



March 2017

MARITIME ENVIRONMENT

Federal and State Actions, Expenditures, and Challenges to Addressing Abandoned and Derelict Vessels

Why GAO Did This Study

ADV can block navigable U.S. waterways and pose threats to the environment, and public health and safety, as fuel and hazardous material can leak into the water as the vessels deteriorate. Multiple federal agencies have responsibility for responding to ADV-related incidents, while states may also address ADVs through their own laws and policies. GAO was asked to review actions federal and state agencies have taken to address ADVs in U.S. waterways. This report examines (1) key factors that guide how federal agencies respond to ADVs; (2) the extent federal agencies track ADVs and their expenditures for responding to them; and (3) actions states have taken to address ADVs and the factors they cite as affecting their efforts.

GAO reviewed federal laws and policies which guide ADV-related actions for the Coast Guard, EPA, USACE, NOAA, and FEMA, and analyzed these agencies' ADV-related caseload and expenditure data for fiscal years 2005 through 2015, the most current available data. GAO interviewed agency headquarters and field-based officials in four states, selected for their geographic diversity and varying state laws and actions regarding ADVs. GAO also surveyed 30 coastal states regarding their ADV-related actions, expenditures and challenges.

What GAO Recommends

GAO is not making recommendations in this report. Agencies provided technical comments on a draft of this report, which GAO incorporated, as appropriate.

View [GAO-17-202](#). For more information, contact Jennifer Grover at (202) 512-7141 or groverj@gao.gov.

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What GAO Found

Federal agencies respond to abandoned and derelict vessels (ADV) in accordance with federal law, interagency agreements, and funding availability. Federal laws and the National Contingency Plan—the government's blueprint for responding to oil and hazardous substance releases—establish federal agency roles for leading a response to an ADV-related incident based on various factors, such as the type of ADV threat posed and its location (see fig. below). Interagency agreements have also helped to guide federal ADV response efforts. For example, the Coast Guard and Army Corps of Engineers (USACE) signed an agreement in 2012 outlining their procedures for responding to navigation hazards, including sunken vessels. Agencies reported they generally did not have funding to support actions beyond responding to ADVs posing navigation hazards in federally-maintained waterways and pollution and public health threats, nor were they required to do so by federal law or agency policy.

Key Federal Agency Responses to Abandoned and Derelict Vessels



Note: If the responsible party (i.e., vessel owner, lessee, or operator) fails to take action or cannot be identified, the appropriate agency may proceed with removal of the hazard.

The Coast Guard, Environmental Protection Agency (EPA), USACE, Federal Emergency Management Agency (FEMA), and National Oceanic and Atmospheric Administration (NOAA) maintain data on responses to, and associated expenditures for, pollution and navigation threat incidents in U.S. waterways, which sometimes have involved ADVs. GAO analysis determined that these agencies expended at least \$58 million on ADV response from fiscal year 2005 through 2015. Over two thirds of these expenditures were associated with two ADV-response cases, in 2008 and 2011.

The 28 coastal states that responded to GAO's survey reported on their various ADV-related actions and perspectives on factors affecting their ability to address ADVs—including limitations on their state authority and insufficient funding.

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Abbreviations

ADV	Abandoned and Derelict Vessel
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DNR	Washington Department of Natural Resources
EPA	Environmental Protection Agency
ERMA	Environmental Response Management Application
FEMA	Federal Emergency Management Agency
MOU	Memorandum of Understanding
NCP	National Contingency Plan
NOAA	National Oceanic and Atmospheric Administration
NPFC	National Pollution Fund Center
OSC	On-Scene Coordinator
OSLTF	Oil Spill Liability Trust Fund
USACE	Army Corps of Engineers

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March 28, 2017

Congressional Requesters:

Abandoned vessels and derelict vessels (ADV) are two terms commonly used to describe vessels that are without identified ownership, in significant disrepair, or both.¹ There are many such vessels in U.S. waterways that are either left to deteriorate by the owner or operator, or at times are the result of a catastrophic weather event. Generally unsightly, some ADVs may pose a threat to the safety of maritime navigation, the environment, and public health. In particular, ADVs can impede marine transportation by blocking navigable waterways, and, if not well marked or just below the water's surface, could pose collision risks to vessel operators. ADVs may also become sources of pollution as the vessels can contain significant amounts of fuel oil or hazardous materials that can leak into the water as the vessels deteriorate, threatening the local community, marine life, and nearby habitat. For example, in 2011, a derelict 432-foot barge split in half and began leaking oil into the Columbia River on the border of Washington and Oregon. According to Coast Guard records, the resulting federal response to clean up the river and remove the barge totaled about \$21.6 million.

Multiple federal agencies share responsibility with states for responding to the threats that may be posed by ADVs, including the Coast Guard, Environmental Protection Agency (EPA), Army Corps of Engineers (USACE), National Oceanic and Atmospheric Administration (NOAA), and Federal Emergency Management Agency (FEMA). In particular, the Coast Guard and EPA are responsible for leading federal responses to oil and hazardous material releases in U.S. waterways, while USACE is responsible for responding to marine debris, including vessels, that pose navigation hazards in federally maintained navigable channels, harbors,

¹The term vessel includes every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water. In general, an abandoned vessel does not have an identified owner or has been left by its owner in the water or on public or private property without permission of the landowner. A derelict vessel is a vessel that has been left unattended and is degrading, and while it may have an identified owner, the vessel no longer functions for its intended purpose. It may be floating, moored, anchored, sunken, or beached.

and waterways.² State governments may also address ADVs, through their own laws and policies. You asked us to review actions federal and state government agencies have taken to address ADVs in U.S. waterways. This report addresses the following questions:

1. What key factors guide how federal agencies respond to incidents involving ADVs in U.S. waterways?
2. To what extent do federal agencies track ADVs in U.S. waterways and their expenditures for responding to them, and what does their data show?
3. What actions have states taken to address ADVs and what factors do they cite as affecting their efforts?

To answer the first objective, we reviewed federal laws and regulations to identify federal agency authorities and roles relative to ADVs. Additionally, we reviewed policy and guidance issued by federal agencies with responsibility for leading ADV responses, including the Coast Guard, EPA, USACE, NOAA, and FEMA. We interviewed relevant headquarters officials from these agencies to obtain insight into the factors guiding their responses to ADV-related incidents. We also conducted site visits and interviewed cognizant field officials with jurisdiction for coastal waters in four states: Alabama, Louisiana, Maryland, and Washington. We selected these states for their geographic diversity and their varying state ADV-related laws and programs.³ We interviewed officials from five Coast Guard Sectors⁴ (Columbia River, Maryland-National Capital Region, Mobile, New Orleans, and Puget Sound); four EPA Regions⁵, and four USACE District offices⁶ (Baltimore, Mobile, New Orleans, and Seattle).

²A federally maintained channel, harbor, or navigable waterway is generally one that has been authorized by Congress, and which USACE operates and maintains for general navigation.

³Two states have state run ADV programs (Maryland and Washington) and two others do not (Alabama and Louisiana).

⁴The Coast Guard has nine districts that are supported by 37 sectors with responsibility for local operations in each district.

⁵EPA has ten regional offices across the country, each of which is responsible for multiple states. We interviewed cognizant officials representing EPA regional offices with jurisdiction for Alabama (Region 4), Louisiana (Region 6), Maryland (Region 3), and Washington (Region 10).

⁶USACE has 8 divisions supported by 38 district offices with responsibility for local operations in each division.

We also interviewed officials from two NOAA field offices responsible for implementing the agency's nationwide marine debris program (Mobile, AL and Seattle, WA). The results of these site visits are not generalizable, but provide insight on federal agency ADV response-related authorities, policy, and actions.

To answer the second objective, we obtained and analyzed information from federal agencies regarding their methods for tracking ADVs, caseload for responding to ADV-related incidents, and associated expenditures. Specifically, we analyzed federal laws and agency policy and guidance to identify requirements or methods for tracking ADV-related incidents and interviewed agency headquarters and field officials to obtain information on how these laws, guidance, and policies have been implemented. Additionally, we analyzed data provided by Coast Guard, EPA, USACE, NOAA, and FEMA showing ADV-related cases and expenditures in coastal states.⁷ We did not analyze ADV-related cases and associated expenditures from U.S. territories. To conduct these analyses, we compiled agency data for fiscal years 2005 through 2015, the most current full fiscal year data available at the time of our review. We analyzed these data to identify each agency's reported number of ADV-related cases and associated expenditures.

We also reviewed case files for selected ADV responses to obtain insight into federal actions and the factors that guided them during fiscal years 2005 through 2015. Two of the agencies, Coast Guard and USACE, provided us with a list of nationwide ADV-related cases and their expenditures to address them. For EPA, we reviewed the EPA's Federal On-Scene Coordinator website to identify the agency's ADV cases, and conducted follow up interviews with EPA regional officials to verify whether their cases involved ADVs.⁸ For NOAA, we assessed data provided by NOAA's Office of Response and Restoration regarding grants awarded nationwide for marine debris removal, and ADVs specifically, for fiscal years 2005 through 2015. Additionally, for FEMA, we analyzed its

⁷The term "coastal state" means a state of the United States in, or bordering on, the Atlantic, Pacific, or Arctic Ocean, the Gulf of Mexico, Long Island Sound, or one or more of the Great Lakes. See 16 U.S.C. § 1453(4).

⁸A Federal On-Scene Coordinator is the lead federal official predesignated by EPA or Coast Guard to coordinate and direct a federal response. See 40 C.F.R. § 300.5. The EPA's On-Scene Coordinator website (epaosc.gov) is intended to be a resource for EPA Federal On-Scene Coordinators to access, track and share information with On-Scene Coordinators throughout the country.

data regarding ADV removals and expenditures for responses to two presidentially-declared disasters—Hurricane Katrina, in 2005 and Superstorm Sandy, in 2012. FEMA headquarters officials reported it would require a large investment of staff resources to assemble complete data showing FEMA-funded ADV removals during fiscal years 2005 through 2015. GAO and FEMA officials agreed to limit data analysis to FEMA ADV removal expenditures for Hurricane Katrina and Superstorm Sandy because they were two of FEMA’s largest responses during this period. We believe these data provide valuable insight into FEMA ADV-related actions during this timeframe. On the basis of our analysis and discussions with officials from each of these agencies, we determined the above mentioned data were sufficiently reliable for the purpose of describing the extent to which federal agencies tracked ADV’s, and their estimated number of responses and associated expenditures.

To answer the third objective, we surveyed the 30 coastal states and received completed survey responses from 28 of them (93% response rate). Among other things, our survey requested information about the number and type of ADVs that these states had identified and removed from their waterways since fiscal year 2013, aspects of their laws and ADV programs, and perspectives on challenges they faced. In addition, we selected four states for site visits based on their geographic diversity, as well as differences in their laws and the actions they had taken related to ADVs. During our site visits to Alabama, Louisiana, Maryland, and Washington we interviewed cognizant state officials about perspectives on their ADV-related actions and challenges in addressing ADVs. Finally, we conducted a legal analysis of the extent to which the 30 coastal states have laws prohibiting abandonment of vessels and establishing consequences for abandonment.

We conducted this performance audit from December 2015 through March 2017 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

Causes of Vessel Abandonment and Dereliction

According to NOAA, severe weather events, financial hardships, and the potentially high costs for owners to properly remove vessels from waterways all increase the likelihood that vessels will become abandoned or derelict. For example, states that are subject to frequent storms or hurricanes may be especially susceptible to derelict vessels. In addition, financial hardships may lead to an increase in the number of ADVs as vessel owners no longer have the financial resources to properly care for their vessels leading to their abandonment and disrepair. The high cost of properly disposing vessels that owners no longer want may also lead vessel owners to abandon their vessels. Figure 1 shows photos of ADVs in U.S. waterways.

Figure 1: Photos of Abandoned and Derelict Vessels (ADV) in U.S. waterways.

ADV in Hawaii



ADV in Washington state



ADV in Louisiana



Source: National Oceanic and Atmospheric Administration (top left and bottom); Washington State Department of Natural Resources (top right). | GAO-17-202

Federal ADV-related Laws and Statutes

No single federal law comprehensively addresses ADVs. However, various laws and regulations provide federal authority for responding to maritime pollution and navigation threats, including threats posed by ADVs. Table 1 shows selected federal laws providing authority for ADV-related response.

