Re-examining Natural Resource Damages Under CERCLA: Failures, Lessons Learned, and Alternatives

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I. INTRODUCTION

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) was passed in the aftermath of the Love Canal tragedy.\(^1\) CERCLA’s Superfund enables emergency responders to clean up now and collect from responsible parties later.\(^2\) CERCLA is renowned for imposing joint, strict, and several liability upon potentially responsible parties (PRPs) who are accountable for addressing environmental contamination due to the release or disposal of hazardous substances.\(^3\) This liability without fault, coupled with the multi-million dollar costs of cleanup typically involved for major contamination sites,\(^4\) quickly captured the attention of the regulated community.\(^5\)

In addition to cleanup liability, Congress also included important damages provisions in CERCLA to restore natural resources that had been injured or destroyed due to a release of hazardous substances. Although less frequently litigated, these natural resource damages (NRD) provisions created great anxiety due to the inherently speculative nature of valuing lost resources and the benefits derived from those resources, coupled with the vast magnitude of potential liability (as demonstrated by the $900 million NRD settlement of the Exxon Valdez case).\(^6\) Some

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\(^{3}\) The Senate dropped explicit reference to “strict, joint, and several” liability in a last minute substitute bill that instead alluded to “the same standard of liability which obtains under section 1321 of Title 33.” For an excellent discussion of the legislative history of CERCLA, see James R. MacAyeal, \textit{The Comprehensive Environmental Response, Compensation, and Liability Act: The Correct Paradigm of Strict Liability and the Problem of Individual Causation}, 18 UCLA J. ENVT'L. & POL’Y 217, 253-279 (2000/2001). Although CERCLA does not expressly characterize the damages as “joint” “strict” or “several,” the courts have consistently done so. See, e.g., United States v. Atl. Research Corp. 551 U.S. ___, 127 S.Ct. 2331, 2337 (2007) (“even parties not responsible for contamination may fall within the broad definition of PRPs.”), citing with approval United States v. Alcan Aluminum Corp., 315 F.3d 179, 184 (3rd Cir. 2003) (“CERCLA § 9607 is a strict liability statute.”). See also Dedham Water Co. v. Cumberland Farms Dairy, Inc., 805 F.2d 1074, 1080 (1st Cir. 1986), New York v. Shore Realty Corp., 759 F.2d 1032, 1043-45 (2nd Cir. 1985); United States v. Monsanto, Co., 858 F.2d 160, 168-170 (4th Cir. 1988); Centerior Serv. Co. v. Acme Scrap Iron & Metal Co., 153 F.3d 344 (6th Cir. 1998); Metro. Water Reclamation Dist. of Greater Chi. v. N. Am. Galvanizing & Coatings, Inc., 473 F.3d 824, 827 (7th Cir. 2007) (“liability under § 107(a) is strict, joint and several—except rare cases where harm is divisible”); Dep’t of Toxic Substances v. Burlington Northern, 479 F.3d 1113, 1124, 1136 (9th Cir. 2007) (“CERCLA is a ‘super-strict’ liability statute. . . . Joint and several liability, even for PRPs with a minor connection to the contaminated facility, is the norm, designed to assure, as far as possible, that some entity with connection to the contamination picks up the tab). \(\text{Id}\).

\(^{4}\) While costs vary considerably based on the scope of contamination and characteristics of the sites, EPA spends, on average, $220 million from the Superfund annually on removal actions (typically responses lasting less than 1 year and costing less than $2 million) and considerably more on remedial actions. \textit{United States General Accounting Office, Superfund Program: Current Status and Future Fiscal Challenges} 6, GAO-03-850, July, 2003 [hereinafter GAO-03-850].

\(^{5}\) See e.g., Irvin Molotsky, \textit{Senate Panel Nears Approval of Waste Cleanup Bill}, N.Y. TIMES 54, Sept. 14, 1980 (chemical manufacturer testimony alleging bill is “seriously defective in its overly broad scope, its punitive approach to liability and in its excessive funding levels.”).

\(^{6}\) See Alaska Sport Fishing Ass’n v. Exxon Corp., 34 F.3d 769, 771 (9th Cir.1994) (per curium) (“Exxon agreed to pay the governments at least $900 million (and possibly an additional $100 million”).
observers feared that NRDs had the potential to make CERCLA cleanup costs dim in comparison.\(^7\) One commentator called NRDs the next “Black Hole” of environmental liability.\(^8\) They have long been called the “Sleeping Giant,” because the potential for NRD recoveries remains largely untapped.\(^9\)

The virtually boundless magnitude of CERCLA NRDs caught this author’s attention when the State of New Mexico filed a two-billion dollar NRD claim against the Air Force in 1999.\(^10\) The two billion dollar figure seemed to come from thin air. Then, it grew to four billion dollars before it materialized as 1.28 billion dollars when the case went to court in 2004.\(^11\) New Mexico left that battle empty-handed, and lost again on appeal in 2006, in significant part due to its inability to properly quantify damages.\(^12\) Others can learn important lessons from New Mexico’s failures in this case, so they are not condemned to repeat them.

In the summer of 2007, New Jersey’s Attorney General “filed approximately 120 lawsuits that could result in hundreds of millions of dollars in compensation from polluters who have harmed New Jersey’s natural resources.”\(^13\) This wave of litigation reflects a continuation of New Jersey’s aggressive NRD approach to investigate and pursue over 4000 cases.\(^14\) Some have asserted that these cases are “waking the sleeping giant;”\(^15\) yet, the ultimate

\(^7\) John J. Fried, After Cleanup, The Environment’s Bill Comes Due, PHILA. INQUIRER, at E01.

\(^8\) Susanne Scalfane, NRD claims muddy insurance waters, NAT'L UNDERWRITER PROP. & CASUALTY-RISK & BEN. MGMT. 24, 2005 WLNR 6452083 (Apr. 11, 2005).

\(^9\) See Terry Fox, Comment: Natural[sic] Resource Damages: The New Frontier of Environmental Litigation, 34 S. TEX. L. REV. 521, 537 n.112, citing More Liabilities Coming Your Way: Tidal Waves and Natural Resources, ENERGY ECONOMIST, July 1992, at 2 (calling natural resource damages “the sleeping giant or the next frontier of the CERCLA-Superfund” program) and CMA Criticizes RCRA Corrective Action, Superfund Liability, PESTICIDE & TOXIC CHEMICAL NEWS, Mar. 25, 1992, at 2 (referring to natural resource damages as the “‘sleeping giant’ of Superfund”); see also John J. Fried, After Cleanup, The Environment’s Bill Comes Due, PHILA. INQUIRER, at E01; Superfund: Growth of Natural Resource Damages Makes Reform Essential, 17 HAZ WASTE NEWS Issue 20 (May 15, 1995) (trend after Exxon Valdez for trustees to sue for greater NRD under Superfund “threatens to wake the sleeping giant…”); Smith Tries to Avert Explosion of Natural Resource Damages, 17 HAZ WASTE NEWS Issue 28 (July 10, 1995) (when Department of Interior NRD rules are promulgated may be when “sleeping giant wakes up.”). Yet, many NRD claims were historically resolved as part of a comprehensive settlement between PRPs and the EPA and almost half “make no separate payment for natural resource damages either because the negotiated cleanup will correct the injury to the natural resource or because no such injuries were found.” UNITED STATES GENERAL ACCOUNTING OFFICE, SUPERFUND: OUTLOOK FOR AND EXPERIENCE WITH NATURAL RESOURCE DAMAGE SETTLEMENTS 4-5, RCED-96-71, (1996) [hereinafter GAO/RCED-96-71] available at www.gao.gov (enter RCED number in search field).

\(^10\) The Author was the principal environmental attorney at Kirtland Air Force Base responsible for the local team evaluating (and ultimately recommending denial of) the claim. Although the matter arose in the context of the Author’s official duties at the time, the views expressed in this article are those of the author alone and do not necessarily reflect the views of the United States Air Force nor the Department of Defense.


\(^12\) New Mexico v. Gen. Elec. Co., 467 F.3d 1223, 1242 (10th Cir. 2006).


outcome of the most recent cases is anything but certain, as the courts in New Jersey continue to struggle with NRD claims by the State based upon CERCLA and the New Jersey Spill Act.16

This ongoing litigation is starting to flesh out the boundaries of what is proper in terms of assessing and collecting natural resource damages under state law and how these limits interface with the parallel authorities under CERCLA.17 Although the past couple of years have seen a resurgence of interest in pursuing NRDs,18 numerous challenges to litigating these claims continue to keep most trustees out of the courtroom. Experts predict that many state trustees are awaiting the outcome of the New Jersey cases before adopting similar measures.19

At the same time, behind the scenes, trustees have been attaining their greatest successes through settlement and cooperative arrangements with PRPs that foster restoration.20 Corrective changes to the NRD laws are still necessary to foster a more effective route for litigation. A Federal Advisory Committee Report (FAC Report) issued in May 2007 lays the groundwork for regulatory changes to make restoration of natural resources “faster, more efficient, and more effective.”21 The FAC Report recommendations portend a new era in NRD assessment.22 These recommendations should be matched by Congressional resolve to appropriate sufficient resources to trustees, in order to allow trustees to fund assessment and restoration efforts where PRPs are not cooperative.

Although cooperative assessment is indeed the wave of the future, the promise of continued beneficial partnering between the government trustees and industry will only survive if a credible threat of litigation remains. Thus, enhancing laws to better posture the government to

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16 N.J. STAT. ANN. § 58:10-23.11.
17 Investigating other state NRD recovery methods is an important area for continued research. Indeed, to the extent Federal laws are inadequate the only recourse short of Congressional legislative change remains with the states.
20 These measures seem to be successful in spite of the archaic adversarial NRDA scheme. See infra Sections IV.B. and IV.C.
22 Id. See infra notes 70-83 and accompanying text.
litigate and win helps ensure that PRPs are motivated to settle.\textsuperscript{23} Therefore, all pieces of this complex puzzle must be analyzed in concert.

