

NOAA Marine Debris Emergency Response Planning Project

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Mid-Atlantic Regional Coordinator
NOAA Marine Debris Program (*Lynker*)



Agenda

1 NOAA Marine Debris Program Overview

2 Emergency Response Project Overview

3 New York and New Jersey Guides



1

NOAA Marine Debris Program



NOAA Marine Debris Program

Established in 2006 by Congress as the federal lead for marine debris

Mission: to investigate and prevent the adverse impacts of marine debris



Program Pillars

1. Coordination
2. Removal
3. Research
4. Prevention
5. Monitoring and Detection
6. Response



Program Pillars

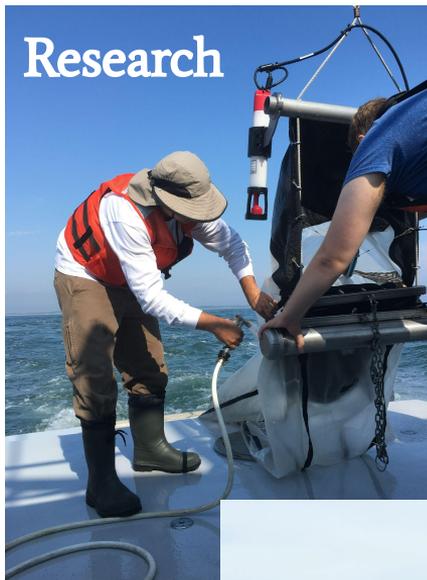
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Program Pillars

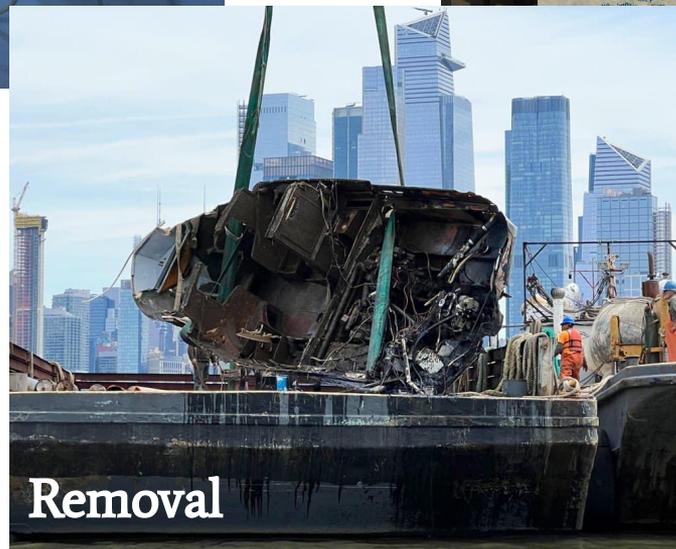
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Hayden Boettcher / UDEL



