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NATURAL RESOURCE DAMAGES UNDER CERCLA AND OPA

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SUMMARY

Natural resource damages (NRD) under federal law is a statutory cause of action to compensate for injury to natural resources resulting from releases of hazardous substances or oil. Designated officials are authorized under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Oil Pollution Act (OPA), among others, to act as "trustees" on behalf of the public or tribes. While many states have comparable statutes or recognize public common-law claims, the federal statutes uniquely require trustees to use damages exclusively to restore, replace, or acquire the equivalent of injured resources. NRD fills a gap at some sites where cleanup actions stop short of fully mitigating harm or compensating for the public's loss of access. The statutory provisions and rules governing NRD claims are complex and have been interpreted in relatively few judicial decisions. This Article covers those decisions and a wide range of issues, including the scope of liability, defenses, how NRD should be measured, and the public's role in NRD assessment and restoration planning. It also addresses how NRD claims can be resolved by settlement, including partial, "early restoration" settlements that narrow the scope before a full NRD assessment is complete.

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)[1] is best known for establishing a scheme for cleaning up sites contaminated by releases of hazardous substances through "response actions" selected by the U.S. Environmental Protection Agency (EPA) or other delegated agencies. In §107(a), CERCLA defines four categories of parties that may be liable for the costs or performance of response actions ("potentially responsible parties" (PRPs)), based on their present or past ownership of the site or responsibility for the presence or release of hazardous substances at the site. In addition, CERCLA grants the United States, every state, and tribal nations a cause of action against the same PRPs for "damages for injury to, destruction of, or loss of natural resources, including the reasonable costs of assessing such injury, destruction, or loss resulting from such a release [of a hazardous substance]."[2]

The premise of this "natural resource damages" (NRD) cause of action is that hazardous substance releases may cause long-term, or even permanent, harm to species or ecosystems and disruption of human uses of natural resources, which cleaning up the waste will not repair. CERCLA's provisions for selecting and implementing response actions and recovering government response costs ensure that contaminated sites can be cleaned up to prevent *future* harm, and that responsible parties must pay for the cleanup. But cleanup, by itself, does not address the effects the contamination has *already had* on surrounding natural resources, nor does it provide a source of funding to redress the lingering impacts the past natural resource injuries have on ecosystems or people.

Authors' Note: Each author has extensive experience in natural resource damages matters on behalf of the United States. The views expressed in this Article are those of the authors, and do not necessarily represent those of the United States, the Department of Justice, the Department of Health and Human Services, or the Food and Drug Administration, except where a position taken by the United States in litigation or other formal public proceedings is described.

1. 42 U.S.C. §§9601-9675, ELR Stat. CERCLA §§101-405.

2. CERCLA §107(a)(4)(C), 42 U.S.C. §9607(a)(4)(C).

CERCLA's NRD provisions fill this gap in three ways. First, they task designated officials, acting as "trustees" for the public, with identifying and quantifying natural resource injuries resulting from a hazardous substance release and developing a plan to restore the resources or provide equivalent, substitute natural amenities. Second, they make responsible parties liable for damages sufficient to fund both the trustees' analysis and the restoration plan. Third, they require trustees to use NRD recoveries to perform the chosen restoration or replacement actions—precluding reallocation of the funds to other government priorities.

The Oil Pollution Act of 1990 (OPA)[3] contains a very similar scheme for recovery of NRD resulting from "a discharge of oil, into or upon the navigable waters or adjoining shorelines or the exclusive economic zone."[4] Several other federal environmental laws also create NRD claims, including:

- **Clean Water Act** (CWA)[5] §311(f)(4) & (5), 33 U.S.C. §1321(f)(4) & (5) (parties responsible for an unlawful discharge of oil or a hazardous substance into waters of the United States are liable to the United States and any affected state for the costs of restoring or replacing natural resources damaged by the discharge);
- **National Marine Sanctuaries Act** (NMSA), 16 U.S.C. §§1442-1443 (liability to the United States for damages for harm to any living or nonliving resource of a national marine sanctuary); and
- **System Unit Resource Protection Act** (SURPA), 54 U.S.C. §§100721 et seq. (formerly the Park System Resource Protection Act, 16 U.S.C. §19jj) (liability to the United States for damages for harm to any natural or man-made resource of a national park).

In addition to federal NRD statutes, many states have enacted laws authorizing damages claims for harm to natural resources or have judicial decisions recognizing a common-law right of the state, acting for its citizens as *parens patriae*, to recover damages for injury to public natural resources or to require restoration. State NRD-like authorities vary widely.[6]

The requirement in CERCLA, OPA, and the CWA that trustees use recovered damages exclusively for environmental restoration distinguishes federal NRD law from its common-law antecedents and from most comparable state statutes. This restoration mandate imbues trustees with a mission that transcends the cause of action for damages. Under these statutes, damages are not the primary goal of NRD claims, but rather a means to fund the restoration or replacement of injured natural resources for the benefit of the public. As a result, trustees should strive to assess damages in a structured way that lays the foundation for carrying out the restoration mandate, and the statutes and NRD assessment rules should be applied and interpreted to serve that overarching objective.

This Article focuses primarily on federal NRD law and practice under CERCLA, because that statute generates the largest number of NRD actions and an even larger proportion of complex legal issues and litigation. It includes comparisons with OPA's NRD provisions and implementing regulations, which are more recent than their CERCLA counterparts and in some ways offer simpler approaches. We also touch more briefly on the CWA's earlier, less-developed NRD provisions and selected judicial decisions under analogous state laws.

The Article is organized into nine sections. Part I introduces basic concepts such as who may serve as a trustee of natural resources, what relief trustees may secure, and the public's role in NRD assessment and restoration. Part II describes how NRD builds on the cleanup selected by the applicable response agency. Part III discusses the elements of liability for NRD, including statutory defenses and exceptions. Part IV summarizes the history and scope of regulations for NRD assessments, along with an unusual statutory provision granting a "rebuttable presumption" in favor of damages assessments performed in accordance with the rules. Part V tackles the complex topic of how to determine the amount of NRD recoverable in a given case.

Part VI analyzes CERCLA's multi-pronged statute of limitations for NRD and related provisions that sometimes require plaintiffs to defer filing suit. Part VII addresses several legal procedure issues, including whether there is a right to jury trial in NRD cases and the extent to which CERCLA's NRD provisions preempt state law. Part VIII examines the obligatory coordination between trustees and response agencies and among co-trustees, as well as voluntary arrangements between trustees and PRPs to cooperate in assessing NRD. Finally, Part IX describes both general federal requirements and special statutory provisions applicable to settlements of NRD claims. Part X briefly concludes.

I. Basic Parameters of the NRD Cause of Action

A. Who Can Bring a Claim for NRD?

Only government officials designated as "trustees of natural resources" have standing to recover NRD. CERCLA and OPA authorize the president to designate federal trustees and the governor of each state to designate state trustees. All federal and state trustees are charged with acting "on behalf of the public." Tribal nations may designate natural resource trustees to act on behalf of the nation and

3. 33 U.S.C. §§2701-2761, ELR Stat. OPA §§1001-7001.
4. *Id.* §§2702(a), (b)(2)(A), 2706.
5. 33 U.S.C. §§1251-1387, ELR Stat. FWPCA §§101-607.
6. *See generally State-by-State Guide to NRD Programs in All 50 States*, part of the chapter *Natural Resource Damages*, *in* 5 Environmental Law Practice Guide: State and Federal Law §32B.12 (Matthew Bender & Co. 2024); W.H. Hyde Jr. et al., Natural Resource Damages: New Developments at the State Level (2005).

its members.[7] OPA similarly authorizes the designation of federal, state, and tribal trustees, and allows foreign governments to bring NRD claims in some circumstances.[8] NRD claims under the CWA, however, are available only to the United States and states.[9]

1. Federal Trustees

The president has designated the Secretaries of the Interior, Commerce, Agriculture, Defense, and Energy to serve as trustees of natural resources under their respective jurisdictions, along with the head of any other federal agency responsible for managing land.[10] Each cabinet officer has redelegated trustee authority to subordinate officials. Although the designated officials hold the legal authority, it is common practice to refer to their agencies as trustees, and we will generally follow that practice here. The agencies that most often act as federal natural resource trustees are:

- the National Oceanic and Atmospheric Administration (NOAA), which exercises authority delegated by the Secretary of Commerce, and
- the U.S. Department of the Interior (DOI), exercising the Secretary of the Interior's authority through several components, including the U.S. Fish and Wildlife Service, the National Park Service, the Bureau of Land Management, and the Bureau of Indian Affairs.

The U.S. Departments of Agriculture (USDA), Defense (DOD), and Energy (DOE) usually serve as trustees based on their management of federal land contaminated with hazardous substances or oil. In many such cases, USDA, DOD, or DOE (and sometimes DOI, which also manages a large amount of federal land) is a PRP as well as a natural resource trustee. It is important to understand that, despite the obvious tension between those two roles, which some (including some state or tribal co-trustees) might perceive as a conflict of interests, these federal agencies are lawfully charged with both.[11]

EPA generally does not serve as a natural resource trustee—presumably because of concern that pursuing NRD would be in tension with EPA's responsibilities to select and oversee response actions and recover response costs. However, after the 2010 *Deepwater Horizon*/Macondo Well blowout, the president designated EPA as a trustee solely for the purposes of seeking NRD and restoring natural resources injured by that massive oil spill.[12]

2. State Trustees

The governor of every state has designated at least one natural resource trustee under CERCLA. Many states have multiple trustee agencies. In the *Deepwater Horizon* oil spill case, for example, the Gulf Coast states seeking NRD had a total of 13 trustee agencies (five for Louisiana, three for Texas, two each for Alabama and Florida, and one for Mississippi), all working with four federal trustees on a joint NRD assessment.[13]

3. Tribal Trustees

The approximately 570 federally recognized tribal nations take varying approaches to NRD matters. For many tribal nations, however, any significant decision concerning NRD assessment, negotiations, or litigation must come from the tribal council or other governing body.

B. What Remedies Are Available in NRD Cases?

Claims under the federal NRD statutes are for money damages. Although EPA has broad authority to issue administrative orders or seek an injunction requiring PRPs to perform response actions under CERCLA, and the Coast Guard and EPA share similar authority under OPA, neither statute authorizes trustees to issue administrative orders or seek injunctive relief to restore injured natural resources. Thus, in NRD litigation, the only relief a court may award is monetary.

Nonetheless, trustees frequently enter into settlements of NRD claims that require PRPs to perform restoration or to acquire or preserve natural resources that compen-

7. *See* 42 U.S.C. §9607(f)(1) ("[L]iability [for NRD] shall be to the United States Government and to any State . . . and to any Indian tribe . . . . The President, or the authorized representative of any State, shall act on behalf of the public as trustee of such natural resources to recover for such damages."); *id*. §9607(f)(2)(A), (B) (president and governor of each state shall designate federal and state trustees).
8. *See* 33 U.S.C. §2706(a).
9. *See id*. §1321(f)(4), (5).
10. Exec. Order No. 12580, 52 Fed. Reg. 2923 (Jan. 29, 1987) (codified in the National Oil and Hazardous Substances Pollution Contingency Plan, Part G, 40 C.F.R. §300.600).
11. *See* United States v. Olin Corp., 606 F. Supp. 1301, 1306-07, 15 ELR 20602 (N.D. Ala. 1985) (rejecting argument at site where the United States sought CERCLA response costs and work from private PRPs that the government faced a conflict of interests because the U.S. Army was also a PRP).

    In an analogous situation, where DOI had statutory obligations both to landowners who sought access to water from a federal project and to a tribal nation with competing goals, the U.S. Supreme Court held that a settlement negotiated by the United States bound both of those interests even without their consent. Nevada v. United States, 463 U.S. 110, 142-43, 13 ELR 20704 (1983). The Court explained:

    > [T]he Government cannot follow the fastidious standards of a private fiduciary, who would breach his duties to his single beneficiary solely by representing potentially conflicting interests without the beneficiary's consent. The Government does not "compromise" its obligation to one interest that [the U.S.] Congress obliges it to represent by the mere fact that it simultaneously performs another task for another interest that Congress has obligated it by statute to do.

    Id. at 128.
12. *See* Exec. Order No. 13626, 77 Fed. Reg. 56749 (Sept. 13, 2012) (codified at 40 C.F.R. §300.600(b)(5)).
13. In re Oil Spill by the Oil Rig "Deepwater Horizon" in the Gulf of Mexico, on April 20, 2010, MDL No. 2179, 2016 WL 1394949, at *1 (E.D. La. Apr. 4, 2016).

sate for the injuries at issue. Such settlements serve the core purpose of NRD statutes to accomplish restoration or replacement of injured natural resources for the public's benefit. That purpose is plain from CERCLA's command that trustees *must* use damages recovered from PRPs exclusively for restoring, replacing, or acquiring the equivalent of the injured natural resources.[14] Section 107(f)(1) of CERCLA states:

> [Damages] recovered by the United States Government as trustee under this subsection shall be retained by the trustee, without further appropriation, for use *only to restore, replace, or acquire the equivalent of such natural resources*. Sums recovered by a State as trustee under this subsection shall be available for use only to restore, replace, or acquire the equivalent of such natural resources by the State.[15]

OPA and the CWA contain similar requirements that damages be used solely for restoration.[16] Thus, full litigation of an NRD claim can achieve only a step toward the trustees' goal, by obtaining a monetary award, which the trustees then must devote to restoration. An NRD settlement that requires PRP performance of restoration offers an alternative, potentially more efficient, path to accomplishing the statutory purpose. Additional considerations regarding NRD settlements are discussed in Part IX below.

C. *What Is the Scope of Each Government's Trusteeship?*

CERCLA defines "natural resources" as

> land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources *belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by* the United States . . . , any State or local government, any foreign government, any Indian tribe, or, if such resources are subject to a trust restriction on alienation, any member of an Indian tribe.[17]

OPA has a substantially identical definition.[18] Both imply that, for each sovereign, trusteeship is tied to whether that entity owns, manages, holds in trust, or controls the natural resources at issue or the resources "appertain to" the government.[19]

1. Presumption of Concurrent Trusteeship

The management of natural resources in the United States is complex and, with some exceptions, most often shared between federal and state agencies. CERCLA draws no line between the natural resources under federal trusteeship and those under state or tribal trusteeship. To the contrary, the statutory language suggests that federal and state trustees will routinely share jurisdiction.[20] The national contingency plan (NCP) similarly presumes there will often be concurrent federal, state, and/or tribal trusteeship.[21]

In considering the effect of a prior NRD settlement by the state of Idaho on claims by federal and tribal trustees for damage to the same natural resources, one district court initially ruled that NRD should be allocated among the various trustees based upon each trustee's degree of stewardship over each resource.[22] Two years later, however, the same court "revise[d] its trusteeship decision" from 2003, holding that any trustee could recover the full amount of NRD for injury to any resource within its trusteeship, subject only to the need to avoid double recovery, even if another trustee concurrently manages that resource.[23] As a result of the revised ruling, the amount recovered in the state-only NRD settlement would be deducted from the total amount of NRD established by the United States and the Coeur d'Alene Tribe, but the federal and tribal trustees could continue to pursue their claims concerning resources jointly managed with the state.

Despite the general expectation of overlapping trusteeship, certain natural resources may not be shared by multiple sovereigns. For example, many states assert exclusive management authority over groundwater and, except where a federal agency has a reserved right in groundwater underlying federal land, there may be no federal trusteeship interest in that resource. Similarly, in the oceans beyond the seaward boundaries of state waters, only the United States has trusteeship over any resources that do not migrate into a state.

14. "By mandating the use of all damages to restore the injured resources, Congress underscored . . . its paramount restorative purpose for imposing damages at all." Ohio v. U.S. Dep't of the Interior, 880 F.2d 432, 444-45, 19 ELR 21099 (D.C. Cir. 1989). *Accord* New Mexico v. General Elec. Co., 467 F.3d 1223, 1247, 36 ELR 20219 (10th Cir. 2006) ("The restriction on the use of NRDs in §9607(f)(1) represents Congress' considered judgment as to the best method of serving the public interest in addressing the cleanup of hazardous waste.").
15. 42 U.S.C. §9607(f)(1) (emphasis added).
16. *See* 33 U.S.C. §2706(c)(1), (f)(5) (OPA requirement applicable to tribal and foreign government trustees in addition to federal and state trustees); *id*. §1321(f)(5) (CWA, addressing only federal and state trustees).
17. 42 U.S.C. §9601(16) (emphasis added).
18. 33 U.S.C. §2701(20).
19. In explaining the definition of "natural resources," the U.S. Court of Appeals for the District of Columbia (D.C.) Circuit observed that, "while the statute excludes purely private resources," the definition "must refer to certain types of governmental (federal, state, or local) interests in privately-owned property." *Ohio v. U.S. Dep't of the Interior*, 880 F.2d at 460. Thus, in addition to public ownership, "a substantial degree of government regulation, management or other form of control over property would be sufficient" for trusteeship. *Id*. at 461.
20. *See* CERCLA §107(f)(1), 42 U.S.C. §9607(f)(1) ("liability shall be to the United States Government and to any State for natural resources within the State").
21. *See* 40 C.F.R. §300.615(a) (trustees must cooperate with one another in cases where there are multiple trustees, including due to "concurrent jurisdictions").
22. Coeur d'Alene Tribe v. ASARCO, Inc. (*ASARCO I*), 280 F. Supp. 2d 1094, 1116 (D. Idaho 2003).
23. United States v. ASARCO, Inc. (*ASARCO II*), 471 F. Supp. 2d 1063, 1068-69 (D. Idaho 2005).

2. Federal Trust Resources

The NCP states that the head of each federal agency may act as a trustee for natural resources the agency is "authorized to manage or control."[24] For the Secretary of Commerce (acting through NOAA), the Secretary of the Interior (acting through DOI units), and agencies that manage federal land (principally DOI and USDA, DOD, and DOE), the NCP provides more specific descriptions of trustee jurisdiction:

- NOAA is a trustee for "natural resources . . . found in, under, or using waters navigable by deep draft vessels, tidally influenced waters, or waters of the contiguous zone, the exclusive economic zone, and the outer continental shelf. . . . Examples of [NOAA's] trusteeship include the following natural resources and their supporting ecosystems: marine fishery resources; anadromous fish; endangered species and marine mammals; and the resources of National Marine Sanctuaries and National Estuarine Research Reserves."[25]
- DOI is a trustee for natural resources subject to its management or control, examples of which "include the following natural resources and their supporting ecosystems: migratory birds; anadromous fish; endangered species and marine mammals; federally owned minerals; and certain federally managed water resources."[26]
- The head of each federal land managing agency is a trustee of "natural resources located on, over, or under" the land managed by that agency.[27]

No court has attempted to define comprehensively the scope of federal trusteeship. However, in *United States v. ASARCO, Inc.* (*ASARCO II*), the court found that the United States is a trustee over federal land, and over "the migratory natural resources of: fish, wildlife, birds, biota, water and groundwater based on their involvement in the management and control of such natural resources and applicable federal statutes give the United States trusteeship duties over fish, wildlife and birds."[28]

3. State Trust Resources

The relevant case law indicates that each state has broad trusteeship over natural resources within the state.[29] As discussed above, state trusteeship is often concurrent with federal and tribal trusteeship. For certain natural resources, however, such as groundwater under private land, the state may be the only governmental entity with management authority and therefore the sole trustee for purposes of NRD laws.

4. Tribal Trust Resources

CERCLA's definition of "natural resources" establishes that a tribal nation has trusteeship based on its ownership, management, or control of resources, as well as trusteeship for a member of a tribal nation if the resource is subject to a trust restriction on alienation.[30] In *ASARCO II*, the court found that the Coeur d'Alene Tribe had trusteeship over tribal property, which included a large lake.[31] In *Oklahoma v. Tyson Foods, Inc.*, the court held that the Cherokee Nation, as a likely co-trustee, was an indispensable party to the state's CERCLA suit seeking NRD for discharges to the Illinois River watershed, where the Cherokee Nation asserted rights to water in the river and portions of the watershed were within the nation's reservation.[32] In addition, off-reservation treaty rights of a tribal nation (e.g., for hunting or fishing in a traditionally used area) may be a basis for natural resource trusteeship.[33]

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24. 40 C.F.R. §300.600(b)(4).
25. *Id.* §300.600(b)(1).
26. *Id.* §300.600(b)(2).
27. *Id.* §300.600(b)(3). In 1999, the program manager of DOI's Natural Resource Damages Assessment and Restoration Program issued *Department of the Interior's Policy on Natural Resource Trusteeship Under CERCLA, CWA, and OPA*. Among many other things, this policy states:
    > Federal trusteeship may be derived from any federal authority or combination of authorities, such as treaties, statutes, regulations, or Executive Orders, which give the Federal government legal rights in or the responsibility or legal authority to manage or control or protect natural resources. Such federal authority need not be exclusive, comprehensive, or primary, but it must reflect a federal interest in or authority over the natural resources. In many cases, federal trusteeship over natural resources may overlap with that of States or Tribes or both.

