Chapter 1
Introduction

Natural resource damage claims are claims asserted by federal, state, or tribal governments seeking restoration of injuries to natural resources resulting from certain types of industrial contamination and oil spills. The practice of natural resource damages (NRD) is highly complex, and the stakes can be huge. The magnitude of NRD claims can sometimes far exceed the cost of cleaning up the contamination at issue. Furthermore, NRD claims involve a constellation of complicated legal questions, ranging from overlapping governmental oversight to uncertain standards of proof to a myriad of untested legal defenses. Similarly, NRD claims present difficult evidentiary issues involving biology, chemistry, ecology, economics, engineering, statistics, toxicology, and numerous other academic disciplines. Superimposed on top of all of these legal and evidentiary problems are formidable strategic questions implicit in any NRD claim. These strategic considerations include whether (and how) to cooperate with the government; whether to pursue a settlement path or a litigation path; how to involve community input; whether to involve other potentially liable parties; how best to achieve cost-effective restoration based on sound science and actual legal exposure, while also minimizing transaction costs; and how to negotiate reasonable NRD settlements.

This book presents a comprehensive guide to the legal, evidentiary, and strategic issues associated with litigating and resolving NRD claims. Collectively, the authors (including many contributing experts) have many decades of experience litigating NRD claims, both for the government and for companies. The authors themselves have successfully resolved some of the largest, most difficult NRD claims of the last decade, including the NRD claims stemming from the Deepwater Horizon oil spill, among others.
Following is an overview of the book and its organization.

**Chapter 2: NRD Statutes and Regulations.** This chapter explains some of the basics of NRD law, including an in-depth discussion of the key federal statutes authorizing NRD claims. This chapter also provides an overview and history of the NRD regulations, promulgated under the Oil Pollution Act (OPA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

**Chapter 3: NRD Defenses.** While there are many defenses to NRD claims, there is precious little jurisprudence interpreting those defenses. This chapter provides a critical overview of the key NRD defenses, including legal (e.g., statutes of limitations, retroactive application, standing, ripeness, federally permitted releases, and the bar against double recovery), evidentiary (e.g., causation and baseline), and procedural (e.g., the standard of review, the scope of review, the rebuttable presumption, and the right to a jury).

**Chapter 4: NRD Assessments.** This chapter provides a detailed explanation of the regulatory guidelines applicable to NRD assessments (NRDA), including concepts of baseline, injury determination, damages calculations, restoration planning, and public input. While the NRD regulations are not mandatory, if the government conducts a NRDA pursuant to the regulations, they will enjoy a rebuttable presumption that their assessment is accurate. Accordingly, the government often makes every effort to follow these regulations, and it is important for stakeholders to understand precisely how these regulations are structured.

**Chapter 5: Valuation Methods.** A finding that a hazardous substance or oil has injured a natural resource is only the first step in evaluating an NRD claim. The next step, and one of the thorniest, is determining the monetary value of that injury. The question really asks: how much is nature worth, and the answer is not merely philosophical but also legal, economic, and scientific. This chapter delves into the common methodologies and approaches used to value injured natural resources. Moreover, this chapter provides a strategic discussion of the advantages and disadvantages of various approaches, including a restoration-based approach, a survey approach, and an ecosystem approach. Finally, this chapter includes “expert insights” related to habitat equivalency assessments for measuring ecological damages, travel cost methods for calculating recreational losses, and a novel approach for measuring recreational damages called “trip equivalency” assessments.
Chapter 6: Cooperative Assessments. Unlike other environmental laws, there is no requirement that companies cooperate with the government as it conducts a NRDA. On the other hand, the government is obligated to offer companies the opportunity to cooperate. This leads to a strategic conundrum: when faced with a potential NRD claim, should a potentially responsible party cooperate in the assessment process, and if so, how? This chapter explores the strategic advantages and disadvantages to participation in a cooperative NRDA with the government. Finally, the chapter discusses the mechanics of cooperation, including the elements of a cooperative assessment agreement.

Chapter 7: Litigation Strategy. This chapter provides key suggestions for developing and implementing a successful NRD litigation strategy. The heart of this chapter is a discussion of ten large NRD trials and key lessons learned from those trials. In addition, this chapter discusses many of the pre-trial motions and other procedural aspects of litigating a large NRD matter.

Chapter 8: Restoration Strategy. Good restoration projects can often resolve hard NRD cases. This is true because a suite of popular and visible restoration projects can pave the way for a case to settle even when the parties do not agree on the injury assessment or damages calculation. This chapter explores the contours of a restoration strategy, including the interplay between restoration planning and litigation planning; the advantages, disadvantages, and mechanics of early restoration; and the challenges and opportunities presented by involving third parties (including environmental organizations) in restoration planning.

Chapter 9: Settlement Strategy. Similar to other areas of environmental law, at the end of the day, most NRD cases settle. The strategic questions surrounding an NRD settlement are immense and complicated, including finality, work performance, and timing, among other considerations. This chapter discusses these issues and provides several examples of how parties have addressed them in prior consent decrees.

Chapter 10: Complex and Novel Situations. NRD cases, already complicated and challenging, can be made more so by unusual circumstances. This chapter describes five such circumstances and provides strategic considerations for handling them. The five complex situations discussed in this chapter are (1) sites with multiple trustees; (2) third-party practice and contribution claims; (3) insurance disputes in the NRD context; (4) claims for damages to historic or cultural resources; and (5) the implications of climate change for NRD.
Chapter 11: The European NRD Regime. This final chapter describes the NRD regime in the European Union (EU), called the Environmental Liability Directive (ELD). In addition, this chapter compares the ELD to the NRD programs in the United States and describes some of the challenges the ELD has faced as it has been transcribed into the laws of the EU member states.

