South Carolina Marine Debris Emergency Response Guide: Field Reference Guide

NOAA Marine Debris Program
National Oceanic and Atmospheric Administration
U.S. Department of Commerce
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Photo: Peter Kingsley-Smith, SC Department of Natural Resources

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1. Introduction

1.1 Purpose

This *Field Reference Guide* condenses information contained in the *South Carolina Marine Debris Emergency Response Guide: Comprehensive Guidance Document (Guide)* to facilitate use during emergency response operations. While the *Comprehensive Guidance Document* serves as a complete reference for marine debris response in South Carolina, the *Field Reference Guide* includes the most pertinent information for quick reference in the field and during times of crisis. Both documents and subsequent versions will be posted on the National Oceanic and Atmospheric Administration's (NOAA) Marine Debris Program website at https://marinedebris.noaa.gov/.

The purpose of these documents is to improve preparedness for response and recovery operations following a marine debris incident in South Carolina. The term marine debris incident is used to generally describe an incident – either natural or anthropogenic – that results in the release of large amounts of marine debris. The *Comprehensive Guidance Document* and complementary *Field Reference Guide* outline existing response structures at the local, state, and federal levels to facilitate a coordinated, well-managed, and immediate response to potential marine debris incidents impacting the state of South Carolina. Individual organization roles and responsibilities are presented in a consolidated one-page flowchart, which functions as a decision tree for marine debris response. Additionally, permitting and compliance requirements for marine debris removal have been synthesized in a one-page reference handout.

1.2 Scope of *Guide*

The *Comprehensive Guidance Document* and *Field Reference Guide* address potential marine debris incidents affecting South Carolina's coastline. 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, South Carolina stakeholders have identified it as a common debris stream of concern following disasters in the

state. To account for both marine debris and vegetative debris in this document, the term marine 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.

2. South Carolina Marine Debris Response Flowchart

The "South Carolina Marine Debris Response Flowchart" on the following page provides a visual representation of agency roles and responsibilities. The flowchart functions as a decision tree for marine 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 marine debris that is not exposed to and does not have the potential to release oil, hazardous substances, pollutants or contaminants. The backside of this handout entitled, "Stafford Act Declaration Response" includes the response processes that may occur under Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) authorities and/or funding.

South Carolina Marine Debris Response Flowchart

Acronyms

ADV – Abandoned and Derelict Vessel
ACP – Area Contingency Plan
DES– SC Department of Environmental Services
DoD – U.S. Department of Defense
DNR – SC Department of Natural Resources
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
NGO – Non-Governmental Organization
NPS – National Park Service
NRC – National Response Center
NRCS – Natural Resources Conservation Service
RP – Responsible Party (Owner, Operator, Lessee)
SCDOT – SC Department of Transportation
SCEMD – SC Emergency Management Division
USACE – U.S. Army Corps of Engineers
USCG – U.S. Coast Guard
USFWS – U.S. Fish and Wildlife Service

Flowchart Key

Response to debris that is exposed to or has the potential to release oil, hazardous substances, pollutants, or contaminants

Response to debris that is not exposed to and does not have the potential to release oil, hazardous substances, pollutants, or contaminants

Purpose

The flowchart functions as a decision tree for marine debris response with color-coded endpoints. It is designed to inform response to debris that enters a waterway following a natural or anthropogenic incident and poses a threat to the natural or built environment. This may include shoreline and wetland debris and debris in some inland, non-tidal marines.

START →

Is debris in a USACE federally maintained waterway or channel, or immediately adjacent thereto?

Yes / ***No***

Is debris exposed to or does it have the potential to release oil or hazardous substances?

Yes / ***No***

Debris in federally maintained waterway (pollution threat)

- Report to NRC 1-800-424-8802
- Removal authorized under NCP

USCG oversees response by RP. If vessel with no RP, USCG removes pollution threat (battery, oil) and generally leaves vessel in place. USACE may remove vessel.

Debris in federally maintained waterway

USACE may remove debris or oversee removal by RP. If a hazard to navigation, USCG will mark debris or remove in some cases.

Is debris on private property?

No / ***Yes***

Debris on private property

Refer to homeowner insurance policy. *If a Stafford Act or NRCS State Conservationist Declaration, check FEMA Public Assistance and NRCS EWP eligibility in Section 4.3.*

Is debris exposed to or does it have the potential to release oil or hazardous substances?

