

Federal Invasive Species Rapid Response Fund: Criteria and Considerations for Establishment

2022

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The ability of federal agencies and their partners to respond rapidly to new detections of potential invasive species is critical to prevent further spread and subsequent adverse impacts to natural resources, ecosystems, and people. However, when and where an emergency response may be needed can be unpredictable, which makes specific and detailed planning difficult. There are numerous ongoing efforts to develop readiness through rapid response plans for particular geographies or species, as well as training for staff and executing desktop and field exercises with partners to test implementation of response actions. In addition to those technical capacities, there is a need for readily available financial resources that can be used to assess new species introductions and support response actions to quickly contain or eradicate the species. Once a new non-native species is detected, there is only a short period of time where actions can be taken to interrupt the arrival, spread, and harmful impacts of the invasive species before it becomes established. Ensuring the availability of adequate capacity and resources prior to a response is essential to enable effective action within this brief window of time. A federal invasive species rapid response fund would play a critical role in halting incipient invasions, thereby preventing the additional adverse impacts associated with the establishment and spread of an invasive species.

This paper focuses on the role that a federal rapid response fund could play in such situations. When response to a new species detection is deemed necessary, agencies, whether they be federal, state, territorial, local, or tribal, may not have sufficient funds readily available to act immediately, jeopardizing the ability to control the species before it establishes, spreads, and causes harm. In this context, rapid response funds have often been referenced as one possible source of financial support for emergency response measures. Yet such funds have also raised questions in terms of their management, scope of coverage, and eligible recipients, as well as use and status of funds.

This paper reviews these issues by first focusing on concerns generally expressed about creating such self-standing funds, as well as the broader rationale supporting their establishment. Models for emergency response from other sectors as well as related mechanisms to support invasive species efforts are examined for potential lessons learned and best practices. The paper outlines criteria and considerations that would need to be considered in the development and implementation of a federal invasive species rapid response fund (see Appendix I). Finally, key findings and options for next steps are included in a summary section.

It is important to note that this effort does not commit any existing federal agency or the use of appropriated federal funding for such a fund. That said, understanding the elements of a federal rapid response fund is still valuable, as the resulting outputs could be adopted and applied by governmental and/or non-governmental actors in a range of different scenarios.

The National Invasive Species Council (NISC) Fiscal Year (FY) 2020 through FY2022 Annual Work Plans specifically included the evaluation of rapid response funding as a priority activity, with the long-term goal of increasing resource streams for rapid response to new detections of invasive species. The FY2022 Work Plan calls for a white paper evaluating the benefits and challenges of rapid response funds, including identification of obstacles and opportunities to leverage funding streams (NISC 2022a). This effort builds on NISC's previous work on early detection of and rapid response to invasive species (EDRR) under the NISC Management Plan 2016-2018 (NISC 2016, 2022b) as well as the national EDRR framework outlined in *Safeguarding America's lands and waters from invasive species* (DOI 2016). This paper was developed by an interagency task team facilitated by NISC staff and cleared by the Department of Agriculture, Department of the Interior, Environmental Protection Agency, National Oceanic and Atmospheric Administration, Office of Management and Budget, and U.S. Coast Guard as a NISC product.

I. Context

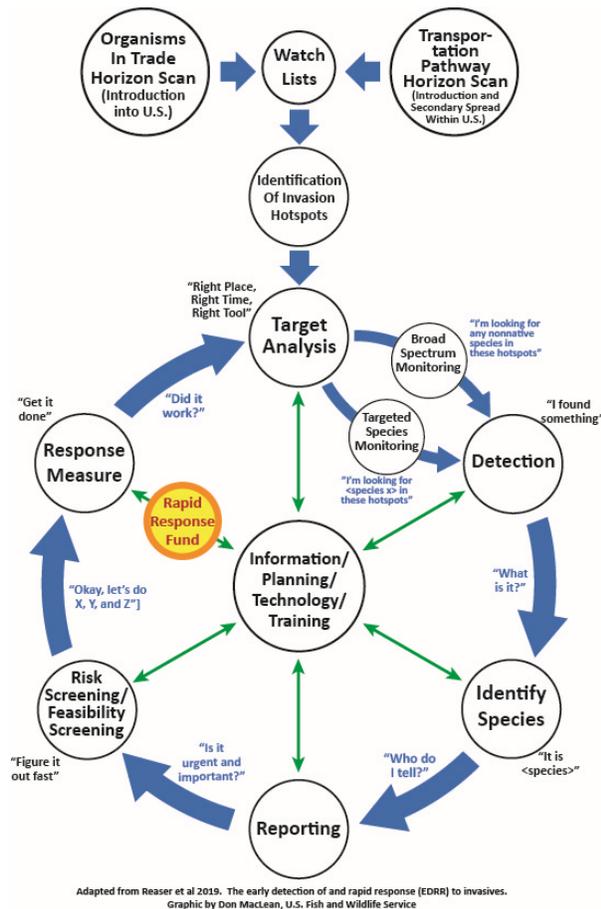


Figure 1 Elements of a coordinated EDRR framework

The overall purpose of this work is to support the development and implementation of a nationally coordinated EDRR framework for invasive species within the United States. Efforts to address invasive species are generally more efficient and cost-effective the earlier they are implemented in the invasion process (Leung et al. 2002). EDRR serves as a failsafe or backup where prevention efforts have failed or are unavailable. However, to be effective, an EDRR system needs certain capabilities with a logical design and sequence of actions, including financial resources that could be provided through a rapid response fund. Such a framework was outlined in a series of publications coordinated by NISC staff. A suggested sequence of steps could be: national horizon scanning (Reaser et al. 2019a), watch lists (Reaser et al. 2019b), target analysis (Morissette et al. 2019), early detection and biosurveillance (Reaser et al. 2019a), centralized reporting (Reaser et al. 2019c), centralized decision making through information, planning, technology, training, and incident command systems (Burgiel 2019; Reaser et al. 2019a) that can then seamlessly feed into rapid response measures implemented to achieve invasive species management outcomes (Figure 1). A national coordinated EDRR framework requires involvement from a wide variety of partnering agencies with a shared vision to quickly

and accurately detect newly invading organisms and to facilitate rapid, efficient, and effective management responses. This includes coordinated information flow and clarity around what type of response a detection triggers at what level (e.g., national, regional, state) and in which corresponding agency(ies). The development of a rapid response fund could support this vision (Lodge et al. 2006).

A. Calls for Exploration

Developing funding mechanisms and resource streams to support rapid response activities has often been highlighted as a recommended component of a national approach to EDRR. Relevant federal agency references to such funding support include:

- “Develop a plan to establish a coordinated funding process or mechanism(s) with targeted EDRR funding for preparedness and emergency response” (Safeguarding America’s Lands and Waters from Invasive Species: A National Framework for Early Detection [Recommendation 2] – DOI 2016)
- “Produce an implementation plan for a nation-wide program for the early detection of and rapid response to invasive species... (b) proposing financial and institutional mechanisms to support the efforts of states, territories, and tribes to enact early detection and rapid response programs

for invasive species” (National Invasive Species Council Management Plan 2016-2018 [Action 1.5] – NISC 2016)

- "Identify obstacles and explore opportunities to establish an emergency rapid response fund" (Aquatic Nuisance Species Task Force 2020-2025 Strategic Plan [Objective 3.3, Strategy (c)] – ANS Task Force 2020)
- Develop a framework for a national EDRR program to include "a plan for creating an emergency response fund to increase the capacity of interagency and inter-jurisdictional teams to tackle emerging invasive species issues across landscapes and jurisdictions." (Priority Agenda: Enhancing the Climate Resilience of America’s Natural Resources [Strategy I, Priority Action 4] – Council on Climate Preparedness and Resilience 2014)

Additional calls for such alternative funding mechanisms have been highlighted or considered by numerous states and various regions, such as the Regional Biosecurity Plan for Micronesia and Hawai’i (University of Guam & Secretariat of the Pacific Community 2014), Quagga-Zebra Mussel Action Plan for Western U.S. Waters (WRP/ANS Task Force 2020), “Management and Control Plan for Bighead, Black, Grass, and Silver Carps in the United States” (Conover et al. 2007), western states (S.3063 2010), Mid-Atlantic Regional Panel to the Aquatic Nuisance Species Task Force (Smits & Moser 2009), California (Cardno Entrix 2011), and Hawai’i (Hawai’i Department of Agriculture et al. 2017). Additionally, the federal, state, and regional examples provided in Appendix II represent a variety of efforts to provide funding for rapid response. Within the context of their state aquatic invasive species management plans developed in the context of the Aquatic Nuisance Species Task Force, at least 17 states have cited their need for sustainable rapid response funding and/or an established funding mechanism.¹ Finally, calls for emergency funding have also appeared in the scientific literature (Reaser et al. 2019a).

While this paper focuses on the features of a federal fund, it is critical to note that the major beneficiaries of a rapid response fund are likely to be state, tribal, and/or territorial governments in addition to federal entities. While federal agencies may have emergency response needs and lead response efforts in certain situations, states, tribes, or territorial governments are generally the responsible jurisdictional authority on their own lands. Federal agencies play different roles in the rapid response context including being the primary emergency authority, managing their lands and infrastructure, and supporting the response work of other entities (NISC in review).

For example, in the Great Lakes context, states own the lakes out to the international border and there are minimal federal waters (exceptions include some National Park waters). For threats to plant health, USDA’s Animal and Plant Health Inspection Service (APHIS) works in close coordination and collaboration with state partners to leverage federal and state authorities and resources to most effectively respond to evolving plant health threats on the ground (e.g., the Washington Department of Agriculture and the Asian giant hornet [*Vespa mandarinia*], the Pennsylvania Department of Agriculture and the spotted lanternfly [*Lycorma delicatula* (White)]). Additionally, federal agency authorities for response are triggered by high priority species that present major risks to U.S. natural resources, agricultural, and/or trade, yet states and other entities still need to address other invasive species that are regional, state, or local priorities. Thus, this paper starts from the premise that the major recipients of a federal fund from a national rapid response plan are likely to be sub-national government agencies and associated institutions at the regional, state, and local levels.

Despite the frequency of these calls for stable rapid response funding streams in natural areas, more needs to be done at a national level to advance knowledge around the key issues, criteria, and processes necessary to operationalize such a mechanism. For this reason, NISC identified Rapid Response – Emergency Funding as a priority activity for FY2020 through FY2022. The intent of this exercise is not to

¹ These include: AR, CA, HI, IN, KS, KY, MD, MT, NM, OK, OR, PA, SD, TX, UT, VA, and WY. State aquatic nuisance species management plans are available at <https://www.anstaskforce.gov/stateplans.php>.

place financial obligations on any federal agencies or to make specific budget requests, but to demonstrate how establishment of a rapid response fund could support a broader EDRR national framework and to identify a key set of parameters that can inform future federal and non-federal actions should resources for such a fund become available (see Appendix I).²

It is also important to look at successful efforts to eradicate invasive species (e.g., European grape vine moth [*Lobesia botrana*] in California, Asian longhorned beetle [*Anoplophora glabripennis*] in several areas). Identification of what worked in these responses, including support provided by existing funds, can aid the understanding of developing a fully integrated EDRR framework.

B. Concerns Regarding a Fund

While there seems to be no disagreement over the need for funding to support rapid response efforts, there are differences over the form that support should take. This section does not provide an exhaustive review of the different avenues to resource rapid response actions. Instead, it reviews critiques regarding the use of special funds in general as well as arguments for their establishment.

A major reservation to withholding funds for a future emergency is that those resources sit idle with no tangible benefit until they are released. In the invasive species context, this means that they are not actively being used to address invasive species already present on the landscape. Thus, waiting for a new invasion may mean foregoing beneficial work in the field. Provision of these federal resources on a consistent basis to state, local, tribal, and other entities could allow them to build their capacity and capabilities over time with the flexibility to reallocate as necessary in cases of emergencies. Finally, idle funding may also be vulnerable to re-allocation for other more immediate priorities.

Re-allocating general invasive species resources for use in unexpected rapid response actions may work in regions like the Great Lakes, where federal agencies may have the ability to quickly re-allocate portions of a relatively consistent annual allocation of Great Lakes Restoration Initiative funding (approximately \$50-60 million annually for invasive species work; Great Lakes Restoration Initiative 2020). However, such funding mechanisms are not in place in other regions.

From a federal budgeting perspective, it could be less costly to maintain a modest reserve fund for rapid response emergencies rather than providing block payments to all states, tribes, and territories intended for the same purpose.