NOAA



City of Hoboken, NJ



Program Pillars

1. Coordination
2. Removal
3. Research
4. Prevention
- 5. Monitoring and Detection**
6. Response



NOAA



Program Pillars

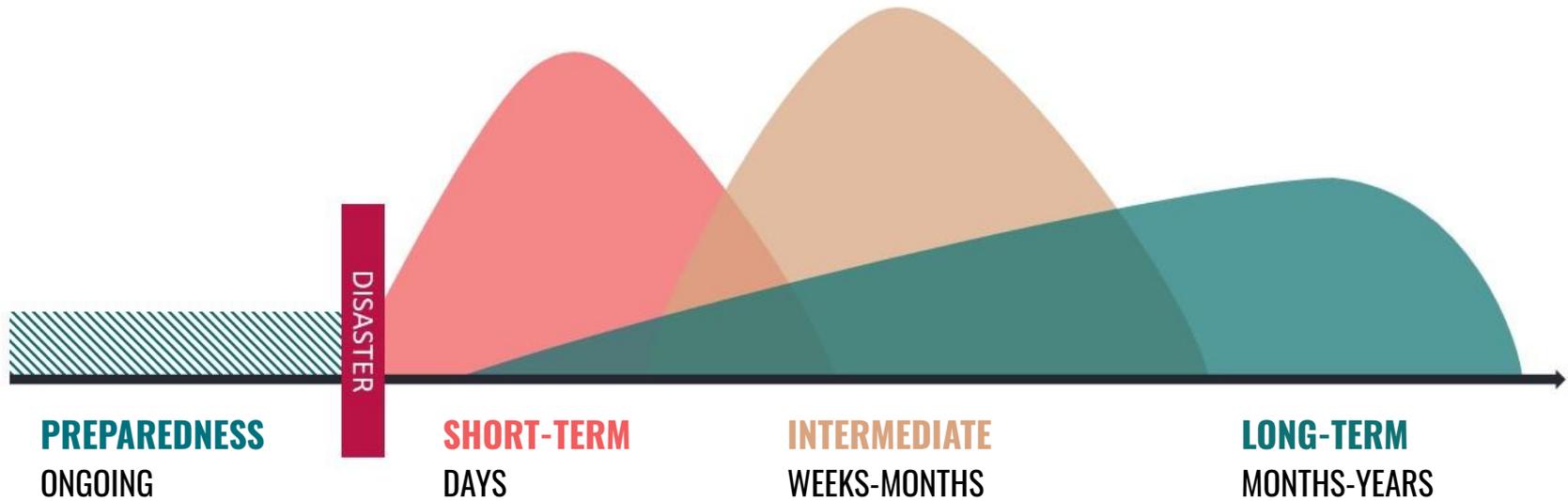
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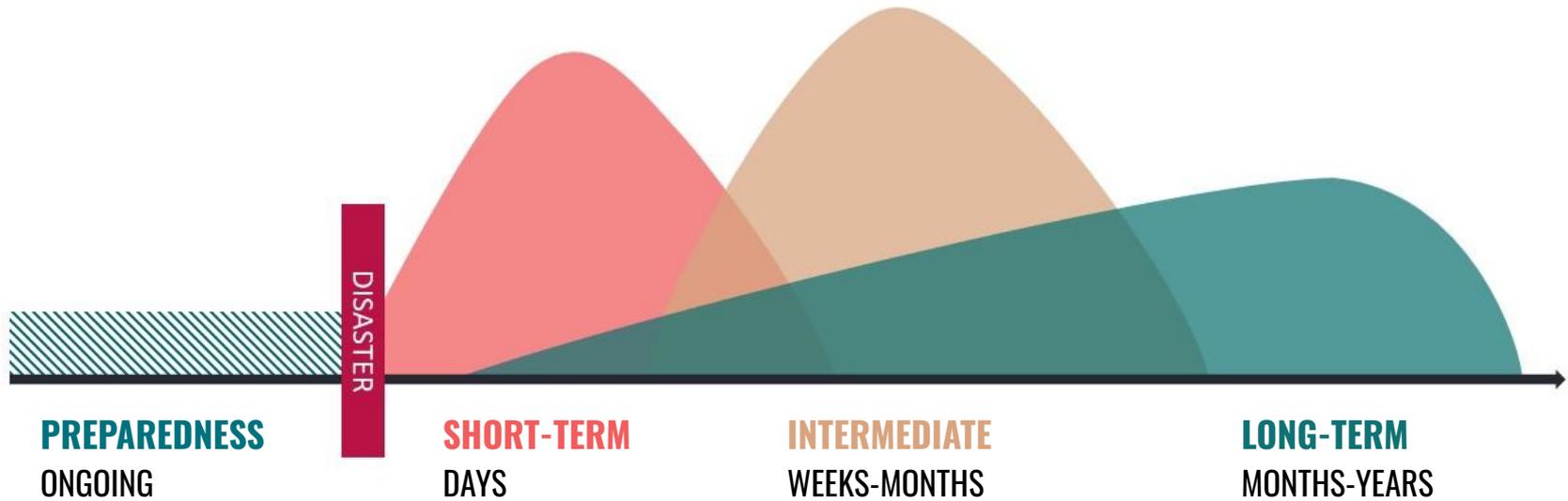
2 Emergency Response Project Overview