No / ***Yes***

Is debris in federal waters (beyond 3 n. mi.) or on federal lands?

Yes / ***No***

Debris in federal waters or on federal lands

- Federal lands: Federal lands in South Carolina's coastal zone are owned by NPS, USFWS, and DoD who are responsible for debris removal on their lands. These agencies may coordinate with local or state governments to remove debris.
- Federal waters: No federal agency actively removes waterway debris in federal waters unless it is a pollution threat or in a USACE federally maintained waterway or channel

Debris in South Carolina waters or lands

- Response managed at lowest jurisdictional level capable of handling the removal: Local → State
- Some counties may have contracts in place for debris removal
- Local and/or DNR Law Enforcement agencies may lead investigation to identify RP for ADVs
- ADVs can be reported through DES' MyCoast app
- If a state declared disaster, SC Army National Guard leads coordination under ESF-3
- NGOs and private organizations may have volunteer groups able to assist with debris removal
- SCDOT will remove debris obstructing bridges or associated SCDOT maintained infrastructure
- Note: Most submerged lands waterward of the mean high water line beneath navigable fresh water or tidally-influenced waters are property of the state. DNR and DES regulate many of the activities that utilize these lands.

Pollution threat, debris South Carolina waters or lands

- Report to NRC 1-800-424-8802 and DES 1-888-481-0125
- Response managed at lowest jurisdictional level capable of handling the removal: Local → State → Federal
- If state-led response, DES leads response
- If federal assistance required, USCG or EPA oversees response by RP. Generally, response led by USCG in ACP Coastal Zone and by EPA in ACP Inland Zone.
- Under NCP, USCG/EPA may respond without a request from local, state, or tribal governments

Potential funding during declared disasters

In the event of a Stafford Act or NRCS State Conservationist declared disaster, some costs associated with debris removal from public waters or lands (non federal) may be reimbursed by FEMA or NRCS, if eligible. See FEMA Public Assistance and NRCS EWP eligibility criteria in Section 4.3.
The response process during Stafford Act declarations can be found on the back of this handout.

