



Ad-Hoc INDUSTRY

NATURAL RESOURCE
MANAGEMENT GROUP

A BEST PRACTICE FRAMEWORK:
Coordinating Emergency Response and Restoration

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Note to Reader: This document is one of four Best Practice Approach Frameworks presented and discussed at (and subsequent to) the Natural Resources Symposium held in September 2022 at The George Washington University Law School in Washington, DC. See www.NaturalResourcesSymposium.com. Symposium participants were unanimous that the Draft for Discussion Best Practice Frameworks should be made available broadly within multistakeholder law, policy and practice communities. Ongoing Working Groups on this and other topics, coordinated by the Ad-Hoc Industry Natural Resource Management Group, continue to address possible refinements and expansions to the Frameworks and identify additional documents or activities as appropriate. In fact, a multistakeholder Workshop on this Framework and related issues is planned for 2024.

Feedback on this Framework is welcomed. Contact us at info@NRDOnline.org with your comments and suggestions, requests to be added to distribution for updates or join our ongoing activities on this important issue.

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Introduction

This document presents a Best Practice Framework for coordinating emergency response and natural resource damage considerations at an oil spill. It assumes advance knowledge of the natural resource damage assessment (NRDA) process as defined in various federal and state statutes and regulations^{\1}. The process outlined here consists of four main steps, each of which is detailed below.

The Framework is intended for multistakeholder use as a way to evaluate the merits of coordination rather than undertaking emergency response and restoration of natural resources as sequential processes. De facto, the Framework is also aimed at building consistency in practice as to how these issues can be considered prior to, during and after an oil spill occurs.

While the issues at hand in site-specific situations will define the extent to which these processes should be coordinated, the consideration of natural resource damages from the outset of an oil spill is generally viewed to be favorable even if it subsequently results in a decision to bifurcate the two processes. Coordination typically can result in time and money savings and also expedite restoration of injured resources as appropriate.

We first outline the legal and regulatory underpinnings of the emergency response/restoration paradigm below, followed by presentation of the Framework, and some cost-benefit considerations. Additional resources pertinent to the Framework and related issues are also provided. Appendix A contains a case example application of the Framework and Appendix B includes additional resources.

Legal and Regulatory Context

Key Laws/Responsibilities. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Oil Pollution Act (OPA) treat emergency response for releases of hazardous substances (CERCLA) and oil spills (OPA) and assessment of natural resource damages as separate processes. Oil spill response actions are led by the US Environmental Protection Agency (US EPA) for inland waters and the US Coast Guard (USCG) for spills in coastal waters and deepwater ports. Their role is to determine the response actions needed.

The US Department of the Interior, NOAA and other federal and state “natural resource trustees” typically undertake a natural resource damage assessment (NRDA) to determine whether the release or spill in question has caused injury to natural resources and to identify subsequent needs to address such injuries, typically defined in terms of reductions in the services provided by the affected resources.

Emergency response, NRDA, and restoration activities related to oil spills are governed under the Oil Pollution Act (OPA), 33 U.S.C. § 2701 et seq. (1990).^{\2} Congress enacted OPA in response to the 1989 *Exxon Valdez* oil spill. Similar to CERCLA, which was enacted a decade earlier, the statutory provisions of OPA include response-related (i.e., cleanup) components and restoration-related (i.e., NRDA) components. However, unlike

^{\1} For further background on natural resource damage (NRD) liability and related issues, see www.NRDOnline.org, <https://darrp.noaa.gov/> and <https://www.doi.gov/restoration>.

^{\2} While the material presented in this Framework focuses on the advantages of coordinating emergency response and restoration activities for oil spills under OPA, the considerations and proposed solutions herein may be equally applicable at hazardous waste sites under CERCLA and analogous state statutes.

CERCLA, OPA and its implementing regulations more expressly contemplate coordination between response and restoration. **While some emergency response actions can have negative restoration impacts,¹³ on the whole, coordinating emergency response actions and restoration actions has the potential to greatly benefit the objectives of both programs.**

Under OPA, the U.S. Environmental Protection Agency (EPA) and the U.S. Coast Guard (USCG) are responsible for investigating and responding to contamination from oil spills to waterbodies. The USCG is primarily responsible for contamination involving coastal waters, the Great Lakes, and deepwater ports. EPA is primarily responsible for responding to oil spills in inland waters. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR Part 300, provides the organizational structure and procedures for preparing for and responding to such discharges of oil.

