of key organizations is included in [Appendix 8.1](#) and [Appendix 8.2](#), respectively.

## 4.1 Territorial Agencies

### Department of Planning and Natural Resources (DPNR)

- Manages territory-owned submerged lands beneath navigable waters and from mean high tide seaward to 3 nautical miles (n.m.; 48 U.S.C. § 1705(a); 12 V.I.C. § 309(a))
- Lead territorial agency for response to waterway debris other than in areas managed by Virgin Islands Port Authority (VIPA)
  - Authorized to remove vessels that are a threat to navigation or the environment or deemed unseaworthy or derelict (12 V.I.C. § 715(2)(a); 19 V.I.C. § 1559; 25 V.I.C. § 404; 25 V.I.C. § 408)
  - Following a Stafford Act declaration, may serve as eligible applicant and receive public assistance reimbursement funding from FEMA to remove and dispose of waterway debris
  - May coordinate with Department of Public Works (DPW) for debris removal and Virgin Islands Waste Management Authority (VIWMA) for final disposal
- Lead agency for ESF 10 Oil and Hazardous Material Response (VITEMA, 2016) and for all oil and hazardous material spills that threaten the U.S. Virgin Islands (12 V.I.C. § 702(4); 12 V.I.C. § 705)
  - Manages territory's response to waterway debris exposed to or with the potential to release oil or hazardous substances
  - Manages Virgin Islands Coastal Protection Fund for the abatement of pollution, which includes the removal of derelict vessels (12 V.I.C. § 711)
  - Following a Stafford Act declaration, may serve as eligible applicant and receive public assistance reimbursement funding from FEMA to remove and dispose of hazardous waterway debris
  - Note: Reports of pollution threats should be made to 911 and the National Response Center (NRC). See [Appendix 8.1](#) for contact information.
- Support agency for ESF 3 Public Works and Engineering (VITEMA, 2016)

### **Division of Environmental Enforcement**

- Enforces all environmental, boating safety, and permitting laws of the U.S. Virgin Islands (Department of Planning and Natural Resources [DPNR], n.d.-b)
- Enforces select federal fisheries laws (DPNR, n.d.-b)
- May lead response to waterway debris in coordination with DPW for debris removal and VIWMA for final disposal
- Manages vessel registration process and may assist with identifying vessel owners

### **Division of Environmental Protection**

- Leads response to waterway debris exposed to or with the potential to release oil or hazardous substances
- Enforces environmental laws and regulations (DPNR, n.d.-c)
- For additional information on DPNR compliance requirements, see [Section 5](#)

### *Solid Waste Management Program*

- Provides oversight and guidance for debris management and disposal (19 V.I.C. § 1553(g))
- Authorizes temporary debris management sites for declared disasters
- Coordinating with VIWMA to develop a territorial debris management plan

### *Water Quality Management Program*

- Ensures compliance with water quality standards, including reviews of federal permit applications (DPNR, n.d.-e)

### **Division of Fish and Wildlife**

- Monitors, assesses, and implements public awareness activities to enhance and safeguard fish and wildlife resources through the Bureaus of Education, Fisheries, and Wildlife (DPNR, n.d.-d)
- Endangered Species Preservation Commission responsible for identification and preservation of threatened and endangered species in the territory (12 V.I.C. § 101 et seq.)
- For additional information on DPNR compliance requirements, see [Section 5](#)

### **State Historic Preservation Office (SHPO)**

- Preserves the U.S. Virgin Islands' historic, archaeological, and cultural resources
- Ensures compliance with the National Historic Preservation Act and the Virgin Islands Antiquities and Cultural Properties Act of 1998 (29 V.I.C. § 950 et seq.)
- For additional information on DPNR compliance requirements, see [Section 5](#)

### **Virgin Islands Coastal Zone Management Program (VICZMP)**

- Coordinates volunteer debris cleanup events
- Manages joint permit application process with the U.S. Army Corps of Engineers (12 V.I.C. § 910)
- Reviews territorial and federal actions to ensure consistency with the VICZMP and its enforceable rules and policies
- For additional information on DPNR compliance requirements, see [Section 5](#)

### **Department of Public Works (DPW)**

- Lead agency for ESF 3 Public Works and Engineering (VITEMA, 2016)
- Responsible for municipal solid waste collection and disposal and litter enforcement
- Other response agencies may coordinate with DPW for debris removal



- Following a Stafford Act declaration, may serve as eligible applicant and receive public assistance reimbursement funding from FEMA to remove and dispose of land-based debris or waterway debris in coordination with DPNR

#### **Department of Sports, Parks, and Recreation**

- Support agency for ESF 3 Public Works and Engineering (VITEMA, 2016)
- Responsible for management, regulation, and control of the use and operation of all public parks, lands for public recreation, and marine parks (32 V.I.C. § 21 et seq.)
- Following a Stafford Act declaration, may serve as eligible applicant and receive public assistance reimbursement funding from FEMA to remove and dispose of debris within their jurisdiction

#### **Office of the Lieutenant Governor**

- Geographic Information Systems (GIS) Program works with partner agencies to maintain spatial data and information including an online portal (Office of the Lieutenant Governor, 2019)

#### **University of the Virgin Islands (UVI)**

- Conducts marine debris research and prevention activities
- May lead waterway debris removal activities using grant funds
- Virgin Islands Marine Advisory Service works with the Virgin Islands community to raise awareness about our natural resources and foster environmental stewardship (University of the Virgin Islands, 2020)

#### **Virgin Islands Port Authority (VIPA)**

- Autonomous agency that owns and manages most public seaports and maintains harbors in the territory (29 V.I.C. § 543; Virgin Islands Port Authority [VIPA], n.d.)
- Lead territorial agency for response to waterway debris in VIPA-managed areas
  - Harbor authorities may notify other agencies and order the marking and/or removal of obstructions at the owner's expense (VIPA, 2001)
  - Assistant Commissioner for Marine and Aviation Services authorized to remove obstructions to navigation of any harbor, pier, wharf, bulkhead, or their approaches (25 V.I.C. § 133)
  - Manages Marine and Aviation Fund, which may be used for the removal of obstructions to navigation (25 V.I.C. § 132)
- Following a Stafford Act declaration, may serve as eligible applicant and receive public assistance reimbursement funding from FEMA to remove and dispose of waterway debris within VIPA's jurisdiction

#### **Virgin Islands Public Finance Authority**

##### **The West Indian Company Limited (WICO)**

- Public corporation that owns and maintains port facility with cruise ship pier in Havensight, St. Thomas (Virgin Islands Public Finance Authority, 2018)
- Lead organization for response to waterway debris in the WICO port

#### **Virgin Islands Territorial Emergency Management Agency (VITEMA)**

- Lead emergency management agency for all hazards and threats that impact the U.S. Virgin Islands (23 V.I.C. § 1006; VITEMA, 2018a)

- Coordinates emergency response and recovery; establishes mutual aid agreements; identifies and maintains response resources; restores pre-disaster conditions through public and individual assistance programs; conducts training, exercises, and public education; and manages hazard mitigation programs (VITEMA, 2016; VITEMA, 2018b)
- Prepares territorial organizations to respond to, recover from, and mitigate against all-hazards through planning, coordination, training, and exercise activities
- Activates and operates emergency operations centers (EOC) on St. Croix, St. John, and St. Thomas (VITEMA, 2016)
- Following a Stafford Act declaration, serves as coordination point between FEMA and eligible applicants
  - Serves as FEMA grantee and administers public assistance funding to eligible applicants (subgrantees)
  - Coordinates damage assessment and needs assessment process with territorial and federal assessment teams
  - Assists territorial agencies in the preparation and submission of federal disaster assistance applications
- Develops, maintains, and exercises the *Territorial Emergency Operations Plan* (TEOP; VITEMA, 2016; VITEMA, 2018b)
- Develops and maintains the *Territorial Hazard Mitigation Plan*

#### **Virgin Islands Waste Management Authority (VIWMA)**

- Support agency for ESF 3 Public Works and Engineering (VITEMA, 2016)
- Semi-autonomous agency responsible for operating and maintaining wastewater and solid waste infrastructure throughout the territory, including two landfills (19 V.I.C. § 1553 et seq.; 29 V.I.C. § 494 et seq.; Virgin Islands Waste Management Authority, 2020)
- Other response agencies may coordinate with VIWMA for final disposal of debris
- Coordinating with DPNR Division of Environmental Protection, Solid Waste Management Program to develop a territorial debris management plan

#### **Virgin Islands Water and Power Authority (WAPA)**

- Autonomous support agency for ESF 3 Public Works and Engineering (VITEMA, 2016)

## **4.2 Federal Agencies**

#### **Animal and Plant Health Inspection Service**

- Veterinary Services program provides for removal and burial of diseased animal carcasses
- Manages Plant Protection and Quarantine program to reduce the risk of introduction and spread of invasive species through planning, surveillance, quick detection, and containment

#### **Federal Emergency Management Agency (FEMA), Region 2**

- Under the Stafford Act, provides reimbursement funding for eligible debris removal from navigable waterways (non-federally maintained) or natural waterways (not improved or maintained) during presidential major disaster declarations when another federal agency does not have authority to fund the activity (FEMA, 2018a)
  - FEMA provides funding but does not conduct debris removal work
  - Provides public assistance funding for eligible debris removal to eligible applicants at a typical cost share of 75% FEMA, 25% territory

- FEMA eligible applicants must have legal responsibility to remove debris and include territorial governments, Indian Tribal Governments, and private nonprofit organizations that serve a public function
- Issues mission assignments to other federal agencies for technical assistance, federal operations support, or to perform or contract debris removal when territory capabilities are exceeded
- Makes eligibility determinations for debris removal on a case-by-case discretionary basis in coordination with the eligible applicant, territory, and other federal agencies
  - Debris removal must be necessary to eliminate the immediate threat to life, public health and safety, or improved property (FEMA, 2018a)
  - For navigable waterways, debris removal is limited to a max depth of 2 feet below the low tide draft of the largest vessel that used the waterway prior to the incident. Any debris below this zone is not eligible unless it is necessary to remove debris extending upward into an eligible zone (FEMA, 2018a).
  - For non-navigable waterways, including natural waterways, debris removal is only eligible to the extent that it is necessary to eliminate an immediate threat including the following: if the debris obstructs, or could obstruct, intake structures; if the debris could cause damage to structures; or if the debris is causing, or could cause, flooding to improved property during the occurrence of a 5-year flood (a flood that has a 20% chance of occurring in any given year; FEMA, 2018a)
- Employs debris specialists that can be mobilized to assist eligible applicants with debris management
- FEMA must ensure compliance with federal laws, regulations, and executive orders prior to funding debris removal work. For additional information on permitting and compliance requirements, see [Section 5](#).