Phases of Response



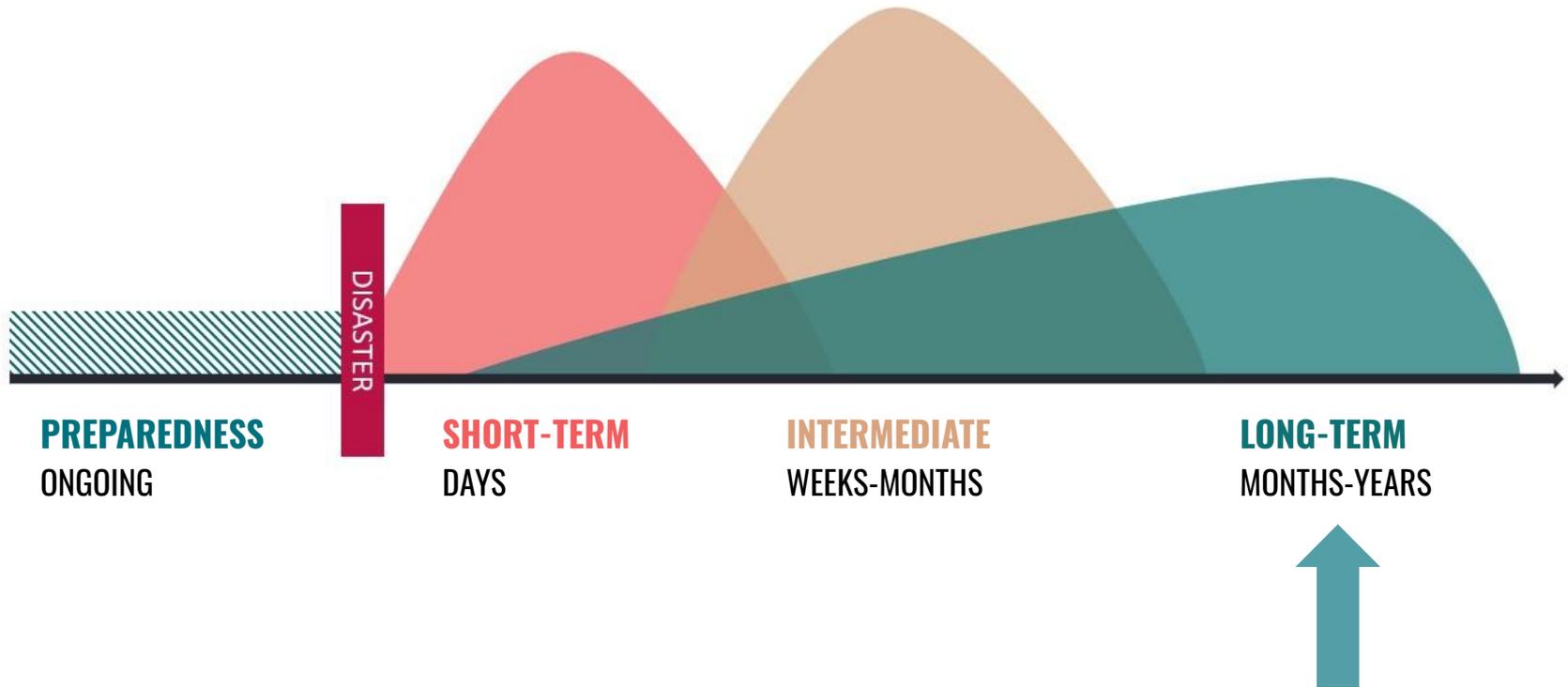
Phases of Response



Source: Adapted from DHS National Disaster Recovery Framework 2016 and City of Seattle 2015