NOAA OPA Regulations. NOAA's OPA regulations, 15 CFR Part 990, provide further structure and guidance for conducting NRDA and restoration activities under OPA. **The OPA regulations expressly contemplate coordination between the NRD Trustees and the various response agencies.** Trustees must coordinate any NRDA activities conducted at the same time as response operations with response agencies, consistent with the NCP and any pre-incident plans developed by the Trustees and the response agencies. See 15 CFR § 990.14(b). In addition, the regulations require Trustees to coordinate with the On-Scene Coordinator (OSC) designated by EPA or the USCG before implementing any emergency restoration actions, and must ensure that such actions do not interfere with on-going response actions. See 15 CFR § 990.26(b).

The OPA regulations establish three phases of a natural resource damage assessment: (1) the Preassessment Phase (which includes ephemeral data collection activities); (2) the Restoration Planning Phase (which includes injury assessment, restoration project selection, and public review and comment); and (3) the Restoration Implementation Phase (where the Trustees implement the chosen restoration project[s]). See 15 CFR § 990.12. Cooperation between emergency response, assessment and restoration is most commonly seen during the Preassessment Phase, when the Trustees are trying to gather the key data on potential injuries to natural resources that are intrinsic to the NRDA process. Coordination of response and assessment activities can potentially transition into coordination between emergency response and emergency restoration – allowing parallel tracks of activity to proceed together.

Coordination between emergency response and assessment during the Preassessment Phase can lead to cost and time savings through increased sharing of information and avoid duplication of data-gathering efforts, such cooperation can also benefit the Restoration Planning and Restoration Implementation phases. For example, coordinating emergency response and assessment can allow for shared use of equipment, combined permitting, and other benefits that can materially increase the overall cost-effectiveness of the process. Furthermore, coordinating actual restoration activities with response activities, either standard restoration actions or emergency restoration actions under § 990.26(1), can speed the overall restoration process by getting restoration projects on the ground quicker, leading to a faster recovery of natural systems to the pre-incident baseline.

¹³ For example, dredging or removal of contaminated large woody debris from a stream channel that effectively resolves contamination issues, but also negatively reduces habitat complexity.

The feasibility of coordination of response, assessment and/or emergency restoration will need to be evaluated on a case-by-case basis and agreement between parties as to how this process can proceed given the specific facts of a case or site, including possible use of “early restoration” credits⁴.

Additional Guidance. In addition to the structure for coordinating emergency response and NRDA processes under the OPA regulations, several other guidance documents and information outlining the relationship between the two processes have been issued. Significant work was done following the Deepwater Horizon Incident by the Department of Commerce/National Oceanic and Atmospheric Administration (NOAA) to develop its Environmental Response Management Application (ERMA) tool to provide key environmental response information to responders and decision makers, as well as support the NRDA process, for all regions across the US⁵. The US Department of the Interior’s Office of Restoration and Damage Assessment provides information on its website as to how NRDAR and response actions work together⁶. In addition, the National Response Team (NRT) has prepared its Federal Natural Resource Trustees and Incident Command System/Unified Command (ICS/UC) NRT-RTT Factsheet to describe which units of an ICS/UC and federal trustees might work together during an emergency response; resources available via the trustees; and potential opportunities for coordination⁷. The NRT also convenes periodic Spill of National Significance (SONS) drills across the country to provide a “proving group” for lessons learned and analysis of new technologies and response methods. Moving forward, the NRT and others may wish to incorporate additional NRDA and coordinated response, assessment and restoration exercises within the context of these drills.

Best Practice Framework

The best practice approach described here involves a 4-step process, establishing a framework to evaluate coordination of emergency response, assessment and restoration.

The Framework identifies where consideration of natural resource damage issues is most needed in the emergency response process. Potential strategies to increase efficiency through coordination of emergency response and the NRDA and restoration processes are identified.