## **National Oceanic and Atmospheric Administration (NOAA)**

### **National Marine Fisheries Service (NMFS or NOAA Fisheries)**

#### *Office of Habitat Conservation and Office of Protected Resources*

- Reviews proposed debris removal activities that involve a federal agency (directly or through funding and/or issuance of a federal permit) for compliance with Magnuson-Stevens Fisheries Conservation and Management Act and Endangered Species Act (ESA)
- For additional information on NOAA Fisheries compliance requirements, see [Section 5](#)

### **National Ocean Service**

#### *Office of Coast Survey*

- Mobilizes navigation response teams to survey ports and near-shore waterways for sunken debris, changes in water depth, and hazards to navigation following a disaster

#### *Office of National Geodetic Survey*

- Acquires and rapidly disseminates spatially-referenced remote-sensing datasets to support national emergency response. Imagery is obtained using high resolution digital cameras, film-based aerial camera systems, Light Detection and Ranging (LIDAR), and thermal and hyperspectral imagers.

#### *Office of Response and Restoration*

- Manages the Environmental Response Management Application (ERMA), a web-based GIS that includes an [online](#) dynamic version of the “U.S. Virgin Islands Waterway Debris Response Map” (NOAA, 2021)

- Serves as scientific support coordinators to coordinate application of NOAA assets and services during emergencies to help the federal on-scene coordinator (FOOSC) make timely operational decisions
- Provides scientific support for debris response planning and operations, including baseline information, debris behavior, debris impact, debris survey and detection protocols, removal best management practices (BMPs), disposal guidance, and information management
- May provide onsite support to internal and external partners at an incident command post or joint field office if there is a need for marine debris or NOAA expertise
- Funds marine debris assessment and removal projects through grants or congressional supplemental funding
- Facilitates inter-agency planning and coordination for responses to marine debris events
- Develops external communications such as talking points appropriate for the public, informational graphics, etc. to ensure the public and partner agencies understand and act on sound science and information critical to response and recovery operations
- For events determined by the NOAA Administrator to be severe marine debris events, may develop interagency plans, assess composition volume and trajectory of associated marine debris, and estimate potential impacts to the economy, human health, and navigation safety

#### **National Weather Service**

- Predicts, forecasts, and issues official watches and warnings of severe weather
- Provides operational tools and briefings to federal and territorial officials for emergency management awareness and decision support

#### **National Park Service (NPS)**

- Responsible for debris assessment and cleanup within NPS-managed lands and waters, including Virgin Islands National Park and Virgin Islands Coral Reef National Monument on St. John and Buck Island Reef National Monument, Salt River Bay National Historical Park and Ecological Preserve, and Christiansted National Historic Site on St. Croix
- May coordinate with partners to conduct waterway debris assessment and cleanup
- Provides BMPs to protect NPS-managed areas and associated resources
- For a map of NPS lands and waters in the U.S. Virgin Islands, see [Section 4.5](#)

#### **Natural Resources Conservation Service (NRCS)**

- When funding is available, provides emergency financial and technical assistance through the Emergency Watershed Protection (EWP) program to protect from additional flooding or soil erosion; to reduce threats to life or property from a watershed impairment, including sediment and debris removal in floodplains and uplands; and to restore the hydraulic capacity to the natural environment to the maximum extent practical
  - Help communities address watershed impairments that pose imminent threats to lives and property as a result of natural disasters
  - Typical cost share of 75% NRCS and 25% project sponsor
  - Public and private landowners are eligible for assistance but must be represented by a project sponsor, including any legal subdivision of a territorial government or agency with a legal interest in or responsibility for the affected area.
  - EWP program eligibility criteria include the following:
    - Waterway debris is a direct result of either a major disaster declared by the president or of an NRCS State Conservationist declared natural disaster
    - Waterway debris is a threat to life and/or property
    - Imminent threat was created by the event

- Recovery measures are for runoff retardation or erosion prevention
- Event caused a sudden impairment in the watershed
- Have economic, environmental, and social documentation adequate to warrant removal action
- Proposed removal action is technically viable and environmentally defensible
- Assists in the location of burial pits for animal mortality

#### **U.S. Army Corps of Engineers (USACE), Jacksonville District, Antilles Office**

- Maintains regional pre-event contracting capabilities for all U.S. states and most territories
- May request assistance from NOAA's navigation response team to survey ports and near-shore waterways

#### **Emergency Operations**

- Serves as lead federal agency under ESF 3 Public Works and Engineering
- Following a Stafford Act declaration, may provide technical support or lead eligible debris removal from navigable waterways (non-federally maintained) and wetlands under a FEMA mission assignment to perform or contract debris removal and surveying
- Responds within their authority under the Flood Control and Coastal Emergency Act (33 U.S.C. § 701n)

#### **Navigation**

- Responsible for operation, maintenance, and debris removal from authorized federally maintained channel at Gallows Bay on St. Croix. For a map of federally-maintained channel boundaries, see [Section 4.5](#).
- May remove or oversee removal by a responsible party (RP) of sunken vessels (wrecks) or other obstructions if they are determined by USACE and U.S. Coast Guard (USCG) to be hazards to navigation on or near the federal channel (33 C.F.R. § 245). May remove trees, brush, and other debris from navigable waterways if they are determined to promote flooding or be obstructions to navigation.
- Authorized to clear snags in specified small waterways (33 C.F.R. § 263.24)
- May provide assistance for debris removal from flood control structures (33 U.S.C. § 701n)
- May study and undertake projects to remove and dispose of derelict objects such as sunken vessels, waterfront debris and derelict structures, and other sources of drift that may damage vessels or threaten public health, recreation, or the environment at publicly maintained commercial boat harbors (33 U.S.C § 426m)
- Reviews permit applications when activities intersect with federally maintained waterways and channels, including levee systems

#### **Regulatory Program**

- Issues permits for debris removal within waterways and wetlands in the U.S. Virgin Islands
- For additional information on USACE permitting and compliance requirements, see [Section 5](#)

#### **U.S. Coast Guard (USCG), District 7, Sector San Juan**

- Within USCG Sector San Juan Captain of the Port (COTP) zone, Marine Safety Detachment (MSD) St. Thomas responds on the islands of St. Thomas and St. John, and Resident Inspection Office (RIO) St. Croix responds on St. Croix
- In most cases, removal of waterway debris by USCG is not authorized

- Oversees response to waterway debris exposed to or with the potential to release oil and hazardous substances that poses a substantial threat within the coastal zone as defined in the *Puerto Rico and the U.S. Virgin Islands Area Contingency Plan (ACP)*; USCG, 2015)
  - Removal actions generally limited to removing oil and other hazardous substances while leaving vessels in place
  - May coordinate with territorial agencies to have vessel removed after abating pollution threat
  - Oversees response to pollution threats in federally maintained waterways and channels in coordination with USACE
- Serves as lead federal agency (FOSC) under ESF 10 Oil and Hazardous Materials Response in the ACP coastal zone
  - Directs response in accordance with the National Contingency Plan (NCP)
  - Coordinates with territorial governments and oversees response by RP
  - Unlike response under a Stafford Act declaration, USCG may respond without a request from territorial or tribal governments under the NCP. During Stafford Act declarations, USCG retains the authority to act under the NCP.
- Maintains a year-round, 24-hour telephone watch through the National Response Center (NRC) for reporting of oil and hazardous material releases. See [Appendix 8.1](#) for contact information.
- Establishes a safety zone around hazards to navigation and broadcasts maritime safety warnings including the broadcast notice to mariners and the local notice to mariners to warn of wrecked vessels obstructing watercourse or creating hazards to navigation
- Following a Stafford Act declaration, may lead removal of waterway debris under a FEMA mission assignment to perform or contract the work
- May request assistance from NOAA's navigation response team to survey ports and near-shore waterways
- For a map of the ACP coastal-inland zone boundary, see [Section 4.5](#)

### **U.S. Environmental Protection Agency (EPA), Region 2**

- Oversees response to waterway debris exposed to, or with the potential to release, oil and hazardous substances that pose a substantial threat within the inland zone, as defined in the *Caribbean Regional Oil and Hazardous Substances Pollution Contingency Plan (RCP)* and the *Puerto Rico and the U.S. Virgin Islands ACP* (Caribbean Regional Response Team, 2016; USCG, 2015). For a map of the ACP coastal-inland zone boundary, see [Section 4.5](#).
- Serves as lead federal agency (FOSC) under ESF 10 Oil and Hazardous Materials Response in the ACP inland zone, and in close coordination with USCG during incidents affecting both inland and coastal zones
  - Directs response in accordance with the NCP
  - Coordinates with territorial governments and oversees response by RP
  - Unlike response under a Stafford Act declaration, EPA may respond without a request from territorial or tribal governments under the NCP. During Stafford Act declarations, EPA retains the authority to act under the NCP.
- Following a Stafford Act declaration, coordinates with USCG on the removal and disposal of contaminated waterway debris under a FEMA mission assignment
- Administers general ocean disposal permits for the ocean disposal of steel-hulled vessels (40 C.F.R. § 229.3)
- Ocean Dumping Management Program provides guidance regarding derelict vessel disposal, emergency disposal permits, and removal authorities

## **U.S. Fish and Wildlife Service (USFWS)**

### **Ecological Services Program**

- Reviews proposed debris removal activities that involve a federal agency (directly or through funding and/or issuance of a federal permit) for compliance with Endangered Species Act (ESA) and Coastal Barrier Resources Act (CBRA)
- For additional information on USFWS compliance requirements, see [Section 5](#)

### **National Wildlife Refuges (NWR)**

- Coordinates and manages waterway debris assessment and cleanup in the Caribbean Islands National Wildlife Complex which includes Buck Island NWR on St. Thomas and Sandy Point NWR and Green Cay NWR on St. Croix
- Uses lessons learned from past disasters to protect listed threatened or endangered land and freshwater species, certain marine species, and their critical habitat
- For a map of NWRs in the U.S. Virgin Islands, see [Section 4.5](#)

## **U.S. Navy**

### **Supervisor of Salvage and Diving (SUPSALV)**

- Manages and provides technical assistance for salvage, deep search and recovery, towing, and oil spill response operations
- Accesses and coordinates the U.S. Navy's hydrographic survey assets and capabilities
- Maintains an array of remotely operated vehicles, oil spill response, and salvage equipment
- Exercises and manages regional standing emergency salvage contracts to quickly draw upon resources of the commercial salvage industry (U.S. National Response Team, 2014)

## **4.3 Private Landowners**

- After a Stafford Act declaration, debris removal from private property or privately-owned waterways and banks is generally the responsibility of the property owner and not eligible for FEMA funding unless its removal is necessary to mitigate a health and safety threat and is in the public interest (FEMA, 2018a)
- May be eligible for debris removal funding from the Natural Resources Conservation Service (NRCS) Emergency Watershed Protection (EWP) program if represented by a project sponsor and specific criteria are met. See [Section 4.2 Natural Resources Conservation Service](#) for EWP program eligibility criteria.
- Homeowner insurance policy may cover debris removal from private property and property owners may partner with volunteer organizations
- May complete right-of-entry agreements with entities conducting private property debris removal or using private property as an access point

## **4.4 Other Organizations**

- Following a Stafford Act declaration, certain private nonprofit organizations that serve a public function and have the legal responsibility to remove the debris may serve as an eligible applicant and receive public assistance reimbursement funding from FEMA to perform or contract waterway debris removal (FEMA, 2018a)
- May provide debris removal assistance through funded projects and programs