There is often a tendency to allocate available funds for the control of known threats, as opposed to holding them in reserve for as yet unknown and unpredictable future introductions. The inability to rapidly address new threats when they are small and localized at the earliest stages of invasion, whether due to funding or environmental concerns, has led to both state and national problems with significant control costs over time. Securing funds from different sources requires expertise, time, and effort that could otherwise be focused on more immediate needs. A short administrative delay could be the difference between successful eradication and the need for long-term management (Lodge et al. 2016). The cost of a response may seem exorbitant from a state or local perspective but is small in comparison to the costs of that invasive species becoming a national problem. It is not hard to imagine that marshalling the necessary resources to successfully respond to the initial invasion of coconut rhinoceros beetle (*Oryctes rhinoceros*), spotted lanternfly (*L. delicatula* [White]), or invasive carps

² This type of information may also be of use to other federal initiatives, including the ongoing effort by ANS Task Force to create an Aquatic Nuisance Species Program for the waters of the U.S. in line with the Non-indigenous Aquatic Nuisance Prevention and Control Act (Section 1202) and the development of a Coastal Aquatic Invasive Species Mitigation Grant Program and Mitigation Fund under the Vessel Incidental Discharge Act (Section 312).

(*Hypophthalmichthys nobilis* and *molitrix*, *Mylopharyngodon piceus*, *Ctenopharyngodon idella*) would have been easier had the full costs to society been known at the initial time of invasion.

There are often scientific, political, and financial uncertainties associated with new invasions. For example, all taxa of invasive species are not equally eradicable and their biological characteristics and traits have a tremendous impact on the likelihood of response success. In addition to early detection, the better the available technologies (e.g., traps, attractants, established and tested treatment methodologies) and the biological understanding of the species (e.g., basic biology, life-cycle, host range) at the start of the response, the more likely an eradication will be successful. This emphasizes the critical role of early detection and available, applicable research to rapid response. Establishment of a rapid response fund would help mitigate some of the uncertainty around resource availability and emphasize the importance of responding at the earliest point possible in the invasion process.

Regarding concerns about idle funds not being put to good use, there are examples where leftover annual funds are re-allocated to support other capacity-building or program needs. Alternatively, funds could be carried over to EDRR actions in following fiscal years. Depending on the scope of a rapid response fund and the future pace of new invasions, it is anticipated that there would be a steady demand for rapid response resources. In fact, demand would likely surpass available funds on a regular basis. In the research on other regional and state invasive species funding mechanisms described in Appendix II, no cases were found where excess funding capacity or waste of funds was an issue.

With past invasions, government agencies and interested stakeholders have been able to secure response resources without the benefit of a fund by using existing discretionary funding, other programs, and additional appropriations. This *ad hoc* approach rests on the assumption that if the situation is a priority, decision-makers will make the necessary resources available. This approach may be easier with agencies that have larger budgets or where Congress or a state legislature has a significant interest in addressing a particular invasive species. There also may not be general agreement among decision-makers on what is considered an emergency and merits funding. In cases where budgets are tight, there may be less willingness by decision-makers to divert funding to an incipient invasion, despite the fact that delay may result in higher control costs in the future.

Capitalizing and replenishing a fund for the long-term is a major political commitment requiring buy-in across budget cycles and changes in leadership at a minimum. There are examples where legislatures have established invasive species funds but have not appropriated the funds for their operation (see Appendix II). However, there are examples of funds from other sectors, particularly at the federal level, that have consistently provided invaluable support to states and others in emergency situations (see Appendix III). Natural disasters, wildfires, oil spills, and disease outbreaks have all garnered the attention and commitment of policymakers to sustain regular, long-term financial investments. Such funds were ostensibly designed to help federal agencies, states, and other entities deal with threats and damages that they could not otherwise address on their own.

Attention could focus on hybrid approaches that draw upon agency budgets and other available funding, while using a separate rapid response fund to cover any gaps. Such approaches are explored further in Section II.A (Invasive Species Funding Mechanisms). There may also be significant challenges to equitably determining priorities when comparing across different taxa, geographies, and impacts on stakeholders. While a fully vetted funding model may be beyond the scope of this exercise, it is possible to outline a framework of criteria and considerations that can address some of these uncertainties and issues based on existing experiences from other response funds.

II. Funding Models

A. Invasive Species Funding Mechanisms

There are several examples of funding mechanisms for invasive species management at the federal, state, and regional levels which can offer insights into the development of a federal fund for rapid response (see Appendix II).

Most of these funds cover a range of activities such as prevention, control, and planning, of which rapid response may be one category. In some cases, like with DOI's Technical Assistance Program (TAP) and Coral Reef and Natural Resources (CRNR) Initiative, invasive species may be one of many areas for potential funding, with rapid response just a subset of that. Even if such funds could be allocated to rapid response, it is not clear whether the administrative processes for requesting, approving, and releasing funds could be performed on a timeline conducive to acting quickly. Arguably, such mechanisms might be fallback sources for funds, although they likely would not serve as a model for dedicated federal invasive species rapid response funding. Some, including Hawai'i's Pest Inspection, Quarantine, and Eradication Fund and Maine's Courtesy Boat Inspection Program, focus on a broader subset of invasive species activities around inspection, control, or eradication. A key point of consideration is whether a fund is dedicated specifically to rapid response or whether funds can be spent on other invasive species activities, thereby potentially shortchanging and compromising rapid response capacity. It should be recognized that prevention, detection, and research efforts are also essential and must complement rapid response actions. Thus, clear criteria are needed to define the eligible scope of funding.

In terms of securing and distributing funding, the available examples show a diverse range. The Commodity Credit Corporation (CCC) has provided support to invasive species rapid response efforts to stabilize commodity prices and protect American agricultural land and productivity. USDA's Emergency Transfer Authority does not have strict limits on borrowing; however, requested amounts need to be minimally available and must receive the support of the Secretary of Agriculture, which is a high bar.

The Plant Protection Act's Section 7721 (PPA 7721) (previously known as the Farm Bill), instructs the Secretary of Agriculture to make available \$75M for each fiscal year (since FY2018) from the CCC to fund plant pest and disease detection and surveillance activities. USDA-APHIS funds projects organized around specific goal areas that represent critical needs and opportunities to strengthen, prevent, detect, and mitigate invasive pests and diseases. The six strategic goal areas include:

1. Enhancing plant pest and disease analysis and survey
2. Targeting domestic inspection activities at vulnerable points in the safeguarding continuum
3. Enhancing and strengthening pest identification and technology
4. Safeguarding nursery production
5. Conducting targeted outreach and education
6. Enhancing mitigation and rapid response capabilities

For FY2021, USDA supported 354 projects under the PPA7721 to strengthen the nation's infrastructure for pest detection and surveillance, identification, threat mitigation, to safeguard the nursery production system, and to respond to plant pest emergencies.

In terms of funding levels, examples show states looking to secure \$3-5 million per year for their own activities.³ This provides an indication of the potential order of magnitude for a national rapid response fund. By comparison, the \$80 million annual authorization in the proposed national Invasive Species Emergency Funding Act of 2010 (S.3063, H.R.4782) seems relatively conservative. Further work may be necessary to determine how much funding would be adequate to meet expected demand from those eligible to access the fund, the size of awards, the cost of their administration, and the timing of when funding is released. Herein, it is useful to note that even small grants can be effective in rapid response, particularly where they fill gaps. In Oregon, funds were used to expand Japanese beetle treatments to necessary geographies throughout the Portland area; Hawai'i provides support to island invasive species committees that play a critical role in EDRR for invasive plants; and Wisconsin's early detection and response grants to lake management groups are often essential for "buying time" to mobilize resources for longer term responses.

Another key issue is whether a response fund is based on a single or multiple funding streams. A single source can be subject to various pressures and changes such as a drop in revenue from excise taxes due to economic decline or inconsistent annual appropriations from state and federal budgets. Idaho presents an interesting example as they have deliberately diversified the funding sources that support their work on invasive species, including appropriations from the state budget process, federal grants, and access to more general emergency funding sources within the Idaho State Department of Agriculture. Finally, it is necessary to consider the timing and flexibility for applications related to rapid response. California, Oregon, and Wisconsin have the means to expedite requests for rapid response efforts, whereas the funds administered through USDA's PPA7721 process, Hawai'i's Invasive Species Council, and the New York Invasive Species Grant Program adhere to an established timeline for soliciting grant proposals.

B. Models from Other Sectors

Federal emergency funds from other sectors including public health, natural disasters, and oil and chemical spills also provide context and potential lessons relevant to the development of a national rapid response fund for invasive species (see Appendix III for examples). Funds such as the Burnt Area Emergency Recovery Program (BAER); the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, also known as Superfund); the Emergency Watershed Protection program; the Oil Spill Liability Trust Fund (OSLTF); the Public Health Emergency Preparedness Cooperative Agreement process (PHEP); and the Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) have been developed at the federal level because initiating a concerted and successful response may be beyond the capacity and resources of individual state, local, tribal, and territorial governments. Thereby, many of these mechanisms are resourced in full or in part through the federal annual appropriations process.

These examples have relevant features that could also be considered in the invasive species context. Defining eligible recipients for funding and assistance prior to an actual emergency is critical. The PHEP process includes a pre-established list of potential recipients from state, local, tribal, and territorial governments, as well as some non-profit entities, based on a set of eligibility criteria. In other types of emergencies, particular non-federal government agencies with defined functions may already have

³ In FY2019, New York state secured \$3 million for their invasive species grants fund, which were disbursed in amounts between \$11,000 and \$100,000 for a range of activities. The Lake Champlain Basin Program Response Fund provides local grants of up to \$50,000 and planning grants for up to \$125,000. Oregon's Invasive Species Control Account aimed for a base of \$5 million although its funds were eventually depleted over time and have not been fully replenished.

established relations with their relevant federal counterparts (e.g., disaster response coordination under the Stafford Act).

Coverage of response expenses is another area for consideration. Some processes like CERCLA and OSLTF seek to offset costs by identifying liable parties and holding them financially accountable for restoration costs. With invasive species, however, establishing liability for an introduction could be very difficult. Finally, the level of cost share from funding recipients is also important to consider in terms of their buy-in as well as their capacity. For example, funding through the Stafford Act can cover up to 75% of eligible costs. Development of an invasive species rapid response fund could consider these cost shares as a means to offset some costs and encourage local buy-in for response actions.

These emergency response mechanisms also encompass a range of traits analogous to the different types of risks that new introductions of invasive species present. The detection of highly mobile species (either by virtue of their ability to spread themselves or be spread through pathways) demands a quick response to contain the threat and limit impacts similar to the need to react to an oil spill, a public health outbreak, or watersheds destabilized by wildfire. For example, the EWP includes provisions for assistance to address the impacts of a disaster on watersheds within 60 days; the PHEP aims to stand-up responses to a health emergency within 120 days; and BAER focuses on emergency stabilization activities immediately and up to a year from the triggering event.

There are also response mechanisms to less mobile or time urgent threats, which may be akin to some invasive plants or other sedentary species. CERCLA focuses on long term remediation of contaminated areas, and BAER also includes provisions for longer term activities including rehabilitation (one to three-year timeframe) and restoration (three-years plus timeframe). A rapid response fund for invasive species would need to address different levels of urgency in response without assuming that slower moving invasive species are any less threatening. Additionally, the fund would need to consider whether and how to incorporate necessary post-response actions like rehabilitation and restoration, and if funding should be tied to plans or additional financial commitments for such follow-on actions, which might be necessary to prevent reinvasion.

C. Potential Sources of Funding

There are several options for resourcing a rapid response fund that have been used in other contexts. An important consideration is whether the financial instrument that collects and manages the funds is the same mechanism that distributes funds. For example, the National Fish and Wildlife Foundation (NFWF) is a conservation grant-maker with a national portfolio of accounts established to manage funds arising from environmental settlements or connected to permit-required mitigation for environmental impacts. Congressional annual funds were allocated to the USFWS, which transferred the funds to NFWF. NFWF works with federal, industry, and foundation partners, has managed over \$6 billion in financial commitments since its inception, and can receive resources from multiple funding streams (NFWF 2020a, 2020b). Alternatively, the rapid response fund could draw money from a larger funding source that services a range of related priorities. Such examples could include the Consumer Credit Corporation (CCC) and Wildlife Restoration Account and many others, which provide funding for a range of priorities under their respective authorities. A rapid response fund could consist of one or a combination of funding streams. Such a decision would need to consider both the required effort to administer the funding source(s), as well as their long-term sustainability.

Appropriations: Numerous federal agencies already receive annual discretionary appropriations for programs that conduct invasive species work. Using discretionary appropriations to support the full range of rapid response activities would require careful alignment across Executive and Congressional priorities, including whether such funding would come at the expense of other discretionary program

areas and with consideration of existing mandatory spending. Many of the programs highlighted in the previous section as well as in Appendix III are resourced through the federal discretionary appropriations process.