- The **first step** occurs “Before an Incident”.
- The **second step** occurs “During Emergency Response”.
- The **third step** occurs “Following the Initial Emergency Response”.
- The **fourth step** occurs “After Agreeing to Coordinating Response/Restoration Activities”.

⁴ A separate document, outlining how early restoration could be assessed and/or assigned for emergency restoration work performed prior to the completion of an NRDA could be developed as general guidance and seen as useful to the NRDA practitioner community.

⁵ <https://response.restoration.noaa.gov/maps-and-spatial-data/environmental-response-management-application-erma>

⁶ <https://www.doi.gov/restoration/primer/response>

⁷ <https://www.nrt.org/sites/2/files/FNRT.pdf>

Each step to be addressed is detailed below.

<p>Step 1: Before an Incident</p>	<p>a. Before an incident occurs:</p> <ul style="list-style-type: none"> ○ Develop baseline on existing contamination and natural resources around the specific facility. ○ Evaluate available information over all locations (broader baseline data) on existing contaminants and natural resources in the area of industrial activity or transportation. ○ Develop an inventory of possible restoration actions for habitats and species in the vicinity of the facility, including status of restoration action (if any), organization proposing restoration, permitting and funding requirements.
<p>Step 2: During Emergency Response</p>	<p>b. During the emergency response and/or immediately following the release or spill in question:</p> <ul style="list-style-type: none"> ○ Identify and begin collecting ephemeral data ○ Assess opportunities to collect data cooperatively with others/trustees and the potential benefits and burdens of coordination at the outset. <ul style="list-style-type: none"> ▪ To successfully and effectively coordinate data collection, parties may leverage a series of questions to guide the scope of data, including, (1) What question(s) is the data intended to answer? (2) How will the data help to answer the question? (3) Is the collection of data likely to result in a definitive answer? and (4) What is the appropriate scale of the sampling that will answer the question adequately? ○ Agree upon how PRPs can best coordinate with the response agencies actions (e.g., EPA, USCG); beyond those commonly associated with the incident command structure. ○ If the PRP is a vessel, steps taken before the incident above may need to be addressed concurrently with emergency response.
<p>Step 3: Following the Initial Emergency Response</p>	<p>c. Following the end of the immediate emergency response and prior to agreeing to initiate coordination of emergency response/restoration activities:</p>

	<ul style="list-style-type: none"> ○ Evaluate the potential benefits and burdens of coordination at the onset; specifically, identify when/where coordination is and is not beneficial. Examples that would favor the separation of emergency response and restoration may include cases or sites where restoration is needed in a different area unrelated to the response, or the release does not appear to have caused significant damage to natural resources. ○ Evaluate the benefits and burdens of committing to an open dialogue regarding the benefits to all coordinating parties, e.g., <ul style="list-style-type: none"> ▪ With other PRPs, ▪ With natural resource trustees and response agencies, as well as ▪ With agencies which do not have direct response/restoration authorities (e.g., EPA in marine oil spill, NIOSH, USGS). ○ Consider the beneficial effects of identifying a lead Agency/Trustee and lead PRP-group; especially regarding parties who may not have the resources to maintain coordination throughout the response process. ○ Agree on the legal framework and 'damage claim' with regard to potential early restoration projects. ○ Create a common perspective regarding how early restoration will factor into the damage claim; basis of scaling or assigning credit for potential loss. ○ Agree that implementation of early restoration projects during the response phase is not an admission of liability by the PRP(s).
<p>Step 4: After Agreeing to Coordination of Response/Restoration Activities</p>	<ul style="list-style-type: none"> ● <i>After agreeing to coordinating emergency response and restoration activities</i> ● Discuss and agree on the kinds of data that may be necessary to support the natural resource damage assessment and potential restoration opportunities. [Note to Practitioners: If possible, it may also be beneficial to parties to undertake this action during Step 2 of this Framework.] ● Identify, assess, and discuss opportunities to collect data which could be used in both the response