It is worth noting that the world of NRD is anything but static. There are numerous trends and developments, ranging from potential NRD regulatory reform to greater prominence by state and tribal trustees. There is also an increasing interest in novel restoration approaches, including restoration banking and early restoration. Finally, parties are increasingly looking for greater efficiency in the NRD process, including through the use of existing data, stipulations, partial settlements, and shared experts. Throughout this NRD guide, we discuss these emerging trends, including predictions for the future.

Of particular importance in the short term is the possibility for regulatory reform. This book comprehensively sets forth considerations under the existing NRDA regulations that, as is elucidated further throughout the book, propagate many inefficiencies and much confusion. In light of the current political climate at the time of publication of this book, NRD is an area that is ripe for regulatory reform.

In its first year, the Trump administration initiated a comprehensive regulatory reform effort. Through various executive orders, including Executive Order 13771, Reducing Regulation and Controlling Regulatory Costs, and Executive Order 13777, Enforcing the Regulatory Reform Agenda, the administration has set forth the goals of reducing unnecessary regulatory burden and improving federal program efficiency. Various executive agencies, including the U.S. Department of the Interior (DOI) and the U.S. Department of Commerce, the two most important federal NRD trustee agencies, are currently seeking stakeholder input on identifying priorities for regulatory reform.

On August 27, 2018, DOI promulgated an Advance Notice of Proposed Rulemaking (ANPRM), requesting comments related to possible revision of the NRDA regulations promulgated pursuant to CERCLA.1 Details about the ANPRM process are discussed in Chapter 2.

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Chapter 2
NRD Statutes and Regulations

A. Basic Legal Framework

Federal, state, territorial, and tribal governments may seek compensation for natural resources that are injured or destroyed when property becomes contaminated with certain pollutants, including hazardous substances and petroleum. The compensation for natural resource damages (NRD) is intended to restore the natural environment to its prior condition and compensate the public for the interim lost use from the time of contamination until restoration.

Most NRD claims are brought pursuant to federal or state environmental statutes. The primary federal statutory authorities are the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Oil Pollution Act of 1990 (OPA), but the Clean Water Act (CWA) and several other federal statutes also provide avenues for recovery of NRD in certain circumstances.

Authority to seek NRD compensation is rooted in common law principles, including the public trust doctrine and others. A “central motivation” for establishing statutory authority to recover NRD was dissatisfaction with the common law, which restricted the scope of available damages.

The modern statutory frameworks authorizing NRD compensation provide the relevant government agencies with a significant enforcement mechanism for obtaining monetary damages at contaminated properties.

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1. Portions of this chapter are adapted from “Natural Resource Damages,” of the Environmental Law Practice Guide: State and Federal Law, with permission. Copyright 2017 Matthew Bender & Company, Inc., a LexisNexis company. All rights reserved.

B. Context for NRD Claims: The Life Cycle of a Contaminated Site

The “life cycle” of a contaminated site is important to understand, as it provides the context for an NRD claim. Specifically, the typical contaminated site has five overlapping stages: (1) insurance, (2) allocation, (3) remedy, (4) toxic tort, and (5) NRD. Each of these stages addresses a separate issue, and resolution in one stage will not resolve the others. Also, these stages are not necessarily linear and may occur in different orders or simultaneously. Many sites do not feature all five of these stages.

The insurance stage simply refers to the effort by a liable party to enforce a contractual indemnity owed to it for its environmental liabilities at the site. The allocation stage refers to the ability of a liable party to allocate responsibility for a site among itself and other liable parties.

The last three stages of the contaminated site—remedy, toxic tort, and NRD—are closely interrelated. The remedy refers to the remedial investigation, selection, and implementation. The main objective of the remedy stage is the protection of human health and the environment. Although the remedial cleanup may have collateral ecological benefits, the principal focus is on removing or isolating contaminants, not restoring natural resources. Further, there are no remedy “damages,” only costs.

Conversely, the toxic tort stage is usually focused on damages, not cleanup. This is true for a number of reasons, but one is that some statutes preclude a toxic tort plaintiff from seeking injunctive relief if the site is already the subject of a government cleanup order or investigation. The toxic tort plaintiff usually seeks private damages associated with the contamination, including diminution in property value, unjust enrichment, pain and suffering, personal injury, and the like.

Finally, the NRD stage generally seeks both cleanup and damages, although it is sometimes framed as related only to damages. In that sense, the NRD stage is a hybrid of the remedy and the toxic tort stages. Yet, an NRD claim should be duplicative of neither. The cleanup that is sought in an NRD matter is focused on restoring natural resources, not protecting human health and the environment. One way to describe the distinction is that the remedy removes or isolates the contaminants, whereas the restoration replaces the lost natural resources. In this way, the NRD “cleanup” is sometimes described as the residual work needed after implementation of the remedy.

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3. Insurance issues as they relate to NRD are discussed in Chapter 10.
The distinction between the NRD stage and the toxic tort stage is also important. The toxic tort claimant is an individual or class. The NRD claimant is the public through a governmental trustee. Furthermore, the damages sought in an NRD matter are tied to the lost resources, whereas the damages in a toxic tort matter are tied to the injury to the plaintiff and the culpability of the defendant.

During the life cycle of a contaminated site, the distinctions among these five stages are often unclear and there is frequently overlap. For example, the extent of liability impacts the ability to allocate, and the nature of the remedy often impacts NRD or toxic tort liability. Furthermore, there may be numerous other factors at play, such as bankruptcy, compliance with regulatory laws, and community relations. Nonetheless, considering these five stages in the life cycle of a contaminated site helps to place NRD in the proper context.