## **Voluntary Organizations Active in Disaster (VOAD)**

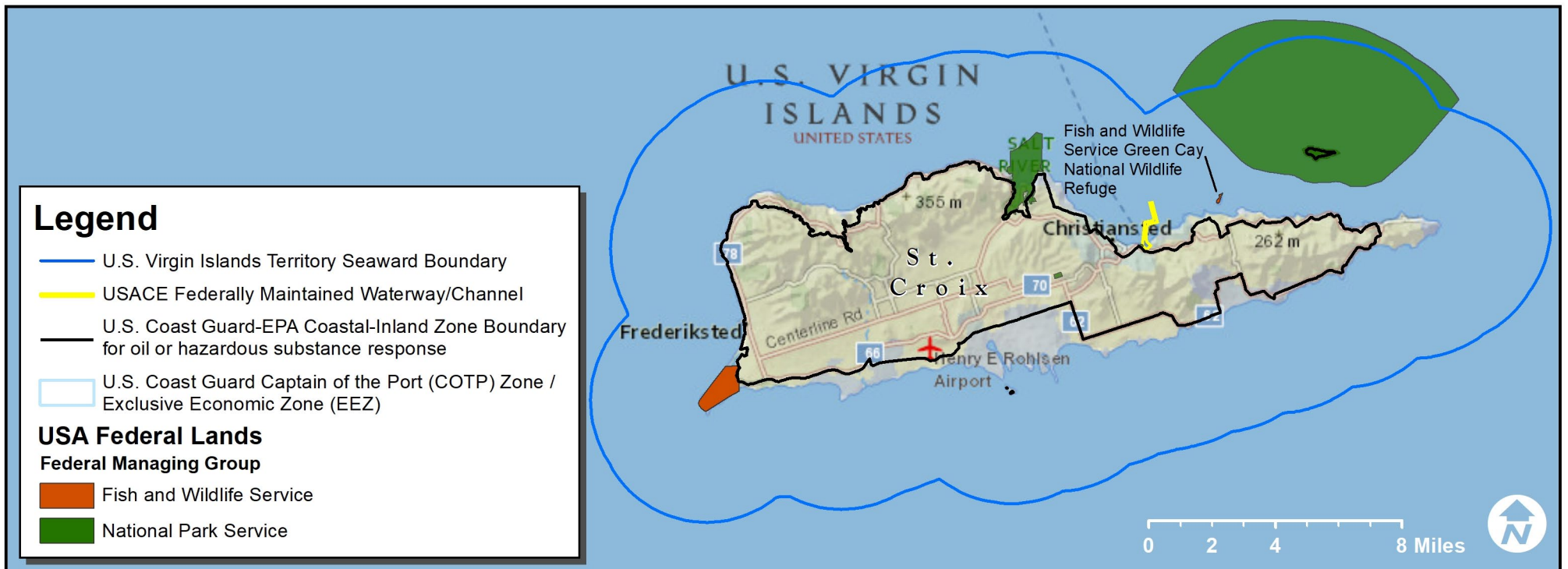
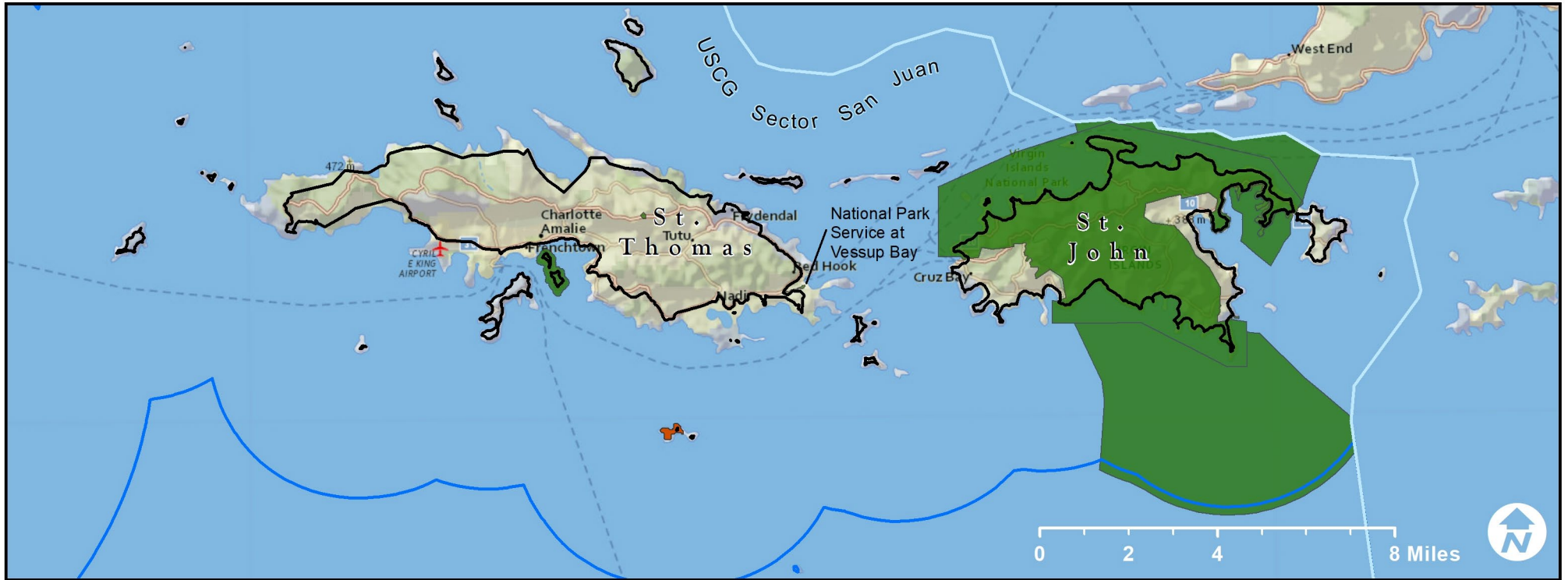
- Coordinates volunteer effort to support ESF operations (VITEMA, 2016)

## 4.5 U.S. Virgin Islands Waterway Debris Response Map

The “U.S. Virgin Islands Waterway Debris Response Map” displays relevant agency jurisdiction boundaries. After an acute waterway debris incident, the agency (or agencies) with jurisdiction and authority for removing debris will vary depending on where the debris is located. This map includes information that stakeholders identified as important in determining jurisdiction within the territory. A dynamic version of the response map is also available [online](#) in ERMA (NOAA, 2021). For detailed information regarding territorial and federal agency roles and responsibilities, see Sections [4.1](#) and [4.2](#), respectively. Select agency authorities applicable to waterway debris response are presented in [Appendix 8.3](#).



# U.S. Virgin Islands Incident Waterway Debris Response Map



## Legend

- U.S. Virgin Islands Territory Seaward Boundary
- USACE Federally Maintained Waterway/Channel
- U.S. Coast Guard-EPA Coastal-Inland Zone Boundary for oil or hazardous substance response
- U.S. Coast Guard Captain of the Port (COTP) Zone / Exclusive Economic Zone (EEZ)

## USA Federal Lands

### Federal Managing Group

- Fish and Wildlife Service
- National Park Service

## 5 Permitting and Compliance Requirements in the U.S. Virgin Islands

Before waterway debris removal work can begin, organizations responsible for removal must meet certain permitting and compliance requirements. While the organization or individual conducting the debris removal work is responsible for obtaining necessary permits—such as a U.S. Army Corps of Engineers (USACE) permit—it is the responsibility of the lead federal agency to ensure compliance with the National Environmental Policy Act (NEPA) and to consult with tribal and resource agencies including the Department of Planning and Natural Resources (DPNR), U.S. Fish and Wildlife Service (USFWS), and National Oceanic and Atmospheric Administration (NOAA).

During response under a Stafford Act declaration, the Federal Emergency Management Agency (FEMA) provides funding to applicants for debris removal and is therefore considered the lead federal agency responsible for tribal and resource agency coordination. Federal emergency support function (ESF) 11 Agriculture and Natural Resources may be activated for Stafford Act incidents requiring a coordinated federal response to protect natural and cultural resources and historic properties (FEMA, 2008). If waterway debris removal is conducted without federal funding and there are no federal agencies involved in removal activities, USACE is considered the lead federal agency as the permitting agency (if a permit is required).

A description of individual agency requirements and authorities is outlined below and is summarized in the “Permitting and Compliance for Waterway Debris Removal in the U.S. Virgin Islands” handout in [Section 5.3](#). Organization contact information can be found in [Appendix 8.1](#), and select agency authorities are presented in [Appendix 8.3](#).

### 5.1 Territorial Requirements

#### Department of Planning and Natural Resources (DPNR)

##### Virgin Islands Coastal Zone Management Program (VICZMP)

- Oversees a two-tier system for coastal regulation, whereby Tier 1 has a higher degree of regulation than the inland Tier 2 areas
  - See DPNR’s online map to view the boundaries of Tier 1 and 2 (DPNR, n.d.-a)
- Manages joint permit application process with USACE for debris removal activities in Tier 1 (12 V.I.C. § 910)
  - Serves as the initial agency to submit a permit application
  - DPNR forwards a copy to USACE and both agencies independently process application
  - A minor water coastal zone permit is required for debris removal in Tier 1 (12 V.I.C. § 910 (a)(1)), other than unregulated activities such as small coastal cleanups or minor maintenance projects
- May issue a no permit required letter for debris removal projects that do not disturb the water-bottom substrate
- Permit requirements may be waived in emergency situations
- Reviews territorial and federal actions to ensure consistency with the VICZMP and its enforceable rules and policies

#### Division of Environmental Protection

##### *Solid Waste Management Program*

- Provides oversight and guidance for debris management and disposal (19 V.I.C. § 1553(g))

- Issues solid waste disposal permits, reviews waste management plans and specifications, and manages special wastes and hazardous wastes
- Authorizes temporary debris management sites for declared disasters

#### *Water Quality Management Program*

- Ensures compliance with water quality standards (DPNR, n.d.-e)
- Reviews federal permit applications for compliance

#### **Division of Fish and Wildlife**

- Ensures compliance with the Endangered and Indigenous Species Act (12 V.I.C. § 101 et seq.)

#### **State Historic Preservation Office (SHPO)**

- Preserves the U.S. Virgin Islands' historic, archaeological, and cultural resources
- Reviews debris removal project plans to ensure compliance with the National Historic Preservation Act and the Virgin Islands Antiquities and Cultural Properties Act of 1998 (29 V.I.C. § 950 et seq.)
- Coordination with SHPO is recommended as soon as coordination with the Coastal Zone Management Program is initiated

## **5.2 Federal Requirements**

### **Federal Emergency Management Agency (FEMA)**

- Serves as lead federal agency responsible for tribal and resource agency coordination when providing funding to applicants for debris removal under a Stafford Act declaration
  - Ensures applicant's debris removal operations avoid impacts to floodplains, wetlands, federally listed threatened and endangered species and their critical habitats, and historic properties (including maritime or underwater archaeological resources if waterways are impacted)
  - Requires applicant to stage debris at a safe distance from property boundaries, surface water, wetlands, structures, wells, and septic tanks with leach fields
  - May require site remediation at staging sites and other impacted areas upon completion of debris removal and disposal
- When FEMA provides debris removal funding under the Stafford Act, the applicant applies for all necessary permits and FEMA initiates contact with SHPO. Failure to achieve compliance could jeopardize funding.

