



Virginia Marine Debris Emergency Response Guide: Comprehensive Guidance Document

NOAA Marine Debris Program
National Oceanic and Atmospheric Administration
U.S. Department of Commerce
February 2020

Original Publication: March 2018

Revision: April 2019

Revision: February 2020

Table of Contents

List of Acronyms	4
Definitions	6
1. Introduction	12
1.1. Purpose	12
1.2. Scope of <i>Guide</i>	12
1.3. <i>Guide</i> Maintenance	12
2. Incident Waterway Debris in Virginia.....	14
2.1. Foreseeable Waterway Debris Incidents in Virginia	14
2.2. Prominent Debris Types	15
3. Virginia Incident Waterway Debris Response Flowchart.....	18
4. Roles and Responsibilities	20
4.1. Local Agency Responsibilities	20
4.2. State Agency Responsibilities.....	21
4.3. Federal Agency Responsibilities.....	27
4.4. Private Landowners	33
4.5. Volunteer and Non-Governmental Organizations.....	34
4.6. Agency Jurisdiction Map	34
5. Permitting and Compliance Requirements in Virginia	36
5.1. State and Local Agency Requirements.....	36
5.2. Federal Agency Requirements	38
5.3. Permitting and Compliance for Waterway Debris Removal in Virginia One-Pager.....	42
6. Virginia Waterway Debris Response Challenges	44
6.1. Response Challenges and Recommended Actions	44
6.1.1 Planning and Removal Logistics.....	44
6.1.2 Education	45
6.1.3 Policy	46
6.1.4 Funding.....	46
6.2. Additional Resources	46
7. References	47
8. Appendices	50
A. Virginia Legislation Applicable to Waterway Debris Response.....	50
B. Organization Response Capabilities	51
C. Organization Contact Information.....	55

List of Acronyms

ACP	Area Contingency Plan
ATV	All-Terrain Vehicle
BMP	Best Management Practice
C&D	Construction and Demolition Debris
CBRA	Coastal Barrier Resources Act
CBRS	John H. Chafee Coastal Barrier Resources System
CERCLA	Comprehensive Environmental Response Compensation Liability Act
CZM	Coastal Zone Management (of DEQ)
DCR	Virginia Department of Conservation and Recreation
DEQ	Virginia Department of Environmental Quality
DGIF	Virginia Department of Game and Inland Fisheries
DHR	Virginia Department of Historic Resources
ECP	Emergency Conservation Program (of FSA)
EFH	Essential Fish Habitat
EOC	Emergency Operations Center
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
ESF	Emergency Support Function
EWP	Emergency Watershed Protection program (of NRCS)
FEMA	Federal Emergency Management Agency
FOSC	Federal On-Scene Coordinator
FSA	Farm Service Agency
GEMS	Geospatial and Educational Mapping System
GIS	Geographic Information Systems
LIDAR	Light Detection and Ranging
MARCO	Mid-Atlantic Regional Council on the Ocean
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NEPA	National Environmental Policy Act
NERR	National Estuarine Research Reserve
NGO	Non-Governmental Organization
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
NRT	Navigation Response Team (of NOAA)
NWR	National Wildlife Refuge (of USFWS)
OCS	Outer Continental Shelf
ORR	Office of Response and Restoration (of NOAA)
PPE	Personal Protection Equipment
PREP	Pollution Response Program (of DEQ)
RCRA	Resource Conservation and Recovery Act
ROV	Remotely Operated Vehicle
SHPO	State Historic Preservation Office (of DHR)
SSC	Scientific Support Coordinator (of NOAA)
UAV	Unmanned Aerial Vehicle
USACE	U.S. Army Corps of Engineers

USCG	U.S. Coast Guard
USFWS	U.S. Fish and Wildlife Service
VDEM	Virginia Department of Emergency Management
VDOT	Virginia Department of Transportation
VIMS	Virginia Institute of Marine Science
VMRC	Virginia Marine Resources Commission

Definitions

Abandoned Watercraft – A watercraft that is left unattended on private property for more than 10 days without the consent of the property’s owner, regardless of whether it was brought on to the private property with the consent of the owner or person in control of the private property (Va. Code Ann. § 29.1-733.2).

Area Contingency Plan (ACP) – Reference document prepared by an Area Committee for the use of all agencies engaged in responding to environmental emergencies in a defined geographic area. The purpose of the ACP is to define the roles, responsibilities, resources, and procedures necessary to address oil and hazardous substance incidents. For Virginia, the ACP is prepared by the Area Committee and maintained by U.S. Coast Guard District 5, Sector Hampton Roads (U.S. Coast Guard [USCG], 2016).

Chemical, biological, radiological, and nuclear-contaminated debris – Debris contaminated by chemical, biological, radiological, or nuclear materials (Federal Emergency Management Agency [FEMA], 2017).

Coastal zone (ACP coastal zone) – U.S. Coast Guard area of responsibility for response under the National Contingency Plan, with geographic boundaries defined in the *Virginia Area Contingency Plan* (USCG, 2016).

Coastal zone (under Virginia Coastal Zone Management Program) – All of Virginia’s cities, counties, and towns which touch on tidal waters and their waters out to the three mile territorial sea boundary. Includes the 29 counties and 17 cities of [Tidewater Virginia](#) (Virginia Department of Environmental Quality [DEQ], n.d.-b).

Commonwealth – Of or pertaining to the Commonwealth of Virginia.

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, 2017).

Contaminant – See definition for [Pollutant or contaminant](#).

Electronic waste (e-waste) – Electronics that contain hazardous materials, such as computer monitors, televisions, cell phones, and batteries. These products may contain minerals and chemicals that require specific disposal methods (FEMA, 2017).

Eligible applicant– Entities who may receive public assistance reimbursement funding from the Federal Emergency Management Agency (FEMA) under the Stafford Act. Eligible applicants include state and local governments, federally recognized Indian tribal governments, and certain private non-profits that serve a public function and have the legal responsibility to remove the debris (FEMA, 2017).

Eligible debris – Debris that is a direct result of a Presidential major disaster declaration, in the designated disaster area, and whose removal is in the public interest (i.e., eliminating the immediate threat of significant damage to improved public or private property or ensuring

economic recovery of the affected community to the benefit of the community at large). Debris includes, but is not limited to, vegetative debris, construction and demolition debris, sand, mud, silt, gravel, rocks, boulders, and vehicle and vessel wreckage. Debris removal from waterways that is necessary to eliminate the immediate threat to life, public health and safety, or improved property is considered eligible (FEMA, 2017).

Emergency (state definition) – Any occurrence, or threat thereof, whether natural or man-made, which results or may result in substantial injury or harm to the population or substantial damage to or loss of property or natural resources and may involve governmental action beyond that authorized or contemplated by existing law because governmental inaction for the period required to amend the law to meet the exigency would work immediate and irrevocable harm upon the citizens or the environment of the Commonwealth or some clearly defined portion or portions thereof (Va. Code Ann. § 44-146.16).

Emergency (FEMA 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 (NOAA 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 (National Oceanic and Atmospheric Administration [NOAA], n.d.-c).

Emergency (USACE definition) – 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 Support Function (ESF) – Mechanism for grouping functions most frequently used to provide federal support to states and federal-to-federal support, both for declared disasters and emergencies under the Stafford Act and for non-Stafford Act incidents. The commonwealth of Virginia adopts the federal ESFs and assigns corresponding state agencies to each ESF in the *Commonwealth of Virginia Emergency Operations Plan* as prepared by Virginia Department of Emergency Management (Virginia Department of Emergency Management [VDEM], 2012a; Virginia Department of Emergency Management [VDEM], 2012b; Virginia Department of Emergency Management [VDEM], 2015a). Incident waterway debris removal operations typically fall within 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 are a compilation of information about coastal shoreline sensitivity, biological resources, and human use resources. This information is used in planning to create cleanup strategies before an accident occurs so that authorities are prepared to act in the event of a spill (National Oceanic and Atmospheric Administration, 2017a).

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 (Federal Emergency Management Agency, 2010)

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 42 U.S.C. § 9602, (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, 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 – Regulated under the Resource Conservation and Recovery Act (RCRA) and contains properties that make it potentially harmful to human health or the environment. A RCRA hazardous waste is a waste that appears on one of the four hazardous waste lists or exhibits at least one of the following four characteristics: ignitability, corrosivity, reactivity, or toxicity (FEMA, 2017).

Household hazardous waste/material – Hazardous products and materials that are used and disposed of by residential consumers, including some paints, stains, varnishes, solvents, pesticides, and other products containing volatile chemicals that catch fire, react, or explode under certain circumstances or that are corrosive or toxic (FEMA, 2017).

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, nor are vacant lots, forests, heavily wooded areas, and unused areas (44 C.F.R. § 206.221(d)).

Incident waterway debris – See definition for [Waterway debris](#).

Infectious waste – Waste capable of causing infections in humans and can include animal waste, human blood and blood products, medical waste, pathological waste, and discarded sharps (needles, scalpels, or broken medical instruments; FEMA, 2017).

Inland zone (ACP inland zone) – U.S. Environmental Protection Agency area of responsibility for response under the National Contingency Plan, with geographic boundaries defined in the *Virginia Area Contingency Plan* (USCG, 2016).

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)).

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)).

National Contingency Plan (NCP) – Federal regulation (National Oil and Hazardous Substances Pollution Contingency Plan) that defines the authorities and responsibilities of designated federal agencies for responding to releases of oil, pollutants, and hazardous substances (USCG, 2016).

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. § 329.4; 33 C.F.R. § 2.36).

Outer Continental Shelf (OCS) – The submerged lands, subsoil, and seabed, lying between the seaward extent of the states' jurisdiction and the seaward extent of federal jurisdiction. The OCS is subject to the jurisdiction and control of the federal government (Bureau of Ocean Energy Management, n.d.).

Pollutant or contaminant – Includes, but is 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 42 U.S.C. § 9601(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)).

Pollution – Such alteration of the physical, chemical, or biological properties of any state waters as will or is likely to create a nuisance or render such waters (a) harmful or detrimental or injurious to the public health, safety, or welfare to the health of the animals, fish, or aquatic life; ((b) unsuitable with reasonable treatment for use as present or possible future sources of public water supply; or (c) unsuitable for recreational, commercial, industrial, agricultural, or other reasonable uses, provided that (i) an alteration of the physical, chemical, or biological property of state waters or a discharge or deposit of sewage, industrial wastes or other wastes to state waters by any owner which by itself is not sufficient to cause pollution but which, in combination with such alteration of or discharge or deposit to state waters by other owners, is sufficient to cause pollution; (ii) the discharge of untreated sewage by any owner into state waters; and (iii) contributing to the contravention of standards of water quality duly established by the State Water Control Board (Va. Code Ann. § 62.1-44.3).

Putrescent debris – Debris that will decompose or rot, such as animal carcasses and other fleshy organic matter (FEMA, 2017).

Recoverable waterway debris – Generally any documented vessel, vehicle, recreational vehicle, or shipping container traceable to an owner (U.S. Army Corps of Engineers, 2010).

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)).

Soil, mud, and sand – Soil, mud, and sand deposited after floods, landslides, winds, and storm surges on improved public property and rights-of-way (FEMA, 2017).

Stafford Act – The Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended, provides the authorities and funding for federal support to state and local entities in responding to Presidential major disaster and emergency declarations (U.S. Department of Homeland Security, 2013).

State of emergency – The condition declared by the Governor when, in his judgment, the threat or actual occurrence of an emergency or a disaster in any part of the Commonwealth is of sufficient severity and magnitude to warrant disaster assistance by the Commonwealth to supplement the efforts and available resources of several localities and relief organizations in preventing or alleviating the damage, loss, hardship or suffering threatened or caused thereby and is so declared by him. (Va. Code Ann. § 44-146.16).

Territorial sea – The waters within the belt, three nautical miles wide, that is adjacent to Virginia's coast and seaward of the mean low-water mark (Va. Code Ann. § 28.2-100).

Tidewater Virginia – The following counties: Accomack, Arlington, Caroline, Charles City, Chesterfield, Essex, Fairfax, Gloucester, Hanover, Henrico, Isle of Wight, James City, King and Queen, King George, King William, Lancaster, Mathews, Middlesex, New Kent, Northampton, Northumberland, Prince George, Prince William, Richmond, Spotsylvania, Stafford, Surry, Westmoreland, and York; and the Cities of Alexandria, Chesapeake, Colonial Heights, Fairfax, Falls Church, Fredericksburg, Hampton, Hopewell, Newport News, Norfolk, Petersburg, Poquoson, Portsmouth, Richmond, Suffolk, Virginia Beach, and Williamsburg (Va. Code Ann. § 28.2-100).

Vegetative debris – Whole trees, tree stumps, tree branches, tree trunks, and other leafy material. May be recyclable or have salvage value (FEMA, 2017).

Vehicles and vessels (FEMA definition) – 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, 2017).

Vessel – Every description of watercraft, other than a seaplane on the water, used or capable of being used as a means of transportation on water (Va. Code Ann. § 29.1-700).

Waters of the Commonwealth – Any public waters within the territorial limits of the Commonwealth, the adjacent marginal sea and the high seas when navigated as part of a journey or ride to or from the Virginia shore (Va. Code Ann. § 29.1-700).

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

Wetlands – Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (Va. Code Ann. § 62.1-44.3).

White goods – Discarded household appliances such as refrigerators, freezers, air conditioners, heat pumps, ovens, ranges, washing machines, clothes dryers, and water heaters. May contain ozone-depleting refrigerants, mercury, or compressor oils that must be removed before disposal. May be recyclable or have salvage value (FEMA, 2017).

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 coastal Virginia. 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 local, state, and federal levels to facilitate a coordinated, well-managed, and immediate response to waterway debris incidents impacting the Commonwealth of Virginia.

Individual organization roles and responsibilities are presented in text form as well as in a consolidated one-page flowchart that functions as a decision tree for waterway debris response. 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.

Because all incidents are different, in reality 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 guide seeks to capture the most likely response structure and actions with the understanding that flexibility is an inherent component of an effective response.

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

1.2 Scope of Guide

The *Guide* addresses potential acute waterway debris incidents affecting Virginia’s coastal counties. Throughout this document, the term waterway debris (or incident 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 and includes any solid material, including but not limited to vegetative debris and debris exposed to or that has the potential to 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. This *Guide* specifically addresses waterway debris resulting from acute episodic incidents, such as disaster debris, and may not apply to chronic waterway debris issues.

1.3 Guide Maintenance

The *Virginia Marine Debris Emergency Response Guide* is a living document and is 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 federal, state, and local stakeholders. Contact information will be verified annually, and the *Guide* will undergo a formal review every three years. The *Virginia Marine Debris Emergency Response Guide* and subsequent versions will be posted on NOAA's Marine Debris Program website at <https://marinedebris.noaa.gov/> (National Oceanic and Atmospheric Administration, 2017b).