C. Trusteeship

The key figure at the NRD stage of a contaminated site is the trustee. In many or most cases, other entities will be responsible for the remediation of a spill, discharge, or release of hazardous substances.

Under CERCLA, “[a] ‘trustee’ is a federal, state or Indian tribal official who, in accordance with 42 U.S.C. § 9607(f)(2), is designated to ‘act on behalf of the public as [a] trustee[] for natural resources.’” Trustee officials have the duty to “assess damages for injury to, destruction of, or loss of natural resources . . . for those resources under their trusteeship.” OPA similarly provides that trustees shall assess NRD and develop and implement plans “for the restoration, rehabilitation, replacement, or acquisition of the equivalent, of the natural resources under their trusteeship.” Trusteeship and standing to bring NRD claims can be pivotal aspects of NRD litigation, an issue discussed in Chapter 3.

CERCLA and OPA required the president to designate federal trustees. In executive orders, the following were identified as federal trustees for natural

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5. Nat’l Ass’n of Mfrs. v. U.S. Dep’t of the Interior, 134 F.3d 1095, 1098 n.1 (D.C. Cir. 1998) (quoting 42 U.S.C. § 9607(f)(2)). OPA contemplates foreign trustees as well. See 40 C.F.R. § 300.612 (“Pursuant to section 1006 of the OPA, foreign trustees shall act on behalf of the head of a foreign government as trustees for natural resources belonging to, managed by, controlled by, or appertaining to such foreign government.”).

6. 42 U.S.C. § 9607(f)(2)(A) and (B). Federal trustees may also assess damages for natural resources under a state’s trusteeship, if requested by the state and subject to reimbursement by the state. Id. § 9607(f)(2)(A).

resources: (1) Secretary of Defense, (2) Secretary of the Interior, (3) Secretary of Agriculture, (4) Secretary of Commerce, and (5) Secretary of Energy. The National Contingency Plan (NCP) further provides:

- The Secretary of the Interior shall be the “trustee for natural resources managed or controlled by [the U.S. Department of the Interior (DOI)],” and for “natural resources for which an Indian tribe would otherwise act as trustee in those cases where the United States acts on behalf of the Indian tribe.”
- The Secretary of Commerce shall be the trustee for natural resources managed or controlled by the Department of Commerce, and for natural resources managed or controlled by other agencies where those natural resources are found “in, under, or using” water bodies such as navigable waters and waters of the contiguous zone.
- The head of the relevant department—such as DOI, the U.S. Department of Agriculture, the U.S. Department of Defense, or the U.S. Department of Energy (DOE)—will be the trustee for natural resources “located on, over, or under land administered by the United States.”

The regulations also provide that, notwithstanding these stated designations, the Secretaries of Commerce and Interior are to “act as trustees of those resources subject to their respective management or control.”

CERCLA and OPA make state governors responsible for appointing state trustees. The NCP encourages the governor to designate a state lead trustee to coordinate all state trustee responsibilities with other trustee agencies and with the U.S. Environmental Protection Agency’s (EPA’s) response activities.

The NCP further provides that tribal trustees shall be “tribal chairmen (or heads of the governing bodies) of Indian tribes . . . or a person designated by the tribal officials.” Tribal trustees, like state trustees, are authorized to act

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9. 40 C.F.R. § 300.600(b)(2).
10. Id. § 300.600(b)(1).
11. Id. § 300.600(b)(3).
12. Id. § 300.600(b).
14. 40 C.F.R. § 300.610.
for resources, including “supporting ecosystems.” Historically, many tribes have been very successful in pursuing NRD claims, either in conjunction with other trustees or as the lead trustee.

The territories and commonwealths of the United States are also trustees for purposes of NRD claims. There are currently two commonwealths—Puerto Rico and the Northern Marianas—and 12 territories or possessions (e.g., Guam, American Samoa, and the U.S. Virgin Islands (USVI)). The territories have indeed pursued NRD claims, most often in coordination with federal trustees. For example, in 2001, the Puerto Rico Department of Natural and Environmental Resources (DNER), along with the federal trustees, settled claims related to an 800,000 gallon oil spill off the coast of Puerto Rico. The settlement—over $80 million—included compensation for injuries to natural resources and assessment costs. In 2016, DNER, along with federal trustees, agreed to a $2.75 million settlement (with $83,265.24 payable to DNER) of NRD claims stemming from a spill of 45,000 gallons from an oil tanker.

Prior to the Superfund Amendments and Reauthorization Act (SARA) in 1986, case law permitted municipalities to bring NRD claims, relying in part on the reference to “local government” in CERCLA’s definition of “natural resources.” Since SARA, however, courts have consistently held that a municipality may bring an NRD claim under CERCLA only if specifically authorized by the governor of the state in which it is located. SARA specified a mechanism for appointing a state representative (through the governor of the state), where no such mechanism previously existed. Courts interpreted this addition as affording the sole mechanism by which municipalities may act. The absence of any reference to municipalities within the definition of

15. Id.
“state”—especially because SARA did not change the definition of “state,” even as the amendments introduced a mechanism for appointing state trustees—led courts to conclude that Congress intended to preclude cities from bringing independent NRD claims under CERCLA.23

Although municipalities lack independent authority to bring NRD claims under CERCLA, the Ninth Circuit has held that a municipality may enact local ordinances that permit it to recover for damages to natural resources held in its trust.24

OPA authorizes foreign governments to recover NRD for natural resources belonging to, managed by, controlled by, or appertaining to their countries.25 The heads of the foreign governments may designate trustees to act on their behalf.26