Table 1: Selected Federal Laws Providing Authority for Abandoned and Derelict Vessel-related Response

Selected law	Selected law highlights
Abandoned Barge Act of 1992 (Abandoned Barge Act), 46 U.S.C. §§ 4701-05.	Prohibits an owner or operator from abandoning a barge of more than 100 gross tons on navigable U.S. waterways and private property without permission. Authorizes the Coast Guard to remove an abandoned barge (one that has been unattended for longer than forty-five days) under certain circumstances. Authorizes the Coast Guard to assess civil penalties to barge owners up to \$1,000 a day.
Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. §§ 9601-9675.	Authorizes responders to remove or arrange for the removal, or take any other response measures to remove or mitigate a hazardous substance, pollutant or contaminant consistent with the national contingency plan, whenever (a) there is a release or substantial threat of release of a hazardous substance or (b) a release or substantial threat of release into the environment of any pollutant or contaminant which may present an imminent and substantial danger to public health or welfare. Authorizes a fund (i.e. Superfund), to cover cleanup-related costs of up to \$2 million per incident, unless certain statutory criteria are met.
Federal Water Pollution Control Act (Clean Water Act), 33 U.S.C. §§ 1251-1387.	Provides the basic statutory authority for pollution, prevention, contingency planning, and response activities within the 200-mile exclusive economic zone for oil and hazardous substances. Authorizes the Federal on-Scene Coordinator to remove or arrange for the removal of a discharge or a substantial threat of a discharge of oil or a hazardous substance into navigable waters, the adjoining shoreline, or natural resources of the United States. Authorizes removing pollutants from potentially polluting sources, including abandoned vessels, and removing, and if necessary, destroying a vessel.
Marine Debris Research, Prevention, and Reduction Act of 2006 (Marine Debris Act), 33 U.S.C. §§ 1951-58.	Authorizes the National Oceanic and Atmospheric Administration to administer grants and enter into cooperative agreements to address the adverse impacts of marine debris on the U.S. economy, the marine environment, and navigation safety through the identification, determination of sources, assessment prevention, reduction, and removal of marine debris.
Oil Pollution Act of 1990 (OPA-90), 33 U.S.C. §§ 2701-61.	Established provisions expanding the federal government's authority to prevent and respond to oil spills. Created the Oil Spill Liability Trust fund (OSLTF) ^a to fund up to \$1 billion per spill incident for pollution removal costs and damages resulting from oil spills and mitigation of a substantial threat of an oil spill, in navigable U.S. waters. Increased penalties for regulatory noncompliance and broadened the enforcement authorities of the federal government, while preserving state authority to impose additional liability or requirements regarding oil spill prevention and response.
Rivers and Harbors Appropriation Act of 1899 (Rivers and Harbors Act), 33 U.S.C. §§ 409-15.	Authorizes the Army Corps of Engineers to remove vessels that pose a hazard to navigation—in 24 hours if the vessel creates an emergency situation and 30 days if the vessel has been left unattended in navigable waters. The owner, operator, or lessee of a sunken or wrecked vessel posing a navigation hazard must immediately mark the vessel with a buoy or beacon.

Selected law	Selected law highlights
Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), 42 U.S.C. §§ 5121-5207.	Authorizes the Federal Emergency Management Agency (FEMA) to fund eligible applicants to remove debris, wreckage, and sunken vessels from publicly and privately owned waters to eliminate an immediate threat to lives, public health and safety, or improved property, or to ensure the economic recovery of the affected community. The marine debris, wreckage, and sunken vessels must be the direct result of a Presidentially-declared emergency or major disaster, located in the designated area, and the applicant must have legal responsibility for the eligible work. FEMA may fund eligible debris removal from non-federally maintained navigable waterways only when another Federal agency does not have the specific authority to fund the activity.
Saving Life and Property, 14 U.S.C. § 88.	Provides Coast Guard with authority to “destroy or tow into port sunken or floating dangers to navigation.”

Source: GAO analysis of federal laws. | GAO-17-202

^aThe OSLTF is used for costs not directly paid by the polluter, referred to as the responsible party.

State ADV-related Laws

According to our analysis of state laws from all 30 coastal states, state laws that address ADVs vary. For example, 25 of the 30 coastal states have laws that define the terms “abandoned” or “derelict” vessels.⁹ In states that have a process for designating a vessel as “abandoned” for removal, state laws vary with respect to the amount of time between when a state identifies a potential ADV and when the state is authorized to remove it—ranging up to 6 months. Moreover, 24 of the 30 coastal states prohibit abandoning a vessel or require that the owner remove an abandoned or derelict vessel under certain circumstances after notice from the state.

Some coastal states also have legal mechanisms in place to dissuade vessel owners from abandoning their vessels. For example, 21 of the 30 coastal states have laws that include civil penalties for abandoning or failing to remove a vessel after notice from the state, while 12 of the 30 states impose criminal penalties for abandoning or failing to remove a

⁹This includes both state laws that define “abandoned” or “derelict” vessel to apply throughout the state as well as state laws that define those terms to apply only within a specific jurisdiction. For example, two Illinois regulations define “abandoned watercraft” to apply within specific jurisdictions within the state: section 110.45 is applicable for lands under the jurisdiction of the Department of Natural Resources and section 4160.50 is applicable within the jurisdiction of the Historic Preservation Agency. Ill. Admin. Code tit. 17, §§ 110.45, 4160.5.

vessel after notice from the state.¹⁰ See appendix I for selected highlights of the 30 coastal state’s ADV-related laws.

Federal ADV Response Guided by Authority, Interagency Agreements and Funding

Federal Response Authorities Outlined in Federal Laws and Regulations, the National Contingency Plan, and Interagency Agreements

Federal laws, the National Contingency Plan (NCP), and interagency agreements, delineate federal authorities and roles for responding to maritime pollution and navigation threats, including those posed by ADVs.¹¹ For example, the NCP and its underlying authorities¹² provide response authorities for removing oil and other pollutants and mitigating or preventing a substantial threat of discharge of oil, including authorizing the removal of vessels that are discharging, or threatening to discharge oil. The Rivers and Harbors Act provides authority for removing vessels

¹⁰This includes state laws that prohibit abandonment of a specific type of vessel or require that the owner remove an abandoned or derelict vessel under certain circumstances after notice from the state. For example, under New Hampshire law, any person who fails to remove a submerged “petroleum-powered vehicle,” including motorized boats, within 48 hours is guilty of a violation and may be fined up to \$500 per day that the vehicle remains in the water. N.H. Rev. Stat. Ann. § 485-A:14(V).

¹¹The National Oil and Hazardous Substances Pollution Contingency Plan, more commonly called the National Contingency Plan or NCP, is the federal government’s blueprint for responding to both oil spills and hazardous substance releases. It provides organizational structure and procedures for preparing for and responding to discharges of oil and releases of hazardous substances, pollutants and contaminants. 40 C.F.R. part 300.

¹²The NCP is applicable to response actions taken pursuant to the authorities under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Federal Water Pollution Control Act (commonly known as Clean Water Act), as amended by the Oil Pollution Act of 1990 (OPA-90). Pub. L. No. 96-510, 94 Stat. 2767 (codified as amended at 42 U.S.C. §§ 9601-75); Pub. L. No. 92-500, 86 Stat. 816 (codified as amended at 33 U.S.C. §§ 1251-1387); see Pub. L. No. 101-380, 104 Stat. 848 (codified as amended at 33 U.S.C. §§ 2701-61).

posing navigation hazards in U.S. waters.¹³ Moreover, the NCP sets the procedures for responding to such discharges, assigns duties to federal agencies, and designates the agency responsible for coordinating a federal response. Notably, while the authority exists to remove an entire vessel, in practice, response to a vessel is usually limited to removing a discharge of oil or other pollutant rather than removing the vessel, due to cost and other considerations.¹⁴

Federal agencies have also established interagency agreements to further guide their authority and respective roles for responding to navigation and pollution threats posed by ADVs. For example,

- In 2012, the Coast Guard and USACE headquarters signed a Memorandum of Understanding (MOU) to improve their efficiency and effectiveness for determining whether an obstruction is a navigation hazard and for the marking and removal of sunken vessels and other navigation obstructions. According to the MOU, USACE and the Coast Guard jointly determine whether the vessel or obstruction is a navigation hazard and the necessary steps to mitigate or remove the hazard. For example, the Coast Guard is the lead agency for broadcasting information about a sunken vessel hazard to the maritime community, and, if necessary, marking it to enable vessel operators to avoid it. If no vessel owner is identified or the owner is unable or unwilling to remove the vessel, USACE is the lead agency for removing navigation obstructions in federally maintained channels, harbors, and navigable waterways when pollution is not an issue.

¹³See 33 U.S.C. §§ 1321(c), 409, 414-15. According to USACE regulations, a hazard to navigation is “an obstruction, usually sunken, that presents sufficient danger to navigation so as to require expeditious, affirmative action such as marking, removal, or redefinition of a designated waterway to provide for navigational safety. 33 C.F.R. § 245.5.

¹⁴Under 33 C.F.R. § 1.01-80(e), for NCP responses in the coastal zone, the authority to remove or destroy a vessel is reserved for the Commandant of the Coast Guard. The Oil Spill Liability Trust Fund can only be used to remove a vessel with Commandant approval if the vessel is discharging or threatening to discharge oil. Similarly, the Superfund, which can be used to remove hazardous waste, may be available with Commandant approval to remove a vessel that is actually releasing hazardous substances or threatens to release hazardous substances. See 33 U.S.C. §1321(c); 42 U.S.C. § 9604(a). For NCP responses in the inland zone, EPA regions have both the authority to remove pollutants from the vessel and to remove or destroy a vessel in accordance with EPA delegations of authority.

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- Coast Guard, EPA, USACE, NOAA, FEMA and other federal agencies on the National Response Team¹⁵ issued joint abandoned vessel guidance in 2014 to provide Federal On-scene Coordinators with information about the regulatory and policy authority of each federal agency having a major nexus to abandoned vessels, among other information. The guidance includes information on applicable laws and regulations relating to abandoned vessels and hazards to navigation, federal funding authority, and case studies about previous responses.¹⁶

The following highlights responsibilities of the Coast Guard, EPA, USACE, NOAA, and FEMA, as outlined in federal law, the NCP, and interagency agreements.¹⁷

Coast Guard and EPA

In general, the Coast Guard has primary responsibility for responses to pollution threats posed by all sources in the coastal zone, whereas the EPA exercises these authorities in the inland zone.¹⁸ Coast Guard and EPA authorities for responding to these incidents are mainly captured under the Clean Water Act, CERCLA, and OPA-90, consistent with the NCP. In most cases, the two agencies' authorized actions are focused on removing oil/hazardous substances from a vessel, and leaving it in place

¹⁵Defined under the NCP, the National Response Team is responsible for coordinating emergency preparedness and response to oil and hazardous substance pollution incidents, consisting of representatives from agencies named in 40 C.F.R. §§300.175(b), 300.110.

¹⁶ See *National Response Team, Abandoned Vessel Authorities and Best Practices Guidance* (Apr. 22, 2014).

¹⁷Outside of these federal roles, responsibility for addressing ADVs generally falls to state and local governments, which may respond to ADVs in various ways. These include state or local-level laws and formal state-run programs that track and remove ADVs from waterways. We discuss these actions later in this report.

¹⁸Coastal zone refers to all waters subject to the tide, U.S. waters of the Great Lakes, specified ports and harbors on inland rivers, waters of the contiguous zone, and other waters of the high seas subject to the NCP. Inland zone refers to the environment inland of the coastal zone excluding the Great Lakes and specified ports and harbors on inland rivers. See 40 C.F.R. § 300.5. The specific jurisdictional boundaries for pollution response are determined by Coast Guard and EPA agreements. For example, in certain regions, Coast Guard and EPA may enter agreements that allow the Coast Guard to lead pollution responses involving commercial vessels in the inland zone.

once the substances have been removed.¹⁹ However, when there is a discharge or substantial threat of a discharge if the vessel is left in place, the agencies are authorized to seek removal, and if necessary, destruction of the vessel as part of operations to remove the pollutants and eliminate the pollutant threat.²⁰ In addition to these authorities, the Abandoned Barge Act authorizes the Coast Guard to take law enforcement actions with respect to abandoned barges, defined as barges over 100 gross tons left unattended for more than 45 days.²¹

The Coast Guard has issued guidance to its field units that clarify these authorities. For example, Coast Guard guidance issued in 1996 and 2011 states that the agency will not remove vessels that are simply a community nuisance. Rather, for a vessel to be removed or destroyed, Coast Guard Commandant approval is required, and certain criteria must be met, including that the vessel is a continued substantial threat to the environment, or there is evidence of continued illegal dumping.²² More recently, in 2016, Coast Guard issued field guidance stating that the Coast Guard does not have the authority or resources to investigate, respond to, or remove marine debris unless the debris poses pollution, public safety, or hazard to navigation threats. The guidance states that Coast Guard field units are to refer abandoned vessel issues that do not involve pollution or hazard to navigation threats to state authorities.

USACE

USACE is responsible for keeping federally maintained navigable waterways and channels free of obstructions from marine debris. In particular, federal law prohibits vessels from obstructing navigable channels and provides USACE with discretionary authority to remove an obstructing vessel after 30 days without liability for any damage to the vessel owner, or in the case of an emergency, to remove the vessel after

¹⁹See 33 U.S.C. § 1321(c) (requiring the effective and immediate removal of a discharge and mitigation or prevention of a substantial threat of discharge of oil and authorizing the removal of a vessel discharging or threatening to discharge); 33 C.F.R. § 1.01-80(e) (reserving authority to remove or destroy a vessel for the Commandant).

²⁰See 33 U.S.C. §1321(c); 42 U.S.C. § 9604(a).

²¹Pub. L. No. 102-587, tit. V, subtit. C, 106 Stat. 5039, 5081-83 (codified at 46 U.S.C. §§ 4701-05).