User fees: Fees or taxes levied on products, vehicles, licenses, and other services have been widely used in other areas. For example, the OSLTF receives a portion of its funding through taxes on the petroleum and chemical industries, as did CERCLA before the expiration of its taxing authority (see Appendix III). Such funds can be used to remediate damages in cases where the liable actor is not identifiable or does not have sufficient funds. Similarly, the Wildlife Restoration Act (also known as the Pittman-Robertson Act) generates funds through an 11% excise tax on long guns, ammunition, archery equipment and arrow components, and a 10% excise tax on handguns, which are managed through a Wildlife Restoration Account (USFWS 2020a, Wildlife Society 2017). For FY2022, the amount of funds distributed to states and territories was over \$1.1 billion (USFWS 2022). The Sportfish Recreation Act (also known as the Dingell-Johnson Act) is a similar mechanism that uses excise taxes on fishing tackle, motorboat fuel, and other fishing and boating gear to support a range of state and regional activities (USFWS 2020b). A significant portion of Customs and Border Protection’s agricultural inspections at U.S. points of entry are funded by user fees charged to vessels, travelers, and cargo (DHS 2019, CRS 2004). In the invasive species context, particular pathways of introduction and their primary beneficiaries or users could be assessed, as well as those accessing or using a particular resource. However, legislation to enact such taxes or fees would be necessary.

Penalties, cost recovery, and financial guarantees: In some sectors, those inadvertently causing environmental damages by their actions can be readily identified and held accountable. Penalties assessed for regulatory violations, as well as costs recovered from liable actors for violations, have contributed to response and restoration funds. For example, the OSLTF and CERCLA derive some of their funding from cost recoveries from responsible parties in hazardous oil and chemical incidents (see Appendix III). In this area, financial assurance requirements, including surety bonds, have also been applied to businesses in potentially hazardous sectors (e.g., mining, contaminated material disposal, landfills) to ensure the availability of funding for remediation efforts if an accident or contamination were to occur (EPA 2020, Boyd 2001).

These types of instruments could only be considered if and where more direct liability for potential invasive species introductions can be established, which in many cases may not be possible. Additionally, the length of time required to assess liability and collect a penalty would likely extend far beyond the window of opportunity for rapid response to the invasive species. This may require attention to reimbursement to responding agencies and/or paying penalties and damage assessments into the response fund for use in future rapid response emergencies. While such mechanisms could possibly contribute to a fund, it is unlikely that they would provide sufficient and readily accessible resources on their own.

Third party funding: Another option for securing resources for a rapid response fund would be accepting contributions from third parties. This could include grants from foundations, voluntary donations from individuals, nongovernmental organizations, and industry box taxes. While such mechanisms have been explored in other areas, use of such mechanisms would likely raise questions about the sufficiency, sustainability, and governance of funding.

D. Criteria and Considerations

Establishment of a rapid response fund would require defining necessary administrative processes as well as substantive criteria for the review of funding requests. These include the funding source and fund administration, the scope of covered activities, eligible recipients, the application process, as well

as considerations regarding implementation of response actions and post-response follow-up. Appendix I looks at these issues from the perspective of a project proposal process and the particular steps that it would entail. Herein, it is important to note that this paper outlines the broader considerations in creating a rapid response fund. Specific answers to the issues posed in Appendix I will ultimately depend on the particular agency authorization and established funding source(s).

III. Findings and Lessons Learned

The science and planning of a nationally coordinated EDRR framework has matured in recent years and is now supported in the scientific literature (see Reaser et al. 2019a), technological advancements (such as molecular-based tools), evolving regional programs that can be scaled up to the national level, and pre-planned rapid response processes established across the U.S. landscape. A federal rapid response fund has been identified as a potential component of this framework and would be instrumental in supporting successful responses to emerging invasive species issues across landscapes and jurisdictions. State, tribal, and territorial governments as well as regional and federal entities play a critical role in responding to new introductions. Development of a rapid response fund could pay major dividends by stopping the establishment of new invasive species and avoiding the adverse impacts and associated costs on states, territories, tribes, and the nation as a whole.

Models from other federal sectors have been successfully used to address issues like wildfire, natural disasters, and oil spills. These can be used to guide the development and structure of an invasive species fund. Additionally, the experiences of states and regions to date with different funding mechanisms for invasive species can provide additional lessons learned about the structure, operation, and administration of a rapid response fund. The opportunities to finance a fund are varied and could include one or a combination of funding streams from: direct appropriations; user fees; penalties, cost recovery, and financial guarantees; and/or third-party contributions. Regardless of the source, it is critical that replenishment of the fund is consistent, sustainable, and resistant to external pressures. Establishment of a rapid response fund would require clearly defined administrative processes, such as how the fund will be administered, its scope and eligibility of expenditures, how projects would be identified and administered, and a multiyear timeframe for the use funds.

There are multiple ways to structure a rapid response fund, as suggested by the section on criteria and considerations. Depending on the circumstances, available funding, and political support, consideration could start with pilots. The pilots could be regional in scope and/or targeted at specific categories or taxa of invasive species (e.g., aquatic, terrestrial, those impacting natural areas). Over time, these pilots could be expanded or supplemented to provide more comprehensive coverage, ultimately building to a national system. One possibility would be to look at the role of the ANS Task Force in developing an Aquatic Nuisance Species Program under the Non-indigenous Aquatic Nuisance Species Control Act. The ANS Task Force already has a regional framework, significant engagement with states, and has recognized the need for a response fund (ANS Task Force 2015).

Developing a rapid response fund would require financial resources, political support, and agency time and expertise. Three potential options for moving forward include:

- Congressional action: Congressional representatives have taken an active interest in invasive species issues and have considered legislation in the past on a federal rapid response fund. The Invasive Species Emergency Fund Act introduced in the House and Senate in 2010 provides a logical starting point for Congressional consideration (H.R. 4782 2010, S. 3063 2010), but would need to be updated. The timing of such an effort would be dependent on Congressional interest and processes.

- Legislative Proposal: the Executive Branch could develop a bill for Congressional consideration that would propose a model, including language authorizing federal funding streams and defining expectations for how the administrative process of the fund would be developed (e.g., through a rule making process under the Administrative Procedures Act).
- Agency initiative: if a federal agency determined that a rapid response fund was in the purview of its existing authorities, it could pursue steps to develop a proposal for the President's Budget. Consideration would need to be given to the fund's scope under those authorities, relevant procedures and review policies for development of the mechanism, and necessary budget considerations and requests to finance the fund for that specific agency.

The second and third options could benefit from convening high-level decision makers (i.e., Assistant / Under Secretaries) and senior budget officers within NISC agencies to better align funding or guide the formation of more effective funding mechanisms to support priority preparedness and emergency response activities. This was a major recommendation from the federal interagency report *Safeguarding America's Lands and Waters from Invasive Species: A National Framework for Early Detection and Rapid Response* (DOI 2016).

Over the past decade, federal agencies and their partners have made significant strides in developing their capacities and capabilities for EDRR, reflecting a desire to act more proactively in preventing the establishment and spread of newly introduced invasive species. While such efforts should be recognized and commended, their continued success and advancement would benefit from the creation of a sustainable, federal rapid response fund to support immediate needs in the field. This report can serve as a basis for developing such a fund in support of a coordinated national approach to EDRR.

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V. Acronyms

ANS Task Force – Aquatic Nuisance Species Task Force

WRP – Western Regional Panel

CERCLA – Comprehensive Environmental Response, Compensation and Liability Act (Superfund)

CRNR – Coral Reef and Natural Resources Initiative

DHS – Department of Homeland Security

CBP – Customs and Border Protection

DOI – Department of the Interior

USFWS – U.S. Fish and Wildlife Service

TAP – Technical Assistance Program

EDRR – Early Detection and Rapid Response

EPA – Environmental Protection Agency

NFWF – National Fish and Wildlife Foundation

NISC – National Invasive Species Council

OMB – Office of Management and Budget

OSLTF – Oil Spill Liability Trust Fund

PHEP – Public Health Emergency Preparedness Program

USDA – U.S. Department of Agriculture

APHIS – Animal and Plant Health Inspection Service

CCC – Commodity Credit Corporation

NRCS – Natural Resources Conservation Service

USFS – Forest Service

BAER – Burned Area Emergency Response Program

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Appendix I: Criteria and Considerations for an Invasive Species Rapid Response Fund

Establishment of a rapid response fund would require defining several administrative processes and substantive criteria for the review of funding requests. The following section looks at funding, administration, scope, eligibility, and proposals, and includes a series of questions to help define each area. Herein, it is important to note that this paper outlines the broader considerations in creating a rapid response fund. Specific answers to the issues posed below would ultimately depend on the specifics of the agency authorization and established funding source(s).

Funding source: Where is the money for the rapid response fund coming from? As noted in Section II C, there are a number of options for securing the resources for a rapid response fund. The funding pathway should be clear and ideally allow for the sustainability of funds over time. For example, this could include ongoing contributions to the fund (e.g., annual appropriations, user fees), a capitalized account generating sufficient interest, or another hybrid approach. What is the process for replenishing the fund on a regular or ad hoc basis? Additionally, are funds tied to a specific timetable for expenditure (e.g., fiscal year, no year funding)?

Fund administration: How is the fund managed, in terms of both financial management of the money as well as administering the process that solicits, reviews, and responds to requests or proposals for resources?

- **Financial management:** Is the financial instrument part of the mechanism making decisions about the use of funds or is it a separate entity? Who manages and is responsible for those funds, including investments and audits? What oversight mechanisms are necessary (e.g., fiscal, legal, regulatory)? Are there metrics for long-term program evaluation?
- **Administrative entity:** What agency, office, or other entity is responsible for managing funding requests to the rapid response fund? How do the considerations on scope (below) influence the choice of administrative entity?
- **Administrative expenses:** What overhead expenses are allowable in the fiscal and administrative management of the fund? Are they covered by resources allocated to the fund?
- **Advisory roles:** Who provides the relevant expertise or additional context to review proposals? Is there a panel of experts (standing or ad hoc) or roster of scientific and technical expertise that can be drawn upon as needed? How does this relate to the scope of the rapid response fund (see below)?
- **Funding conditions:** What financial mechanism is used to provide funding (e.g., loan, grant, contract)? Are there co-financing requirements, and if so, are in kind contributions permissible? What are the repayment conditions? Are overhead costs permissible? Can funding requests be renewed for ongoing rapid response activities?
- **Funding types and amounts:** Is there a cap on funded activities? Are there different categories of need (e.g., small-scale discretionary funding for immediate identification and demarcation needs, larger-scale funding for containment or eradication actions)? If funds can expire (i.e., they are not no year funding), where do unspent funds go? How can unspent funds be allocated (e.g., on EDRR preparedness activities)?

Scope: What is the scope of the rapid response fund's activities? How can funding criteria be developed to best match available resources to the anticipated demand for rapid response assistance? Are there cases that might be ineligible either initially or permanently (e.g., eligibility for support through other funding mechanisms)?

- **Geography:** Is there a defined geographic scope (e.g., national, regional, priority regions) or a hybrid approach (e.g., national fund administered regionally)?

- Taxonomy: What species are covered (e.g., aquatic, terrestrial, those affecting natural areas, those affecting infrastructure, those not covered by other sources of funding, those addressed by other programs related to public health, agriculture, and/or livestock)? Are there watchlists that can inform prioritization and decision-making at relevant geographic scales?
- Covered activities: What rapid response actions are covered (e.g., identification, demarcation, treatment, post-treatment monitoring)? What is the eligibility of targeted early detection efforts, assessments, or training, particularly if funds have an expiration and need to be disbursed?
- Priorities: Are there programmatic priorities for funding (e.g., vulnerable habitats, national/regional/state/local watchlists, species of concern – first introduction to the country, to the region, to the locality/watershed)? How are funding priorities developed and changed over time? How are the benefits of an action evaluated (e.g., in terms of geographic area protected or potential impacts averted)?
- Timelines: Are there limits on project duration or other timeframes for project implementation?
- Thresholds: What constitutes an emergency requiring response (rapidity, potential impacts)? What timeframes are eligible (e.g., quick smaller scale operations vs. more complex and potentially longer-term responses)? How will feasibility be evaluated and the difference between rapid response actions for eradication or immediate containment vs. long-term control activities be distinguished?

Eligibility: What are the criteria for eligible applicants and activities?

- Recipients: Who is eligible to receive funds (e.g., federal, state, tribal, territorial, and/or local government agencies; non-federal entities including non-profit land trusts and other environmental groups, academia, industry; consortia of groups such as multistate compacts, multitargeted proposals)? Are there any groups that would be ineligible to receive funding?
- Planning considerations: What “local” conditions are recommended or necessary (e.g., existing rapid response plan, cooperation agreements, permitting)?
- Fiscal considerations: What co-financing is provided? Is there evidence of longer-term project sustainability?
- Endorsements: Are statements of support, declarations of emergency, or other local determinations necessary (e.g., from state governors)?
- Repeat applications: Can additional requests be submitted to finance follow-on response activities from an application that was already funded?