The extent to which trusteeship can be asserted over privately owned resources to obtain NRD for injuries to such resources is not entirely clear. The D.C. Circuit noted that “Congress quite deliberately excluded purely private property from the ambit of the natural resource damage provisions,” but that “a substantial degree of government regulation, management or other form of control over the property would be sufficient to make” CERCLA’s NRD provisions applicable.27 The court offered the example of “a state law requiring owners of tideland property to permit public access” as a situation that might bring privately owned property within the ambit of CERCLA’s NRD provisions.28 Although the D.C. Circuit directed DOI to clarify the extent to which its NRD regulations extended to lands not owned by the government, DOI opted not to offer a regulatory gloss on this issue, though DOI acknowledged that the scope of NRD claims can cover “more than just resources owned by the government.”29 CERCLA NRD trustees must prepare statements to


24. See Fireman’s Fund Ins. Co. v. City of Lodi, 302 F.3d 928, 943–45 (9th Cir. 2002) (“Notwithstanding any authority under CERCLA or HSAA that Lodi may acquire by delegation, Lodi retains its independent authority to protect its proprietary interest in natural resources held in trust by the City.”).


26. Id. § 2706(b)(5).


28. Id. at 461.

explain the basis for their assertions of trusteeship on a case-by-case basis, and
DOI indicated that the basis must be grounded in a relationship of ownership,
management, trust, or control created by other federal, state, local, or tribal
laws.30 One district court rejected the argument that “mere statutory author-
ity” was sufficient to establish trusteeship over a natural resource, stating that
“[p]ower that is not exercised is not management or control even though in
a legal sense the resource may belong in part or appertain to that party.”31
Another district court distinguished between private ownership of land, a
canal upon the relevant land, and groundwater below the relevant land, hold-
ing that although the land was privately held and the trustees’ NRD claims
with regard to the land were therefore foreclosed, without clear evidence of
exclusively private ownership of the canal water and groundwater, the trustees’
NRD claims with regard to those resources could proceed.32

D. Federal NRD Statutes
The principal statutory authorities for recovery of NRD are CERCLA and
OPA, which are the primary focus of this chapter and this book. In the next
section, we provide an overview of these two statutes and NRD regulations
promulgated under them. Aside from CERCLA and OPA, the following
federal authorities may also provide avenues for recovery of NRD in certain
circumstances.33

1. Clean Water Act
The CWA contains a right of action for NRD for spills of oil and hazardous
substances that decreased in use after OPA’s enactment and due to the more
frequent use of CERCLA.

30. Id. at 14,268.
WL 882547, at *6 (D.V.I. Mar. 11, 2011); Comm’r of the Dep’t of Planning & Nat. Res. v. Century
33. This section describes authorities under which NRD may be recovered. Other statutes,
regulations, and executive orders can influence how NRD matters proceed. For example, Executive
Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and
Low-Income Populations) requires federal natural resource trustees, like other federal agencies, to
determine whether a restoration action will have disproportionate, adverse health or environmental
impacts on members of a tribal or other minority or low-income population. Trustees are to ensure
that no low-income or ethnic minority communities would be adversely affected by the proposed
restoration activities.
Section 311 of the CWA allows the federal government to remove oil or hazardous substances discharged into or upon the navigable waters, adjoining shorelines, or waters of the contiguous zone, and to assess the costs of removal against the owner, operator, or person in charge of the vessel or facility responsible for the unlawful spill or release. These costs include the cost of “restoration or replacement” of injured resources. Money recovered under the NRD provisions of the CWA must be used by trustees “to restore, rehabilitate, or acquire the equivalent of such natural resources.” The CWA establishes restoration cost as the standard measure of damages.

NRD assessments (NRDA) under the CWA are conducted in accordance with both CERCLA regulations and OPA regulations: the CERCLA regulations are followed in the event of a hazardous substance discharge, and the OPA regulations are followed in the event of an oil spill.

2. National Marine Sanctuaries Act
This statute, formerly Title III of the Marine Protection, Research and Sanctuaries Act, creates liability for injury to any sanctuary resource, regardless of the substance that caused the injury. The statute defines “sanctuary resource” to include “any living or nonliving resource of a national marine sanctuary that contributes to the conservation, recreational, ecological, historical, educational, cultural, archaeological, scientific, or aesthetic value of the sanctuary.” The measure of damages is the cost of restoration, replacement, or acquisition of the resource. Funds left over after reimbursement of response costs must be used for restoration.

3. Park System Resource Protection Act
This law allows the federal government to commence a civil action for response costs and damages against a person responsible for injury to park system resources, subject to certain defenses. Recovered damages may be used only to reimburse response costs and damage assessments, as well as to restore,

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35. Id. § 1321(f)(4).
36. Id. § 1321(f)(5).
38. Id. § 1432(8).
39. See id. § 1432(6)(A).
40. See id. § 1443(d)(1)(B).
replace, or acquire the equivalent of the injured or lost resources. Excess funds are deposited in the general treasury.

E. CERCLA

1. Overview of the Statute

CERCLA makes parties responsible for the release of a hazardous substance liable 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.” CERCLA defines “natural resources” broadly 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, [or] any Indian tribe.”

To prevail on a CERCLA NRD claim, a trustee must prove that

1. the defendants are responsible parties under CERCLA (i.e., a current owner or operator of a vessel or facility, a former owner or operator at the time of a release, a transporter, or an arranger);
2. there has been a release or threat of release of a hazardous substance; and
3. the release has caused the injury to, destruction of, or loss of natural resources.