This article examines lessons learned from NRD litigation to explain why a tool with so much potential to benefit the environment has remained underutilized. It also explores the bigger picture, examining and advocating promising alternatives to litigation in appropriate cases. Finally, it advocates corrective regulatory and statutory action to enable the NRD scheme to meet its full potential.

Following this Introduction, Part II of this article establishes CERCLA fundamentals concerning natural resource damages. A major flaw with the NRD program is that trustees may not routinely access the Superfund for Natural Resource Damage Assessments.\textsuperscript{24} Additional challenges in evaluating and assessing NRDs are also discussed in Part II. This part explains the evolution of regulations governing assessment of NRDs, as well as recent proposals from a federal advisory panel to improve our national approach to natural resource damage assessment.

Part III looks in detail at problems inherent in the New Mexico NRD approach. Specifically, six pitfalls which must be avoided by trustees are identified and discussed. It is crucial to understand the failures in NRD application if they are to be avoided or correctly addressed.

Part IV of this article studies alternatives with more promise. It evaluates the relative merits of the New Jersey approach discussing both advantages and vulnerabilities. It also examines how other states are pursuing NRDs and considers empirical data that tends to highlight impediments to NRD recovery. The “valuation” question is the lynchpin to NRD awards, so the difficult tensions between precision and expediency are examined in detail.

Part V examines the trend toward cooperation versus litigation. It identifies the many advantages of a cooperative approach for PRPs and trustees alike. It also explores the trade-offs a PRP must make when embracing such an approach. Finally, Part VI explores regulatory and legislative changes to strengthen CERCLA NRD recoverability.

II. BACKGROUND

A. Natural Resource Damages Under CERCLA

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.”\textsuperscript{25} The term "damages" means 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.”\textsuperscript{26}

Natural resource damages are above and beyond the cost of cleanup under CERCLA.\textsuperscript{27} The legislation explicitly allows recovery of NRDs in addition to the costs of emergency removal

\textsuperscript{23} Indeed, the uncertainty in valuation and the prospect of unlimited damages is a factor driving settlements now—if the courts impose awards on a lesser scale in the cases now pending, the desire to cooperate may in many circumstances evaporate.
\textsuperscript{24} 42 U.S.C. § 9611(b)(2) (restrictions on natural resource damages payable by the Superfund).
\textsuperscript{25} 42 U.S.C. § 9601(16) (West 2006).
\textsuperscript{26} 42 U.S.C. §§ 9601(6), 9607(a)(4)(C).
\textsuperscript{27} See 43 C.F.R. § 11.10 (2007).
actions or remediation. The costs of assessing the lingering damages to natural resources are also expressly recoverable as NRDs.

In 1986, CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA). SARA required the President to designate in the National Contingency Plan federal officials “who shall act on behalf of the public as trustees for natural resources” under CERCLA and the Clean Water Act. SARA simultaneously tasked the Governors of each State to designate State Natural Resource Trustees.

B. The Trustee's Role and Responsibilities

Trustees are charged to act on behalf of the public to recover for damages to natural resources and to use such funds “to restore, rehabilitate, or acquire the equivalent of such natural resources . . . .” SARA created a rebuttable presumption in favor of the trustees, whenever they make a damage determination in accordance with duly promulgated regulations. The presumption applies in both administrative and judicial proceedings. However, the trustees are not required to follow the regulations when performing Natural Resource Damage Assessments (NRDAs).

A rebuttable presumption should provide an advantage in litigation to the trustee, since the trustee must merely follow the NRDA rules, and the burden would then shift to the defendant to establish that the assessment of damages was inaccurate. Given the complexity of valuing natural resources, such an advantage would appear to be very powerful. As explained later, the regulations have not lived up to their potential, so the benefit of the rebuttable presumption has not been fully realized.

C. Challenges in Valuing and Assessing NRDs

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32 Id. at § 9607(f)(2)(B).
33 Id. at § 9607(f)(1).
34 42 U.S.C. § 9607(f)(2)(C). Although such regulations were commanded in 1980 to be developed within two years, as of the passage of SARA in 1986 they had not yet been promulgated. See id. at § 9651(c)(1) (extending the period an additional six months).
35 See id. at § 9651(c).
36 See CERCLA § 107(f) (discussing obligation of trustee to recover NRDs; no mention of NRDA) and CERCLA § 301(c)(2) (directing Federal officials to study and promulgate regulations for assessing damages). See also 43 C.F.R. § 11.10, New Mexico v. Gen. Elec. Co., 467 F.3d 1223, 1242 (10th Cir. 2006) (no mandate to use federal regulations for assessment);
38 But see id., at 772 (“not at all clear that the rebuttable presumption gives the trustees a ‘powerful advantage’.”).
39 Id. (leaving meaning and practical application of rebuttable presumption unresolved). The presumption has not been tested successfully in litigation. ISRAEL NRD PRACTICE GUIDE, supra note 19 at 32B-58. Of course, it is impossible to determine how many PRPs may have been motivated to settle cases based on an unwillingness to litigate in the face of the presumption.
40 While this article emphasizes other problems, a synopsis of the key valuation shortcomings is necessary to understand their intrinsic contribution to difficulties within the NRD scheme. For in-depth discussion concerning
1. Evolution of the Assessment Regulations

In 1986, Congress gave the President “six more months”\(^{41}\) to develop NRDA regulations to specify:

(A) **standard** procedures for **simplified assessments** requiring minimal field observation, including establishing measures of damages based on units of discharge or release or units of affected area, and

(B) **alternative** protocols for conducting **assessments in individual cases** to determine the type and extent of short- and long-term injury, destruction, or loss. Such regulations shall identify the best available procedures to determine such damages, including both direct and indirect injury, destruction, or loss and shall take into consideration factors including, but not limited to, replacement value, use value, and ability of the ecosystem or resource to recover.\(^{42}\)

Based upon the statute, regulation of simplified assessments, authorized in paragraph (A) above, have come to be known as “Type A” regulations, whereas detailed assessments authorized in paragraph (B) are governed by “Type B” regulations.\(^{43}\)

Under the National Contingency Plan, the Department of the Interior (DOI) was charged to develop the Type A and Type B NRD regulations.\(^{44}\) DOI recognizes “damage assessments provide the basis for determining the restoration needs that address the public's loss and use of these resources.”\(^{45}\) Nevertheless, regulations were difficult to craft because of the complexity of placing dollar values on resources for which markets often do not exist, lack of experience in

\(^{41}\) 42 U.S.C. § 9651(c)(1) stated:

The President . . . shall study and, not later than two years after December 11, 1980, 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 . . . . Notwithstanding the failure of the President to promulgate the regulations required under this subsection on the required date, the President shall promulgate such regulations not later than 6 months after October 17, 1986 [the date SARA passed].

\(^{42}\) 42 U.S.C. § 9651(c)(1), (2) (emphasis added).


conducting such valuations, and little precedent to guide trustee actions. Once finally promulgated, the regulations were attacked both by environmental groups as well as industry, and these early cases sent DOI back to the drawing board.

Ohio v. Department of the Interior considered the validity of the Type B regulations. The Court remanded these rules to DOI, indicating that allowing valuation based on the lesser of restoration, replacement or diminution in use values [the “lesser of” rule] was contrary to Congressional intent to establish a “preference for restoration cost” as the best measure of NRDs. The court indicated that alternatives to restoration cost would be acceptable where restoration costs were impossible to calculate or “grossly disproportionate” to the value of the use of the resource (use value).

In calculating value for loss of use (also known as loss of services), the court agreed with DOI’s approach to value a damaged resource only if the resource was committed to be used (either through current use or planned public use “for which there is a documented, legal, administrative, budgetary, or financial commitment”) before the hazardous release is detected. This “committed use” requirement provides a bright line rule for the trustees and the courts in ascertaining the scope of lost services. The Court noted, “[S]uch a method avoids unreliable, self-serving or speculative future uses.”

Finally, the D.C. Circuit considered whether contingent valuation (CV) was an appropriate method when market-based valuation was either not available or was not reflective of the true value of injured resources. CV employs surveys of public opinion about the value of a lost resource, particularly lost nonuse of a resource. The value of nonuse, simply knowing a resource exists, is sometimes called existence value, option value (the option to use it) or bequest value (saving it for posterity). In order to capture all aspects of harm, the court upheld the CV method to measure nonuse.

In Colorado v. Department of the Interior, decided by the court the same day, the D.C. Circuit evaluated the Type A regulations. Ironically, the “simplified” Type A regulations were promulgated after and mirrored the complex, four-step, Type B regulations. In addition to the shortcomings in valuation methodology (discussed in Ohio v. DOI and resulting in remand), the

46 Breeding & Cress, supra note 43, at 28, 36-37. See also GAO/RCED-96-71, supra note 9, at 9-10, 26-27 (illustrating application of Type A and Type B procedures).
47 Breeding & Cress, supra note 43, at 37-44, citing Ohio v. Dep’t of the Interior, 880 F.2d 432, at 459 (challenging Type B regulations), and Colorado v. Dep’t of the Interior, 880 F.2d 481 (challenging Type A regulations).
48 Ohio v. Dep’t of the Interior, 880 F.2d 432 (D.C. Cir. 1989).
49 Id. at 459.
50 Id.
52 Ohio v. DOI, 880 F.2d at 462 (“the ‘committed use’ standard is an eminently reasonable construction of the statute, because it avoids the need for unreliable and likely self serving speculation regarding possible future uses.”).
53 Id. at 476.
54 Miriam Montesinos, It May Be Silly, But It’s an Answer: The Need to Accept Contingent Valuation Methodology in Natural Resource Damage Assessments, 26 ECOLOGY L.Q. 48 (1999) (“Federal courts, DOI and experts have agreed that nonuse values must be included and have provided for nonuse values to be part of NRD assessments.”). However, state laws may expressly prohibit non-use. Id. at 50.
55 Id.
57 The D.C. Circuit is the exclusive venue for review of CERCLA regulations. 42 U.S.C. § 9613(a).
regulations were challenged as not conforming to Congress’s intent for “standard procedures for simplified assessments of natural resource damages.” Specifically, the regulations would afford procedures for Type A assessment in coastal and marine environments only. Further, the damages were to be calculated using computer modeling. Despite these limitations, these aspects of the Type A regulations were upheld.