2. Incident Waterway Debris in Virginia

2.1 Foreseeable Waterway Debris Incidents in Virginia

The Commonwealth of Virginia offers a unique geography and demographic that makes it vulnerable to both natural and anthropogenic hazards that generate waterway debris. The coastal zone of Virginia is comprised of 29 counties and is home to more than 60% of its citizens (DEQ, n.d.-b). The coastal zone is adjacent to the Chesapeake Bay, the largest estuary in the United States, and several major watersheds in Virginia flow east into the Bay ([Figure 1](#)).

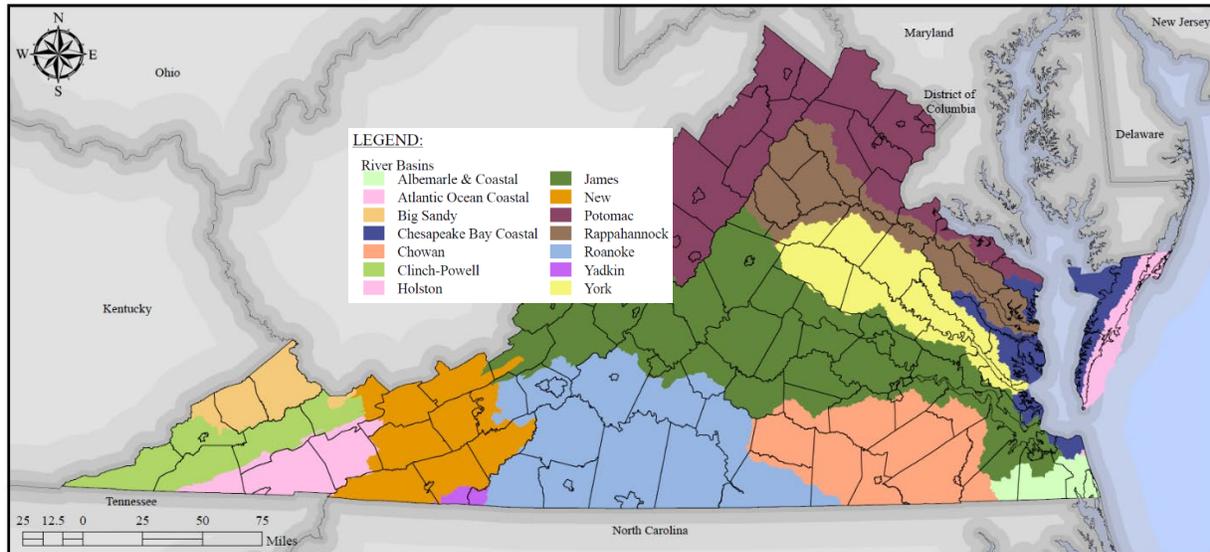


Figure 1. Watersheds of Virginia (Virginia Department of Emergency Management [VDEM], 2013).

The Virginia Department of Emergency Management (VDEM) conducted a hazard risk analysis to identify the most probable and costly events that could occur in Virginia. The total risk was calculated by combining scores from the following parameters: history of occurrence, vulnerability of people in the hazard area, probable geographic extent of the hazard area and historical damages, in terms of crop and property (VDEM, 2013). The overall hazard ranking for Virginia is represented in [Table 1](#).

Table 1. Hazards that pose the highest threat to the state of Virginia, scored and ranked by total risk (VDEM, 2013).

High	Medium-High	Medium	Medium-Low	Low
Flood	Non-Rot. Wind Winter Storm Tornado	Drought Wildfire	Earthquake Landslide	Karst Flooding due to Impoundment Failure

Flooding was identified as the most frequent and costly hazard in Virginia, in terms of loss of life and property ([Table 1](#)). Additionally, flooding can produce significant amounts of waterway debris, potentially resulting in navigational hazards within Norfolk Harbor, a shipping route for the Port of Virginia (Virginia Port Authority, n.d.). Large debris items, such as abandoned vessels, that block ships from entering the Port of Virginia will negatively impact the regional economy and the maritime transportation system; therefore, pre-event planning for waterway debris response and removal is crucial.

Virginia's demographics are a major factor in assessing the potential risk by natural hazards. According to the most recent U.S. Census, Virginia is the 12th most populated state with over 8.4 million residents, most of whom live within the coastal zone (U.S. Census Bureau, 2016). A significant portion of the economy is driven by activity in urban areas in the northern and eastern portions of the state. Additionally, the coastal zone of Virginia is unique in that it is home to nine major military installations representing all branches of the U.S. Armed Forces, including the largest naval base in the world. The Hampton Roads area of Virginia is home to the world's largest population of military personnel, where defense spending accounts for 45.6% of all regional economic activity (Hampton Roads Chamber, n.d.). This landscape adds its own particular threat of incident waterway debris, both from flooding of surrounding areas and potential debris from military bases themselves (i.e. unexploded ordnance).

Regardless of the type of hazard to affect Virginia, debris removal projects have high costs in relation to other types of projects eligible for reimbursement through the Federal Emergency Management Agency (FEMA) following a presidentially declared disaster. Since 1957, Virginia has had 49 major disaster declarations and eight emergency disaster declarations, most of which have been the result of severe tropical and winter storms (Federal Emergency Management Agency, n.d.). Virginia's vulnerability to such events highlights the importance of planning and preparedness for incident waterway debris.

2.2 Prominent Debris Types

Some agency authorities are dependent on both the location and type of debris. Therefore, response to debris in Virginia waterways may vary depending on the debris type to be removed. Primary debris types generated after a disaster as defined by FEMA (2017) include the following:

- Chemical, biological, radiological, and nuclear-contaminated
- Construction and demolition (C&D)
- Electronic waste (e-waste)
- Household hazardous waste/material
- Infectious waste
- Oil and hazardous substances
- 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. It is difficult to predict the exact mix of waterway debris that will be generated after a disaster since different types of hazard incidents generally result in different debris types. [Table 2](#) includes an overview of typical debris streams for several natural hazards. Although [Table 2](#) only covers

natural hazards, man-made hazards such as an accident during waterway commerce are also concerns. Anthropogenic hazards are highly variable in both quantity and type of waterway debris released.

Table 2. Typical debris streams for different types of hazard incidents. Data adapted from Federal Emergency Management Agency (2007).

		Typical Debris Streams								
		Vegetative	Construction and Demolition (C&D)	Oil and Hazardous Material	Household Hazardous Waste	White Goods	Soil, Mud, and Sand	Vessels and Vehicles	Putrescent or Infectious	Household/Personal Property
Natural Hazards	Hurricanes/Tropical Storms	X	X	X	X	X	X	X	X	X
	Flooding	X	X	X	X	X	X	X	X	X
	Tornadoes/Wind Storms	X	X	X	X	X		X	X	X
	Earthquakes		X	X	X	X	X			X
	Winter/Ice Storms	X			X					
	Tsunamis	X	X	X	X	X	X	X	X	X

The type and quantity of waterway debris generated after a disaster is highly dependent on land use and existing infrastructure along Virginia waterways. For example, protected undeveloped areas near Chincoteague National Wildlife Refuge are likely to generate vegetative debris, while developed properties in Norfolk are likely to generate C&D debris. A land cover map for Virginia is depicted in [Figure 2](#) and illustrates the distribution of land use types in the state, including developed lands. Increased development in the floodplain will increase the likelihood of waterway debris following a natural hazard event.

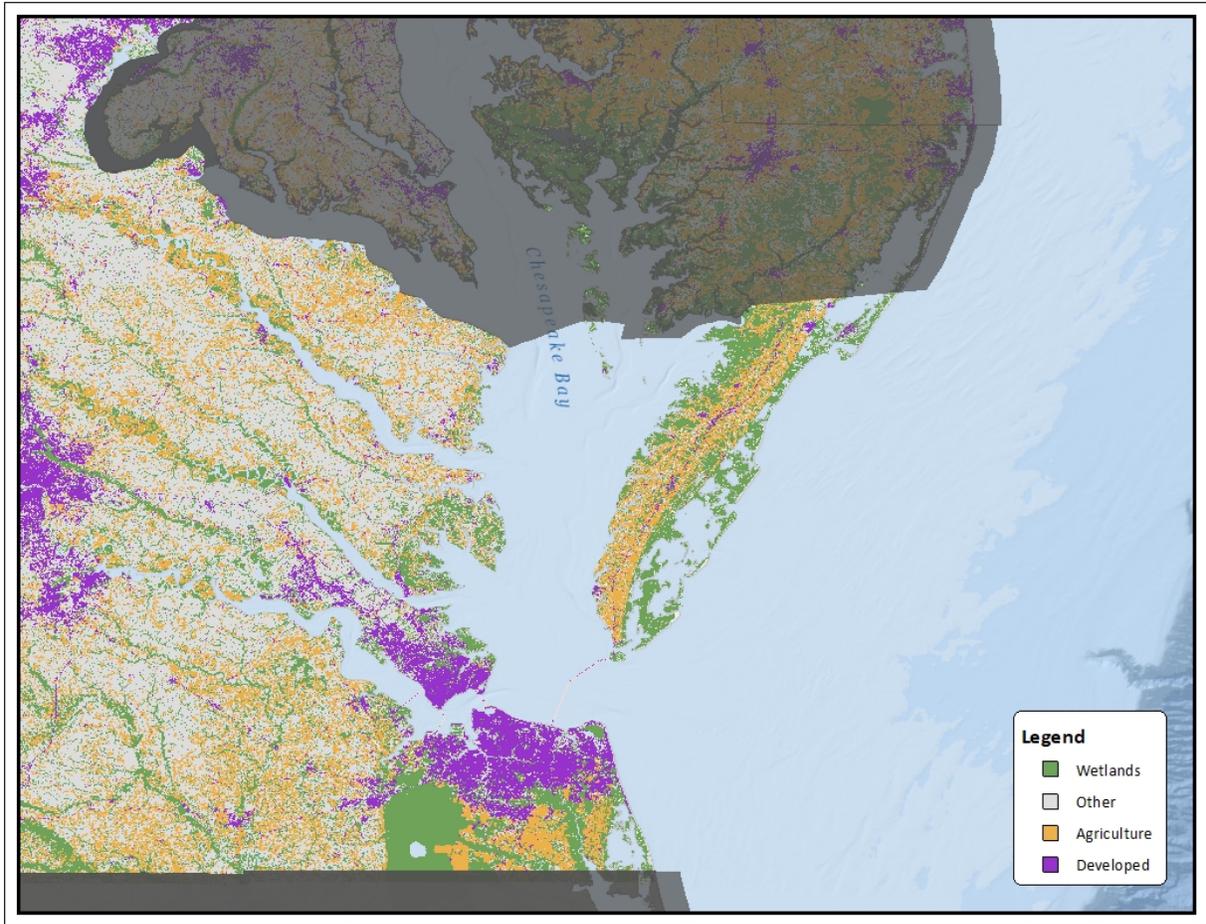


Figure 2. Land cover map for the coastal region of Virginia (National Oceanic and Atmospheric Administration, 2017d).

3. Virginia Incident Waterway Debris Response Flowchart

The “Virginia Incident Waterway Debris Response Flowchart” included in this section 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 is exposed to or has the potential to 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.

For detailed information regarding individual organization roles, responsibilities, and authorities, see [Section 4](#).

Virginia Incident Waterway Debris Response Flowchart

Waterway Debris/Incident Waterway Debris
Any solid material, including but not limited to vegetative debris and debris exposed to or that has the potential to 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.

Acronyms

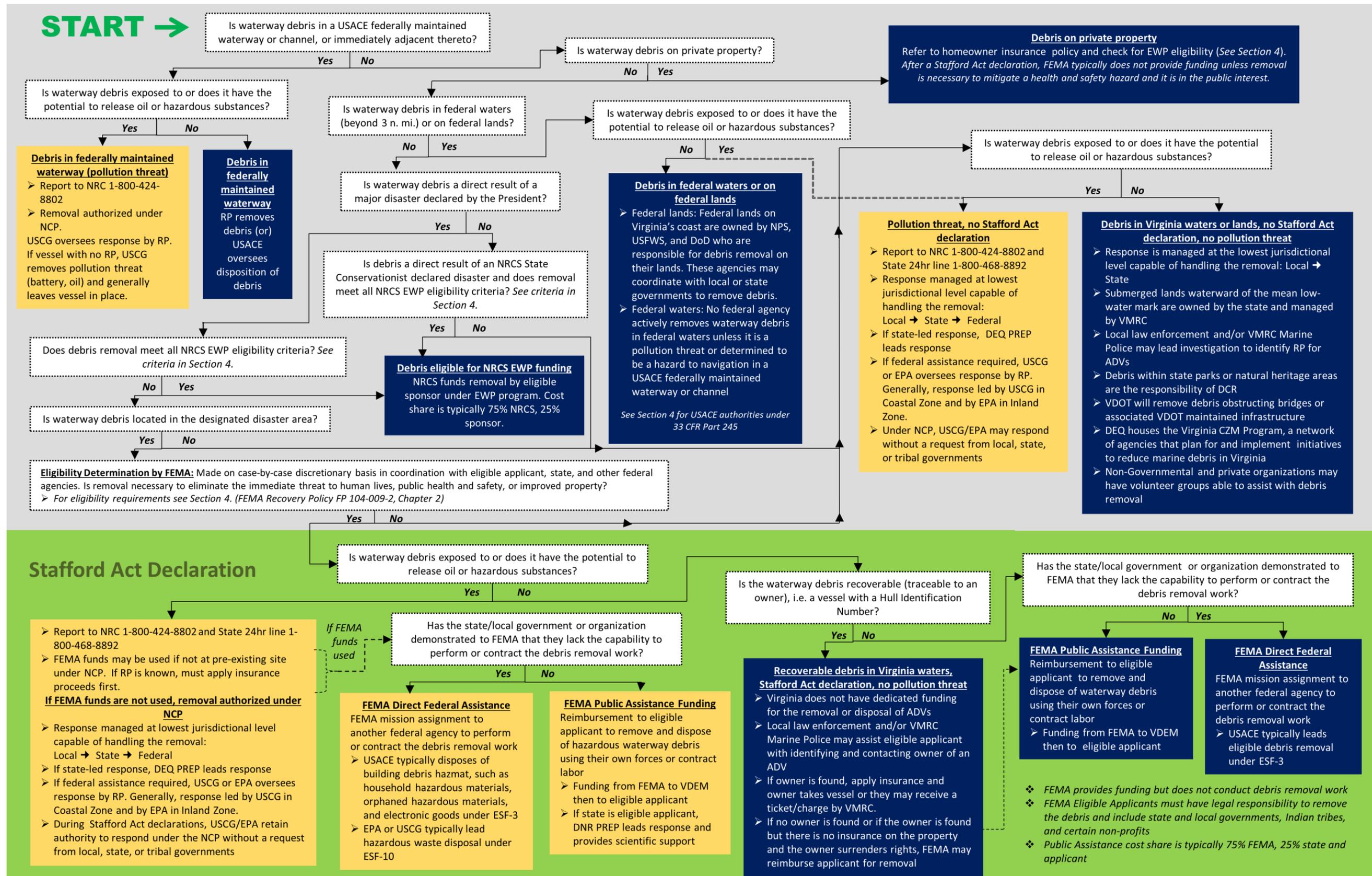
ADV – Abandoned and Derelict Vessel
DCR – VA Department of Conservation and Recreation
DEQ – VA Department of Environmental Quality
DoD – U.S. Department of Defense
EPA – U.S. Environmental Protection Agency
ESF – Emergency Support Function
EWP – Emergency Watershed Protection