    See Memorandum from Mat Millenbach, Program Manager, DOI Natural Resource Damage Assessment and Restoration Program, to DOI Component Heads or Deputy Heads, re: Departmental Policy on Natural Resource Trusteeship (Sept. 8, 1999), https://www.doi.gov/sites/doi.gov/files/migrated/restoration/upload/8nrtrusteeship.pdf.
28. 471 F. Supp. 2d at 1068-69.
29. *See* New Mexico v. General Elec. Co., 467 F.3d 1223, 1243, 36 ELR 20219 (10th Cir. 2006) (New Mexico is trustee for its citizens over all public waters within its borders, even if it has no possessory interest in the water); Artesian Water Co. v. New Castle Cnty., 851 F.2d 643, 650, 18 ELR 21012 (3d Cir. 1988) (an aquifer is a natural resource whose injury gives the state a cause of action under CERCLA); Idaho v. Southern Refrigerated Transp., Inc., No. 88-1279, 1991 WL 22479, at *5 (D. Idaho Jan. 24, 1991) (state is trustee under CERCLA and common-law *parens patriae* for all of Idaho's wildlife and sport fish). *Cf.* Georgia v. Tennessee Copper Co., 206 U.S. 230, 237 (1906) ("[T]he State has an interest independent of and behind the titles of its citizens, in all the earth and air within its domain."); Alaska Sport Fishing Ass'n v. Exxon Corp., 34 F.3d 769, 773, 24 ELR 21378 (9th Cir. 1994) ("[In CWA NRD case, a] state has a sovereign interest in natural resources within its boundaries.").
30. 42 U.S.C. §9601(16).
31. 471 F. Supp. 2d at 1068-69.
32. 258 F.R.D. 472, 478-80, 39 ELR 20162 (N.D. Okla. 2009).
33. *Cf.* Quapaw Tribe of Okla. v. Blue Tee Corp., 653 F. Supp. 2d 1166, 39 ELR 20050 (N.D. Okla. 2009) (applying Oklahoma common law, court held that a tribal nation has *parens patriae* standing to seek damages for injury to off-reservation land owned by tribal members as well as land within its reservation).

D. How Are NRD Assessed?

The process of studying the nature and extent of natural resource injuries resulting from hazardous substance or oil contamination and evaluating restoration options and costs and other types of damages is commonly known as *natural resource damages assessment* (NRDA). NRDA is an administrative process typically conducted outside litigation, though it may be intended to produce data, reports, and plans suitable for use in litigation if that proves necessary.

While any trustee may lawfully conduct a separate NRDA with respect to a contaminated site, federal policy strongly encourages joint NRDAs performed by, or with close coordination among, all federal, state, and tribal trustees that claim jurisdiction over any of the injured natural resources.[34] To facilitate joint assessment and joint prosecution of NRD claims against PRPs, trustees often enter into a memorandum of agreement (MOA) (alternatively labeled a memorandum of understanding (MOU)) that calls for consensus decisionmaking through a "trustee council" in which all trustees are represented equally. Such MOAs are usually (but not always[35]) nonbinding, allowing any trustee to withdraw at will (though typically with a residual obligation to preserve joint privileged communications that occurred before withdrawal). Coordination among trustees and the potential for cooperation with PRPs in performing NRDAs are discussed more fully in Part VIII below.

DOI has promulgated regulations for the performance of NRDAs under CERCLA, which also apply to NRD resulting from discharges of hazardous substances under the CWA ("DOI NRDA rules" or "CERCLA NRD rules").[36] NOAA has promulgated NRDA rules under OPA applicable to all unlawful discharges or threatened discharges of oil under OPA or the CWA ("NOAA NRDA rules" or "OPA rules").[37] Both sets of rules prescribe an orderly administrative process for NRDAs and provide substantive guidance concerning acceptable methods and standards for assessing injury and damages.

Use of the rules is explicitly optional, and, especially in relatively small cases, trustees often choose not to follow the potentially time-consuming, step-by-step process the rules prescribe. However, if trustees perform an NRDA in accordance with the applicable rules, the assessment will have "the force and effect of a rebuttable presumption . . . in any administrative or judicial proceeding under this chapter or [§311 of the CWA]."[38] The content of the DOI and NOAA rules, and the legal weight of the "rebuttable presumption" that applies when they are followed, are discussed more fully in Part IV below.

Even though following the NRDA rules is optional, they have strongly influenced the development of NRD practice. As summarized below in Part IV, both sets of rules were challenged in court, and the DOI rules have undergone important revisions. Among the judicial decisions concerning the NRDA rules, three deserve special notice and are cited repeatedly in this Article: *Ohio v. U.S. Department of the Interior*,[39] *Kennecott Utah Copper Corp. v. U.S. Department of the Interior*,[40] and *General Electric Co. v. U.S. Department of Commerce*.[41]

E. What Is the Public's Role in NRDA and Restoration Planning?

Private parties lack standing to bring lawsuits for NRD on behalf of the public (as distinguished from state or common-law claims for their own private-property damage or commercial losses).[42] However, both CERCLA and OPA require trustees to develop a transparent restoration plan and, except in an emergency, to provide opportunities for public input before they begin performing the restoration. Section 111(i) of CERCLA states:

> **(i) Restoration, etc., of natural resources**
>
> Except in a situation requiring action to avoid an irreversible loss of natural resources or to prevent or reduce any continuing danger to natural resources or similar need for emergency action, funds may not be used under this chapter for the restoration, rehabilitation, or replacement or acquisition of the equivalent of any natural resources until a plan for the use of such funds for such purposes has been developed and adopted by affected Federal agencies and the Governor or Governors of any State having sustained damage to natural resources within its borders . . . and by the governing body of any Indian tribe having

34. *See* 40 C.F.R. §300.615(a).
35. The NRDA relating to the *Exxon Valdez* oil spill used an alternative, more binding approach; after initial federal-state discord, the United States and Alaska made joint NRDA and joint decisions on the use of any NRD recovery mandatory, by entering into a "memorandum of agreement and consent decree" entered as a judgment by the district court in *United States v. Alaska*, No. A91-081 CIV (D. Alaska Aug. 29, 1991).
36. *See* 43 C.F.R. pt. 11. *See* 42 U.S.C. §9651(c)(1) ("The President . . . shall promulgate regulations for the assessment of damages for injury to, destruction of, or loss of natural resources resulting from a release of oil or a hazardous substance for the purposes of [CERCLA] *and section 1321(f)(4) and (5) of title 33*.") (emphasis added).
37. *See* 15 C.F.R. §§990 et seq.
38. CERCLA §107(f)(2)(C), 42 U.S.C. §9607(f)(2)(C); *see also* 43 C.F.R. §11.11. *Accord* OPA §1006(e)(2), 33 U.S.C. §2706(e)(2) (rebuttable presumption for assessments conducted in accordance with NOAA's NRDA regulations by federal, state, or tribal trustees).
39. 880 F.2d 432, 19 ELR 21099 (D.C. Cir. 1989) (examining CERCLA's NRD provisions in detail and holding inconsistent with the statute key elements of the original version of DOI's "Type B" Rule for NRDA in most cases).
40. 88 F.3d 1191, 26 ELR 21489 (D.C. Cir. 1996) (upholding, with narrow exceptions, DOI's revised Type B Rule).
41. 128 F.3d 767, 28 ELR 20263 (D.C. Cir. 1997) (upholding all but minor elements of the OPA NRDA rule).
42. *See* Artesian Water Co. v. New Castle Cnty., 851 F.2d 643, 649, 18 ELR 21012 (3d Cir. 1988); Lutz v. Chromatex, Inc., 718 F. Supp. 413, 419, 19 ELR 21368 (M.D. Pa. 1989).

    Nor may municipalities assert NRD claims unless they have been designated as state trustees by the governor. See City of Portland v. Boeing Co., 179 F. Supp. 2d 1190, 1202-04 (D. Or. 2001); City of Toledo v. Beazer Materials & Servs. Inc., 833 F. Supp. 646, 652 (N.D. Ohio 1993); Mayor & Council of the Borough of Rockaway v. Klockner, 811 F. Supp. 1039, 1049, 23 ELR 21036 (D.N.J. 1993).

> sustained damage to natural resources [under the tribe's trusteeship], *after adequate public notice and opportunity for hearing and consideration of all public comment*.[43]

In addition to mandating a public planning process, this provision establishes a norm that federal, state, and tribal trustees must work together to restore and protect natural resources over which they share trusteeship.[44]

OPA imposes a similar transparency requirement, directing trustees to give public notice of any proposed restoration plan, provide an opportunity for a hearing, and consider all public comments.[45] OPA authorizes federal trustees to assess damages for any state, tribal, and/or foreign trustee if the other trustee pays the added costs,[46] but it does not *require* a joint restoration plan.

The NRDA rules under both CERCLA and OPA provide for the public to have opportunities to review and comment on assessment and restoration plans, and trustees must respond to those comments.[47] These opportunities for comment are available to PRPs like any other member of the public.

F. Can Citizens Sue Natural Resource Trustees for Breach of Trust?

The statutory language that the designated federal and state trustees "shall act on behalf of the public"[48] obviously implies an obligation to represent the interests of citizens. Common-law rules governing the conduct of trustees generally allow beneficiaries who believe a trustee is not fulfilling its fiduciary obligations to file a "breach of trust" lawsuit to enforce those duties or recover damages. When the trust beneficiaries are a class as broad and complex as "the public," however, allowing suits for any perceived failure by a natural resource trustee would produce chaotic results. That concern, the fact that trusteeship under federal NRD law is a creation of statute rather than common law, and the general legal limitations on suits against government officials support a compelling argument that common-law rules of trustee liability are inapplicable to NRD cases.

Section 310(a)(2) of CERCLA authorizes citizen suits against the United States or its officers "where there is alleged a failure of the President or of such officer to perform any act or duty under [CERCLA] *which is not discretionary*."[49] One court has held that "neither the CWA, OPA, nor CERCLA imposes non-discretionary duties on the United States to assess damages for injury to, destruction of, or loss of natural resources which it administers in trust."[50]

G. Is NRD Founded Upon, or a Reaction to, Common Law?

The idea for federal NRD legislation appears to have grown out of the "public trust doctrine" and *parens patriae* claims for damages that federal courts had recognized based on common law.[51] However, CERCLA and other federal NRD laws created a new statutory scheme with key elements entirely distinct from common law, including the mandate that trustees use damages to restore or replace the injured natural resources and the provisions allowing public participation in restoration planning described above.[52]

H. Can Superfund Be Used to Fund NRDA or Restoration?

Although the text of CERCLA would seem to allow use of Superfund for NRDA or restoration if the trustee has exhausted efforts to recover from PRPs,[53] the Superfund Amendments and Reauthorization Act of 1986 (SARA) overrode that provision and prohibits tapping the federal Superfund to pay either assessment or restoration costs.[54] In contrast, OPA generally authorizes the payment of costs incurred by trustees for NRDA or the development and implementation of restoration plans from the Oil Spill Liability Trust Fund.[55]

43. 42 U.S.C. §9611(i) (emphasis added).
44. In addition to its mandate for public notice and comment on any nonemergency restoration plan, §111(i) could be read as requiring federal, state, and tribal concurrence on such a plan before any recovered damages may be expended, regardless of which sovereign or combination of sovereigns obtained the recovery. Thus far, no one has attempted to enforce a concurrence requirement against a state or tribal nation that acted independently of other trustees to recover damages. Federal trustees have generally sought to secure state and tribal trustee concurrence on restoration plans when concurrent jurisdiction is evident.
45. 33 U.S.C. §2706(c)(5).
46. *Id.* §2706(a)(1).
47. *See* 43 C.F.R. §§11.32, 11.44, 11.81, 11.90, 11.93; 15 C.F.R. §§990.14(c)-(d), 990.15(a), 990.55.
48. 42 U.S.C. §9607(f)(1).
49. *Id.* §9659(a)(2) (emphasis added).
50. Quarles v. United States ex rel. Bureau of Indian Affs., No. 00CV0913CVEPJC, 2005 WL 2789211, at *7 (N.D. Okla. Sept. 28, 2005).
51. *See, e.g.*, Illinois Cent. R.R. Co. v. Illinois, 146 U.S. 387 (1892) (state holds certain natural resources traditionally used by the public for navigation or recreation in trust for the public and lacks the power to sell them to a private entity); Maine v. M/V Tamano, 357 F. Supp. 1097 (D. Me. 1971) (state has damages claim as *parens patriae* for harm to public rights in coastal waters and marine life caused by an oil spill).
52. *See* Ohio v. U.S. Dep't of the Interior, 880 F.2d 432, 455, 19 ELR 21099 (D.C. Cir. 1989) ("[The] legislative history illustrates . . . that a motivating force behind the CERCLA natural resource damage provisions was Congress' dissatisfaction with the common law."). *Cf.* Puerto Rico v. SS Zoe Colocotroni, 628 F.2d 652, 673-74, 10 ELR 20882 (1st Cir. 1980), *cert. denied*, 450 U.S. 912 (1981) (damages under state NRD statute are not limited to the common-law damages measure of loss of market value).
53. *See* 42 U.S.C. §9611(e)(3).
54. SARA §517(a) (codified at I.R.C. §9507(c)(1)).
55. *See* 33 U.S.C. §2712(a)(2).

II. Relationship of NRD to Response Actions

A. Damages Should Be Residual to Cleanup

Cleanup work by EPA, other agencies, or responsible parties under CERCLA's removal or remedial action provisions often reduces or eliminates future natural resource injury by removing hazardous substances from the environment or sealing the contamination off from vulnerable organisms. However, it is possible for a response action to result in additional injury, for example when a contaminated marsh that still provides some habitat value is filled and capped to prevent migration of the contamination, or when benthic organisms are removed from a water body by dredging contaminated sediments.

Such remedial injuries should be viewed as resulting from the hazardous substance release, and therefore should be considered in assessing NRD. While EPA has authority to require mitigation of remedial injury as part of a response action, mitigation may be incomplete, and it is only possible to predict the *net impacts* of the response action on natural resources after the action has been publicly selected.[56]

This relationship between response actions and natural resource injuries suggests that, at sites where cleanup work is planned, NRD should be based on the *residual* injury after cleanup. That is, in general, damages should be assessed after the response action has been completed, or at least selected, so that the action's likely effects on natural resources—positive or negative or both—can be taken into account.

CERCLA §113(g)(1) gives this logic the force of law at certain sites, by barring the filing of an NRD claim with respect to any national priorities list (NPL) site, federal facility, or other facility "at which a remedial action under this chapter is otherwise scheduled" until after selection of the remedial action, so long as "the President is diligently proceeding with a remedial investigation and feasibility study."[57] The legislative history of this provision indicates that it was adopted because "a remedial action at a site may include the restoration, rehabilitation, or replacement of natural resources."[58]

This scheme reflects the differing purposes of response actions and natural resource restoration. EPA response actions are intended to protect human health and the environment from further harm, but may not fully repair past damage to natural resources or compensate for the diminished value of the resources while they are being restored or replaced. NRD is intended to fill those gaps. However, to minimize duplication when both response actions and NRD are appropriate, the statute sequences the two remedies so that response decisionmaking generally occurs first. The natural resource trustees, then, are charged with identifying additional measures to restore or replace the resources that will remain injured after the cleanup and to compensate the public for lost uses and other benefits of the injured resources until they are fully restored or replaced.[59]

On the other hand, NRD claims at sites where no response action is planned may need to account for the costs of removing or containing contamination—costs typically viewed as response-related—as part of the natural resource restoration. An example is the 2004 settlement in *United States v. Atlantic Richfield Co.*,[60] which provided more than $50 million for restoration that was expected to include dredging polychlorinated biphenyl (PCB)-laden sediment from part of the Grand Calumet River/Indiana Harbor Canal Site in Gary, Indiana.[61]

B. CERCLA Directs EPA and Natural Resource Trustees to Cooperate

As discussed more fully in Part VIII, CERCLA requires EPA to notify federal and state natural resource trustees of potential NRD claims, to coordinate its site investigations with the trustees, and to invite and encourage federal trustees to participate in settlement negotiations with PRPs.[62]

C. Must Natural Resource Restoration Always Be Consistent With Response Actions?

It is obviously preferable—and consistent with the purpose of the statutory coordination requirements—for restoration of natural resources to build on response actions without any need to reexamine (or "second-guess") response agency decisions or to undo response work to perform restoration. Nonetheless, because the science/art of addressing hazardous substances in the environment can be extremely complex, it is not hard to imagine scenarios where trustees

56. *See* 43 C.F.R. §11.15(a)(1) (CERCLA NRDA regulation stating that trustees may recover "damages based on injuries occurring from the onset of the release through the recovery period, less any mitigation of those injuries by response actions taken or anticipated, *plus any increase in injuries that are reasonably unavoidable as a result of response actions taken or anticipated*") (emphasis added).
57. 42 U.S.C. §9613(g)(1).
58. H.R. Rep. No. 253, at 20 (1985). See *infra* Part VI (Statute of Limitations and Timing of NRD Claims), for more details and case law.
59. *See* In re Acushnet River & New Bedford Harbor: Proc. re Alleged PCB Pollution (*Acushnet IV*), 712 F. Supp. 1019, 1035, 19 ELR 21210 (D. Mass. 1989):
> [C]ustomarily, natural resource damages are viewed as the difference between the natural resource in its pristine condition and the natural resource *after the cleanup*, together with the lost use value and the costs of assessment. As a residue of the cleanup action, in effect, [damages] are thus not generally settled prior to a cleanup settlement.

(emphasis added). *Accord* Utah v. Kennecott Corp., 801 F. Supp. 553, 568, 23 ELR 20257 (D. Utah 1992).
60. Consent Decree, No. 2:04CV348 (N.D. Ind. Jan. 31, 2005).
61. *See* 69 Fed. Reg. 53736 (Sept. 2, 2004).
62. *See* 42 U.S.C. §§9604(b)(2), 9622(j)(1). *See generally* H.R. Rep. No. 253, at 21 (1985) ("[D]amages assessment at NPL sites should, whenever possible, take place while the [remedial investigation and feasibility study] is underway . . . [and] planning of any restoration or rehabilitation measures should, whenever possible, be integrated with the remedial action.").

might conclude that a selected response action should be modified to help restore injured natural resources.

While recognizing that response action and restoration "assuredly benefit from coordination," the U.S. Court of Appeals for the District of Columbia (D.C.) Circuit held that there is no legal requirement that response and restoration actions be "consistent."[63] The court noted that inconsistency might even be necessary in some cases, "particularly where short-term and long-term considerations dictate seemingly conflicting responses (e.g., grass to prevent erosion, followed by reforestation, which kills the grass)."[64]

III. Scope of NRD Liability

A. *Elements of Liability*

To establish a prima facie case of liability for NRD under CERCLA, a plaintiff must prove the initial elements of liability for response cost recovery under §107 of CERCLA, *plus*

(1) there has been "*injury to, destruction of, or loss of* natural resources" (the "injury" element), and

(2) the "injury, destruction, or loss" *resulted from* "such a release [of a hazardous substance]" (the "causation" element).[65]

Establishing liability for NRD under OPA similarly requires proof of injury to natural resources and a causal link between the injury and the discharge or substantial threat of a discharge of oil at issue in the case. However, the initial elements of liability for PRPs under OPA, applicable to both removal costs and NRD, differ somewhat from those under CERCLA, as described below.