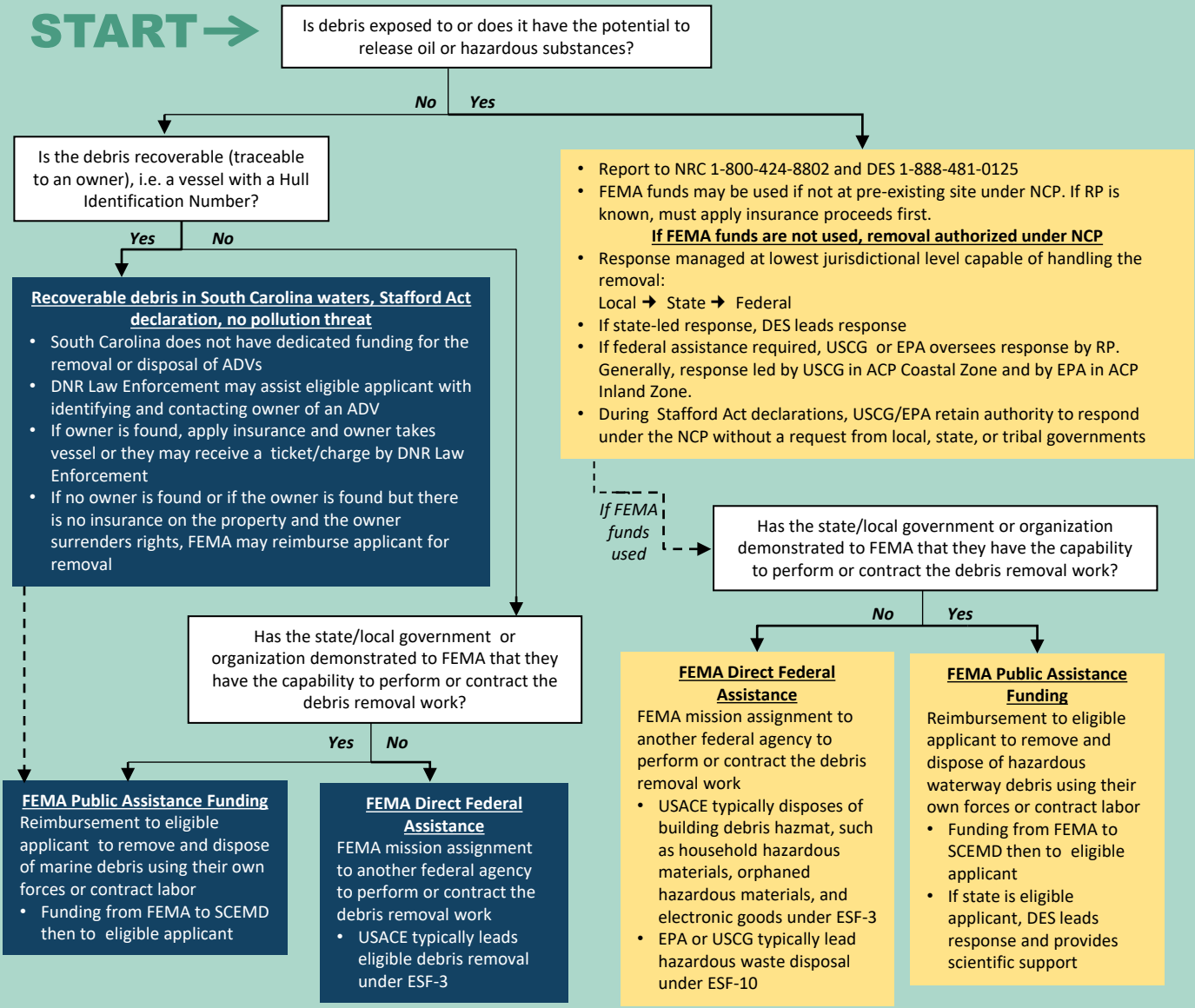
Stafford Act Declaration Response

The proccess outlined in the flowchart below shows the likely response during a Presidentially declared disaster.

If marine debris located within the designated disaster area and the following critera are met, proceed at the start arrow below.

Eligibility Determination by FEMA: Made on a case-by-case discretionary basis in coordination with eligible applicant, state, and other federal agencies. Removal **must be necessary to** eliminate the immediate threat to human lives, public health and safety, or improved property.

- 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.
- 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 *(See FEMA Recovery Policy FP 104-009-2)*



- *FEMA provides funding but does not conduct debris removal work*
- *FEMA Eligible Applicants must have legal responsibility to remove the debris and include state and local governments, Indian tribes, and certain non-profits*
- *Public Assistance cost share is typically 75% FEMA, 12.5% state, 12.5% applicant*