FEMA – Federal Emergency Management Agency
NCP – National Oil & Hazardous Substance Contingency Plan
NPS – National Park Service
NRC – National Response Center
NRCS – Natural Resources Conservation Service
PREP – Pollution Response Program (of DEQ)

RP – Responsible Party (Owner, Operator, Lessee)
USACE – U.S. Army Corps of Engineers
USCG – U.S. Coast Guard
USFWS – U.S. Fish and Wildlife Service
VDEM – VA Department of Emergency Management
VDOT – VA Department of Transportation
VMRC – VA Marine Resources Commission

Flowchart Key

- Response to waterway debris that is exposed to or has the potential to release oil, hazardous substances, pollutants, or contaminants
- Response to waterway debris that is not exposed to and does not have the potential to release oil, hazardous substances, pollutants, or contaminants
- Response occurring under Stafford Act authorities and/or funds



4. Roles and Responsibilities

In Virginia, response to an acute waterway debris incident is generally managed at the lowest jurisdictional level capable of handling the response and removal (VDEM, 2015a). Unlike many other states, cities and counties in Virginia are each independent political jurisdictions and are responsible for emergency management within their jurisdictional boundaries (VDEM, 2013). Should a disaster or emergency be beyond the capabilities of local government, requests for state and/or federal assistance are made to the Virginia Emergency Operations Center (EOC) via the VDEM Regional Office. The federal government may supplement state and local response efforts when their resources have been exceeded or when unique capabilities are needed. Like the federal government, Virginia uses the Emergency Support Function (ESF) concept to apply state resources and assign state agency responsibilities. State ESF-3, Public Works and Engineering, to coordinate the removal and disposal of debris from public property and state ESF-10, Oil and Hazardous Materials Response, are the two most commonly applied ESFs during response to a waterway debris incident.

Local, state, 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, volunteer organizations, and non-governmental organizations (NGOs). For a visual one-page representation of agency roles and responsibilities, see “Virginia Incident Waterway Debris Response Flowchart” in [Section 3](#). For a map defining agency jurisdictional authorities, see [Section 4.6](#). Additionally, response capabilities of each agency and corresponding contact information can be found in Appendices [B](#) and [C](#), respectively.

4.1 Local Agency Responsibilities

- May act as first responders to reports of waterway debris incidents that impact any of Virginia’s 29 coastal counties and their municipalities
- City and county emergency management agencies are the lead local agencies for emergency planning, preparedness, response, and recovery
 - Each city and county, as well as certain towns, are required to have an emergency management organization and local emergency operations plan, which outlines available manpower, equipment, and facilities (VDEM, 2015a)
 - Following a Stafford Act declaration, local emergency management agency offices serve as the first point for contact with VDEM
 - Local governments are responsible for their own public works and infrastructure and have primary responsibility for incident prevention, preparedness, response, and recovery (VDEM, 2012a)
- Encouraged by VDEM to construct pre-event contracts for debris removal operations and to generate debris management plans using FEMA guidelines
- Local law enforcement officers may lead investigation to identify the owner of abandoned vessels
- May serve as project sponsor and/or receive debris removal funding from the Natural Resources Conservation Service (NRCS) Emergency Watershed Protection (EWP) Program if specific criteria are met. See [Section 4.3](#) Natural Resources Conservation Service for EWP eligibility criteria.
- The wetlands board of every county, city, or town with a wetlands zoning ordinance reviews project permit applications as part of the joint permit application process. For additional information on permitting and compliance requirements, see [Section 5](#).

Select local authorities:

- Abatement or removal of nuisances by localities; recovery of costs (Va. Code Ann. § 15.2-900)
- Appointment, terms, compensation, etc., of local wetlands boards; jurisdiction of county wetlands board over wetlands in town (Va. Code Ann. § 28.2-1303)
- Authority to require removal, repair, etc., of wharves, piers, pilings, bulkheads, vessels or abandoned, obstructing or hazardous property (Va. Code Ann. § 15.2-909)
- *Commonwealth of Virginia Emergency Operations Plan, Basic Plan* (VDEM, 2015a), which includes a list of local responsibilities
- *Commonwealth of Virginia Emergency Operations Plan, Emergency Support Function #3, Public Works and Engineering* (VDEM, 2012a)
- Locality may provide for removal or disposal of trash, cutting of grass, weeds, and running bamboo; penalty in certain counties; penalty (Va. Code Ann. § 15.2-901)
- Powers and duties of political subdivisions (Va. Code Ann. § 44-146.19)

4.2 State Agency Responsibilities

Select state authorities:

- *Commonwealth of Virginia Emergency Operations Plan, Basic Plan* (VDEM, 2015a), which include a complete list of agency roles and responsibilities
- *Commonwealth of Virginia Emergency Operations Plan, Emergency Support Function #3, Public Works and Engineering* (VDEM, 2012a)
- *Commonwealth of Virginia Emergency Operations Plan, Emergency Support Function #10, Oil and Hazardous Materials Response* (VDEM, 2012b)
- *Commonwealth of Virginia Emergency Operations Plan, Hazard Specific Annex 3, Hurricane and Tropical Storm Response* (Virginia Department of Emergency Management [VDEM], 2015b)

Virginia Department of Conservation and Recreation (DCR)

- Serves as a support agency for ESF-3, Public Works and Engineering

Natural Heritage Division

- Manages natural heritage areas to conserve Virginia's biodiversity through inventory, protection, and stewardship
- Responsible for removal of debris from natural heritage areas
- Maintains an inventory documenting the location and ecological status of rare plant and animal species and natural communities

Environmental Review Section

- Reviews permitted activities for potential impacts to natural heritage resources
- For additional information on DCR consultations, see [Section 5](#).

State Park Division

- Manages and maintains 37 state parks and recreational facilities within the Commonwealth
- Responsible for the removal of debris within state parks

Select DCR authorities:

- Parks and Recreation (Va. Code Ann. § 10.1-200 through § 10.1-217.1)
- Scenic Rivers Act (Va. Code Ann. § 10.1-400 through § 10.1-418.9)

- Shoreline Erosion and Public Beach Preservation (Va. Code Ann. § 10.1-700 through § 10.1-711)
- Soil and Water Conservation (Va. Code Ann. § 10.1-500 through § 10.1-572)
- Virginia Conservation Easement Act (Va. Code Ann. § 10.1-1009 through § 10.1-1016)

Virginia Department of Emergency Management (VDEM)

- Serves as a lead agency for ESF-10, Oil and Hazardous Materials Response
- Serves as a support agency for ESF-3, Public Works and Engineering
- Maintains a comprehensive statewide program of emergency management and coordinates with federal, state, county, and municipal governments, nonprofit organizations, and private agencies that have a role in emergency management
- Activates and staffs the Virginia EOC when an emergency or disaster situation develops within the Commonwealth
- Conducts comprehensive assessments of threats to the state to eliminate or reduce risk and vulnerability (VDEM, 2015a)
- Maintains the *Commonwealth of Virginia Hazard Mitigation Plan* (VDEM, 2013) and the *Commonwealth of Virginia Emergency Operations Plan* and associated appendices (VDEM 2012a; VDEM 2012b; VDEM, 2015a; VDEM, 2015b)
- Following a Stafford Act declaration, serves as coordination point between FEMA and state and local eligible applicants
 - Serves as FEMA grantee and administers public assistance funding to eligible applicants
 - Establishes and coordinates debris assessment and removal process with local and federal assessment teams following a disaster (VDEM, 2012a)
 - Assists state agencies and local governments in the preparation and submission of federal disaster assistance applications
- Provides training and tools to help local and state agencies implement debris management processes to prepare for the cost recovery processes required by FEMA (VDEM, 2012a)
- Establishes and supports regional hazmat teams in cooperation with local and federal governments and private industry to enhance statewide response (VDEM, 2012b)
- Provides manpower in the collection, analysis, and assessment for spill response (VDEM, 2012a)

Select VDEM authorities:

- Department of Emergency Services continued as Department of Emergency Management; administration and operational control; coordinator and other personnel; powers and duties (Va. Code Ann. § 44-146.18 et seq.)
- Virginia Hazardous Materials Emergency Response Program (Va. Code Ann. § 44-146.34 through § 44-146.40)

Virginia Department of Environmental Quality (DEQ)

- Serves as a support agency for ESF-3, Public Works and Engineering
- Serves as a support agency for ESF-10, Oil and Hazardous Materials Response
- Provides regulatory and technical assistance to state agencies, local jurisdictions, and private contractors regarding environmental issues during the debris removal, storage, reduction, and disposal process (VDEM, 2012a; VDEM, 2012b)
- Assists state agencies and local governments in the selection, establishment, management, and closure of debris storage and reduction sites (VDEM, 2012a)

- Expedites the permit process to accomplish debris removal in an effective, timely, and efficient manner (VDEM, 2012a).
- For more information about permitting and compliance requirements see [Section 5](#).

Coastal Zone Management (CZM)

- DEQ serves as the lead agency for the Virginia CZM Program, a network of state agencies and coastal localities that administers enforceable laws, regulations, and policies that protect Virginia’s coastal resources within the 29-county coastal zone
- Initiated development of the *Virginia Marine Debris Reduction Plan* (National Oceanic and Atmospheric Administration, 2014)
- Works to address coastal and ocean issues, such as marine debris, climate change, sensitive coastal land acquisition and habitat restoration, shoreline integrity, and ocean planning
- Collaborates with the eight Coastal Planning District Commissions that represent the 80+ coastal localities
- Maintains Coastal Geospatial and Educational Mapping System (GEMS), a [mapping portal](#) with over 70 data layers of coastal resources and, including the Virginia Ecological Value Assessment, a synthesis of high ecological lands and waters derived from multiple layers from Virginia’s natural resource agencies as well as NOAA’s sea level rise viewer for Virginia. m
- Works with the Mid-Atlantic Regional Council on the Ocean (MARCO) and the Mid-Atlantic Regional Planning Body to maintain the MARCO Mid-Atlantic Ocean Data Portal, which includes multiple ocean planning themes and a marine life library with over 6,000 data layers for fish, birds, marine mammals, sea turtles and corals
- The federal consistency section reviews federal actions (including funding assistance applications) for consistency with the federally-approved laws and policies of the Virginia CZM Program.

Enforcement

- Ensures compliance with Virginia’s environmental laws and regulations through administrative, civil, and criminal enforcement actions
- Assists the regulated community in maintaining compliance with environmental requirements and promotes environmental stewardship

Environmental Impact Review

- Coordinates the Commonwealth’s response to environmental documents for proposed state and federal projects (Virginia Department of Environmental Quality [DEQ], n.d.-a)
- Distributes environmental review documents to appropriate state agencies, planning districts, and localities for their review and comment

Land Protection and Revitalization

- Carries out mandates of the Virginia Waste Management Act and meets Virginia’s federal obligations under the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response Compensation Liability Act (CERCLA)
- Regulates solid and hazardous wastes, including the treatment and disposal of solid wastes
- Oversees cleanup of contaminated sites through regulatory and voluntary programs
- Plans, in partnership with other organizations, for environmental responses to unplanned natural or manmade incidents
- Manages a reimbursement fund to address releases from petroleum tanks

Pollution Response and Preparedness

- Administers the Pollution Response Program (PREP) for responses to air, water, and waste pollution incidents to protect human health and the environment
- Assists local emergency responders, state and federal agencies, and responsible parties with the management of pollution incidents such as oil spills, fish kills, and hazardous materials spills

Water

Water Permitting

- Regulates water resources and water pollution in Virginia
- Issues Virginia Water Protection permits for impacts to wetlands and streams related to development activities or surface water withdrawals

Select DEQ authorities:

- Coastal Zone Management Act of 1972 (16 U.S.C. § 1451 et seq.)
- Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. § 9601 et seq.)
- Creation of Department of Environmental Quality; statement of policy (Va. Code Ann. § 10.1-1183 et seq.)
- Environmental Impact Reports of State Agencies (Va. Code Ann. § 10.1-1188 through § 10.1-1192)
- 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)
 - Permits for dredged or fill material, Section 404 (33 U.S.C. § 1344)
- National Environmental Policy Act (42 U.S.C. § 4321 et seq.)
- *Procedures Manual: Environmental Impact Review of Major State Facilities* (Virginia Department of Environmental Quality, 2017)
- Resource Conservation and Recovery Act (42 U.S.C. §6901 et seq.)
- State Water Control Law (Va. Code Ann. § 62.1-44.2 et seq.)
- Virginia Waste Management Act (Va. Code Ann. § 10.1-1400 et seq.)
- Watershed Planning and Permitting Promotion and Coordination (Va. Code Ann. § 10.1-1193 through § 10.1-1197)

Virginia Department of Forestry (DOF)

- Serves as a support agency for ESF-3, Public Works and Engineering
- Coordinates the removal of debris from all state forest facilities (e.g., hiking trails, campsites, fire breaks, etc.) in an environmentally sound manner, utilizing public and private resources (VDEM, 2012a)

Select DOF authorities:

- Department of Forestry (Va. Code Ann. § 10.1-1100 through § 10.1-1103)

Virginia Department of Game and Inland Fisheries (DGIF)

- Manages inland fisheries, wildlife, and recreational boating for the Commonwealth of Virginia
- Serves as a support agency for ESF-10, Oil and Hazardous Materials Response

- Reviews project applications permitted through Virginia Marine Resources Commission (VMRC) for potential adverse effects on wildlife resources. For more information about permitting and compliance requirements see [Section 5](#).

Select DGIF authorities:

- Game, Inland Fisheries and Boating (Va. Code Ann. § 29.1-100 et seq.)