After the Exxon Valdez oil spill, Congress enacted the Oil Pollution Act of 1990 and directed the National Oceanographic and Atmospheric Administration (NOAA) to promulgate regulations to assess natural resource damages due to oil spills in coastal and marine environments. Although not directly applicable to CERCLA NRDAs, the NOAA methodology of habitat equivalency analysis is worth considering here, because it is restoration-focused (as Congress intended), because it has lead to successful resolution of NRD cases, because the approach has withstood judicial scrutiny, and, because it contains features that the federal advisory committee is recommending to DOI for further study and implementation. In addition, because trustees are not required to follow the DOI regulations, the NOAA approach presents a reasoned alternative for trustees to use in evaluating CERCLA damages.

Habitat equivalency analysis (HEA) is a methodology used to determine compensation for such resource injuries. The principal concept underlying the method is that the public can be compensated for past losses of habitat resources through habitat replacement projects providing additional resources of the same type. Natural resource trustees have employed HEA for groundings, spills and hazardous waste sites.

NOAA uses HEA analysis to calculate both primary restoration (the cost to restore any injured resources to their baseline condition) and compensatory restoration (the cost to compensate for interim lost use of services that would have been provided by the injured resources). Where a responsible party agrees with the analysis, they may conduct the

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59 Colorado v. DOI, 880 F.2d at 491; 42 U.S.C. § 9651(c)(2).
61 Colorado v. DOI, 880 F.2d at 491.
62 Pub. L. No. 101-380, OPA § 1006, (codified at 33 U.S.C. § 2706(e)(1)). “For natural resource damages resulting from a discharge or release of a mixture of oil and hazardous substances, trustees must use 43 CFR part 11 in order to obtain a rebuttable presumption.” 1 5 C.F.R. § 990.20.
63 See Ohio v. DOI, 880 F.2d at 462.
64 See NOAA Assessment and Restoration Division, Coastal Stewardship, http://wwwrespuesta.rr.noaa.gov/orr/about_owner.php?RECORD_KEY%28owner_chosen%29=owner_id&owner_id(owner_chosen)=7 (last visited Aug. 11, 2007) (over 95% settlement rate).
66 2007 FAC REPORT, supra note 21, at 19.
69 Id. at 2.
restoration activities themselves, subject to monitoring by the trustees to ensure the project meets performance requirements. In such a scenario, the need never arises to place a dollar figure on natural resource damages.

Even when the responsible party refuses to conduct the restoration, the calculation of damages using HEA is less cumbersome, mainly because it focuses on restoration-based assessments, thereby bypassing the valuation of injured resources themselves and focusing instead on the costs to actually restore or replace the resources. Notably, the HEA approach avoids the controversial CV methodology, jumpstarts the restoration (since restoration planning is a necessary component of the evaluation methodology) and tends to be more palatable to industry.

At the same time NOAA was promulgating and defending its regulations under the Oil Pollution Act, DOI was revamping its assessment rules in the wake of the Ohio ruling. DOI dropped the “lesser of” rule and its earlier hierarchy of assessment rules, while retaining the “committed use” requirement for loss of use damages. In 1996, DOI also added a Great Lakes model for the Type A Regulations. These revisions withstood judicial scrutiny in the mid-to late-1990s.

At present, the Type A rules provide for trustees to enter specific factual data into either the Natural Resource Damage Assessment Model for Coastal and Marine Environments (NRDAM/CME) or the Great Lakes Environment (NRDAM/GLE). To use either model, trustees must know the identity of the released substance, time and duration of release, mass or volume released, location of spill, tidal and wind conditions, extent of response actions including any beach closures or closures of fishing or hunting areas, and a price deflator for the Gross National Product (base year 1992).

The limited utility should be apparent, because the Type A models are suitable only for single spills of single substances when the parameters of the spill are known or easily ascertainable. If multiple substances are released, the models are to be run only once for one substance—if the damages exceed $100,000, the trustee is to limit the calculation to that amount or else use the more cumbersome Type B rules. Thus, the Type A models are of no utility for superfund sites with commingled wastes released at different times from different responsible parties.

While the Type A regulations dictate a single precise methodology for their limited scope of releases—calling for trustees only to input designated variables into a black box model—at the opposite end of the spectrum, the Type B regulations fail to dictate any particular

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70 Id. at 14, n15.
71 ISRAEL, NRD PRACTICE GUIDE, supra note 19, at 32B-33. Some have argued that restrictions on contingent valuation under NOAA’s scheme “fail to hold polluters fully accountable.” John H. Cushman Jr., U.S. Would Temper Oil-Spill Damage Calculation, N.Y. Times, sect. 1 (Jan. 8, 1994).
72 See Thompson, supra note 40, at 78 (courts have not ruled on validity of CV studies, because parties have settled).
73 See e.g. Joseph P. Nicolet, et al., Quantifying Ecological Changes Helps Determine Best Mitigation, Pipeline & Gas Industry 52, vol. 84, issue 9 (September 1, 2001) (HEA method avoids overcompensating for environmental impact).
75 Id.
76 Nat’l Ass’n of Mfrs. v. Dep’t of Interior, 134 F.3d 1095 (D.C. Cir. 1998). See also Kennecott Utah Copper Corp. v. United States, 88 F.3d 1191 (D.C. Cir. 1996) (upholding Type B regulations).
77 43 C.F.R. Pt. 11, App. II-III.
78 43 C.F.R. § 11.42.
methodology for the remaining universe of releases, instead demanding case-specific approaches. The realm of acceptable methods to calculate damages includes several different estimating measures to compute restoration (or replacement or equivalent) costs. Then trustees add to this amount another estimate to calculate use and non-use values of lost public services while awaiting restoration. For this second component, the trustee may drawing from a litany of acceptable methods, including: market price, appraisal, factor income, travel cost, hedonic pricing, unit value, contingent valuation and, as a catch-all, “other” valuation methodologies, so long as cost-effective and in accordance with the public’s “willingness to pay.”

Thus, whereas the trustee has no autonomy in Type A assessments, the same trustee enjoys virtually unbridled flexibility in conducting Type B assessments. Inasmuch as the D.C. Circuit has upheld the regulations, the only constraints on trustees wishing to enjoy the rebuttable presumption would appear to be conformance to the processes mandated in the statute and the regulations themselves. Of course, measures must comply with as the regulatory restrictions imposed by 43 C.F.R. § 11.83 for all damage determinations: that they are feasible and reliable for a particular incident and type of damage to be measured; that they can be performed at reasonable cost; that they avoid or eliminate double counting; and, that they are cost-effective.

Because these regulatory restrictions are so nebulous, however, the trustee may nevertheless remain susceptible to challenges that the methodology selected is not cost-effective, feasible, reliable, or suitable for the particular incident or type of damages to be measured. This opens the door to a battle of experts in both the scientific and economic domains, arguably eviscerating the value of the presumption.

The present scheme is deficient in a number of respects. Obviously, the limitation on approved regulations (coastal and marine only) prevents benefit of the use of the simplified approach for other habitats. Thus, for any release other than to a coastal or marine environment, there is no Type A methodology for trustees to fall back on. As a result, trustees will have an uphill battle in establishing both entitlement and quantum of natural resource damages. On an even more basic level, however, the regulatory scheme is fundamentally flawed, because the “simplified” rules are not simple. In fact, according to a study of state natural resource trustees, even though most cases were brought under federal authority, state trustees had devised their own simplified assessment methods rather than using the Type A regulations.

2. 2007 Federal Advisory Committee Recommendations

CERCLA requires that the NRD regulations be reviewed and revised as appropriate every two years. Throughout the past twenty years, the collective experience of those invested in the

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79 43 C.F.R. § 11.83.
80 Id. § 11.83(b).
81 Id. § 11.83(c).
82 Id.
83 Kennecott Utah Copper Corp. v. United States, 88 F.3d 1191 (D.C. Cir. 1996).
84 43 C.F.R. § 11.83(a)(3).
86 CERCLA § 301(c)(3).
NRDA business has confirmed problems with the rules, particularly valuation methodologies and measuring damages in dollars instead of focusing on restoration of both lost resources and lost service equivalents to those resources. It is clearly time to revise these regulations.

To address perceived inadequacies, a Federal Advisory Committee spent two years collectively reviewing DOI regulations, policies, and practices regarding Natural Resource Damage Assessment and Restoration (NRDAR) activities. The fruits of this labor were released in a May 2007 report containing a series of recommendations. The committee ultimately recommended incremental correction ranging from immediate actions (Tier 1 actions) through long-term improvements including revisions of the CERCLA NRDAR Regulations (Tier 3 actions). These tiered recommendations are addressed in turn below.

1. Tier 1 (Immediate) Actions

The committee recommends DOI conduct meetings, technical workshops, symposiums, and sponsor research efforts to develop guidance on injury determination and quantification. In addition, DOI is encouraged to promote cooperative assessments through initiatives such as model agreements with PRP groups and creating inventories of pre-existing plans for restoration actions. (The advantages of cooperative NRD assessments are addressed in Section IV.C.).