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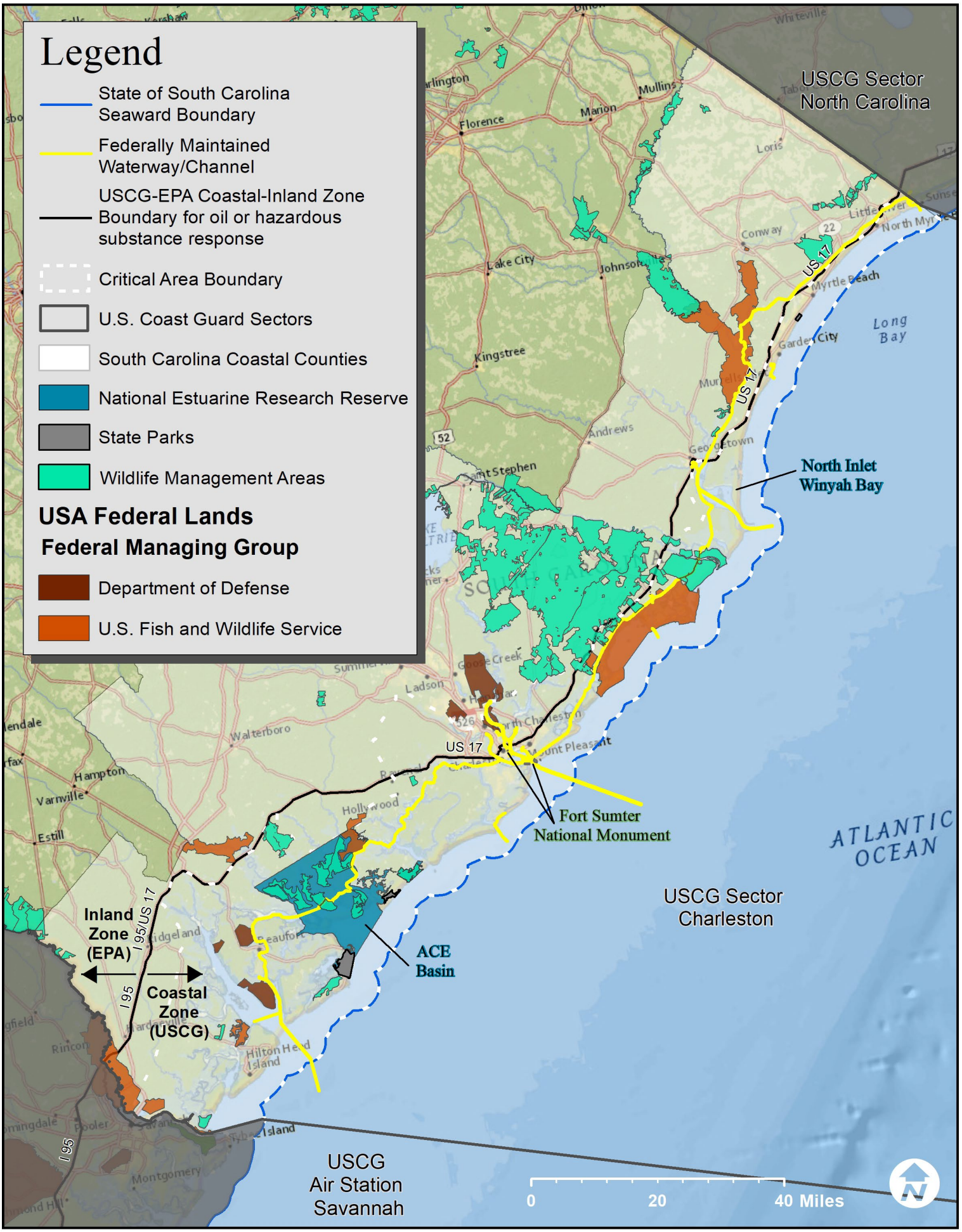
3. Agency Jurisdictions and Capabilities

3.1 Agency Jurisdiction Map

The "South Carolina Marine Debris Response Map" on the following page displays coastal South Carolina's relevant state and federal agency jurisdictions and boundaries. After a marine debris incident, the agency with authority to remove debris will vary depending on where the debris is located. This map includes information that stakeholders identified as important in determining how marine debris response is handled in the state. A dynamic version of this map is also available online in the Environmental Response Management Application (ERMA).

3.2 Agency Response Capabilities

South Carolina Marine Debris Response Map



3.2 Agency Response Capabilities

	Yes - In-house Capability Contract - Contracted capability	FEMA Region IV[1]	NOAA[2]	USACE Charleston District	USCG Sector Charleston	NRCS	EPA Region IV	USFWS	SC DES BCM	SCIAA -MRD	SC DNR Law Enforcement Division	Beaufort County Public Works
Technology	Aerial photography and video		Yes				Contract		Yes		Yes	
	IT support during response (server/storage space for data and information sharing)		Yes				Yes					
	Magnetometers			Yes[7]			Contract			Yes		
	Remote Sensing		Yes	Contract						Yes		
	Sediment Profilers		Yes									
	Multi-beam sonar		Yes	Yes[7]							Yes	
	Side-scan sonar		Yes	Yes[7]						Yes		
	Single-beam sonar		Yes	Yes[7]							Yes	
Manpower/Expertise	Communication/public information expertise (dedicated spokesperson/Public Information Officer)		Yes	Yes	Yes		Yes		Yes		Yes	
	Compliance and permitting expertise	Yes	Yes	Yes			Yes	Yes	Yes	Yes		
	Data/information management capabilities		Yes				Yes	Yes		Yes		
	Debris modeling expertise (volume, transport, hindcasting, etc.)		Yes				Contract					
	Dedicated waterway/marine debris staff (responders, response team, regional coordination, etc.)		Yes									
	Dive support (scientific, technical, commercial etc.)		Yes[3]	Yes	Contract		Contract			Yes	Yes	
	Environmental expertise (location of sensitive areas, endangered species present, etc.)	Yes	Yes[4]	Yes	Yes	Yes	Yes	Yes	Yes		Yes	
	Field GPS units						Contract	Yes	Yes	Yes	Yes	
	Geographic Information System (GIS) mapping and plotting of imagery	Yes	Yes	Yes[8]			Contract		Yes	Yes	Yes	
	Hazardous substance and/or oiled debris expertise		Yes				Yes					
	Incident Command System (ICS) trained staff	Yes	Yes				Yes		Yes		Yes	
	Maritime Transportation Recovery Unit (MTSRU) expertise											
	Post-storm damage assessment teams						Yes		Yes		Yes	
	Protected species/Environmental Sensitivity Index (ESI) expert in the field		Yes					Yes			Yes	
	Technical expertise for removal operations (techniques, best management practices, etc.)	Yes	Yes	Yes[9]	Yes	Yes	Yes		Yes		Yes	
	Vector Control											
	Volunteer manpower					Yes		Yes		Yes	Yes	
	Volunteer coordinator									Yes	Yes	
	Waterway management authority (law enforcement officers)										Yes	