Phases of Response



Project History

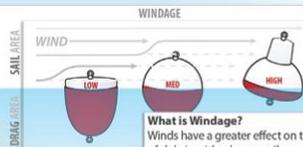
2011 Japan Tsunami

Modeled Movement of the Marine Debris Generated by the March 2011 Japan Tsunami

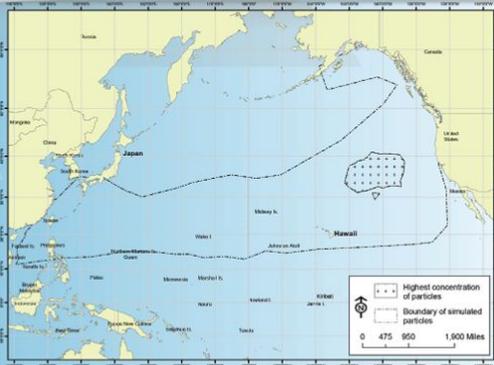
On March 11, 2011, an estimated 5 million tons of debris washed out by the tsunami

Estimated 30% floated away and dispersed

Estimated 70% sank near Japan



Expected Distribution of Computer Simulated Particles Through Wednesday, 04/03/13 0700



- Japan Ministry of the Environment estimates that 5 million tons of debris washed into the ocean.
- They further estimated that 70% of that debris sank near the coast of Japan soon after the event.
- Model Results: High windage items may have reached the Pacific Northwest coast as early as winter 2011-2012.
- Majority of modeled particles are still dispersed north and east of the Hawaiian Archipelago.
- NOAA expects widely scattered debris may show up intermittently along shorelines for a long period of time, over the next year, or longer.

NOAA used a computer model to simulate the movement of tsunami debris from March 11, 2011, to the present day. This GNOME model (General NOAA Operational Modeling Environment) simulation is based on ocean surface currents from the US Navy (the Hybrid Coordinate Ocean Model) and winds from NOAA (the NOAA blended wind product). The computer model simultaneously released 1,000 simulated particles from each of 8 locations on the Japan coastline where tsunami wave heights were 3.5 meters or greater. Particles were randomly assigned windage values from 1-5%, meaning that they were moved not only by ocean currents, but were also moved by 1-5% of wind speed in the down-wind direction. The dotted black line contains 95% of all simulated particles. The cross-hatched area indicates the region of the highest concentration of simulated debris with 1% windage at the end of the simulation. For more details on this model, please visit marinedebris.noaa.gov. Have you seen tsunami debris? Report it to: DisasterDebris@noaa.gov

2012 Superstorm Sandy

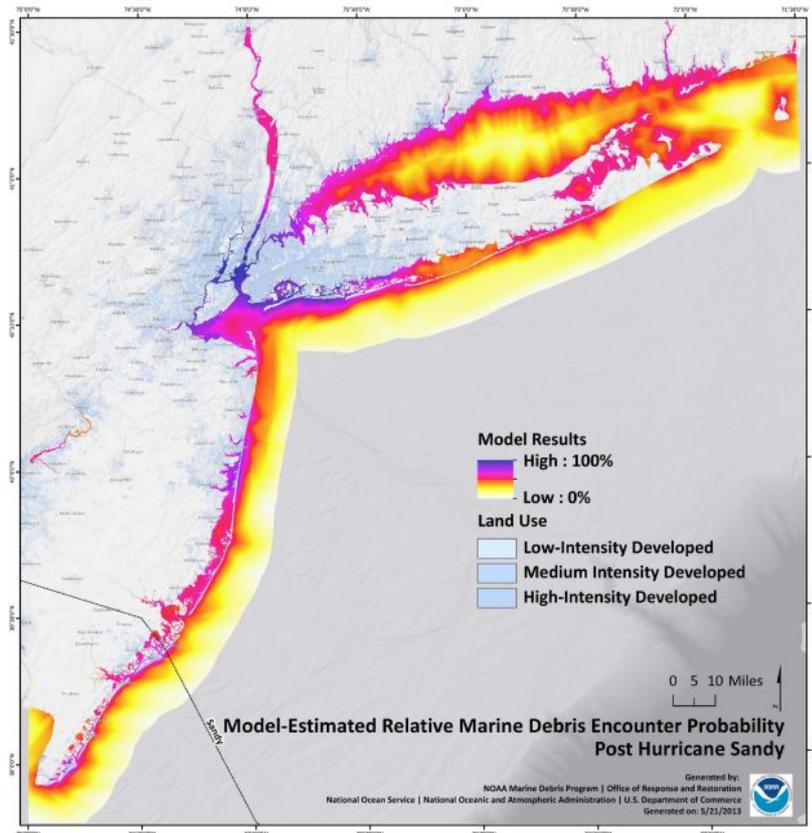


Figure 1: Graphic output of a model-estimated relative marine debris encounter probability.