	<p>process and the natural resource damage assessment and restoration process.</p> <ul style="list-style-type: none"> ▪ Assess and re-evaluate the level of data adequacy and uncertainty to determine whether coordinated efforts are productive. ▪ Evaluate potential response strategies based on their potential negative impact on natural resources. <i>It is also possible to coordinate these actions with the SCAT and EU.</i> <ul style="list-style-type: none"> • Identify opportunities to avoid negative impacts through alternative strategies that also meet response requirements. • Conduct upfront discussions on how best to mitigate negative impacts caused by the response. ▪ Identify restoration goals and potential damage assessment metrics early in the response/assessment process. • Identify opportunities to implement or facilitate restoration activities (e.g., early restoration) during the response phase that are not inconsistent with contemplated response actions, particularly where it may be apparent that response actions could inhibit on-site (or offsite) restoration. • Agree upon how coordinated activities will generate NRD liability "credits" to offset a future Trustee NRD claim. • Discuss the degree to which the coordinated work will provide a way to settle some or all of the Trustees' claims for potential NRD and/or other liability claims at the site
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Cost-Benefit Considerations

Considering the response/restoration interface at specific sites from the outset can be both productive and beneficial. Experience has shown that, in some cases, consideration of resource restoration issues during the emergency response phase may save time and money and possibly restore injured resources to baseline more efficiently. In fact, there are data and other information collected during an emergency response that can be leveraged during an NRDA, including oil transport, fate and trajectories, oil observation from overflights or shoreline cleanup and assessment techniques (SCAT) data, and known resources at risk⁸. While coordinating response and natural resource damage and restoration may not be desirable for all incidents, **this Framework and the**

⁸ <https://www.doi.gov/restoration/primer/response>

steps provided herein can establish an open line of communication between response agencies, responsible parties and Trustees relative to the NRDA and potential emergency response opportunities. This open communication, at the very early stages of the response and NRDA process, is beneficial in addressing and mitigating potential damage to natural resources, as well as potentially restoration resources and associated services back to public sooner.

Where appropriate, given a site's specific characteristics and assuming there is agreement among the parties, coordination of response and restoration activities can result in an overall process that is cost-effective, streamlined and efficient; prevents duplication of effort; minimizes the potential to "over engineer" a remedy; has the potential for parties to get to settlement and resource restoration sooner; and maximizes the potential for incorporating ecological enhancements into post-remediation restoration. Despite the potential benefits of coordinating response/restoration processes, there are also risks, including the possibility of suboptimal use of resources due to the timing of actions taken.

The following circumstances and/or conditions generally encourage a coordinated approach of emergency response and NRDA and restoration activities IF:

- There are multiple potential cleanup strategies that meet response requirements;
- There is some certainty that natural resources have been or will be injured;
- Response agencies, trustee agencies and potentially responsible parties (PRPs) are available and willing to consider coordinated activities; and
- Both trustee agencies and the PRPs would benefit from coordination.

Summary

The Framework described here sets forth a Best Practice Framework for coordinating response and restoration in site-specific instances. It is intended to be used by the different parties at a given site, including PRPs, response agencies, natural resource trustees, and others. **Using this Framework can save time and costs and align NRDA objectives, including desired end points, of the parties involved at specific sites.** While the material presented in this Framework focuses on natural resource issues under US laws, the considerations and proposed solutions herein may also be applicable to natural resource regimes in the UK, EU and other countries.

APPENDIX A
Case Application of Best Practice Approach Framework

This Appendix provides a hypothetical case example applying the steps of the Best Practice Approach Framework.

Incident Summary:

Company A was pumping diesel fuel from a tanker (PRP) into underground storage tanks at a port dock in California. The fuel overwhelmed the tank system's oil/water separator and flowed into the drainage system, releasing up to 200,000 gallons of diesel fuel into the port, causing an oil slick along 2km of the shore, including the associated riparian habitat. In addition, some of the fuel flowed into a nearby creek and marsh area, covering approximately 10 acres of marine habitat and shoreline. Contaminants at the site include polycyclic aromatic hydrocarbons (PAHs). Alleged damaged natural resources included birds, fish, and shoreline habitats.

Step 1: Before the Incident

- a. Prior to the incident, the California Department of Fish and Wildlife (CDFW) nor the PRP had not collected baseline data concerning current contamination or impacted resources in this particular port.
 - i. However, CDFW in collaboration with the local municipality and a local conservation group, had identified areas of opportunity for increased natural resource restoration projects, including nesting areas for local birds.