Virginia Department of General Services

- Serves as a support agency for ESF-3, Public Works and Engineering
- Assists with contracting for the removal of debris from state owned property (VDEM, 2012a)
- Develops and maintains a list of contractors who provide debris removal, collection, reduction, and disposal services (VDEM, 2012a)
- Develop model contracts and generic scopes of work to assist state agencies and local jurisdictions in the development and implementation of debris removal contracts (VDEM, 2012a)

Virginia Department of Health (VDH)

- Serves as the lead state agency for ESF-3, Public Works and Engineering
- Serves as a support agency for ESF-10, Oil and Hazardous Materials Response
- Staffs ESF-3 and ESF-8, Public Health and Medical Services, at the Virginia EOC if activated
- Coordinates environmental health efforts
- Evaluates the re-entry and re-occupancy of facilities and establishes an evaluation process, assessment criteria, and indicators of safe re-occupation

Office of Drinking Water

- Advises local authorities on most effective means of providing emergency services and eliminating real and potential public health hazards
- Assists local jurisdictions with emergency response and damage assessment

Select VDH authorities:

- State Department of Health (Va. Code Ann. § 32.1-16)

Virginia Department of Historic Resources (DHR)

Division of Review and Compliance

- Serves as Virginia's State Historic Preservation Office (SHPO) and reviews proposed federally funded or permitted debris removal activities for impacts to historical and archaeological sites
- For additional information on DHR compliance requirements, see [Section 5](#).

Select DHR authorities:

- National Environmental Policy Act (42 U.S.C. § 4321 et seq.)
- National Historic Preservation Act, Section 106 (16 U.S.C. § 470f)
- Underwater historic property; penalty (Va. Code Ann. § 10.1-2214)
- Virginia Antiquities Act (Va. Code Ann. § 10.1-2300 through § 10.1-2306)

Virginia Department of Transportation (VDOT)

- Serves as a support agency for ESF-3, Public Works and Engineering

- Coordinates the removal of debris from all state transportation facilities (e.g., highways, bridges, tunnels, etc.; VDEM, 2012a)

Select VDOT authorities:

- Department of Transportation Act (Va. Code Ann. § 33.2-256 through § 33.2-280)

Virginia Institute for Marine Science (VIMS)

- Mandated by the Commonwealth of Virginia to conduct research and provide scientific advice concerning pressing issues facing rivers, estuaries, coasts, and the ocean
- Manages the Chesapeake Bay National Estuarine Research Reserve (NERR) in partnership with NOAA

Select VIMS authorities:

- Virginia Institute of Marine Science (Va. Code Ann. § 28.2-1100 et seq.)

Virginia Marine Resource Commission (VMRC)

Habitat Management Division

- Manages the state’s submerged bottom lands, tidal wetlands, sand dunes, and beaches
- Handles permit applications for piers, docks, marinas, channel dredging, and any other activities that use, encroach on, or disturb water bottoms owned by the Commonwealth
- Serves as a clearinghouse and sends copies of permit applications to other state and federal agencies that might have jurisdiction or issues related to permits for a project. For additional information on VMRC permit and compliance requirements, see [Section 5](#).
- Surveys and maps subaqueous ground for public and private shellfish cultivation, leases private shellfish grounds, and maintains oyster ground lease records. Maintains an interactive map of shellfish grounds and habitat permits (Virginia Marine Resources Commission, n.d.).

Marine Police

- Enforces state and federal commercial and recreational fishery laws
- Conducts search and rescue operations, enforces boating safety laws, responds to emergency calls, and investigates boating accidents
- May lead or assist investigation to identify an owner for an abandoned or derelict vessel
- May issue tickets or penalties for derelict vessels

Select VMRC authorities:

- Ownership and Uses of Submerged Lands (Va. Code Ann. § 28.2-1200 through § 28.2-1209)
- Permits required for certain activities; issuance of permits by Commission (Va. Code Ann. § 28.2-1306)
- Permits required for certain activities; issuance of permits by Commission (Va. Code Ann. § 28.2-1406)
- Removal of obstructions or hazardous property from state waters; penalty (Va. Code Ann. § 28.2-1210)

Virginia Port Authority

- Operates six deep water terminals within the Commonwealth and is the only U.S. east coast port with Congressional authorization to dredge to 55 feet

- May request assistance from NOAA’s Navigation Response Team (NRT) to survey ports and near-shore waterways to identify dangerous objects or changes in water depth following a disaster

Select Virginia Port Authority authorities:

- Virginia Port Authority (Va. Code Ann. § 62.1-128 through § 62.1-147.2)

4.3 Federal Agency Responsibilities

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

Select Animal and Plant Health Inspection Service authorities:

- Animal Health Protection Act (7 U.S.C § 8301 et seq.)
- Plant Protection Act (7 U.S.C § 7701 et seq.)

Bureau of Safety and Environmental Enforcement

- Manages a Marine Trash and Debris Program to eliminate debris associated with oil and gas operations on the Outer Continental Shelf (OCS)
- Regulates marine trash and debris for oil and gas operations and renewable energy development on the OCS
- Enforces requirement that items be clearly marked to identify the owner and items lost overboard be recorded, reported, and retrieved if possible
- Requires annual training of offshore oil and gas workers to reduce marine debris

Farm Service Agency (FSA)

- Emergency Conservation Program (ECP) helps farmers repair damage to farmland caused by natural disasters, such as
 - Debris removal from farmland
 - Grading, shaping, or leveling damaged land
- Up to 75% of the cost to implement emergency conservation practices can be provided to farmers. Qualified limited resource producers may earn up to 90% cost-share.
- Locally-elected FSA County Committee is authorized to implement ECP and determine if land is eligible for ECP
- Farmers should inquire with their local FSA county office regarding ECP enrollment periods, which are established by FSA county committees

Select FSA authorities:

- Agricultural Credit Act of 1978 (92 Stat. 420-434), as amended by the Disaster Assistance Act of 1989, Section 502 and 7 C.F.R. § 701, Subpart B

Federal Emergency Management Agency (FEMA), Region III

- Under the Stafford Act, provides reimbursement funding for eligible debris removal from navigable waterways (non-federally maintained) or wetlands during Presidential major disaster declarations when another federal agency does not have authority to fund the activity

- Provides funding to eligible applicants at a typical cost share of 75% FEMA, 25% state and eligible applicant
- Issues mission assignments to other federal agencies for technical assistance, federal operations support, or to perform or contract debris removal when local and state capabilities are exceeded
- Makes eligibility determinations for debris removal on a case-by-case discretionary basis in coordination with the eligible applicant, state, and other federal agencies
 - Debris removal must be necessary to eliminate the immediate threat to life, public health and safety, or improved property (FEMA, 2017)
 - For navigable waterways, debris removal is limited to a max depth of 2 feet below the low tide draft of the largest vessel that utilized the waterway prior to the incident. Any debris below this zone is not eligible unless it is necessary in order to remove debris extending upward into an eligible zone (FEMA, 2017).
 - 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 property during the occurrence of a 5-year flood (a flood that has a 20% chance of occurring in any given year; FEMA, 2017)
- Employs debris specialists that can be mobilized to assist eligible applicants with debris management
- May reimburse costs for use of side scan sonar that identifies eligible submerged debris and sunken vessels
- Provides geospatial support and hosts data, paper maps, and live data collection with interactive mapping through a shared group on ArcGIS Online

Select FEMA authorities:

- 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)

National Marine Fisheries Service (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 NRT 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 a variety of 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, Emergency Response Division

- Serves as Scientific Support Coordinator (SSC) to coordinate application of NOAA assets and services during emergencies to help the Federal On-Scene Coordinator (FOSC) make timely operational decisions
- In the event of an oil spill, the SSC provides technical support, chemical hazard analyses, assessments of the sensitivity of biological and human-use resources, and recommends best actions moving forward

Office of Response and Restoration, Marine Debris Division

- Funds marine debris assessment and removal projects through grants or congressional supplemental funding
- Facilitates inter-agency coordination of planning and execution of responses to marine debris events
- 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
- Develops external communications such as talking points appropriate for the public, informational graphics, intuitive interactive web content, and educational videos 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

Select NOAA authorities:

- 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.)

National Park Service (NPS)

- Manages 22 national areas in the state of Virginia, including the Assateague Island National Seashore along the eastern shore
- May conduct incident waterway debris assessment and cleanup within their jurisdiction in coordination with county, state, and other federal partners
- For a map of areas managed by NPS in Virginia, see [Section 4.6](#).

Select NPS authorities:

- National Park Service and Related Programs (54 U.S.C § 100101)

Natural Resources Conservation Service (NRCS)

- When funding is available, provides emergency financial and technical assistance through the Emergency Watershed Protection (EWP) Program for the following: to protect from additional flooding or soil erosion; to reduce threats to life and/or property from 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 is 75% NRCS and 25% project sponsor
- Public and private landowners are eligible for assistance but must be represented by a project sponsor, including state government, legal subdivisions of the state, such as a city, county, water management district, drainage district, or any Native American tribe or tribal organization
- 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 this event
 - Recovery measures are for runoff retardation or soil erosion prevention
 - Event caused a sudden impairment in the watershed
 - Economic, environmental, and social documentation are adequate to warrant removal action
 - Proposed removal action is technically viable and environmentally defensible

Select NRCS authorities:

- Emergency Watershed Protection (7 C.F.R. § 624)

U.S. Army Corps of Engineers (USACE), Norfolk District

- Maintains pre-event contracts for activities within the Norfolk District area of responsibility and has the ability to access contract vehicles maintained by other USACE districts
- May request assistance from NOAA's NRT to survey ports and near-shore waterways

Emergency Operations

- Serves as lead federal agency in support of FEMA under ESF-3 Public Works and Engineering
- Following a Stafford Act declaration, may lead eligible debris removal from navigable waterways (non-federally maintained) and wetlands if FEMA mission assigns another federal agency to perform or contract debris removal and surveying

Navigation

- Serves as lead federal agency for conducting surveys within the federally authorized channel for changes in water depth and hazards to navigation for commercial, recreational, and military use
- Responsible for operation, maintenance, and debris removal from federally maintained waterways and channels within Norfolk District. For a map of USACE federally authorized and maintained waterways and channels in Virginia, see [Section 4.6](#).
- May use side-scan, multi, or single beam sonar to identify sunken debris
- May remove abandoned vessels or other debris from federally maintained navigable channels if an owner or responsible party cannot be identified and debris items are determined to be obstructions to navigation

Regulatory Program

- Norfolk District issues permits for debris removal within waterways and wetlands throughout the state. For additional information on USACE permitting and compliance requirements, see [Section 5](#).

Select USACE authorities:

- 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)
- Rivers and Harbors Appropriation Act of 1899 (33 U.S.C. § 401 et seq.)
 - Prohibits the unauthorized obstruction or alteration of any navigable water of the United States (Section 10, 33 U.S.C. § 403)
 - Authorize USACE to remove sunken vessels or other obstructions from navigable waterways under emergency conditions (Sections 15, 19 and 20, 33 U.S.C. § 409, 414, 415)
 - Authorizes USACE to remove snags and debris in navigable waters (Section 3, 33 U.S.C. § 603a)
- Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C § 5121 et seq.)
- Water Resources Development Act (33 U.S.C § 426m)

U.S. Coast Guard (USCG) District 5, Sector Hampton Roads

- In most cases, removal of incident waterway debris by USCG is not authorized unless contaminated debris is causing a health or environmental threat
- Responds to oil and hazardous material releases or threats of release in waterways within the coastal zone as defined in the *Virginia Area Contingency Plan* (ACP; USCG, 2016)
 - Removal actions generally limited to removing oil and other hazardous substances while leaving vessels in place. If a vessel appears abandoned, an attempt will be made to contact the owner. Oil will be extracted and the vessel will remain in place unless it is so contaminated that it is declared a hazard to the environment, in which case, the USCG will seek approval from the Commandant to take temporary custodianship of the vessel and fund removal with cooperation from local and state counterparts (U.S. Coast Guard, 1996).
 - Responds to pollution threats in federally maintained waterways in coordination with USACE
- Serves as lead federal agency (FOOSC) under ESF-10, Oil and Hazardous Materials in the ACP coastal zone
 - Directs response in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP)
 - Coordinates with state, tribal, and territorial governments and oversees response by a responsible party
 - Unlike response under a Stafford Act declaration, USCG may respond without a request from local, state, or tribal governments under the NCP. During Stafford Act declarations, USCG retains the authority to take action 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
 - NRC hotline: 1-800-424-8802

- For contact information, see [Appendix C](#).
- 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 debris obstructing watercourse or creating hazards to navigation within federally maintained waterways. USCG also notifies USACE of any hazards to navigation within federally maintained waterways.
- Following a Stafford Act declaration, may lead eligible debris removal from navigable waterways (non-federally maintained) and wetlands if FEMA mission assigns another federal agency to perform or contract debris removal and surveying
- May request assistance from NOAA's NRT to survey ports and near-shore waterways
- The Captain of the Port sets conditions used to alert the maritime community and affects changes in port operations necessary to prepare for tropical cyclone activity. This may include restricting or closing all port traffic.
- For a map of USCG boundaries and the ACP coastal-inland zone boundary in Virginia, see [Section 4.6](#).

Select USCG authorities:

- Abandoned Barge Act of 1992 (46 U.S.C. § 4701-4705)
- Abandoned Vessels, Commandant Instruction (M16465.43)
- Comprehensive Environmental Response, Compensation, and Liability Act (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.)
- 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.)
- Protection and security of vessels, harbors, and waterfront facilities (33 C.F.R. § 6)
- Saving life and property (14 C.F.R. § 88)

U.S. Environmental Protection Agency (EPA), Region III

- Responds to oil and hazardous substance releases or threats of release in waterways within the inland zone as defined in the *Virginia ACP* (USCG, 2016). For a map of the ACP coastal-inland zone boundary in Virginia, see [Section 4.6](#).
- Serves as lead federal agency (FOSC) under ESF-10, Oil and Hazardous Materials in the ACP inland zone and in incidents affecting both inland and coastal zones
 - Directs response in accordance with the NCP
 - Coordinates with state, tribal, and territorial governments and oversees response by responsible party
 - Unlike response under a Stafford Act declaration, EPA may respond without a request from local, state, or tribal governments under the NCP. During Stafford Act declarations, EPA retains the authority to take action under the NCP.
- Following a Stafford Act declaration, may lead removal of contaminated waterway debris under a FEMA mission assignment to perform or contract the work, as pursuant to a Memorandum of Understanding between FEMA, EPA, USCG, and USACE

Select EPA authorities:

- Comprehensive Environmental Response, Compensation, and Liability Act (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.)
- Marine Protection, Research and Sanctuaries Act (33 U.S.C. § 1401 et seq.)
- National Oil and Hazardous Substances Pollution Contingency Plan (40 C.F.R. § 300)

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 ESA and Coastal Barrier Resources Act (CBRA)
- For additional information on USFWS compliance requirements, see [Section 5](#).