Preparedness Project Goal

Improve preparedness for response to and recovery from acute marine debris incidents in coastal states



How?

**Coordination and relationship building
before a disaster.**



Objectives

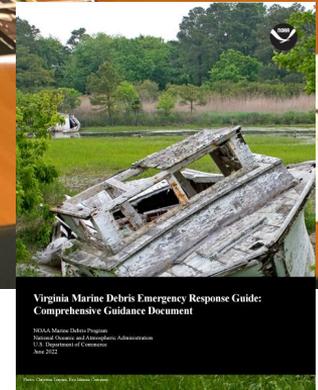
1. Develop **guidance documents** that facilitate action
2. Conduct marine debris response **exercises/drills**
3. Support the **integration** of content into other plans and trainings



City of Mexico Beach

Objectives

1. Develop **guidance documents** that facilitate **action**
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3

Response Guide Contents and Tools



Why a Response Guide?



SINGLE LOCATION

All information is accessible in one single document



CLARIFY ROLES

Better understand organization roles and responsibilities



IDENTIFY GAPS

Discuss challenges and needs prior to a storm

2015

2016

2017

2018

2019

2020

2021

2022

2023

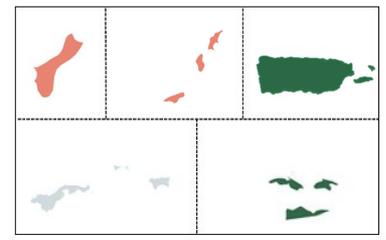


16

PUBLICATIONS

2

IN DEVELOPMENT

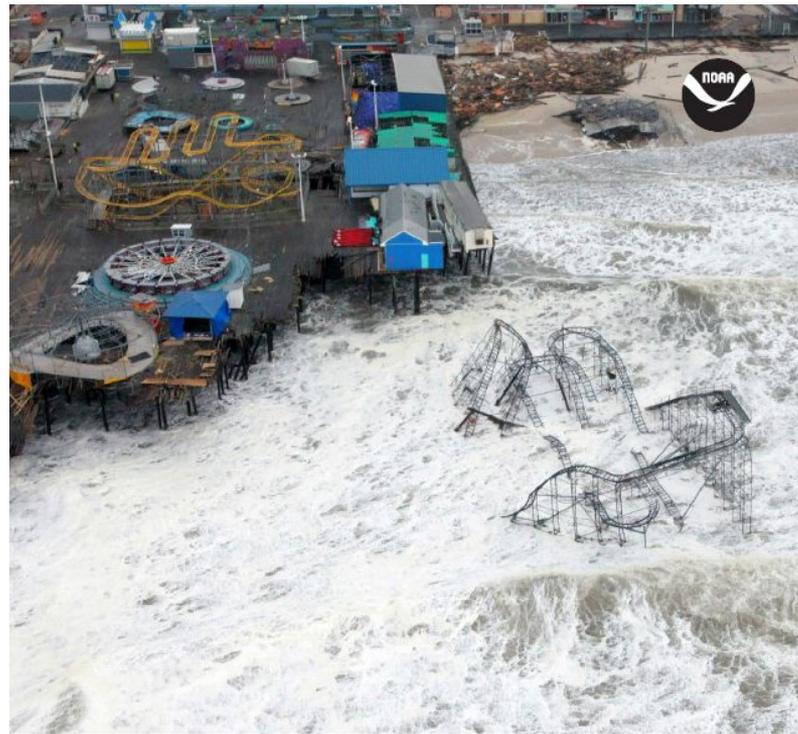




New York Marine Debris Emergency Response Guide: Comprehensive Guidance Document

NOAA Marine Debris Program
National Oceanic and Atmospheric Administration
U.S. Department of Commerce
Technical Memorandum NOS OR&R Marine Debris Emergency Response Guide 015a
April 2023