2. Tier 2 (Almost Immediate) Actions

Tier 2 actions are theoretically possible now, but are not as immediate as Tier 1 actions, due to expectations that they will take longer to implement. The Tier 2 recommendations seem, in many respects, to reflect the already existing NOAA NRDA regulation processes. For example, they call for integrating National Environmental Policy Act compliance into the assessment process and developing categorical exclusions that DOI could implement simultaneously with restoration planning. Most importantly, they would clarify the acceptability of restoration to address compensation for lost services, in addition to basic restoration of the injured resources. To accomplish this result, they suggest a minor regulatory change to expressly allow this methodology.

Such a regulatory change could be quickly pursued, because it would be unlikely to be judicially challenged, as NOAA regulations to the same effect have already passed muster. The committee believed these changes, like the OPA rules, comport more with an overall

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87 2007 FAC REPORT, supra note 21 at 8 (“more than twenty years of practice has shown— with few exceptions—that restoration of injured resources can be achieved more quickly, more efficiently, and more effectively by focusing on restoration in lieu of monetary damages, and on cooperative approaches to assessing and addressing injury”).
88 Id. at 1.
89 Id. at 18.
90 Id.
91 Id.
93 Id. Compare with 15 C.F.R. § 990.23.
94 Id. at 19. Compare with “compensatory restoration” in addition to “primary restoration” in 15 C.F.R. § 990.53(b)(c).
95 NATURAL RESOURCE DAMAGE ASSESSMENT AND RESTORATION FEDERAL ADVISORY COMMITTEE, FINAL REPORT, May 1, 2007, supra note 21, at 19.
objective of restoration, would foster an earlier focus on restoration, and would provide “flexibility to use simpler, more cost effective, and more transparent methods to relate natural resource damage claims to restoration, rather than monetary damages.”

Note that the present Type A and Type B regulations require damages to be converted from injury to dollars (valuation of damages) and back from dollars to restoration efforts to redress the injury. One way to deal with valuation problems is to avoid them. The NOAA approach under OPA, and the recommended change to the DOI process, avoids the “valuation” difficulties altogether when responsible parties are cooperatively involved and conduct the restoration activities. Even when costs of replacement resources must be calculated, the most serious imperfections of the present scheme are avoided.

3. Tier 3 (Longer-term) Actions

The committee recognized that it may be necessary to rewrite some of the regulations and that corrective actions may not be achieved overnight. “Quantifying natural resource injury in a manner that supports reliable restoration can be a highly complex, technical issue . . . . [W]orkshops recommended by the Committee can help resolve some of these issues by focusing on reliable injury assessment and quantification that is clearly and transparently tied to appropriate restoration objectives.” The principle concerns were attempting to attain consensus-based approaches to scientific uncertainty, clarifying threshold factors and balancing factors to consider in evaluating proposed restoration actions, and an introduction of appropriate scaling concerns to address impact on the population, habitat, or ecosystem level.

Where valuation questions cannot be avoided, a transparent system based upon credible scientific approaches could nevertheless defuse litigation; it appears the committee values these objectives while appreciating that they may not materialize without time and effort of all stakeholders in the NRDA process. The committee touts President Bush’s call for Cooperative Conservation in this regard and its “great potential to leverage success and result in more effective, efficient, and sustainable natural resource restoration and protection.”

Although habitat equivalency analysis “is certainly the most common single assessment method in the current era of NRD activity, methods that place a dollar value on damages are still successfully in use.” Since state trustees “employ a wide range of assessment methods, seemingly matching the sophistication and expense of the method to the magnitude of damages.” federal cooperation with these knowledgeable stakeholders may promote systemic changes to add appropriate tools for assessing NRDs. Section IV.B. examines current state programs.

D. Litigation Issues Confronting Trustees

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97 FAC REPORT, supra note 21, at 16.
98 Id. at 12-13.
99 Id. at 8, 11, 13.
100 Id. at 10.
101 Ando, et. al., NRDA Methods and Cases, supra note 85, at 15.
102 Id.
103 For example, NOAA teamed with the state of Florida to streamline damage assessments to restore seagrass habitat injured as a result of boat groundings in the Florida Keys. See Kevin D. Kirch, et al., The Mini-312 Program—An Expedited Damage Assessment and Restoration Process for Seagrasses in the Florida Keys National Marine Sanctuary, 40 J. COASTAL RES. 109 (2005).
There are several distinct tensions underlying natural resource injury issues. The first, precision versus simplicity, is encompassed within the valuation choice itself. It was addressed above in terms of the trustees’ choice to follow an approved NRDA regulation in calculating damages, or to choose simpler, but less “litigation-worthy” assessment strategies. Because simplified assessment strategies are more promising options for promoting settlement than posturing for litigation, these possibilities are explained more fully in Alternative Strategies, below.\(^{104}\)

One notable exception is the restoration method of assessment which values the cost of performing restoration in kind, both to restore injuries to baseline, and as a surrogate for monetizing lost service costs. These methodologies, as embraced by the NOAA regulations and under consideration for DOI regulation revisions, actually simplify the NRD process while also requiring a precise methodology.

The tension is eased, because charges for “in-kind” activities are more clearly linked to market-based restoration costs as a compensation base versus monetary damages for each resource injury. The estimations are derived from habitat equivalency analysis which is grounded on real world corrective measures. Only the restoration equivalence for lost resources, including lost service values, needs to be translated into equivalent corrective action costs. Assessing the substitute restoration costs avoids the double conversion problem—first forcing an initial dollar-value determination of injuries and then later translating the costs recovered for these injuries into a concrete restoration plan.

Therefore, there are two simplification gains—one in the substance of the calculation; the second in the procedure to complete the actual restoration activity, because the assessment itself already selects the solution. The trustee need not monetize restoration costs at all—only impose restoration obligations and ensure they are executed. If forced to put a dollar figure on the assessment, trustees do not monetize the costs until they have already defined all of the corrective actions—therefore the planning is done and all that remains is the execution of the restoration plan. This benefits the environment by fostering more rapid restoration. It enhances opportunities for settlement by avoiding the obstacle of putting a dollar-value on damages. Finally, it affords the trustees a more defensible litigation position, as Congress and the Courts prefer restoration to damages.\(^{105}\)

In addition to valuation, trustees are confronted with two more critical choices: deciding to pursue the claim sooner or later; and deciding how to pursue the claim—using state law,\(^{106}\) CERCLA, or some combination of both federal and state causes of action.

“Nothing in [CERCLA] 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.”\(^{107}\) Furthermore, nothing in CERCLA preempts any state “from imposing any additional liability or requirements with respect to the release of hazardous substances within such state.”\(^{108}\)

\(^{104}\) See infra, Section IV.B
\(^{105}\) See e.g., Ohio v. Dept of Interior, 880 F.2d 432 (D.C. Cir. 1989); New Mexico v. Gen. Elec. Co, 467 F.3d at 1249-52.
\(^{107}\) 42 U.S.C. § 9652(d).
\(^{108}\) 42 U.S.C. § 9614(d).
Where state resources are affected, the state trustee may avoid federal jurisdiction by exclusive reliance on state law.\(^{109}\) As master of the claim, the trustee must ensure the pleadings are artfully drafted so as not to raise a CERCLA issue on their face.\(^{110}\) The question on jurisdiction is slightly different from the question concerning conflict preemption (which itself may be decided within the state courts).\(^{111}\) Recently, federal judges considering this precise issue, in the context of state law actions for natural resource damages, have allowed properly pleaded complaints to go forward in the state courts, even where the issue of compatibility of the state remedy with CERCLA was being litigated.\(^{112}\)

Although the main thrust of the CERCLA NRD scheme entails trustees assessing and imposing NRDs, a number of ancillary concerns may also be important to the litigation posture of the case, the magnitude of recoverable NRDs, or both. Thus, they have become the focus of some concern to both trustees and the PRPs.

One litigation concern is the limitation on liability “for each release” found in CERCLA Section 107(c).\(^{113}\) This section caps liability for most polluters to “the total of all costs of response plus $50,000,000 for any damages under this subchapter.”\(^{114}\) This language appears to limit the exposure for natural resource damages for ordinary polluters to a maximum of fifty million dollars. However, case law indicates that this cap is largely illusory.\(^{115}\) The courts have construed the wording “for each release” broadly to avoid the $50,000,000 liability limit in situations involving multiple or continuing releases.\(^{116}\)

The timing of the pollution giving rise to NRD liability raises additional points of contention. The statute provides no recovery “where such damages and the release of a hazardous substance from which such damages resulted have occurred wholly before December 11, 1980.”\(^{117}\) Like the example above, a close reading of the language (here, the words “damages” and “wholly before”) has kept the door open for trustees to treat continuing releases as outside the scope of the limitation.\(^{118}\) For example, due to leaching or other methods of delayed exposure to natural resources, either the pollution is continuing until the resources are damaged or the damages are continuing after the statutory trigger.\(^{119}\)

The three-year statute of limitations for NRD recovery has been similarly construed to the disadvantage of polluters.\(^{120}\) The clock starts ticking on the later of: “(A) The date of the
discovery of the loss and its connection with the release in question. [or] (B) The date on which final regulations are promulgated under section 9651(c) of this title.  

The courts have allowed a continuing release to extend to the discovery of new damages to the environment not earlier detected. In that event, the later discovery starts the clock ticking. Also, it is routine practice when contamination is first discovered and the parties are in the remedial investigation stage to enter into a tolling agreement concerning the NRDs. The tolling agreement helps a proactive PRP, since aggressive cleanup will reduce the lingering NRDs that need to be restored. Calculating the damages at a point before cleanup has begun would be premature and not based upon the better evidence of actual harm likely to be available later.