²²See 33 C.F.R. § 1.01-80(e).

24 hours.²³ USACE policy, in general, is to only remove sunken vessels that are located in a federally maintained channel and block or substantially impair navigation. Legal responsibility for removing sunken vessels falls on the owner, lessee or operator (responsible party) of the wrecked vessel—not the federal government.²⁴ USACE will remove the vessel only if the owner, operator, or lessee of the vessel cannot be identified or cannot remove the vessel in a timely and safe manner. USACE policy also reflects that state and local governments share responsibility and have a role in keeping channels clear for navigation within their jurisdictions.

NOAA

NOAA is the federal government lead for addressing marine debris, which includes ADVs. NOAA supports federal and state ADV-related efforts in various ways, including through federal, state, and local level coordination, technical support, and competitive funding opportunities.²⁵ In 2006, the Marine Debris Act established a program within NOAA to address the adverse impacts of marine debris through identification, determination of sources, assessment, prevention, reduction, and removal of marine debris.²⁶ Through its marine debris program, NOAA provides grants to support state, local, and tribal government, as well as commercial and non-profit organization efforts to address marine debris.²⁷ This includes removing ADVs that pose threats to marine habitat in

²³See 33 U.S.C. §§ 409, 411-12, 414-415; see 33 C.F.R. part 245.

²⁴See 33 U.S.C. §§ 414(b), 415(c).

²⁵For example, NOAA supports federal efforts by providing scientific support to the Coast Guard for oil and hazardous materials spills. NOAA also maintains a database on the identified submerged wrecks and obstructions within U.S. maritime boundaries. In addition, NOAA provides online information about coastal state ADV efforts including state legislation, funding and ADV cases. NOAA also facilitates state and local marine debris planning and educational outreach.

²⁶Pub. L. No. 109-449, 120 Stat. 3333 (codified at 33 U.S.C. §§ 1951-58). The Act also re-established the Interagency Marine Debris Coordinating Committee, which NOAA chairs. The committee is an interagency body responsible for developing and recommending approaches to reduce the sources and impacts of marine debris to the United States.

²⁷The NOAA Marine Debris Program also developed a public web-based technical resource (known as the ADV InfoHub) providing a central source of information about coastal state ADV legislation, funding, and agency contact information, among other things.

coastal waterways. We discuss NOAA's community based removal grant program in more detail later in this report.

FEMA

FEMA is the lead federal agency that coordinates the response to a Presidentially-declared major disaster or emergency under the Stafford Act.²⁸ In this role, FEMA is authorized to provide funding to eligible applicants to remove debris caused by a Presidentially-declared major disaster or emergency when doing so is in the public interest, such as by, for example, eliminating an immediate threat to lives, public health and safety, or property. However, FEMA may not provide funding if all or part of the work falls within the statutory authority of another agency.²⁹ For example, according to 2012 FEMA waterway debris removal guidance, FEMA may fund the removal and disposal of debris, wreckage, and sunken vessels from non-federally maintained navigable waterways³⁰ when another federal agency does not have the specific authority to do so.³¹ Instances when FEMA had authority to provide funding to eligible applicants included responses to the Presidentially-declared disasters Hurricane Katrina (2005) and Superstorm Sandy (2012).³² FEMA may also assign another federal agency to remove eligible ADVs when the state and local governments certify that they lack the capability to perform or contract for the work.

Figure 2 shows the circumstances in which federal agencies generally respond to ADV-related incidents in U.S. waterways as Federal On-scene Coordinators, or through funding ADV removal by state, local, tribal, and

²⁸Pub. L. No. 93-288, 88 Stat. 143 (codified as amended at 42 U.S.C. §§ 5121-5207).

²⁹See 44 C.F.R. § 206.208(c); see also 42 U.S.C. §§ 5170b, 5173, 5192.

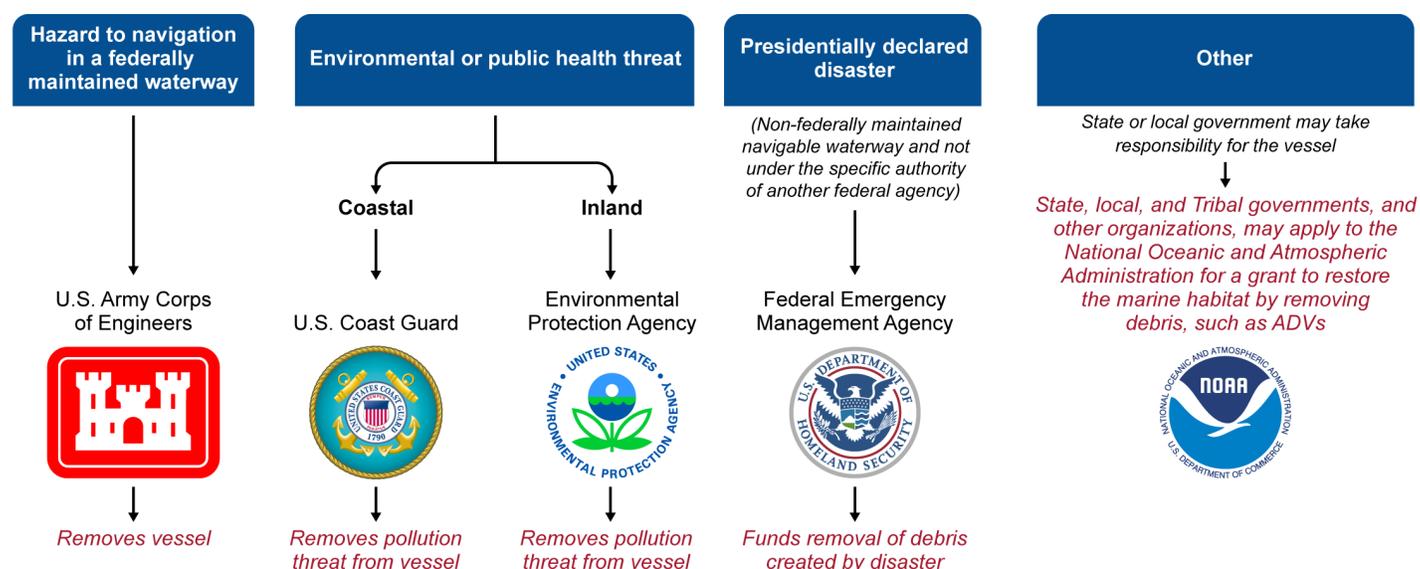
³⁰According to USACE officials, a non-Federally maintained navigable waterway is a waterway that is maintained by state, public, or private interests.

³¹44 C.F.R. § 206.208(c); see 42 U.S.C. §§ 5170b, 5173, 5192. FEMA accomplishes this through its Public Assistance Grant Program which provides assistance to state, territorial, Indian Tribal, and local governments, and certain types of private nonprofit organizations to enable communities to quickly respond to and recover from major disasters or emergencies as declared by the President.

³²Under the Stafford Act, the cost share for federal debris removal is not less than 75%. See 42 U.S.C. § 5173. However, the President is authorized to decrease or waive the state's portion of the cost share. For FEMA's Public Assistance Grant Program, the federal share for Superstorm Sandy is 90%.

nonprofit organizations, based on their respective authorities outlined in the NCP, federal laws, and interagency agreements. In most cases, the removal of an ADV threat requires an interagency response by federal, state, and local authorities.

Figure 2: Circumstances in which Federal Agencies Generally Respond to Abandoned and Derelict Vessel (ADV)-related Incidents in U.S. Waterways as Federal On-Scene Coordinators or Fund ADV-removal



Source: GAO analysis of federal agency documentation. | GAO-17-202

Note: The vessel owner, lessee, or operator (responsible party) has primary responsibility for removal of the hazard to navigation or cleanup of an oil or hazardous material discharge or release. If the responsible party fails to take action or cannot be identified, the appropriate agency may proceed with removal of the hazard.

Federal Agencies Reported Exercising Authorities within Funding Constraints

Federal agencies reported they generally did not have funding to support actions beyond responding to ADVs posing navigation, pollution and public health threats, nor were they required to do so by federal law or agency policy. For example, USACE headquarters officials stated that USACE has limited funds to respond to ADVs, and as a result, USACE guidance articulates that funding priorities require USACE to take a conservative approach with respect to the removal of ADVs. Officials noted that while USACE authority extends to all U.S. navigable waters, the agency exercises its discretionary authority to remove sunken vessels only in federally-maintained navigable channels and waterways to conserve resources. Further, officials stated that unless an ADV is blocking navigation in a federally-maintained navigable channel, USACE

will not remove or track the vessel because this is not required by law and the agency has limited resources that it must allocate to higher priorities.

Similarly, Coast Guard and EPA headquarters and field officials we spoke with reported that the agencies did not have funding to address ADVs beyond those posing pollution threats. In particular, Coast Guard headquarters officials stated that the agency's lack of enforcement of the Abandoned Barge Act was due, in part, to the cost of investigative efforts to forensically identify an ADV with no identification markings. They added that this is because once a vessel is abandoned it becomes almost impossible to trace the vessel's owner beyond following leads.³³ As a result, officials reported that there is little action the Coast Guard can take when the owner or responsible party cannot be identified if the vessel does not pose a potential pollution threat or hazard to navigation. Coast Guard headquarters officials also cited the agency's inability to enforce the Abandoned Barge Act as an example of these funding limitations. Specifically, officials stated that while the Abandoned Barge Act provides the Coast Guard with authority for levying fines for abandoned barges, the Coast Guard had not assessed any penalties to owners under the Abandoned Barge Act during fiscal years 2005 through 2015 because there was no funding to support efforts to identify and track down these owners.³⁴

Moreover, in cases where federal agencies respond to ADV-related incidents, agency officials stated that the costs to remove ADVs are unpredictable and can be significant. For example, USACE headquarters officials reported that the cost for removing larger vessels in deep water or vessels requiring special equipment or removal techniques can run in the millions of dollars—and require additional appropriations or reprogramming of agency funds. For example, in fiscal year 2015, USACE District Jacksonville led a \$2.6 million response to remove a 110-foot derelict barge from the federal channel at Fort Pierce Harbor, Florida. According to USACE case information, various factors contributed to the

³³Coast Guard headquarters officials reported that when the Coast Guard locates an abandoned barge and can identify the owner or responsible party, the owner or responsible party can be compelled through notices and applied penalties to navigational mark, monitor, and remove their barge if the vessel is a hazard to navigation.

³⁴Coast Guard and USACE officials reported that while they had the authority to pursue vessel owners to recover costs for ADV-related response operations, they had recovered few funds during fiscal years 2005 through 2015.

high cost for USACE to remove the vessel. In particular, the barge sank and broke into multiple pieces in strong currents, posing a safety hazard to divers who were working to dismantle and remove the vessel. The barge also contained propane tanks and other hazardous material that complicated the removal effort.

Federal Agencies Track their Responses to Pollution and Navigation Threats, but ADVs are Not Specifically Tracked

Federal Agencies Track Pollution and Navigation Threat Responses, but Do Not Specifically Track Responses to ADVs

Federal agencies with ADV-related authorities maintain data on their responses to and associated expenditures for responding to pollution and navigation threat incidents in U.S. waterways, which in some instances involved ADVs. However, these federal agencies do not specifically track the extent of ADVs nationwide or the expenditures for responding to them. While none of the five agencies systematically track ADVs, the Coast Guard currently requires its field units to track information on ADVs. Specifically, Coast Guard internal policy, in effect since 1996, requires Coast Guard Sector Commanders to (1) maintain an inventory of abandoned vessels that pose or are likely to pose a substantial pollution threat, hazard to navigation, or other significant safety or health threat and (2) annually submit an abandoned vessel summary report to both Coast Guard headquarters and the Sector's District office. However, headquarters officials reported, in April 2016, that the Coast Guard had not implemented these tracking requirements. Officials attributed this to various factors including competing priorities and insufficient resources to conduct the tracking and stated that their experience has indicated that, absent the potential for pollution or a hazard to navigation, there is little utility in tracking ADVs.³⁵

³⁵ Several sectors reported tracking ADVs on their own initiative. See app. II for more information about Coast Guard Sector tracking efforts that we obtained from Coast Guard-provided information and our site visits.

In August 2016, Coast Guard headquarters officials reported initiatives underway to change the Coast Guard's ADV tracking requirements and provide additional tools for sectors to maintain awareness of ADVs. They reported that as the Coast Guard has insufficient resources to track all ADVs, they are updating the agency's 1996 abandoned vessel policy. Officials said the updated policy would require sectors to maintain awareness of (1) abandoned barges over 100 gross tons, in order to enforce the Abandoned Barge Act, and (2) ADVs that could pose a pollution threat or become a hazard to navigation. In addition, Coast Guard initiated efforts with NOAA, in April 2016, on a proposal to display ADV data collected by all Coast Guard Sectors in NOAA's Environmental Response Management Application (ERMA) website, as Sector San Francisco was already doing.³⁶ According to a draft MOU between the Coast Guard and NOAA, the purpose of the effort is to improve the tracking, inventory, and accountability of ADVs along the navigable waters of the United States—with the collected data allowing the agencies to build and maintain a national strategy for improving ADV-related coordination and inventory. In February 2017, Coast Guard headquarters officials reported that they were finalizing these efforts and expected to issue the updated abandoned vessel policy and finalize the MOU for the ERMA initiative by early summer 2017.