Photo: New York City Department of Parks and Recreation



New Jersey Marine Debris Emergency Response Guide: Comprehensive Guidance Document

NOAA Marine Debris Program
National Oceanic and Atmospheric Administration
U.S. Department of Commerce
December 2022

Photo: U.S. Air Force

Guide Scope

Focus on **marine debris**

- Solid material (including vegetative debris)
- Result of acute disaster / incident
- Poses a threat

Target **audience**: All levels of government, responders



Guide Contents

- Introduction
- Background Risk: Foreseeable Incidents and Debris Types
- Response Map
- Roles, Responsibilities, and Jurisdictions
- Permitting and Compliance Requirements
- Challenges, Needs, and Recommended Actions
- Contact Information

New Jersey Marine Debris Response Flowchart

New Jersey Marine Debris Response Map

Permitting and Compliance for Marine Debris Removal in New Jersey

Agency	Responsibilities	Contact
New Jersey Department of Environmental Protection (NJDEP)	Division of Land Resource Protection Division of Solid and Hazardous Waste Emergency Management Program Historic Preservation Office Office of Regional Assessment	Debris Removal Robert Vagstad, State Contract Mgr. Anthony Gal, Emergency Response Specialist General Contact Paul Hadden, Environmental Compliance, Project Mgr. William Henderson, Project Mgr. Genevieve Clifton, Reporting
New Jersey Department of Transportation (NJDOT)	Office of Maritime Resources	Debris Management General Contact
New Jersey Motor Vehicle Commission	Abandoned Title Unit	Abandoned Vehicle Disposition L. Michael Garbarino, PA Brenda Adams, Forms Unit Abundance Unit Contact
New Jersey State Public Safety	New Jersey Office of Emergency Management (NJCEM)	Public Assistance Funding Lisa Asurmendi, Ad
Rutgers University	Marine Coastal Resource Research Bureau (MCRB)	Debris within JCERB

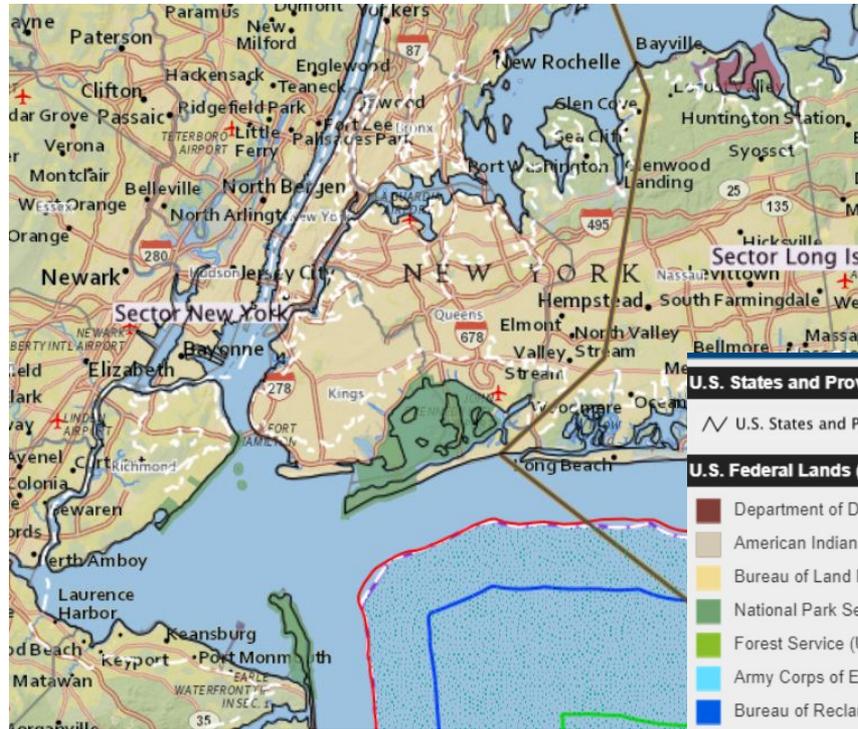
Agency Requirements and Legislation Details