1. The Initial Liability Elements (Applicable to Response as Well as NRD)

The core elements of liability under §107(a) of CERCLA, for both response costs and NRD, are:

(1) the site in question is or contains a "facility" (a location, structure, or equipment where hazardous substances have been deposited, stored, disposed of, or otherwise come to be located[66];

(2) there is a release or threat of release of a hazardous substance to the environment at or from the facility; and

(3) each defendant falls within one of the four classes of PRPs.[67]

In brief, the classes of PRPs under CERCLA are (1) any current owner or operator of the facility in question; (2) any person who owned or operated the facility at a time when a "disposal" of hazardous substances occurred at the facility; (3) any person who arranged for the disposal or treatment at, or transportation for disposal or treatment to, the facility of hazardous substances owned or possessed by that person; and (4) any person who transported hazardous substances to a treatment or disposal facility selected by the person.[68]

OPA imposes liability for government removal costs and damages, including NRD, on each "responsible party" for a vessel or facility from which oil is discharged, or presents a substantial threat of a discharge, "into or upon the navigable waters or adjoining shorelines."[69] "Responsible party" is defined separately for vessels, onshore facilities, and offshore facilities but generally (subject to some exclusions and nuances) includes owners or operators of a vessel or onshore facility, and lessees or permittees of the area in which an offshore facility (such as an oil production platform) is located.[70]

Under these provisions, the scope of OPA liability is limited to oil discharges to waters of the United States or "adjoining shorelines," whereas CERCLA liability applies to hazardous substance releases into any part of the environment. On the other hand, NRD liability under OPA extends to natural resource injuries resulting from a threatened release, while NRD is recoverable under CERCLA only for injuries resulting from an actual release.[71] Because the definition of "hazardous substance" under CERCLA expressly excludes "petroleum,"[72] CERCLA and OPA provide complementary, rather than overlapping, NRD regimes.[73]

63. Kennecott Utah Copper Corp. v. U.S. Dep't of the Interior, 88 F.3d 1191, 1219, 26 ELR 21489 (D.C. Cir. 1996).
64. *Id.*
65. 42 U.S.C. §9607(a)(4)(C) (emphasis added). *See* New York v. Next Millennium Realty, LLC, 160 F. Supp. 3d 485, 523, 46 ELR 20032 (E.D.N.Y. 2016); *ASARCO I*, 280 F. Supp. 2d 1094, 1102-03 (D. Idaho 2003) (listing the elements of liability, including injury and causation). *See also* United States v. Mottolo, No. 93-547-B, 1992 WL 674737, at *8 (D.N.H. Dec. 17, 1992) (holding that "once a defendant is found to be a liable party under CERCLA," they are liable as a matter of law for the damages listed in the statute, including injuries to natural resources; to recover NRDs, however, the government "will still be obligated to establish that there were damages to natural resources, to provide evidence quantifying those damages, and to connect the injuries to defendants' CERCLA liability").
66. *See* CERCLA §101(9), 42 U.S.C. §9601(9).
67. *See* 42 U.S.C. §9607(a).
68. *Id.* Scores of judicial decisions discuss how these liability provisions should be interpreted in cases relating to the recovery of response costs or performance of response actions. While many of those decisions are potentially relevant to NRD cases, examining them is beyond the scope of this Article.
69. 33 U.S.C. §2702(a).
70. *See id.* §2701(32).
71. For example, if a vessel loaded with oil runs aground on a coral reef, and then is pulled off the reef to avert the potential for an oil spill if it remained aground and exposed to storm impacts, some or all of the resulting damage to the coral arguably resulted from the substantial threat of a discharge of oil.
72. 42 U.S.C. §9601(14).
73. The CWA's NRD cause of action overlaps with those of both CERCLA and OPA but, with rare exceptions, does not provide for liability beyond the scope of the latter two statutes. Liability for removal costs and NRD under the CWA arises from an unlawful discharge of hazardous substances or oil to "navigable waters of the United States, adjoining shorelines, and [offshore waters under U.S. jurisdiction]." *See* 33 U.S.C. §1321(b)(1), (f). Notably, the list of "hazardous substances" for which NRD recovery is available

2. The "Injury" Element

The DOI NRDA regulations (further discussed in Part IV below) define an actionable "injury" as "a measurable adverse change, either long- or short-term, in the chemical or physical quality or the viability of a natural resource," resulting directly or indirectly from an oil spill or hazardous substance release.[74] The regulations allow proof of injury by various methods, which depend on the type of resource but generally fall into two categories: either (1) empirical evidence of an adverse change in a particular case (e.g., lower hatching rates or increased incidence of tumors) or (2) evidence of exceedances of a regulatory standard or determination, such as water quality standards, maximum contaminant levels for drinking water, or limits on toxic substances in the edible tissue of fish or wildlife.[75]

The latter category of proof makes the presence of a hazardous substance above a prescribed concentration injury per se. In *In re Acushnet River & New Bedford Harbor: Proceedings re Alleged PCB Pollution*, for example, the court granted the government's motion in limine to exclude defendants' evidence regarding the effects of PCBs on fish and aquatic life. This ruling implicitly accepted the government's argument that PCB contamination in fish above the "tolerance level" set by the Food and Drug Administration for consumption of seafood constitutes "injury" to fish and aquatic life regardless of whether the health of the fish is impaired.[76]

In *Coeur d'Alene Tribe v. ASARCO, Inc.* (*ASARCO I*),[77] the court stated that it would "grant due deference to" the injury definitions in the regulations but was not bound by them in the circumstances of that case. Generally applying the definitions, the court found injury to surface water (based on exceedances of aquatic life criteria); soils, sediments, and riparian areas (based on plant toxicity and de-vegetation); some species of fish; tundra swans; groundwater; and benthic macroinvertebrates and phytoplankton.[78] However, the court declined to find injury to bird species other than tundra swans because, even though the evidence showed that Canada geese and wood ducks had died of lead poisoning at the site, the overall populations of those species at the site were still increasing.[79]

3. Proving Causation

The "resulting from" language in §107(a)(4)(C) clearly imposes a burden on plaintiffs to establish a causal link between hazardous substance releases for which a defendant is liable and natural resource injury. Thus far, however, the nature of this burden remains unsettled.

In *Ohio*,[80] the D.C. Circuit upheld a set of technical requirements in DOI's NRDA regulations for proving that a biological injury resulted from exposure to hazardous substances or oil, rejecting arguments that they imposed an unduly stringent causation burden. The court concluded that "CERCLA is at best ambiguous on the question of whether the causation-of-injury standard under §107(a)(C) must be less demanding than that of the common law," and then deferred to DOI's technical formula, which applied "traditional causation standards in this context."[81] In *National Ass'n of Manufacturers v. U.S. Department of the Interior*,[82] another panel of the D.C. Circuit upheld DOI's reliance on a predictive model to determine causation of injury in its "Type A" rules (discussed further in Section IV.A below), rejecting industry arguments that the statute requires a site-specific showing of causation in all cases. These decisions show respect for well-supported scientific evidence of a causal link but stop short of adopting a specific legal standard.

The *Acushnet* court held that the causal link required by CERCLA §107(a)(4)(C) is established if the defendant's releases have been a "contributing factor" to the natural resource injury or loss.[83] This modified an earlier bench ruling that would have required plaintiffs to meet the "substantial contributing factor" proximate causation test endorsed in the Restatement (Second) of Torts. Thus, *Acushnet VII* stands for the proposition that the standard of proof for causation of damages under CERCLA should be less stringent than at common law.

The district court in *Coeur d'Alene Tribe v. ASARCO*, addressing commingled wastes from multiple sources, also adopted the "contributing factor" causation test for whether the owner/operators of each source were jointly and severally liable.[84] The court's application of this standard to the facts, however, could be viewed as little different from many comparable common-law concurrent-cause cases, as the court required proof that a defendant's releases contributed "more than a de minimis amount [to the injury]—to an extent that at least some of the injury would not have occurred if only the Defendant's amount of release had occurred."[85]

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under the CWA is only a subset of the hazardous substances designated under CERCLA. *See* 40 C.F.R. §117.3. The scope of CWA liability for oil discharges is largely coterminous with OPA's and, in practice, NRD claims relating to discharges of oil are now handled primarily through OPA's NRD scheme. *See, e.g.*, 15 C.F.R. §990.20 (NOAA's NRD regulations under OPA supersede DOI's NRD regulations "with regard to oil discharges covered by OPA").

74. 43 C.F.R. §11.14(v).
75. *See id.* §11.62(b)-(f).
76. In re Acushnet River & New Bedford Harbor: Proc. re Alleged PCB Pollution (*Acushnet V*), 716 F. Supp. 676, 685, 19 ELR 21471 (D. Mass. 1989). *Accord* New York v. Next Millennium Realty, LLC, 160 F. Supp. 3d 485, 525, 46 ELR 20032 (E.D.N.Y. 2016) (evidence that volatile organic compound concentrations in groundwater exceeded maximum contaminant levels set in applicable regulations was sufficient to establish "injury" for purposes of NRD liability).
77. 280 F. Supp. 2d 1094, 1122 n.22 (D. Idaho 2003).
78. *Id.* at 1123-24.
79. *Id.* at 1123.
80. Ohio v. U.S. Dep't of the Interior, 880 F.2d 432, 470-72, 19 ELR 21099 (D.C. Cir. 1989).
81. *Id.* at 472.
82. 134 F.3d 1095, 1105-08, 28 ELR 20509 (D.C. Cir. 1998).
83. In re Acushnet River & New Bedford Harbor: Proc. re Alleged PCB Pollution (*Acushnet VII*), 722 F. Supp. 893, 897 n.8, 20 ELR 20204 (D. Mass. 1989).
84. *ASARCO I*, 280 F. Supp. 2d 1094, 1124 (D. Idaho 2003).
85. *Id. See also* United States v. Montrose Chem. Corp., No. CV 90-3122-AAH (JRX), 1991 WL 183147, at *1 (C.D. Cal. Mar. 29, 1991) (dismissing claim for NRDs on ground that the complaint did not adequately plead, as to each defendant, that specific releases were "the sole or substantially

4. Incurrence of Costs Not an Element of NRD Liability

Unlike claims for recovery of response costs, "there is no requirement that money must be expended by the [plaintiff] before it can seek to recover for damages to natural resources."[86]

B. Joint and Several Liability or Divisibility of the Harm

Every court that has addressed the issue has ruled that liability for NRD, like liability for response costs, is joint and several unless a defendant meets its burden of proving that the harm is divisible or that there is a reasonable basis for apportionment of the harm.[87]

C. CERCLA Statutory Exceptions and Defenses[88]

1. Exception for "Preenactment" Damages

CERCLA §107(f)(1) states that there can be no NRD recovery "where such damages and the release of a hazardous substance from which such damages resulted have occurred wholly before December 11, 1980"—the date CERCLA was enacted.[89]

The district court in *Acushnet V* parsed this exception meticulously:

(1) NRD "occur" when some entity incurs expenses, or suffers a loss of use or enjoyment, due to the injury to natural resources.[90]

(2) Trustees are entitled to recover all damages that "occur" after December 11, 1980,[91] regardless of whether they result from preenactment or postenactment releases (because, per above, the date of the release or injury to natural resources is not determinative of when the damages "occurred").

(3) Where NRD are readily divisible, trustees cannot recover for damages that occurred before December 11, 1980.[92]

(4) But, where damages are not divisible and the damages or the releases continue postenactment, trustees may recover for the non-divisible damages in their entirety.[93] The court cited damages for "aesthetic injury" as an example of damages that may be indivisible.[94]

Despite these prior decisions, one district court, relying on a misreading of *Bunker Hill* and imprecise dicta in other cases, dismissed claims arising from preenactment disposals of mining waste that remained in the environment long after 1980.[95] Rejecting the *Acushnet V* interpretation of §107(f)(1), the court in *Atlantic Richfield* held that damages "occur" for purposes of the statute when the injury commences and that the plaintiff had failed to prove new injuries (and therefore damages) after December 11, 1980.[96]

Soon after that decision, on substantially identical facts, the court in *ASARCO I* reached the opposite conclusion and thoroughly discredited *Atlantic Richfield*. First, the *ASARCO I* court held that, although most of the mining waste had been discharged or dumped into the environment before 1980, the continual resuspension and movement of the wastes constitute "releases" postenactment.[97] Second, the court ruled that "damages" in this context has a meaning distinct from "injury," and that "a significant amount of the damages occurred post-enactment when the federal government and Tribe began studying the 'injury' caused by the mining industry and how to clean up the injury to the natural resources."[98]

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contributing cause" of specific natural resource injuries). *See generally* Sanne H. Knudsen, *The Long-Term Tort: In Search of a New Causation Framework for Natural Resource Damages*, 108 Nw. U. L. Rev. 475 (2014).

86. New York v. General Elec. Co., 592 F. Supp. 291, 298, 14 ELR 20719 (N.D.N.Y. 1984). *Accord ASARCO I*, 280 F. Supp. 2d at 1102 n.6.

87. *See* New Mexico v. General Elec. Co., 467 F.3d 1223, 1234, 36 ELR 20219 (10th Cir. 2006); California v. Montrose Chem. Corp., 104 F.3d 1507, 1518 n.9, 27 ELR 20508 (9th Cir. 1997); *ASARCO I*, 280 F. Supp. 2d at 1119-20 ("The divisibility of harm inquiry is guided by principles of causation alone. Where causation is unclear, divisibility is not an opportunity for courts to 'split the difference' in an attempt to achieve equity.") (citation omitted).

88. OPA and the CWA also contain a substantial number of statutory exceptions, defenses, and limitations on liability that may apply to NRD claims. Although the details of the exceptions and defenses differ from those in CERCLA, they are roughly comparable in all three statutes. Compare the CERCLA defenses and exceptions with 33 U.S.C. §2703 (defenses to OPA liability); *id.* §§1321(c)(4) (exceptions to CWA liability), 1321(f)(1)-(3), (g) (additional CWA defenses). The limitations on liability under OPA and the CWA are unique and vary depending on the type of vessel or facility from which oil was discharged. *See id.* §2704 (OPA limitations on liability); *id.* §1321(f)(1)-(3) (CWA liability limitations). Because of the complexity of these provisions, their details are beyond the scope of this CERCLA-centered Article.

89. 42 U.S.C. §9607(f)(1).

90. *Acushnet V*, 716 F. Supp. 676, 683 (D. Mass. 1989).

91. *Id.* at 683-84.

92. *Id.* at 685.

93. *Id.* at 686.

94. *Id. Accord ASARCO I*, 280 F. Supp. 2d 1094, 1114 (D. Idaho 2003) ("[T]he statute only excuses liability if the release *and* the damages both occur pre-enactment."); Aetna Cas. & Sur. Co. v. Pintlar Corp., 948 F.2d 1507, 1515-16, 22 ELR 20134 (9th Cir. 1991) (holding that coverage under a pre-1980 insurance policy was triggered by a release of hazardous substances during the policy period, and that coverage included postenactment damages—which the court defined as "the monetary quantification stemming from an injury"—arising from such preenactment releases); Idaho v. Bunker Hill Co., 635 F. Supp. 665, 675, 16 ELR 20879 (D. Idaho 1986) ("[T]o the extent that both the release and the resultant damage occurred prior to enactment [December 11, 1980], Section 107(f) bars recovery. . . . To the extent the release occurred prior to enactment, but the resultant damage occurred post-enactment, Section 107(f) does not bar recovery."); United States v. Reilly Tar & Chem. Corp., 546 F. Supp. 1100, 1120, 12 ELR 20954 (D. Minn. 1982) (finding the exclusion in §107(f) "precludes liability [for NRDs] only where (1) all releases ended before December 11, 1980, and (2) no damages were suffered on or after December 11, 1980 as a result of the release"). *But cf.* Artesian Water Co. v. New Castle Cnty., 851 F.2d 643, 650, 18 ELR 21012 (3d Cir. 1988) (dicta that "Congress purposely did not impose retroactive liability for [natural resource] losses" under CERCLA §107(f)).

95. Montana v. Atlantic Richfield Co., 266 F. Supp. 2d 1238, 1244 (D. Mont. 2003).

96. *Id.* n.2.

97. 280 F. Supp. 2d at 1112-14.

98. *Id.* at 1114.

2. Per-Release "Cap"

Section 107(c) of CERCLA sets various caps on liability "for each release . . . or incident involving release" from vessels, vehicles, and facilities, subject to certain exceptions. For most facilities, recovery of NRD is limited to $50 million, unless the release resulted from willful misconduct or willful negligence or from a violation of federal safety or operating standards.[99] This may be a significant limitation in cases where the release was a one-time spill with a single responsible party. However, it should not affect most cases where hazardous substances were spilled or discharged over a long period, as typically happened at old industrial plants, mining facilities, and disposal sites.

In *California v. Montrose Chemical Corp.*, the court held that the $50 million cap applies separately to each responsible party.[100] It also interpreted "incident involving release" as "an occurrence or series of occurrences *of relatively short duration* involving a single release or a series of releases all resulting from or connected to the event or occurrence."[101] Though it remanded the question of how many "incidents" had occurred in *Montrose*, the court of appeals firmly rejected the district court's earlier ruling that the 40-year operating history of an industrial plant could be a single incident.

3. Losses Identified in an Environmental Impact Statement

Section 107(f)(1) provides that there is no NRD liability

> where the party sought to be charged has demonstrated that the damages to natural resources complained of were specifically identified as an irreversible and irretrievable commitment of natural resources in an environmental impact statement, or other comparable environment[al] analysis, and the decision to grant the permit or license authorizes such commitment . . . , and the facility or project was otherwise operating within the terms of its permit or license.[102]

The U.S. Court of Appeals for the Ninth Circuit held that this exception is inapplicable to activities and releases that occurred before the authorizing permit was issued.[103]

4. Federally Permitted Releases

Section 107(j) states in part: "Recovery by any person (including the United States or any State or Indian tribe) for response costs or damages *resulting from a federally permitted release* shall be pursuant to existing law in lieu of this section."[104] Section 101(10) provides a detailed definition of "federally permitted release."[105] Among other things, the definition sets out what is clearly intended to be an exclusive list of the permitting schemes that may give rise to this defense to CERCLA liability, together with conditions or limitations on the applicability of the defense for each. The types of "federally permitted releases" that seem most likely to be raised in NRD cases are:

- Discharges in compliance with, identified in, or subject to a condition in a CWA §402 National Pollutant Discharge Elimination System (NPDES) permit[106];
- Discharges in compliance with a CWA §404 "dredge or fill" permit[107]; and
- Air emissions subject to a permit or control regulation under specified portions of the Clean Air Act (CAA)[108] or state implementation plans.[109]

The *Acushnet* court held that this defense is inapplicable to discharges that pre-dated the issuance of an NPDES permit and that, in a case involving both unpermitted and arguably permitted releases, the defendant claiming the benefit of the defense has the burden to prove what portion of the harm was caused by permitted releases.[110]

D. Bar to "Double Recovery" by Multiple Trustees

Section 107(f)(1) of CERCLA provides that "[t]here shall be no double recovery under this chapter for natural resource damages . . . for the same release and natural resource."[111]

In the *Coeur d'Alene Basin* litigation, a defendant that had settled NRD claims of the state of Idaho for $4.5 million argued that a subsequent suit by the United States and the Coeur d'Alene Tribe, claiming hundreds of millions in additional NRD, was seeking "double recovery." The court initially ruled that, to protect against double recovery, federal, state, and tribal trusteeship should be "apportioned" based on the trustees' relative amounts of resource management activities.[112] But the same judge reconsidered the issue later and adopted the United States' position that co-trustees have undivided interests whose scope is primarily

99. 42 U.S.C. §9607(c)(1)(D), (c)(2).
100. 104 F.3d 1507, 1518, 27 ELR 20508 (9th Cir. 1997).
101. *Id.* at 1519-20 (emphasis added).
102. 42 U.S.C. §9607(f)(1).
103. Idaho v. Hanna Mining Co., 882 F.2d 392, 395, 19 ELR 21358 (9th Cir. 1989) ("Under the statute, liability is excused for damages arising from a newly permitted project . . . . Liability arising from past activities is not automatically extinguished by an authorization in an [environmental impact statement] for a new project.").
104. 42 U.S.C. §9607(j) (emphasis added).
105. *Id.* §9601(10).
106. *Id.* §9601(10)(A)-(C).
107. *Id.* §9601(10)(D).
108. 42 U.S.C. §§7401-7671q, ELR Stat. CAA §§101-618.
109. 42 U.S.C. §9601(10)(H).
110. *Acushnet VII*, 722 F. Supp. 893, 895-97 (D. Mass. 1989).
111. 42 U.S.C. §9607(f)(1).
112. *ASARCO I*, 280 F. Supp. 2d 1094, 1115-16 (D. Idaho 2003).

an issue of law.[113] Therefore, double recovery may be prevented by simply deducting the amount of any prior settlements from the total damages to natural resources proven in subsequent litigation.[114]

E. Can There Be Injury Without Recoverable Damages?

The decision in *New Mexico v. General Electric Co.*[115] addresses a site where part of the aquifer that supplies drinking water to Albuquerque, New Mexico, was contaminated with volatile organic compounds (VOCs) from industrial operations. EPA oversaw remedial investigations and selected a series of remedial actions, including a pump-and-treatment system for the groundwater to eventually reduce the level of VOCs below the regulatory standard set to protect drinking water, making the water fully usable for that purpose. During the remedial work, one city well was relocated at the PRPs' expense, but the city was able to continue drawing drinking water from uncontaminated portions of the aquifer without interruption and expected to be able to continue doing so throughout the time needed to complete the cleanup.