National Wildlife Refuges (NWR)

- Manages 14 NWRs in Virginia, all of which are within Virginia’s coastal zone
- Coordinates and manages waterway debris assessment and cleanup in NWRs
- May coordinate with federal, state, and local partners to remove incident waterway debris within their jurisdiction
- Provides BMPs to protect listed threatened or endangered land and freshwater species, certain marine species, and their critical habitat
- For a map of NWRs in Virginia, see [Section 4.6](#).

Select USFWS authorities:

- 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.)

U.S. Navy

Supervisor of Salvage and Diving

- 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 the required resources of the commercial salvage industry (U.S. National Response Team, 2014)

4.4 Private Landowners

- May report acute waterway debris incidents to local emergency management agency or VDEM to begin a coordinated, proper response. See [Appendix C](#) for contact information.
- May complete right-of-entry agreements with entities conducting private property debris removal or using private property as an access point. Agencies will not remove debris from private property without a properly executed right-of-entry agreement.
- 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, 2017)

4.5 Volunteer and Non-Governmental Organizations

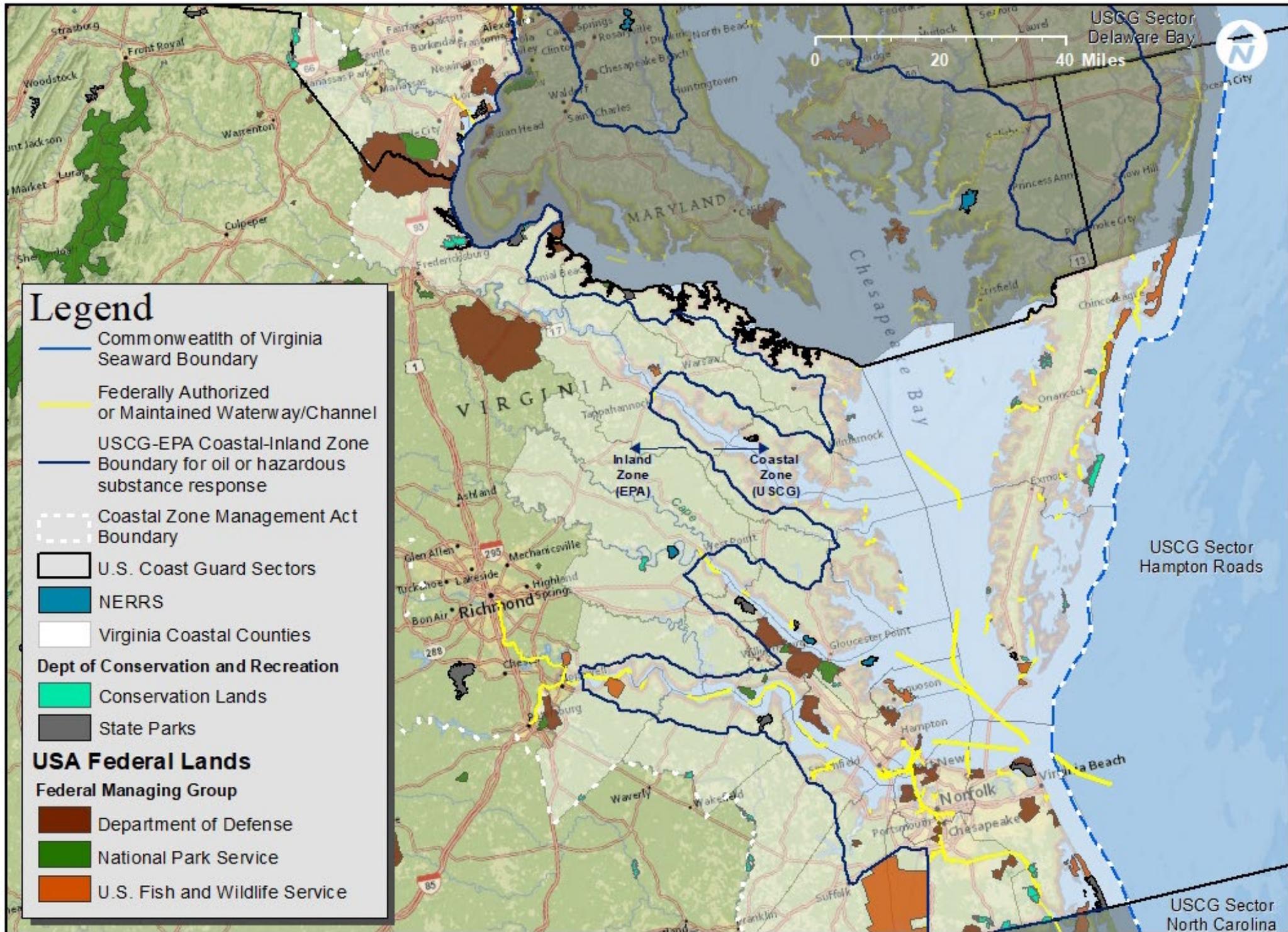
- Certain private nonprofit organizations that serve a public function and have the legal responsibility to remove the debris may serve as an eligible applicant and receive public assistance reimbursement funding from FEMA to perform or contract waterway debris removal following a Stafford Act declaration (FEMA, 2017)
- Non-governmental organizations may provide debris removal assistance or logistical support through funded projects and programs

4.6 Agency Jurisdiction Map

The “Virginia Incident Waterway Debris Response Map” on the following page displays relevant agency jurisdiction boundaries in Virginia’s 29 coastal counties. After an acute waterway debris incident, the agency (or agencies) responsible 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 state.

For detailed information regarding local, state, and federal agency roles and responsibilities, see Sections [4.1](#), [4.2](#), and [4.3](#), respectively. For a visual one-page representation of agency roles and responsibilities, see [Section 3](#).

Virginia Incident Waterway Debris Response Map



5. Permitting and Compliance Requirements in Virginia

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 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 DHR, DEQ’s CZM Program, USFWS, and NOAA Fisheries.

During response under a Stafford Act declaration, FEMA provides funding to applicants for debris removal and is therefore considered the lead federal agency responsible for tribal and resource agency coordination. 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).

The Commonwealth of Virginia has a joint permit application process administered through VMRC, so if multiple permits are required, applicants can apply to VMRC and state and federal review will occur concurrently to expedite the process. The joint permit application process is used by USACE, VMRC, DEQ and Local Wetlands Boards.

A description of individual agency requirements and authorities is outlined below and is summarized in the “Permitting and Compliance for Waterway Debris Removal in Virginia” handout in [Section 5.3](#). Organization contact information can be found in [Appendix C](#).

5.1 State and Local Agency Requirements

Local Wetlands Boards

- Every county, city, or town with a wetlands zoning ordinance has a wetlands board that consists of citizen members
- Reviews project permit applications as part of the joint permit application process and may require additional permits

Select local authorities:

- Appointment, terms, compensation, etc., of local wetlands boards; jurisdiction of county wetlands board over wetlands in town (Va. Code Ann. § 28.2-1393)

Virginia Department of Conservation and Recreation (DCR)

Natural Heritage Division

Environmental Review Section

- Conducts non-regulatory review of permitted activities for potential impacts to natural heritage resources

Select DCR authorities:

- Soil and Water Conservation (Va. Code Ann. § 10.1-500 through § 10.1-572)
- Shoreline Erosion and Public Beach Preservation (Va. Code Ann. § 10.1-700 through § 10.1-711)
- Virginia Conservation Easement Act (Va. Code Ann. § 10.1-1009 through § 10.1-1016)

Virginia Department of Environmental Quality (DEQ)

- Provides regulatory assistance to state agencies, local jurisdictions, and private contractors regarding environmental issues during the debris removal, storage, reduction, and disposal process (VDEM, 2012a; VDEM, 2012b)
- Expedites the permit process to accomplish debris removal in an effective, timely, and efficient manner (VDEM, 2012a).

Coastal Zone Management (CZM)

- The federal consistency section reviews federal actions (including funding assistance applications) for consistency with the federally-approved laws and policies of the Virginia CZM Program.

Environmental Impact Review

- Coordinates the Commonwealth's response to environmental documents for proposed state and federal projects (DEQ, n.d.-a)
- Distributes environmental review documents to appropriate state agencies, planning districts, and localities for their review and comment

Water

Water Permitting

- Serves as Virginia's Section 401 certification program for federal Section 404 permits issued under the authority of the Clean Water Act
- Reviews project applications as part of the joint permit application process administered by VMRC to ensure compliance with the State Water Control Law
- Issues Virginia Water Protection Permits for impacts to wetlands and streams related to development activities or surface water withdrawals. A Water Protection Permit may be required for debris removal activities that may disturb a wetland or stream by clearing, filling, excavating, draining, or ditching.

Select DEQ authorities:

- Coastal Zone Management Act of 1972 (16 U.S.C. § 1451 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.)
 - Certification, Section 401 (33 U.S.C. § 1341)
 - Permits for dredged or fill material, Section 404 (33 U.S.C. § 1344)
- State agencies to submit environmental impact reports on major projects (Va. Code Ann. § 10.1-1188)
- State Water Control Law (Va. Code Ann. § 62.1-44.2 et seq.)

Virginia Department of Game and Inland Fisheries (DGIF)

- Reviews project applications permitted through VMRC for potential adverse effects on wildlife resources
- May review projects permitted by USACE and/or DEQ if there are direct effects on wildlife resources

Select DGIF authorities:

- Game, Inland Fisheries and Boating (Va. Code Ann. § 29.1-100 et seq.)

Virginia Department of Historic Resources (DHR)

Division of Review and Compliance

- Serves as Virginia's State Historic Preservation Office (SHPO)
- Section 106 of the National Historic Preservation Act requires federal agencies to consider an undertaking's potential to affect any district, site, building, structure, or object included in or eligible for the National Register of Historic Places ("historic properties").
- If a waterway debris removal project in Virginia 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 DHR prior to beginning debris removal work to determine whether activities will affect historic properties
- Advises VMRC and DEQ regarding potential impacts of permitted activities on historical and archaeological sites within the 29-county coastal zone

Select DHR authorities:

- National Historic Preservation Act, Section 106 (16 U.S.C. § 470f)
- Virginia Antiquities Act (Va. Code Ann. § 10.1-2300)
- Underwater historic property (Va. Code Ann. § 10.1-2214)

Virginia Marine Resource Commission (VMRC)

Habitat Management Division

- Issues subaqueous or bottom lands, tidal wetlands, and coastal primary sand dunes permits for projects that may negatively impact these resources
- Serves as a clearinghouse and sends copies of permit applications to other state and federal agencies that might have jurisdiction or issues related to permits for a project, as part of the joint permit application process
- A Habitat Permit may be required for debris removal projects that involve excavating, dredging, the discharge of fill or dredge material, or involves structures or work impacting navigable waterways or wetlands

Select VMRC authorities:

- Ownership and Uses of Submerged Lands (Va. Code Ann. § 28.2-1200 through § 28.2-1209)
- Permits required for certain activities; issuance of permits by Commission (Va. Code Ann. § 28.2-1306 et seq.)
- Permits required for certain activities; issuance of permits by Commission (Va. Code Ann. § 28.2-1406 et seq.)

5.2 Federal Agency Requirements

National Environmental Policy Act (NEPA)

- Requires federal agencies to follow a specific planning process to ensure environmental consequences of a federally funded action have been considered
- 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 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, state, and local 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 (NOAA Fisheries)

- If a waterway debris removal project in Virginia 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 Greater Atlantic Regional Fisheries Office prior to beginning debris removal work to ensure compliance with the 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 adversely affect listed threatened or endangered species or critical habitat. Generally, NOAA Fisheries manages marine and anadromous species while USFWS manages land and freshwater species. 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 Greater Atlantic Regional Fisheries Office endangered species web page for an up to date Virginia ESA-listed marine species list (National Oceanic and Atmospheric Administration [NOAA], 2017c). See USFWS’s endangered species web page for an up to date Virginia ESA-listed land and freshwater species list (U.S. Fish and Wildlife Service [USFWS], 2016b),
 - 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. The Mid-Atlantic Fishery Management Council is responsible for identifying EFH for federally managed species in Virginia (Mid-Atlantic Fishery Management Council, 2017).
- 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
 - NOAA Fisheries defines an emergency as 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, n.d.-c)
 - During emergency waterway debris removal operations, NOAA Fisheries Greater Atlantic Regional Fisheries Office utilizes the same process for initiating contact for both ESA and EFH consultations. Steps to complete the emergency response consultation process are outlined in NOAA (n.d.-c).
- Additional information on ESA and EFH consultation during non-emergencies can be found in National Oceanic and Atmospheric Administration (n.d.-a) and National Oceanic and Atmospheric Administration (n.d.-b), respectively.

Select NOAA authorities:

- 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 Mammal Protection Act of 1972 (16 U.S.C § 1361 et seq.)