- U.S. Army Corps of Engineers (USACE):**
 - USACE is the lead agency for all USACE projects.
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- U.S. Fish and Wildlife Service (USFWS):**
 - USFWS is the lead agency for all USFWS projects.
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ONLINE ERMA MAPS

U.S. States and Provinces Boundaries

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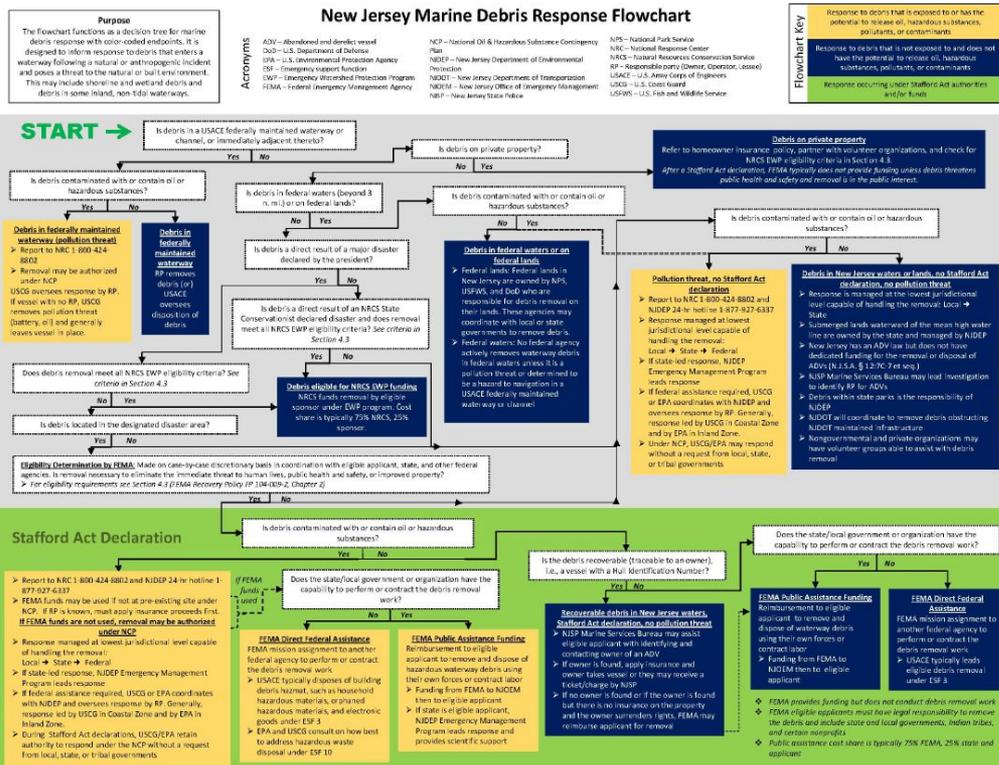
U.S. Federal Lands (USGS, 2020)

- Department of Defense (DOD)
- American Indian Areas (Census Bureau)
- Bureau of Land Management (BLM)
- National Park Service (NPS)
- Forest Service (USFS)
- Army Corps of Engineers (USACE)
- Bureau of Reclamation (USBR)
- U.S. Fish and Wildlife Service (FWS)
- Bureau of Ocean Energy Management (BOEM)
- National Oceanic and Atmospheric Administration (NOAA)
- Natural Resources Conservation Service (NRCS)
- Other Federal (TVA, ARS, BPA, DOE, etc.)