Another complicating factor that will at least delay imposition of NRDs, but may also give some leverage to polluters trying to settle, is the interplay required between and among the trustees. State trustees desiring to maintain a more favorable business environment may be more conservative in their estimates of NRDs than their federal counterparts, while state trustees more interested in complete restoration of the injured environment may be more zealous than federal trustees.

These tensions may arise in cases moving toward litigation as well as cases working their way toward settlement. PRPs must be prudent and secure a release from the relevant state and federal NRD trustees so that the covenant not to sue clearly extends to all NRD claims.

SARA crafted a new settlement section to allow CERCLA closure to encompass NRDs, so long as the trustees have been consulted and concur. An agreement may contain a covenant not to sue for

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121 Id. (emphasis added).
123 Id. at 1512.
124 Such a tolling agreement with the trustee is discussed explicitly in New Mexico v. Gen. Elec. Co., 467 F.3d 1223, “Consistently with his duties under CERCLA . . . New Mexico’s NRT entered into tolling agreements with several PRPs, including GE, the USAF, and US DOE, to delay a CERCLA-based NRD lawsuit while he attempted to negotiate settlement of the State’s NRD claims.” Id. at 1235.
125 CERCLA Section 111(i) requires:

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, belonging to, managed by or appertaining to such State, and by the governing body of any Indian tribe having sustained damage to natural resources belonging to, managed by, controlled by, or appertaining to such tribe . . . .

42 U.S.C. § 9611(i) (emphasis added).
126 CERCLA requires that a consent decree be entered in the appropriate U.S. District Court, and the Court must evaluate whether decree is fair and reasonable. United States v. Brook Village Assoc., 2006 WL 3227769 (D.R.I. 2006) at *1. Likewise, involvement of state trustees is necessary to foreclose their interest in later pursuing CERCLA NRDs or other analogous state law remedies. See id. at *3 (Rhode Island housing authority consented to decree given defendants’ tenuous financial condition, while EPA agreed because defendants purchased already contaminated property, did not contribute further to pollution, and operated much needed public housing projects).
127 42 U.S.C. § 9622(j)(1) states:

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.
natural resource damages to the United States, “only if the Federal natural resource trustee has agreed in writing to such covenant.” \(^{128}\) This agreement must be predicated upon restoration by the potentially responsible party, in addition to “appropriate actions necessary to protect and restore the natural resources damaged by such release or threatened release of hazardous substances.” \(^{129}\)

A final concern for PRPs entering natural resource damage settlements is that many such settlements may allow a future additional claim for damages. \(^{130}\) In the Exxon Valdez case, for example, the civil settlement included a reopener provision that allowed the trustees to come back, within fifteen years, for up to 100 million additional dollars. \(^{131}\) In 2006, the United States and Alaska trustees announced they would seek another ninety-two million dollars from Exxon (now Exxon Mobil) to address additional injuries not apparent at the time of settlement. \(^{132}\)

The Clean Water Act \(^{133}\) and Oil Pollution Act (OPA) \(^{134}\) also afford opportunities for NRDs; \(^{135}\) these regimes are considered only to the extent that they suggest problems or solutions for CERCLA NRDs. They differ from CERCLA most notably in that they cover petroleum related spills, whereas CERCLA does not. One distinct advantage when dealing with oil spills and petroleum pollution is that the effects of these pollutants have already been heavily investigated. \(^{136}\) In contrast, there are “close to or over 100,000 industrial chemicals that are on the market today,” presenting scientists with unprecedented challenges in defining aggregate and cumulative impacts on the environment and her creatures. \(^{137}\)

Under the OPA, Natural Resource Damages were receiving front page coverage in the wake of the Exxon Valdez disaster. \(^{138}\) In contrast to the OPA, however, under CERCLA there is no “smoking gun” readily identifying the perpetrator, nor is there as well defined a consequence on the natural environment when contaminants ooze and seep into soil and groundwater over time, as when there is an immediate consequence emerging from the release. These complicating factors under CERCLA may in part explain why the giant has been sleeping.

\(^{128}\) Id. § 9622 (j)(2).

\(^{129}\) Id.


\(^{131}\) Id. The settlement provided additional liability only attached where the original damages were insufficient to redress the injury, natural resources continued to suffer, and loss or decline could not have been anticipated at the time of settlement. Id.


\(^{135}\) See 33 U.S.C. § 1321 (CWA NRD provision); 33 U.S.C. § 2706 (OPA NRD provision).

\(^{136}\) For example, after Exxon Valdez disaster 51 damage assessment studies were conducted including a controversial study involving killing 219 seabirds, immersing them in oil, and then tracking their drift patterns. GAO, Information on Seabird Study 1-2, RCED-92-22 (1991).

\(^{137}\) EPA Administrator, Stephen L. Johnson explained in an interview published in the Fall of 2006 that “a decade ago we did not have the scientific wherewithal to do aggregate assessment or cumulative assessment.” According to EPA, “We’ve cleaned up literally thousands of sites across the United States.” Interview of Stephen L. Johnson, EPA Administrator, by Milo Mason, as published in American Bar Association Section of Environment, Energy, And Resources, Natural Resources & Environment, Vol. 21, No. 2, Fall 2006. While at present we are making incremental progress on synergistic effects, “there is still a lot of research and science that needs to be done.” Id.

III. HOW NOT TO PURSUE NATURAL RESOURCE DAMAGES

A. New Mexico Case Study

1. Site History and Scope of CERCLA Clean-up Efforts

The “South Valley” site is located about two and one-half miles south of downtown Albuquerque, New Mexico. It is an industrial area, as well as host to petroleum processing and distribution networks, and “has been the site of manufacturing operations since at least 1948.”

In 1951, the Atomic Energy Commission (AEC), acquired property in the South Valley and constructed a facility to manufacture nuclear weapons components. AEC’s contractor, American Car and Foundry (ACF), operated this government-owned facility and “engaged in machining of metal parts, plating, welding and other activities” until the Air Force took over the property in 1967.

The Air Force converted the factory into a production facility for aircraft engine parts. This manufacturing plant (Plant 83) was operated by General Electric (GE) for over 15 years under a series of contracts and leases with the Air Force, before GE’s subsidiary (General Electric Aircraft Engines) acquired it outright in 1984. The facility continues to manufacture aircraft engine components.

A number of other industrial facilities also operated in the South Valley, notably petroleum product pipeline and bulk distribution facilities operated by Chevron, Texaco, and others, and an industrial chemical distribution facility owned and operated by Univar.

In 1979, chemical analysis of an Albuquerque water supply well in the South Valley detected the presence of hazardous substances in the groundwater. Contamination emanating from the South Valley included a number of volatile organic compounds (VOCs) unquestionably within the CERCLA definition of hazardous substances. It also contained significant pollution from petroleum-based products beyond the scope of CERCLA.

As a result of the contamination, the State identified the South Valley as its top priority hazard and requested EPA place it on the National Priority List for cleanup under CERCLA. EPA’s initial remedy included replacing the tainted drinking water well with a new well outside the zone of contamination. This remedy complied with 40 C.F.R. Part 300, Appendix D, as an

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140 Id. at 1192-93.
141 Id. at 1192.
142 Id.
143 Id. at 1192-93.
144 Id. at 1193.
145 Id.
146 New Mexico v. Gen. Elec. Co., 467 F.3d at 1232 n.15. The six detected VOCs were “(1) 1,1-dichloroethene (1,1-DCE), (2) 1,1-dichloroethane (1,1-DCA), (3) 1,2-dichloroethene (1,2-DCE), (4) trichloroethylene (TCE), (5) tetrachloroethylene (perchloroethylene, PCE), and (6) vinyl chloride (VC).” Id.
147 Id. at 1233 n.18 (describing state negotiated hydrocarbon remediation agreements with PRPs for petroleum-related discharges).
148 Id. at 1227-28 n.4, citing 42 U.S.C. § 9605 (authority for States to identify priority sites for listing on the NPL).
acceptable remedial response to groundwater contamination, and “the State of New Mexico requested this measure and . . . agree[d] with the approved remedy.”

Subsequent remediation included pumping and treating contaminated groundwater in both the upper and lower aquifers below the site to extract over 1400 pounds of VOCs and to create a hydraulic barrier to prevent further spreading of the contaminant plume. To date, over 4.5 billion gallons of water have been treated and returned to the aquifers for beneficial use.

2. Pre-trial Posturing/Forum Selection

On October 1, 1999, the New Mexico Attorney General (AG) filed a CERCLA NRD claim against federal and private party defendants in the federal district court of New Mexico. She simultaneously filed a complaint in the Second Judicial District Court of Bernalillo County, New Mexico, for damages under state law against the same PRPs, excluding the federal agencies. GE and ACF sought and obtained removal of the cases for consolidation with the pending federal CERCLA NRD cases.

Lacking the trustee’s support, when the AG initially filed suit, the trustee was named as an involuntary plaintiff. This put the trustee, Bill Turner in the precarious position of opposing the state whose resources he was charged to protect. He risked possibly being called as a hostile witness.

The conflict also put the AG, Patricia Madrid in a tenuous position. She conceded that she had no authority to file the federal lawsuit until she decided, “Turner was imperiling the state’s potential case against the polluters and [thereby] violating his role as trustee for the state and the environment.” In effect, because she felt Turner was not executing his NRD duties as required by law, Madrid was asserting the authority of the state to step in and advocate on behalf of its people. The Attorney general’s actions raised, as a matter of first impression, an import standing question—whether anyone other than the trustee (the official designated by law) could bring such actions.