While the remedial action was in progress, the state sued several PRPs for NRD, initially under both CERCLA and state law, alleging that the presence of VOC contamination above drinking water standards is an "injury" to the groundwater resource and that it was entitled to compensation based on the cost of replacing the volume of contaminated water with clean water. After many procedural twists and turns, the district court granted summary judgment in favor of the defendants on the ground that, even though there was "injury," the state had failed to show that the injury would not be repaired by the ongoing remedial action or that the public was suffering any loss of groundwater services in the interim (because of the city's ability to draw sufficient water from uncontaminated areas of the same aquifer).[116]

On appeal, the U.S. Court of Appeals for the Tenth Circuit affirmed. Among other key rulings, the appellate court held that the state's assertion that the cleanup would not fully restore the groundwater was a challenge to the remedial action that could not be brought until remedial work is complete, and until then the court must assume the remedy will accomplish its stated goal and therefore no further restoration is warranted.[117] Further, given that the PRPs had already replaced the one affected well and that the city expected to be able to meet its water needs from uncontaminated parts of the aquifer, the court found no proof of significant "loss-of-use damages."[118] On that basis, the Tenth Circuit affirmed the district court's entry of summary judgment in favor of defendants on the state's loss-of-use damage theory.[119]

IV. History and Legal Impact of the NRDA Rules

A. CERCLA NRDA Regulations

CERCLA §301(c) required the president, for purposes of both CERCLA and the CWA, to promulgate two types of regulations for the assessment of NRD: (1) standard simplified procedures requiring minimal field investigation (Type A Rule), and (2) protocols for conducting assessments in individual cases (Type B Rule). Section 301(c)(2) requires these regulations to "identify the best available procedures to determine such damages, including both direct and indirect injury . . . , and [to] take into consideration factors including, but not limited to, replacement value, use value, and the ability of the ecosystem . . . to recover."[120] DOI was delegated authority to promulgate the NRDA regulations.

1. Original CERCLA NRDA Rules

DOI issued the original Type B Rule on August 1, 1986.[121] Soon after that, DOI promulgated a limited Type A Rule applicable only to marine environments.[122]

Both rules were challenged by states, environmental groups, and industry. Ultimately, the D.C. Circuit rejected all industry challenges, but invalidated two key components of the rules that had been attacked by states and environmental groups: (1) the "lesser of" rule, which would have limited damages to the smaller of restoration costs or lost use values (see Section V.A. below), and (2) the "hierarchy" of assessment methodologies adopted by DOI, which gave a strong preference to using lost market value as the measure of damages.[123] The court remanded both rules to DOI for revisions consistent with its opinion.

2. Revised Type A Rules (for Certain Claims Under $5 Million)

DOI issued new Type A rules for marine ecosystems and the Great Lakes in May 1996.[124] The 1996 Type A rules were for use only in cases where the calculated claim for

113. *ASARCO II*, 471 F. Supp. 2d 1063, 1067-69 (D. Idaho 2005).
114. *Id.*
115. 467 F.3d 1223, 36 ELR 20219 (10th Cir. 2006).
116. *See generally id.* at 1235-42.
117. *Id.* at 1249-50.
118. *Id.* at 1251-52.
119. *Id.* at 1252.
120. 42 U.S.C. §9651(c)(2).
121. 51 Fed. Reg. 27674 (Aug. 1, 1986) (codified at 43 C.F.R. pt. 11).
122. 52 Fed. Reg. 9042 (Mar. 20, 1987). *See also* 53 Fed. Reg. 5166 (Feb. 22, 1988) (amending the Type B Rule to conform to SARA).
123. Ohio v. U.S. Dep't of the Interior, 880 F.2d 432, 19 ELR 21099 (D.C. Cir. 1989) (addressing the Type B Rule); Colorado v. U.S. Dep't of the Interior, 880 F.2d 481, 19 ELR 21127 (D.C. Cir. 1989) (addressing the Type A Rule).
124. 61 Fed. Reg. 20560 (May 7, 1996). The D.C. Circuit upheld the revised Type A rules in their entirety in *National Association of Manufacturers v. U.S. Department of the Interior*, 134 F.3d 1095, 28 ELR 20509 (D.C. Cir. 1998).

damages does not exceed $100,000 and used computer models to calculate damages from relatively simple site-specific inputs and average values derived from comparable sites. In January 2024, DOI issued a Notice of Proposed Rulemaking soliciting public comments on a substantially broader Type A rule that would allow the use of additional NRD valuation models and would apply to any environment.[125] Use of the Type A procedures would still be restricted: the expected claim must not exceed $5 million; all affected trustees must agree; and at least one PRP must commit in advance to fund the assessment and sign a tolling agreement.[126]

3. Revised Type B Rule

On March 25, 1994, DOI promulgated a revised Type B NRDA rule intended to conform to *Ohio*.[127] The rule was challenged again, but the D.C. Circuit upheld nearly all of the revisions.[128] Among other things, the court reaffirmed the basic holdings of *Ohio* on the measure of damages, upheld the trustees' discretion to evaluate restoration options using methods not specifically listed in the rule, and rejected an industry argument that trustees must always select the most cost-effective restoration or replacement alternative (thus affirming the rule's requirement to consider cost-effectiveness along with other relevant factors).[129] It also rejected a state's argument that trustees must give preference to direct restoration over replacing or acquiring equivalent resources in another location.[130] However, the court invalidated a section of the rule that sought to give regulatory weight to the agency's interpretation of the "date of promulgation" of the NRDA rules for purposes of the statute of limitations in §113(g)(1).[131]

In 2008, DOI promulgated another set of revisions to the Type B Rule.[132] These revisions conformed the rule to the *Kennecott* decision, provided consistent timing guidelines for evaluating and selecting restoration alternatives, and clarified the section of the rule on determining the compensable value of interim lost services to expressly allow, as an alternative to using economic methods, valuation based on the costs of actions to restore, replace, or acquire the equivalent of the lost services.

The Type B Rule calls for assessments to follow a four-stage administrative process, with opportunities for review and comment by the public and PRPs during the latter three stages:

1. **Preassessment screen (Subpart B)**. Trustee initially determines whether a release of hazardous substances may have affected natural resources and whether the potential injury is significant enough to warrant continuing with the damage assessment.
2. **Assessment planning (Subpart C)**. Trustee decides what methodologies to apply in the damage assessment, maps out the assessment process, and, in many cases, invites the PRPs to participate in the assessment.
3. **Damages assessment (Subpart E)**. Trustee conducts a three-phase assessment process consisting of:
    a. *Injury determination* (43 C.F.R. §11.61), in which the trustee must determine (i) whether an injury to natural resources has occurred and (ii) whether the injury "resulted from" a particular hazardous substance release based upon the exposure pathway and nature of the injury (thus satisfying the "causation" requirement for NRD liability);
    b. *Injury quantification* (43 C.F.R. §11.70), in which the trustee quantifies the injury and the lost "services" for use in determining appropriate compensation; and
    c. *Damage determination* (43 C.F.R. §11.80), in which the trustee quantifies the damages to be sought in compensation, based on either or both of (i) the costs of restoration, replacement, or acquisition of the equivalent of the injured natural resources to return the resources or the services they provide to baseline, or (ii) the lost "compensable value" of the injured resources from the time the injury began until the resources recover or are restored to baseline conditions.
4. **Post-assessment (Subpart F)**. After the amount of the damages recovery has been determined (by settlement or litigation), the trustee develops the final plan for restoration, replacement, or acquisition of equivalent resources using the money actually available.

B. The OPA NRDA Rule

In January 1996, NOAA issued a final rule for NRDA under §1006(e) of OPA.[133] The OPA NRDA rule applies to all oil discharges covered by OPA (including oil discharges otherwise covered by the CWA, in which case the

125. *See* 89 Fed. Reg. 733 (Jan. 5, 2024).
126. *Id.*
127. 59 Fed. Reg. 14262 (Mar. 25, 1994) (codified at 43 C.F.R. pt. 11). *See also* 56 Fed. Reg. 19752 (Apr. 29, 1991) (proposed rule with explanatory preamble).
128. Kennecott Utah Copper Corp. v. U.S. Dep't of the Interior, 88 F.3d 1191, 26 ELR 21489 (D.C. Cir. 1996).
129. *Id.* at 1215-18.
130. *Id.* at 1229-31.
131. *Id.* at 1209-13. *See infra* Section VI.B. The court also remanded to DOI a provision that seemed to require restoration of both the injured natural resources and the services the resources provide, without (in the court's view) adequate explanation of the relationship between the two objectives. *Kennecott*, 88 F.3d at 1220. DOI addressed this issue in its 2008 revisions to the Type B Rule.
132. *See* 73 Fed. Reg. 57259 (Oct. 2, 2008).
133. 33 U.S.C. §2706(e). *See* 61 Fed. Reg. 440 (Jan. 5, 1996) (codified at 15 C.F.R. pt. 990).

NOAA regulations supersede the DOI regulations[134]). In *General Electric Co. v. U.S. Department of Commerce*,[135] the court upheld NOAA's rule in all but two relatively minor respects: recovery of attorney fees for enforcement activities[136] and the authority of trustees to require further oil removal after the federal agency responsible for overseeing cleanup has declared the response complete.[137]

The OPA assessment rule differs in overall approach from the CERCLA NRDA rules, and has come to influence assessment practice under CERCLA as well as OPA. Instead of adopting the DOI Type B Rule's approach, which features the use of economic studies to measure the value of interim lost uses and other lost services,[138] the OPA rule focuses the entire damages claim on the costs of restoration projects. Damages consist of the cost of "primary restoration" plus the cost of "compensatory restoration."

Primary restoration refers to the actions needed to return the injured resources to their baseline condition or to provide substitute resources producing the baseline level of services. *Compensatory restoration* refers to restoring or enhancing resources (potentially beyond baseline) to compensate for interim losses of natural resource services, including both human use and passive use losses and services to other resources.[139] Although the OPA NRDA rule also allows for economic measures of damages in some circumstances, it expressly favors basing damages on these two categories of restoration project costs.[140]

C. Use of the Rules Is Optional, but Gives Trustees a "Rebuttable Presumption"

A damages assessment conducted by either a federal trustee or a state trustee in accordance with the CERCLA rules has "the force and effect of a rebuttable presumption . . . in any administrative or judicial proceeding under this chapter or [§311 of the CWA]."[141] Section 1006(e)(2) of OPA[142] contains a similar rebuttable presumption for assessments conducted in accordance with the OPA NRDA rule by federal, state, or tribal trustees.[143]

Neither CERCLA nor OPA requires trustees to use the NRDA rules in assessing damages.[144] The only direct legal consequence of choosing not to follow the regulations is that the statutory presumption is unavailable.[145] Moreover, the CERCLA rules do not exhaust the permissible methods of damages assessment under CERCLA.[146] Thus, a trustee who is willing to forego the statutory presumption may use injury tests or methods of damages measurement not adopted by DOI or NOAA.

D. Evidentiary Weight of the Rebuttable Presumption

The legal effect of the "rebuttable presumption" is an open issue. Some commentators have argued that, consistent with Federal Rule of Evidence 301, the CERCLA presumption should be a "bursting bubble" that only shifts the burden of coming forward with contradictory evidence to the defendant and otherwise leaves the burden of persuasion on the government plaintiff.[147]

There is a substantial counterargument that this statutory presumption is not governed by Rule 301 and should have continuing weight throughout the case, shifting the burden of persuasion to the responsible parties.[148] DOI did not address the issue in its regulations but did state in the preamble to the 2008 revisions to the CERCLA NRDA Type B Rule that the presumption serves as "additional deference."[149] However, NOAA expressly endorsed this position in its preamble to the OPA damages assessment rules.[150] This interpretation is supported by the structure of the statute, particularly the requirement that the president adopt a formal regulatory process with "best available procedures" for damages assessments and required opportunities for public participation, and by case law interpreting other statutory presumptions that apply to complex, judgmental decisions.[151]

The closest any court has come to addressing the weight of the rebuttable presumption is in *General Electric Co. v. U.S. Department of Commerce*. There, the D.C. Circuit distinguished OPA's statutory rebuttable presumption from

134. *See* 15 C.F.R. §990.20.
135. 128 F.3d 767, 28 ELR 20263 (D.C. Cir. 1997).
136. *See id*. at 775.
137. *See id*. at 776.
138. *See infra* Section V.D.
139. 15 C.F.R. §§990.30, 990.53.
140. *See id*. §990.53(d)(3)(ii) (trustees may estimate "the dollar value of the lost services" and select an action with an equivalent cost, but only where "valuation of replacement natural resources and/or services cannot be performed within a reasonable time frame or at a reasonable cost").
141. CERCLA §107(f)(2)(C), 42 U.S.C. §9607(f)(2)(C); *see also* 43 C.F.R. §11.11.
142. 33 U.S.C. §2706(c)(2).
143. In the case of NRD resulting from a mixture of oil and hazardous substances, trustees must use the DOI NRDA rules to obtain the statutory presumption. *See* 15 C.F.R. §990.20(c). *See also id*. §990.13.
144. *See* 40 C.F.R. §300.615(c)(1)(iv) (trustees "have the option of following the procedures . . . located at 43 CFR part 11"); 43 C.F.R. §11.10 ("The assessment procedures set forth in this part are not mandatory."); 15 C.F.R. §990.11 (OPA rules "*may* be used" by trustees in conducting NRDA for oil discharges) (emphasis added).
145. Utah v. Kennecott Corp., 801 F. Supp. 553, 567, 23 ELR 20257 (D. Utah 1992).
146. *See* Ohio v. U.S. Dep't of the Interior, 880 F.2d 432, 472, 19 ELR 21099 (D.C. Cir. 1989) ("Biological responses for which there currently are inadequate data to satisfy the [CERCLA rule's] acceptance criteria are not rendered non-actionable by Interior's rules . . . .").
147. *See, e.g.*, Mark Menefee, *Recovery for Natural Resource Damages Under Superfund: The Role of the Rebuttable Presumption*, 12 ELR 15057, 15061-64 (Nov. 1982), https://www.elr.info/articles/elr-articles/recovery-natural-resource-damages-under-superfund-role-rebuttable-presumption.
148. *See generally* Yen P. Hoang, *Assessing Environmental Damages After Oil Spill Disasters: How Courts Should Construe the Rebuttable Presumption Under the Oil Pollution Act*, 96 Cornell L. Rev. 1469 (2011).
149. 73 Fed. Reg. 57259, 57260 (Oct. 2, 2008).
150. *See* 61 Fed. Reg. 440, 443 (Jan. 5, 1996) (NOAA interprets the rebuttable presumption as imposing on responsible parties "the burdens of presenting alternative evidence on damages and of persuading the fact finder that the damages presented by the trustees are not an appropriate measure of damages").
151. *See, e.g.*, United States v. Jessup, 757 F.2d 378, 383 (1st Cir. 1985) (presumptions under the Bail Reform Act).

agency-created rebuttable presumptions—which are only appropriate when proof of one fact makes the existence of an inferred fact so likely that assuming its existence makes sense—on the ground that the U.S. Congress is free to adopt a substantive presumption for policy reasons not limited to the test for agency-created rules.[152] The court described the conflicting interpretations of the weight of this statutory presumption, of NOAA and of those who argued for a "bursting bubble" rule, but ruled that it did not need to resolve the issue because neither interpretation was incorporated into the regulations at issue in that case.[153]

V. Determining Damages

A. Statutory Guidance

CERCLA does not directly state how damages should be measured, but the statute provides several key guideposts:

(1) Section 107(f)(1) requires natural resource trustees to use all sums recovered as damages to restore, replace, or acquire the equivalent of the injured resources.[154]

(2) Section 107(f)(1) further states that "[t]he measure of damages in any action [for NRD] *shall not be limited by the sums which can be used to restore or replace such resources*."[155]

(3) Section 301(c)(2) requires the damages assessment regulations to identify procedures for determining damages that "take into consideration factors *including, but not limited to, replacement value, use value, and ability of the ecosystem or resource to recover*."[156]

In its initial 1986 version of the NRDA regulations, DOI took the position that the measure of damages should be "the *lesser of*: restoration or replacement costs; or diminution of use values" of the injured natural resources.[157] The preamble to this version of the rule indicates that DOI, relying on common-law precedents from other contexts, considered it irrational to restore a natural resource if its use value is less than the costs of restoration.[158]

As noted above, in the 1989 *Ohio*[159] and *Colorado v. U.S. Department of the Interior*[160] decisions, the D.C. Circuit struck down the "lesser of" rule. After examining the language of CERCLA in detail, the court concluded that "CERCLA unambiguously mandates *a distinct preference for using restoration cost as the measure of damages*, and so precludes a 'lesser of' rule which totally ignores that preference."[161] The *Ohio* court further held that damages may include losses to the public resulting from the natural resource injuries, in addition to restoration costs, and that "Congress intended the damage assessment regulations to capture fully *all aspects of loss*."[162]

OPA, enacted soon after these decisions, explicitly states that the measure of damages is:

(A) the cost of restoring, rehabilitating, replacing, or acquiring the equivalent of, the damaged natural resources;

(B) the diminution in value of those natural resources pending restoration; plus

(C) the reasonable cost of assessing those damages.[163]

B. The General NRD Measure After Ohio: Restoration Costs Plus Compensation for Interim Lost Services

Under *Ohio* and its progeny, the *minimum* measure of damages is generally the costs of restoration, replacement, or acquisition actions that return the injured resources to the condition they would have been in had the hazardous substance release not occurred (which the DOI rule refers to as the "*baseline*" condition). In addition, trustees may be entitled to recover compensation for impaired uses of the injured resources and other lost benefits (collectively referred to as "services") between the onset of injury and return to baseline.[164]

As revised to conform to *Ohio* and *Kennecott*, the Type B NRDA Rule states:

> The measure of damages is the costs of (i) restoration or rehabilitation of the injured natural resources to a condi-

152. General Elec. Co. v. U.S. Dep't of Com., 128 F.3d 767, 771-72, 28 ELR 20263 (D.C. Cir. 1997).
153. *Id.* at 772.
154. 42 U.S.C. §9607(f)(1).
155. *Id.* (emphasis added).
156. *Id.* §9651(c)(2) (emphasis added).
157. 43 C.F.R. §11.35(b)(2) (as of 1987) (emphasis added).
158. *See* 51 Fed. Reg. 27674, 27704-05 (Aug. 1, 1986).
159. Ohio v. U.S. Dep't of the Interior, 880 F.2d 432, 19 ELR 21099 (D.C. Cir. 1989).
160. 880 F.2d 481, 19 ELR 21127 (D.C. Cir. 1989).
161. *Ohio v. U.S. Dep't of the Interior*, 880 F.2d at 444 (emphasis added); *see also Colorado v. U.S. Dep't of the Interior*, 880 F.2d at 490 (rejecting DOI's initial Type A Rule because it relied only on lost use value, to the exclusion of restoration costs, as a measure of NRD).
162. *Ohio v. U.S. Dep't of the Interior*, 880 F.2d at 463 (emphasis added).
163. OPA §1006(d)(1), 33 U.S.C. §2706(d)(1).
164. *See Ohio v. U.S. Dep't of the Interior*, 880 F.2d at 454 (Congress expected that NRD "will normally include restoration costs at a minimum, plus interim lost-use value in appropriate cases"); *id*. at 458 (congressional report "stated unequivocally that damages recoverable under CERCLA 'include both' restoration cost and lost use value for the period between the spill and the completion of restoration"); Kennecott Utah Copper Corp. v. U.S. Dep't of the Interior, 88 F.3d 1191, 1229, 26 ELR 21489 (D.C. Cir. 1996) (CERCLA provision stating that damages are not limited to restoration or replacement costs "recogniz[es] that a trustee may recover damages not only to restore an injured resource physically, but also to compensate the public for the lost use of the resources during the interim period between the discharge of hazardous substances and the final implementation of a remedial plan"); New Mexico v. General Elec. Co., 467 F.3d 1223, 1245, 36 ELR 20219 (10th Cir. 2006) ("The *measure* and *use* of damages arising from the release of hazardous waste is restricted to accomplishing CERCLA's essential goals of restoration or replacement, while also allowing for damages due to interim loss of use[.]"). *See also* National Ass'n of Mfrs. v. U.S. Dep't of the Interior, 134 F.3d 1095, 1116 n.21, 28 ELR 20509 (D.C. Cir. 1998) ("[A] fundamental purpose of CERCLA [is] to ensure the full recovery of the costs associated with a release of hazardous substances.").