Federal Agencies Have Expended Funds for About 2,000 ADV-related Responses since 2005

According to our analysis of available federal agency data and case documentation, federal agencies expended at least \$58 million from fiscal years 2005 through 2015 for about 2,000 ADV responses. However, this estimate likely represents a minimum and not the total amount of federal ADV-related expenditures during this period, because as discussed earlier, federal agencies reported that they did not specifically track whether their expenditures involved ADVs. As a result, agencies used manual searches to identify their ADV-related response expenditures. Table 2 summarizes our analysis of Coast Guard, EPA, USACE, and NOAA's reported minimum ADV-related expenditures for fiscal years 2005 through 2015. See appendix III for information showing agency-specific annual estimated ADV-related response caseload and expenditures.

³⁶ERMA is a NOAA-operated online mapping tool that integrates static and real-time data, such as ship locations, weather, and ocean currents, in a centralized format. It incorporates data into a Geographic Information System mapping platform.

Table 2: Summary of Minimum Estimated Abandoned and Derelict (ADV)-related Cases and Expenditures reported by the Coast Guard, Environmental Protection Agency (EPA), Army Corps of Engineers (USACE), and National Oceanic and Atmospheric Administration (NOAA) for Fiscal Years 2005 through 2015

Agency	ADV cases	Estimated expenditures ^a	Description
Coast Guard	34	\$42.5 million	Oil Spill Liability Trust Fund (OSLTF) and Compensation, and Liability Act (CERCLA) funds were expended to mitigate ADV pollution threats. Costs for responding to 2 of the 34 cases totaled \$41.6 million.
EPA	121	\$5.2 million	OSLTF and CERCLA funds expended to mitigate ADV pollution threats.
USACE	807	\$4.2 million	USACE expenditures to remove ADVs posing navigation hazards in federally-maintained navigable waterways. ^b
NOAA	359	\$1.9 million	17 NOAA marine debris removal grants awarded to state and local governments, and non-governmental organizations for ADV-related removal. ^c

Source: GAO analysis of Coast Guard, EPA, USACE, and NOAA information. | GAO-17-202

Note: We did not include FEMA expenditures in this table because we do not have complete data for the agency's ADV-specific expenditures during fiscal years 2005 through 2015. However, we provide expenditure information for ADV removal as part of FEMA's responses to Hurricane Katrina, in 2005, and Superstorm Sandy, in 2012, later in this report.

^aExpenditures are not adjusted for inflation.

^bFEMA may mission assign another federal agency to remove eligible ADVs when the state and local governments certify that they lack the capability to perform or contract for the work. USACE reported that in 2005 it received \$8.6 million in Hurricane Katrina response funding from FEMA to remove sunken vessels in federally maintained navigation channels. However, these vessels were not identified as ADVs.

^cAccording to NOAA, each of these grants included the removal of one or more ADVs. Grants awarded to U.S. territories are not included in the figure above.

Reported individual federal agency ADV-related responses varied across the agencies, with the majority of expenditures associated with a limited number of costly responses. Specifically:

- The Coast Guard expended at least \$42.5 million from the OSLTF and CERCLA from fiscal years 2005 through 2015 to respond to 34 ADVs posing pollution threats. Of this total, Coast Guard officials reported expending about \$900,000 to respond to 32 ADVs. We

identified two additional cases totaling about \$41.6 million that were not reported by the Coast Guard's National Pollution Fund Center (NPFC) as ADV-related cases, but are identified as such in other agency documents we reviewed.³⁷ For one case, in 2011, the Coast Guard expended \$21.6 million in response to the M/V Davy Crockett, a 432-foot derelict barge on the Columbia River which runs between Oregon and Washington states. In this case, about 1.6 million gallons of oil contaminated water, over 400 tons of oily debris, and 2 tons of asbestos were recovered from the Columbia River. For the second case, in 2008, the Coast Guard expended about \$20 million in its response to the M/V Sea Witch, an abandoned 610-foot container ship. This Coast Guard coordinated response recovered about 500,000 gallons of oil contaminated water and 161 tons of oily sludge and debris from the Patapsco River, in Maryland.³⁸

- According to our analysis of information on EPA's Federal On-Scene Coordinator website and correspondence with EPA's 10 regional offices about the data, EPA expended at least \$5.2 million in OSLTF and CERCLA funds to respond to 121 ADVs posing pollution threats from fiscal years 2005 through 2015. According to the data, most of these expenditures were for a \$4 million project to remove 77 ADVs, 1,700 cubic yards of contaminated sediments and over 10 tons of hazardous materials from the Oakland Estuary in California in 2013.³⁹
- USACE headquarters provided data that showed the agency expended about \$4.2 million to remove an estimated 800 ADVs posing navigation hazards from federally maintained waterways for

³⁷The Coast Guard's NPFC manages the OSLTF, a fund established as a funding source to pay removal costs and damages resulting from oil spills or substantial threats of oil spills to U.S. navigable waters. CERCLA, commonly known as the Superfund, gave the federal government the authority and the funding to clean up sites contaminated by hazardous waste. The EPA administers Superfund and the NPFC has served as the fiduciary agent for the portion of the Superfund used by the Coast Guard.

³⁸Coast Guard NPFC officials reported not including these incidents in the list of ADV-related cases they provided us because they did not involve an ADV. However, Coast Guard and other federal agency documentation, including the Coast Guard case files for these incidents, refer to the two vessels as being abandoned or derelict. Had the Coast Guard's NPFC included the two cases in its list of ADV related responses, the Coast Guard's NPFC expenditures during fiscal years 2005 through 2015 would have totaled about \$42.5 million, rather than about \$900,000.

³⁹EPA's ADV responses may or may not include the removal of an ADV. EPA regions have both the authority to remove pollutants from the vessel and to remove or destroy a vessel in accordance with EPA delegations of authority. However, in practice, ADV responses are usually limited to removing oil or other pollutants, rather than removing the entire vessel, due to cost and other considerations.

fiscal years 2005 through fiscal year 2015.⁴⁰ According to USACE officials, about \$400,000 of these expenditures funded vessel removal activities specifically related to Hurricane Katrina in 2005.⁴¹ In addition, USACE headquarters officials attributed over half of the agency's total ADV expenditures during this period to the previously described \$2.6 million federal response to remove an abandoned barge in Florida during fiscal year 2015.

- NOAA's ADV-related expenditures were primarily for 17 NOAA Community-based Marine Debris Removal grants totaling about \$1.9 million from fiscal years 2006 through 2015.⁴² NOAA's Marine Debris program offers nationwide competitive funding opportunities to state, local, and tribal governments, as well as academic, nonprofit, or commercial institutions for marine debris projects focused on removal, prevention through education and outreach, or research.⁴³ For example, in 2014 NOAA reported providing a grant of about \$140,000 to the South Carolina Sea Grant Consortium to remove ADVs and unwanted vessel and fishing gear from the coastal waters of South Carolina to improve the safety of navigable waterways and the health of essential fish habitats.⁴⁴
- FEMA headquarters officials reported that the agency records the cost of eligible debris removal for which it provides funding by declared-major disaster or emergency, and that ADVs are a small subset of debris removal that the agency generally does not specifically track.

⁴⁰According to USACE headquarters data, District San Francisco removed an estimated 640 of the total ADVs that USACE removed from fiscal years 2005 through 2015.

⁴¹USACE also reported that it received \$8.6 million in Hurricane Katrina response funding from FEMA through Congressional appropriation to remove sunken vessels in federally maintained navigation channels. However, these vessels were not identified as ADVs.

⁴²The Marine Debris Act of 2006 established NOAA's Based Marine Debris Grant Program. Pub. L. No. 109-449, 120 Stat. 3333 (codified at 33 U.S.C. §§ 1951-58). NOAA reported that the agency awarded its first ADV-related grant in fiscal year 2007.

⁴³NOAA trust resources are living marine resources that include commercial and recreational fishery resources; anadromous species (fish, such as salmon and striped bass, that spawn in freshwater and then migrate to the sea); endangered and threatened marine species and their habitats; marine mammals, turtles, and their habitats; marshes, mangroves, seagrass beds, coral reefs, and other coastal habitats; and resources associated with National Marine Sanctuaries and National Estuarine Research Reserves.

⁴⁴NOAA officials reported evaluating Community-based Marine Debris Removal grant proposals considering various criteria and agency priorities that may affect the number of ADV-related proposals funded each year. As a result, an ADV removal grant may not be awarded in each fiscal year.

Through a manual search, FEMA officials determined that the agency expended \$4.2 million in Stafford Act funds to reimburse eligible applicants for their removal of 570 ADVs from waterways as part of the applicant's responses to Hurricane Katrina and Superstorm Sandy.⁴⁵ FEMA reported that this \$4.2 million represented a small subset of the \$3.3 billion overall debris removal costs that FEMA reimbursed eligible applicants for their responses to Hurricane Katrina and Superstorm Sandy.

⁴⁵According to FEMA guidance, FEMA carries out its mission to fund debris removal from an affected area through a standard operating process that begins with an assistance request from a state or local government within a presidentially declared-disaster area. FEMA officials then conduct site visits to the impacted areas to determine the scope of the work and estimated costs.

States Reported Varying Actions to Address ADVs

Many States Reported Data on ADVs Identified and Removed and Related Expenditures

More than half of the states responding to our survey reported data on the number of ADVs they had identified and removed in their states in an almost three-year period.⁴⁶ Specifically, 18 of the 28 states that responded to our survey reported having identified a total of 5,649 ADVs between the start of their fiscal year 2013 and July 2016.⁴⁷ Of the ADVs these states identified, 4,958 (88 percent) were recreational vessels of less than 40 feet in length.

Many states reported removing the ADVs they had identified. Specifically, 18 of 28 states reported removing a total of 3,034 of the 5,649 ADVs (54 percent) identified. Figure 3 shows the number of ADVs states reported having identified and the share removed from fiscal year 2013 through July 2016.⁴⁸

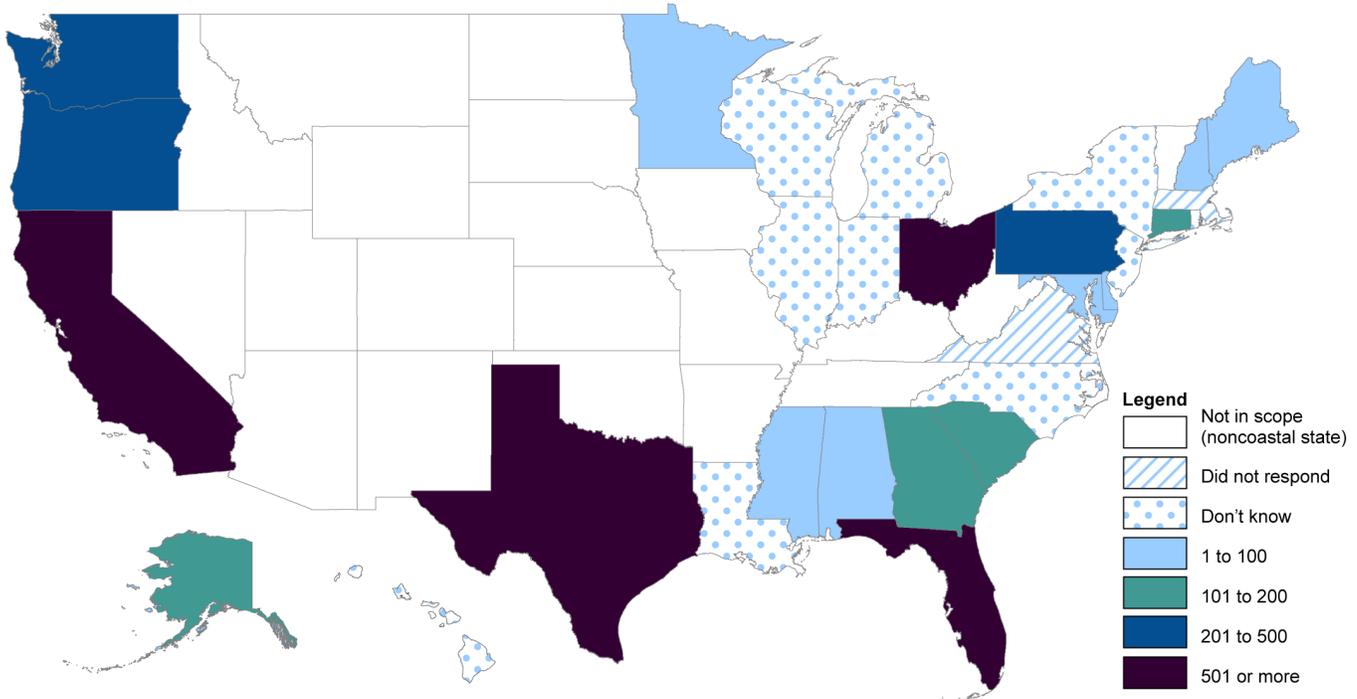
⁴⁶We surveyed the 30 coastal states and received responses from 28 states. We sent the survey to states in May 2016 and received responses through July 2016. For a list of the 30 coastal states we surveyed, see app. I.