Step 2: During Emergency Response

- a. CDFW, the US Coast Guard (USCG) and PRP, met immediately following the incident to begin to identify and begin collecting ephemeral data in the port
 - i. The parties agreed that collected the data cooperatively would reduce time and expense, as well as define the scope data scope.
 - ii. Given the industrial nature of the port and lack of recreational resources, the parties agreed that the key natural resources for data collection would focus on the area impacted shoreline, birds and fish.
 - iii. The parties developed a check in and communication protocol, as well as a central shared file system for the data collection.
- b. CDFW and the USCG led the emergency response per the established incident command structure.

Step 3: Following the Initial Emergency Response

- a. Following the emergency response, CDFW, USCG and the PRP met to discuss the potential benefits and burdens of coordination at the onset and determined coordination of restoration would be possible given the localized areas of the spill and the characteristics of the impacted natural resources.
- b. Given the small number of parties involved in the incident, the parties determined it was not necessary to identify a lead Agency/Trustee and lead PRP-group but would continue to follow the check in and communication protocol current the assessment and restoration process.

- c. The parties agreed to focus assessment and restoration efforts on those resources where data was collected – the shoreline habitat, fish and birds.
 - i. It was found during the emergency response, that there were minimal fish deaths and no impacted birds.
- d. The parties also agreed that while the data would be shared, each party would be permitted to use the data for their own injury determination and assessment studies.
- e. Based on the data collection and onsite work, it was agreed by the parties that there was no need for emergency restoration at the site.

Step 4: After Agreement to Coordinating Emergency and Assessment Activities

- a. In their regular check in meetings, the parties agreed to a limited set of additional data that may be necessary to support the natural resource damage assessment and potential restoration opportunities, particularly relative to the shoreline habitat.
 - i. The parties agreed to share the collected data but that the Trustees and PRPs could retain the right to assess and interpret the data independently, as needed.
- b. Based on the data collected concerning the impacted shoreline area and the opportunity for local bird nesting habitats, the parties identified restoration to enhance bird nesting could be a potential early restoration project for the incident.
 - i. CDFW assessed the scope of the nesting projects as early restoration could factor into the damage claim based on a scaling assessment and presented their findings to the PRP.
- c. Parties agreed that implementation of early restoration projects during the response phase is not an admission of liability by the PRP.
- d. Based on the assessment, the PRP agreed to funding the bird nesting habitat restoration project so long as the work and restoration enhancement would be credited against the final natural resource damage claim.
 - i. Based on similar bird habitat restoration projects undertaken in CA and the associated costs of those activities, Attorneys for Trustees and the PRP agreed to a range of NRD liability “credits” that would be applied to a potential NRD liability claim.

APPENDIX B Resources

By way of example, the following are additional resources.

Government

- **Environmental Protection Agency:** Natural Resource Damages - Notification and Coordination Activities: <https://www.epa.gov/superfund/natural-resource-damages-notification-and-coordination-activities>
- **Environmental Protection Agency:** Oil Spills Prevention and Preparedness Regulations: <https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations>
- **Louisiana Regional Restoration Planning Program:** <http://www.losco.state.la.us/rrpprogram.html>
- **National Response Team:** Federal Natural Resource Trustees and ICS/UC NRT-RRT: <https://www.nrt.org/sites/2/files/FNRT.pdf>
- **US Coast Guard:** National Pollution Funds Center: <https://www.uscg.mil/Mariners/National-Pollution-Funds-Center/About-NPFC/>
- **US Department of Commerce/National Oceanic & Atmospheric Administration:** Oil Pollution Act Regulations, 15 CFR Part 990 Natural Resource Damage Assessments: <https://www.ecfr.gov/current/title-15/subtitle-B/chapter-IX/subchapter-E/part-990>
- **US Department of Commerce/National Oceanic & Atmospheric Administration:** Environmental Response Management Application (ERMA): <https://response.restoration.noaa.gov/maps-and-spatial-data/environmental-response-management-application-erma>
- **US Department of the Interior Restoration Program:** “How NRDAR and Response Work Together”: <https://www.doi.gov/restoration/primer/response>