Proposal development and review: What is the process for submitting proposals? What information do proposals need to include? How are they reviewed?

- Proposal contents: What information is required in submissions (e.g., geographic, ecological, and biological information; risk assessments or evaluations; mitigation and treatment measures, including addressing pathway(s) of introduction; feasibility assessments; funding needs; points of contact)?
- Review process: Who administers the review process? What are the timelines? Is there a single review process per year, rolling reviews, multiple review cycles? Who makes the final determination on release of funds and amounts?
- Review criteria: What criteria are considered in reviewing proposals (e.g., adherence to fund priorities, national or regional significance, status of establishment elsewhere [locally, regionally, nationally], available capacity and capabilities for response, feasibility of success, probability of reintroduction)?

- Expert input: How is expert input (e.g., taxonomic, geographic) accessed and used in reviewing requests and other fund activities? Is expert input limited to providing advice or does it play a more formal role in decision-making?

Project implementation: Once approved, what additional steps or roles are necessary for the receipt of project funding? What information is provided back to the rapid response fund?

- Funding disbursement: What are the requirements and timelines for issuing funds (e.g., up front provision, cost reimbursement)?
- Reporting: What are the processes, formats, and other requirements for reporting on funded activities (e.g., fiscal reporting, reporting on activities and results, use of data to support broader information needs and assessments on rapid response experiences)? Is there a need for periodic review of projects while they are in process?
- Environmental compliance: How is compliance with relevant national and local laws ensured? Are there legal or liability concerns associated with funding?
- Metrics: What are the criteria for evaluating funded activities? What constitutes a successful response or eradication? What indicators reflect a transition to long-term control? When is increased or sustained financial support (un)productive? Are there metrics that can be used across projects to evaluate the overall performance of the fund?

Project close-out: What steps are necessary as a funded rapid response effort is brought to conclusion? What limitations are necessary in terms of time and funding on rapid response efforts? What is the “off-ramp” for rapid response interventions that do not have a clear, successful outcome? How will necessary post-rapid response activities be funded and sustained? These post-project activities and issues will likely be beyond the scope of support from a rapid response fund; however, their consideration may be important for land managers to consider for successful long-term control and eradication of invasive species.

- Restoration: What post-response actions are necessary to restore affected habitat? What monitoring or other long-term rehabilitation measures are required? Are there contingency plans and available resources if re-treatment is necessary?
- Biosecurity: What actions and protocols are required to prevent re-invasion of the targeted area? What regulatory authorities are involved for implementation and enforcement?
- Administration: What administrative or reporting steps are required for concluding a project?

Appendix II: Invasive Species Funding Models

There are a range of mechanisms that are used to fund invasive species management efforts. The following section highlights a number of these at the federal, state, and regional levels with attention to scope, eligible recipients, timeliness and processes, and funding sources. Table 2 includes a brief overview of highlighted examples with additional details below.

Program	Geographic Jurisdiction	Scope/Target	Recipients	Funding Source
DOI Assistance to Insular Areas	Regional/insular areas	Invasive species management, including brown tree snake control	Government agencies from U.S. Insular Areas	Appropriations
USDA/APHIS Emergency Transfer Authority	National	Plant pests, animal diseases	APHIS	Other USDA accounts`
Plant Protection Act Section 7721 Plant Pest and Disease Management and Disaster Prevention Programs Program	National	Plant pests	State and federal agencies, tribal entities, universities, nongovernmental organizations, private entities	CCC funds as mandated by the Plant Protection Act
California Invasive Species Account	State	Invasive species management, including prevention, monitoring, detection, control, eradication, planning, outreach	State and local agencies, Native American tribes in CA	Appropriations
Hawai'i Invasive Species Council Annual Request for Proposals	State	Invasive species prevention, control, outreach, research	State government agencies and state-affiliated educational institutions, local invasive species committees, watershed partnerships	Appropriations
Hawai'i Pest Inspection, Quarantine, and Eradication Fund	State	Biosecurity, including inspection, quarantine, eradication	Hawai'i Department of Agriculture	Vessel cargo fee
Idaho Invasive Species Fund	State	Watercraft inspection, decontamination	Idaho Department of Agriculture	Registration fees
Maine Invasive Plant Removal Grants	State	Invasive plant removal	Lake associations	Registration fees
New York Invasive Species Grant Program	State	Prevention, rapid response, control, research, planning	Government agencies, educational institutions, non-profits	Appropriations
Oregon Invasive Species Control Account	State	Eradication, control	Local and tribal agencies, non-profits, educational institutions, individuals	Appropriations, lottery funds
Wisconsin Aquatic Invasive Species Surface Water Grant Program	State	Education, planning, management	Natural resource agencies, tribal governments, educational institutions, sanitary districts, counties,	Appropriations

			municipalities, lake districts, other qualified entities	
Wisconsin Aquatic Invasive Species Prevention and Control Grant Program	State	Prevention, control, including early detection and response	Private landowners, other eligible organizations	Appropriations
Great Lakes and Lake Champlain Invasive Species Program	Regional	Monitoring, detection, management, response, planning, regulatory implementation	NA	Appropriations (note: no appropriations have been made since authorization in 2018)
Great Lakes Restoration Initiative	Regional	Prevention, early detection monitoring, response, control/management	Federal, state, and tribal governments, communities	Appropriations
Lake Champlain Basin Program Aquatic Invasive Species Rapid Response Program	Regional	Spread prevention	Educational institutions, non-profits, industry, local government	Appropriations/federal agency funding

Table 1: Invasive Species Funding Mechanisms

A. Federal Programs

DOI Assistance to Insular Areas

DOI provides funding for invasive species in U.S. Insular Areas through annual funding from its Technical Assistance Program, the Brown Tree Snake (BTS) Control Program, and the Coral Reef and Natural Resources (CRNR) Initiative. The U.S. insular areas include the U.S. territories of the Virgin Islands, Guam, the Commonwealth of the Mariana Islands, and American Samoa, as well as the independent Freely Associated States of the Republic of the Marshall Islands, the Federated States of Micronesia and the Republic of Palau. Eligibility to receive funding is limited to U.S. insular areas.

Technical Assistance Program (TAP): TAP grants are intended for short-term, non-capital projects and are not meant to supplant local funding of routine operating expenses of an insular area government. TAP priorities include but are not limited to projects which foster development of the insular areas in the following areas: accountability; financial management; economic development; education; energy production; management control initiatives; disaster assistance; natural and cultural resources; capacity building; public safety/emergencies; health initiatives; and invasive species management. Funding for TAP is appropriated by Congress. Such funds conceivably could be used for rapid response efforts.

Brown Tree Snake (BTS) Control Program: The BTS Control program is a combination research and operational program designed to prevent the dispersal of BTS from Guam to other vulnerable geographic areas in the Micronesia region including Hawai'i and to ultimately eradicate existing or newly established BTS populations in U.S. areas. The program is a cooperative effort between the Office of Insular Affairs, USFWS, the U.S. Geological Survey, the USDA's Animal and Plant Health Inspection Service Wildlife Services, the Department of Defense, the state and territorial governments of Hawai'i and Guam, and the Commonwealth of the Northern Mariana Islands. Funding for BTS is appropriated annually by Congress.

Coral Reef and Natural Resources (CRNR) Initiative: The CRNR Initiative provides grant funding for management and protection of coral reefs and for addressing invasive species in the U.S. territories and the freely associated states to improve the health of coral reef ecosystems and other natural resources

for long-term economic and social benefit. Priority is given to projects that help insular areas address a variety of threats to coral reef ecosystems and to eradicating aquatic and terrestrial plant, insect, and animal invasive species.

Resources

DOI Office of Insular Affairs Financial Assistance webpage <https://www.doi.gov/oia/financial-assistance>

DOI Office of Insular Affairs Technical Assistance Program Grant Instructions (FY2020)
<https://www.doi.gov/sites/doi.gov/files/uploads/fy20-tap-grants-gov-application-instructions.pdf>

DOI Office of Insular Affairs Coral Reef and Natural Resources Initiative Grant Instructions (FY 2020)
<https://www.doi.gov/sites/doi.gov/files/uploads/fy20-crn-grants-gov-application-instructions.pdf>

USDA APHIS Emergency Transfer Authority

The Secretary of Agriculture has the authority to transfer funds to APHIS from other USDA accounts to assist in controlling and eradicating plant pests and contagious or infectious animal and poultry diseases. This authority is granted to reallocate to the program necessary funds to arrest, control, eradicate, and prevent the spread of plant pests, noxious weeds, and pests or disease of livestock by the Plant Protection Act (7 USC §7772[a] and [b]) and the Animal Health Protection Act (7 USC §8316[b]). This also includes those funds exclusively available for use in emergencies including those threatening agricultural production for the arrest and eradication of contagious or infectious disease or pests of animals, poultry, or plants (7 USC §§7751, 7772, 8310, and 8316).

Eligibility: Before requesting a transfer of emergency funds, APHIS considers the following: whether APHIS is involved in the issue; availability of other funds to address the issue; whether there is stakeholder support; and support of the Secretary of Agriculture.

Proposal Requirements / Timelines: APHIS prepares a memo to the Secretary, through the Office of Budget and Program Analysis (OBPA), providing the information listed below. The request is then evaluated through a review process.

- Nature and extent of the problem
- Potential consequences of not addressing the problem
- Economic value of industries affected
- Specific actions required to address the problem
- Estimated timeframe for program success
- Estimated funding (in accordance with prescribed formats)
- Staff years and other resource means needed to combat the pest or disease outbreak (in accordance with prescribed formats)
- Contributions (usually in-kind) from cooperators

Funding: Funding amounts are determined by the Secretary of Agriculture on a no-year basis in accordance with the Plant Protection Act and 7 USC §7772(b).

Resources

Cornell Law School, Legal Information Institution, 7 U.S. Code 7772. Transfer Authority webpage
<https://www.law.cornell.edu/uscode/text/7/7772>

USDA APHIS Plant Protection Act Section 7721 Funding

Through the Plant Pest and Disease Management and Disaster Prevention Program (PPDMDPP), the Department of Agriculture receives annual funding for projects that will safeguard agriculture and facilitate safe agricultural trade. Applications are considered in six goal areas:

1. Enhancing plant pest and disease analysis and survey
2. Targeting domestic inspection activities at vulnerable points in the safeguarding continuum
3. Enhancing and strengthening pest identification and technology
4. Safeguarding nursery production
5. Conducting targeted outreach and education
6. Enhancing mitigation and rapid response capabilities

Eligibility: State and federal agencies, tribal entities, nongovernmental organizations, universities, private entities are eligible to apply for funding.

Proposal Requirements / Timelines: Applications for funding can be submitted once per year during an open submission period. Suggestions must include:

- Alignment with one of the six PPA 7721 goal areas
- Technical approach
- Roles and responsibilities of any cooperators participating in the project
- Relevant prior experience
- Budget

Funding: Annual funding amounts currently set at \$75M per fiscal year by Congress.

Resources

USDA APHIS Plant Protection Act Section 7721 webpage

<https://www.aphis.usda.gov/aphis/resources/ppa-projects>

B. State Programs

California Invasive Species Account

Authority: Assembly Bill No. 2470, Chapter 870 (2017-18)

The Invasive Species Account was established by the state legislature within the California Department of Food and Agriculture (CDFA) Fund. Funding is appropriated to support invasive species projects and activities recommended by the Invasive Species Council of California (ISCC), comprised of representatives from six state agencies or offices. Deliberations of the California invasive species advisory committee are used to inform the decisions of the ISCC. The Account can be used to:

- assist state, federal, and local agencies to prevent the introduction of invasive species
- support relevant state agencies and departments in the:
 - detection, control, and eradication of invasive species, including emergency and nonemergency detection and rapid response
 - development and maintenance of statewide surveys and mapping of high-risk areas
 - improvement of inspections at state and national boundaries to prevent the introduction of invasive species

- develop comprehensive reports on the ecological, agricultural, and economic impacts of invasive species
- develop statewide education, outreach, and branding of invasive species
- increase coordination and collaboration among invasive species partners
- develop statewide invasive species action plans, including a plan for diseases associated with the spread of invasive shot hole borers
- host an annual California Invasive Species Summit to develop new recommendations and to coordinate invasive species activities
- support eradications in Weed Management Areas

Eligibility: Funding is available through approved grants to state and local agencies, and Native American tribes in California. Awards are contingent upon local agencies' ability to provide matching funding for projects, unless the local agency is in a disadvantaged community.

Proposal Requirements / Timelines: Funding proposals or concepts are considered on an ad hoc basis by the California invasive species advisory committee. They are then forwarded to the ISCC for consideration and approval on an individual basis.

Funding: No funding was appropriated for the account in Assembly Bill 2470. Separate from that Bill, the state legislature appropriated \$10,000,000 for the control and/or eradication of invasive shot hole borers.