> tion where they can provide the level of services available at baseline, or (ii) the replacement and/or acquisition of equivalent natural resources capable of providing such services. Damages may also include, at the discretion of the authorized official, the compensable value of all or a portion of the services lost to the public for the time period from the discharge or release until the attainment of the restoration, replacement, rehabilitation, and/or acquisition of the equivalent of baseline.[165]

Section 1006(d)(1) of OPA, quoted above, establishes essentially the same measure of damages for NRD claims arising from a discharge or threatened discharge of oil. In addition, despite differences between the language of CWA §311(f)(4) and the comparable language of CERCLA and OPA, the same measure of damages should also apply to NRD claims under the CWA.[166]

C. Costs of Restoration to Baseline

In general, the objective of natural resource restoration or replacement should be to return the injured resources to baseline, defined as the physical, chemical, and biological condition they would have been in if the release(s) at issue had not occurred.[167] *Baseline* is not necessarily the same as *pre-release* conditions, because it must take into account non-compensable events that would have affected natural resources even if no hazardous substance release had occurred.[168]

As an alternative to direct restoration or in-kind replacement of injured natural resources, both CERCLA and OPA authorize trustees to acquire "equivalent" resources. This alternative recognizes that it will not always be practical to reinstate the exact same resources, or even the same types of resources, that were injured.[169] To determine what resources are "equivalent," trustees should consider the "services" provided by the resources, including both human uses and ecological benefits to other natural resources.[170] As a general rule, the *restoration/replacement/acquisition actions used to measure damages should return the relevant natural resource services to their baseline levels*, taking into account the effects of natural recovery as well as active remedial measures.[171]

DOI's Type B Rule gives trustees discretion to choose among direct restoration of the injured resources, replacing the resources on-site or off-site, or acquiring the equivalent of the injured natural resources—or any combination of those approaches.[172] Hence, trustees may use the cost of any of these strategies to measure damages. In upholding this aspect of the rule against a challenge by the state of Montana, the D.C. Circuit held that Congress expressed no preference for "physically restoring resources over acquiring comparable resources for the public's benefit."[173]

D. Value of Lost Services Pending the Return to Baseline

In addition to the costs of reinstating baseline, the CERCLA NRDA rule allows damages to include the "*compensable value* of all or a portion of the services lost to the public for the time period from the discharge or release until the attainment of . . . baseline."[174] "Compensable value" for this interim period is defined as

> the amount of money required to compensate the public for the loss in services provided by the injured resources between the time of the discharge or release and the time the resources are fully returned to their baseline condition, or until the resources are replaced and/or equivalent natural resources are acquired.[175]

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165. 43 C.F.R. §11.80(b).
166. CWA §311(f)(4) states that the "removal" costs for which the owner or operator of a vessel or facility is liable under CWA §311(f)(1) "shall include any costs or expenses incurred by [the United States or a state] in the restoration or replacement of natural resources damaged or destroyed as a result of a discharge of oil or a hazardous substance." 33 U.S.C. §1321(f)(4). In *Kennecott*, the D.C. Circuit noted that the use of "includes" before restoration or replacement costs "necessarily implies that CWA damages may include other items as well." 88 F.3d at 1228. The *Kennecott* court found that, in its NRDA rules, DOI reasonably interpreted the CWA as allowing trustees to recover compensation for interim natural resource service losses, in addition to restoration or replacement costs, consistent with its parallel interpretation of CERCLA. *Id. Accord* Alaska Sport Fishing Ass'n v. Exxon Corp., 34 F.3d 769, 772, 24 ELR 21378 (9th Cir. 1994) (Court held that NRD under the CWA may include, in addition to restoration or replacement costs, "all lost-use damages on behalf of the public, from the time of any release until restoration." The court relied in part on DOI's Type B Rule, which §301(c)(1) of CERCLA explicitly makes applicable to NRDA under the CWA, and on CERCLA §304(c), which states that if "any provision of [the CWA] is determined to be in conflict with any provision of [CERCLA], the provisions of [CERCLA] shall apply." 42 U.S.C. §9654(c)).
167. *See* 43 C.F.R. §11.14(e).
168. *See id.*; *id.* §11.72(c) ("If a significant length of time has elapsed since the discharge or release first occurred, adjustments should be made to historical data to account for changes that have occurred as a result of causes other than the discharge or release.").
169. *See id.* §11.82(a), (b)(ii); 15 C.F.R. §990.30 (definition of "restoration"); 58 Fed. Reg. 39328, 39339 (July 22, 1993). *See also* Puerto Rico v. SS Zoe Colocotroni, 628 F.2d 652, 675-76, 10 ELR 20882 (1st Cir. 1980), *cert. denied*, 450 U.S. 912 (1981).
170. 58 Fed. Reg. at 39340. The CERCLA NRDA rules define "services" as "the physical and biological functions performed by the resource including the human uses of those functions. These services are the result of the physical, chemical, or biological quality of the resource." 43 C.F.R. §11.14(nn). *See also* 15 C.F.R. §990.30 (defining "services" under the OPA assessment rule as "the functions performed by a natural resource for the benefit of another natural resource and/or the public").
171. *See* 43 C.F.R. §11.82(b)(ii) ("The authorized official shall identify services previously provided by the resources in their baseline condition . . . and compare those services with services now provided by the injured resources, that is, with-a-discharge-or-release conditions[, taking into consideration] the ability of the ecosystem to recover[.]").
172. *Id.* §11.80.
173. Kennecott Utah Copper Corp. v. U.S. Dep't of the Interior, 88 F.3d 1191, 1229, 26 ELR 21489 (D.C. Cir. 1996). *See also* Idaho v. Southern Refrigerated Transp., Inc., No. 88-1279, 1991 WL 22479, at *11 (D. Idaho Jan. 24, 1991) (stating that improvements to river habitat to promote increased steelhead trout populations (e.g., fencing to restrict access or the removal of barriers to fish passage) constituted replacement or acquisition of the equivalent of injured resources). *See generally SS Zoe Colocotroni*, 628 F.2d at 676 ("Alternatives [to direct restoration] might include acquisition of comparable lands for public parks or . . . reforestation of a similar proximate site.").
174. 43 C.F.R. §§11.80(b) (emphasis added).
175. *Id.* §11.83(c).

Similarly, the OPA assessment rule states that damages should include "compensation for interim losses of such natural resources and services from the date of the incident until recovery."[176]

The CERCLA rule allows trustees to determine the compensable value of interim losses in two ways. First, trustees may use various economic methods to determine "the economic value of lost services provided by the injured resources."[177] Importantly, the rule specifies that such economic valuation "[includes] both public *use and nonuse values* such as existence and bequest values."[178] Non-use values (also known as "passive use") reflect benefits people derive from a natural resource regardless of whether they use it directly. Considering these non-use values may be essential to capture the interim loss of noncommercial benefits, such as services the injured resource provides to other elements of the ecosystem that people enjoy or depend on more broadly. While PRPs often argue that easy-to-determine market prices should be used to determine damages for interim losses, several courts have found such commercial use values for injured resources are inherently incomplete.[179]

In addition to economic methods, the CERCLA rule also offers trustees a second approach to determining compensable value, based on the cost of measures to replace the services lost during the interim period: "Alternatively, compensable value can be determined utilizing a restoration costs approach, which measures the cost of implementing a project or projects that restore, replace, or acquire the equivalent of natural resource services lost pending return to baseline."[180]

To determine the extent of the interim reduction in services resulting from a natural resource injury, the rule requires trustees to identify and quantify the services provided by the resource in its baseline condition and to compare that level of services to the services provided during the recovery period.[181] Under the rule, the selection of projects to restore, replace, or acquire the equivalent of interim lost services should be guided by the selection factors discussed in the following section.

The OPA NRDA rule explicitly favors the latter of these two valuation approaches, making the costs of what the rule calls "compensatory restoration" the preferred approach to determining interim loss damages.[182] The rule directs trustees first to consider compensatory restoration alternatives "that provide services of *the same type and quality, and of comparable value*, as those [lost during the recovery period]."[183] If that process yields no or too narrow a range of alternatives, the trustee may also consider alternatives that provide replacement natural resources and services that are "comparable" in type, quality, and value to those injured.[184] Finally, in circumstances where the value of the proposed replacement resources and services is not comparable to the value of the injured resources and services, the trustees may need to determine the scale of the compensatory restoration project by comparing its value to the interim diminution in value of the injured resources and services.[185]

E. Restoration Project Selection Factors

DOI's Type B Rule provides a nonexclusive list of factors for trustees to consider in selecting restoration projects for damage determination purposes:

> *d. Factors to consider when selecting the alternative to pursue.* When selecting the alternative to pursue, the authorized official shall evaluate each of the possible alternatives based on all relevant considerations, including the following factors:
>
> (1) Technical feasibility, as that term is used in this part.
>
> (2) The relationship of the expected costs of the proposed action to the expected benefits from the restoration, rehabilitation, replacement, and/or acquisition of equivalent resources.
>
> (3) Cost-effectiveness, as that term is used in this part.
>
> (4) The results of any actual or planned response actions.
>
> (5) Potential for additional injury resulting from the proposed actions, including long-term and indirect impacts, to the injured resources or other resources.
>
> (6) The natural recovery period determined in §11.73(a)(1) of this part.
>
> (7) Ability of the resources to recover with or without alternative actions.
>
> (8) Potential effects of the action on human health and safety.

176. 15 C.F.R. §990.10; *accord id.* §990.53(c).
177. 43 C.F.R. §11.83(c).
178. *Id.* (emphasis added).
179. *See* Ohio v. U.S. Dep't of the Interior, 880 F.2d 432, 464, 19 ELR 21099 (D.C. Cir. 1989) ("Option and existence values may represent 'passive' use, but they nonetheless reflect utility derived by humans from a resource, and thus, *prima facie*, ought to be included in a damage assessment."); Utah v. Kennecott Corp., 801 F. Supp. 553, 571, 23 ELR 20257 (D. Utah 1992) (state trustee's assessment of damages for contamination of groundwater based on the market value of the volume of water lost to the public "adopted a too narrow interpretation of use value by equating such with market value only . . . . [because it] failed to assess the non-consumptive use values of the aquifer, *i.e.*, option and existence values"); Idaho v. Southern Refrigerated Transp., Inc., No. 88-1279, 1991 WL 22479, at *18 (D. Idaho Jan. 24, 1991) (commercial, existence, and recreation values all "exist and would be appropriate items of damage if proved at trial").
180. 43 C.F.R. §11.83(c).
181. *Id.* §11.82(b)(ii).
182. As noted above, the OPA NRDA rule defines two forms of restoration:
(a) *Primary restoration*, which is any action, including natural recovery, that returns injured natural resources and services to baseline; and
(b) *Compensatory restoration*, which is any action taken to compensate for interim loss of natural resources and services that occur from the date of the initial injury until recovery.
15 C.F.R. §990.30.
183. *Id.* §990.53(c)(2) (emphasis added).
184. *Id.*
185. *Id.*

(9) Consistency with relevant Federal, State, and tribal policies.

(10) Compliance with applicable Federal, State, and tribal laws.[186]

NOAA's NRDA rule under OPA contains a generally similar set of selection criteria.[187]

No single restoration-selection factor is meant to be dispositive by itself. For example, trustees are not required to choose the *most* cost-effective alternative, but instead should consider the relative cost-effectiveness of the alternatives along with other factors in a balancing process.[188] Similarly, the feasibility factor does not dictate that trustees must choose the most thoroughly proven option to the exclusion of more experimental approaches. While a reasonable basis for believing a project will succeed is presumably necessary,[189] other factors can make a newer, less-established restoration approach preferable to a technique of known effectiveness but lesser potential benefit.

Trustees who seek the benefit of the rebuttable presumption should make a clear record of how they considered these factors in selecting the restoration alternatives used to quantify damages. Moreover, even when a trustee chooses not to follow the NRDA rule in other respects, it may be prudent to refer to these selection factors if damages are based on restoration costs, because defendants may attempt to use substantive departures from the NRDA rules to discredit the assessment.

F. Scaling of Restoration

Determining *how much* of one or more types of restoration would fairly compensate the public for a given natural resource injury—an inquiry known as "scaling" restoration—can be a complex job. While returning an injured resource to its baseline condition seems straightforward at a conceptual level (and occasionally is straightforward in practice), many cases require trustees to consider alternatives that involve substitute resources, replacement off-site, or "equivalent" resources that make it necessary to compare the identified injury to the beneficial effects of restoration projects that differ to varying degrees physically, geographically, and/or in the types of services provided. Moreover, when trustees quantify damages for interim losses based on the costs of compensatory restoration, they necessarily consider alternatives that enhance or protect the injured resources beyond their return to baseline and, in many cases, have collateral effects that are not closely tied to the interim injury.

Making such "apples-to-oranges" comparisons has led trustees to develop new tools, the most widely used of which are "habitat equivalency analysis" (HEA) and "resource equivalency analysis" (REA). HEA is essentially a systematic way to compare the ecological and other services provided by an injured area of habitat with services provided by one or more restoration projects that protect or improve habitat. REA is used to make the same kind of comparison for other (non-habitat) categories of natural resources and corresponding restoration projects.

Both methods rely on selecting one or multiple metrics that represent important qualities of the habitat or resource in the given case, such as "discounted acre-years of salt-marsh habitat," and estimating the amount of that metric lost due to the injury (the "debit") and the amounts provided by various restoration options ("credits"). Applying these methodologies requires expert judgments concerning which habitat or resource qualities or types of services appropriately represent the injury in the case at hand and how to estimate debits and credits.

HEA and REA have been used widely to facilitate and support NRD settlements, and there is a growing number of articles about these methods in scientific or economic journals. The use of HEA for measuring damages has also been upheld in two cases under the NMSA and a federal lawsuit for fire damage to a national forest.[190] Courts have split, however, over the use of REA to quantify damages for groundwater contamination based on the costs of replacing the cumulative amount of groundwater that was unavailable for public use between the initial contamination and the completion of cleanup.[191]

G. Direct Valuation of Natural Resource Injuries Using Revealed Preference or Stated Preference Methods

Even for trustees who generally prefer to quantify damages based on the costs of restoration actions, there are likely to be circumstances in which they need to directly value certain natural resource injuries. For instance, in cases where full restoration or replacement is technically infeasible or impractical, trustees may need to determine the full value of an injured resource that sustained long-lasting degrada-

186. 43 C.F.R. §11.82(d).

187. *See* 15 C.F.R. §990.54(a).

188. *See* 43 C.F.R. §11.82(d); Kennecott Utah Copper Corp. v. U.S. Dep't of the Interior, 88 F.3d 1191, 1216-17, 26 ELR 21489 (D.C. Cir. 1996) (upholding DOI's decision to include cost-effectiveness as one of 10 factors instead of its original role as a stand-alone requirement).

189. In an NRD case under state law, the courts declined to base damages on the costs of a conceptually attractive project (replacing invertebrates killed by an oil spill) because it was not shown to be feasible in practice. Puerto Rico v. SS Zoe Colocotroni, 628 F.2d 652, 676-77, 10 ELR 20882 (1st Cir. 1980).

190. *See* United States v. Great Lakes Dredge & Dock Co., 259 F.3d 1300, 1305, 31 ELR 20880 (11th Cir. 2001) (upholding the use of HEA to scale a compensatory seagrass restoration project); United States v. Fisher, 977 F. Supp. 1193, 1198, 1201 (S.D. Fla. 1997) (HEA used to establish the acreage of seagrass restoration needed to compensate for past destruction of seagrass during efforts to uncover treasure), *aff'd*, 174 F.3d 201 (11th Cir. 1999); United States v. Union Pac. R.R. Co., 565 F. Supp. 2d 1136, 1151-52 (E.D. Cal. 2008) (holding, in aftermath of fire that burned National Forest System land that included designated wilderness, that damages for loss of "non-timber forest services" calculated using HEA were compensable).

191. *Compare* Commissioner of the Dep't of Plan. & Nat. Res. v. Century Aluminum Co., No. 05-cv-62, 2013 WL 1235655, at *2 (D.V.I. Mar. 26, 2013) (allowing REA into evidence after a *Daubert* analysis), *with* New Jersey Dep't of Env't Prot. v. Union Carbide Corp., No. MID-L-5632-07, 2011 WL 13228377 (N.J. Super. Ct. Law Div. Mar. 29, 2011), *and* New Jersey Dep't of Env't Prot. v. Essex Chem. Corp., No. A-0367-10T4, 2012 WL 913042 (N.J. Super. Ct. App. Div. Mar. 20, 2012).

tion or was functionally destroyed, such as habitat for an endangered species so unique or complex that it is impossible to reproduce it in an appropriate location. In addition, in quantifying damages for interim losses, it may be more efficient to use economic valuation methods than to undertake a compensatory restoration planning process at the NRDA stage.

The fundamental challenge in valuing natural resources, or valuing a change in their quality, is that the primary valuation approach relied on in most parts of the field of economics—market value—is either unavailable, because the resource is not traded in any market, or manifestly inadequate, because the market addresses only a small part of the resource's value in its natural state. As the *Ohio* court noted in invalidating a portion of DOI's original Type B Rule that assigned a strong preference to using market prices whenever any could be found, "[f]rom the bald eagle to the blue whale and snail darter, natural resources have values that are not fully captured by the market system."[192]

The revised Type B Rule authorizes trustees to use any valuation method that they determine is cost effective and reliable as applied in the circumstances of the case.[193] When it comes to the techniques for valuing natural resources, however, reliability is always relative and often controversial.[194] Among the many methods developed by economists to value nonmarket resources, those that are most universally accepted as reliable and replicable—"revealed preference" methods, which seek to determine what people actually spend to engage in various types of recreation or other experiences with natural resources—also, inherently, can only capture part of the services provided by natural resources to people and the ecosystem. Revealed preference methods are nonetheless a foundational approach used to measure interim lost use in many NRDAs, especially where hazardous substances or oil releases result in lost opportunities for spending or earning, such as the closure of a beach or other natural area to recreation or of a river or other water body to fishing or boating, or leading health authorities to impose a "fish consumption advisory" restricting or warning against eating fish or shellfish from those waters.

Economists, working with colleagues from other disciplines, have also developed "stated preference" methods, such as "contingent valuation" mentioned above, which use surveys of people living relatively near an injured resource to assess whether and how they use or otherwise value the resource or are affected by the injury. Such methods can provide more holistic estimates of the value of the injured resource, but their broad scope comes at the price of scientific and legal controversy.

In *Ohio*, industry groups vigorously attacked DOI's listing of contingent valuation as a permissible method along with a presumption of validity to damage assessments using this methodology. After a lengthy analysis, the court found DOI's decision was consistent with CERCLA, was not arbitrary and capricious, and did not violate due process requirements.[195] Thus far, however, no federal court has awarded NRD based on a contingent valuation study, and the high cost of such studies and controversy concerning their accuracy have limited their use to a handful of large cases.

H. Indirect Costs: Generally Included in Damages

The definition of "damages" in DOI's Type B Rule includes indirect costs, such as trustee agency overhead, as long as such costs are "necessary" to "support" the selected restoration option.[196] This part of the rule was challenged and upheld in *Kennecott*.[197] NOAA's rules for NRDA under OPA also allow indirect costs.[198]

I. Attorney Fees and Litigation Costs: Generally Not Recoverable Beyond Assessment

CERCLA expressly includes enforcement activities in its definitions of "response" actions (and through that definition also "removal" and "remedial" actions), making enforcement costs clearly recoverable when they are "related to" the recovery of response costs or performance of response actions.[199] In contrast, CERCLA is silent on the recoverability of enforcement costs that relate solely to NRD claims. In addition, at oral argument concerning the NRDA rule under OPA, government counsel conceded that the statute did not include "attorneys' fees incurred in pursuing litigation" of an NRD claim as assessment costs.[200] Regardless of whether litigation expenses can be recovered, however, the costs of work by trustee counsel in support of NRDA activities—including assessment-related work by U.S. Department of Justice (DOJ) attorneys as well as agency lawyers—should be recoverable as "assessment costs."[201]

192. Ohio v. U.S. Dep't of the Interior, 880 F.2d 432, 462-63, 19 ELR 21099 (D.C. Cir. 1989). *See id*. at 463 (citing the $15 "use value" assigned to a fur seal, based on the price of a fur seal pelt, to illustrate the absurd effect of relying on market values to measure the worth of living animals in the wild).
193. *See* 43 C.F.R. §11.83(c)(2), (3).
194. *See generally* Frank B. Cross, *Natural Resource Damage Valuation*, 42 Vand. L. Rev. 269 (1989).
195. *Ohio v. U.S. Dep't of the Interior*, 880 F.2d at 475-81. *Accord* General Elec. Co. v. U.S. Dep't of Com., 128 F.3d 767, 772-74, 28 ELR 20263 (D.C. Cir. 1997) (noting that a "special panel" of renowned economists convened by NOAA had concluded that contingent valuation, if "properly conducted under strict guidelines," can provide valuations sufficiently reliable for use in the damages context).
196. 43 C.F.R. §11.83(b)(1).
197. Kennecott Utah Copper Corp. v. U.S. Dep't of the Interior, 88 F.3d 1191, 1223-24, 26 ELR 21489 (D.C. Cir. 1996).
198. *See* 15 C.F.R. §990.30 (definition of "reasonable assessment costs" includes indirect costs).
199. *See* 42 U.S.C. §9601(25).
200. *See General Elec.*, 128 F.3d at 776.
201. *See id.*; 15 C.F.R. §990.30 (definition of "reasonable assessment costs" includes "legal costs").