The categories of damages recoverable in a CERCLA NRD claim include damages determined in accordance with the NRD regulations and calculated “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.” Damages include the costs necessary to restore the natural resources to their baseline condition and may also include “interim losses,” the compensable value of the services to the public.

42. See 54 U.S.C. § 100724(a).
43. Id. § 100724(b).
45. Id. § 9601(16). In addition, such resources are a CERCLA “natural resource” if “subject to a trust restriction on alienation” and controlled by “any member of an Indian tribe.” Id.
46. Id. § 9607(a)(4)(c).
47. 43 C.F.R. § 11.15(a)(1).
lost during the period beginning at the time of the release until restoration of
the baseline conditions is achieved. 48 Recoverable costs also include costs of
emergency restoration efforts, reasonable and necessary costs of assessment,
and interest. 49

CERCLA directs that the amounts recovered by federal and state trust-
ees are “available for use only to restore, replace, or acquire the equivalent of
such natural resources.” 50 CERCLA goes on to provide that the measure of
damages in an NRD action “shall not be limited by the sums which can be
used to restore or replace such resources.” 51 In the litigation over the NRDA
regulations, the D.C. Circuit said that these provisions contain the “strong-
gest linguistic evidence” of Congress’s intent to establish “a distinct prefer-
ence for restoration costs as the measure of damages.” 52 The D.C. Circuit also
conceded that “at first glance” these two provisions might seem inconsistent,
but the court found that read together the provisions indicated that “dam-
ages recovered in excess of restoration or replacement costs must be spent on
acquiring the equivalent of lost resources.” 53 The court also said the “shall not
be limited by” language “carries in it an implicit assumption that restoration
cost will serve as the basic measure of damages in many if not most CERCLA
cases” and that restoration cost was not a damages “ceiling.” 54

As the following overview of the CERCLA’s NRD regulatory history
reveals, however, it took time to implement this restoration purpose.

2. The Protracted Regulatory History of CERCLA’s NRDA Rules

a. The Statutory Mandate

As enacted in 1980, CERCLA required the president, acting through desig-
nated officials, to promulgate regulations for assessing damages to natural
resources by December 11, 1982. 55

Congress provided that the NRDA regulations should take into account
“direct and indirect injury, destruction, or loss and shall take into consider-
ation factors including, but not limited to, replacement value, use value, and

48. Id. § 11.80(b).
49. Id. § 11.15(a)(2)–(4).
51. Id.
53. Id. at 444 n.8.
54. Id. at 445–46.
55. See 42 U.S.C. § 9651(c).
ability of the ecosystem or resource to recover.56 Further, Congress mandated the creation of two types of procedures for conducting NRDAs. First, the regulations were to specify “standard procedures for simplified assessments requiring minimal field observation” (eventually known as the “Type A” rules). Second, the regulations were to provide “alternative protocols for conducting assessments in individual cases” (the “Type B” rules). Both Type A and Type B rules were to “identify the best available procedures to determine such damages.” This final requirement was an ongoing mandate facilitated (at least in theory) by the statute’s provision for a biennial review.57 To encourage the use of the regulatory procedures, Congress further provided that any trustee assessment conducted pursuant to these procedures would enjoy a rebuttable presumption of legitimacy.58

As it turned out, implementing Congress’s mandate was a far trickier proposition than Congress may have imagined. Instead of the two years envisaged by Congress in 1980, the development of the NRD regulations extended over two decades and three administrations and multiple trips to the D.C. Circuit.

b. Round 1: The Reagan-Era NRDA Regulations

Following CERCLA’s enactment, President Reagan delegated responsibility for promulgating the NRDA rules to DOI via executive order.59 As Chief Judge Wald of the U.S. Court of Appeals for the District of Columbia later stated, however, “Interior’s response to its assigned task of promulgating regulations for assessing natural resource damages was, to put it charitably, relaxed.”60

DOI took its first formal but still preliminary step towards developing the NRDA rules—an advance notice of proposed rulemaking—in January 1983, one month after CERCLA’s statutory deadline for having final rules in place.61 After issuing two additional notices seeking comments and facing three lawsuits to compel it to issue regulations, DOI issued a proposed rule in 1985 that

56. Id. § 9651(c)(2).
57. Id.
58. See id. § 9607(f)(2)(C). The provision for a rebuttable presumption was added as part of SARA. The trustee is not obligated to utilize the NRDA procedures in order to maintain an NRD case. However, any assessment that is not done pursuant to these regulations will not enjoy the statutory rebuttable presumption.
set forth regulations concerning the assessment process generally and the Type B procedures (to be utilized in most NRDA).\textsuperscript{62}

DOI published the final rule in 1986\textsuperscript{63} and issued final Type A regulations (simplified assessment procedures to be utilized in a limited number of specific circumstances) in 1987.\textsuperscript{64} In 1988, DOI revised the regulations promulgated in 1986 to conform them to SARA, which was enacted in 1986.\textsuperscript{65}

Both the Type A and Type B regulations were challenged by multiple factions in the D.C. Circuit. In July 1989, the court issued two opinions, upholding many aspects of the regulations, but remanding a key element concerning the relative weight the rules were required to give to restoration costs versus diminution in use values in the calculation of damages.\textsuperscript{66} Specifically, the D.C. Circuit rejected DOI’s adoption of the “lesser of” rule, that is, the regulation providing that damages for destruction to natural resources shall be the “lesser of: restoration or replacement costs; or diminution of use values.”\textsuperscript{67} The court found that the equal presumptive legitimacy the regulation accorded to use value and restoration cost (and the resultant likelihood that use value would end up being the measure of damages, as it would more often be less than restoration cost) contravened Congress’s stated preference for restoration costs to be the minimum measure of damages in natural resource cases. The D.C. Circuit said the practical import of the “lesser of” rule was enormous because there would be a “minuscule” number of cases where restoration would be cheaper than paying for lost use\textsuperscript{68} and that its application would “in a majority of cases risk underfunded, half-finished restoration projects.”\textsuperscript{69}