The standing question was first addressed by the New Mexico Supreme Court, which affirmed Madrid’s authority to represent the state. Later, in the federal court, Judge Jenkins

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150 467 F.3d at 1228 n.7.
151 Id.
152 Id. at nn.14-17 and accompanying text. “The cost of the remedial activity has been shared among GE, the Air Force and the United States Department of Energy [successor to the AEC]: nine percent of the cost was allocated to General Electric, 43.2 percent was allocated to the Department of Energy, and 47.8 percent was allocated to the Air Force, based on the relative duration of land ownership.” New Mexico v. Gen. Elec. Co., 335 F. Supp. 2d at 1194 n.5.
155 Id.
156 Id. at 1161.
157 Ian Hoffman, Trustee, AG Go to Court: Justices to Decide Legal Standoff, ALBUQUERQUE JOURNAL, June 22, 2000, at A1.
158 Id.
noted, “It appears to me all the necessary parties, including the trustee, are here.”

The next day, the trustee agreed to cooperate with the AG’s lawyers in the suit.

After three years of pleadings, discovery and motion practice, the case was scheduled for a final pretrial conference in the fall of 2002. The first reported decision from the court following the 2002-2003 pretrial conferences denied New Mexico’s request to remand what were now exclusively state law theories of NRD liability to the New Mexico State Court. New Mexico sought and was granted an interlocutory appeal from this decision, which ultimately was denied. Nevertheless, some details of the evolution of the case to this point are instructive for anyone seeking to keep state law issues from being consolidated with and removed to federal court.

Since commencing this action in October of 1999, the Plaintiffs have been creative in the number and kind of theories of liability they have pleaded and argued in this action. The Defendants in turn have proven resourceful in responding to the Plaintiffs’ claims, propounding an array of legal theories and factual assertions.

The AG had acquiesced in federal jurisdiction and filed a consolidated complaint pleading both CERCLA and state law claims “in one action, based upon identical factual allegations.” By the end of the first week of the pretrial conference, however, “plaintiffs’ expansive damages theories—initially seeking a recovery of over $4 billion—had been significantly reduced by paring out remote and speculative claims for lost tax revenues and diminished property values, the ‘replacement cost’ of substituting a surface reservoir for an entire underground aquifer, along with legally deficient claims for punitive damages.” After these rulings, New Mexico renewed its motion to remand the remaining issues to state court, simultaneously moving to dismiss their pending CERCLA claims, and the federal defendants, from the pending action.

On November 20, 2002, after the pretrial conference resumed, the court dismissed plaintiffs’ CERCLA claims and dismissed the federal defendants with prejudice. In the process of all of this pretrial effort, the state ultimately dropped its CERCLA claims and dropped

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159 Guillermo Contreras & Wren Propp, Trustee, AG Join Forces In Cleanup Suit, ALBUQUERQUE JOURNAL, June 28, 2000, at D1 (the day after the federal court decision, the Trustee upon order of the Governor agreed to work with the AG).
160 Id. See also Leslie Hoffman, Trustee on Board with AG Lawsuit, ALBUQUERQUE TRIBUNE, July 28, 2000, at A3.
162 New Mexico v. Gen. Elec. Co., 335 F. Supp. 2d 1157 (D.N.M. 2003). If granted, this would have been the appropriate state venue, given the location of the South Valley site in Bernalillo County.
163 See 335 F. Supp. 2d at 1197.
164 Id.
165 New Mexico v. Gen. Elec. Co., 335 F. Supp. 2d at 1200. “[T]he pleadings, motions and other papers filed in this action exceeded thirty-seven shelf feet of files in the Clerk's Office, and more filings have since been received.” Id.
166 See id. at 1161-66 (quote is from 1166).
167 Id. at 1169 (quotations in original).
168 Id., citing Stipulation and order of Dismissal, Nov. 20, 2002 (dkt. no. 909).
the federal defendants. This left state law claims that were not inconsistent with CERCLA to go forward. CERCLA explicitly allows non-preclusion of such claims while prohibiting “double recovery of damages under both CERCLA and other federal or state law theories.”

3. Decisions on the Merits

In New Mexico v. General Electric Company, the district court struggled with three fundamental issues: (a) What is the nature of the State’s interest in the groundwater underlying the South Valley Site? (b) How has that interest been injured, and as measured by what standard? and, (c) What is the appropriate measure of damages to compensate that injury?

a. The State’s Interest in Groundwater and the Aquifer

In addressing the first issue, the court agreed that New Mexico had an interest in protecting groundwater on behalf of its people as a matter of public trust. However, the court found there was no proof in the record that the state owned any water rights in the South Valley, nor that any water rights holder had lost the use of any volume of water. In other words, while the state had standing to seek these loss of use damages on behalf of its people, there was no proof of any injury.

The court further concluded, “Absent proof of some possessory ownership interest in land at the South Valley Site—title to the surface or subsurface estate, a reservation of minerals, or the like—the State has no legally cognizable interest in the aquifer beneath the South Valley Site.” The court also held “storage for the sake of storage alone is not a beneficial use under New Mexico law, particularly where future use is nothing more than speculative with respect to the beneficial uses.” Plaintiffs thus had no legal footing for their damages claim based upon injury to the aquifer itself.

b. Harm to State’s Interest and Appropriate Standard to Define Harm

New Mexico v. Gen. Elec. Co., 335 F. Supp. 2d at 1222. A year and a half later, by the time the case was actually heard, “the pleadings, motions and other papers filed in this action exceeded thirty-seven shelf feet of files in the Clerk’s Office, and more filings have since been received.” Id. at 1200.

Id. at 1222. The state alleged the following causes of action: (1) common-law trespass; (2) common-law public nuisance; (3) statutory public nuisance (pollution of drinking water); and (4) common-law negligence. Id.

The savings clause in 42 U.S.C. § 9614 provides, “[n]othing in this chapter 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.” 42 U.S.C. § 9652(d) further provides that “[n]othing in this chapter 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 the releases of hazardous substances or other pollutants or contaminants.” Of course, “CERCLA does preempt the application of state or local law to hazardous waste contamination where the state or local law is in actual conflict with CERCLA or with a remedial order issued by the EPA.” New Mexico v. Gen. Elec. Co., 467 F.3d at 1225.

Id. at 1224. Notably, one of New Mexico’s claims was for “those damages incurred in excess of the damage limitation as provided by 42 U.S.C. 9607(c).” Id. at 1223. The $50,000,000 cap discussed infra at n.27 and accompanying text.

See id. at 1200-03, 1214-15.

Id. at 1205.

Id. at 1203.

Id.
The State asserted that ongoing remediation activities would not restore the contaminated groundwater to its pristine, pre-contaminated, “baseline” condition.\textsuperscript{178} New Mexico further alleged that the water would not be useable as drinking water and, therefore, the cost of drinking water—the highest and best use of the resource—was the appropriate measure of damages.\textsuperscript{179} While the initial proposition was likely true (the pump and treat system would reduce, but not erase, contamination), the other assertions were unfounded.

New Mexico drinking water standards required only that public water systems supply drinking water that meets the EPA's Maximum Contaminant Levels (MCLs). These standards, expressly adopted by the State of New Mexico, complied with all State and federal requirements to ensure a safe water supply for consumption.\textsuperscript{180} Thus, “it follows that groundwater that meets those same standards has not been lost to use as drinking water.”\textsuperscript{181}

While the State was certainly free to promulgate regulations to set more protective limits,\textsuperscript{182} it could not complain that any use was lost under the facts of this case.\textsuperscript{183} Had New Mexico adopted more stringent MCL standards, the court would conceivably have been able to compare the quality of the water after remediation with these drinking water standards.\textsuperscript{184} However, the fact that a replacement well had been installed as part of the initial CERCLA response, would have foreclosed such an argument in any event.\textsuperscript{185}

Finally, even if the remediated water did not meet the state’s drinking water standards, the state would have had to prove that the water was essential for drinking—its highest and best use—or, there was no other beneficial use of the water for lesser purposes.\textsuperscript{186} The Tenth Circuit’s “hierarchy of uses” approach imposes a burden on the plaintiff of establishing what use was actually lost in calculating the damages for such a loss; this method serves the same function of reducing speculation, but in a different formulation than the “committed use” standard of the DOI regulations.

**B. Flaws with the New Mexico Approach**

\textsuperscript{178} Id. at 1205.
\textsuperscript{179} Id. The complaint read: “The STATE OF NEW MEXICO has been prevented from allowing its citizens the benefit of this natural resource. Further, even after said remediation, the natural resource will remain in an impaired state, unusable and/or nonpotable, and unfit for human consumption.” (Consolidated Complaint at 14, ¶ 44). Id.
\textsuperscript{180} Id. at 1210, citing NMAC §§ 20.7.10.1 et seq.
\textsuperscript{181} Id.
\textsuperscript{182} A more protective measure would have been consistent with the overall goals of the Safe Drinking Water Act and could readily be harmonized with the federal scheme as well as the state’s interest in safeguarding its populace.
\textsuperscript{184} Such an argument would still be subject to proof of actual contaminant levels after remediation. In addition, such an argument is largely theoretical, because CERCLA already requires cleanup to a tighter standard as an “applicable and Relevant as Appropriate” measure (ARAR). ARARs, integrating state law where it is more protective, are built in as requirements during RI/FS and remedy selection. To the extent the standards are technologically feasible, they will be required. 40 C.F.R. §§ 300.5, 300.400(g)(4) (2007).
\textsuperscript{185} New Mexico v. Gen. Elec. Co., 467 F.3d at 1252 (when the new well was placed in operation, new Mexico “acquired the equivalent” of the natural resources it lost when the contaminated well was decommissioned.).
Looking at the big picture, the ideal way to litigate a natural resource damages case is with the support of the natural resource trustee(s), after conducting a proper NRDA in accordance with the duly promulgated regulations, thereby obtaining a rebuttable presumption on behalf of the trustee that assessed damages are correct. New Mexico chose a more challenging approach that introduced insurmountable burdens.