⁴⁷Ten of the 28 states that responded reported that they did not know the numbers of ADVs identified and removed.

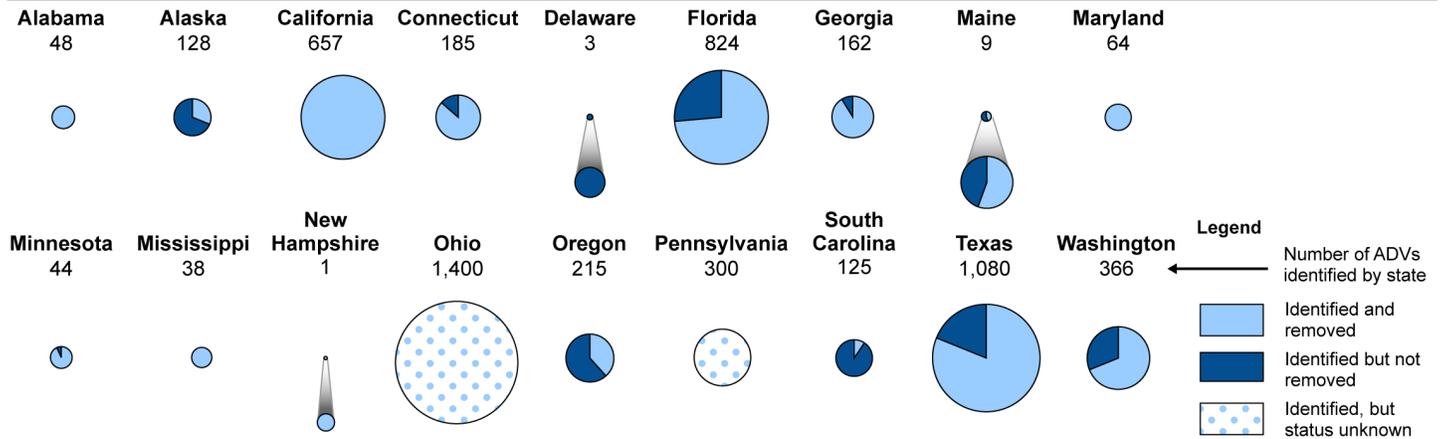
⁴⁸While the scope of our report is limited to coastal states, NOAA stated that abandoned vessel issues are not limited to coastal states. According to NOAA, abandoned vessels are also a concern in major inland rivers and waterways in every state and many territories.

Figure 3: Number of Abandoned or Derelict Vessels (ADV) Coastal States Reported Having Identified and Share of ADVs Coastal States Removed from Fiscal Year 2013 through July 2016

Coastal states' reported number of ADVs identified



Coastal states' reported share of identified ADVs that were removed



Source: GAO analysis of survey of state abandoned and derelict vessel actions; MapInfo (map). | GAO-17-202

Eleven of the 28 states that responded to our survey reported expending funds for ADV-related activities, including for prevention, response, and removal. Reported expenditures for these ten states totaled about \$15.9 million from fiscal year 2013 through April 1, 2016.⁴⁹ Table 3 shows the reported ADV-related expenditures for each of these states.

Table 3: States' Reported Expenditures for Abandoned or Derelict Vessel-related Efforts from Fiscal Year 2013 through April 1, 2016

State	2013	2014	2015	2016	Total
Alabama	\$133,000	\$0	\$220,000	\$0	\$353,000
California	\$804,000	\$727,000	\$845,000	\$888,000	\$3,264,000
Connecticut	\$19,200	\$44,500	\$38,000	\$31,900	\$133,600
Florida	\$171,082	\$164,625	\$679,540	\$33,074	\$1,048,321
Hawaii	\$458,252	\$382,428	\$411,910	unknown	\$1,252,590
Maryland	\$128,866	\$143,950	\$97,301	\$121,839	\$491,956
Mississippi	\$80,000	\$80,000	\$100,000	\$60,000	\$320,000
Oregon	\$126,666	\$35,745	\$80,590	\$128,984	\$371,985
Rhode Island	\$0	\$29,000	\$23,400	\$6,228	\$58,628
South Carolina	\$0	\$0	\$25,000	\$34,000	\$59,000
Washington	\$749,283	\$1,678,382	\$4,816,463	\$1,345,030	\$8,589,158
Total:					\$15,942,238

Source: GAO analysis of state survey responses. | GAO-17-202

Notes: Expenditures not adjusted for inflation.

Fiscal year 2016 reported state expenditures are as of April 1, 2016. We asked states to report data for their fiscal year and all but four states' fiscal years end on June 30th. The exceptions are Alabama and Michigan (September 30th), New York (March 31st), and Texas (August 31st).

Seven states reported that they did not know their state's expenditures during this time period. These states are: Alaska, Indiana, New Hampshire, New York, North Carolina, Ohio, and Texas.

Ten states reported no expenditures during this time period. These states are Delaware, Georgia, Illinois, Louisiana, Maine, Michigan, Minnesota, New Jersey, Pennsylvania, and Wisconsin. Hawaii reported that it did not know its expenditures for 2016. South Carolina reported estimated expenditures.

Two states, Massachusetts and Virginia, did not complete our survey.

State Programs and Funding for ADV-efforts Vary

State ADV programs

Half of the states that responded to our survey (14 of 28) reported having state run programs that conduct ADV-related activities, including

⁴⁹Prevention means conducting activities to keep vessels from becoming abandoned or derelict. Response means conducting activities to address a threat posed by ADVs. Removal, a part of response, is physically relocating ADVs and disposing them.

prevention, response, and removal activities. The types of ADV-related activities these 14 states were implementing varied and included the following selected efforts.

- **Tracking ADVs:** Eight of the 28 states reported tracking ADVs and ADV-related information in an ADV-specific database or general marine debris database that includes ADVs. For example, Washington’s Department of Natural Resources’ (DNR) Derelict Vessel Removal Program tracks ADVs using NOAA’s ERMA geographic information system database. By using ERMA, state officials said they can actively identify and track “vessels of concern,” which are those vessels that are in danger of becoming derelict.⁵⁰ Washington DNR has a prioritizing process to evaluate these vessels relative to their potential threats to human health and safety and the environment, and uses the information to guide vessel removal funding decisions.⁵¹
- **Vessel turn-in programs:** Six of the 28 states reported that their ADV programs included a vessel turn-in program. Generally for smaller recreational vessels, the programs allow an owner to turn over custody of a vessel to public agencies to prevent its potential abandonment.⁵² For example, the Oregon State Marine Board reports that its vessel turn-in program provides an incentive for vessel owners to avoid financial responsibility for the vessel’s removal, while reducing the state’s potential removal costs and pollution or navigation threats that may be posed should the vessel become an ADV.

Figure 4 shows the Washington DNR Vessel Turn-in program brochure and a notice that is placed on “vessels of concern” to alert owners that their vessel is in danger of becoming a derelict vessel.

⁵⁰Some states track vessels of concern with physical indicators marking the vessels. For example, Washington state officials place a “vessel of concern” sticker on a potentially derelict vessel to alert the vessel’s owner or operator that the vessel is not in compliance and may be subject to removal at owner or operator expense.

⁵¹Washington DNR removes vessels on a priority basis with vessels in danger of sinking, breaking up, blocking navigation channels or presenting environmental threats given the greatest priority.

⁵²These states are California, Florida, Oregon, South Carolina, Texas, and Washington.

Figure 4: Washington Vessel Turn-in Program Brochure and Notice Placed on “Vessels of Concern” in Danger of Becoming a Derelict Vessel



Vessel Turn-in Program



HAS YOUR DREAM BOAT BECOME A NIGHTMARE?

- Do you own a boat that is in poor condition or is no longer functional?
- Is your boat less than 45 ft. in length?
- Do you want to help keep Washington’s waterways clean and free of hazardous waste?
- Are you a Washington resident?
- Did you know that abandoning a vessel carries a fine* of up to \$1,000 and 90 days in jail?

If you want to dispose of your boat safely and legally but don’t have the resources, you may qualify for the **Vessel Turn-in Program**, managed by the Washington State Department of Natural Resources (DNR).

Learn more: <http://1.usa.gov/1o488ds> or call **360-902-BOAT** (2628)

*RCW 7.80.120 (Plus, owners who abandon vessels are responsible for all costs associated with removal and disposal.)

Date: _____

NOTICE

Attention Vessel Owner or Operator

This vessel has been identified as a “Vessel of Concern” and is in danger of becoming a derelict vessel. It has been entered into the Vessel of Concern Database.

Your Attention to the Following is Needed Immediately:

<input type="checkbox"/> Improper, no, or non-working anchor light/hazard to navigation	<input type="checkbox"/> Vessel is barnacle laden or heavily covered in other growth
<input type="checkbox"/> Vessel is being neglected, not maintained, subject to vandalism, or is unable to be used as originally intended	<input type="checkbox"/> Vessel interior is exposed to the weather
<input type="checkbox"/> Vessel does not comply with current registration requirements	<input type="checkbox"/> Vessel is listing
<input type="checkbox"/> Other _____	<input type="checkbox"/> Vessel is aground
_____	<input type="checkbox"/> Vessel is in danger of breaking its mooring
_____	<input type="checkbox"/> Vessel is sinking

If your vessel is not brought into compliance, it may be subject to removal at your expense.

Please contact the number listed below when corrections have been made or if you have any questions:

Agency Name _____ Phone _____
Officer’s Name (please print) _____

Source: Washington Department of Natural Resources. | GAO 17-202

- **Public outreach and education:** Twelve of the 28 states reported conducting public education, training, or outreach as a way to prevent vessels from becoming ADVs. For example, officials from Alabama reported conducting local media outreach programming on local television stations and through publicly distributed newsletters, cleanup activities, and posting of “no anchor” signs to prevent vessel owners from illegally mooring their vessels.
- **Coordination with federal and local agencies:** Thirteen states reported involvement with ADV-related task forces involving participants from federal, state, and local agencies. For example, following the breakup of the derelict 432-foot barge Davy Crockett in

2011, Washington and Oregon agencies convened task forces in Washington and Oregon to bring stakeholders together to identify and address imminent pollution and hazard to navigation threats posed by derelict vessels, barges, and houseboats along the upper, middle and lower Columbia and Willamette Rivers. The Columbia River Derelict Vessel task force, established in 2011, developed recommendations for state agencies, including to normalize and streamline the process by which state agencies can seize and dispose of vessels, and creating clear process guidance for removal and disposal of vessels. They also recommended normalizing vessel registration requirements between Washington and Oregon to enhance their ability to identify responsible parties when vessels become abandoned. Similarly, since 2008, California has facilitated an informal working group with state and federal agencies, salvage companies, and boating organizations to increase their effectiveness in addressing ADVs.

State Funding for ADV-activities

Twenty-one of the 28 states that responded to our survey reported on their methods for funding ADV-related efforts from fiscal year 2013 through July 2016. These states reported various funding mechanisms including legislative-appropriated budgets, vessel registration fees, and federal grants. For example, thirteen states reported using dedicated ADV funding through legislatively-appropriated budgets and/or vessel registration fees, while three states—New York, South Carolina, and Texas—reported having relied on federal grants to fund their ADV activities. Appendix IV shows reported funding mechanisms for ADV activities for the 21 states during fiscal year 2013 through July 2016.

State Perspectives on Addressing ADVs

The 28 coastal states that responded to our survey also reported various perspectives on factors that affect their ability to address ADVs in their state including authority and funding issues, challenges with disposing ADVs, and concerns with federal actions.

State Authority

Eight of 28 states responding to our survey reported always or often experiencing challenges to addressing ADVs due to state laws or policy officials considered to be inadequate or vague. Six of these respondents reported having a law pertaining to ADVs. The other two reported they do not currently have any law related to ADVs. Officials reported that not having an official definition of an abandoned or derelict vessel in state law

limits their ability to take action to remove ADVs because they do not have full legal authority to conduct removal actions when necessary. For example, officials from Alabama told us that without a state law pertaining to ADVs, their agency has limited access to state resources and authorities available to take action to address ADVs. Moreover, these officials told us that not having a law that defines what a derelict or abandoned vessel is prevents the state's ADV agency, the Alabama Department of Conservation & Natural Resources, from having the full legal authority to conduct removal actions when necessary. Alabama officials also reported that the public's lack of understanding of vessel use laws and laws related to water safety also contributes to greater numbers of vessels abandoned in state waterways.

State Funding

Many states cited insufficient funding as a challenge to addressing ADVs, noting that ADVs were generally not high priorities because their state needed to direct funding to other issues and faced considerable budget limitations. Specifically, 21 of 28 states reported that they had no budget for ADV response, and 13 of these states reported experiencing funding challenges "always" or "often" when carrying out ADV-related activities.⁵³ For example, Louisiana officials told us that because the state did not have a funding source to address ADVs, they lacked incentive to take any action. Similarly, South Carolina officials reported that while past ADV removal efforts had been successful, funding opportunities for such initiatives are limited and unpredictable and efforts to obtain federal grant funding are time-intensive. Alabama officials told us that the state was facing considerable budget shortfalls and ADVs were not the highest priority for the state relative to other needs, such as funding for prisons, education, and Medicaid.