### **National Environmental Policy Act (NEPA)**

- NEPA requires federal agencies to assess the environmental effects of their proposed actions prior to making decisions
- If a waterway debris removal project involves a federal agency (directly or through funding and/or issuance of a federal permit), it is the responsibility of the lead federal agency to ensure NEPA compliance. If multiple federal agencies play a major role in the debris removal, then there may be a joint lead agency which shares the lead agency's responsibility for management of the NEPA process (Council on Environmental Quality, 2007).
  - FEMA is provided with statutory exclusions under Section 316 of the Stafford Act which exempts debris removal from the NEPA review process
  - Therefore, the NEPA review process is not required when FEMA is providing funding for waterway debris removal under a Stafford Act declaration. However,

compliance with all other federal and territorial environmental laws and regulations is still required, even when a project is statutorily excluded from NEPA review.

- For waterway debris removal operations, the impact of removal must be evaluated to minimize environmental and ecological damage to the maximum practical extent. In some cases, debris removal may be more environmentally damaging than leaving the debris in place.

### **National Oceanic and Atmospheric Administration (NOAA)**

#### **National Marine Fisheries Service (NMFS or NOAA Fisheries)**

- If a waterway debris removal project in the U.S. Virgin Islands involves a federal agency (directly or through funding and/or issuance of a federal permit), it is the responsibility of the lead federal agency to coordinate with NOAA Fisheries Southeast Regional Office prior to beginning debris removal work to ensure compliance with the Endangered Species Act (ESA) and Magnuson-Stevens Fisheries Conservation and Management Act
  - ESA directs all federal agencies to ensure the actions they take, including those they fund or authorize, do not jeopardize the continued existence of any listed endangered or threatened species or result in the destruction or adverse modification of designated critical habitat unless an exemption has been granted. Generally, NOAA Fisheries manages marine and anadromous species while USFWS manages land and freshwater species and certain marine species such as manatee. If a federal agency determines their activities or actions will affect listed species or designated critical habitat—even if the effects are expected to be beneficial—they must consult with NOAA Fisheries or USFWS. See NOAA Fisheries Southeast Region endangered species web page for an up to date U.S. Virgin Islands threatened and endangered species list (NOAA, 2020b).
  - Magnuson-Stevens Fisheries Conservation and Management Act directs all federal agencies to ensure the actions they take, including those they fund or authorize, do not adversely affect essential fish habitat (EFH). If a federal agency determines their activities or actions may adversely affect EFH, they must consult with NOAA Fisheries. See NOAA's online essential fish habitat mapper to view maps for EFH (NOAA, 2020f).
- Consultation during emergencies can be expedited so federal agencies can complete their critical missions in a timely manner while still providing protections to listed species and EFH. Steps to complete the emergency response consultation process are outlined in NOAA (2020c).
- Additional information on ESA and EFH consultation during non-emergencies can be found in NOAA (2020e) and NOAA (2019a), respectively

### **U.S. Army Corps of Engineers (USACE), Jacksonville District, Antilles Regulatory Section**

- USACE permit may be required for debris removal within waterways and wetlands if the activity involves dredging, the discharge of dredged or fill material, or involves structures or work impacting the navigability of a waterway
  - One or more permits may be needed depending on the scope of work to be conducted
  - USACE Antilles Regulatory Section has a joint permit application process with DPNR VICZMP, whereby DPNR VICZMP serves as the initial agency to submit a permit application
  - DPNR forwards a copy to USACE and both agencies independently process application

- Typically, USACE will not issue a permit until DPNR VICZMP has issued any required authorizations
- Permits that may be required include:
  - **Nationwide Permit 3: Maintenance.** Authorizes repair, rehabilitation or replacement structures or fills destroyed or damaged by storms, floods, fires or other discrete events. This permit may be issued for removal or maintenance of culverts, sediments, or debris accumulated around outfalls, bridges, etc.
  - **Nationwide Permit 18: Minor Discharges.** Authorizes minor discharges of dredged or fill material
  - **Nationwide Permit 19: Minor Dredging.** Dredging of no more than 25 cubic yards below the plane of the ordinary high water mark or the mean high water mark
  - **Nationwide Permit 20: Response Operations for Oil and Hazardous Substances.** Issued for activities conducted in response to a discharge or release of oil or hazardous substances subject to the NCP
  - **Nationwide Permit 22: Removal of Vessels.** Authorizes temporary structures or minor discharges of dredged or fill material required for the removal of wrecked, abandoned, or disabled vessels, or the removal of man-made obstructions to navigation
  - **Nationwide Permit 27: Aquatic Habitat Restoration, Enhancement, and Establishment Activities.** Authorizes activities associated with the restoration and enhancement of tidal areas, streams, and other waters of the U.S. provided those activities result in net increases in aquatic resource functions and services
  - **Nationwide Permit 37: Emergency Watershed Protection and Rehabilitation.** Issued for work conducted under the NRCS EWP program
  - **Nationwide Permit 38: Cleanup of Hazardous and Toxic Waste.** Issued for the containment, stabilization, or removal of hazardous or toxic waste materials that are performed, ordered, or sponsored by a government agency with legal or regulatory authority, other than activities undertaken entirely on a Superfund (Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA]) site
- In emergency situations, permitting procedures may be expedited and resource agency coordination may occur “after the fact” as opposed to before a permit is issued. This may result in additional work by the applicant once the emergency and immediate threat has been mitigated.
- Navigation Section reviews permit applications when activities intersect with federally maintained waterways and channels, including levee systems

## U.S. Fish and Wildlife Service (USFWS)

### Ecological Services Program

- If a waterway debris removal project in U.S. Virgin Islands involves a federal agency (directly or through funding and/or issuance of a federal permit), it is the responsibility of the lead federal agency to coordinate with USFWS Caribbean Ecological Services Field Office prior to beginning debris removal work to ensure compliance with ESA and the Coastal Barrier Resources Act (CBRA)
  - ESA directs all federal agencies to ensure the actions they take, including those they fund or authorize, do not jeopardize the continued existence of any listed endangered or threatened species or result in the destruction or adverse modification of designated critical habitat unless an exemption has been granted. Generally, USFWS manages land and freshwater species and certain marine species such as manatee, while NOAA Fisheries manages marine and anadromous species. If a federal agency determines their activities or actions may affect listed species or

designated critical habitat—even if the effects are expected to be beneficial— they must consult with USFWS or NOAA Fisheries. See USFWS’s Information for Planning and Consultation website for an up-to-date list of U.S. Virgin Island’s threatened and endangered land and freshwater species (U.S. Fish and Wildlife Service [USFWS], n.d.).

- CBRA restricts federal expenditures and financial assistance that encourage development of coastal barriers so that damage to property, fish, wildlife, and other natural resources associated with the coastal barrier is minimized. The John H. Chafee Coastal Barrier Resources System (CBRS) is a collection of specific units of land and associated aquatic habitats that serve as barriers protecting the Atlantic, Gulf of Mexico, Great Lakes, U.S. Virgin Islands, and Puerto Rico coasts. After a Stafford Act declaration, costs for debris removal and emergency protective measures in designated CBRS units may be eligible for reimbursement under FEMA’s public assistance program provided the actions eliminate an immediate threat to lives, public health and safety, or protect improved property. A map of CBRS units in U.S. Virgin Islands can be downloaded from U.S. Fish and Wildlife Service (USFWS, 2016).
- For projects that do not involve federal permits or funding, USFWS consultation is not required, but is recommended. Harassing or harming (“taking”) an endangered or threatened species or significantly modifying their habitat is still prohibited under ESA regardless of federal nexus involvement.
- Reviews may be expedited in emergencies, and USFWS staff may embed in response teams
- Each debris removal project is reviewed individually unless USFWS prepares a programmatic consultation. Under a programmatic consultation, all parties agree on certain conservation measures that must be implemented. If a waterway debris removal project arises that does not fit the programmatic measures, then it must be reviewed individually.
- USFWS may evaluate and/or provide BMPs that provide necessary protections while allowing projects to go forward
- If the proposed waterway debris removal project will not impact listed threatened or endangered species, or if the federal consulting agency agrees to implement USFWS’s recommendations, the consultation process is completed at the "informal" stage. However, if debris removal operations will adversely affect a listed species or critical habitat, the federal consulting agency must initiate a "formal" consultation, a process which typically ends with the issuance of a biological opinion by USFWS (or NOAA Fisheries, if the ESA-listed species affected is under NOAA Fisheries’ purview).

### **5.3 Permitting and Compliance for Waterway Debris Removal in the U.S. Virgin Islands One-Pager**

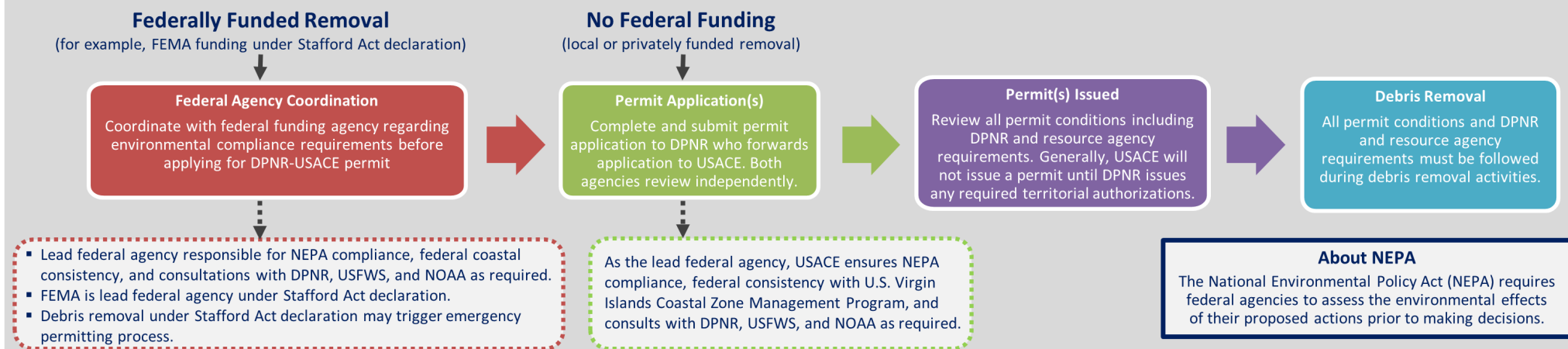
The “Permitting and Compliance for Waterway Debris Removal in the U.S. Virgin Islands” handout on the following page synthesizes permitting and compliance requirements that must be met before waterway debris removal operations begin. The top portion of the one-pager outlines the process to follow to stay in compliance, while the bottom portion highlights specific territorial and federal agency requirements with general contact information.