Resources

Assembly Bill 2470 – Invasive Species Council of California

https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180AB2470

Hawai'i Invasive Species Funding Mechanisms

Hawai'i Invasive Species Council Annual Request for Proposals

The Hawai'i Invasive Species Council (HISC) maintains an annual request for proposals related to control, outreach, research, and prevention activities. HISC does not have an established fund but receives legislative appropriations that are placed in an existing fund under the Division of Forestry and Wildlife in the Department of Land and Natural Resources (DLNR). Funds are provided to the Council by the state legislature to support interagency collaborations that fill gaps between agency mandates and existing programs, or advance collective knowledge and tools through research and innovations. Guidance for priority funding areas can be drawn from the Hawai'i Interagency Biosecurity Plan, the HISC Strategic Plan, HISC Resolutions, and the Regional Biosecurity Plan for Hawai'i and Micronesia. Rapid response projects are typically considered in the context of control with related funding having supported the University of Hawai'i Invasive Species Committees and the Hawai'i Ant Lab. This support has helped to fill gaps in early detection and rapid response. HISC funds also supported the first aquatic rapid response team, which is now funded through DLNR's administrative budget.

Eligibility: Eligible entities include state and county agencies, including the University of Hawai'i system, and federal agencies partnering with state agencies on issues relevant to Hawai'i. Public universities in other U.S. states are also eligible if working on issues of concern to Hawai'i. While private contractors are not directly eligible for HISC funds, applicants can request funds for contractual services as part of their proposed budget. If funds are awarded, it will be the responsibility of the applicant to then establish a request for bids and follow appropriate procurement rules.

Proposal Requirements / Timelines: Applicants submit an online application that provides: a) project information; b) project narrative; c) applicability to funding priorities identified in the call for proposals;

d) project reporting and outcomes; and e) project budget. Typically, a call for proposals is released in April or May, which are due in June. An interagency work group compiles a projects budget based on submissions and provides that to the Hawai'i Invasive Species Council for approval. All funds awarded by July 1, must be spent by December 31 of the following year. Additional project co-financing is encouraged but not required, and a final report is due at the project's conclusion.

Funding: HISC is funded from appropriations by the legislature. The legislature appropriated \$5,750,000 to the HISC for state FY2020, which is subject to expenditure restrictions and overhead by the agency that administers the HISC. HISC funding has only recently been incorporated as a line item in DLNR's budget, and prior to that funding levels fluctuated and were not guaranteed.

Resources

Hawai'i Invasive Species Council Funded Projects <https://dlnr.Hawai'i.gov/hisc/projects/>

Pest Inspection, Quarantine and Eradication Fund

This fund is documented under Hawai'i Revised Statute (HRS) 150A-4.5 and receives revenue from the Inspection, Quarantine and Eradication Service Fee (aka, Cargo Fee). The current fee of \$0.75 per ton of incoming domestic sea cargo is paid by the shipper, collected by the transportation company, and then transferred over to the state. The fund pays for the operating costs of pest inspection, quarantine, eradication, and monitoring programs and related purposes. Currently, the fee is collected only on shipments by water, but there are calls to apply the fee to shipments by air.

Additional sources of revenue for the fund include:

- Legislative appropriations for biosecurity and inspection, quarantine, and eradication services
- Service fees, charges, and penalties collected under section 150A-5.3
- Fees imposed for services pursuant to this chapter or rules adopted under this chapter
- Fines for violations
- Federal funds received for biosecurity, pest inspection, control, management, quarantine, and eradication programs
- Grants and gifts
- All interest earned or accrued on moneys deposited in the fund
- Any other moneys made available to the fund

Funding: The fund must be used for the operation of biosecurity and pest inspection, quarantine, eradication, and monitoring programs; the electronic importer manifest program; related facilities; the execution of emergency remedial measures when pests are detected in the course of inspection and quarantine activities by the department; training of inspectors; and education of the agricultural industry, permit and certificate holders, and the general public as to import requirements. The fund can also be used to facilitate the processing and issuance of permits and microorganism import documents and for the operations, activities, and monitoring of permitted and certified plants, animals, and microorganisms.

Resources

§150A-4.5 – Pest Inspection, Quarantine, and Eradication Fund

https://www.capitol.Hawai'i.gov/hrscurrent/Vol03_Ch0121-0200D/HRS0150A/HRS_0150A-0004_0005.htm

Idaho Invasive Species Act of 2008

This law addresses the increasing threat of invasive species in Idaho by providing policy direction, planning, and authority to combat invasive species and to prevent the introduction of new invasive species to the state. This law establishes the relevant duties of the Idaho State Department of Agriculture (ISDA) and its Director, authorizes the ISDA Director to promulgate rules, and gives authority to conduct inspections as necessary.

Program activities are funded through several sources, each with their own purpose and restrictions:

- **General Fund:** The Legislature currently appropriates funding from the General Fund. The appropriation does come with some direction related to operational expectations regarding watercraft inspection stations. The General Fund supports personnel costs and operations but is not available for capital purchases. The Legislature added General Fund appropriations when operations were expanded beyond the funding availability in the IISF.
- **Idaho Invasive Species Fund (IISF):** This dedicated fund was the original funding source for all program activities when the program was originally developed in 2009. Aside from any specific directions that might come from the Legislature as this fund is appropriated each fiscal year (including spending authority), there are not any restrictions to the use of this fund. The statute allows for use of the IISF for invasive species treatment and eradication.
- **Federal funds:** The Idaho program utilizes several federal grants for program activities. Currently, the most significant of these federal funding sources is a grant from the U.S. Army Corps of Engineers. This fund provides federal cost share for expenses related to watercraft inspection stations.
- **Invasive Species Deficiency Warrant:** The Invasive Species Act provides deficiency warrant authority. This unappropriated emergency funding source is present in several programs within the ISDA. The statute outlines several activities allowed under the deficiency warrant, including treatment and eradication of invasive species. Use of the deficiency warrant requires prior approval from the Idaho Board of Examiners.

Idaho Invasive Species Fund

The IISF is administered by the ISDA, and revenue is secured through a sticker fee on motorized and non-motorized watercraft (both in and out of state) established by the Idaho Department of Parks and Recreation (IDPR) in 2009. The fund can support activities related to the prevention, detection, control, and management of invasive species, which can include rapid response.

Eligibility: The IISF is used to support ISDA agency operations and not those of outside entities.

Funding: The IISF generates revenue through the collection of reasonable fees for permits, including the Invasive Species Sticker Rules under the Safe Boating Act (Title 67, Chapter 70, Idaho Code). Enacted in 2009, the sticker rules require motorized and non-motorized boats to display an Invasive Species Sticker to launch and operate on Idaho's waters. The sticker program establishes annual user fees for resident, nonresident, and nonmotorized vessels. The fee collection activity resides with the IDPR. Revenue generated from this program (~\$1.2 million/annually) is deposited in the IISF.

The Idaho Legislature also provides a separate source of funding for rapid response-specific activities called a "deficiency warrant." The ISDA has warrant authority for several programs (with approval from the Board of Examiners), including plant pests and diseases. Funding in the deficiency warrant is unappropriated and has a cap of \$5 million annually. The authorizing statute language specifically points to "treatment and eradication" as proper activities under the warrant.

In the event of a rapid response scenario in Idaho, sources of funding for action would be: 1) the deficiency warrant (\$5M); 2) any available balance in the Sticker Program Fund (described above); and 3) any General Fund monies not otherwise being utilized.

Resources

Idaho Invasive Species Fund <https://legislature.idaho.gov/statutesrules/idstat/Title22/T22CH19/SECT22-1911/>

Idaho Invasive Species Program <http://invasivespecies.idaho.gov/>

Idaho Invasive Species Strategic Plan

https://static1.squarespace.com/static/564b8c9ae4b0459b2b8187a3/t/5a4681049140b7ea14babfe4/1514570012237/Idaho+IS+Strategic+Plan+2017-2021_Compacted+for+Web.pdf

Idaho Rapid Response Plan

https://static1.squarespace.com/static/564b8c9ae4b0459b2b8187a3/t/57f28b53c534a5d6100d0266/1475513215583/IDAHO+RAPID+RESPONSE+PLAN+FINAL+10_21_2015.pdf

Maine Invasive Plant Removal Grants

The Maine Department of Environmental Protection (DEP) offers competitive grants for the manual removal of invasive aquatic plants in confirmed infested Maine water bodies with the objectives of reducing the likelihood of spread to other waters, limiting the impact on natural habitat and human use of the water body, and maintaining property values. These grants are awarded through a Request for Proposals process.

Eligibility: Eligible entities include municipal and county governments, quasi-municipal organizations (including water districts), and non-profit organizations such as lake associations.

Proposal Requirements / Timelines: For Invasive Plant Removal Grants:

- **Project Purpose:** Projects should identify clear goals, utilize proven and effective methods, indicate the likelihood of success, and include a plan for monitoring effectiveness of removal efforts. The Department prefers projects that provide multi-year planning and demonstrate how each year builds off the progress of previous work.
- **Local Support and Funding:** Applicants must bring their own resources to the project in the form of cash and in-kind support (volunteer services or donations of goods and services). A minimum 20% cash match is required for each grant application proposal. The DEP prefers projects that maximize local match and demonstrate strong community support for invasive aquatic species prevention and control.
- **Courtesy Boat Inspection Program:** Applicants for plant control projects should have an active Courtesy Boat Inspection program or explain why one is not warranted.
- **Plant Survey:** Applicants must have completed at least a Level 2 plant survey per the Volunteer Lake Monitoring Program's Invasive Aquatic Plant Screening Survey Procedures.
- **Training, Experience and Track Record:** Application proposals demonstrating trained and experienced staff and volunteers are given additional consideration by reviewers. DEP also considers the applicant's performance under past cost share grants, if applicable when reviewing the current application.

Funding is granted for one year, but proposals are required to include at least general plans for the following year. The DEP is considering accepting proposals for multi-year funding. Grant funding in 2020 for plant removal grants totaled \$300,000.

Funding: These grant programs are funded by a fee assessed to boat registrations, which has recently increased to \$15 annually for in-state registrations and \$35 annually (\$45 annually starting in 2022) for out-of-state registrations. The Department of Inland Fish and Wildlife (DIFW), which administers boat registration, is responsible for collecting the Courtesy Boat Inspection fees. The funding is then split between DIFW (for enforcement) and the DEP (for prevention, survey, management, and outreach).

Resources

Invasive Aquatic Plants Funding Opportunities

<https://www.maine.gov/dep/water/grants/invasive/index.html>

Grant Requests for Proposals and Requests for Applications

<https://www.maine.gov/dafs/bbm/procurementservices/vendors/grants>

New York Department of Environmental Conservation Invasive Species Grant Program

In 2019, the Invasive Species Grant Program was consolidated to combine previous opportunities, such as the Aquatic Invasive Species Spread Prevention and the Aquatic and Terrestrial Invasive Species Early Detection/Rapid Response grants, to create a single grant program designed to support projects that target both aquatic and terrestrial invasive species. In addition, the Invasive Species Grant program allows applications for two new categories: Lake Management Planning and Aquatic and Terrestrial Invasive Species Research.

Eligibility: Projects must address one of the areas below:

Aquatic Invasive Species Spread Prevention

- Boat Steward Education and Outreach/Voluntary Inspection
- Boat Decontamination Stations to augment existing steward programs for education and outreach and voluntary boat inspections

Terrestrial and Aquatic Invasive Species Rapid Response and Control

- Physical and Mechanical Removal: Hand pull, drawdown, and mechanical harvesting
- Chemical Treatment: Herbicides and shading
- Biocontrol Release: Grass carp and herbivorous insects

Terrestrial and Aquatic Invasive Species Research

- Understanding the life history of listed Prohibited and Regulated invasive species
- Researching impacts of invasive species to native plants, animals, water quality and environmental factors
- Developing effective, selective control methodologies with long-term management strategies for natural areas
- Collecting and analyzing data to better understand the prevention, introduction, spread, management, and ecology of invasive species
- Documenting viability of aquatic invasive species under specific conditions, specifically time out of water

Lake Management Planning

- Develop and finalize a lake management plan for priority waterbodies.

Proposal Requirements / Timelines: Project proposals are accepted based on the publication of a Request for Applications. All projects must have defined objectives, tasks, and deliverables accounted

for in performance measures that can be completed and invoiced within a three-year contract period/term. For proposals in the Terrestrial and Aquatic Invasive Species Rapid Response and Control category, applicants are expected to provide information on initial discovery, size of the infested area, percentage of the area infested, and percent of the area treated. Experience has shown that these four criteria are critical to selecting EDRR projects with a high probability of success within the short window of a typical grant project (e.g., three years).

The possibility of a one-year, no cost time extension beyond the contract term end date will be determined by the Department based upon written justification from the Grantee. Recipients are required to provide a 25% funding match. Funding decisions are made by the Department of Environmental Conservation Invasive Species Coordination Section within the Division of Lands and Forests.