The D.C. Circuit struck down two other aspects of DOI’s Type B rules. First, the court rejected DOI’s hierarchy of methods for determining “use values,” which limited recovery to the market price of the resource unless the

\begin{itemize}
\item \textsuperscript{63} Natural Resource Damage Assessments, 51 Fed. Reg. 27,674 (Aug. 1, 1986) (to be codified at 43 C.F.R. pt. 11).
\item \textsuperscript{66} Ohio v. U.S. Dep’t of the Interior, 880 F.2d 432, 440 (D.C. Cir. 1989).
\item \textsuperscript{67} Id. at 441.
\item \textsuperscript{68} Id. at 446.
\item \textsuperscript{69} Id. at 454.
\end{itemize}
market for that resource was not competitive. The court found this preference for market value as a methodology to be an unreasonable interpretation of the statute, because natural resources invariably have values that are not fully captured by the market system, and because CERCLA evinced an intent to capture all aspects of loss, not just those reflected in the market value. 70 Second, the court struck down DOI’s interpretation that option and existence values be estimated in lieu of use values only when use values cannot be determined. 71 The court found, instead, that “[o]ption 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.” 72

In its opinion addressing the Type A regulations, the D.C. Circuit held that DOI could not base the Type A regulations exclusively on lost use values to measure NRD. 73 The court acknowledged that limited restoration cost data might hinder creation of standardized models for calculating NRD but said the limitations could not justify ignoring the congressional mandate to focus on restoration.

To be sure, the D.C. Circuit’s decisions were not a total loss for the government, and indeed, numerous important principles of NRD law were established or clarified. For example, as mentioned previously, the court confirmed that damages were not recoverable for “purely private” resources. 74 In addition, the court rejected the notion that DOI’s regulations gave preferential treatment to potentially responsible parties (PRPs) by authorizing PRPs to undertake assessment tasks and by providing for notice to PRPs at certain stages of the assessment process when members of the public do not have the right to receive notice. 75 The court affirmed DOI’s use of “acceptance criteria”—which provide the framework for determining whether a release of a hazardous substance actually caused injury to a resource—over claims that the acceptance

70. Id. at 464. The court thus remanded for DOI to consider a rule that “would permit trustees to derive use values for natural resources by summing up all reliably calculated use values, however measured, so long as the trustee does not double count.” Id.

71. “Existence values” are the intrinsic, noneconomic values derived from the mere existence of the natural resource. “Option values” are the dollar amounts individuals are willing to pay although they are not currently using the resource but wish to reserve the option to use that resource in a certain state of being in the future. Id. at 476 n.72.

72. Id. at 464 (citing Frank B. Cross, Natural Resource Damage Valuation, 42 Vand. L. Rev. 269, 285–89 (1989)).


74. See Ohio, 880 F.2d at 460–61.

criteria imposed an unreasonably stringent causation standard. The court also rejected the main challenge asserted by industry representatives, namely that the contingent valuation method of calculating nonuse values was arbitrary and capricious. In addition, the court affirmed DOI’s limited use of the Type A rules. The court said the limited scope of the rules was “a sustainable response to an ambiguous statutory mandate in an area of scientific uncertainty,” but that it expected DOI “to continue to promulgate, as expeditiously as possible, further type A regulations to cover as many types of releases in as many different kinds of environments as feasible.”

Thus, nine years after the enactment of the statute and seven years after DOI was initially to have promulgated the rules, the process was far from complete. While the 1980s regulations caused the most profound concern from environmental groups and some states, the regulations that emerged from the next round would provoke an outcry principally from industry.

c. Round 2: The Clinton-Era NRDA Regulations

In April 1991, during the George H.W. Bush administration, DOI issued a proposed Type B rule in response to the D.C. Circuit’s opinion and sent a final—and different—rule to the Office of the Federal Register on the last full day of the administration. On the first full day of the Clinton administration, DOI withdrew the document. In July 1993, DOI reissued the April 1991 proposed rule, with suggested revisions. DOI finalized the revised regulations in March 1994. Revisions to the Type A regulations were finalized in 1996.

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76. See Ohio, 880 F.2d at 472.
77. Id. at 479.
78. See Colorado v. U.S. Dep’t of the Interior, 880 F.2d 481, 486–87, 489 (D.C. Cir. 1989) (“[I]n light of DOI’s subsequent determinations of data and resource inadequacies, we find that DOI acted reasonably in limiting the scope of the final rules as it did. . . . [D]espite its footdragging, DOI appears to have made a technically reasonable and responsible determination that the data to produce a suitable computer model for assessing natural resource damages in noncoastal and nonmarine environments were inadequate or insufficiently reliable.”).
79. Colorado, 880 F.2d at 483, 486.
The D.C. Circuit upheld the bulk of the Type B rules (and rejected claims regarding the unusual procedural history) in 1996 and upheld the Type A rules in 1998 (though the court was implicitly critical of DOI’s delay in responding to its 1989 directive to “act as expeditiously as possible” to promulgate new Type A regulations). However, the D.C. Circuit invalidated language in the Type B rules that appeared to measure damages both “in terms of the cost of restoration, rehabilitation, replacement, and/or acquisition of the equivalent of the injured natural resources and the services those resources provide.” The court said this regulatory language appeared to require trustees “to restore both the services and the resource itself,” which it said was not consistent with language in the regulatory preamble defending the services approach. The court said this inconsistency made the “resources and services” provisions of the regulation arbitrary and capricious.

d. Round 3: Responding to D.C. Circuit and Increasing Restoration Focus

The D.C. Circuit’s decisions on the Type B rules as well as the promulgation of NRDA rules under OPA in 1996 spurred the next regulatory development in DOI’s assessment rules. As with the earlier rounds of rulemaking, these regulatory developments took place over a number of years.