For detailed information regarding individual territorial and federal requirements, see [Sections 5.1](#) and [5.2](#), respectively.

# Permitting and Compliance for Waterway Debris Removal in the U.S. Virgin Islands

- In U.S. Virgin Islands, a Department of Planning and Natural Resources (DPNR) minor water coastal zone permit and U.S. Army Corps of Engineers (USACE) permit may be required if debris removal involves dredging, the discharge of dredge or fill material, or involves structures or work impacting the navigability of a waterway.
- The **organization or individual conducting the debris removal** is responsible for obtaining necessary permits, and DPNR and USACE have a joint permit application process.
- The **lead federal agency** is responsible for compliance with National Environmental Policy Act (NEPA), federal coastal consistency, and consulting with DPNR, U.S. Fish and Wildlife Service (USFWS), and the National Oceanic and Atmospheric Administration (NOAA) as required.

## Compliance Process When Permit is Required



## Primary Agency Requirements and Contact Numbers

<p><b>Department of Planning and Natural Resources (DPNR)</b></p> <p>St Thomas 340-774-3320 St. Croix 340-773-1082</p> <p><b>Coastal Zone Management Program</b> czm@dpnr.vi.gov</p> <p><b>State Historic Preservation Office</b> 340-776-8605</p>	<p><b>Coastal Zone Management Program</b></p> <ul style="list-style-type: none"> <li>▪ Manages joint application process for debris removal in Tier 1</li> <li>▪ Serves as the initial agency to submit a permit application. DPNR forwards a copy to USACE and both agencies independently process application.</li> <li>▪ Reviews federal actions for consistency with enforceable policies</li> </ul> <p><b>Division of Environmental Protection</b> <i>Solid Waste Management Program</i></p> <ul style="list-style-type: none"> <li>▪ Provides oversight and guidance for debris management and disposal</li> <li>▪ Authorizes temporary debris management sites for declared disasters</li> </ul> <p><i>Water Quality Management Program</i></p> <ul style="list-style-type: none"> <li>▪ Reviews federal permit applications for compliance with USVI water quality standards</li> </ul> <p><b>Division of Fish and Wildlife</b></p> <ul style="list-style-type: none"> <li>▪ Ensures compliance with the Endangered and Indigenous Species Act</li> </ul> <p><b>State Historic Preservation Office (SHPO)</b></p> <ul style="list-style-type: none"> <li>▪ Ensures compliance with National Historic Preservation Act and Virgin Islands Antiquities and Cultural Properties Act of 1998</li> <li>▪ Consultation with SHPO required if waterway debris response involves a federal agency and/or funding (USACE permit, FEMA funding, etc.) to evaluate whether activities affect historic or cultural sites included in or eligible for the National Register of Historic Places</li> </ul>	<p><b>U.S. Army Corps of Engineers (USACE)</b> Jacksonville District Antilles Office Regulatory Section 787-729-6905</p>	<ul style="list-style-type: none"> <li>▪ USACE Antilles Office and DPNR have a joint permit application process</li> <li>▪ In emergencies, USACE may waive permitting for waterway debris removal if there is no substrate disturbance. USACE recommends coordination to confirm.</li> <li>▪ Some permits that may be required for debris removal in waterways and wetlands are:             <ul style="list-style-type: none"> <li>▪ <b>NWP-3 Maintenance</b> for removal/maintenance of culverts, sediments or debris accumulated around outfalls, bridges, etc.</li> <li>▪ <b>NWP-18 Minor Discharges</b> of dredge or fill material</li> <li>▪ <b>NWP-19 Minor Dredging</b> of no more than 25 cubic yards</li> <li>▪ <b>NWP-22 Removal of Vessels</b> for removal of wrecked, abandoned, or disabled vessels or other man-made obstructions to navigation</li> </ul> </li> <li>▪ Consultation required if waterway debris response involves federal permits and/or funding (USACE permit, FEMA funding, etc.) to comply with:             <ul style="list-style-type: none"> <li>▪ Endangered Species Act (ESA) to ensure actions do not jeopardize the continued existence of any listed endangered or threatened marine species or adversely modify designated critical habitat</li> <li>▪ Magnuson-Stevens Fisheries Conservation and Management Act to ensure actions do not adversely affect Essential Fish Habitat (EFH)</li> </ul> </li> <li>▪ Consultation required if waterway debris response involves federal permits and/or funding (USACE permit, FEMA funding, etc.) to comply with:             <ul style="list-style-type: none"> <li>▪ Endangered Species Act to ensure actions do not adversely modify designated critical habitat or jeopardize the continued existence of any listed endangered or threatened land or freshwater species and certain marine species such as manatee</li> <li>▪ Coastal Barrier Resources Act to ensure actions do not encourage development on coastal barriers of the U.S. Virgin Islands.</li> </ul> </li> </ul>
		<p><b>National Oceanic and Atmospheric Administration (NOAA)</b> NOAA Fisheries ESA: 727-824-5312 EFH: 305-213-3089</p>	
		<p><b>U.S. Fish and Wildlife Service (USFWS)</b> Caribbean Ecological Services Field Office 787-851-7297</p>	

## 6 U.S. Virgin Islands Waterway Debris Response Needs

Waterway debris response challenges and associated recommendations are outlined below. Response challenges identified by stakeholders will serve as future points of discussion and action for the U.S. Virgin Islands waterway debris response community. Potential opportunities for addressing these challenges include table-top activities to exercise this *Guide*, response exercises that incorporate debris scenarios, and coordination meetings associated with this document's formal review.

### 6.1 Response Challenges and Recommended Actions

The following challenges and recommendations have been compiled based on stakeholder input to improve preparedness for response and recovery operations following an acute waterway debris incident in the U.S. Virgin Islands.

#### 6.1.1 Planning and Policy

- Challenge: There is a lack of clear planning on what to do before and after a hurricane event with regards to waterway debris
  - Actions:
    - Establish formal meetings or debris task force with relevant agencies that meets regularly to share information
    - Conduct waterway debris-specific trainings and exercises, or add waterway debris response information into existing trainings and exercises
    - Develop best practices for response agencies and disseminate using tools such as social media
- Challenge: Agency policy limitations and response authorities restrict debris response, removal, and disposal activities. For example, during ESF 10 operations after a disaster, pollution responders are limited in their ability to respond to waterway debris.
  - Actions:
    - Provide training on establishing pre-approved contracts and associated requirements
    - Ensure that pre-approved contracts for debris and hazardous materials do not expire
    - When disposal options are limited, increase the use of emergency permitting procedures or relax disposal regulations
- Challenge: There is a need for enhanced response posture for project management of salvage operations

#### 6.1.2 Coordination, Communication, and Education

- Challenge: There is a lack of coordination and communication on current information between agencies and within departments. For example, there is a need for coordination of activities during the debris removal process, such as archiving photos, invoicing, quantifying debris, etc.



- Actions:
  - Establish formal meetings or debris task force with relevant agencies that meets regularly to share information
  - Conduct waterway debris-specific trainings and exercises, or add waterway debris response information into existing trainings and exercises
  - Gather best practices and standard operating procedures among federal agencies
- Challenge: There is a lack of adequate representation from key agencies and other stakeholder organizations
  - Actions:
    - Ensure that all planned debris meetings are outcome-driven to encourage participation
    - Develop and disseminate a chain of command visual product (pyramid, graph, etc.) with contact information
    - Encourage VITEMA and DPNR to deliver a consistent message as they coordinate among all three islands
    - Establish formal meetings or debris task force with relevant agencies that meets regularly to share information
- Challenge: It is difficult to determine whose responsibility it is to remove debris from waterways
  - Actions:
    - Encourage agencies to develop and share white papers, standard operating procedures, and social media content on their role and capabilities for debris removal and management
    - Conduct waterway debris-specific trainings and exercises, or add waterway debris response information into existing trainings and exercises
    - Establish formal meetings or debris task force with relevant agencies that meets regularly to share information
    - *Note: See [Section 3 U.S. Virgin Islands Waterway Debris Response Flowchart](#) and [Section 4 Roles and Responsibilities](#) for an overview of the response process and organization responsibilities, respectively*
- Challenge: There is a need for more education about the issue of post-disaster waterway debris, the types of waterway debris, and the response and compliance process
  - Actions:
    - Encourage federal agencies and key territorial agencies to develop materials and training to support other organizations' awareness and knowledge of programs and processes
    - Conduct waterway debris-specific trainings and exercises, or add waterway debris response information into existing trainings and exercises
    - Update "Endangered Species Consultation for Emergency Responses in Puerto Rico and U.S. Virgin Islands" form to include debris response information (U.S. National Response Team, n.d.)

### 6.1.3 Data and Resources

- Challenge: There is a lack of organized waterway debris data that can be analyzed. This includes pre- and post-event data such as debris location, waterway condition, accumulation rates for difficult to access shorelines, debris types and quantities removed, etc.
  - Action: Incorporate reporting requirement for debris removed into debris removal permits issued
- Challenge: There is a need for increased capacity to conduct rapid debris assessments after a storm event and to report/display that data spatially for a more effective response
  - Action: Identify and train qualified local contractors that could supplement the government's labor force after a disaster
- Challenge: There is limited funding available for removal of marine debris
- Challenge: When grant funds are received, the process of obtaining funds and conducting the marine debris removal is slow, and there is a significant lag in response time from disaster event to cleanup
  - Action: Identify and train qualified local contractors or non-governmental organizations that could supplement the government's labor force after a disaster
- Challenge: There are limitations on personnel and equipment capabilities for harbor clearing operations after an earthquake, hurricane, tropical storm, or tsunami (VITEMA, 2016)
  - Note: See [Appendix 8.2](#) for a summary of response capabilities for key organizations
- Challenge: There is only one territorial agency (DPNR Division of Fish and Wildlife) that has vessels and certified divers on staff. However, their response efforts are not supported by grant funding.
- Challenge: There is no practical capacity for local law enforcement agencies to fine violators, enforce laws, and remove waterway debris

### 6.1.4 Debris Management Logistics

Debris management and disposal is a particularly challenging issue in the U.S. Virgin Islands. See [Section 2.2. Solid Waste Management in the U.S. Virgin Islands](#) for additional information.