Funding: Approximately \$3,000,000 was available for 2019 Invasive Species Grants with \$1,000,000 allocated for rapid response and control projects. Funding for this grant opportunity is provided annually from the Environmental Protection Fund. Minimum grant amount is \$11,000; Maximum grant amount is \$100,000.

Resources

Invasive Species Grant Program

[https://www.dec.ny.gov/animals/115742.html#:~:text=DEC%20received%2096%20application%20and,\(EPF\)%20to%2042%20projects.&text=These%20projects%20help%20address%20the,for%20their%20control%20and%20management](https://www.dec.ny.gov/animals/115742.html#:~:text=DEC%20received%2096%20application%20and,(EPF)%20to%2042%20projects.&text=These%20projects%20help%20address%20the,for%20their%20control%20and%20management)

Oregon Invasive Species Control Account

Authority: Oregon House Bill 2213 of 2009 (ORS 570.810)

In 2009, the Oregon state legislature established the Invasive Species Control Account for the purposes of eradicating or controlling new infestations of invasive species in Oregon. The account is overseen by the Oregon Invasive Species Council (OSIC), which may be petitioned and asked to declare an Invasive Species Emergency and release funds for a rapid response. A separate Aquatic Invasive Species Prevention Fund was established at the same time to fund the state's watercraft inspection program.

Eligibility: A grant applicant must be an Eligible Legal Entity (with FEIN number), including a member of a local or tribal government, non-profit organization, educational institution, or individual (note that individuals are not eligible for indirect or administrative costs). A state or federal agency may apply for funding only as a co-applicant with an eligible entity. The project focus can vary but includes rapid response, as funding has been provided in the past to address Japanese beetles and sudden oak death.

Proposal Requirements / Timelines: There is an annual request for proposals however project proponents can approach OSIC at any time with a request. A project funding match of 25% is required but can be met with either outside funding sources or in-kind labor match. Applications requesting over \$20,000 may be considered if the applicant can demonstrate significant statewide benefit. Funding decisions are made by OSIC, which includes six state agencies as well as other stakeholder representatives. OSIC can expedite their decision-making process if the situation requires it.

Funding: A one-time appropriation from the Oregon All-Terrain Vehicle Fund administered by the Oregon Parks and Recreation Department provided \$350,000 of seed funding with additional funds credited to the account representing interest accrued. When the account was established, the goal was to create a revolving \$5,000,000 account. The account is funded through a portion of lottery funds, which are split with other programs. While annual replenishment varies it currently is around \$230,000. Awards range between \$2,000 to \$20,000 depending on the scope of the project.

Resources

Oregon Revised Statute 570.810 – Invasive Species Control Account

<https://www.oregonlaws.org/ors/570.810>

OISC Education and Outreach Grants <https://www.oregoninvasivespeciescouncil.org/grants>

Wisconsin Aquatic Invasive Species Programs

Funding for Wisconsin’s Aquatic Invasive Species Surface Water Program and Aquatic Invasive Species Prevention and Control Grant Program is generated through an excise tax on estimated gasoline usage in motorboats and off-road vehicle use.

Aquatic Invasive Species Surface Water Grant Program

The Surface Water Grant program provides funds for state projects related to surface water management. Projects are considered under two categories:

- Education and Planning: Projects that help communities understand surface water conditions, determine management goals, and develop strategic management plans.
- Management: Projects that protect and improve water quality and aquatic habitat and prevent and control aquatic invasive species. Some projects require an approved recommendation in a management plan to be eligible for funding.

Eligibility (see table):

<i>Automatically eligible</i> <i>(no organizational eligibility application required):</i>	<i>Must apply to be an eligible organization:</i>
Natural resource agencies	Qualified surface water management organizations
Tribal governing bodies	Nonprofit conservation organizations
Accredited colleges, universities and technical schools	Qualified lake associations
Town sanitary districts	Qualified river management organizations
Counties	Qualified school districts
Municipalities	
Other local units of government	
Lake districts	

Funding: The Surface Water Grant Program provides around \$6 million annually to eligible applicants. Most grants are required by state statute to be cost-shared, that is, grantees must contribute a percentage of the project’s total costs. The portion paid by the grantee is called grantee match, while the department’s contribution is called the Department of Natural Resources cost share.

All planning grants provide a 67% cost share, while all management grants (including those for Aquatic Invasive Species Rapid Response) are shared at a rate of 75%. The funding cap for Aquatic Invasive Species Rapid Response projects is \$25,000.

Resources

Department of Natural Resources Surface Water Grant Applicant Guide (2021)

<https://dnr.wi.gov/files/pdf/pubs/cf/CF0002.pdf>

AIS Prevention and Control Grant Program

Authority: Ch. NR193, Wis. Admin. Code

The Aquatic Invasive Species Prevention and Control Grants program was created under the Wisconsin Department of Natural Resources (WDNR) to increase its support of local efforts to prevent the spread of introduced aquatic invasive species covering inland lakes, great lakes, rivers, and wetlands.

Eligibility: Under the grant program, projects focused on early detection and response projects should address education, population monitoring, and early planning steps for any population of classified prohibited species or pioneering populations of restricted species as listed in Ch. NR40 of the Wisconsin Administrative Code. Control actions may be appropriate when they are likely to result in population removal or limitation of a population to small size. Control actions must be developed in coordination with the department and are subject to department approval.

One grant is available for pioneering populations of restricted invasive species. Multiple grants sought in succession are available for prohibited species. Pioneering populations are in the early stages of colonization. WDNR may use best professional judgement, considering population extent, abundance, and spatial distribution to determine whether the population may be qualified as a pioneer population. For rooted aquatic plant species, a pioneering population covers a small area, is typically sparse, and will have been verified during the preceding five years. A pioneering population will cover an area that is less than three acres in size or has colonized less than 3% of the habitable area of the lake, stream reach, or wetland, whichever is greater. WDNR may specify control measures and require monitoring and reporting activities for projects funded in part with early detection and response dollars.

Proposal Requirements / Timelines: While there is a request for proposals process, funding requests for early response grants are processed on an ongoing, as-needed basis, and funding decisions are made by program staff. Eligible organizations and individual land holders may apply for grants for prohibited species. Populations of restricted species must be *pioneering* populations. For rapid response incidents, early detection and response grants can give eligible applicants a head start with planning and management, and proposals are accepted on a first-come, first-served basis. Because projects occur without the guidance of a management plan, projects must be conducted in coordination with WDNR. Project duration is typically one to two years and should be less than three.

Funding: The program has an annual appropriation of \$4,029,100 of which approximately 10% is reserved for early detection and rapid response. Recipients are required to provide a 25% cost share match. One grant advance is available for up to 25% of the total grant award. One partial payment is available per year. Ten percent of the grant award is retained until approval of deliverables and reimbursement documentation.

Resources

Surface Water Grants <https://dnr.wisconsin.gov/aid/SurfaceWater.html>

Department of Natural Resources Surface Water Grant Application Guide
<https://dnr.wi.gov/Aid/documents/SurfaceWater/AISGrantFactSheet.pdf>

C. Regional Programs

Great Lakes and Lake Champlain Invasive Species Program (GLLCISP)

The Great Lakes and Lake Champlain Invasive Species Program was established through the Vessel Incidental Discharge Act (VIDA) of 2018; however, to date it has not received appropriations from Congress. It is intended to:

- monitor for the introduction and spread of aquatic nuisance species into or within the Great Lakes and Lake Champlain systems
- detect newly introduced aquatic nuisance species prior to the establishment of the aquatic nuisance species in the Great Lakes and Lake Champlain Systems
- inform, and assist with, management and response actions to prevent or stop the establishment or spread of an aquatic nuisance species
- establish a watch list of candidate aquatic nuisance species that may be introduced or spread, and that may survive and establish, within the Great Lakes and Lake Champlain systems
- monitor vectors likely to be contributing to the introduction or spread of aquatic nuisance species, including ballast water operations
- work collaboratively with the federal, state, local, and tribal agencies to develop criteria for prioritizing and distributing monitoring efforts
- develop, achieve type approval for, and pilot shipboard or land-based ballast water management systems installed on, or available for use by, commercial vessels operating solely within the Great Lakes and Lake Champlain systems to prevent the spread of aquatic nuisance species populations within the Great Lakes and Lake Champlain systems
- facilitate meaningful federal and state implementation of the regulatory framework in this section, including monitoring, shipboard education, inspection, and compliance conducted by states

The administration of the program lies with Administrator of the Environmental Protection Agency (EPA), in collaboration with the Director to the U.S. Fish and Wildlife Service, Administrator of the National Oceanic and Atmospheric Administration (NOAA), the Director of the U.S. Geological Survey, the “Secretary of the department in which the Coast Guard is operating’ (currently the Department of Homeland Security); and in consultation with the heads of the Great Lakes Aquatic Nonindigenous Species Information System and the Great Lakes Environmental Research Laboratory, each within NOAA.

Eligibility: NA

Proposal Requirements / Timelines: NA

Funding: Although the VIDA authorized \$50 million for each fiscal year from 2019 to 2023, funds have not been appropriated.

Resources

16 USC 4730 – Great Lakes and Lake Champlain Invasive Species Program

<https://uscode.house.gov/view.xhtml?req=granuleid:USC-prelim-title16-section4730&num=0&edition=prelim#codification-note>

Vessel Incidental Discharge Act <https://www.epa.gov/vessels-marinas-and-ports/vessel-incident-discharge-act-vida>

Great Lakes Restoration Initiative (GLRI)

The Great Lakes Restoration Initiative was launched in 2010 as a non-regulatory program to accelerate efforts to protect and restore the largest system of fresh surface water in the world, and to provide additional resources to make progress toward the most critical long-term goals for this important ecosystem. The GLRI has provided funding to sixteen federal organizations to target the biggest threats to the Great Lakes ecosystem and to accelerate progress toward achieving long term goals, including “no new self-sustaining invasive species” and “existing invasive species controlled.”

The GLRI Action Plan III was developed with input from states, tribes, local governments, universities, business, and others. It outlines priorities and goals for the GLRI for fiscal years 2020-2024, working to accelerate environmental progress in five Focus Areas, including “Focus Area 2: Invasive Species.” There are three sub-goals for Invasive Species:

- 2.1. Prevent introductions of new invasive species
- 2.2. Control established invasive species
- 2.3. Develop invasive species control technologies and refine management techniques

Eligibility: GLRI enhances federal agency funding but does not create new authorities. Federal agencies use existing authorities and programs to fund projects. Many federal agencies use their own funding mechanisms that provide for the eligibility of various entities including educational institutions, states, tribes, and local communities.

Proposal Requirements / Timelines: Depends on funding agency.

Funding: Approximately \$50-60 million from GLRI is allocated towards Invasive Species projects each year. Approximately \$20 million of this funding is used to fund the actions of the Invasive Carp Regional Coordinating Committee’s Invasive Carp Action Plan which is designed to prevent the establishment of invasive carp in the Great Lakes.

Resources

Great Lakes Restoration <https://www.glri.us/>

Invasive Carp Regional Coordinating Committee <http://invasivecarp.us/>

Lake Champlain Basin Program Aquatic Invasive Species Rapid Response Fund

The Lake Champlain Basin Program (LCBP) works in partnership with government agencies from New York, Vermont, and Québec, private organizations, local communities, and individuals to coordinate and fund efforts that benefit the Lake Champlain Basin’s water quality, fisheries, wetlands, wildlife, recreation, and cultural resources. The LCBP works with its program partners, advisory committees, and local communities to implement these efforts guided by the management plan, *Opportunities for Action: An Evolving Plan for the Future of the Lake Champlain Basin*. The LCBP awards grants from a variety of federal, state, and local funds.

The LCBP itself is administered jointly by several agencies: U.S. Environmental Protection Agency (New England and Region 2), New York State Department of Environmental Conservation, Vermont Agency of Natural Resources, Québec Ministry of Sustainable Development, Environment, Fauna and Parks, and New England Interstate Water Pollution Control Commission. LCBP provides funding through different programs, including one for Local Grants.

Eligibility: Eligible organizations include colleges, universities, nonprofit organizations, and non-federal/non-state government agencies (for-profit companies are eligible for some categories). Grant categories relevant to EDRR include:

- Clean water
- Healthy ecosystems
- Education and outreach

Proposal Requirements / Timelines: RFPs for Local Grants are usually released in early fall, with a deadline in late fall and awards announced in early winter.

Funding: Federal agency participation in the LCBP Steering Committee, codified in OFA, reflects the federal commitments established in the Special Designation Act of 1990 and the Daniel Patrick Moynihan Lake Champlain Basin Program Act of 2002, which have enabled substantial U.S. federal funds to be appropriated to support the work of the LCBP. The LCBP receives core funding from the U.S. Environmental Protection Agency, with additional funding from the Great Lakes Fishery Commission, and the National Park Service. Local grants are awarded for up to \$125,000, depending on the category. These funds are made available to the LCBP to support operations and tasks that are consistent with the federal authorizations.