	Yes - In-house Capability Contract - Contracted capability	FEMA Region IV[1]	NOAA[2]	USACE Charleston District	USCG Sector Charleston	NRCS	EPA Region IV	USFWS	SC DES BCM	SCIAA - MRD	SC DNR Law Enforcement Division	Beaufort County Public Works
Equipment	Aircraft		Yes		Yes		Contract				Yes	
	Barge/Self-loading barge			Contract			Contract					
	Boom			Contract	Contract[10]		Contract					
	Crane/Knuckleboom crane			Contract			Contract					
	Environmental clamshell dredge						Contract					
	Excavator			Contract			Contract					
	General transportation/vehicles						Contract		Yes	Yes	Yes	Yes
	Heavy/Earth-moving machinery						Contract					Yes
	Remotely Operated Vehicle (ROV)		Yes	Yes[7]								Yes
	Sampling Equipment		Yes		Yes		Contract					
	Unmanned Aerial Vehicle (UAV)/Surveillance drones		Yes	Yes					Yes			
	Vessels		Yes	Yes[7]	Yes		Contract	Yes	Yes	Yes	Yes	Yes
	Other specialized equipment that cannot be readily procured immediately following a debris incident			Contract	Yes		Contract					
Logistics	Contract authority and oversight capabilities		Yes	Yes	Yes[11]	Yes[16]	Yes				Yes	
	Communication equipment (i.e., two-way radio)						Yes			Yes	Yes	Yes
	Docks for wet storage of vessels				Yes[12]						Yes	
	Facility suitable for establishing an Emergency Operations Center (EOC)		Yes	Yes	Yes							
	Funding for waterway debris removal		Yes[5]	Yes[7]	Yes[13]	Yes[17]	Yes					
	Laboratory space		Yes				Yes					
	Medical emergency response											
	Pre-approved removal contractors											Yes
	Pre-designated landfill/disposal sites (to include vegetative and animal carcasses)											
	Pre-event contracts and staged agreements in place			Yes	Yes[14]		Yes					
	Research program established to analyze long-term trends, impacts, etc.		Yes									Yes
	Staging/Off-Loading: Land with water access to stage, offload debris (has not been evaluated for suitability or officially pre-designated)											
	Staging/Off-Loading: Pre-designated staging, off-loading and special handling areas (already evaluated for suitability)				Yes							
	Staging area for dry storage of vessels		Yes	Yes	Yes[15]					Yes		
	Other logistical support, including fuel, housing, food, etc.		Yes[6]				Contract					

Each agency self-reported capabilities which could be of use during waterway debris response. Agencies 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.

[1]FEMA – Capabilities contingent upon a Presidential major disaster declaration. FEMA capable of mission-assigning other federal support to increase capabilities. FEMA has interactive live collection and mapping capabilities and a template wet debris collector map for Region IV.

[2]NOAA - Some capabilities require contract support for staffing

[3]NOAA - Dive capabilities do not include sites with oil or hazardous pollutants

[4]NOAA – Coordinates marine mammal and sea turtle stranding response and reviews proposed debris removal activities for compliance with ESA and Magnuson-Stevens Fisheries Conservation and Management Act

[5]NOAA – Funding through grant program and possible Congressional supplemental funding

[6]NOAA – Weather and marine forecasts through National Weather Service in Newport, NC

[7]USACE – Funding in place for federal projects only

[8]USACE – Has a GIS cadre for response

[9]USACE – Has planning response teams

[10]USCG – Small amounts of boom on hand but capable of using pre-event contracts for larger pollution events