- Challenge: There is a lack of places to stage, store, and manage collected debris
  - Actions:
    - Pre-identify and pre-permit staging areas for debris
    - Establish agreement with ports to use land for offloading or staging
- Challenge: The options for debris reduction and final disposal are limited and costly
  - Action: When disposal options are limited, increase the use of emergency permitting procedures or relax disposal regulations

- Challenge: The procedures, enforcement, removal, and disposal of abandoned and derelict vessels (ADV) is complicated with many hurdles
  - Actions:
    - Require boat owners to remove vessels before a disaster via legislation that penalizes non-compliance
    - Benchmark with other islands (including British Virgin Islands) to better understand their processes and potential solutions, including having insurance companies enforce compliance
    - Increase registration rates, insurance rates, or vessel storage fees and use funds for ADV management
    - Increase DPNR enforcement numbers and staff salaries
- Challenge: It is difficult to remove and properly dispose of large debris items on the sea floor

### 6.1.5 Debris Prevention and Impacts

- Challenge: Debris dump sites are located adjacent to ghuts (watercourses), which perpetuates debris transfer into waterways
  - Actions:
    - Integrate VIWMA dump site locations into VITEMA hazard mitigation program's watershed study
    - Identify suitable locations for and establish additional convenience stations for debris disposal
- Challenge: There is regular illegal dumping of debris, and large amounts of every-day debris items are blown or dropped from moored and transiting vessels, potentially into ecologically sensitive coastal habitats
  - Actions:
    - Increase enforcement of code violations
    - Conduct campaigns to discourage the use of single-use plastics in the food and beverage industry
    - Add additional fees/taxes to imported single-use items to account for the cost of proper disposal
    - Enact bans on single-use plastics
- Challenge: Marine life and ecosystems are impacted by waterway debris
  - Action: Develop resource advisor training program for territory

## 6.2 Additional Resources

Barnea, N., Michel, J., Bray, B., Nixon, Z., Imahori, G., & Moegling, C. (2009). *Marine debris emergency response planning in the north-central Gulf of Mexico* (Technical Memorandum NOS-OR&R-31). Silver Spring, MD: National Oceanic and Atmospheric Administration. Retrieved from <https://marinedebris.noaa.gov/marine-debris-emergency-response-planning-north-central-gulf-mexico>

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## 8 Appendices

### 8.1 Contact Information

Note: Contact information is only included for organizations who have provided and/or approved information in the following tables.

#### Territorial Agencies

Agency	Division	Topic	Point of Contact	Phone	Email
Department of Planning and Natural Resources (DPNR)	-	General questions	Main Office (St. Thomas)	340-774-3320	-
		General questions	Main Office (St. Croix)	340-773-1082	-
		Planning and coordination	JP Oriol, Commissioner	340-774-3320	jp.oriol@dpnr.vi.gov
		Public affairs	Jamal Nielsen, Public Information Officer	-	jamal.nielsen@dpnr.vi.gov
	Division of Coastal Zone Management (VICZMP)	Capability: Workforce/expertise, logistics	Marlon Hibbert, Director	340-773-1082	marlon.hibbert@dpnr.vi.gov
		Planning and coordination	Kitty Edwards, Education and Outreach Coordinator	340-774-3320 x 5117 (O), 340-998-4820 (C)	kristina.edwards@dpnr.vi.gov
		Permitting	General contact	-	czm@dpnr.vi.gov
	Division of Environmental Enforcement	St. Croix; Capability: List of vessel owners; staging/off-loading; mooring locations	Howard Forbes Sr., Director	340-773-5774	howard.forbes@dpnr.vi.gov
		St. Thomas and St. John	Jessica Magras-Parris, Assistant Director	340-774-3320	jessica.magras-parris@dpnr.vi.gov
	Division of Fish and Wildlife	Capability: Equipment, guidelines for environmental, marine fisheries, and wildlife including flora and fauna, research, permitting, mooring locations, staging/off-loading, dive support, restoration expertise	Nicole Angeli, Director	340-773-1082	nicole.angeli@dpnr.vi.gov
			Alfonso Garcia, Environmental Specialist	340-773-1082	alfonso.garcia@dpnr.vi.gov
			Julia Plotkin, Environmental Specialist	340-773-1082	julia.plotkin@dpnr.vi.gov
	State Historic Preservation Office	Historic preservation	Sean Krigger, Acting Director/Deputy SHPO	340-776-8605	sean.krigger@dpnr.vi.gov
Office of Lieutenant Governor	GIS Division	Capability: GIS	Chris George, GIS Administrator	340-774-2991 x 4321	geo.info@lgo.vi.gov
Virgin Islands Department of Public Works (DPW)	-	-	St. Croix Office	340-773-1290	-
			St. John Office	340-776-6346	-
			St. Thomas Office	340-776-4844	-
Virgin Islands Port Authority (VIPA)	-	Planning and coordination	Carlton Dowe, Executive Director	340-774-1629 (O) 340-227-7675 (C)	cdowe@viport.com
			Mervyn Constantine, Marine Manager-STX	340-626-0920	mconstantine@viport.com
			Jeffrey Saldana, Chief Wharfinger	340-626-9886	jsaldana@viport.com
		Capability: Equipment, logistics	Joseph Cranston Jr., Marine Manager	340-201-8518	jcranston@viport.com
		Capability: Workforce/expertise	Monifa Marrero Brathwaite, Public Information Manager	340-244-1065	info@viport.com
Capability: Sub-surface detection	Playland Marine LLC	340-643-3913	playland.marine@gmail.com		

## Territorial Agencies Continued

Agency	Division	Topic	Point of Contact	Phone	Email
Virgin Islands Territorial Emergency Management Agency (VITEMA)	-	Planning and coordination	Daryl Jaschen, Director	-	daryl.jaschen@vitema.vi.gov
		Risk to public health and safety	Emergency Operations Center – St. Thomas/St. John	340-774-3320 x 5156	-
			Emergency Operations Center – St. Croix	340-773-2244	-
	VITEMA Headquarters	General questions	VITEMA Headquarters (St. Thomas)	340-774-2244	contact@vitema.vi.gov
	St. Croix Office	General questions	St. Croix Office	340-773-2244	contact@vitema.vi.gov
St. John Office	General questions	St. John Office	340-776-2244	contact@vitema.vi.gov	
Virgin Islands Waste Management Authority (VIWMA)	-	Planning and Coordination	Roger E. Merritt, Jr., Executive Director	340-642-9373	rmerritt@viwma.org
			Luis Sylvester, Chief Planning Officer	-	lsylvester@viwma.org
			Denise Lewis, Emergency Management Coordinator	-	dlewis@viwma.org

## Federal Agencies

Agency	Division	Topic	Point of Contact	Phone	Email
Federal Emergency Management Agency (FEMA)	Region 2	Environmental and historic preservation (EHP)	John Dawson, Regional UFR Coordinator, Mitigation Division/EHP	202-286-1627	john.dawson@fema.dhs.gov
			Shenelle Dore, FEMA-EHP	202-701-9056	shenelle.dore@fema.dhs.gov
			John McKee, Regional Environmental Officer	212-680-3672 (O) 202-704-7160 (C)	john.mckee@fema.dhs.gov
		Public assistance	Vincent Ebbesen, Public Assistance Group Supervisor (Education)	202-674-4750	vincent.ebbesen@fema.dhs.gov
			Herbert Grigg Jr., Public Assistance Group Supervisor (Health, Utilities, and Transportation)	256-343-5572	herbert.grigg-jr@fema.dhs.gov
			Addison Hesslink, Public Assistance Group Supervisor (Health, Utilities, and Transportation)	512-568-5472	addison.hesslink@fema.dhs.gov
			Tiffany Moorhead, Public Assistance Group Supervisor (Public Buildings/Housing)	202-805-8773	tiffany.moorhead@fema.dhs.gov
			Kristen Hodge, Infrastructure Branch Director	340-626-6467	kristen.hodge@fema.dhs.gov
			Tom Fesen, Deputy Infrastructure Branch Director	609-480-1208	thomas.fesen@fema.dhs.gov
			Matt Overman, Deputy Infrastructure Branch Director	202-714-8895	matthew.overman@fema.dhs.gov
National Oceanic and Atmospheric Administration (NOAA)	National Marine Fisheries Service (NMFS) or NOAA Fisheries)	Emergency ESA/EFH consultation	General contact	-	nmfs.ser.emergency.consult@noaa.gov
		EFH information, capabilities	Jocelyn Karazsia	561-440-1333	jocelyn.karazsia@noaa.gov
		EFH information	Pace Wilber	843-568-4184	pace.wilber@noaa.gov
		ESA information	General contact	727-824-5312	-
			Melissa Alvarez	954-734-0716 (O) 201-978-9075 (C)	melissa.alvarez@noaa.gov
			Jennifer Moore, Threatened Coral Recovery Coordinator	727-551-5797 (O) 727-647-2357 (C)	jennifer.moore@noaa.gov
Capability: LIDAR, sub-surface detection	Jose Rivera	-	jose.a.rivera@noaa.gov		

*Continued on next page*

**Federal Agencies Continued**

Agency	Division	Topic	Point of Contact	Phone	Email
<i>Continued from previous page</i>  National Oceanic and Atmospheric Administration (NOAA)	National Ocean Service (NOS), Office of Coast Survey	Navigation preparation and response	Nicolas Alvarado, Regional Navigation Manager - South Florida, Puerto Rico, U.S. Virgin Islands	202-253-9536 (C)	florida.navmanager@noaa.gov
	NOS, Office of Response and Restoration, Emergency Response Division	Potential to release oil or hazardous substance	Brad Benggio, Scientific Support Coordinator for USCG District 7 (FL, GA, SC and Caribbean) and RRT Region 4 and Caribbean	305-530-7925 (O) 206-375-5697 (24hr)	brad.benggio@noaa.gov
	NOS, Office of Response and Restoration, Marine Debris Program	Planning and coordination for marine debris issues	Ashley Hill, Florida and Caribbean Regional Coordinator	727-209-5994	ashley.hill@noaa.gov
	NOS, National Geodetic Survey, Remote Sensing Division	Capability contact	Mike Aslaksen	240-533-9576	mike.aslaksen@noaa.gov
National Park Service (NPS)	St. John	Capability contact, response on NPS-owned lands (St. John)	Thomas Kelley, Natural Resource Manager	340-690-2440	thomas_kelley@nps.gov
	St. Croix	Response on NPS-owned lands (St. Croix)	Kristen Ewen, Biologist	340-277-6798	kristen_ewen@nps.gov
Evan Gwilliam, Supervisory Resource Management Specialist			340-626-2169	evan_gwilliam@nps.gov	
Natural Resource Conservation Service (NRCS)	Caribbean Area	Emergency Watershed Protection (EWP) Program Information	Lisbeth San Miguel-Rivera, EWP Coordinator	939-208-0931	lisbeth.sanmiguel-rivera@usda.gov
			Yilia Baucage-Bou, State Conservation Engineer	787-342-6916	yilia.baucagebou@usda.gov
			Luis Cruz-Arroyo, NRCS Caribbean Area Director	787-405-7368	luis.cruz-arroyo@usda.gov
			Rudy O'Reilly, St. Croix District Conservationist	340-514-4262	rudy.o_reilly@usda.gov
U.S. Army Corps of Engineers (USACE), Jacksonville District	Emergency Management	Emergency management (Antilles Office)	Johann Sasso, Disaster Program Manager	787-729-6860	johann.m.sasso@usace.army.mil
		Capability: Equipment, workforce/expertise	Logan Wilkinson, Emergency Management Chief	904-232-1881	logan.c.wilkinson@usace.army.mil
		Capability: Workforce/expertise	Dehyrl Middleton, P.E., Acting Disaster Program Manager Matt Tate, Debris Program Manager, CEMVD-RO	251-349-0998 251-802-2011	dehyrl.h.middleton@usace.army.mil jacob.m.tate@usace.army.mil
	Navigation	Federally maintained waterway or channel	Milan Mora, Navigation Chief	-	milan.a.mora@usace.army.mil
			Zulamet Vega-Liriano, Project Manager	-	zulamet.z.vega-liriano@usace.army.mil
	Regulatory Section, Antilles Office	Compliance and permitting	Regulatory Section	786-886-9198 787-370-8359	CESAJ-RD-SA@usace.army.mil
U.S. Coast Guard (USCG)	-	Report potential to release oil or hazardous substance	National Response Center (NRC)	800-424-8802	-
	District 7	Planning and coordination	LT Andrew Garcia, RRT IV Coordinator/Alt. Co-Chair and Caribbean Coordinator	-	andrew.m.garcia@uscg.mil
			Richard Lavigne, Incident Management Preparedness Advisor, RRT IV/Caribbean Co-Chair	305-415-7138	richard.j.lavigne@uscg.mil
	District 7, Sector San Juan	Capability contact coastal zone	Sector San Juan Command Center	787-289-2041	-
			Sector San Juan Incident Management Division	787-729-5399	-
			General contact (St. Croix and Buck Islands)	RIO St. Croix	340-772-5557
	General contact (St. Thomas and St. John)	MSD St. Thomas	340-776-3497	-	