The LCBP Steering Committee requested that \$150,000 be kept in a rapid response fund to support early detection, containment, spread prevention, and control, when possible, of the introduction of a new aquatic invasive species or the spread of an existing aquatic invasive species to a new body of water in the basin. It recently redirected aquatic invasive species rapid response funds to support local watershed organizations through providing emergency relief grants related to the COVID-19 pandemic. The committee has replenished the rapid response fund with additional resources in FY2021, with increasing funding targeting a goal of \$150,000. If the funds are not used by a specified date, the funds will be returned to the watercraft inspection and decontamination program to implement spread prevention.

Resources

Management Plan – Opportunities for Action <https://www.lcbp.org/about-us/opportunities-for-action/>

Request for Proposals <https://www.lcbp.org/about-us/grants-rfps/request-for-proposals-rfps/>

D. Other Resources

California Aquatic Invasive Species Rapid Response Fund: An Economic Evaluation, Cardno-ENTREX Report for USFWS (2011)

This report addresses the economic and institutional aspects of establishing a rapid response fund for aquatic invasive species in California. It addresses potential sources of funding, the level of funding required, economic benefits, institutional arrangements, and funding criteria. It examines established rapid response funding mechanisms in other states and provides a framework for a fund in California.

<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=36250>

S. 3063 / H.R. 4782 Invasive Species Emergency Fund Act (2010, 111th Congress)

The purpose of this bill was to encourage partnerships among federal and state agencies, Indian tribes, academic institutions, and public and private stakeholders to: 1) prevent against the introduction and spread of harmful invasive species; 2) protect, enhance, restore, and manage a variety of habitats for native plants, fish, and wildlife; and 3) establish early detection and rapid response capabilities to combat incipient harmful invasive species. It sought to establish the Invasive Species Emergency Response Fund to provide loans to qualified organizations to prevent and remediate the impacts of invasive species on habitats and ecosystems. The bill authorized \$80 million per year for 2011-2015 through federal loans, of which at least 25% of individual loans would be repaid in 10 years. However, “In-Kind Repayment” would be accepted for maintenance, remediation, prevention, alteration, repair, improvement, or restoration activities. The bill was introduced in the Senate and House in March 2010, however it did not move in either chamber.

S.3063 – Invasive Species Emergency Response Fund Act <https://www.congress.gov/bill/111th-congress/senate-bill/3063>

H.R.4782 – Invasive Species Emergency Response Fund Act <https://www.congress.gov/bill/111th-congress/house-bill/4782>

Appendix III: Funding Models from Other Sectors

Emergency response scenarios are not unique to invasive species, and there are examples of funding mechanisms from other sectors that may be relevant to establishing a rapid response fund for invasive species. The examples below are all from a federal context although they can be used to support non-federal entities. Table 2 includes a brief overview of highlighted examples with additional details below.

Federal Program	Administering Agency	Scope/Target	Recipients	Funding Source
Burnt Area Emergency Recovery Program	U.S. Forest Service	Post-wildfire emergency stabilization and rehabilitation	Federal land management agencies	Appropriations
Commodity Credit Corporation	Farm Service Agency	Stabilization, support, and protection of farm income and prices	Farmers, ranchers, and other agricultural producers	Annual borrowing authority from U.S. Treasury
Comprehensive Environmental Response, Compensation, and Liability Act (Superfund)	Environmental Protection Agency	Removal of and rehabilitation from hazardous substances	Federal, state, and local agencies	Excise tax, fines/penalties
Emergency Watershed Program	Natural Resources Conservation Service	Watersheds impacted by natural disasters	Cities, counties, soil and water conservation districts, irrigation and water control districts, and federally recognized Native American tribes or tribal organizations	Appropriations
Oil Spill Liability Trust Fund	U.S. Coast Guard	Oil spills	Federal agencies, damage claimants	Excise tax, cost recovery from spills, fines/penalties, transfers from other pollution funds, interest on principal
Public Health Emergency Preparedness Cooperation Agreement process	Centers for Disease Control	Public health threats	State, territorial, and local public health agencies	Appropriations
Stafford Disaster Relief and Emergency Assistance Act	Federal Emergency Management Agency	Major disaster for natural events, emergency	State, tribal, and local governments	Appropriations

Table 2: Funding Mechanisms from Other Sectors

Burnt Area Emergency Recovery (BAER) Program [USFS]

In January 2003, the Wildland Fire Leadership Council (WFLC) agreed to common Interagency Rehabilitation and Restoration Program definitions, activity timeframes, and funding processes, with the goal that the U.S. Forest Service and Department of the Interior (DOI) Bureaus act more seamlessly in their delivery of emergency stabilization and rehabilitation programs after wildland fires. It was agreed that these federal agencies would *inter alia*:

- Limit initial emergency stabilization treatments to one year post-fire

- Monitor, using emergency funds, the effectiveness of emergency stabilization treatments for three years post-fire
- Repair or replace emergency stabilization structures or other treatments for three years post-fire where failure to do so would imperil watershed functionality or result in serious loss of downstream values
- Fund emergency stabilization and monitoring from an emergency account and not directly from the incident suppression account
- Supplement emergency stabilization funding using the Secretaries' emergency transfer authority for wildland fire if annual appropriations plus carryover funds are insufficient to implement emergency treatments
- Fund rehabilitation treatments for up to three years post-fire from a non-emergency, non-suppression, wildland fire account
- Adopt the Emergency Stabilization and Rehabilitation/BAER definitions and timeframes shown below

The resulting BAER program was designed to identify and manage potential risks to resources on National Forest System lands and reduce these threats through appropriate emergency measures to protect human life and safety, property, and critical natural or cultural resources. BAER is an emergency program for stabilization work that involves time-critical activities to be completed before subsequent storms can erode or otherwise impact the area. The program's key objective is to determine the need for, and as necessary prescribe and implement emergency treatments on federal lands to minimize threats to life or property resulting from the effects of a fire or to stabilize and prevent unacceptable degradation to natural and cultural resources.

Eligibility: Assistance through the BAER program is available to federal land management agencies. Of particular note, according to the Burned Area Emergency Stabilization and Rehabilitation Handbook (2006), allowable emergency stabilization actions are limited to the following items with regard to invasive species:

- Seeding to prevent establishment of invasive plants, and direct treatment of invasive plants. Such actions will be specified in the emergency stabilization plan only when immediate action is required and when standard treatments are used that have been validated by monitoring data from previous projects, or when there is documented research establishing the effectiveness of such actions.
- Using integrated pest management techniques to minimize the establishment of non-native invasive species within the burned area. When there is an existing approved management plan that addresses non-native invasive species, emergency treatments may be used for site stabilization.

Proposal Requirements / Timelines: The table below shows process and timelines for the BAER program.

	Suppression Rehabilitation	BAER Emergency Stabilization	Rehabilitation	Restoration
Objective:	Repair damages	Prevent further damage	Repair damages	Repair damages
Damage Due to:	Suppression activities	Post-fire events	Fire	Fire
Urgency:	Before Incident closeout	1-12 months	1-3 years	3+ years
Responsibility:	Incident Commander	Agency Administrator	Agency Administrator	Agency Administrator
Funding Type:	Suppression/Suppression	Suppression/Emergency Stabilization	Regular program	Regular program

Resources

Burned Area Emergency Response (BAER)

<https://www.fs.fed.us/naturalresources/watershed/burnedareas-background.shtml>

Burned Area Emergency Response (BAER) Lessons Learned

<https://www.wildfirelessons.net/HigherLogic/System/DownloadDocumentFile.ashx?DocumentFileKey=7cc9f82f-ea19-fc3f-2c19-37b5bf158005&forceDialog=1>

Burned Area Emergency Response (BAER) Limitations

<https://inciweb.nwcg.gov/incident/article/6796/52267/>

Burned Area Emergency Stabilization and Rehabilitation BLM Handbook

https://www.blm.gov/sites/blm.gov/files/uploads/Media_Library_BLM_Policy_Handbook_h1742-1.pdf

Commodity Credit Corporation [USDA]

The Commodity Credit Corporation (CCC) is a wholly owned government corporation created in 1933 under a Delaware charter and reincorporated on June 30, 1948, as a federal corporation within the Department of Agriculture by the Commodity Credit Corporation Charter Act.

CCC funds are used to implement specific programs established by Congress as well as to carry out activities under the broad authorities of the CCC Charter Act. At this time, the principal programs established by Congress that are funded by CCC include:

- Domestic farm income, price support and conservation programs under various statutes including the Agricultural Act of 2014
- Foreign market development and other international activities of the Department of Agriculture under several statutes including the Agricultural Trade Act of 1978
- Activities of the United States Agency for International Development under Title II of the Food for Peace Act

Eligibility: Eligibility requirements differ between the various CCC program areas with most of the funding being provided directly to agricultural producers in the form of loans or direct payments.

Resources

Commodity Credit Corporation <https://www.usda.gov/cc>

Comprehensive Environmental Response, Compensation, and Liability Act (Superfund) [EPA]

Enacted in 1980 and amended in 1986, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, created a tax on the chemical and petroleum industries and provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and established a trust fund to provide for cleanup when no responsible party could be identified.

Two different response actions are authorized through CERCLA:

- Short-term removals, where actions may be taken to address releases or threatened releases requiring prompt response
- Long-term remedial response actions, that permanently and significantly reduce the dangers associated with releases or threats of releases of hazardous substances that are serious, but not immediately life threatening

Superfund (and the Oil Pollution Act [OPA]) requires the cleanup for contaminants that are released and pose a threat to human health and the environment. In addition to the requirements for cleanup under these cleanup programs, the Superfund and OPA cleanup programs also require that natural resources be restored to the state that they were at before injury from environmental contaminants. If natural resources are not restored, then compensation for the injury will be sought from the party responsible for the release of the contaminants.

Natural Resource Trustees, designated from select federal agencies, as well as state and tribal governments, conduct Natural Resource Damage Assessments (NRDAs) to calculate the monetary cost of restoring injuries to natural resources that result from releases of hazardous substances or discharges of oil. Damages to natural resources are evaluated by identifying the functions or “services” provided by the resources, determining the baseline level of the services provided by the injured resource(s), and quantifying the reduction in service levels as a result of the contamination. Regulations for assessing NRD are part of both CERCLA and OPA.

NRDAs take place following cleanup because cleanups sometimes also effectively restore habitat. Because the choices made in cleanup decisions can affect the amount of damage to natural resources, EPA coordinates with Trustee agencies on cleanup decisions. This coordination helps to inform EPA about the potential impacts of different cleanup alternatives on natural resources, which can help to reduce the potential liability for the damage caused by contamination.

Trustees have the responsibility for restoring injured natural resources. The two major areas of responsibility are: 1) assessment of injury to natural resources, and 2) restoration of natural resources injured or services lost due to release or discharge. If natural resources are injured by a discharge or release of a mixture of oil and hazardous substances, DOI regulations are used. The Department of Commerce's National Oceanic and Atmospheric Administration (NOAA) regulations are applicable only in assessing damages resulting from discharges of oil.

DOI Regulations: Executive Order 12580 delegated responsibility to DOI for the assessment of damages for injury to, destruction of or loss of natural resources resulting from a discharge of oil or release of hazardous substance. DOI's regulations provide a framework and standards for the NRDA process in

coastal and marine environments (Type A) and other environments (Type B). Both processes call for assessments in four sequential phases:

- Phase 1 – Pre-Assessment Screen: determines if additional action is warranted
- Phase 2 – Assessment Plan: developed using either Type A or B process then made available for public comment
- Phase 3 – Assessment Implementation: gathering of data necessary to quantify injuries and determine damages
- Phase 4 – Post-Assessment: prepare a Report of Assessment detailing Phase 3 results, providing restoration alternatives based on technical feasibility, relationship of costs to benefits and consistency with response actions.

NOAA Regulations: OPA section 1006(e)(1) requires that NOAA develop regulations for the assessment of natural resource damages that may result from a discharge of oil (except for any part of oil defined as a "hazardous substance" by CERCLA). NOAA's natural resource damage assessment regulations include three phases:

- Phase 1 – Pre-Assessment: determination of jurisdiction under OPA and whether to conduct restoration planning
- Phase 2 – Restoration Planning (injury assessment and restoration selection): evaluation of whether the discharge has resulted in an adverse change in natural resources and/or services; determination of the need for and scale of restoration actions; and development of a draft restoration plan for public comment
- Phase 3 – Restoration Implementation: development of a Final Restoration Plan to Responsible Parties for implementation, or to fund Trustee's implementation costs

Eligibility: Eligibility for Superfund compensation is determined by completion of Ecological Risk Assessments and NRDAs.