The OPA rules, discussed later in this chapter, sought to focus NRD claims on the costs of restoration not only for determining the costs to restore injured resources to the baseline but also for compensating for interim losses, that is, public losses pending restoration. A concern emerged that the DOI regulations for assessment of interim losses lacked a restoration-based approach similar to the OPA rules approach. Instead, the DOI rules calculated interim losses based on “the economic value the public loses until the baseline condition is re-established.”

DOI chartered a federal advisory committee in 2005 to consider how to optimize NRDA and restoration activities. The issue of compensation for interim losses was one concern before the committee. Other issues concerned

85. Kenneecott, 88 F.3d at 1220 (quoting 43 C.F.R. § 11.80(b)).
86. Id.
88. Id. at 5.
natural resource injury determination and quantification, restoration action selection, and timely and effective restoration after NRD claims are resolved.

In 2007, the committee issued a report recommending that DOI revise its regulations to explicitly allow calculation of interim losses based on the cost of restoration projects that provide services equivalent to the lost services, rather than requiring that damages be measured based on the monetary value of lost services. The committee indicated that such an approach would be more consistent with the restoration-based goals of NRD.

DOI adopted narrowly targeted amendments in 2008 in response to the federal advisory committee’s recommendation regarding interim losses, leaving other recommendations of the federal advisory committee to be addressed at a later time. The 2008 amendments also eliminated a limitation in the Type B regulations on the estimation of option and existence values, as required by the D.C. Circuit’s 1989 decision. In addition, in response to the D.C. Circuit’s 1996 decision, DOI indicated that it had never intended to abandon a services-based approach to measuring damages. DOI clarified that the measure of damages was either the cost of restoring or rehabilitating the injured resources to a condition where they provide a level of services provided in the baseline condition or replacing or acquiring equivalent natural resources capable of providing baseline services.

e. Round 4: Regulatory Reform Efforts in the Trump Administration

On August 27, 2018, DOI promulgated an Advance Notice of Proposed Rulemaking (ANPRM), requesting comments related to possible revision of the NRDA regulations promulgated pursuant to CERCLA. In the ANPRM, DOI specifically requested comments on the following categories of potential reforms:

- Simplification and “plain language”—According to DOI, the CERCLA NRD regulations “are arguably complicated, overly prescriptive, repetitive,
and dense. . . A number of stakeholders have suggested that DOI should consider a comprehensive ‘plain English’ revision to the CERCLA . . . Regulations that closely aligns with the structure of the existing OPA . . . Regulations.”94

• Type A regulations—As DOI noted, Type A regulations were designed “to result in efficient, cost effective, standardized assessments.” However, “it has been challenging . . . to develop workable Type A Regulations that are streamlined and utilize minimal actual field observations but are still relevant and reliable enough to be entitled to a rebuttable presumption of correctness. Accordingly, DOI is seeking comments or suggestions regarding revision to and utilization of the . . . Type A Regulations.”95

• Early emphasis on restoration over damages—Prior reports have “recommended that DOI could encourage a restoration focus and negotiated agreements by revising the regulations to encourage early scoping of restoration opportunities at [NRD] sites.” Accordingly, DOI is requesting “comments or suggestions on where specifically in the assessment process restoration scoping may be cost effective and appropriate and how that could best be addressed in the regulations.”96

• Procedures to further encourage negotiated settlements and early restoration—DOI noted that “a number of [NRD] matters have utilized partial negotiated settlements early in the assessment process to cost effectively resolve discrete [NRD] claims and re-inforce an overall restoration focus for ultimate comprehensive resolution. However, the current regulations offer little guidance on how to align early restoration settlements with existing statutory and regulatory requirements for assessment and restoration planning.”97

• Advance restoration and restoration banking—DOI noted that “[r]estoration ‘banking’ and advance restoration—where restoration is undertaken in anticipation of marketing portions of such restoration to responsible parties to address natural resource injury caused by releases of hazardous substances—has been considered at a number of sites since the last revision of the CERCLA [NRD] regulations. Some states (such as Louisiana) have enacted specific statutory provisions and promulgated regulations on

94. Id. at 43,612.
95. Id.
96. Id.
97. Id.
[NRD] banking. The existing CERCLA . . . regulations do not provide any guidance on the use of advance restoration and restoration banking techniques.\textsuperscript{98}

- National Environmental Policy Act (NEPA) compliance—The DOI has been encouraged “to adopt Department-wide categorical exclusions from NEPA as appropriate and to ensure that compliance with NEPA requirements occurs concurrently with . . . restoration planning.” DOI is interested in comments or suggestions on this topic.\textsuperscript{99}

In response to the ANPRM, 54 comments were submitted, including by various state and tribal trustees, several nongovernmental organizations (NGOs), NRD practitioners, and industry stakeholders. Industry comments provided many novel reform ideas, generally aimed at expediting the process and reducing transaction costs. The authors of this book submitted a single set of comments on behalf of the vast majority of American industry, including the U.S. Chamber of Commerce, the American Chemistry Council, the American Petroleum Institute, the National Association of Manufacturers, the Association of American Railroads, and the Western States Petroleum Association. Many state, tribal, and NGO commenters expressed that no revisions need be made to the existing CERCLA NRDA regulations, but several recommended particular reforms and/or endorsed reforms proposed by industry. While revision to the regulations is far from certain at this stage, based on the authors’ review of all comments, we anticipate the most likely reforms to succeed are the following:

- Elimination of redundant NEPA review in restoration planning;
- Overhaul of the existing Type A assessment regulations to apply to a broader set of NRD cases; and
- Formalization of process for pursuing early restoration (i.e., before all injuries are assessed).