ADV Disposition

Seventeen of 28 states reported always or often facing challenges in responding to, or removing, larger ADVs due to the high cost of doing so. For example, Washington officials told us their state was well funded to

⁵³The survey response options included "always," "often," "occasionally," "sometimes," and "never". Many states reported that a lack of resources posed challenges always or often for: providing training or support to county or local agencies and others on ADV laws and policies (15 states), conducting public awareness campaigns (13 states), and the capability to have sufficient staffing to address ADVs in the state (11 states).

deal with small recreational vessels, but faced challenges addressing larger vessels, particularly those 150 feet and larger. Similarly, officials from both Maryland and Texas reported that their state agency does not have the budget to remove and dispose of larger vessels.

Sixteen of 28 states reported experiencing challenges always or often with ADV disposal options regardless of vessel size—and 14 states reported always or often experiencing challenges with vessel recycling options. For example, officials from three states reported that this was due to the type of hull materials and the condition or location of the vessels when they were identified for removal. Texas officials reported that disposal is always a challenge and recycling is sometimes a challenge when the vessel hull is made of fiberglass, a material Texas officials said had little to no salvage value. Further, Texas officials reported recycling of fiberglass is currently limited due to its high cost compared to landfilling a vessel. Similarly, California officials reported they were unaware of methods to recycle fiberglass vessels, and that not all landfills in the state will accept vessels for disposal. However, officials from Washington reported exploring private sector options for recycling fiberglass-hulled ADVs.

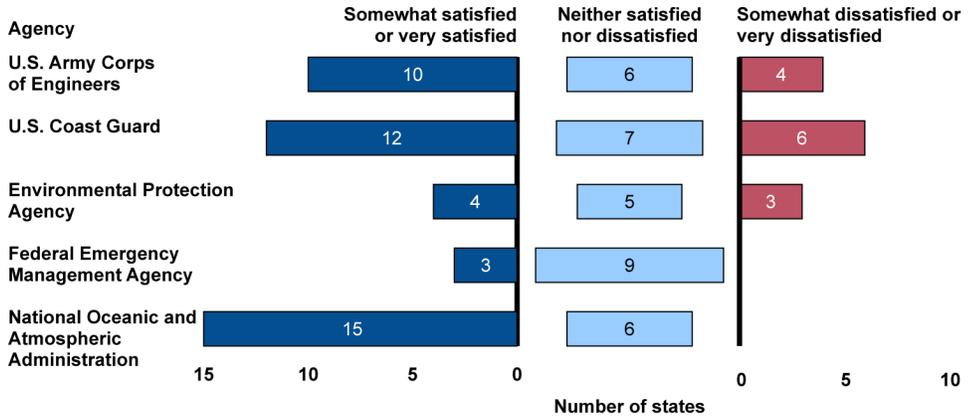
Finally, 19 of 28 states reported always or often experiencing challenges removing and disposing of ADVs due to unknown, unresponsive, or difficult vessels owners. For example, Alabama officials said that they experience challenges because of the time spent attempting to contact unknown or unresponsive vessel owners.

Views on Federal Agency ADV-related Issues

Most of the 28 states responding to our survey reported being generally satisfied with, or neither satisfied nor dissatisfied, about their coordination with federal agencies on ADV-related issues. However, many states reported they had had little coordination with some federal agencies with respect to ADVs.⁵⁴ For example, 19 of the 28 states reported having never or almost never coordinated with the EPA or FEMA and 12 states reported having never or almost never coordinated with NOAA on ADV efforts. Figure 5 shows our analysis of the 28 responding states' reported satisfaction with their coordination with federal agencies on ADV-related issues from fiscal year 2013 through July 2016.

⁵⁴The survey responses options included "very satisfied," "somewhat satisfied," neither satisfied nor dissatisfied," "somewhat dissatisfied," "very dissatisfied," and "not applicable."

Figure 5: State Reported Satisfaction with their Coordination with Federal Agencies on ADV-related Issues, Fiscal year 2013 through July 2016



Source: GAO analysis of survey of state abandoned and derelict vessel actions. | GAO-17-202

Note: We asked states to report on their satisfaction with their coordination with the five federal agencies on ADV-related issues. However, some states answered that they never or almost never coordinate with these agencies, and some answered “not applicable.” This results in the total number of answers for each agency equaling less than 28.

Some states reported concerns about federal actions taken to address ADVs. For example, three states reported frustration about the Coast Guard’s practice of removing the pollution threat from ADVs, while leaving the ADVs in waterways.⁵⁵ Moreover, Louisiana officials reported that even if the Coast Guard left the vessel in the water, they would like to be kept better informed by the Coast Guard regarding its planned action on an ADV. Other concerns raised by states included their lack of formal agreements such as memoranda of understanding or interagency agreements with federal agencies, tribal, other state, or local agencies (10 states); challenges in determining the jurisdiction over an ADV—whether federal or state (8 states); and the federal permit processes being lengthy (1 state).⁵⁶

⁵⁵We discuss the Coast Guard’s authorities for responding to ADVs posing pollution threats earlier in this report. In particular, we noted that the Coast Guard’s authorized actions are focused, in most cases, on removing oil/hazardous substances from a vessel, and leaving it in place once the substances have been removed.

⁵⁶For example, officials from Florida reported that permit applications from the National Marine Fisheries Service have taken over a year in some cases to review and approve.

Florida officials expressed a specific concern about the Coast Guard's handling of the disposal of interdicted migrant vessels, as they reported a growing number of abandoned migrant vessels littering their coastline. Specifically, the Coast Guard often allows interdicted migrant vessels to go adrift after removing the migrants and marking the vessels, rather than removing the vessels from the sea. For example, since fiscal year 2014, the Coast Guard reported interdicting an estimated 700 migrant vessels in its 7th District and setting an estimated 500 of them adrift after marking them.⁵⁷ Of those, the Coast Guard reported that 17 vessels have been called in as pollution threats by the public since fiscal year 2015. Coast Guard officials reported the agency often sets these vessels adrift because it lacks the resources needed to remove them from waterways, particularly since many vessels are interdicted on the high seas.⁵⁸ In recent years, the Coast Guard has acknowledged this issue and examined options to address it.⁵⁹

Agency Comments

We provided a draft of this report for review and comment to the Departments of Commerce, Defense, Homeland Security, and the EPA. We received technical comments that we have incorporated, as appropriate. We are sending copies of this report to the above Departments, EPA, and appropriate congressional committees. In addition, this report is available at no charge on GAO's website at <http://gao.gov>.

⁵⁷District 7's area of responsibility covers Florida except for the panhandle, Georgia, South Carolina, and the eastern portion of the Gulf of Mexico and Caribbean Sea in U.S. waters, including Puerto Rico and the U.S. Virgin Islands.

⁵⁸The term "high seas" includes the exclusive economic zones of the United States and other nations, as well as those waters that are seaward of territorial seas of the United States and other nations. 33 C.F.R. § 2.32(c). U.S. territorial sea means the waters 12 miles wide, adjacent to the United States coast.

⁵⁹According to a Coast Guard District 7 study, District 7 expended almost \$500,000 in resources in fiscal year 2013 to respond to migrant vessels that the Coast Guard had previously left adrift. Among other things, the study found that inconsistent tracking of derelict vessels by sectors had made it difficult for Coast Guard officials to evaluate the issue. In January 2014, the study recommended that District 7 create a district-wide derelict vessel log and issue guidance for its use by field units. District 7 has since implemented these recommendations. More recently, Sector Key West officials reported that, since at least February 2015, they had been collaborating with NOAA and Florida State and local agencies on an initiative to dispose of several migrant vessels in Key West, Florida.

If you or your staff have any questions about this report, please contact me at (202) 512-7141 or groverj@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Staff acknowledgments are provided in appendix V.

A handwritten signature in black ink that reads "Jennifer Grover". The signature is written in a cursive style with a large initial "J" and a long, sweeping underline.

Jennifer Grover
Director, Homeland Security and Justice Issues

List of Congressional Requesters

The Honorable Peter DeFazio
Ranking Member
Committee on Transportation and Infrastructure
House of Representatives

The Honorable Duncan Hunter
Chairman
The Honorable John Garamendi
Ranking Member
Subcommittee on Coast Guard and Maritime Transportation
Committee on Transportation and Infrastructure
House of Representatives

The Honorable Maria Cantwell
United States Senate

The Honorable Thad Cochran
United States Senate

The Honorable Maize K. Hirono
United States Senate

The Honorable Edward Markey
United States Senate

The Honorable Lisa Murkowski
United States Senate

The Honorable Patty Murray
United States Senate

The Honorable Gary C. Peters
United States Senate

The Honorable Brian Schatz
United States Senate

The Honorable Dan Sullivan
United States Senate

The Honorable Roger F. Wicker
United States Senate

The Honorable Ron Wyden
United States Senate

The Honorable Jaime Herrera Beutler
House of Representatives

The Honorable Suzanne Bonamici
House of Representatives

The Honorable Carlos Curbelo
House of Representatives

The Honorable Suzan DelBene
House of Representatives

The Honorable Denny Heck
House of Representatives

The Honorable Walter Jones Jr.
House of Representatives

The Honorable William R. Keating
House of Representatives

The Honorable Derek K. Kilmer
House of Representatives

The Honorable Rick Larson
House of Representatives

The Honorable Dan Newhouse
House of Representatives

The Honorable Scott Peters
House of Representatives

The Honorable Mark Pocan
House of Representatives

The Honorable Dave Reichert
House of Representatives

The Honorable Cathy McMorris Rodgers
House of Representatives

The Honorable Adam Smith
House of Representatives

The Honorable Don Young
House of Representatives

Appendix I: Selected Abandoned and Derelict Vessel-related Laws of the 30 Coastal States

Table 4 highlights selected state laws in place in the 30 coastal states related to abandoned and derelict vessels (ADV). The table includes laws that specifically prohibit abandonment of a vessel on public or private waterways or require that the owner remove an abandoned or derelict vessel under certain circumstances after notice from the state. This table also includes state laws that define “abandoned” or “derelict” vessel or a formal process for designating a vessel as abandoned, as well as state laws related to abandoned property or littering that specifically address ADVs or that were identified to us by a state official. This table, however, does not include state laws that more generally address abandoned property, illegal dumping, littering or similar laws that a state may use to respond to or remove ADVs.

Table 4: Selected Abandoned and Derelict Vessel-related Laws of the 30 Coastal States

State/ Citation	Does state law define “abandoned” or “derelict” vessel or a formal process for designating a vessel as abandoned?	Does state law specifically prohibit abandoning a vessel on public or private property or waterways? If not, does state law require that the owner remove a vessel under certain circumstances after notice from the state?	Do the state laws prohibiting abandonment or requiring removal after notice establish civil penalties for violating these statutes?	Do the state laws prohibiting abandonment or requiring removal after notice establish criminal penalties for violating these statutes?
Alabama Ala. Code §§ 33-1-33, 33-5-16, 33-7-3.1.	No	No / No ^a	No ^{a, b}	No ^a
Alaska Alaska Stat. §§ 30.30.010, 30.30.020, 30.30.090.	Yes	Yes	Yes	Yes
California Cal. Harb. & Nav. Code §§ 522, 525.	Yes	Yes	Yes	No
Connecticut Conn. Gen. Stat. §§ 15- 3a(1), 15-140c, 15-9, 15- 11a.	Yes	Yes	Yes	No
Delaware Del. Code tit. 23, §§ 1303, 1304, 1305.	Yes	Yes	Yes	No

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State/ Citation	Does state law define “abandoned” or “derelict” vessel or a formal process for designating a vessel as abandoned?	Does state law specifically prohibit abandoning a vessel on public or private property or waterways? If not, does state law require that the owner remove a vessel under certain circumstances after notice from the state?	Do the state laws prohibiting abandonment or requiring removal after notice establish civil penalties for violating these statutes?	Do the state laws prohibiting abandonment or requiring removal after notice establish criminal penalties for violating these statutes?
Florida Fla. Stat. Ann. §§ 823.11, 376.15, 376.16.	Yes	Yes ^c	Yes ^c	Yes ^c
Georgia Ga. Code Ann. §§ 52-7- 70, 52-7-72, 52-7-72.1; see Ga Code Ann. 16-7-52. 16-7-53.	Yes	No / No ^d	No ^d	No ^d
Hawaii Haw. Rev. Stat. §§ 200-41, 200-48.	Yes	No / No	No	No
Illinois 625 Ill. Comp. Stat. §§ 45/3C-1, 3C-14, 3C-9; Ill. Admin. Code tit. 17, § 110.45.	Yes ^e	Yes	Yes	Yes
Indiana Ind. Code Ann. §§ 14-15-3-30, 14-15-3- 31, 14-29-1-3; 312 Ind. Admin Code 6-2-2.	Yes	Yes	Yes	Yes
Louisiana La. Stat. Ann. §§ 34:843, 30:2469; La. Admin. Code tit. 25, 9-307(G).	Yes ^f	Yes ^{g, h}	Yes ^h	Yes ^h
Maine Me. Rev. Stat. Ann tit. 12, § 1866.	Yes	No / Yes ⁱ	No	No
Maryland Md. Code Ann., Nat. Res. §§ 8-721, 8-725.1.	Yes	Yes	Yes	Yes