J. Is There a "Grossly Disproportionate" Limitation on Restoration Costs?

Ohio states that "CERCLA permits [DOI] to establish a rule exempting responsible parties *in some cases* from having to pay the full cost of restoration of natural resources . . . ."[202] The court suggested that some other measure might be used, for example where restoration is practically impossible or where the cost of restoration is "grossly disproportionate to use value."[203] These dicta are consistent with the U.S. Court of Appeals for the First Circuit's analysis of a Puerto Rican NRD statute in *Puerto Rico v. SS Zoe Colocotroni*.[204]

The revised DOI Type B Rule, however, does not require trustees to evaluate restoration options for "gross disproportionality" to the value of the resource, nor does it require the trustees to reject restoration options on that basis. In *Kennecott*, the D.C. Circuit rejected arguments that the rule must include such a requirement. Instead, the court found that the rule's other substantive and procedural safeguards, including a requirement to evaluate the costs versus benefits and the cost-effectiveness of restoration options,[205] are sufficient to "ensure that trustees do not select options that are excessively costly."[206]

VI. Statute of Limitations and Timing of NRD Claims

A. Statutory Text

CERCLA's original statute of limitations for NRD required filing the claim within three years after the later of the date of CERCLA's enactment (December 11, 1980) or discovery of the loss of natural resources. As amended in 1986 by SARA, §113(g)(1) establishes two separate limitations rules for NRD claims relating to different categories of contaminated sites[207]:

- Damages claims "with respect to any facility listed on the [NPL], any Federal facility identified under section [120], or any vessel or facility at which a remedial action under this chapter is otherwise scheduled" (collectively "facilities scheduled for remedial action") must be brought within three years "after the completion of the remedial action (excluding operation and maintenance activities)."[208]
- Damages claims relating to other facilities or hazardous substance releases must be brought within three years after the later of (1) "the date of the discovery of the loss and its connection with the release in question," or (2) "the date on which [damages assessment] regulations are promulgated under" CERCLA §301(c).[209]

By contrast, OPA provides a much simpler statute of limitations rule for NRD claims arising from the discharge or substantial threat of a discharge of oil: such claim must be brought within three years after "the date of completion of the natural resource damage assessment."[210]

B. CERCLA's "Discovery" Limitations Rule

As a practical matter, the amended limitations period for NRD claims at facilities not scheduled for remedial action under CERCLA is three years from "*the date of the discovery of the loss and its connection with the release in question*."[211] Applying this "discovery" rule to real-world sites often yields uncertain results, because it is unclear both what information is needed to constitute "discovery of the loss and its connection with the release" and who must possess the information.

For example, is the limitations period triggered (1) when a trustee first learns that mining operations have released toxic metals into a river, (2) when trustees have amassed enough information to show that the contamination is accumulating in fish at levels high enough to harm their health or make them unsafe to eat, or (3) when trustees are also able to link the contamination to specific mining operations conducted by identified corporations or individuals? If the trustees learn at varying times about different types of injury, or about connections with releases attributable to different potential defendants, is there a different limitations period for each new increment of key information? Should knowledge of injury to natural resources by a response agency, such as EPA, be attributed to federal trustees? Should discovery by a federal trustee be attributed to state or tribal trustees?

Even at sites where the existence of environmental harm has been known for many years, trustees often do not know with any certainty either the nature and extent of the injury

202. Ohio v. U.S. Dep't of the Interior, 880 F.2d 432, 443, 19 ELR 21099 (D.C. Cir. 1989).
203. *Id.* at 443 n.7, 456, 459.
204. 628 F.2d 652, 675-76, 10 ELR 20882 (1st Cir. 1980) ("There may be circumstances where direct restoration of the affected area is either physically impossible or so disproportionately expensive that it would not be reasonable to undertake such a remedy. Some other measure of damages might be reasonable in such cases . . . ."). *See also* Utah v. Kennecott Corp., 801 F. Supp. 553, 571, 23 ELR 20257 (D. Utah 1992) ("If . . . restoration is feasible, the State would be obliged to follow and apply the statutory preference for restoration in assessing costs and damages, unless exceptional circumstances would warrant adoption of a different measure of damages.").
205. *See* 43 C.F.R. §11.82(d)(2), (3).
206. Kennecott Utah Copper Corp. v. U.S. Dep't of the Interior, 88 F.3d 1191, 1218, 26 ELR 21489 (D.C. Cir. 1996).
207. The enactment of this new statute of limitations revived any NRD claims that might arguably have expired under the original provision. Idaho v. Howmet Turbine Component Co., 814 F.2d 1376, 1378-79, 17 ELR 20659 (9th Cir. 1987).
208. 42 U.S.C. §9613(g)(1).
209. *Id.*
210. 33 U.S.C. §2717(f)(1)(B).
211. California v. Montrose Chem. Corp., 104 F.3d 1507, 1513-14, 27 ELR 20508 (9th Cir. 1997) (emphasis added); *Kennecott*, 88 F.3d at 1212-13. No plaintiff should expect to rely on the date of promulgation of NRDA regulations, because two courts of appeal have held that the regulations were "promulgated" for purposes of §113(g)(1) on March 20, 1987, when DOI had issued the original Type A and Type B Rules.

or the connection between the injury and potential defendants' releases until a detailed site assessment has been performed. Further, knowledge about an injury and its causes held by an agency employee in the field does not necessarily mean that the agency's decisionmakers (much less decisionmakers at other trustee agencies) have the actual notice they need to decide to initiate a damages proceeding. Perhaps to avoid such issues, OPA (even while tying the limitations period for other types of damages claims to discovery) allows NRD claims to be brought up to three years after "the date of completion of the natural resource damages assessment under section 2706(e) of this title."[212]

Only a few cases have addressed how to interpret the discovery-based statute of limitations for NRD under CERCLA. First, in litigation brought by the United States, a district court ruled that the federal and state trustees had made the requisite "discovery" when employees of all the trustee agencies had actual knowledge of both the injury and its connection with the release, because the employees in question had a duty to report their knowledge to agency decisionmakers.[213] But in another case, the court determined that constructive knowledge of the loss, even without showing actual knowledge, is adequate to start the limitations period.[214] In addition, two early rulings analyzed analogous pre-SARA "discovery of the loss" language in CERCLA §112(d), which at that time allowed NRD claims against Superfund.[215]

C. *Timing of Claims at Facilities Scheduled for Remedial Action*

CERCLA §113(g)(1) establishes both a separate statute of limitations and other timing requirements for NRD claims with respect to facilities scheduled for remedial action—any facility listed on the NPL, any designated federal facility, or any other facility "otherwise scheduled for remedial action" under CERCLA.

1. Ripeness

Trustees are barred from filing an action for NRD:

> (i) prior to 60 days after the Federal or State natural resource trustee provides to the President [e.g., to EPA] and the potentially responsible party a *notice of intent to file suit*, or
>
> (ii) before *selection of the remedial action* if the President is diligently proceeding with a remedial investigation and feasibility study [(RI/FS)].[216]

In *Pakootas v. Teck Cominco Metals, Ltd.*,[217] the court ruled that an action for CERCLA NRD was ripe where written notice was provided in the trustees' letter requesting that the defendant toll the statute of limitations. The court held that the suit was ripe despite the defendant's arguments that the remedial action had not been selected at the site. The court declined to consider arguments regarding selection of the remedial action "since §9613(g)(1)'s pre-suit conditions are disjunctive," a reference to the ripeness sentence of §113(g)(1) barring suits before notice *or* before selection of the remedial action.[218]

The United States has interpreted §113(g)(1) to require both notice and selection of the remedial action before a suit is ripe. Consistent with the principle that NRD should be residual to cleanup,[219] the requirement that the remedial action has been selected ensures that the parties and the court can account for the effects of the selected remedy in assessing damages. It also protects EPA's remedial decisionmaking process from disruptive discovery in an NRD lawsuit filed while that process is underway.

2. Limitations Period

Once "the remedial action" has been selected, trustees may bring an NRD claim at any time until three years "after the *completion of the remedial action* (excluding operation and maintenance activities)."[220] Where this limitations rule for remedial action sites applies, §113(g)(1) states that it is "in lieu of" the limitations period based on discovery.[221]

Applying these provisions to a site where EPA performed a single, comprehensive remedial investigation and selects "the remedial action" in a single record of decision (ROD) is relatively straightforward. In practice,

212. 33 U.S.C. §2717(f)(1)(B).

213. United States v. Montrose Chem. Corp., 883 F. Supp. 1396, 1405-06, 25 ELR 20809 (C.D. Cal. 1995), *rev'd on other grounds*, 104 F.3d 1507, 27 ELR 20508 (9th Cir. 1997).

214. Seggos v. Datre, No. 17-cv-2684, 2019 WL 3557688, at *3 (E.D.N.Y. Aug. 5, 2019) (to establish the date of discovery, a court should look at "the date that Plaintiffs first knew or with reasonable diligence would have known of the loss and its connection with the release of [the] hazardous substance in question").

215. Kelley v. United States, 23 ERC 1503, 16 ELR 20080 (W.D. Mich. 1985) (relying on an EPA proposed rule, later withdrawn, that would have defined "discovery" as the date on which the trustee has available, or reasonably should have available, a document or memorandum prepared for the trustee verifying the injury); New York v. General Elec. Co., 592 F. Supp. 291, 300 n.17, 14 ELR 20719 (N.D.N.Y. 1984) (dicta finding persuasive the state's theory that "even if the injury was discovered more than three years ago, because the injurious activity has not yet abated, the wrong is a continuous one and the cause of action must therefore continue to accrue"). Originally, §112(d) authorized claims to Superfund for NRD if submitted within three years of "discovery of the loss." The codified version of §112(d) still seems to allow damages claims to Superfund if submitted within three years after "discovery of the loss and its connection with the release"—the SARA standard for the discovery limitations prong under §113(g)(1). Section 112(d) no longer has any effect, however, because another provision of SARA prohibited any use of the Superfund to pay for NRDs or assessment costs. *See* SARA §517(a) (codified at I.R.C. §9507(c)(1)).

216. 42 U.S.C. §9613(g)(1) (emphasis added).

217. No. 2:04-cv-00256 SAB (E.D. Wash. Feb. 17, 2023).

218. *Id.* at *6.

219. *See supra* Section VI.B.

220. 42 U.S.C. §9613(g)(1) (emphasis added).

221. *See, e.g.*, New York v. Next Millennium Realty, LLC, 160 F. Supp. 3d 485, 519-20, 46 ELR 20032 (E.D.N.Y. 2016) (holding that

> upon a plain reading of Section 113(g)(1) of CERCLA, with respect to, *inter alia*, any facility listed on the NPL, a natural resource damages claim is timely so long as it is commenced within three (3) years after the completion of the remedial action, notwithstanding that such claim would have been untimely under Sections 113(g)(1)(A) and (B) of CERCLA at the time the facility was listed on the NPL.

however, difficult interpretative issues can arise because the remedial process at large or complex sites is often subdivided into two or more stages, usually referred to as "operable units" (OUs) (or "areas" or "zones") or may unfold in multiple iterative steps in response to the lead agency's evolving understanding of the site. In those situations, it may be less clear when "the remedial action" for the facility has been selected or completed.

3. Sites With Multiple OUs

At facilities with multiple OUs or other subdivisions, EPA (or other lead response agencies, such as a state or a federal land manager) typically makes a separate remedial decision for each OU. That practice raises the question of whether "the remedial action" in the NRD ripeness and statute of limitations provisions refers to *each* successive OU remedial action individually or to *all* of the remedial actions for the facility collectively. Because the RODs for different OUs are often issued over a span of many years, the answer to that question can make a large difference in when trustees' NRD claims become ripe and when they may expire with respect to a facility or the OUs that comprise it.

The United States has argued in court that, in order to fulfill the objectives of §113(g)(1) to allow all relevant remedial activities to be considered in assessing damages and to prevent disruption of ongoing remedial investigations, "the remedial action" in the NRD context must mean all anticipated remedial decisions for the facility.[222] This interpretation of "the remedial action" protects the trustees from being forced to develop a series of NRD claims OU by OU, which would be burdensome and could result in fragmented NRDAs, because individual OUs are not necessarily logical areas for evaluating injury and damages. Because this interpretation allows only one NRD lawsuit by each plaintiff at a remedial action facility, filed after all remedy selection for the facility is done, it will generally be the most efficient approach for all parties and avoids the need to speculate about how future remedial action decisions may affect the future extent of injury and damages. It also is consistent with traditional principles of judicial economy.

One district court has held, consistent with the United States' reading of §113(g)(1), that an NRD claim was premature where EPA was diligently proceeding with an RI/FS for one OU even though it had issued RODs for other OUs.[223] In a second case where the United States briefed its position, the court discussed these issues but declined to issue a ruling.[224] However, *Next Millennium*[225] appears to support the contrary proposition that the issuance of a ROD for a single OU is enough to make an NRD claim ripe. The opinion states, "Since, *inter alia*, it is undisputed that the EPA has selected the remedial action *for* State OU-3/EPA OU-1, there is no statutory bar to the State's NRD claim at this stage."[226]

In the response costs recovery context, the United States contends that there is a separate limitations period for each removal or remedial action at a site, including each OU remedy, under §113(g)(2). While this OU-by-OU interpretation of the limitations rules in §113(g)(2) is in tension with the government's position that "the remedial action" in §113(g)(1) encompasses all OUs for NRD timing purposes, differences between the two sections support the variation in approach. Section 113(g)(2) establishes limitations periods for an "*initial action*" to recover response costs and requires the court, in any such initial action, to enter a declaratory judgment of liability that will be "binding on *any subsequent action or actions* to recover further response costs or damages."[227]

The United States has argued that this unambiguously demonstrates that Congress meant to authorize multiple, successive actions to recover response costs, despite the general judicial efficiency principle that all claims arising from the same subject matter must be brought in a single action.[228] Moreover, subsections (A) and (B) of §113(g)(2) address the limitations periods for "*a* removal action" and "*a* remedial action," respectively, implying that there could be more than one of either type of response action at a given site, each with its own cost recovery limitations period. The use of "the" before remedial action in all parts of §113(g)(1), together with the lack of any reference to an "initial action" for NRD, suggest the opposite result for NRD actions (i.e., that a plaintiff is allowed only one suit for NRD, consistent with general judicial economy prin-

222. *See, e.g.*, U.S. Memorandum in Support of Motion to Partially Dismiss Plaintiff's Second Amended Complaint and Complaints in Intervention, Yakama Nation v. United States, No. 02-cv-3105, 2006 WL 5925294 (E.D. Wash. Oct. 2, 2006) [hereinafter U.S. 2006 Memorandum in *Yakama Nation*-Hanford] (relating to the Hanford Nuclear Reservation Site in Washington).

223. Quapaw Tribe of Okla. v. Blue Tee Corp., No. 03-CV-846, 2008 WL 2704482 (N.D. Okla. July 7, 2008).

224. Confederated Tribes & Bands of Yakama Nation v. Airgas USA, LLC, 435 F. Supp. 3d 1103, 1122 (D. Or. 2019) (at the Portland Harbor Site, court denied without prejudice defendants' motion to dismiss NRD claims on statute-of-limitations grounds because an initial OU remedy was completed more than three years before the complaint was filed, ruling that the motion was premature because RODs had not yet been issued for all OUs and the court could not determine which limitations period to apply).

225. *Next Millennium*, 160 F. Supp. 3d at 520.

226. *Id.* (emphasis added).

227. 42 U.S.C. §9613(g)(2) (emphasis added).

228. As applied to successive remedial actions at multi-OU sites, this interpretation of §113(g)(2) has had a mixed reception in litigation. *See* Valbruna Slater Steel Corp. v. Joslyn Mfg. Co., No. 10-CV-044, 2013 WL 1182985, at *11-13 (N.D. Ind. Mar. 21, 2013) (CERCLA's statutory language allows response actions to be "conducted in divisible parts" based on distinct OUs. As such, discrete OUs have different statutes of limitation.); *accord* United States v. Manzo, 182 F. Supp. 2d 385, 402, 403 (D.N.J. 2000). *But see* New York State Elec. & Gas Corp. v. FirstEnergy Corp., 766 F.3d 212, 235-36 (2d Cir. 2014) ("[T]here can only be one remedial action at any given site. . . . We agree with the majority view [referring to other courts with similar holdings] and hold that there can only be one remedial action at a site."); Colorado v. Sunoco, Inc., 337 F.3d 1233, 1241 (10th Cir. 2003); Exxon Mobil Corp. v. United States, 335 F. Supp. 3d 889, 915-16 (S.D. Tex. 2018); American Premier Underwriters Inc. v. General Elec. Co., 866 F. Supp. 2d 883, 894, 896 (S.D. Ohio 2012).

ciples and the purposes of the ripeness requirement, after all remedial decisionmaking for the facility is complete).[229]

At some multi-OU sites, the U.S. position that an NRD lawsuit must await the completion of all expected remedial decisions could significantly delay natural resource restoration and compensation for the public. In recognition of this problem, the U.S. brief arguing for dismissal of the Yakama Nation's suit to recover NRD assessment costs relating to the Hanford Nuclear Reservation (*Yakama Nation*-Hanford) includes a caveat: "One could imagine a complex Superfund site with multiple OUs where final RODs were in place for all of the OUs except one potentially segregable OU, and where the final ROD for that last OU was not expected for many years."[230] The implication is that such a facility might conceivably be separated into two facilities based on evolving understanding of the releases in question and the extent to which they are comingled. In any event, natural resource trustees can mitigate the impacts of a long remedial process on the timing of restoration by entering into a partial settlement for early restoration as described in Section IX.F below.

4. Potential Early Action to Recover NRDA Costs

The *Yakama Nation*-Hanford decision allowed a narrow exception for past NRDA costs, which the court said should be treated like past response costs rather than as part of NRD, and accordingly held that the tribal claim for assessment costs was ripe even though RODs had not yet been issued for all OUs.[231] Subsequent decisions have rejected claims for assessment costs independent of NRD, finding assessment costs to be a component of NRD claims and subject to the same timing requirements.[232]

5. Releases That Migrate Outside a Remedial Site

Consistent with the NCP, a facility listed on the NPL is initially defined by the hazardous substance releases described in the listing documents. While the listing document may identify a specific location as the "facility," it often does not specify geographic boundaries. When EPA (or another response agency) performs an RI/FS, however, it naturally focuses on a defined geographic area known to be affected by the releases. While EPA has discretion to expand the RI/FS to follow contamination from the listed releases that migrated beyond the area covered in the initial investigation, it may choose not to do so for many years, if at all.

As a result, there are sites listed on the NPL where EPA has selected the remedial action for a defined area, in which NRD claims are clearly ripe and subject to the limitations period that runs until three years after completion of the remedial action, but natural resources have also been injured by the same releases in adjacent (usually downstream) areas where no RI/FS or remedial action is currently planned. At such sites, trustees have argued that NRD claims concerning the entire area of injury should be considered "with respect to" the listed facility because all of the injury resulted from the same releases, while PRPs have contended that any NRD claim beyond the area covered by EPA's RI/FS and remedy decision is subject to the (presumably shorter) "discovery" limitations rule.

This issue became central in *ASARCO I*, concerning the Bunker Hill Superfund Site in the Coeur d'Alene Basin of Idaho, where lead, zinc, and other hazardous substances from more than 100 years of mining and mineral processing contaminated a vast river system, its floodplains and adjoining wetlands, and a 35-mile-long lake. EPA initially confined its remedial investigation to a 21-square-mile area around two smelters (known as the "Box"), but DOI, USDA, and the Coeur d'Alene Tribe commenced a damages action relating to natural resource injuries across the entire basin. The United States argued that the trustees' claim was "with respect to" the NPL facility, and thus that the limitations period would not begin to run until after the cleanup was complete, because (1) the facility should be defined to include all areas where hazardous substances from the listed releases have migrated, and (2) EPA's remedial action decision will affect the amount of residual natural resource injury and damages in downstream areas, so the statutory policy of deferring NRD claims until after a remedial decision applies to these facts.

The district court rejected these arguments, and held that the United States' NRD claim outside the Box was subject to the discovery limitations rule and was time barred. However, the Ninth Circuit vacated that decision on an interlocutory appeal.[233] The appellate court's holding was narrow: the defendants' arguments were a challenge to the scope of the original NPL listing that could be brought only in the D.C. Circuit, so the district court lacked jurisdiction to decide the issues. However, the court also described at length EPA's broad discretion to expand its working definition of the NPL facility and to follow the trail of contamination to its sources or endpoints.[234]

229. The requirement in §113(g)(2) that the court enter a declaratory judgment on liability for NRD as well as response costs in an initial action for response costs, discussed in Section VII.A below, is consistent with judicial economy principles because it avoids repeated litigation of the core liability issues against the same defendant.