### Federal Agencies Continued

Agency	Division	Topic	Point of Contact	Phone	Email
U.S. Environmental Protection Agency (EPA)	-	Report potential to release oil or hazardous substance	National Response Center (NRC)	800-424-8802	-
	Region 2	Capability contact	EPA Region 2 Regional EOC	732-906-6850 732-321-4370	-
		Capability: Technology	ASPECT 24 Hour Access via EPA Headquarters EOC	202-564-3850	-
		Ocean disposal of vessels	Mark Reiss, Chief Dredging, Sediment, and Oceans Section	212-637-3799	reiss.mark@epa.gov
		Planning and Coordination	Steve Touw, Caribbean Regional Response Team (CRRT) Coordinator	732-906-6900	touw.steve@epa.gov
U.S. Fish and Wildlife Service (USFWS)	Caribbean Ecological Services Field Office	Compliance and permitting	General contact	-	caribbean_es@fws.gov
		Response in NWR lands	Michael Evans, Refuge Manager	340-773-4554	michael_evans@fws.gov
		Planning and coordination	Felix Lopez, Ecologist/Contaminants Specialist	305-304-1128 (C)	felix_lopez@fws.gov
		Capability contact	James Yrigoyen, Fish and Wildlife Biologist	305-304-1359	jaime_yrigoyen@fws.gov

### Academia and Non-Governmental Organizations

Organization	Division	Topic	Point of Contact	Phone	Email
University of Virgin Islands (UVI)	Center for Marine and Environmental Studies, USVI Marine Advisory Service	Capability: Environmental resource expertise, restoration (corals)	Dr. Marilyn Brandt	-	mbrandt@uvi.edu
		Capability: Equipment, environmental resource expertise (terrestrial), public affairs/outreach, restoration (mangroves), volunteers	Howard Forbes Jr., Sea Grant Coordinator	340-693-1672	howard.forbes@uvi.edu
		Capability: Vessels	Dr. Paul Jobsis	-	pjobsis@uvi.edu
		Capability: Dive support	Stephen Prosterman	-	sproste@uvi.edu
		Capability: Environmental resource expertise, restoration (mangroves)	Dr. Kristin Wilson Grimes, Research Assistant Professor	-	kristin.wilson@uvi.edu

### International Organizations

Organization	Division	Topic	Point of Contact	Phone	Email
British Virgin Islands	Department of Disaster Management	International coordination regarding debris issues and disaster management	General contact	-	bviddm@surfbvi.com
			Permanent Secretary	-	sdabreo@gov.vg

## 8.2 Response Capabilities

Capabilities which could be used during waterway debris response in the U.S. Virgin Islands were either identified through research or were self-reported by an organization. Organizations were asked to indicate whether capabilities were in-house or were contracted through a third party. Footnotes refer to additional information provided for a particular capability.

		Territorial Agencies			Federal Agencies						
Yes (Y) - Verified In-house Capability		DPNR	UVI Center for Marine and Environmental Studies: USVI Marine Advisory Service	VIPA	EPA Region 2 <sup>4</sup>	FEMA <sup>5</sup> Region 2	NOAA	NPS	USACE	USCG <sup>20</sup>	USFWS
Cont. (C) - Contracted capability											
Technology	Aerial photography and video	Yes <sup>1</sup>			Yes	Cont. <sup>6</sup>	Yes <sup>12</sup>	Cont. <sup>15</sup>	Cont.	Yes	
	Data management/sharing capabilities (common operating picture)	Yes <sup>2</sup>			Yes	Yes	Yes	Yes <sup>15</sup>		Yes	
	Remote sensing (LIDAR)				Yes	Cont. <sup>6</sup>	Yes <sup>12</sup>	Cont. <sup>15</sup>	Cont.		
	Sub-Surface Detection: Side scan, Single-beam, or Multi-beam sonar			Cont.		Cont. <sup>6</sup>	Yes	Cont. <sup>15</sup>	Cont.		
Equipment	Boom			Cont.		Cont. <sup>6</sup>			Cont.	Cont.	
	Emergency telecommunications equipment			Yes	Yes	Y <sup>7</sup> C		Yes	Yes	Yes	
	Heavy equipment: barge, cherry picker, crane, environmental clamshell dredge, excavator, etc.				Cont.	Cont. <sup>6</sup>		Cont.	Cont.	Cont.	
	Helicopters				Cont.	Cont. <sup>6</sup>		Cont.		Yes	
	Portable GPS units	Yes <sup>1,3</sup>	Yes	Yes	Yes	Y <sup>7</sup> C	Yes <sup>13</sup>	Yes	Cont.	Yes	
	Remotely Operated Vehicle (ROV)/Underwater drones		Yes			Cont. <sup>6</sup>	Yes	Cont.	Cont.		
	Trucks	Yes <sup>2,3</sup>		Yes	Cont.	Cont. <sup>6</sup>		Yes	Cont.	Cont.	
	Unmanned Aerial Vehicle (UAV)/Surveillance drones	Yes <sup>1,3</sup>				Cont. <sup>6</sup>	Yes <sup>12</sup>	Cont.	Cont.		
	Vessels	Yes <sup>3</sup>	Yes	Yes	Cont.	Cont. <sup>6</sup>	Yes	Yes	Cont.	Yes	
	Waste reduction equipment: grinders, incinerator, shredder					Cont. <sup>6</sup>		Cont.	Cont.		
	Waste storage/transportation equipment: dumpsters, shipping containers				Cont.	Cont. <sup>6</sup>		Cont.		Cont.	
	Dedicated waterway/marine debris staff (responders, response team, regional coordination, etc.)				Yes	Cont. <sup>6</sup>	Yes	Cont.	Cont.	Yes	
	Workforce/Expertise	Dive support	Yes <sup>1,3</sup>	Yes	Cont.	Cont.	Cont. <sup>6</sup>	Yes <sup>13</sup>	Yes <sup>16</sup>		Yes
Environmental, archaeological, or cultural resource expertise (location of sensitive areas, endangered species present, etc.)		Yes <sup>1,2,3</sup>	Yes		Yes	Y C <sup>6</sup>	Yes <sup>12,13</sup>	Yes	Yes		Yes <sup>21</sup>
Geographic Information System (GIS) mapping and plotting of imagery		Yes <sup>1,2,3</sup>			Yes	Y C <sup>8</sup>	Yes	Yes <sup>17</sup>	Yes		
HAZWOPER trained staff					Yes	Y C <sup>6</sup>	Yes	Yes		Yes	
Incident Command System (ICS) trained staff		Yes <sup>2</sup>			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Public affairs/outreach processes in place with trained staff		Yes <sup>1,2</sup>	Yes	Yes	Yes	Yes		Yes		Yes	
Public health expertise (for poisonous vegetative debris)		Cont. <sup>3</sup>				Y C <sup>6</sup>		Yes		Cont.	
Restoration expertise (wetlands, corals, submerged aquatic vegetation, etc.)		Y <sup>1,3</sup> C <sup>2</sup>	Yes			Cont. <sup>6</sup>	Yes <sup>13</sup>	Yes		Cont.	
Staff with knowledge of FEMA (Stafford Act) process and documentation requirements		Yes <sup>2</sup>	Cont.		Yes	Y C <sup>6</sup>	Yes	Yes	Yes	Yes	Yes
Technical expertise for removal operations (techniques, BMPs, etc.)		Yes <sup>1</sup>			Yes	Y C <sup>6</sup>	Yes	Yes	Yes	Yes	

		Territorial Agencies			Federal Agencies						
Yes (Y) - Verified In-house Capability		DPNR	UVI Center for Marine and Environmental Studies: USVI Marine Advisory Service	VIPA	EPA Region 2 <sup>4</sup>	FEMA <sup>5</sup> Region 2	NOAA	NPS	USACE	USCG <sup>20</sup>	USFWS
Cont. (C) - Contracted capability											
Logistics	Contracting: Pre-approved waterway debris removal contractors	Cont. <sup>2</sup>		Cont.		Cont. <sup>6</sup>		Yes	Cont.	Yes	
	Contracting: Pre-event contracts and staged agreements in place				Yes	Cont. <sup>9</sup>		Yes	Cont.	Yes	
	Funding for waterway debris removal				Yes	Yes <sup>10</sup>	Yes <sup>14</sup>				
	Guidelines for debris removal and management	Yes <sup>3</sup>			Yes	Cont. <sup>11</sup>		Yes		Yes	Yes <sup>21</sup>
	List of pre-approved mooring (safe harbor) locations	Yes <sup>2,3</sup>		Yes				Yes <sup>18</sup>		Yes	
	List of vessel owners	Yes <sup>3</sup>		Yes				Yes <sup>18</sup>		Yes	
	List of landowners in USVI	Yes <sup>2</sup>		Cont.							
	Pre-permitted dumpster locations	Yes <sup>2</sup>		Yes							
	Staging/Off-Loading: Land with water access to stage, offload debris (has not been evaluated for suitability or officially pre-designated)	Yes <sup>1,2,3</sup>						Yes <sup>19</sup>		Yes	
	Staging/Off-Loading: Pre-designated (pre-permitted) staging, off-loading and special handling areas (already evaluated for suitability)	Yes <sup>2</sup>						Yes	Cont.		
	Volunteer manpower/Volunteer coordination	Yes <sup>1</sup>	Yes				Yes <sup>13</sup>	Yes	Cont.		

<sup>1</sup>DPNR Reported by Division of Coastal Zone Management

<sup>2</sup>DPNR Reported by State Historic Preservation Office

<sup>3</sup>DPNR Reported by Division of Fish and Wildlife

<sup>4</sup>EPA EPA and USCG share federal responsibility for responding to oil and hazardous substances, pollutants and contaminants, with USCG primarily responsible for the coastal zone

<sup>5</sup>FEMA Capabilities contingent upon a presidential major disaster declaration. FEMA Region 2 capable of mission-assigning other federal support to increase capabilities.