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State/ Citation	Does state law define “abandoned” or “derelict” vessel or a formal process for designating a vessel as abandoned?	Does state law specifically prohibit abandoning a vessel on public or private property or waterways? If not, does state law require that the owner remove a vessel under certain circumstances after notice from the state?	Do the state laws prohibiting abandonment or requiring removal after notice establish civil penalties for violating these statutes?	Do the state laws prohibiting abandonment or requiring removal after notice establish criminal penalties for violating these statutes?
Massachusetts Mass. Gen. Laws. ch. 91, §§ 38, 39, 43B; see 323 Mass. Code Regs. 2.10(4).	Yes	Yes ^l	Yes ^l	No
Michigan Mich. Comp. Laws §§ 324.80130f, 324.80130g, 324.8901, 324.8905a.	Yes	Yes	Yes ^k	No
Minnesota Minn. Stat. §§ 86B.401, 86B.107.	No	No / Yes ^l	Yes ^l	No
Mississippi Miss. Code Ann. § 49-27-71; see also 22-14 Miss. Code R §§ 100-102.	Yes	No / Yes ^m	No ^m	No
New Hampshire N.H. Rev. Stat. Ann. §§ 270-B:2, 12-G:50-a(1), 485-A:14, 12-G:52-a.	Yes	Yes	Yes ⁿ	No
New Jersey N.J. Rev. Stat. §§ 12:7C- 9-3, 12:7C-1.	Yes	Yes	Yes	Yes ^o
New York N.Y. Nav. Law §§ 2, 45-a.	No	No / No	No	No
North Carolina N.C. Gen. Stat. §§ 75A-2(1), 76-40(a).	Yes	No / No	No	No

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State/ Citation	Does state law define “abandoned” or “derelict” vessel or a formal process for designating a vessel as abandoned?	Does state law specifically prohibit abandoning a vessel on public or private property or waterways? If not, does state law require that the owner remove a vessel under certain circumstances after notice from the state?	Do the state laws prohibiting abandonment or requiring removal after notice establish civil penalties for violating these statutes?	Do the state laws prohibiting abandonment or requiring removal after notice establish criminal penalties for violating these statutes?
Ohio Ohio Rev. Code Ann. §§ 1547.303, 1547.304.	Yes ^p	Yes ^p	No ^q	No ^q
Oregon Or. Rev. Stat. §§ 830.908, 830.918, 830.936, 830.944, 830.990.	Yes	No / Yes	Yes	Yes
Pennsylvania 58 Pa. Code §§ 93.17 and 93.110	No	No / No	No	No
Rhode Island R.I. Gen. Laws §§ 46-6-8.1, 46-6-9.	Yes	No / Yes ^r	Yes ^r	No
South Carolina S.C. Code Ann. §§ 50-21-10, 50-21-190.	Yes	Yes	Yes	Yes
Texas Tex. Parks & Wild. Code § 31.003(18); Tex. Nat. Res. Code §§ 40.108, 40.251.	Yes	Yes ^s	Yes ^s	Yes ^s
Virginia Va. Code Ann. §§ 29.1- 733.2, 28.2-1210(B), 28.2- 1213.	Yes	No / Yes	Yes	Yes
Washington Wash. Rev. Code §§ 79.100.010 79.100.110, 7.80-120.	Yes	Yes	Yes	Yes
Wisconsin Wis. Stat. §§ 30.68, 30.80.	No	Yes ^t	Yes	No

Source: GAO analysis of coastal state laws. | GAO-17-202

**Appendix I: Selected Abandoned and Derelict
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^aAlabama law requires an owner of a vessel left in a harbor that is in bad repair, liable to sink, liable to pollute adjacent water or determined to be a substantial threat to pollute adjacent water, or deemed to be a derelict vessel to remove the vessel and, if the owner fails to remove it from the harbor when directed to do so by an accredited agent of the port authority, the owner is guilty of a Class A misdemeanor and shall be fined not exceeding \$5,000 and may be imprisoned for not more than one year. Ala. Code § 33-1-33.

^bAlabama Code § 33-7-3.1 states that “any person who anchors, moors, or abandons a . . . barge, or vessel, that obstructs navigation on a public water . . . shall be fined not less than one hundred dollars (\$100) nor more than one thousand dollars (\$1,000) per day.”

^cFlorida law only makes it unlawful for any person, firm, or corporation to store, leave, or abandon any *derelict vessel*, as defined in statute, in the state. Fla. Stat. §§ 823.11, 376.15(2) (emphasis added). Section 823.11 makes violating that section by abandoning a derelict vessel a misdemeanor of the first degree and allows civil penalties (of up to \$50,000 per violation per day) to be assessed and collected. See also Fla. Stat. § 376.16.

^dState officials reported that they charge individuals with unlawful dumping for abandoning a vessel. Georgia law makes it unlawful for any person to intentionally dump egregious litter unless authorized to do so by law or by a duly issued permit in or on any fresh-water lake, river, canal, or stream or tidal or coastal water of the state. Ga. Code Ann. § 16-7-52. Penalties for unlawful dumping depend on the amount of waste dumped and can include both monetary penalties of not more than \$25,000 for each violation and criminal penalties including misdemeanor and felony offenses. Ga. Code Ann. § 16-7-53. Georgia law also authorizes any peace officer who finds a vessel which has been left unattended in or upon any public waters or other public property for a period of at least five days, if such peace officer reasonably believes that the person who left the vessel does not intend to return and remove the vessel, to notify the Department of Natural Resources and may cause such vessel to be removed to a garage or other place of safety. Ga. Code Ann. § 52-7-72(a). Once the vessel has been removed, the commissioner may revoke, suspend, deny, or refuse to renew any vessel certificate or number or commercial fishing boat license until the owner restores and resumes operation of the vessel or removes it from the public waters or public property. Ga. Code Ann. § 52-7-72.1.

^eTwo Illinois regulations define “abandoned watercraft” to apply within specific jurisdictions within the state: section 110.45 is applicable for lands under the jurisdiction of the Department of Natural Resources and section 4160.50 is applicable within the jurisdiction of the Historic Preservation Agency. Ill. Admin. Code tit. 17, §§ 110.45, 4160.50.

^fOne Louisiana regulation outlines when a boat will be considered abandoned in a state park. See La. Admin. Code tit. 25, IX.307(G).

^gLouisiana law only prohibits leaving, abandoning, or maintaining “any structure or vessel *involved in an actual or threatened unauthorized discharge of oil in coastal waters or on public or private lands or at a public or private port or dock*, in a wrecked, derelict, or substantially dismantled condition, without the consent of the Louisiana oil spill coordinator.” La. Stat. Ann. § 30:2469(A) (emphasis added).

^hUnder Louisiana law, the owner of a vessel that has been left unattended or abandoned in certain waterways is required to present a plan to remove the vessel from the waterway within thirty days after receipt of a written notice from a state, local, or federal authority that has jurisdiction. The authority must reject or approve the plan within thirty days of submission. If a plan is not presented or a plan is rejected by the authority, then the authority may have the vessel removed at the owner’s cost. The statute states that “whoever violates this section shall be fined five hundred dollars or imprisoned for not more than six months, or both.” La. Stat. Ann. § 34:843.

ⁱAfter notification of an abandoned watercraft to the director of the Bureau of Parks and Lands, the director shall investigate and give notice to the owner of the watercraft if the owner can be identified. The notice must require the owner to respond within 15 days and to remove the watercraft from coastal waters within 60 days of notification by the director. If the owner does not respond and remove the watercraft within the time period, the director may initiate removal of the watercraft. If the State is not compensated for removal costs through the sale of the watercraft, the State may bring a civil action against the owner of the abandoned watercraft to cover any cost of removal. The court in its discretion may award an additional 50% of the cost of removal. Me. Rev. Stat. Ann. tit. 12, § 1866(4),(6).

^jMassachusetts law only makes it unlawful to *willfully* abandon a vessel upon public land or the shores or waters of the commonwealth or upon private property or the water thereof adjacent to public land or the shores or waters of the commonwealth without the consent of the official designated by law to have jurisdiction over such public land or waterway, or the owner or other person in charge of the

**Appendix I: Selected Abandoned and Derelict
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private property. Mass. Gen. Laws. ch. 91, § 39. A person who willfully abandons a vessel shall be punished by a fine of not more than \$10,000, with certain exceptions. Mass. Gen. Laws. ch. 91, § 43B.

^kMichigan defines “litter” to include “an abandoned vessel as defined in section 80130f,” and establishes a civil infraction with a fine of not less than \$500.00 or more than \$2,500.00 if the abandoned vessel has been disposed of under Michigan’s abandoned vessel statute. See Mich. Comp. Laws §§ 324.8901(a)(iii), 324.8905a.

^lTwo Minnesota statutes relate to abandoned vessels. Under Minn. Stat. § 86B.401, an owner of a watercraft must provide written notice to the commissioner on a form prescribed by the commissioner by 15 days after abandonment, destruction, or a change in ownership of a licensed watercraft. Additionally, under Minn. Stat. § 86B.107, the owner of a submerged vehicle, including submerged watercrafts, is responsible for removing the vehicle from the waters of the state, unless the vehicle is permitted or otherwise exempt from removal. Removal must be completed within 30 days unless the owner is notified in writing by the political subdivision having jurisdiction that the removal must be completed sooner. If the vehicle is not removed, the political subdivision in whose jurisdiction the lake or watercourse is located is required to remove the vehicle. The owner of the vehicle is subject to a civil penalty of not less than twice nor more than five times the costs incurred by the political subdivision to remove, process, and dispose of the vehicle.

^mMississippi law does not make abandoning a vessel unlawful, but an owner who is identified either before or after removal of a derelict vessel may be subject to additional penalties beyond removal. If an owner who abandons a vessel is identified, the owner must remove the vessel and restore the affected coastal wetlands within 30 days after notice. Failure to comply with this requirement can result in the imposition of damages of up to \$500 per day that the violation existed. Miss. Code Ann. § 49-27-71(7)(b).

ⁿNew Hampshire’s statute that makes it unlawful to abandon a vessel does not establish penalties. However, a separate statute makes a person who fails to remove a submerged motorized boat, as required by law, guilty of a violation that can result in fines of \$500 per day that the vessel remains in the water. N.H. Rev. Stat. Ann. § 485-A:14.

^oNew Jersey law only establishes criminal penalties for abandoning specific types of boats (flat-bottomed boats, barges, scows, or rafts). N.J. Rev. Stat. § 12-7C-1. However, state officials reported that they have also utilized criminal laws concerning trespassing or maintaining a nuisance to bring charges against individuals who abandon their vessels when the vessels abandoned did not meet the definition in section 12:7C-1. Officials further reported that under this process, the criminal code allows them to request abatement and have the court order the abandoned vessel removed, or allows the country to remove the vessel and be reimbursed by the responsible party for expenditures.

^pOhio law defines “abandoned junk vessel” and states that no person shall purposely leave an abandoned junk vessel on private property for more than seventy-two hours in certain locations, including on private property without permission, or upon or within the right-of-way of any waterway. Ohio Rev. Code Ann. §§ 1547.303, 1547.304.

^qUnder Ohio law, if a vessel is left in sunken, beached, drifting or docked condition on a public street or other property open to the public or upon or within the right-of-way of any waterway for forty-eight hours or longer without notification to the sheriff or chief, the sheriff or chief may order the vessel into storage. After notice, if the owner fails to claim the vessel, the vessel will be declared a nuisance, and the state may bring a civil action to abate the nuisance, including filing a temporary injunction against the owner. See Ohio Rev. Code Ann. §§ 1547.301, 3767.02, 3767.03. A court may try and punish an offender for violation of an injunction or order and whoever is guilty of contempt under § 3767.03 is also guilty of a misdemeanor of the first degree. Ohio Rev. Code Ann. §§ 3767.07, 3767.99.

^rUnder Rhode Island law, if any person deposits a vessel that creates an unauthorized obstruction, or is liable to cause or become an obstruction to the safe and convenient use of the waters, the director of the department of environmental management must provide notice in writing to the owner to remove the vessel or other obstruction within 30 days of the date of the notice. Failure to comply with the notice shall result in a fine of \$100 per day until the obstruction is removed. R.I. Gen. Laws §§ 46-6-8, 46-6-9.

^sUnder Texas law, a person may not abandon or leave any vessel in or on coastal waters *if the vessel is in a wrecked, derelict, or substantially dismantled condition and the commissioner finds the vessel to be (1) involved in an actual or threatened unauthorized discharge of oil; (2) a threat to public health, safety, or welfare; (3) a threat to the environment; or (4) a navigation hazard.* Tex. Nat. Res. Code § 40.108(a). A person who intentionally violates section 40.108(a) is guilty of a Class A

**Appendix I: Selected Abandoned and Derelict
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misdemeanor. Tex. Nat. Res. Code § 40.251(a)(6). If the vessel results in an unauthorized discharge of oil and the owner fails to give immediate notification of the discharge to the commissioner, the owner is also subject to civil penalties. Tex. Nat. Res. Code § 40.251(b).