230. U.S. 2006 Memorandum in *Yakama Nation*-Hanford, *supra* note 222, n.12.

231. Yakama Nation v. United States, 616 F. Supp. 2d 1094, 1099 (E.D. Wash. 2007).

232. *See* Confederated Tribes & Bands of Yakama Nation v. Airgas USA, LLC, 435 F. Supp. 3d 1103, 1119 (D. Or. 2019) (Portland Harbor Site); New York v. Next Millennium Realty, LLC, 160 F. Supp. 3d 485, 522-23, 46 ELR 20032 (E.D.N.Y. 2016). *See also* Quapaw Tribe of Okla. v. Blue Tee Corp., No. 03-CV-846, 2008 WL 2704482, at *22 (N.D. Okla. July 7, 2008) (even if the court were to follow *Yakama Nation*'s allowance of a pre-remedy claim for past assessment costs, the Tribe's claim in this case "is directed to future, rather than past, assessment costs" and is barred by §113(g)(1)).

233. United States v. ASARCO, Inc., 214 F.3d 1104, 30 ELR 20654 (9th Cir. 2000).

234. *Id.* at 1106-07.

D. Additional Period for Tribal Nations

Under CERCLA §126(d), a tribal nation may bring an NRD claim until the later of (1) the running of the limitations period for other trustees, or (2) two years after the United States, "in its capacity as trustee for the tribe," gives written notice that it will not "present a claim or commence an action on behalf of the tribe," or fails to bring a claim within the applicable limitations period.[235]

E. Timing of NRD Settlements

CERCLA contains no express restriction on the timing of an NRD settlement even at facilities scheduled for remedial action. Although §113(g)(1) bars the filing of a lawsuit seeking NRD at such facilities until the remedial action has been selected (as discussed in Section VI.C above), the United States interprets that provision as a non-jurisdictional limitation—enforceable by a defendant but also subject to waiver. In general, a statutory provision "is jurisdictional '[i]f the Legislature clearly states that a threshold limitation on a statute's scope shall count as jurisdictional.'"[236] Courts should look first to whether "[t]he terms of the provision" clearly indicate "that the provision was meant to carry jurisdictional consequences," but they may also look to factors like a provision's "placement within the" statute and "the singular characteristics of the review scheme that Congress created," which reflect the statute's purpose.[237]

Section 113(g)(1)'s bar to filing an NRD lawsuit before selection of the remedial action does not contain any jurisdictional language, and interpreting it as preventing an NRD settlement until the claim is ripe for litigation would frustrate the settlement-promoting purpose of other CERCLA provisions. As a result, settling PRPs may agree to waive enforcement of the bar, allowing a pre-remedy selection suit to proceed; in that case, the United States and/or a state or tribal nation may file an NRD lawsuit together with a proposed consent decree or other settlement agreement resolving NRD, even at a facility where remedial action is expected but not yet selected, without violating the ripeness requirement.

There are nonetheless compelling practical reasons for the government generally to defer settling NRD at a CERCLA site before the nature and extent of natural resource injuries are reasonably well understood and any anticipated response actions are known or predictable. Trustees must be prepared to present publicly a reasoned basis for any proposed NRD settlement, and may need to make available the underlying data. This expectation is reinforced by the requirement in §122(j)(2) that, for a federal trustee to agree to an NRD covenant not to sue relating to injured resources under U.S. trusteeship, the proposed settlement must provide for "appropriate actions necessary to protect and restore" the injured natural resources.[238] It may be difficult to satisfy that standard for a settlement negotiated at an early stage of remedy selection and NRDA.

There is no "one-size-fits-all" formula for when the trustees have enough information to justify an NRD settlement. The answer depends on case-specific factors, including the scale and complexity of the natural resource injuries, the degree of uncertainty concerning the impacts of response actions, and the relative risks and benefits of proceeding with a settlement based on the available, incomplete information. Moreover, the information burden may be less if the parties can agree to a partial settlement to fund or implement "early restoration" projects in return for a credit against the settling PRPs' liability, instead of seeking a full resolution of NRD before selection of the final remedy.

VII. Key Procedural Issues

A. Declaratory Judgment on Liability

Section 113(g)(2) of CERCLA provides that "in any such action described in this subsection [action for response costs or damages] the court shall enter a declaratory judgment on liability for response costs or damages that will be binding on any subsequent action or actions to recover further response costs or damages."[239] OPA contains a similar provision authorizing entry of a declaratory judgment on liability for future removal costs or damages when a defendant has been held liable in an initial action for removal costs under OPA §1002.[240] These provisions show an intent to allow a series of actions to recover government response costs relating to a CERCLA site (or removal costs relating to an oil spill incident), and to allow an NRD lawsuit separate from and after the initial action for response costs, without running afoul of "claim-splitting" rules.

Thus, there can be a single determination of a defendant's liability for the hazardous substance release or oil discharge at issue in the initial action, with NRD-specific issues reserved for a subsequent action to recover damages. The matters reserved for the subsequent action should include all issues beyond the elements of liability that apply in common to both claims for response costs and claims for NRD. For example, to obtain a declaratory judgment of liability applicable in a subsequent NRD action, it should not be necessary to address what natural resource injuries resulted from the hazardous substance or oil releases at issue.

235. 42 U.S.C. §9626(d).
236. Gonzalez v. Thaler, 565 U.S. 134, 141-42 (2012) (alteration in original) (quoting Arbaugh v. Y & H Corp., 546 U.S. 500, 515 (2006)).
237. *See* Henderson ex rel. Henderson v. Shinseki, 562 U.S. 428, 438-40 (2011); *accord Gonzalez*, 565 U.S. at 143-44 (looking to statutory text, operation, and purpose).
238. 42 U.S.C. §9622(j)(2).
239. *Id.* §9613(g)(2).
240. *See* 33 U.S.C. §2717(f)(2).

B. Potential Right to a Jury Trial

It is well-settled that there is no right to a jury trial on claims for recovery of response costs under §107 of CERCLA or for injunctive relief under §106 of CERCLA. Liability for those claims is tried to the court, and judicial review of any response action selected by EPA is based solely on the administrative record for EPA's decision and is subject to an arbitrary-and-capricious standard, unless defendants show that a traditional exception to record review applies.[241]

In a number of past NRD cases, the United States has taken the position that there is also no jury trial on either liability for or the amount of NRD. Specifically, the government has argued that, because the object of an NRD claim is to recover funds that must be used exclusively for restoration, replacement, or acquisition of equivalent resources, the claims are restitutionary and equitable.

This argument has met with mixed success at best. One court struck a jury trial demand in a CERCLA action despite the presence of an NRD claim.[242] However, a majority of the decisions to date have ruled that defendants are constitutionally entitled to a jury trial on a CERCLA NRD claim.[243]

C. Record Review of NRDAs/Restoration Plans

The DOI Type B Rule provides a comprehensive administrative process for damages assessment, with opportunities for PRP and public participation at all key stages. (The same is true of the NRDA regulations promulgated by NOAA under OPA, at 15 C.F.R. Part 990.) Under the Administrative Procedure Act (APA), judicial review of agency decisions made through such processes is typically limited to the administrative record before the agency. Therefore, there is an argument that, because this process is akin to informal rulemaking under the APA and requires the application of the agency's specialized knowledge and expertise, judicial review should be limited to the administrative record before the trustees and the trustees' decisions should be upheld unless shown to be arbitrary and capricious or not in accordance with applicable law.[244]

The two courts that have considered this issue have held that record review of an NRDA is precluded because it is inconsistent with the "rebuttable presumption" that applies to assessments performed in accordance with the regulations or with defendants' constitutional right to a jury trial on damages.[245] The *Atlantic Richfield* court reasoned that, when Congress amended CERCLA in 1986, it explicitly required administrative record review of selection of remedial alternatives but did not add such a provision for NRD, an omission that indicates Congress intended de novo review of damage assessments.[246] The court further noted that record review would be contrary to a right to a jury trial, which it had determined exists for NRD claims.[247]

Despite these decisions, even if defendants have a constitutional right to a jury trial on liability for NRD, there is precedent for assigning judicial review of a related agency decision made through an administrative process, such as the adoption of a particular restoration plan in accordance with the NRDA rules, to the court on the administrative record.[248]

A U.S. argument in favor of record review for NRDAs would be analogous to that used successfully by the United States for record review of EPA response action decisions prior to the enactment of SARA (i.e., before Congress expressly mandated record review of response actions). Relevant pre-SARA decisions include *United States v. Northeastern Pharmaceutical & Chemical Co., Inc.*,[249] *United States v. Western Processing Co.*,[250] and *United States v. Ward*.[251]

241. *See* CERCLA §113(j), 42 U.S.C. §9613(j); Hatco Corp. v. W.R. Grace & Co. Conn., 59 F.3d 400, 414, 25 ELR 21238 (3d Cir. 1995); Evansville Greenway & Remediation Tr. v. Southern Ind. Gas & Elec. Co., Inc., 661 F. Supp. 2d 989 (S.D. Ind. 2009). The analogous question under OPA is less well-settled. *Compare* United States v. ERR, LLC, 35 F.4th 405, 416 (5th Cir. 2022) (finding right to jury trial for recoupment claim under OPA and declining to extend *Hatco* to OPA context), *and* In re Oil Spill by the Oil Rig "Deepwater Horizon" in the Gulf of Mexico, on April 20, 2010, MDL No. 2179, 98 F. Supp. 3d 872, 877-78 (E.D. La. 2015) (finding Alabama had a right to a jury trial on its compensatory damages claims under OPA, and citing cases that reached the same conclusion), *with* United States v. Viking Res., Inc., 607 F. Supp. 2d 808, 830, 39 ELR 20046 (S.D. Tex. 2009) (holding that recovery of OPA removal costs is an equitable remedy to which no jury right attaches).

242. *See* United States v. Wade, 653 F. Supp. 11, 13 (E.D. Pa. 1984) (Where recovery sought by plaintiff is for costs of assessing injury to natural resources or rehabilitating or restoring injured resources, "[s]uch relief would properly be characterized as equitable for the same reasons that recovery of . . . response costs is considered equitable.").

243. *See* Montana v. Atlantic Richfield Co., No. 6:83-cv-317, slip op. at 17-23 (D. Mont. Mar. 3, 1997); In re Acushnet River & New Bedford Harbor: Proc. re Alleged PCB Pollution (*Acushnet II*), 712 F. Supp. 994, 1000, 19 ELR 21198 (D. Mass. 1989) (Seventh Amendment provides a right to jury trial for legal (as opposed to equitable) cause of action, and NRDs are legal in nature because they are essentially claims arising from an injury to property); New Jersey Dep't of Env't Prot. v. Amerada Hess Corp., No. CV 15-6468(FLW), 2018 WL 2317534, at *6 (D.N.J. May 22, 2018) (suit for NRDs under CERCLA, unlike reimbursement for cleanup costs, may not be equitable, and therefore may trigger jury trial); *see also Viking Res.*, 607 F. Supp. 2d at 832 (defendant has a right to a jury trial for NRD claims under OPA).

244. *See generally* 57 Fed. Reg. 8964, 8987-88 (Mar. 13, 1992) (discussion of record review in NOAA's advance notice of proposed rulemaking for NRDAs under OPA).

245. United States v. ASARCO, Inc., No. CV 96-0122-N-EJL, 1998 WL 1799392, at *2, 29 ELR 20188 (D. Idaho Mar. 31, 1998); *Atlantic Richfield Co.*, No. 6:83-cv-317 (explaining that the "rebuttable presumption" standard is different than the "arbitrary and capricious" standard under the APA).

246. *Atlantic Richfield Co.*, No. 6:83-cv-317, slip op. at 16-17.

247. *Id.* at 23.

248. *See* Broad St. Mkt. v. United States, 720 F.2d 217, 220 (1st Cir. 1983). *Cf.* Tull v. United States, 481 U.S. 412, 418 n.4, 17 ELR 20667 (1987) (Seventh Amendment is inapplicable to administrative proceedings); *id.* at 426-27 (even in cases where there is a constitutional right to a jury trial on liability, assessment of civil penalties by the court does not run afoul of constitutional guarantees).

249. 810 F.2d 726, 748, 17 ELR 20603 (8th Cir. 1986) ("Because determining the appropriate removal and remedial action involves specialized knowledge and expertise, the choice of a particular cleanup method is a matter within the discretion of the EPA. The applicable standard of review is whether the agency's choice is arbitrary and capricious.").

250. No. C-83-252M, 1986 WL 15691, at *2 (W.D. Wash. Feb. 19, 1986) (The remedy would be reviewed on the basis of EPA's administrative record, under an arbitrary-and-capricious standard, "[b]ecause selection of a remedy involves balancing of numerous complex technical factors within EPA's expertise.").

251. 618 F. Supp. 884, 900, 16 ELR 20127 (E.D.N.C. 1985) (same). *See also* United States v. Seymour Recycling Corp., 679 F. Supp. 859, 861, 18 ELR 20245 (S.D. Ind. 1987).

D. Partial Preemption of State Law

States often bring NRD claims under state law that would also fit the parameters of an NRD claim under CERCLA or another federal law. CERCLA contains two broad savings provisions that establish Congress did not intend to displace state-law NRD claims generally.[252] In a case dealing with the remedial provisions of CERCLA, however, the U.S. Supreme Court ruled that these savings clauses were not intended to protect from preemption elements of state law that directly conflict with CERCLA requirements.[253]

One example of an inconsistent state law was evaluated in *New Mexico v. General Electric Co*.[254] There, the state sought an unrestricted award of money damages for groundwater contamination via public nuisance and negligence causes of action. The court held that this use of common law was preempted by CERCLA's NRD provisions and other federal environmental statutes. "Clearly, permitting the State to use [a state law] NRD recovery, which it would hold in trust, for some purpose other than to 'restore, replace or acquire the equivalent of' the injured groundwater would undercut Congress's policy objectives in enacting [CERCLA's NRD provisions]."[255] This ruling would invalidate, among other things, contingent fee agreements under which private counsel would receive part of an NRD recovery.[256]

However, the Tenth Circuit did not view the state's public nuisance and negligence causes of action as completely preempted, but only preempted insofar as the state sought to use its recovery in a manner inconsistent with CERCLA's comprehensive NRD scheme.[257] Consistent with this principle of conflict preemption, the court in *Quapaw Tribe of Oklahoma v. Blue Tee Corp.*[258] found no preemption of an NRD claim under Oklahoma law seeking interim lost use damages for a period earlier than would be allowed under CERCLA's prohibition of NRD "where such damages and the release of a hazardous substance from which such damages resulted have occurred wholly before" the date CERCLA was enacted (December 11, 1980).

252. *See* 42 U.S.C. §9614(a) ("Nothing in this [Act] shall be construed or interpreted as preempting any State from imposing any additional liability or requirements with respect to the release of hazardous substances within such State."); *id.* §9652(d) ("Nothing in this [Act] shall affect or modify in any way the obligations or liabilities of any person under other Federal or State law, including common law, with respect to releases of hazardous substances or other pollutants or contaminants."); *id.* §9659(h).
253. Atlantic Richfield Co. v. Christian, 140 S. Ct. 1335, 1355, 50 ELR 20101 (2020) ("[W]e have long rejected interpretations of sweeping saving clauses that prove 'absolutely inconsistent with the provisions of the act' in which they are found.") (citation omitted).
254. 467 F.3d 1223, 36 ELR 20219 (10th Cir. 2006).
255. *Id.* at 1247-48 (citation omitted).
256. *See id*. (citing "attorney fees" as an example of a prohibited use of NRD funds).
257. *Id. Accord* New Mexico ex rel. Balderas v. Monsanto Co., 454 F. Supp. 3d 1132, 1153-54 (D.N.M. 2020) (finding that CERCLA, including its NRD provisions, does not entirely supplant state law, and therefore cannot have a complete preclusive effect on state-law claims for damages).
258. No. 03-cv-0846, 2009 WL 455260, at *2 n.1, 39 ELR 20050 (N.D. Okla. Feb. 23, 2009).

VIII. Trustee Coordination With EPA, Co-Trustees, and Responsible Parties

A. EPA Obligations to Coordinate With Trustees

CERCLA expressly requires EPA to notify trustee agencies of possible natural resource losses and to invite trustees to participate with it in site investigations and in any settlement negotiations. These obligations include:

- EPA "shall promptly notify the appropriate Federal and State natural resource trustees of potential damages to natural resources resulting from releases under investigation pursuant to [CERCLA]."[259]
- EPA "shall seek to coordinate the assessments, investigations, and planning under this section with such Federal and State trustees."[260]
- "Where a release or threatened release of any hazardous substance that is the subject of negotiations under this section may have resulted in damages to natural resources under the trusteeship of the United States, the President *shall notify the Federal natural resource trustee of the negotiations and shall encourage the participation of such trustee in the negotiations*."[261]
- EPA must notify the state of negotiations "regarding the scope of any response action at a facility in the State" and must give the state—presumably including state trustees—an opportunity to join the negotiations.[262]

EPA has issued a guidance on coordination of its response activities with natural resource trustees.[263] In addition, NOAA and EPA have entered into a national MOU that establishes procedures for coordination between them during the preliminary site assessment, listing, RI/FS, remedy selection, and enforcement/negotiations processes.

Regular lines of communication between EPA and the trustees of affected natural resources should be established as early as possible in the remedial investigation process (1) so that the trustees' information needs and restoration objectives can be considered in EPA's site investigation and remedial decisionmaking, and (2) to ensure that the trustees have sufficient information about resource injuries and potential restoration measures to play a meaningful role in remedial design/remedial action or other settlement nego-

259. 42 U.S.C. §9604(b)(2).
260. *Id.*
261. *Id.* §9622(j)(1) (emphasis added).
262. *Id.* §9621(f)(1)(F).
263. *See* Memorandum from Timothy Fields, Acting Assistant Administrator, EPA Office of Solid Waste and Emergency Response & Steve Herman, Assistant Administrator, EPA Office of Enforcement and Compliance Assurance, to Superfund Division Directors and Regional Counsel, re: CERCLA Coordination With Natural Resource Trustees (July 31, 1997), https://nepis.epa.gov/Exe/ZyPDF.cgi/9101FNC9.PDF?Dockey=9101FNC9.PDF.

tiations. As EPA's guidance recognizes, such timely coordination between response and NRD investigations benefits EPA and cooperative PRPs as well as trustees because it minimizes duplication of study efforts, reduces the potential for delay and disruption of settlement negotiations if the PRPs seek a covenant not to sue for damages during negotiations with EPA, and may allow restoration to be integrated with response actions at less cost than would be required if restoration were performed separately.[264]

B. Cooperation Among Federal, State, and Tribal Co-Trustees

The CERCLA NRDA rules require federal trustees to coordinate with all trustees known to have jurisdiction of any injured natural resources at a site and to assist in identifying such other trustees.[265] The rules further state that trustee agencies and tribal nations "are encouraged to cooperate and coordinate any assessments that involve coexisting or contiguous natural resources or concurrent jurisdiction."[266] The OPA NRDA rules contain a similar coordination requirement.[267]

As discussed in Section I.C, neither CERCLA nor its implementing regulations provides a clear dividing line between federal, state, and tribal trusteeship. The apparent overlap of trustee jurisdictions creates serious risks if the federal, tribal, and state trustees fail to coordinate their efforts. If they separately assess damages for injury to the same resources, any difference in methodology or results provides ammunition for defendants to attack both assessments. Even more important, where one trustee settles or obtains a judgment independently of the other(s), it creates difficult issues regarding what claims the remaining trustees may still pursue without exposing the defendants to double recovery.

Precisely this scenario played out in the *Coeur d'Alene Basin* litigation, discussed above in Sections I.C.1 and III.D, where the question of how to account for a small, early state-only NRD settlement led to several years of litigation, a troubling initial decision in 2003,[268] and, finally, a corrected ruling on reconsideration in 2005.[269] To avoid such issues, at any site where federal, state, and/or tribal trustees appear to have overlapping NRD claims, the affected trustees should develop and assert their claims jointly whenever possible.

In connection with any joint action, federal, state, and tribal trustees (and their lawyers) should discuss, as early as possible in case development, how any NRD recoveries will be handled (e.g., deposited into DOI's Natural Resource Damages Assessment and Restoration (NRDAR) fund,[270] or the registry of the court, or divided in a specified manner) and how decisions on the use of the recovered funds will be made (e.g., by unanimous agreement of the trustees or by some trustee voting mechanism). Advance consideration of these issues is important because federal law constrains the trustees' options, and the same may be true of state law. The trustees should consider setting out their understandings in an MOA or other formal document.