<sup>6</sup>FEMA Mission assignment through operations/branch chief or can be contracted through the recipient/sub-recipient if determine eligible by the public assistance program

<sup>7</sup>FEMA Provided to critical personnel on a case by case basis

<sup>8</sup>FEMA Mission assignment through operations/branch chief

<sup>9</sup>FEMA Can be contracted through the recipient/sub-recipient if determine eligible by the public assistance program

<sup>10</sup>FEMA May provide reimbursement public assistance funding for eligible debris removal during presidential major disaster declarations when another federal agency does not have authority to fund the activity

<sup>11</sup>FEMA Territorial debris management plan can be adopted, or if one is not available guidelines can be determined by mission assignment subject matter experts

<sup>12</sup>NOAA National Ocean Service, National Geodetic Survey, Remote Sensing Division

<sup>13</sup>NOAA National Marine Fisheries Service, Habitat Conservation Division

<sup>14</sup>NOAA Funding through grant program and possible Congressional supplemental funding

<sup>15</sup>NPS Most imaging done with partner agencies. Some submerged imaging can be done locally and with assistance from NPS Southeast Regional Office and Southeast Archaeological Center in Florida or with support from NPS Washington Office.

- <sup>16</sup>NPS Two dive teams in USVI (based in St Croix and St. John) but most divers are not trained to dive in certain hazardous situations. St. John team has divers equipped for Occupational Safety and Health Administration commercial dive standard, as well as public service and scientific dives.
- <sup>17</sup>NPS GIS capability is possible through the NPS Southeast Regional Office and the South Florida-Caribbean Inventory and Monitoring Network
- <sup>18</sup>NPS NPS St. John manages the storm refuge system in Hurricane Hole, within Virgin Islands Coral Reef National Monument. Maintain list of registered vessels with owner contact information.
- <sup>19</sup>NPS NPS has permitted USVI Territorial Government to use NPS lands for vessel staging and crushing activities (in 2017). St. John maintains the primary public boat ramp in Cruz Bay, as well as docking locations in Cruz Bay St. John, Red Hook Harbor St. Thomas, and at Hassel Island near St. Thomas. Most dock areas are adjacent to relatively large and flat areas accessible to motorized vehicles.
- <sup>20</sup>USCG Debris only removed under ESF 10 or if it is oily debris
- <sup>21</sup>USFWS BMPs for sensitive habitats and listed species

## 8.3 Select Agency Authorities

### 8.3.1 Territorial Agency Authorities

See *Virgin Islands Territorial Emergency Operations Plan* (TEOP; VITEMA, 2016).

#### **Department of Planning and Natural Resources (DPNR)**

- Antiquities and Cultural Properties Act of 1998, 29 V.I.C. § 950 et seq.
- Coastal Zone Management Act of 1972, 16 U.S.C § 1451 et seq.
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9601 et seq.
- Conveyance to Guam, the Commonwealth of the Northern Mariana Islands, Virgin Islands, and American Samoa, 48 U.S.C. § 1705(a)
- Federal Water Pollution Control Act (commonly known as Clean Water Act) as amended by the Oil Pollution Act of 1990, 33 U.S.C. § 1251 et seq.
  - Certification (Section 401), 33 U.S.C. § 1341
  - Oil Pollution Liability and Compensation, 33 U.S.C. § 2701 et seq.
  - Permits for dredged or fill material (Section 404), 33 U.S.C. § 1344
- Mooring and anchoring of vessels in the Territory, 25 V.I.C. § 404
- National Historic Preservation Act, 16 U.S.C § 470 et seq.
- National Oil and Hazardous Substances Pollution Contingency Plan, 40 C.F.R. § 300
- Ownership of navigable waters, 12 V.I.C. § 309
- Protection of Indigenous, Endangered and Threatened Fish, Wildlife and Plants, 12 V.I.C. § 101 et seq.
- The Oil Spill Prevention and Pollution Control Act, 12 V.I.C. § 701 et seq.
- Solid and Hazardous Waste Management, 19 V.I.C. § 1551 et seq.
- Unseaworthy and derelict vessels, houseboats, refuse and pollutants, 25 V.I.C. § 408
- Virgin Islands Coastal Zone Management Act of 1978, 12 V.I.C. § 901 et seq.

#### **Department of Sports, Parks, and Recreation**

- Division of Parks; duties of Division, 32 V.I.C. § 21 et seq.

#### **Virgin Islands Port Authority (VIPA)**

- Virgin Islands Port Authority, 29 V.I.C. § 541 et seq.
- Administration of Harbors, 25 V.I.C. § 131 et seq.

#### **Virgin Islands Territorial Emergency Management Agency (VITEMA)**

- Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C § 5121 et seq.
- The Virgin Islands Territorial Emergency Management Act of 2009, 23 V.I.C. § 1001 et seq.

#### **Virgin Islands Waste Management Authority (VIWMA)**

- Solid and Hazardous Waste Management, 19 V.I.C. § 1551 et seq.
- Virgin Islands Waste Management Authority, 29 V.I.C. § 494 et seq.

### 8.3.2 Federal Agency Authorities

#### **Animal and Plant Health Inspection Service**

- Animal Health Protection Act, 7 U.S.C § 8301 et seq.



- Plant Protection Act, 7 U.S.C § 7701 et seq.

### **Federal Emergency Management Agency (FEMA)**

- Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C § 5121 et seq.
  - Debris Removal, 42 U.S.C. § 5173
  - Essential Assistance, 42 U.S.C. § 5170b
  - Federal Emergency Assistance, 42 U.S.C. § 5192

### **National Oceanic and Atmospheric Administration (NOAA)**

- Coastal Zone Management Act of 1972, 16 U.S.C § 1451 et seq.
- Endangered Species Act, 16 U.S.C. § 1531 et seq.
- Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. § 1801 et seq.
- Marine Debris Research, Prevention, and Reduction Act, 33 U.S.C. § 1951 et seq.
- Marine Mammal Protection Act of 1972, 16 U.S.C § 1361 et seq.
- Marine Protection, Research, and Sanctuaries Act (Ocean Dumping Act), 33 U.S.C. § 1401 et seq.
- National Marine Sanctuaries Act, 16 U.S.C § 1431 et seq.
- National Marine Sanctuary Program Regulations, 15 C.F.R. § 922

### **Natural Resources Conservation Service (NRCS)**

- Emergency Watershed Protection Program, 7 C.F.R. § 624

### **U.S. Army Corps of Engineers (USACE)**

- Authority for snagging and clearing for flood control (Section 208), 33 C.F.R. § 263.24
- Federal Water Pollution Control Act (commonly known as Clean Water Act) as amended by the Oil Pollution Act of 1990, 33 U.S.C. § 1251 et seq.
  - Permits for dredged or fill material (Section 404), 33 U.S.C. § 1344
- Flood Control and Coastal Emergency Act, 33 U.S.C. § 701n (Public Law 84-99)
- Permits for Structures or Work in or Affecting Navigable Waters of the United States, 33 C.F.R. § 322
- Removal of snags and debris, and straightening, clearing, and protecting channels in navigable waters, 33 U.S.C. § 603a
- Removal of Wrecks and Other Obstructions, 33 C.F.R. § 245
- Rivers and Harbors Appropriation Act of 1899 and 1945, 33 U.S.C. § 401 et seq.
  - Obstruction of navigable waters generally; wharves; piers, etc.; excavations and filling in (Section 10), 33 U.S.C. § 403
  - Taking possession of, use of, or injury to harbor or river improvements, 33 U.S.C. § 408
  - Obstruction of navigable waters by vessels; floating timber; marking and removal of sunken vessels, 33 U.S.C. § 409
  - Removal by Secretary of the Army of sunken water craft generally; liability of owner, lessee, or operator, 33 U.S.C. § 414
  - Summary removal of water craft obstructing navigation; liability of owner, lessee, or operator, 33 U.S.C. § 415
  - Collection and removal of drift and debris from publicly maintained commercial boat harbors and adjacent land and water areas (Water Resources Development Act, Section 202), 33 U.S.C § 426m
- Robert T. Stafford Disaster Relief and Emergency Assistance Act, 42 U.S.C § 5121 et seq.

### **U.S. Coast Guard (USCG)**

- Abandoned Barge Act of 1992, 46 U.S.C. § 4701-4705
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9601 et seq.
- Federal Water Pollution Control Act (commonly known as Clean Water Act) as amended by the Oil Pollution Act of 1990, 33 U.S.C. § 1251 et seq.
  - Oil Pollution Liability and Compensation, 33 U.S.C. § 2701 et seq.
- Marking of structures, sunken vessels and other obstructions, 33 C.F.R. § 64
- National Oil and Hazardous Substances Pollution Contingency Plan, 40 C.F.R. § 300
- Ports and Waterways Safety Act, 33 U.S.C. §1221 et seq.
- Saving life and property, 14 C.F.R. § 88

### **U.S. Environmental Protection Agency (EPA)**

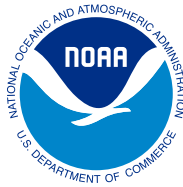
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9601 et seq.
- Federal Water Pollution Control Act (commonly known as Clean Water Act) as amended by the Oil Pollution Act of 1990, 33 U.S.C. § 1251 et seq.
- National Oil and Hazardous Substances Pollution Contingency Plan, 40 C.F.R. § 300

### **U.S. Fish and Wildlife Service (USFWS)**

- Coastal Barrier Resources Act, 16 U.S.C. § 3501 et seq.
- Endangered Species Act, 16 U.S.C. § 1531 et seq.
- Fish and Wildlife Coordination Act, 16 U.S.C. § 661 et seq.
- Marine Mammal Protection Act of 1972, 16 U.S.C § 1361 et seq.
- Migratory Bird Treaty Act, 16 U.S.C § 703 et seq.
- National Wildlife Refuge System Administration Act of 1966, 16 U.S.C. § 668dd et seq.
- National Wildlife Refuge System Improvement Act of 1997

#### 8.4 U.S. Virgin Islands Legislation Applicable to Waterway Debris Response

Citation	Title
12 V.I.C. § 309(a)	Ownership of navigable waters
12 V.I.C. § 401 et seq.	Open Shorelines
12 V.I.C. § 711	Virgin Islands Coastal Protection Fund
12 V.I.C. § 715	Derelict Vessels
19 V.I.C. § 1552(a)	Definition of “abandoned or junked automobile or other motor vehicle”
19 V.I.C. § 1559	Motor vehicles and boats
19 V.I.C. § 1563(6)	Prohibited acts
23 V.I.C. § 1015	Debris and wreckage removal in emergencies and major disasters
25 V.I.C. § 132	Disposition of fees and revenues; Marine and Aviation Fund; expenses; grants
25 V.I.C. § 133	Removal of sunken watercraft or other obstructions
25 V.I.C. § 402(e)	Definition of “derelict vessel” or “derelict houseboat”
25 V.I.C. § 402(n)	Definition of “unseaworthy vessel” or “unseaworthy houseboat”
25 V.I.C. § 404	Mooring and anchoring of vessels in the Territory
25 V.I.C. § 408	Unseaworthy and derelict vessels, houseboats, refuse and pollutants



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