U.S. Army Corps of Engineers (USACE), Norfolk District

Regulatory Program

- USACE permit is required for debris removal within or over all Section 10 navigable waterways and wetlands (33 U.S.C. § 403) or for debris removal within waterways and wetlands if the activity involves dredging, the discharge of dredge or fill material, or involves structures or work impacting the navigability of a waterway. One or multiple permits may be needed depending on the scope of work to be conducted.
- Norfolk District Regulatory Program has jurisdiction over the entire state and is geographically aligned into four regional field offices that cover each region of the state, with the Eastern, Northern, and Southern offices covering the coastal zone of Virginia ([Figure 3](#))
- 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. in wetland areas.
 - **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 33: Temporary Construction, Access, and Dewatering.** Authorizes temporary structures, work, and discharges, including cofferdams, necessary for construction activities or access fills or dewatering of constructing sites
 - **Nationwide Permit 37: Emergency Watershed Protection and Rehabilitation.** Issued for work conducted under NRCS's 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. Activities undertaken entirely on a CERCLA site are not required to obtain permits.
 - **Nationwide Permit 45: Repair of Uplands Damaged by Discrete Events.** Authorizes discharges of dredged or fill material, including dredging or excavation, into all waters of the United States for activities associated with the restoration of upland areas damaged by storms, floods, or other discrete events
- In emergency situations, permitting procedures may be expedited and resource agency coordination (or completion of coordination/consultation) occurs "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.
 - USACE defines an emergency as 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))

- Under 33 C.F.R. § 325.2(e)(4), emergency permitting procedures may be authorized for activities not qualifying for a nationwide permit

Select USACE authorities:

- 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)
- Rivers and Harbors Appropriation Act of 1899 (33 U.S.C. § 401 et seq.)
 - Prohibits the unauthorized obstruction or alteration of any navigable water of the United States (Section 10, 33 U.S.C. § 403)
 - Authorize USACE to remove sunken vessels or other obstructions from navigable waterways under emergency conditions (Sections 15, 19 and 20, 33 U.S.C. § 409, 414, 415)

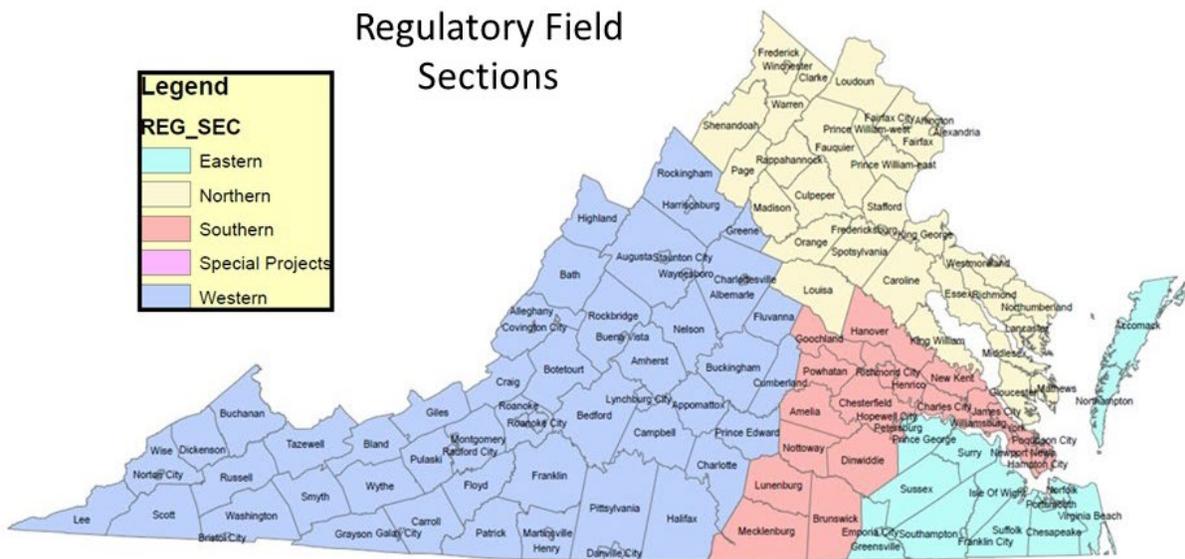


Figure 3. Map of USACE regulatory program field sections in Virginia (N. Woodward, personal communication, October 17, 2017).

U.S. Fish and Wildlife Service (USFWS)

Ecological Services Program

- If a waterway debris removal project in Virginia 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 the USFWS Virginia Ecological Services Field Office in Gloucester prior to beginning debris removal work to ensure compliance with ESA and CBRA
 - ESA directs all federal agencies to ensure the actions they take, including those they fund or authorize, do not adversely affect listed threatened or endangered species or critical habitat. 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 endangered species web page for an up to date Virginia ESA-listed land and freshwater species list (USFWS, 2016b). See NOAA Fisheries Greater Atlantic Regional Fisheries Office endangered species web page for an up to date Virginia ESA-listed marine species list (NOAA, 2017c).

- CBRA makes designated coastal barriers ineligible for most federal expenditures and financial assistance and was developed as a way to minimize development of coastal barriers and damage to property, fish, wildlife, and other natural resources. 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, and Great Lakes 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 Virginia can be accessed from U.S. Fish and Wildlife Service (2016a).
- 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.
- Generally, USFWS will provide BMPs that provide necessary protections while allowing projects to go forward

Select USFWS authorities:

- 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.)

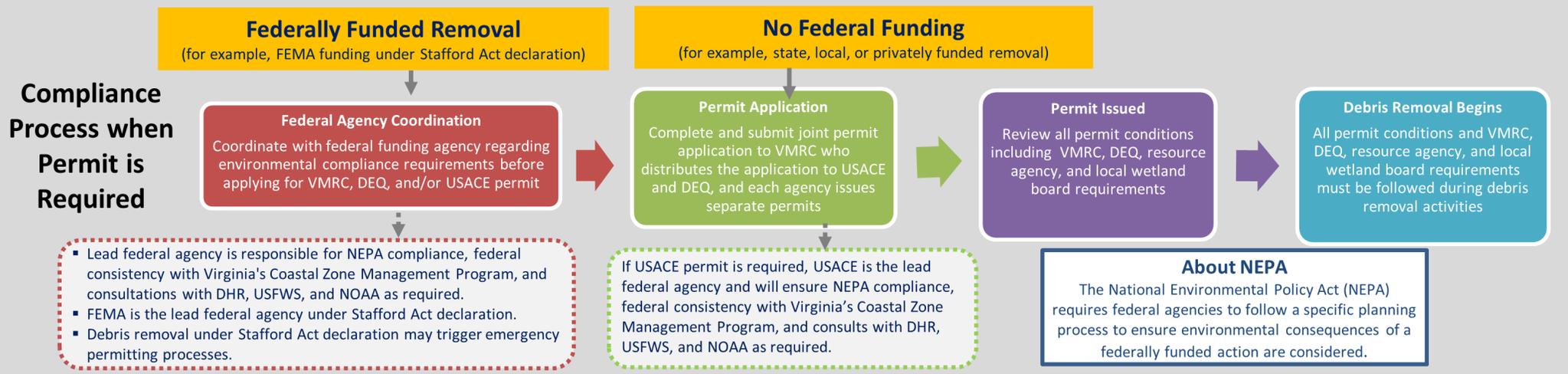
5.3 Permitting and Compliance for Waterway Debris Removal in Virginia One-Pager

The “Permitting and Compliance for Waterway Debris Removal in Virginia” one-pager 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 state and federal agency requirements with general contact information.

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

Permitting and Compliance for Waterway Debris Removal in Virginia

- In Virginia's coastal zone, a Virginia Marine Resources Commission (VMRC) Habitat Permit, Virginia Department of Environmental Quality (DEQ) Water Protection Permit, and/or a U.S. Army Corps of Engineers (USACE) permit may be required if debris removal involves excavating, dredging, the discharge of fill or dredge material, or involves structures or work impacting navigable waterways or wetlands.
- VMRC, DEQ, USACE, and most local wetland boards have a joint permit application process. Applicants can apply through VMRC and local, state, and federal review will occur concurrently.
- The **lead federal agency** is responsible for compliance with National Environmental Policy Act (NEPA), federal coastal consistency, and consulting with tribal and resource agencies including Department of Historic Resources (DHR), U.S. Fish and Wildlife Service (USFWS), and the National Oceanic and Atmospheric Administration (NOAA) as required.



Agency Requirements and Legislation Details

<p>U.S. Army Corps of Engineers (USACE) Norfolk District Regulatory Program 757-201-7652</p>	<ul style="list-style-type: none"> Permit(s) that may be required for debris removal work within waterways and wetlands: <ul style="list-style-type: none"> NWP-3 Maintenance NWP-22 Removal of Vessels NWP-33 Temporary Construction, Access, and Dewatering NWP-37 Emergency Watershed Protection & Rehabilitation NWP-38 Cleanup Hazardous/Toxic Waste NWP-45 Repair of Uplands Damaged by Discrete Events 	<p>Local Wetlands Boards</p>	<ul style="list-style-type: none"> Most localities in Virginia's coastal zone have a Wetlands Board comprised of citizen members to review any application for a project that may disturb wetlands. Local Wetland Boards review projects as part of the joint permit application process.
<p>National Oceanic and Atmospheric Administration (NOAA) NOAA Fisheries ESA: 978-281-9328 EFH: 804-684-7828</p>	<ul style="list-style-type: none"> 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"> Endangered Species Act (ESA) to ensure actions do not adversely affect listed threatened or endangered species or critical habitat for marine species Magnuson-Stevens Fisheries Conservation and Management Act to ensure actions do not adversely affect Essential Fish Habitat (EFH) 	<p>VA Department of Conservation and Recreation (DCR) Heritage Division 804-371-2708</p>	<ul style="list-style-type: none"> Non-regulatory authority Reviews projects to identify potential impacts to natural heritage resources
<p>U.S. Fish and Wildlife Service (USFWS) Virginia Ecological Services Field Office 804-693-6694</p>	<ul style="list-style-type: none"> Consultation with Ecological Services Field Office 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"> Endangered Species Act (ESA) to ensure actions do not adversely affect listed threatened or endangered species or critical habitat for land and freshwater species and certain marine species such as manatee Coastal Barrier Resources Act (CBRA) to ensure actions do not encourage development on coastal barriers along the Atlantic coast 	<p>VA Department of Environmental Quality (DEQ) Water Program 804-698-4038</p>	<ul style="list-style-type: none"> Serves as Virginia's Section 401 certification program for federal Section 404 permits issued under the authority of the Clean Water Act A Water Protection Permit may be required for debris removal activities that may disturb a wetland or stream by clearing, filling, excavating, draining, or ditching.
		<p>VA Department of Historic Resources (DHR) Division of Review & Compliance 804-482-6446</p>	<ul style="list-style-type: none"> Serves as the State Historic Preservation Office (SHPO) and ensures compliance with Sections 106 and 110 of the National Historic Preservation Act Consultation with DHR is required if waterway debris response involves federal permits and/or funding (USACE permit, FEMA funding, etc.) or has the potential to affect historic or cultural sites
		<p>VA Marine Resources Commission (VMRC) Habitat Division 757-247-2200</p>	<ul style="list-style-type: none"> Issues subaqueous or bottom lands, tidal wetlands, and coastal primary sand dunes permits for projects that may negatively impact any of these resources. A Habitat Permit may be required for debris removal projects that involve excavating, dredging, the discharge of fill or dredge material, or involves structures or work impacting navigable waterways or wetlands.

6. Virginia Waterway Debris Response Challenges

Waterway debris response challenges identified by stakeholders are outlined below, along with associated recommendations. These identified challenges will serve as future points of discussion and action for the Virginia waterway debris response community. Potential opportunities for addressing response needs 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 response challenges and associated recommendations are compiled based on stakeholder input to improve preparedness for response and recovery operations following an acute waterway debris incident in Virginia. Recommended actions include planning and removal logistics, education, policy, and funding actions to address gaps in response and meet pre- and post-event data needs.

6.1.1 Planning and Removal Logistics

- **Challenge:** There is a need for an integrated Emergency Operations Center and Common Operating Picture.
 - **Action:** Develop an integrated Geographic Information System (GIS) platform or mechanism for sharing data.
 - **Action:** Choose one existing platform, link data layers, and share among agencies.
 - **Action:** Establish a Regional Coordination Center and extend to all relevant agencies.
 - **Action:** Include relevant waterway debris response agencies into a regional debris taskforce.
- **Challenge:** Local and regional debris removal contracts do not address waterway debris response.
 - **Action:** Include waterway debris removal into new contracts and statements of work.
 - **Action:** Discuss contract scope within the local Planning District Commissions in the Commonwealth.
- **Challenge:** It is difficult to determine a responsible party or owner for incident waterway debris.
 - **Action:** Encourage state and local governments and NGOs to provide education and outreach to local communities about how to prepare for an emergency to reduce the potential for debris in waterways.
 - For a printable fact sheet that features basic steps for homeowners to prepare for a hurricane or storm, see [Section 6.2](#).
- **Challenge:** Coordination across multiple agencies (private, local, state, and federal) is difficult.
 - **Action:** Link *Guide* content to existing debris management documents.

- **Action:** Encourage the implementation of periodic waterway debris-centric exercises in coordination with state and federal agencies, counties, and municipalities.
- **Action:** Encourage entities hosting local planning meetings or conferences to invite waterway debris response agencies and organizations.
- **Action:** Develop a formalized, coordination mechanism for incident waterway debris response in Virginia and identify a lead agency.
- **Challenge:** Local debris management plans do not always include information specific to waterway debris response.
 - **Action:** Encourage and incentivize counties and municipalities to develop debris management plans that include waterway debris response information.

6.1.2 Education

- **Challenge:** There is a need for public education regarding the perception of good stewardship. For example, in certain circumstances debris removal from sensitive habitats can cause more harm than good.
 - **Action:** Link information to social media or develop a social media platform for sharing specific information.
 - **Action:** Appoint one point of contact, website, or phone number to provide information on who to call to determine debris response.
 - **Action:** Encourage state and local governments and NGOs to provide education and outreach to local communities about how to prepare for an emergency to reduce the potential for debris in waterways.
 - For a printable fact sheet that features basic steps for homeowners to prepare for a hurricane or storm, see [Section 6.2](#).
 - **Action:** Coordinate with local organizations and NGOs to educate about debris removal and prevention in sensitive areas.
- **Challenge:** Responding to and removing debris in sensitive areas can be potentially harmful to local species or habitat.
 - **Action:** Coordinate with local organizations and NGOs to educate about debris removal and prevention in sensitive areas.
- **Challenge:** There is a lack of understanding about the roles and responsibilities of private sector, municipal, state, and federal agencies or organizations.
 - **Action:** Develop a user-friendly tool for sharing information about agency roles and responsibilities.
 - For information about federal, state, and local roles and responsibilities during an acute waterway debris incident, see [Section 4](#).
 - **Action:** Develop a quick reference responsibilities matrix.
 - For a one-page overview of agency responsibilities, see the Virginia Incident Waterway Debris Response Flowchart in [Section 3](#).

6.1.3 Policy

- **Challenge:** Agencies are limited to debris removal within their regulatory authority.

- **Action:** Always include citations for legal references in documents or materials used for incident waterway debris planning and response to highlight applicable authorities.
- **Challenge:** There are several environmental and historic preservation requirements to follow before and during debris removal, and the process can be lengthy.
 - **Action:** Engage regulatory agencies to evaluate opportunities for streamlining the process.
 - **Action:** Increase agency knowledge of requirements and make information readily accessible.
 - For information regarding permitting and compliance requirements in Virginia, see [Section 5](#).

6.1.4 Funding

- **Challenge:** There are limitations to federally funded debris removal projects.
 - **Action:** Make information about eligibility, removal criteria, and other limitations publicly available.
 - For information about FEMA public assistance eligibility, see [Section 4.3](#) FEMA Roles and Responsibilities.
 - For information about NRCS EWP Program criteria, see [Section 4.3](#) NRCS Roles and Responsibilities
- **Challenge:** After an acute waterway debris incident that does not result in a Presidential disaster declaration, there are limited funding sources for debris removal in state waters.
 - **Action:** Establish partnerships with private organizations and NGOs to assist with fundraising and contracting for debris removal in emergency situations.
 - **Action:** Develop a list of potential funding sources in the state of Virginia.
 - **Action:** Review requirements and eligibility for public assistance funding through VDEM during locally declared emergencies.