[11]USCG – Contract authority and oversight capabilities for USCG contracts only

[12]USCG – Docks for wet storage of vessels has limited space and suitable for larger vessels only

[13]USCG – Funding for pollution incidents only

[14]USCG – Pre-event contracts and staged agreements in place for pollution incidents only

[15]USCG – Staging area for dry storage of vessels has limited space

[16]NRCS – Contact authority for EWP contracts only

[17]NRCS – Funding for authorized EWP contracts only

4. Permitting and Compliance Requirements in South Carolina

The "Environmental Compliance During Marine Debris Removal in South Carolina" handout on the following page synthesizes permitting and compliance requirements that must be met before marine 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

Environmental Compliance During Marine Debris Removal in South Carolina

- A SC Department of Environmental Services (DES) Bureau of Coastal Management (BCM) and U.S. Army Corps of Engineers (USACE) permit may be required for debris removal within waterways and wetlands. The **organization or individual removing debris** is responsible for obtaining permits from DES and USACE.
- Under the National Environmental Policy Act (NEPA), the **lead federal agency** must assess the environmental effects of their proposed actions before making decisions and is responsible for consulting with resource agencies listed below.

Federal Agency Coordination
if federally funded removal

Coordinate with federal funding agency regarding requirements before applying for permits

Debris removal after disasters may trigger emergency permitting processes

Permit Application(s)

Complete and submit permit application to DES BCM, who will distribute to USACE for concurrent review.

Permit(s) Issued

Review all permit conditions including resource agency requirements

Debris Removal

Permit conditions and resource agency requirements must be followed during debris removal

Primary Agency Requirements and Contact Information

SC Department of Environmental Services (DES)
Bureau of Coastal Management
843-953-0200

- A critical area permit might be required for debris removal projects that have the potential to alter a critical area
- Critical areas in South Carolina are defined as coastal waters, tidelands, beaches and beach/dune systems (S.C. Code Ann. § 48-39-10(J)).
- Reviews project applications for consistency with the South Carolina Coastal Zone Management Program

SC Department of Archives and History State Historic Preservation Office (SHPO)
803-896-6129

- Serves as the State Historic Preservation Office (SHPO) and ensures compliance with Section 106 of the National Historic Preservation Act
- Consultation with SHPO 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 included in or eligible for the National Register of Historic Places
- Coordinates with SCIAA for projects involving archaeological sites

U.S. Fish and Wildlife Service (USFWS)
Charleston Ecological Services Office (ESO)
843-727-4707

Consultation required if marine debris removal involves federal permits and/or funding (USACE permit, FEMA funding, etc.) to comply with:

- Endangered Species Act (ESA) to ensure actions do not jeopardize listed endangered or threatened land or freshwater species or designated critical habitat
- Coastal Barrier Resources Act (CBRA) to ensure actions do not encourage development on coastal barriers along the Atlantic coast.

U.S. Army Corps of Engineers (USACE)
Charleston District
Charleston Regulatory Office
843-329-8044

Conway Regulatory Office
843-365-4239

Send applications to rrs.usace.army.mil

Permit(s) that may be required for debris removal in waterways and wetlands are:

- NWP-3 Maintenance for removal/maintenance of culverts, sediments or debris accumulated around outfalls, bridges, etc.
- NWP-22 Removal of Vessels for removal of wrecked, abandoned, or disabled vessels or other man-made obstructions to navigation
- NWP-37 Emergency Watershed Protection & Rehabilitation for work done under NRCS's Emergency Watershed Protection program
- NWP-38 Cleanup Hazardous/Toxic Waste for containment, stabilization, or removal of hazardous or toxic waste not under CERCLA/NCP

National Oceanic and Atmospheric Administration (NOAA)
NOAA Fisheries
ESA: 727-824-5312
EFH: 727-570-5317

Consultation required if marine debris removal involves federal permits and/or funding (USACE permit, FEMA funding, etc.) to comply with:

- Endangered Species Act (ESA) to ensure actions do not jeopardize listed endangered or threatened marine species or designated critical habitat
- Magnuson-Stevens Fisheries Conservation and Management Act to ensure actions do not adversely affect essential fish habitat (EFH)

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5. Agency Contact Information

In developing this guide, a comprehensive list of relevant local, state, and federal agency contacts was compiled for participating agencies. These contacts are verified and updated annually. To request a copy of the current contact list, please email marine.debris.SE@noaa.gov.

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