1. No Coordination or Support of the Trustee

When New Mexico Attorney General, Patricia Madrid, brought the NRD case, she disagreed with the State’s NRD trustee, Bill Turner, over the damages, and indeed whether they were even ripe to pursue. Madrid “decided she had a better plan to benefit the public treasury, and, at least in the opinion of some, usurped the authority of the State’s [Natural Resources Trustee].”

According to Turner, “The lawsuit really puts the state in a much weaker position than if she had allowed me to do the work. If the defendants want to file for dismissal, I’ll support it, [t]hen I’ll do the damage assessment.”

Hindsight proved Turner’s position was correct. Although Turner ultimately capitulated and agreed to support the AG’s case, had Turner not agreed to support the lawsuit, Madrid had indicated she would petition the State Supreme Court for his removal. Even though given reluctantly and possibly under duress, the trustee’s endorsement was essential. It is difficult to imagine a court awarding a sum not endorsed by the trustee when the trustee is the authorized official to determine the damages under CERCLA. The Department of Justice would presumably insist upon no less when litigating an NRD case involving the federal government, rather than risk the respective trustee experts impeaching each other’s testimony.

While this case affords an extreme example of lack of cooperation, it is not hard to imagine scenarios where there might be a lack of coordination among trustees. State and Federal Trustees may well disagree about the magnitude of damages. For example, the Wisconsin Department of Natural Resources (DNR) estimated damages to restore the waters from the lower Fox River (after it had been subjected to PCB contamination by Wisconsin paper companies) at “between $72 million and $190 million.” At the same time, the United States Fish and Wildlife Service (FWS) put the cost for the same restoration at “between $200 million and $300 million.” EPA later estimated the cost to be $400 million. Notably, there was no disagreement about the scope of the damage itself, yet the projected costs varied so widely the estimates did not even overlap.

One difficulty with CERCLA NRDs is that there may be too many cooks. Under OPA, NOAA has clear authority to regulate NRDs, and consensus is comparatively easy.

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189 Id.
190 Contreras & Propp, supra note 159.
192 Id.
From their inception, NOAA regulations included a cooperative approach. DOI has, through its 4Cs policy (Conservation through Consultation, Cooperation, and Communication), embraced a similar insistence upon trustee coordination “in nearly all cases.” These partnerships have proven very beneficial for all involved, as cooperation and consultation among the trustees facilitates addressing overlapping areas of trustee concern, and consolidates those concerns into a single case.

2. No Assessment of Damages

In the South Valley case, even though the trustee was ultimately on-board for the litigation, he had never arrived at a figure for damages through the NRDA process. Thus, the AG’s lawsuit was both premature and speculative. Both aspects merit some attention.

The State was putting the cart before the horse. New Mexico sued for $260 million and later alleged multi-billion dollar damages, without having first conducted an NRDA in accordance with CERCLA. The lack of detailed support (also known as proof or evidence) was painfully evident from the beginning, when plaintiff’s had no calculations or methodology to support their damage figure. The underdeveloped nature of the asserted liability could also easily be surmised from the vacillating nature of the demand. Finally, this approach contravened the CERCLA directive that “State officials shall assess damages to natural resources . . . under their trusteeship.” The state of New Mexico ignored that principle when commencing litigation without an NRDA.

The speculative nature of the demand stems irrevocably from its premature assertion—damages may not be assessed before they are ascertained, and the NRDA is the instrument for ascertaining the damages. Although this flaw is easy to identify and understand, the ability to cure this defect also creates a conundrum for NRD trustees. Unless the trustees expend considerable time and effort (not to mention the cost of expensive studies and expert analysis), they cannot hope to have a monetary valuation of damages that will, in all probability, withstand judicial scrutiny, because the paucity of NRD litigation has made the evidentiary bar uncertain.

New Mexico’s flawed litigation proves this point. The AG’s “too little too late” assessment efforts met with no success, and the hurdles she encountered, coupled with the ultimate holding, provide powerful circumstantial evidence of the value of the rebuttable presumption.

3. Difficult to Prove Damages Without a Presumption

195 See 33 U.S.C. § 2706(d)-(e). “If a range of assessment procedures providing the same type and quality of information is available, the most cost-effective procedure must be used.” 15 C.F.R. § 990.27.
198 Id. at 17. The National Contingency Plan contemplates such cooperation. See 40 C.F.R. § 300.615.
200 See id.
202 See Thompson, supra note 40, at 57.
The Tenth Circuit noted, “We are well aware that NRD assessment is a costly proposition. . . . Still, given the AG's original multi-billion dollar claim against GE and ACF, a few million dollars seems not so significant a cost to take advantage of CERCLA’s rebuttable presumption of NRDs, especially where the reasonable costs of assessment are recoverable from PRPs.”

In fact, perhaps at least part of the reason NRDs have not taken off originates in the uphill battle of sustaining an NRD case without the benefit of this presumption. The Tenth Circuit cast the challenge in the following manner:

Without any CERCLA-based NRD assessment to rely on, see 43 C.F.R. Part 11, the State undertook the arduous task of proving as an initial matter natural resources injury outside the intended scope of a comprehensive, CERCLA-mandated remediation. The State also confronted the problem of restrictions which both CERCLA and the NRTA [New Mexico’s “Natural Resources Trustee Act”] impose upon the measure of damages even supposing some redressable injury remains.

Although following the NRD regulations may present significant hurdles of their own, if the other circuits follow the Tenth Circuit’s reasoning, it may be virtually impossible to recover without the power of the presumption. In effect, whether or not the trustee enjoys the presumption may defacto become determinative in the face of otherwise speculative damages.

4. Valuation Pitfalls

The Tenth Circuit decision shows the modern-day vitality of the preference for restoration in lieu of money damages, and is consistent with the D.C. Circuit’s holding in Ohio v. DOI that Congress preferred “restoration costs as the measure of recovery in natural resource damage cases.” Trustees that favor restoration projects and substitute resources for those that were damaged also create pathways to settlement with the responsible parties. This may, in part, explain the success of the New Jersey approach discussed in Part IV. In addition, the Tenth Circuit’s opinion sheds light on several valuation pitfalls trustees would be advised to avoid.

a. Account for Remediation in Mitigating Damage Claims

New Mexico ignored the success of the $400 million groundwater remediation in restoring the aquifer in the South Valley to meet safe drinking water standards. However, since cleanup improves the environment, the extent of damages remaining is necessarily predicated on the effectiveness of the remediation itself. Therefore, the trustee must properly

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205 See N.M. STAT. ANN. §§ 75-7-1 thru 75-7-5 (2006).
206 See infra, Section I.C.
208 See infra, Section I.C.
account for the success of remedial measures in any NRD claim. If unwilling or unable to wait until remediation is complete (when the scope of remaining injury becomes positively determinable), the trustee must estimate the effectiveness of the cleanup and remaining injuries to the satisfaction of the court.

Determining the lingering injury or loss of resources necessitates a case-by-case analysis. One must evaluate the underlying assumptions, their factual predicates, and the logical inference chain, and then fit these theoretical parameters to the natural habitats contaminated, the corresponding response of the effected environment to individual or multiple pollutants, and the means and costs of restoration.

Confounding this analysis is the notion that when cleanup is incomplete, the court must use its crystal ball to examine the assumptions and assertions contained in plaintiffs predicted “future world,” and compare and contrast these assumptions with defendant’s contentions of the probable efficacy of ongoing remediation. In other words, part of the daunting task is to answer CERCLA’s central mystery, “How clean is clean?” with speculation by the parties and best guessing by the court as to how effective the remediation will be.\(^\text{210}\)

This is no easy task in a situation such as the South Valley site, where remediation is on a thirty-year track, but there is every indication that it would be expected to take longer if the remediation fails to meet standards to sufficiently protect human health and the environment.\(^\text{211}\) In this regard, CERCLA has a requirement for five-year reviews following adoption of the Record of Decision, so that the government may insist upon additional protective measures if necessary.\(^\text{212}\)

In the groundwater domain, the combination of Applicable Relevant and Appropriate Requirements (ARARs)\(^\text{213}\) and these five-year reviews could foreclose any remaining injury to drinking water at the completion of the remedial effort. As in the New Mexico case, the byproduct of the Safe Drinking Water Act and parallel state laws was to require cleaning the aquifer at a minimum to the maximum contaminant levels authorized in the SDWA. Since this “risk-based” remediation already restores the water to its “highest and best use,” there can be no lingering loss of use injury. Remediation equals restoration of drinking water.

However, even though the water may be safe to drink, it may not be restored to baseline. Although regrettable for the environment (at least insofar as tainted resources will always be closer to the MCLs than the resources were before they were polluted). In this sense, what is lost is the absorptive capacity of the water body to assimilate later pollution. Nevertheless, this damage is non-compensable as there is no way to value this lost assimilative capacity. In addition, the SDWA standard is a useful a barometer in any event, because a subsequent polluter would be forced to clean up to the same standard. In that case, the MCLs would be both the legal and factual baseline for damages, but again if remediation is successful there will be no need for restoration.

Because remediation cures any drinking water deficiency, the only potential damages remaining are for loss of use of the drinking water as a resource while the remediation is ongoing. The New Mexico District Court and the Tenth Circuit read the lost use damages

\(^{210}\) The CERCLA “Record of Decision” may aid in the analysis, as the cleanup remedy will be selected based upon its projected ability to eliminate the risks posed by the pollution, but the ROD is itself forward looking based upon projected effectiveness of the remedial action.


\(^{212}\) 42 U.S.C. § 9621(c).