6.2 Additional Resources

National Oceanic and Atmospheric Administration. (2014). *Best management practices for removal of debris from wetlands and other intertidal areas*. Retrieved from https://marinedebris.noaa.gov/sites/default/files/MDP_Debris_Removal_Intertidal_Areas.pdf

National Oceanic and Atmospheric Administration. (2020). *Storm Preparedness & Marine Debris Fact Sheet*. Retrieved from <https://marinedebris.noaa.gov/fact-sheets/storm-preparedness-marine-debris>

7. References

- Bureau of Ocean Energy Management. (n.d.). *Outer continental shelf*. Retrieved from <https://www.boem.gov/Outer-Continental-Shelf/>
- Council on Environmental Quality. (2007). *A citizen's guide to the NEPA*. Retrieved from https://energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/G-CEQ-CitizensGuide.pdf
- Federal Emergency Management Agency. (2007). *FEMA 325: Public assistance debris management guide*. Washington, DC: U.S. Government Printing Office. Retrieved from <https://www.fema.gov/pdf/government/grant/pa/demagde.pdf>
- Federal Emergency Management Agency. (2010). *FEMA recovery policy 9523.5: Debris removal from waterways*. Washington, DC: U.S. Government Printing Office. Retrieved from https://www.fema.gov/pdf/government/grant/pa/9523_5.pdf
- Federal Emergency Management Agency. (2017). *Public assistance program and policy guide FP 104-009-2*. Washington, DC: U.S. Government Printing Office. Retrieved from [https://www.fema.gov/media-library-data/1496435662672-d79ba9e1edb16e60b51634af00f490ae/2017_PAPPG_2.0_508_FINAL\(2\).pdf](https://www.fema.gov/media-library-data/1496435662672-d79ba9e1edb16e60b51634af00f490ae/2017_PAPPG_2.0_508_FINAL(2).pdf)
- Federal Emergency Management Agency. (n.d.). *Disaster declarations for Virginia*. Retrieved from <https://www.fema.gov/disasters/state-tribal-government/0/VA>
- Hampton Roads Chamber (n.d.). *Our military*. Retrieved from <http://www.hamptonroadschamber.com/page/our-military/>
- Mid-Atlantic Fishery Management Council. (2017). *Fish habitat*. Retrieved from <http://www.mafmc.org/habitat/>
- National Oceanic and Atmospheric Administration. (2014). *Virginia marine debris reduction plan*. Retrieved from <https://marinedebris.noaa.gov/report/virginia-marine-debris-reduction-plan>
- National Oceanic and Atmospheric Administration. (2017a). *Environmental sensitivity index (ESI) maps*. Retrieved from <https://response.restoration.noaa.gov/resources/environmental-sensitivity-index-esi-maps>
- National Oceanic and Atmospheric Administration. (2017b). *Marine debris program*. Retrieved from <https://marinedebris.noaa.gov/>
- National Oceanic and Atmospheric Administration. (2017c). *NOAA Fisheries Greater Atlantic Regional Fisheries Office Protected Resources Division*. Retrieved from <https://www.greateratlantic.fisheries.noaa.gov/protected/index.html>
- National Oceanic and Atmospheric Administration. (2017d). [Web mapping tool presents spatial land cover data used in the water quality section of the wetland benefits coastal county snapshot]. *Wetland benefits snapshot map*. Retrieved from

<http://www.arcgis.com/home/webmap/viewer.html?webmap=f19a213e1a2248ec9f6d3863908bdce9>

- National Oceanic and Atmospheric Administration. (n.d.-a). *NOAA Fisheries Greater Atlantic Regional Fisheries Office ESA section 7: Cooperative interagency consultation process*. Retrieved from <https://www.greateratlantic.fisheries.noaa.gov/protected/section7/index.html>
- National Oceanic and Atmospheric Administration. (n.d.-b). *NOAA Fisheries Greater Atlantic Regional Fisheries Office essential fish habitat assessment*. Retrieved from <https://www.greateratlantic.fisheries.noaa.gov/habitat/efh/efhassessment.html>
- National Oceanic and Atmospheric Administration. (n.d.-c). *NOAA Fisheries Greater Atlantic Regional Fisheries Office: Section 7 program*. Retrieved from <https://www.greateratlantic.fisheries.noaa.gov/protected/section7/index.html>
- U.S. Army Corps of Engineers. (2010). *Debris removal from waterways field operations guide*.
- U.S. Census Bureau (2016). *Quick facts: Virginia*. Retrieved from <https://www.census.gov/quickfacts/VA>
- U.S. Coast Guard. (1996). *United States Coast Guard Commandant instruction M16465.43. abandoned vessels*.
- U.S. Coast Guard. (2016). *Virginia Area Contingency Plan*. Retrieved from <http://www.deq.virginia.gov/Programs/PollutionResponsePreparedness.aspx>
- U.S. Department of Homeland Security. (2013). *National response framework, second edition*. Retrieved from <https://www.fema.gov/media-library/assets/documents/117791>
- U.S. Fish and Wildlife Service. (2016a). *Coastal Barrier Resources System official CBRS maps*. Retrieved from <http://www.fws.gov/ecological-services/habitat-conservation/cbra/Maps/index.html>
- U.S. Fish and Wildlife Service. (2016b). *Endangered species*. Retrieved from <https://www.fws.gov/angered/>
- U.S. National Response Team. (2014). *Abandoned vessel authorities and best practices guidance*. Washington, DC: U.S. National Response Team. Retrieved from https://www.nrt.org/sites/2/files/NRT_Abandoned_Vessel_Authorities_and_Best_Practices_Guidance_FINAL.pdf
- Virginia Department of Emergency Management. (2012a). *Commonwealth of Virginia emergency operations plan, emergency support function #3 public works and engineering*. Retrieved from https://www.vaemergency.gov/wp-content/uploads/drupal/COVEOP_2012_ESF_3_Public_Works_&_Engineering.pdf
- Virginia Department of Emergency Management. (2012b). *Commonwealth of Virginia emergency operations plan, emergency support function #10 oil and hazardous materials response*.

Retrieved from https://www.vaemergency.gov/wp-content/uploads/drupal/COVEOP_2012_ESF_10_Oil_&_Hazardous_Materials_Response.pdf

Virginia Department of Emergency Management. (2013). *Commonwealth of Virginia hazard mitigation plan*. Retrieved from <https://www.vaemergency.gov/wp-content/uploads/2018/03/COV-SHMP-3-2018-Public.pdf>

Virginia Department of Emergency Management. (2015a). *Commonwealth of Virginia emergency operations plan, basic plan*. Retrieved from <https://www.vaemergency.gov/planning/>

Virginia Department of Emergency Management. (2015b). *Commonwealth of Virginia emergency operations Plan, hazard specific annex 3, hurricane and tropical storm response*. Retrieved from https://www.vaemergency.gov/wp-content/uploads/drupal/COVEOP_2012_HSA_3_Hurricane_Response_version_2015_July.pdf

Virginia Department of Environmental Quality. (2017). *Procedures manual: Environmental impact review of major state facilities*. Retrieved from <http://www.deq.virginia.gov/Portals/0/DEQ/EnvironmentalImpactReview/StateEnvironmentalImpactReviews/EIR%20Procedures%20Manual%20Sept%202017.pdf?ver=2017-09-08-112454-023>

Virginia Department of Environmental Quality. (n.d.-a). *Office of environmental impact review*. Retrieved from <http://www.deq.virginia.gov/programs/environmentalimpactreview.aspx>

Virginia Department of Environmental Quality (n.d.-b). *What is the Virginia coastal zone management program?* Retrieved from <http://www.deq.virginia.gov/Programs/CoastalZoneManagement/DescriptionBoundary.aspx>

Virginia Marine Resources Commission. (n.d.). *Chesapeake Bay map*. Retrieved from https://webapps.mrc.virginia.gov/public/maps/chesapeakebay_map.php

Virginia Port Authority (n.d.). *The port of Virginia: About*. Retrieved from <http://www.portofvirginia.com/about/>

8. Appendices

APPENDIX A

Virginia Legislation Applicable to Waterway Debris Response

- Abatement or removal of nuisances by localities; recovery of costs (Va. Code Ann. § 15.2-900)
- Authority to require removal, repair, etc., of wharves, piers, pilings, bulkheads, vessels or abandoned, obstructing or hazardous property (Va. Code Ann. § 15.2-909)
- Casting garbage, etc., into waters (Va. Code An. § 62.1-194)
- Locality may provide for removal or disposal of trash, cutting of grass, weeds, and running bamboo; penalty in certain counties; penalty (Va. Code Ann. § 15.2-901)
- Obstructing or contaminating state waters (Va. Code An. § 62.1-194.1)
- Ownership and Uses of Submerged Lands (Va. Code Ann. § 28.2-1200 through § 28.2-1209)
- Removal of obstructions or hazardous property from state waters; penalty (Va. Code Ann. § 28.2-1210)
- Throwing trash, etc., into or obstructing river, creek, stream or swamp (Va. Code An. § 62.1-194.2)
- Virginia Waste Management Act (Va. Code Ann. § 10.1-1400 et seq.)

APPENDIX B
Organization Response Capabilities

Yes - In-house Capability		FEMA Region III ¹	NOAA ²	USACE Norfolk District ⁵	USCG Sector Hampton Roads ⁶	Virginia DCR	Virginia DEQ	VDEM ¹¹	Virginia DHR	VDOT ¹²	VMRC	Virginia Aquarium	Isle of Wight County
Contract - Contracted capability													
Technology	Aerial photography and video	Yes	Cont.	Yes		Contract		Yes		Contract	Yes		
	Geographic Information Systems (GIS) mapping and plotting of imagery	Yes	Yes	Yes		Yes	Yes	Yes		Yes	Cont.	Yes	Yes
	Multi-beam sonar	Contract	Yes	Yes									
	Remote sensing	Contract	Yes										
	Satellite imagery	Contract	Yes										
	Side-scan sonar	Contract	Yes	Yes	Contract								
	Single-beam sonar	Contract	Yes	Yes									
Manpower	Communications trained staff	Yes	Cont.	Yes	Yes	Yes	Yes	Yes		Yes			
	Compliance and permitting expertise	Yes	Yes	Yes			Yes			Yes	Yes		Yes
	Dive support	Contract	Yes ³		Contract					Contract		Yes	
	Emergency response trained staff	Yes	Yes		Yes	Yes	Yes	Yes		Yes		Yes	Yes
	Environmental expertise (location of sensitive areas, knowledge of historical sites and endangered species present, etc.)	Yes	Cont.	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes
	GIS staff/technician	Yes	Cont.	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes
	Local Captains/navigation expertise to support operations	Contract		Yes		Yes					Yes		
	Local/tribal historian	Yes	Cont.							Yes			Yes
	Public affairs trained staff	Yes	Cont.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
	Technical expertise for removal operations (techniques, best management practices, etc.)	Yes	Cont.	Yes	Yes		Yes	Yes		Yes			
Volunteer manpower	Yes	Cont.				Yes		Yes	Yes		Yes		

Yes - In-house Capability		FEMA Region III ¹	NOAA ²	USACE Norfolk District ⁵	USCG Sector Hampton Roads ⁶	Virginia DCR	Virginia DEQ	VDEM ¹¹	Virginia DHR	VDOT ¹²	VMRC	Virginia Aquarium	Isle of Wight County
Contract - Contracted capability													
Equipment	Aircraft	Contract	Yes		Contract					Yes	Yes		
	All-terrain vehicles (ATVs)	Contract				Yes				Yes		Yes	
	Barge/Self-loading barge	Contract		Yes									
	Boom	Contract			Yes							Yes	
	Communications equipment (two-way radios etc.)	Contract	Yes	Yes	Yes ⁷	Yes	Yes	Yes		Yes	Yes	Yes	
	Crane/knuckleboom crane	Contract		Yes									
	Dredging equipment	Contract											
	Excavator	Contract											
	Personal protection equipment (PPE)	Contract	Yes	Yes	Yes	Yes				Yes			
	Remotely Operated Vehicle (ROV)	Contract	Yes										
	Track vehicles/equipment to access difficult terrain	Contract					Yes ⁹						
	Unmanned Aerial Vehicle (UAV)	Contract	Yes						Yes				
	Vessels (shallow draft, offshore, zodiacs, etc.)	Contract	Yes	Yes	Contract	Yes ⁹	Yes			Yes	Yes	Yes	
Other specialized equipment that cannot be readily procured immediately following a debris incident	Contract							Contract					

Yes - In-house Capability		FEMA Region III ¹	NOAA ²	USACE Norfolk District ⁵	USCG Sector Hampton Roads ⁶	Virginia DCR	Virginia DEQ	VDEM ¹¹	Virginia DHR	VDOT ¹²	VMRC	Virginia Aquarium	Isle of Wight County	
Contract - Contracted capability														
Logistics	Accessibility to information such as training and exercises	Yes	Yes				Yes	Yes						
	Authority to provide access to private property				Yes									
	Contract authority and oversight capabilities	Yes	Cont.	Yes			Yes ¹⁰	Yes		Yes				
	Debris monitoring-ongoing system in place	Yes	Cont.		Yes					Yes				
	Docks for wet storage of vessels	Contract			Yes	Yes	Yes ⁹					Yes		
	Established communication between agencies/Common operating picture	Yes	Cont.	Yes	Yes	Yes		Yes	Yes		Yes		Yes	
	Facility suitable for establishing an Emergency Operations Center (EOC)	Yes	Cont.				Yes		Yes		Yes		Yes	
	Funding for waterway debris removal	Yes		Yes ⁴	Yes	Yes ⁸								
	Pre-approved waterway debris removal contractors	Contract									Yes			
	Pre-designated landfill/disposal sites (to include vegetative and animal carcasses)	Contract ¹			Yes							Yes	Yes	
	Pre-event contracts and staged agreements in place	Contract							Yes				Yes	
	Staging/Off-Loading: Land with water access to stage, offload debris (has not been evaluated for suitability or officially pre-designated)	Contract			Yes	Yes	Yes					Yes		
	Staging/Off-Loading: Pre-designated staging, off-loading and special handling areas (already evaluated for suitability)	Contract												
	Staging area for dry storage of vessels	Yes	Cont.		Yes		Yes							
Other logistical support including fuel, housing, food, etc.	Yes	Cont.			Yes	Yes ⁹		Contract						

Each organization self-reported capabilities that could be of use during waterway debris response. 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.

¹FEMA – Capabilities reported 'Contract' may be contracted out or mission assigned to another federal agency. For example, USACE may be mission assigned to coordinate and/or identify local areas to use for operations.