Resources

Superfund – CERCLA Overview <https://www.epa.gov/superfund/superfund-cercla-overview>

What is Superfund? <https://www.epa.gov/superfund/what-superfund#:~:text=It%20allows%20EPA%20to%20clean,to%20clean%20up%20contaminated%20sites>

Natural Resource Damages <https://www.epa.gov/superfund/natural-resource-damages>

Natural Resource Damages – Ecological Risk Assessments and Natural Resource Damage Assessments <https://www.epa.gov/superfund/natural-resource-damages-eras-and-nrdas>

Emergency Watershed Protection Program (NRCS)

Administered by USDA's Natural Resources Conservation Service (NRCS), the Emergency Watershed Protection (EWP) Program provides financial and technical assistance to communities responding to natural disasters, such as floods, wildfires, and debris flows. Activities covered under the program include but are not limited to: debris removal; streambank protection; channel and grade stabilization; vegetation establishment; levee repair; and the purchase of floodplain easements. Projects must reduce threats to life and property; be economically, environmentally and socially sound; and must meet NRCS engineering standards and specifications.

NRCS will only provide EWP assistance for measures that provide protection from additional flooding or soil erosion. During project implementation, efforts must be made to minimize adverse environmental impacts associated with the emergency measures and the revegetation of disturbed areas.

Eligibility: EWP Recovery assistance is only available to a local Project Sponsor; however, landowners can apply directly for an EWP floodplain easement. Eligible Project Sponsors include cities, counties, town, Soil and Water Conservation Districts, irrigation and water control districts, or any federally-recognized Native American tribe or tribal organization. Project Sponsors must have a legal interest in, or responsibility for, the areas threatened by a watershed impairment resulting from a natural disaster.

Proposal Requirements / Timelines: To apply, the Project Sponsor submits a letter that includes information on the nature, location, and scope of the problem for which assistance is requested. NRCS staff can assist with letter preparation and offer additional information on EWP program eligibility. A request for assistance must be submitted to NRCS within 60 days of the disaster or when site access becomes available. After receiving a request for assistance, NRCS staff will conduct site visits with potential Project Sponsors to determine eligibility and complete Damage Survey Reports.

Funding: NRCS can pay up to 75% of the cost for eligible emergency projects and local Project Sponsors must provide 25% of total project funding in cash or in-kind services.

Resources

Emergency Water Protection Program

<https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/landscape/ewpp/>

Emergency Water Protection Program, 7 CFR Part 624

https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs143_007598.pdf

Oil Spill Liability Trust Fund [USCG]

The Oil Spill Liability Trust Fund (OSLTF) was established subsequent to the Oil Pollution Act of 1990 (OPA) as a funding source to pay removal costs and damages resulting from oil spills or substantial threats of oil spills to navigable waters of the United States. The OSLTF is used for costs not directly paid by the polluter, referred to as the responsible party. It is also used to pay costs for the response to "mystery spills," for which the source has not been identified.



development.

The OSLTF has two major components:

- The Emergency Fund is available to support Federal On-Scene Coordinators (FOSCs) to respond to oil discharges and for federal natural resource trustees to initiate natural resource damage assessments. The Emergency Fund is capitalized by an annual \$50 million apportionment from the OSLTF.
- The remaining Principal Fund balance is used to pay claims and to fund appropriations by Congress to federal agencies to administer the provisions of the OPA and support research and

The U.S. Coast Guard's National Pollution Funds Center (NPFC) manages the OSLTF. When spills occur, the NPFC provides funding for quick response, compensates claimants for cleanup costs and damages, and takes action to recover costs from responsible parties.

The OSLTF has several recurring and nonrecurring sources of revenue: an oil barrel tax of \$.09/barrel; transfers from other existing pollution funds; interest on fund principal from U.S. Treasury investments; cost recoveries from responsible parties in oil incidents; and fines and civil penalties paid by responsible parties for violations.

Eligibility

- All Federal On-Scene Coordinators (FOSCs) obtain immediate access to a funding account and ceiling for incident response through a Web application managed by the NPFC.
- Other federal, state, local, and tribal government agencies assisting the FOSC get reimbursable funding authority via an FOSC-approved Pollution Removal Funding Authorization (PRFA). NPFC works with the FOSCs and the agencies to set PRFAs in place.
- Natural resource trustees (designated by the President of the United States, state, territorial governor, or Indian tribal governing authority) have several tools for accessing the OSLTF to pay for natural resource assessments and restoration.
- Claimants (including individuals, corporations, and government entities) can submit claims to the NPFC for uncompensated removal costs and OPA damages caused by the oil spill if the responsible party does not satisfy their claims. NPFC adjudicates the claims and pays those with merit.

Proposal Requirements / Timelines: The OPA provides states with access to the OSLTF, which allows them to directly receive federal funds for immediate removal costs in response to an actual or substantial threat of a discharge of oil, after coordination with and approval by the FOSC. States are limited to \$250,000 per incident for removal costs, consistent with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), which provides funds for oil responses under the OSLTF. State access does not supersede or preclude the use of other federal payment regimes. States may also obtain federal funding for oil spill removal actions by supporting the FOSC or by using the claims process. Neither of these methods is subject to the \$250,000 limit per incident.

Incidents must involve a discharge of oil or a substantial threat of a discharge of oil into U.S. navigable waters, and the claim must be submitted within prescribed time periods (three years for damages, six years for removal costs). Additionally, a claimant must claim a damage or removal cost compensable under OPA and must have first presented the claim to the responsible party or guarantor except in certain circumstances.

Funding: The Emergency Fund's annual apportionment of \$50 million occurs at the start of each fiscal year. The Fund is drawn down for the rest of the year and can be substantially depleted by late in the fiscal year. Outflows from the Emergency Fund vary by spill size and location, as well as the responsible party's limit of liability, assets, and responsiveness. In practice, two or more major spills in the same fiscal year could easily deplete the Emergency Fund.

In 2003, the USCG was given authority to advance up to \$100 million from the OSLTF Principal Fund to supplement Emergency Fund shortfalls. The Coast Guard must notify Congress within 30 days after an advance as to the amount advanced and the facts and circumstances necessitating the advance.

Resources

National Oil and Hazardous Substances Pollution Contingency Plan (NCP) Overview

<https://www.epa.gov/emergency-response/national-oil-and-hazardous-substances-pollution-contingency-plan-ncp-overview>

Oil Spill Liability Trust Fund – Funding for Oil Spills

https://www.uscg.mil/Portals/0/NPFC/docs/PDFs/OSLTF_Funding_for_Oil_Spills.pdf

National Pollution Funds Center Mission Overview

https://www.uscg.mil/Portals/0/NPFC/docs/PDFs/Reports/Mission_Overview_2008.pdf

Public Health Emergency Preparedness (PHEP) Cooperative Agreement and Public Health Crisis Notice of Funding Opportunity [Centers for Disease Control]

The Public Health Emergency Preparedness (PHEP) cooperative agreement is a critical mechanism for channeling funding to state, local, and territorial public health departments. Since 2002, the PHEP cooperative agreement has provided assistance to public health departments across the nation to build their capacity to effectively respond to a range of public health threats (e.g., infectious diseases, natural disasters, biological, chemical, nuclear, and radiological events). Preparedness activities funded by the PHEP cooperative agreement specifically targeted the development of emergency-ready public health departments that are flexible and adaptable.

Funding is awarded to state, local, tribal, and territorial public health agencies through Notices of Funding Opportunity (NOFOs) for public health emergencies. Previous emergency experience has demonstrated the impact that initial funding and immediate response can have in mitigating negative health outcomes. CDC's funding approach allows the agency to expedite disbursement of funds through NOFOs to a pre-established list of eligible, "approved but unfunded" (ABU) public health agencies. This ABU list is established from the eligible health departments with pre-existing emergency management programs that submit timely and responsive applications.

CDC activates this process when it determines that a public health emergency has occurred or is imminent and funding is available. CDC will determine which health departments on the ABU list need to be funded, which could include all of them or only a subset. CDC considers factors such as the nature of the specific emergency, disease burden (if appropriate), geographic location, health impact, and national priorities, among other factors.

Eligibility: Eligible entities include all 50 states; five U.S. territories and three freely associated states; six localities (Chicago, Houston, Los Angeles County, New York City, Philadelphia, and Washington, D.C.); and federally recognized tribal governments that meet the NOFO requirements and serve, through their own public health infrastructures, at least 50,000 people. The Division of State and Local Readiness in CDC's Office of Public Health Preparedness and Response (OPHPR) manages the initial response component, while longer-term, crisis-specific response activities are supported by various CDC programs.

Proposal Requirements / Timelines: Subject to the availability of funds, recipients would receive funds to stand up emergency activities for the first 120 days of the event. This would enable them to quickly begin response activities, such as activating an emergency operations center, preparing contracts for surge staffing, implementing risk communications activities, and determining crisis-specific resources that will be needed over the course of the response.

Funding: Public Health Crisis Response funding data for FYs 2018-2022 is available at:

https://taggs.hhs.gov/Detail/CFDADetail?arg_CFDA_NUM=93354

Resources

Public Health Crisis Response Notices of Funding Opportunity

<https://www.cdc.gov/cpr/readiness/funding-crisis.htm>

CDC Public Health Crisis Notice of Funding Opportunity [https://www.ncsddc.org/wp-](https://www.ncsddc.org/wp-content/uploads/2017/10/CDC-Crisis-NOFO-Fact-Sheet.pdf)

[content/uploads/2017/10/CDC-Crisis-NOFO-Fact-Sheet.pdf](https://www.ncsddc.org/wp-content/uploads/2017/10/CDC-Crisis-NOFO-Fact-Sheet.pdf)

Stafford Disaster Relief and Emergency Assistance Act (Disaster Relief Fund) [FEMA]

The Stafford Act authorizes the President to issue two types of declarations that could provide federal assistance to states and localities in response to an incident: an “emergency declaration” or a “major disaster declaration.” Funding for Stafford Act activities derives from annual appropriations made to the Disaster Relief Fund, which is managed by the Federal Emergency Management Agency (FEMA) within the Department of Homeland Security.

At the request of the Governor of an affected state, or a Chief Executive of an affected tribe, the President may declare a major disaster or emergency if an event is beyond the response capabilities of the state, tribal, and jurisdictional governments. Among other things, a Stafford Act declaration allows federal assistance to be mobilized and directed in support of state, tribal, and jurisdictional response efforts. A Stafford Act authorization allows access to several programs: 1) FEMA’s Public Assistance disaster grants which provides funding to address response costs (e.g., emergency protective measures) and recovery costs (e.g., reimbursements to states and tribes for public infrastructure repairs); 2) Individual Assistance which is funding provided directly to individuals impacted by a disaster; and 3) Hazard Mitigation Grant Program funding, which helps states and tribes prepare for future disasters.

Under the Stafford Act ([42 USC Chapter 68](#)), the President can also declare an emergency without a Gubernatorial request if primary responsibility for response rests with the federal government because the emergency involves a subject area for which the United States exercises exclusive responsibility and authority. In addition, in the absence of a specific request, the President may provide accelerated federal assistance and federal support where necessary to save lives, prevent human suffering, or mitigate severe damage, and notify the state of that activity. These instances are rare and unique in nature.

Eligibility: State and local governments, tribes, and certain private nonprofit entities that provide services of a governmental nature are eligible for Public Assistance funding. Eligibility is based on four components:

- Applicant: state, territory, tribe, local government, or private nonprofit organization.
- Facility: building, public works, system, equipment, or natural feature.
- Work: Emergency or Permanent. Required as a result of the declared incident, located within the designated disaster area, and the legal responsibility of the applicant.
 - Emergency: Addresses an immediate threat: a) debris removal; b) emergency protective measures.
 - Permanent: Addresses restoration of: c) roads/bridges; d) water control facilities; e) buildings/equipment; f) utilities; and, g) parks, recreational and other facilities.
- Cost: Funding tied directly to eligible work, and must be adequately documented, authorized, necessary and reasonable. Eligible costs include labor, equipment, materials, contract work, as well as direct and indirect administrative costs.

Proposal Requirements / Timelines: The federal share of assistance is no less than 75% of eligible cost. The non-federal share is up to 25%. Projects in general must be completed within regulatory deadlines.

Emergency work must be completed within six months, and permanent work within 18 months. More details on the assistance process are included in the resources below.

Resources

A Guide to the Disaster Declaration Process and Federal Disaster Assistance

https://www.fema.gov/pdf/rrr/dec_proc.pdf

Assistance for Governments and Private Non-Profits after a Disaster <https://www.fema.gov/public-assistance-local-state-tribal-and-non-profit>

How a Disaster Gets Declared <https://www.fema.gov/disaster/how-declared>

Disaster Declaration Process

https://www.fema.gov/pdf/media/factsheets/dad_disaster_declaration.pdf