At the time of this writing in January 2019, DOI’s efforts have been temporarily stalled by a government shutdown, and DOI has not yet indicated its intended next steps in the regulatory reform process.

\textsuperscript{98} Id. at 43,612–13.
\textsuperscript{99} Id. at 43,613.
F. Oil Pollution Act

1. Overview of the Statute
Since 1990, OPA has provided an avenue for trustees to recover NRD. OPA—which was enacted in response to the *Exxon Valdez* tanker spill in 1989—makes parties who are responsible for oil spills liable for the damage to natural resources resulting from those spills.\(^\text{100}\) A trustee must prove that a defendant is a responsible party under OPA for a vessel or facility from which there was a discharge, or substantial threat of a discharge, of oil into navigable waters or adjoining shorelines or the exclusive economic zone, and that removal costs and damages resulted.\(^\text{101}\) NRD claims are barred where a discharge was authorized by a federal, state, or local permit, and for discharges from public vessels or onshore facilities subject to the Trans-Alaska Pipeline Authorization Act.\(^\text{102}\)

The measure of NRD under OPA includes the cost of restoring, rehabilitating, replacing, or acquiring the equivalent of the damaged resources; the diminution in value of those natural resources pending restoration; and the reasonable cost of assessing those damages.\(^\text{103}\) Responsible parties are also liable for interest calculated from 30 days after presentation of a claim until the date a claim is paid.\(^\text{104}\)

2. OPA Regulatory History
OPA directed the president, acting through the National Oceanic and Atmospheric Administration (NOAA), to promulgate regulations for assessment of NRD.\(^\text{105}\) Like CERCLA, OPA states that assessments made in accordance with the regulations enjoy a rebuttable presumption on behalf of the trustee in an administrative or judicial proceeding.\(^\text{106}\) NOAA promulgated final NRDA rules in 1996 after publishing 11 notices in the *Federal Register* between 1990 and 1995 requesting information and comments on approaches to assessments.\(^\text{107}\)

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102. *Id.* § 2702(c).
103. *Id.* § 2702(d).
104. *Id.* § 2713.
105. *Id.* § 2706(c)(1).
106. *Id.* § 2706(c)(2).
The explicit focus of the NOAA regulations and the methodology they created was restoration. In the preamble to the final rule, NOAA wrote:

The goal of the Oil Pollution Act of 1990 (OPA) is to make the environment and public whole for injuries to natural resources and natural resource services resulting from an incident involving a discharge or substantial threat of a discharge of oil (incident). This goal is achieved through returning injured natural resources and services to baseline and compensating for interim losses of such natural resources and services through the restoration, rehabilitation, replacement or acquisition of equivalent natural resources and/or services. The purpose of this rule is to provide a framework for conducting sound natural resource damage assessments that achieve restoration under OPA.

Under the rule, restoration plans developed with input from the public and responsible parties form the basis of a claim for natural resource damages.

The OPA regulations therefore involved assessment of the injury followed by development of a plan for restoring the injured resources.108

In 1997, the D.C. Circuit upheld all but two provisions of the NOAA regulations.109 The court’s notable holdings related to contingent valuation, residual removal authority, and monitoring costs.

With regard to contingent valuation, the court followed its 1989 decision on the Type B CERCLA regulations and held that NOAA had not acted arbitrarily or capriciously by authorizing trustees to use contingent valuation to measure passive-use losses. The court also rejected petitioners’ procedural arguments and held that NOAA did not ignore comments an expert panel had made on contingent valuation, but “simply gave trustees discretion to use contingent valuation, so long as the technique produces . . . valid and reliable results for the particular incident.”110

With regard to residual removal authority, industry petitioners challenged a provision that authorized trustees to “[r]emove conditions that would prevent or limit the effectiveness of any restoration action (e.g., residual sources of contamination).”111 Petitioners argued that NOAA exceeded its statutory authority because OPA delegated sole responsibility for oil removal to the president, acting through EPA or the U.S. Coast Guard (USCG). The court ultimately did not resolve the dispute but vacated the section and remanded for further agency action because it found that NOAA had failed to exercise

108. Id.
110. Id. at 773.
111. Id. at 774 (quoting 15 C.F.R. § 990.53(b)(3)(i) (1996)).
reasoned decision making. Specifically, the court found that NOAA had failed to explain the difference between the language in its proposed rule versus the final rule, the relationship between the trustees’ removal authority and the primary removal authority of EPA and USCG, and whether the three agencies concurred as to how they would coordinate removal authorities.

With regard to monitoring costs, the court held that costs associated with monitoring restoration projects could be included in the definition of reasonable assessment costs, for which trustees could recover. The court vacated, however, a provision allowing recovery of attorneys’ fees, a point that NOAA conceded without challenge. Still, because the parties disagreed about the extent to which trustees could recover for certain other legal work, the court left it to NOAA to draw a “precise line between recoverable and nonrecoverable” legal costs. In 2002, NOAA revised its rule to respond to the court’s concerns. With regard to legal costs, the agency set forth various criteria for determining whether trustees’ legal costs were “reasonable assessment costs.” The rule provided examples of attorney action performed for the purpose of assessment or development of a restoration plan.

112. Id. at 776.