¹Under Wisconsin law, no person may anchor, place, affix or abandon any unattended boat, raft, float or similar *structure in the traveled portion of any river or channel or in any traffic lane established and legally marked, so as to prevent, impede or interfere with the safe passage of any other boat through the same*. Wis. Stat. § 30.68. State law outlines civil penalties for violations of this statute. Wis. Stat. § 30.80(5).

Appendix II: Coast Guard Sector Abandoned and Derelict Vessel Tracking

Table 5 shows Coast Guard Sectors with jurisdiction for coastal states that Coast Guard headquarters and field personnel reported track and do not track abandoned and derelict vessels (ADV). According to our analysis, 18 sectors track ADVs, including 13 reported by Coast Guard headquarters and 5 others identified from field personnel. Twelve sectors reported they were not tracking ADVs. Of the 12 sectors, according to headquarters-provided information, most reported not tracking because they lacked the resources to do so. Three sectors reported having no need to track ADVs. For example, Sector Detroit officials reported they didn't track ADVs because doing so was not required. Sector Puget Sound officials reported that while they did not actively track ADVs themselves, they utilized information maintained by Washington and Oregon as needed, rather than tracking similar information themselves.

Table 5: Coast Guard Sectors with Jurisdiction for Coastal States that Track and Do Not Track Abandoned or Derelict Vessels

Sectors that Coast Guard headquarters reported track abandoned or derelict vessels	Sectors that field personnel reported track abandoned or derelict vessels based on field personnel	Sectors that Coast Guard headquarters reported do not track abandoned or derelict vessels
Charleston	Jacksonville	Anchorage
Columbia-River	Key West	Boston
Delaware Bay	Miami	Buffalo
Hampton Roads	New Orleans	Detroit
Houston-Galveston	St. Petersburg	Juneau
LA-Long Beach		Long Island Sound
Lower-Mississippi River		Lake Michigan
Maryland-National Capital Region		New York
Mobile		Northern New England
North Carolina		Puget Sound
Ohio Valley		Sault Ste. Marie
San Diego		Southeastern New England
San Francisco Bay		

Source: GAO analysis of Coast Guard information. | GAO-17-202

Note: The Coast Guard has 37 sectors, of which, 35 have jurisdiction for coastal states. We obtained information on 30 of these 35 sectors. Coast Guard headquarters data did not include responses for 6 sectors with jurisdiction for coastal states. These include Corpus Christi, Honolulu, Humboldt Bay, North Bend, New Orleans, and Upper Mississippi. We learned that one of these sectors—New Orleans—did maintain a derelict vessel log during a site visit to that sector. Because our review is focused on Coast Guard practices in U.S. coastal states, this list does not include Sectors Guam and San Juan, which have jurisdiction for U.S. territories.

Appendix III: Estimated Federal Abandoned and Derelict Vessel (ADV) Expenditures, Fiscal Years 2005 through 2015

According to our analysis of Coast Guard, Environmental Protection Agency (EPA), Army Corps of Engineers (USACE), National Oceanic and Atmospheric Administration (NOAA), and Federal Emergency Management Agency (FEMA) data and case documentation, federal agencies expended at least \$58 million from fiscal years 2005 through 2015 to respond to about 2,000 incidents in which ADVs posed navigation or pollution threats.¹ Reported individual federal agency expenditures varied across the agencies, and agencies generally reported the data were minimum estimates of their ADV expenditures.

Coast Guard

Table 6 shows the Coast Guard expended at least \$42.5 million from the Oil Spill Liability Trust Fund (OSLTF) and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) from fiscal years 2005 through 2015 to respond to 34 ADVs posing pollution threats. Of this total, Coast Guard officials reported expending about \$900,000 to respond to 32 ADVs. We identified two additional cases (from 2008 and 2011) totaling about \$42 million that were not reported by the Coast Guard's National Pollution Fund Center (NPFC) as ADV-related cases, but are characterized as such in other agency documents we reviewed.

¹FEMA expenditures in this estimate are limited to responses to Hurricane Katrina, in 2005, and Superstorm Sandy, in 2012.

Appendix III: Estimated Federal Abandoned and Derelict Vessel (ADV) Expenditures, Fiscal Years 2005 through 2015

Table 6: Coast Guard Abandoned and Derelict Vessel Cases and Oil Spill Liability Trust Fund (OSLTF) and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Funds Expended, Fiscal Years 2005 through 2015.

Fiscal Year	Number of ADVs	Funds Expended
2005	1	\$7,279
2006	5	\$90,310
2007	6	\$353,044
2008 ^a	5	\$20,026,584
2009	2	\$12,001
2010	2	\$12,114
2011 ^b	3	\$21,669,651
2012	2	\$9,791
2013	3	\$21,969
2014	4	\$274,754
2015	1	\$15,705
Total	34	\$ 42,493,203

Source: GAO analysis of Coast Guard information. | GAO-17-202

Note: Expenditures not adjusted for inflation.

^a\$20 million of expenditures in 2008 were for response to M/V Sea Witch spill.

^b\$21.6 million of expenditures in 2011 were for response to M/V Davy Crockett spill.

EPA

Table 7 shows EPA reported expenditures for the 5 regions that reported responses to ADV cases during fiscal years 2005 through 2015. According to our analysis of information on EPA’s Federal On-Scene Coordinator website and discussions with EPA’s 10 regional offices about the data, EPA expended at least \$5.2 million in OSLTF and CERCLA funds to respond to 121 ADVs posing pollution threats from fiscal years 2005 through 2015.² According to the data, most of these expenditures were for a single, \$4 million response in 2013 to remove 77 ADVs and other material from Oakland, Estuary in California.

²EPA regions have both the authority to remove pollutants from the vessel and to remove or destroy a vessel in accordance with EPA delegations of authority. However, in practice, ADV responses are often limited to removal of pollutants from a vessel, rather than removal of the entire vessel, due to cost and other considerations. In addition, EPA may provide grant funds for an ADV removal.

Appendix III: Estimated Federal Abandoned and Derelict Vessel (ADV) Expenditures, Fiscal Years 2005 through 2015

Table 7: Reported Environmental Protection Agency (EPA) Abandoned and Derelict Vessel Cases and Oil Spill Liability Trust Fund (OSLTF) and Comprehensive Environmental Response, Compensation, Recovery, and Liability Act (CERCLA) Funds Expended, Fiscal Years 2005 through 2015

Fiscal Year	Number of ADVs	Funds Expended
2005	1	\$18,900
2006	3	\$41,093
2007	2	\$6,300
2008	1	\$0
2009	1	\$41,606
2010	5	\$125,968
2011	8	\$436,958
2012	4	\$82,438
2013	90	\$4,226,727
2014	5	\$177,249
2015	1	\$0
Total	121	\$ 5,157,240

Source: GAO analysis of EPA information. | GAO-17-202

Note: Expenditures not adjusted for inflation.

USACE

Table 8 shows USACE reported expending about \$4.2 million to remove about 800 ADVs posing navigation hazards from federally maintained waterways for fiscal years 2005 through 2015. USACE headquarters officials attributed over half of the agency’s total ADV expenditures during this period to its removal of an abandoned barge in Florida in fiscal year 2015.

Appendix III: Estimated Federal Abandoned and Derelict Vessel (ADV) Expenditures, Fiscal Years 2005 through 2015

Table 8: Army Corps of Engineers (USACE) Reported Number of Abandoned and Derelict Vessel Removals (ADV) from U.S. Waterways and Expenditures, Fiscal Years 2005 through 2015^a

Fiscal Year	Number of ADVs	Funds Expended
2005 ^a	68	\$423,468
2006	65	\$52,750
2007	68	\$145,876
2008	68	\$4,000
2009	67	\$105,933
2010	79	\$155,490
2011	77	\$269,820
2012	66	\$0 ^b
2013	78	\$353,725
2014	88	\$72,409
2015	83	\$2,615,342
Total	807^c	\$4,198,813

Source: GAO analysis of USACE information | GAO-17-202

Note: Expenditures not adjusted for inflation.

^aUSACE reported that it received \$8.6 million in 2005 for Hurricane Katrina response funding from the Federal Emergency Management Agency to remove sunken vessels in federally maintained navigation channels. However, these vessels were not identified as ADVs.

^bUSACE officials reported that five districts (Baltimore, New York, Norfolk, San Francisco, and Seattle) have drift missions whereby they maintain vessels specifically to collect and remove debris, such as floating trees and small vessels, from federally maintained waterways. These districts include drift mission ADV debris removals as part of their annual operational costs, rather than separately tracking the specific costs to remove each vessel. According to USACE headquarters, all of the estimated 66 ADVs removed in fiscal year 2012 were made by Districts San Francisco and Seattle as part of their drift missions. As a result, USACE reported \$0 funds expended for ADV removals in that year.

^cAccording to USACE headquarters data, District San Francisco removed an estimated 640 of the total ADVs that USACE removed from fiscal years 2005 through 2015.

NOAA

Table 9 shows NOAA awarded about \$1.9 million for 17 Community Based Marine Debris Program for ADV removal, from fiscal years 2006 through 2015.

Table 9: National Oceanic and Atmospheric Administration (NOAA) Community-based Marine Debris Removal Program Abandoned and Derelict Vessel (ADV)-Related Grants Awarded, Fiscal Years 2006 through 2015

Fiscal year	ADV-removal grants awarded ^a	Estimated number of ADVs removed	Amount awarded
2006	0	No ADV-related grants awarded	\$0
2007	2	101	\$300,000
2008	0	No ADV-related grants awarded	\$0
2009	3	70	\$264,435
2010	3	31	\$390,000
2011	0	No ADV-related grants awarded	\$0
2012	3	12	\$170,500
2013	1	90	\$99,766
2014	2	31	\$278,344
2015	3	24	\$395,942
Total	17	359	\$1,898,987

Source: GAO analysis of NOAA information | GAO-17-202

Note: Expenditures not adjusted for inflation.

^aThe Marine Debris Act of 2006 established the NOAA Marine Debris Program and Community-based Marine Debris Removal Program. NOAA reported that the agency awarded its first ADV-related grant in fiscal year 2007. Grants awarded to U.S. territories are not included in the table.

FEMA

FEMA headquarters officials reported the agency expended \$4.2 million in Stafford Act funds to reimburse eligible applicants for their removal of 570 ADVs from waterways as part of responses to Hurricane Katrina in 2005 and Superstorm Sandy in 2012. Table 10 shows FEMA reported expending about \$1.8 million dollars for applicants to remove 242 ADVs across four states as part of the response to Hurricane Katrina, and about \$2.5 million for applicants to remove 328 ADVs across two states as part of the response to Superstorm Sandy in 2012.

Appendix III: Estimated Federal Abandoned and Derelict Vessel (ADV) Expenditures, Fiscal Years 2005 through 2015

Table 10: Federal Emergency Management Agency (FEMA) Reimbursement for Abandoned and Derelict Vessel (ADV)-removals and Associated Expenditures for Responses to Hurricane Katrina in 2005 and Superstorm Sandy in 2012

Presidentially-Declared Disaster	State	Number of ADVs removed	Funds Expended to remove ADVs
Hurricane Katrina (2005)			
	Alabama	7	\$143,076
	Florida	47	\$77,735
	Louisiana	187	\$1,521,759
	Mississippi	1	\$8,500
	<i>Sub-Total</i>	242	\$1,751,069
Superstorm Sandy (2012)			
	New Jersey	140	\$1,031,527
	New York	188	\$1,433,520
	<i>Sub-Total</i>	328	\$2,465,047
	Total	570	\$4,216,117

Source: GAO analysis of FEMA information. | GAO-17-202

Appendix IV: Coastal State-Reported Funding Source for Abandoned and Derelict Vessel Activities since Fiscal Year 2013

Twenty-one of the 28 coastal states that responded to our survey reported using various methods to fund their abandoned and derelict (ADV)-related activities since fiscal year 2013. Table 11 shows the funding sources that each of the 21 states reported using to fund their ADV-related activities.

Table 11: Coastal State-Reported Funding Sources for ADV-related activities since Fiscal Year 2013

State	Legislative appropriations	Bonds	Federal grants	Vessel reg. fees	Private	Other ^a
AL	X		X			
AK	X					X
CA				X		X
CT	X				X	X
FL	X		X	X	X	
GA					X	X
HI	X		X	X		
IN					X	
ME						X
MD				X		
MN					X	X
MS						X
NH	X					
NJ	X		X			
NY			X			
OH			X	X	X	
OR				X		X
RI				X		
SC	X		X		X	X
TX			X			
WA	X	X	X	X		

Source: GAO analysis of survey responses. | GAO 17-202.

^a"Other sources" reported by states included expenditures from insurance claims, other state funds and fees, municipal and county funds, and federal funds.

Appendix V: GAO Contact and Staff Acknowledgments

GAO Contact

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Staff Acknowledgments

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