C. "Cooperative Assessments" With PRPs

Both DOI's Type B Rule and NOAA's NRDA rule under OPA direct trustees to encourage PRPs to participate in a damages assessment.[271]

Cooperative assessments often are performed under MOUs that spell out key rules of the road for interactions between trustees and PRPs. The topics addressed in such MOUs vary, but they typically require PRP funding of covered trustee assessment work, including administrative activities as well as direct and indirect study costs, allocation of sample collection and analytical activities (which may include work by PRPs as well as the trustees), opportunities to take split samples, and data-sharing, among others.

IX. Settlement Authority and Practice

The Supreme Court, addressing the settlement provisions in §122 of CERCLA, observed that "[s]ettlements are the heart of the Superfund statute."[272] That observation applies to NRD as well as to claims relating to removal or remedial actions and costs.

A. U.S. Settlement Authority

In general, settlements of federal NRD claims require approval by *both* the affected federal trustee(s) *and* the DOJ official with authority over the level of compromise proposed by the parties.[273] Unless a statute explicitly grants authority over a particular matter to another official, authority to assert or compromise claims on behalf of the United States is vested exclusively in the attorney general or his or her delegate.[274] However, CERCLA §122(j)(2) contains a unique provision requiring written consent by the

264. *Id.* at 2.
265. *See* 43 C.F.R. §11.20(c).
266. *Id.* §11.32(a)(1).
267. *See* 15 C.F.R. §990.14(a)(1) ("If an incident affects the interests of multiple trustees, the trustees should act jointly under this part to ensure that full restoration is achieved without double recovery of damages.").
268. *ASARCO I*, 280 F. Supp. 2d 1094, 1115 (D. Idaho 2003).
269. *ASARCO II*, 471 F. Supp. 2d 1063, 1067 (D. Idaho 2005).
270. *See infra* Section IX.B.
271. *See* 43 C.F.R. §11.32(a)(2) (DOI rule stating that the trustees shall identify PRPs if the cleanup agency has not done so, notify them of the assessment, and "invite the participation of the potentially responsible party" or parties in development and performance of the assessment); 15 C.F.R. §990.14(c) ("Trustees must invite the responsible parties to participate in the natural resource damage assessment . . . .").
272. Atlantic Richfield Co. v. Christian, 140 S. Ct. 1335, 1355, 50 ELR 20101 (2020).
273. State and tribal nation settlement authority is beyond the scope of this Article.
274. *See* 28 U.S.C. §516 ("Except as otherwise authorized by law, the conduct of litigation in which the United States, an agency, or officer thereof is a party, or is interested, and securing evidence therefor, is reserved to officers of the Department of Justice, under the direction of the Attorney General."). DOJ authority to assert and resolve environmental claims is generally delegated

affected federal trustee or trustees for any proposed compromise of a U.S. claim for NRD under CERCLA:

> An agreement under this section may contain a covenant not to sue . . . for damages to natural resources under the trusteeship of the United States resulting from the release or threatened release of hazardous substances that is the subject of the agreement, but only if the [affected] Federal natural resource trustee has agreed in writing to such covenant.[275]

In addition, the statute authorizes federal trustees to agree to an NRD covenant not to sue in a consent decree that also relates to remedial action only "if the potentially responsible party agrees to undertake *appropriate actions necessary to protect and restore* the natural resources damaged by such release or threatened release of hazardous substances."[276]

Federal trustees may resolve very small NRD claims independently of DOJ under the Federal Claims Collection Act (FCCA), which grants the head of each federal department or agency authority to approve a settlement of a claim on behalf of that agency where the total claim does not exceed $100,000 or any higher limit approved by the attorney general.[277] The FCCA is the only source of authority for federal trustee agencies to resolve NRD claims without DOJ concurrence under CERCLA, the CWA, SURPA, or NMSA.

OPA grants somewhat broader independent settlement authority, empowering each federal agency "responsible for recovering amounts for which a person is liable under [OPA]" to agree to a compromise without DOJ approval unless the claim has been referred to DOJ or the "total amount to be recovered may exceed $500,000 (excluding interest)."[278] If the "total amount" of an OPA NRD claim is greater than $500,000, or if the claim has already been referred to DOJ, DOJ approval is required for any compromise even if the settlement amount is below $500,000.

B. Key NRD Settlement Terms

An NRD settlement may require the settling PRPs to make one or more payments of funds that the trustees will use to implement restoration actions or may require the settling PRPs to perform restoration actions themselves—or both.[279] In general, under the Miscellaneous Receipts Act, any funds received on a debt to the United States must be deposited into the General Fund of the U.S. Treasury and can be used only in accordance with an appropriation by Congress signed by the president.[280]

As discussed above, however, CERCLA and OPA direct trustees to "retain" NRD recoveries and to use them, without further appropriation, only to restore, replace, or acquire the equivalent of the injured natural resources at issue.[281] To facilitate compliance with these provisions, Congress separately authorized two special funds within the Treasury, the NRDAR fund managed by DOI and the Damage Assessment and Restoration Revolving Fund (DARRF) managed by NOAA.[282] The legislation creating these funds allows them to be used to hold and disburse NRD recovered jointly by federal and state or tribal governments, as well as any separate federal NRD recovery.

When a settlement includes damages intended to restore natural resources under the shared trusteeship of multiple trustees, or a joint damages recovery that is not allocated among the co-plaintiffs, the nearly universal practice is to place the entire unallocated amount in a single repository where it can be managed and drawn upon for the joint benefit of all participating trustees. This practice minimizes conflict among the trustees over who is entitled to what share of the recovery and maximizes their collective flexibility to make efficient decisions on how to spend the recovered damages. For any settlement that includes an unallocated damages recovery on behalf of multiple trustees, the consent decree or other agreement should state that the unallocated funds are for the joint benefit and use of the participating trustees and should describe the process by which the trustees will make decisions on how to use the funds.

As noted above, CERCLA §122(j)(2) allows federal trustees to agree to a covenant to sue a PRP for NRD—an essential part of any full settlement—only if the settling PRP agrees to "undertake appropriate actions necessary to protect and restore" the injured resources in question. The United States takes the position that this standard may be satisfied either by the payment of appropriate damages or by a commitment to implement restoration actions, or by a combination of the two.

The only judicial decision that has addressed the issue directly agreed.[283] In *Acushnet IV*, the court rejected an intervenor's argument that a proposed $2 million settlement with one of five defendants, out of a total estimated NRD claim of $50 million, was inconsistent with the statutory standard because it would not fund full restoration. The court said: "[A]n interpretation . . . more in keeping

to the assistant attorney general for the Environment and Natural Resources Division. *See* 28 C.F.R. §§0.65, 0.167.

275. 42 U.S.C. §9622(j)(2).

276. *Id.* (emphasis added). Section 122(j)(2) was enacted in 1986, in SARA, and appears to have been intended to ensure that NRD claims are not compromised inappropriately to help secure agreements to perform response actions or reimburse response costs.

277. *See* 31 U.S.C. §3711. This limited independent settlement authority may be further constrained in NRD cases where the agency's claim overlaps the claims of another federal trustee or of a state or tribal trustee. *See* 40 C.F.R. §300.615(a) (trustees must cooperate with one another in cases where there are multiple trustees).

278. 33 U.S.C. §2715(d).

279. NRD settlements also typically require separate payments to reimburse each trustee for NRDA costs it has incurred, and may require additional payments for anticipated future assessment costs—for example, in cases where the trustees have not yet completed a comprehensive restoration plan at the time of settlement, payments to cover the costs of studies, and planning work to complete such a plan.

280. *See* 31 U.S.C. §3302(b).

281. *See supra* Section I.B.

282. *See* 43 U.S.C. §§1474b, 1474b-1 (authorizing DOI NRDAR fund); Pub. L. No. 101-515, tit. I, 104 Stat. 2105 (1990) (authorizing NOAA's DARRF). Money held for trustees in the NRDAR fund accrues interest, while DARRF funds do not.

283. *See Acushnet IV*, 712 F. Supp. 1019, 1033-35 (D. Mass. 1989).

with the intent of, as well as the language employed by, Congress is one that requires the United States to assess the strengths and weaknesses of its case and drive the hardest bargain it can."[284]

The *Acushnet IV* court further ruled, however, that Congress' policy of requiring a "reopener" for unknown conditions in remedial action settlements, set forth in CERCLA §122(f)(6)(A), should also be applied to NRD settlements.[285] The court declined to approve the proposed settlement without such a reopener.

Following *Acushnet IV*, DOJ and the federal trustees adopted a practice to include in NRD settlements under CERCLA a reservation of the right to reopen litigation based on the discovery of unknown conditions or new information relating to NRD, unless the "extraordinary circumstances" standard for omitting the reopener under CERCLA §122(f)(6)(B) is satisfied. Similar reservations of rights are usually included in NRD settlements under OPA, though OPA does not have a comparable statutory requirement to address unknown conditions.

C. *Restoration Plan Needed to Support Work Settlement*

A settlement in which PRPs commit to fund or implement specified restoration projects may be attractive to both sides. PRPs often believe (perhaps with good reason) that they can implement a given restoration project at a lower cost than the trustees would insist they pay if the trustees must do the work. Settling PRPs that have ties to the local community may also value the intangible benefits of directly helping repair harm to which they allegedly contributed.

From the trustees' perspective, a PRP commitment to perform a project instead of paying its estimated cost in damages avoids the risk of underestimating costs and reduces the administrative burdens of managing project implementation. In addition, trustees and PRPs alike may find it easier to justify to decisionmakers or the public a settlement that ensures implementation of identified restoration actions rather than requiring the payment of damages that will be applied to unknown restoration actions selected sometime in the future.

For all of its potential benefits, a decision to negotiate specific restoration projects has significant procedural consequences. CERCLA §111(i) requires that, before an NRD recovery may be expended on natural resource restoration, the federal trustees, together with the trustee or trustees for any affected state and any affected tribal nation, must adopt a restoration plan after public review and the consideration of any public comments. Thus, trustees and PRPs that want to include specific restoration actions in an NRD settlement must build in a process for the trustees to create and solicit public comment on a restoration plan in which the trustees select those actions, consistent with the timing for final approval of the proposed settlement.[286]

While the timing concern above could be addressed by making the settlement conditional on the trustees later selecting the contemplated restoration project or projects, the lack of finality in that approach may be unattractive, especially to the settling PRPs. To provide greater assurance of finality, the most common practice is for the trustees to propose a restoration plan concurrently with the proposed settlement (or as soon as possible after the proposed settlement is made public) and to invite public comment on the proposed plan and the proposed consent decree or settlement agreement at roughly the same time. If the plan approval process takes longer to complete than the comment period on the proposed settlement, the government may defer final approval (in the case of a consent decree, by deferring the motion for court approval) until the trustees have received and considered public comments on the proposed plan and have adopted it in final form. This approach has the potential to make it necessary to revise the agreed-upon restoration in light of information in the public comments, but (1) that need has rarely arisen in practice, and (2) if it does arise, it is preferable for all parties to learn about the public concerns before the settlement becomes binding.

D. *Intervention to Contest a Proposed Settlement*

Nongovernmental organizations (NGOs) and private parties sometimes attempt to intervene in lawsuits filed concurrently with proposed NRD settlements, with the aim of raising objections in court. CERCLA §113(i) provides:

> [A]ny person may intervene as a matter of right when such person claims an interest relating to the subject of the action and is so situated that the disposition of the action may, as a practical matter, impair or impede the person's ability to protect that interest, unless the President or the State shows that the person's interest is adequately represented by existing parties.[287]

The First Circuit, the U.S. Court of Appeals for the Second Circuit, and the U.S. Court of Appeals for the Third Circuit have all held that CERCLA's §113(i) standard is essentially the same as the familiar test under Federal Rule of Civil Procedure 24, except that the existing parties to the suit bear the burden of proof, rather than the proposed intervenor.[288] Thus, the existing parties must show that the

284. *Id.* at 1036.
285. *Id.* at 1038.

286. For this purpose, the restoration plan need not necessarily address all alleged natural resource injuries and restoration actions that will ultimately be selected. Trustees have discretion to select restoration actions in stages, and it should be legally appropriate for them to confine a settlement-related restoration plan to the particular projects the parties developed during negotiations, so long as the plan is transparent about how those proposed projects fit into the broader picture of injury and anticipated future restoration planning for the site or incident.
287. 42 U.S.C. §9613(i).
288. United States v. Pitney Bowes, Inc., 25 F.3d 66, 69, 24 ELR 20374 (2d Cir. 1994); Travelers Indem. Co. v. Dingwell, 884 F.2d 629, 641 (1st Cir. 1989);

proposed intervenor's interest is being adequately represented in order to prevent intervention.[289]

The court in *Acushnet IV*[290] granted the National Wildlife Federation's (NWF's) motion to intervene in a proceeding to approve a partial consent decree resolving NRD claims against one of several PRPs at the New Bedford Harbor Site. Because the NWF's views diverged from the trustees' on the amount of damages the settling PRP should bear, the court found the trustees unable to adequately represent the group's interests.[291] Further, the court found intervention would not create an unreasonable delay to the proceedings because the proposed settlement would not resolve NRD litigation against several nonsettling PRPs that would continue regardless of whether intervention was granted.[292]

In contrast, the court in *United States v. Fort James Operating Co.*[293] denied an environmental group the right to intervene for the purpose of objecting to a proposed consent decree that would fully resolve a PRP's NRD liability at the Lower Fox River and Green Bay Site in Wisconsin. The court reasoned that CERCLA gives trustees the exclusive right to pursue NRD, and that the fact that the trustees are pursuing the same objective as the NGO tends to indicate the NGO's interests are adequately represented by the trustees.[294] The NGO's objection to the amount of the settlement was primarily a strategic concern inadequate to overcome the presumption of adequate representation.[295] The court distinguished *Acushnet IV* because the NGO in that case alleged that the assessment had been completed improperly rather than merely disagreeing with the amount of assessed damages recovered.[296]

E. Judicial Review of Settlements

In *Acushnet IV*, apart from the reopener requirement drawn from the statute discussed above, the court applied a traditional standard of review to the settlement, giving deference both to the government's evaluation of its case and to its allocation of damages among the defendants.[297] A similar deferential standard has been applied in several other major cases where nonsettlers or citizen interveners challenged NRD settlements.[298]

In *Utah v. Kennecott*,[299] the court undertook a more searching inquiry into the adequacy of the state's proposed $12 million NRD settlement for groundwater contamination. After an evidentiary hearing into the rationale for the settlement, the court rejected it on the grounds that the state's determination that restoration was infeasible lacked foundation, the state failed to require adequate source control measures to prevent further groundwater contamination, and the state applied the wrong measure of damages because it considered only the market value of the resource and failed to evaluate its "passive use" value.[300]

Similarly, on an appeal from district court approval of a second proposed NRD settlement in *Montrose Chemical* (later than the one noted above), the Ninth Circuit rejected a $45.7 million settlement because the record before the district court contained no estimate of total restoration costs and other damages at the site, and the court therefore could not evaluate whether the settling defendants were paying a large enough share of the total damages.[301]

In addition, courts may impose limits on the trustees' discretion in selecting among restoration options if the trustees seek to compensate for a loss of natural resource services by providing artificial amenities, such as building a convention center or recreational facilities separated from the environment. In its preamble to the revised Type B Rule, DOI made it clear that services (such as recreational uses) are a *means of evaluating* natural resource restoration, not a separate commodity to be restored by artificial substitutes independent of their original link to natural resources.[302]

F. Early Restoration and Partial NRD Settlements

At some sites, trustees and PRPs may both have incentives to begin natural resource restoration or replacement "early"—meaning before the completion of an NRDA and before the NRD claim is ripe for litigation. The trustees' main incentive is obvious: to begin redressing the public's losses from the degradation of natural resources as soon

United States v. Alcan Aluminum, Inc., 25 F.3d 1174, 1181, 24 ELR 20980 (3d Cir. 1994).

289. Pitney Bowes, 25 F.3d at 69; Alcan Aluminum, 25 F.3d at 1181.
290. *Acushnet IV*, 712 F. Supp. 1019 (D. Mass. 1989).
291. *Id.* at 1024.
292. *Id.* at 1025.
293. No. 02-CV-602 (E.D. Wis. May 10, 2003).
294. *Id.* at 6-7.
295. *Id.* at 7.
296. *Id.*
297. *See Acushnet IV*, 712 F. Supp. at 1027-32.
298. *See* United States v. Montrose Chem. Corp., 793 F. Supp. 237, 240-41, 22 ELR 21333 (C.D. Cal. 1992) (approving $12 million NRD settlement with two defendants); United States v. Fort James Operating Co., 313 F. Supp. 2d 902, 906-07 (E.D. Wis. 2004); Colorado v. Denver, No. 10-CV-1303, 2010 WL 4318835, at *5, 40 ELR 20006 (D. Colo. Oct. 22, 2010); United States v. NCR Corp., No. 10-CV-910, 2017 WL 3668771, at *15 (E.D. Wis. Aug. 23, 2017); In re Oil Spill by the Oil Rig "Deepwater Horizon" in the Gulf of Mexico, on April 20, 2010, MDL No. 2179, 2016 WL 1394949, at *1 (E.D. La. Apr. 4, 2016).
299. 801 F. Supp. 553, 23 ELR 20257 (D. Utah 1992).
300. *Id.* at 566, 568-71.
301. United States v. Montrose Chem. Co., 50 F.3d 741, 25 ELR 20703 (9th Cir. 1995).
302. 58 Fed. Reg. 39328, 39340 (July 22, 1993):

> [DOI] does not believe that Congress intended to allow trustee agencies to simply restore the abstract services provided by a resource, which could conceivably be done through an artificial mechanism. For example, nothing in . . . CERCLA suggests that replacement of a spring with a water pipeline would constitute "restoration, rehabilitation, replacement, and/or acquisition of equivalent resources."

See Fort James Operating Co., 313 F. Supp. 2d at 910-11 (While declining to disapprove the settlement given its "positive features," which included the protection and restoration of wildlife habitat, the court recognized that an intervenor's "concerns about disproportionate spending [by the trustees] on recreational enhancements are legitimate."). *See also* Gulf Restoration Network v. Jewell, 161 F. Supp. 3d 1119 (S.D. Ala. 2016) (following *Deepwater Horizon* spill, plaintiff nonprofit challenged proposed OPA NRD project that earmarked more than $58 million to construct a lodge and conference center at an Alabama state park; the court held that failure to consider other restoration alternatives was arbitrary and capricious and violated OPA and the National Environmental Policy Act, and enjoined use of the funds).

as possible. But that benefit may also serve PRP interests because early restoration actions should reduce the accrual of lost public uses or other interim losses, reducing total recoverable damages, and may also enhance the PRP's reputation with stakeholders and build momentum toward an eventual full settlement. While some early restoration settlements have provided complete resolution of the settling PRP's NRD liability, most are explicitly partial settlements that offer a credit or offset against the full amount of liability that will be determined later.

The most dramatic example of early restoration settlements to date is in the *Deepwater Horizon* oil spill case under OPA, where the United States and five states negotiated 65 separate "early restoration project stipulations" with BP, securing a total of more than $880 million in payments for projects that all parties agreed were appropriate, in return for credits against BP's ultimate NRD liability.[303] For some projects, the credit was monetary—for example, an amount to be offset against the economic value of interim lost recreational uses determined in the NRDA or by the court after litigation. For many projects aimed at repairing habitat or compensating for other ecological injury, the credits were in the form of offsets against various types of injuries that the trustees were in the process of assessing—for example, discounted leatherback turtle years or discounted service acre years of brackish marsh. These project stipulations were supported by a series of early restoration plans combined with environmental assessments and, like most NRD settlements, were subject to public notice and comment before taking effect.

X. Conclusion

Setting aside minor differences in details, CERCLA and OPA create a common legal framework for federal, state, or tribal officials, acting as "trustees," to assess and recover damages for injuries to natural resources resulting from hazardous substance releases or a discharge or threatened discharge of oil. NRD fills a gap that often exists between cleanup actions directed by response agencies and a fully repaired or replenished environment. Central to this framework is the statutory mandate that trustees must use recovered damages only to restore, replace, rehabilitate, or acquire the equivalent of the injured resources—making NRD under federal law different from damages in most tort or contract law contexts, which allow a successful plaintiff to use the recovery any way desired.

NRDAs tend to be complex even by the high standard inherent in environmental matters, often requiring extensive studies using a combination of scientific, economic, and engineering tools. Although rules for NRDA promulgated by DOI and NOAA can help guide trustees, the rules are not mandatory and have rarely been tested in litigation. As a result, both PRPs and trustees face considerable uncertainty about the scope of NRD liability at many hazardous substance sites or oil spills. That uncertainty can be mitigated by active engagement in developing restoration options and by using the settlement processes and policies applicable under CERCLA, OPA, and other federal authorities.

303. Examples are available at NOAA's Early Restoration page, https://www.gulfspillrestoration.noaa.gov/restoration/early-restoration (last visited May 2, 2024).

APPENDIX—LIST OF AUTHORITIES

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