²NOAA – Some capabilities require contract support for staffing

³NOAA – Dive capabilities do not include sites with oil or hazardous pollutants

⁴NOAA – Funding through grant program and possible Congressional supplemental funding

⁵USACE – Capabilities reported for Water Resources Division, Operations Branch, Navigation Support, and Survey Section

⁶USCG – Capabilities reported 'Yes' are those organic to Sector Hampton Roads. Capabilities reported 'Contract' may involve another Coast Guard unit, port partner, or other government agency.

⁷USCG – In addition, USCG has the ability to conduct radio broadcasts to notify public of marine hazards.

⁸USCG – Access to Oil Spill Liability Trust Fund for pollution incidents only

⁹DCR – Varies by park location and availability. Docks are for temporary vessel storage only.

¹⁰DEQ – Emergency contracting authority and funding are limited

¹¹VDEM – Capabilities also include the ability to request assets from other states if needed

¹²VDOT – Capabilities reported for Safety, Security and Emergency Management Division

APPENDIX C Organization Contact Information

Local Agencies/Organizations

Agency	Division	Topic	Point of Contact	Phone	Email
Longwood University	Clean Virginia Waterways	-	Katie Register, Executive Director	434-395-2602	registerkm@longwood.edu
Virginia Aquarium & Marine Science Center	Research and Conservation	-	Mark Swingle, Chief of Research & Conservation	757-385-0326	mswingle@vb.gov
Virginia Coastal Counties/Cities	Isle of Wight	Parks and Recreation	David Smith, Director	757-357-6703	dsmith@isleofwightus.net
	City of Suffolk	Emergency Management	Brian Spicer, Emergency Management Coordinator	757-514-4550	bspicer@suffolkva.us
		Public Works	LJ Hansen, Director	757-514-7687	lhansen@suffolkva.us
Virginia District Planning Commissions	Accomack-Northampton Planning District Commission	-	Elaine Meil, Executive Director	757-787-2936x116	emeil@a-npdc.org
	Crater Planning District Commission	Planning & Information Technology	Dennis Morris, Executive Director	804-861-1666x231	dmorris@craterpdc.org
			Mark Bittner, Director	804-861-1666x237	mbittner@craterpdc.org
	George Washington Regional Commission	-	Shaina Schaffer, Environmental Planner	540-560-2202	shaina@bgllc.net
	Hampton Roads Planning District Commission	-	Ben McFarlane, Senior Regional Planner	757-420-8300	bmcfarlane@hrpdcva.gov
			Keith Cannady, Deputy Executive Director	757-420-8300	kcannady@hrpdcva.gov
	Middle Peninsula Planning District Commission	-	Beth Johnson, Finance Director	804-758-2311	bjohnson@mppdc.com
			Lewie Lawrence, Director of Regional Planning	804-758-2311	llawrence@mppdc.com
	Northern Neck Planning District Commission	-	John Bateman, Regional Planner	804-333-1900	jbateman@nnpdc17.state.va.us
			Lisa Hull, Economic Development Coordinator	804-333-1900	lhull@nnpdc17.state.va.us
Northern Virginia Regional Commission	-	Corey Miles, Senior Environmental Planner/Coastal Program Manager	703-642-4625	cmiles@novaregion.org	
		Division of Planning & Environmental Services	Normand Goulet, Acting Director	703-642-4634	ngoulet@novaregion.org
Richmond Regional Planning District Commission	Planning	Sarah Stewart, Senior Planner	804-323-2033	sstewart@planva.org	

State Agencies

Agency	Division	Topic	Point of Contact	Phone	Email
VA Department of Conservation and Recreation (DCR)	State Park Division	State Parks	Main Line	804-692-0403	-
		State Parks	Melissa Baker, Director	804-786-5055	melissa.baker@dcr.virginia.gov
		State Parks, Eastern Region	Tim Shrader, Operations Manager	804-436-4266	timothy.shrader@dcr.virginia.gov
		State Parks, District 1	Ann Zahn, District Manager	804-921-9028	ann.zahn@dcr.virginia.gov
		State Parks, District 2	Ken Benson, District Manager	804-313-7255	ken.benson@dcr.virginia.gov
		Administration and Finance	Jason Compton, DCR Liaison to VDEM	804-477-06	Jason.compton@dcr.virginia.gov
	Natural Heritage Division	Natural Data Heritage Explorer	Data Explorer Website	-	-
		Response capabilities	Rick Myers	804-371-6204	rick.myers@dcr.virginia.gov
			Richard Ayers	757-787-5993	richard.ayers@dcr.virginia.gov
		Natural Areas, Chesapeake Bay Western Shore	Zach Bradford, Regional Steward	804-225-2303	zach.bradford@dcr.virginia.gov
		Natural Areas, Eastern Shore	Dot Field, Region Steward	757-787-5989	dot.field@dcr.virginia.gov
		Compliance and project review	Rene Hypes, Project Review Coordinator	804-371-2708	rene.hypes@dcr.virginia.gov
			Tyler Meader, Locality Liaison	804-225-2429	tyler.meader@dcr.virginia.gov
VA Department of Emergency Management (VDEM)	Richmond Headquarters	Emergency Operations Center	-	1-800-468-8892	-
		Communications capabilities	Ed Porner	804-228-3480	edward.porner@vdem.virginia.gov
		GIS capabilities	Stacie Neal	804-219-6359	stacie.neal@vdem.virginia.gov
		Logistical capabilities	Jason Eaton	804-267-7646	jason.eaton@vdem.virginia.gov
		Trainings and information accessibility	Shannon Daniel, Training Manager	804-267-7682	shannon.daniel@vdem.virginia.gov
		Volunteer capabilities	Jennifer Maul	804-351-7026	Jennifer.maul@vdem.virginia.gov
		Contract authority capabilities	Cheryl Adkins	804-263-4753	cheyrl.adkins@vdem.virginia.gov
		Public Affairs capabilities	Jeff Caldwell	804-267-7682	jeff.caldwell@vdem.virginia.gov
		Flooding	Dan Bradway	804-267-7652	daniel.bradway@vdem.virginia.gov
		Public Assistance	Robbie Coates	804-516-5774	robert.coates@vdem.virginia.gov
	Leanne Vanderveer		804-624-7452	leanne.vanderveer@vdem.virginia.gov	
	Region 5 Office	All Hazards Planner	Harrison Bresee	804-495-6122	Harrison.bresee@vdem.virginia.gov
		Chief Regional Coordinator	Bruce Sterling	804-516-5786	bruce.sterling@vdem.virginia.gov
		Hazardous Materials Officer	Ray Haring	757-449-7389	ray.haring@vdem.virginia.gov
			Todd Cannon	757-886-2801	todd.cannon@vdem.virginia.gov
	Region 7 Office	Chief Regional Coordinator	Andy John	804-624-8327	andy.john@vdem.virginia.gov
		Deputy Regional Coordinator	Jake Kezele	804-212-5976	jake.kezele@vdem.virginia.gov

State Agencies Continued

Agency	Division	Topic	Point of Contact	Phone	Email
VA Department of Environmental Quality (DEQ)	Pollution Response & Emergency Preparedness	Pollution Response	John Giese, Program Manager	804-698-4287	john.giese@deq.virginia.gov
			Meghan Kies, Pollution Response Coordinator	757-518-2176(o), 757-687-9592(c)	meghan.kies@deq.virginia.gov
			Beth Lohman, Pollution Response and Emergency Preparedness Specialist	540-750-0859(c)	elizabeth.lohman@deq.virginia.gov
	Environmental Impact Review and Long Range Priorities Program	Project Review	Bettina Rayfield, Manager	804-698.4204	bettina.rayfield@deq.virginia.gov
	Enforcement	Environmental Enforcement	Main Line	804-698-4000	-
	Coastal Management	-	Laura McKay, Program Manager	804-698-4323	laura.mckay@deq.virginia.gov
	Water Program	Water Protection Permits	Dave Davis	804-698-4105	dave.davis@deq.virginia.gov
VA Department of Historic Resources (DHR)	Review and Compliance	Section 106 Compliance	Main Line	804-482-6446	-
			Roger Kirchen, Director	804-482-6091	roger.kirchen@dhr.virginia.gov
VA Department of Transportation (VDOT)	Safety, Security, and Emergency Management	Emergency Management	Robert L. Trachy, Emergency Coordinator Manager	804-763-9287	larry.trachy@vdot.virginia.gov
VA Institute for Marine Science (VIMS)	Center for Coastal Resources Management	-	Kirk Havens	-	kirk@vims.edu
		-	Donna Bilkovic, Associate Professor	804-684-7331	donnab@vims.edu
		Research and Advisory Services	Dr. Mark Luckenbach, Associate Dean	804-684-7108	luck@vims.edu
VA Marine Resources Commission (VMRC)	Habitat Division	-	Justin Worrell, Environmental Engineer	757-247-8063	justin.worrell@mrc.virginia.gov
			Main Line	757-247-2200	-
			Tony Watkinson, Chief	757-247-2250	tony.watkinson@mrc.virginia.gov
	Law Enforcement Division	Marine Police	Warner Rhodes, Captain	757-247-2071	warner.rhodes@mrc.virginia.gov

Federal Agencies

Agency	Division	Topic	Point of Contact	Phone	Email
Bureau of Safety and Environmental Enforcement	Marine Trash and Debris Program	Planning and coordination	James Sinclair, Marine Ecologist	504-736-2789	james.sinclair@bsee.gov
Federal Emergency Management Agency (FEMA)	Region III	Response and Recovery Division	Matthew Werner, Executive Officer	215-931-2897	matthew.werner@fema.dhs.gov
		Requests for assistance for capabilities	Region III Watch Center	215-931-5757	FEMA-R03-RRCC-WATCH@fema.dhs.gov
National Oceanic and Atmospheric Administration (NOAA)	National Marine Fisheries Service or NOAA Fisheries	EFH consultation	David O'Brien, Marine Habitat Resource Specialist	804-684-7828	david.l.obrien@noaa.gov
		ESA consultation	General Contact	978-281-9328	nmfs.gar.esa.section7@noaa.gov
			William Barnhill, Fishery Biologist	978-282-8460	william.barnhill@noaa.gov
			Brian Hopper, Fishery Biologist	410-267-5649	brian.d.hopper@noaa.gov
	NOS, ORR, Emergency Response	Pollution Planning and Response Specialists	24-hr Line	206-526-4911	-
			Frank Csulak, USCG District 5 SSC	732-371-1005	frank.csulak@noaa.gov
			John Tarpley, Acting Chief	206-459-8638	john.tarpley@noaa.gov
	NOS, ORR, Marine Debris Division	Response capabilities and coordination	Jason Rolfe, Mid-Atlantic Regional Coordinator, Marine Debris Program	240-533-0442 (o) 301-461-3236 (c)	jason.rolfe@noaa.gov
NOS, Office of Coast Survey	Navigation and preparation response	Edward Owens, Mid-Atlantic Regional Navigation Manager	757-364-7471	midatlantic.navmanager@noaa.gov	
Natural Resources Conservation Service (NRCS)	-	Emergency Watershed Protection (EWP) Program information	Blaine Delaney, EWP Coordinator	804-287-1663	blaine.delaney@va.usda.gov
			David Kriz, Asst. State Conservationist	804-287-1646	david.kriz@va.usda.gov

Federal Agencies Continued

Agency	Division	Topic	Point of Contact	Phone	Email
U.S. Army Corps of Engineers (USACE) Norfolk District	Operations	GIS capabilities	Jason O'Neal	757-201-7108	jason.a.oneal@usace.army.mil
		Permitting and compliance capabilities	Robert Pruhs	757-201-7130	robert.s.pruhs@usace.army.mil
		Public Affairs capabilities	Patrick Bloodgood	757-201-7881	patrick.j.bloodgood@usace.army.mil
		Response capabilities	Scott Titus, Port Engineer	757-201-7665	scott.c.titus@usace.army.mil
	Regulatory Program	Permitting and compliance capabilities	Nicole Woodward, Environmental Scientist	757-201-7122	nicole.l.woodward@usace.army.mil
			Regulator of the Day	757-201-7652	-
Tom Walker, Chief	757-201-7657		william.t.walker@usace.army.mil		
U.S. Coast Guard (USCG) District 5	Sector Virginia	Emergency Management and Readiness	Steve Arguelles, Chief	757-295-2010	steve.j.arguelles@uscg.mil
		Marine Environmental Response	Danielle Shupe, Incident Manager	757-638-6671	danielle.m.shupe@uscg.mil
		Potential to release oil or hazardous material	National Response Center (NRC)	1-800-424-8802	-
		Prevention	Dean Horton, Chief	757-274-7745(c)	dean.e.horton@uscg.mil
		Sector Command Center	Main Line	757-638-6637	sectorhr@uscg.mil
		Waterways Management	Peter Francisco, Chief	757-668-5581	peter.f.francisco@uscg.mil
U.S. Environmental Protection Agency (EPA)	Region III	MPRSA	Kristin Regan	215-814-2711	regan.kristin@epa.gov
		Environmental Protection	Bill Steuteville	215-814-3264	steuteville.william@epa.gov
			David Iacono, Environmental Protection Specialist	215-814-3231	iacono.david@epa.gov
		NEPA	Barb Rudnick	215-814-3322	rudnick.barbara@epa.gov
		Potential to release oil or hazardous substance	National Response Center (NRC)	800-424-8802	-
U.S. Fish and Wildlife Service (USFWS)	Ecological Services	Virginia Field Office	Jo Ann Banda	804-824-2413	-
			Susan Lingenfelter, Fish and Wildlife Biologist	804-824-2415	susan_lingenfelter@fws.gov
	National Wildlife Refuges (NWR)	Back Bay NWR	Doug Brewer	757-301-7329	doug_brewer@fws.gov
		Chincoteague NWR Complex (NWRC)	Nancy Finley	757-336-6122	nancy_finley@fws.gov
		Eastern Shore of Virginia NWR	Stacey Lowe	757-331-2760	stacey_lowe@fws.gov
		Eastern Virginia Rivers NWRC	Kendra Pednault	804-333-1470	kendra_pednault@fws.gov
		Great Dismal Swamp NWR	Chris Lowie	757-986-3705	chris_lowie@fws.gov
Potomac River NWRC	Amanda Daisey	703-490-4979	amanda_daisey@fws.gov		



Wilbur L. Ross, Jr.
United States Secretary of Commerce

Dr. Neil Jacobs
Assistant Secretary of Commerce for Environmental Observation and Prediction,
performing the duties of Under Secretary of Commerce for Oceans and Atmosphere

Nicole R. LeBoeuf
Acting Assistant Administrator for Ocean Services
and Coastal Zone Management