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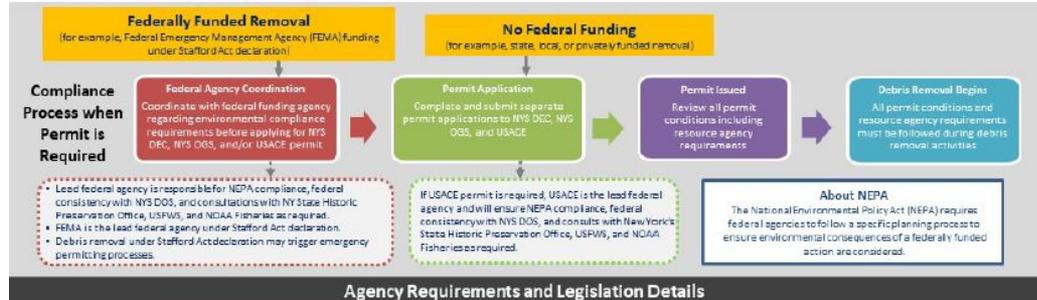


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Environmental Compliance for Marine Debris Removal in New York

- In New York, a New York State (NYS) Department of Environmental Conservation (DEC) permit, a NYS Department of General Services (OGS) 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 and waters of or state-owned lands under water. Applicants must submit applications to all permitting agencies and the NYS Department of State (DOS) for federal consistency, separately.
- The **lead federal agency** is responsible for compliance with the National Environmental Policy Act (NEPA), DOS, and consulting with resource agencies including New York's State Historic Preservation Office, U.S. Fish and Wildlife Service (USFWS), and National Oceanic and Atmospheric Administration (NOAA) Fisheries as required.



U.S. Army Corps of Engineers (USACE)
Buffalo District
Regulatory Branch,
District Office
716-678-4330
New York District
Regulatory Branch,
District Office
517-790-8511

- Permit(s) may be required for debris removal if the activity involves dredging, the discharge of fill or dredge material, or involves structures or work impacting the navigability of a waterway. One or more permits may be needed depending on the work to be conducted.
- Depending on where the removal project will take place, applicants may need to consult with either Buffalo or New York Districts.
- Buffalo and New York Districts each have their own Regional/General Permits that may be used for debris removal projects.
- In the case of an emergency, permitting procedures may be expedited.

NYS Department of Environmental Conservation (DEC)
Division of Environmental Permits
518-402-8167

- Issues permits for projects that may negatively impact coastlines, tidal and non-tidal wetlands, and/or tidal and non-tidal waters.
- A freshwater wetland, tidal wetland, and/or a coastal erosion management permit may be required for debris removal projects that involve excavating, dredging, the discharge of fill or dredge material, or involve structures or work impacting wetlands or coastal erosion hazard areas.

National Oceanic and Atmospheric Administration (NOAA)
NOAA Fisheries
55A-979-281-9206
6P4-979-281-9302

- Consultation required if 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 adversely affect listed threatened or endangered species or critical habitat for marine species.
 - Fish and Wildlife Coordination Act to consider the effects of projects that might result in modification of natural streams or bodies of water on fish and wildlife development.
 - Magnuson-Stevens Fisheries Conservation and Management Act to ensure actions do not adversely affect essential fish habitat.

NYS Office of Parks, Recreation and Historic State Historic Preservation Office
518-227-3543

- Assists state and federal agencies in compliance with Section 106 of the National Historic Preservation Act and Section 14.09 of the New York State Historic Preservation Act.
- Consultation required if debris response involves a state or federal agency directly or through funding and/or issuance of permits (NYS DEC, NYS OGS or USACE permits, FEMA funding, etc.) and has potential to affect historic properties or cultural resources.

NYS Office of General Services (OGS)
Bureau of Land Management
518-474-2195

- Issues permits for activities that may disturb state-owned lands under water such as building or altering structures and utilities, including fill.

U.S. Fish and Wildlife Service (USFWS)
New York Field Office
607-753-9324
Long Island Field Office
631-286-0485

- Consultation with New York or Long Island Field Office required if debris removal involves federal permits and/or funding (USACE permit, FEMA funding, etc.) to comply with:
 - 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 to ensure actions do not encourage development on coastal barriers along the Atlantic coast.



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**US Army Corps
of Engineers®**





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