\(^{213}\) See 42 U.S.C. § 9621 (requiring remedial actions to meet all relevant state and federal laws).
extremely narrowly. Even when a resource was actually being used at the time contamination
was detected, the court held that the public had suffered no deprivation, because the CERCLA
response effort itself afforded a substitute for the lost or injured resources. This is exactly what
happened in New Mexico when the tainted water supply well was closed and replaced with a
new clean drinking water well.\textsuperscript{214}

CERCLA requirements for removal actions, however, will always necessitate a substitute
drinking water source, as drinking water toxins above the maximum contaminant level pose a
\textit{per se} risk to human health.\textsuperscript{215} The entire National Contingency Plan (through the national
response center and the network of state and local emergency response agencies) is designed to
afford this safe contingency, so that the public is not exposed to environmental risk.\textsuperscript{216}

In this sense, natural resources are always damaged as a result of pollution. CERCLA
proper afford remedies for substitute emergency resources (the polluter pays for the removal
action) so this aspect of natural resource damages is properly carved out of NRDs. To the extent
the polluting party has already paid, they should not have to pay double. Once viewed from this
perspective, the New Mexico approach is not draconian. In the case before it, the PRPs has paid
the cost of installing the replacement well as part of the cleanup. However, in future scenarios,
trustees should seek to recover similar costs where the state or federal government has provided
substitute drinking water.

b. Account for Alternative Uses of Tainted Resources

Where a resource is of diminished value, on the other hand, damages should be calculated
to account for lost use based upon the residual services the resource, although tainted, actually
may afford. For example, if a drinking water supply is polluted such that it can no longer be
used for potable water, it may nevertheless be suitable for fire protection or irrigation. Although
the Court in \textit{New Mexico v. Gen. Elec. Co.} concluded there was no lost use at all, it remarked on
the opportunity to use polluted water for non-drinking purposes in evaluating the measure of
damages for loss of use.\textsuperscript{217}

In other words, at least for groundwater, there is a hierarchy of uses which should be
evaluated when measuring loss of service damages. For example, reclaimed water, while not
suitable for consumption, could be used for irrigation. If the value for irrigation is one-tenth the
value for consumption, the actual damages should then be ninety percent of the value of drinking
water.

5. Remedy was Not Dedicated to Restoration

CERCLA specifically restricts the permissible uses of sums recovered for natural
resource damages. Trustees retain the funds “for use only to restore, replace, or acquire the
equivalent of such natural resources.”\textsuperscript{218} The nexus to the necessity of using such funds for
primary restoration (to restore injured resources to baseline or replace them) is direct and easily

\textsuperscript{214} See \textit{New Mexico v. Gen. Elec. Co.}, 467 F.3d at 1252.
\textsuperscript{215} 42 U.S.C. §§ 300g-1 (establishing MCLs), 300i (emergency power to order alternative water supply); 42
U.S.C. § 9601(23) (alternative water supplies as part of CERCLA removal); \textit{see also} 42 U.S.C. § 9618 (highest
priority for drinking water supplies).
\textsuperscript{216} 40 C.F.R. § 300.415.
\textsuperscript{217} \textit{New Mexico v. Gen. Elec. Co.}, 467 F.3d at 1252.
\textsuperscript{218} 42 U.S.C. § 9607(f)(1).
understood. But natural resource damages “shall not be limited by the sums which can be used to restore or replace such resources.” This creates a more nebulous status for damage recoveries above and beyond primary restoration.

Where a resource is not currently, actually being used, “lost use” would be a windfall to the trustee. The windfall aspect is easily understood concerning lost present use. If an aquifer were tainted, for example, but it was so far from any well that the pollution never reached a well, there would be no present lost use. Even a penny of natural resource damages, therefore, would be a windfall, because cleanup costs are already recovered through routine CERCLA liability.

Lost prospective use or future use is more of a speculative continuum. What if a permitted drinking water well was sunk in an area thought to be free from contamination, but the initial sample from the well proved the water to be contaminated by a hazardous substance. The use lost would be future use, as the well was not ever productive. The DOI regulations, which require that recovery for future uses be restricted to uses the state has already tangibly recognized (permitted or committed to granting), would recognize loss of a brand new well as a lost use since the state had committed to using the well for that purpose. The D.C. Circuit has validated this approach in DOI’s “committed use” requirement, because it prevents damages that are purely speculative, but allows recovery for reasonably certain, “impending” uses.219

Adopting this approach necessarily involves drawing a bright line rule with projects that are sufficiently concrete to bring the damages out of the world of mere speculation. Yet, at the same time, such damages are under-inclusive, because this approach necessarily eliminates some speculative recoveries which are likely or even probable.

For example, if a city is expected to double in population over the next decade, city planners might justifiably rely on untapped aquifer capacity to meet this emerging need. The city might anticipate that additional wells would be needed over the next decade to meet exploding demand, but no commitments, permits or authorizations for expansion may have been granted yet. If a plume were discovered next week, the contaminated water would be lost to both present use as well as use over the foreseeable corrective period (say thirty years). Although present supplies ensure sufficient water for current consumption (there would be no immediate lost use), since the projected need would not have ripened into a commitment, the lost prospective use would be uncompensated. In this example, if the groundwater being restored were projected to be needed to sustain the increased population in 2010, the cost of an alternate supply would go uncompensated for over twenty-five years.

New Mexico’s theories of recovery were based upon more even conjecture than the above example, envisioning a new reservoir to meet the drinking water needs of future users. This remedy was entirely out of scope with the demonstrated environmental harm, in view of the response actions already taken.220 Allegations of damages were grossly overstated and, perhaps due to the indication that funds collected would be deposited in the State General fund, could be viewed as thinly-veiled attempts by the AG to line the State’s coffers.221

Deposit of damages in the State’s general treasury fund would impermissibly allow unrestricted use of the funds by the state. Contrary to CERCLA’s overarching goal of cleaning up hazardous waste, “unrestricted award of money damages does not restore or replace

219 Ohio v. DOI, 880 F.2d at 459.
221 See id. (funds used for example for attorney fees would undermine legitimate funding to restore damaged resources).
contaminated natural resources.” Notably, the circuit court did not suggest that state laws are completely preempted whenever there is ongoing remediation; nor, did the court categorically disapprove state formulas for valuation. Indeed, because preemption was found based upon misdirection of the recovered funds, the court had no duty to consider these issues.

Richard Stewart, a law professor at New York University, has long been calling for reform to the NRD program to “[e]liminate all forms of unfair surplus claims that have been created by the trustees so that the NRD program can focus on actual restoration.” Surplus claims, such as claims for damages based upon lost use of resources when there was, in fact, no “loss of use” generate revenues above those needed to restore the environment. Whether called a windfall or an unfair surplus, the message remains the same, they have no place in an appropriate NRD assessment.

6. Schizophrenic Pre-trial Posturing

Although a trustee can consolidate state and federal claims in federal court, the opposite is not the case. State trustees must be especially careful if they intend to exclusively seek state remedies for damaged natural resources in state court. As shown in the New Mexico case, a kitchen sink approach, suing in both state and federal courts simultaneously, could lead to unforeseen pitfalls like having the case decided in federal court when the State might ultimately prefer state court. A tandem question in the selection of forum is the preemptive effect of CERCLA on comparable state laws.

While CERCLA clearly embraces lost use as a component of damages, state efforts to work along-side CERCLA must ensure that their local remedies are equally far reaching, otherwise a case brought in the state court system will lose access to recovery for lost use during the period when the public was deprived of a useful and beneficial resource. For example, an argument was made in New Jersey alleging that restoration of the natural resource was authorized under the state NRD scheme, but the New Jersey Spill Act was not broad enough to encompass loss of use. Efforts under New Jersey law and in other jurisdictions are discussed next.

IV. ALTERNATIVES WITH MORE PROMISE

A. The New Jersey Approach

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222 Id. at 1247.
223 Id.
226 Federal trustees initiate NRD actions in the federal district where pollution occurred or where defendants’ principal offices are located. 42 U.S.C. § 9613(b).
New Jersey has the most superfund cites in the nation. It already had an active NRD program in place in 2002-2003, when its trustee, the director of New Jersey’s Department of Environmental Protection (NJDEP), decided to “kick it up a notch.” Despite progress in earlier years, NJDEP had “resolved only a small percentage” of the “more than 4000 potential claims for natural resource damages (NRD).” New Jersey issued a policy directive in September 2003 to encourage voluntary restoration efforts and NRD settlements. In a separate directive, issued the same month and expected to generate $950 million in damages and restoration, NJDEP ordered sixty-six PRPs in the Lower Passaic River to perform their own damages assessments of injured resources.

These policy directives do not specifically link their authority to either state or federal law. However, in ensuing years over seventy-five lawsuits have been initiated with complaints alleging violations of the New Jersey Spill Act, common law public nuisance, and trespass. The suits under these New Jersey remedies concern petroleum based spills as well as CERCLA-covered releases.

1. Successful Techniques

New Jersey has overcome the assessment funding barrier by allowing its Spill Fund to be used to assess NRDs. A number of other states have also created similar environmental funds that can only be used for response to hazardous substance or oil releases—including costs to assess such damages. Not surprisingly, these states, including New Jersey, have the most active NRD programs. Commitment of a state to its environment starts with dedicating resources to enable the trustees to do their jobs. The funding allows the state to aggressively enforce its laws.

Adopting aggressive collection measures has proven successful to the state from a settlement perspective. NJDEP’s Natural Resource Damage Program “has recovered more than $51 million and preserved approximately 6,000 acres of open space as wildlife habitat and ground water recharge areas as compensation for pollution resulting from 1,500 contaminated sites and oil spills.”

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228 Ando, et al., NRDA Methods and Cases, supra note 85, at 41. New Jersey oversees about 23,000 contaminated sites; http://www.state.nj.us/dep/srp/brownfields/faq/#howmanysites (last visited Aug. 25, 2007).
231 Ira Gottlieb & Cynthia M. Stencel, An Overview of New Jersey’s Natural Resource Damage Initiative, Natural Resource Damages Report, NATURAL RESOURCE DAMAGES & ENVTL. CLAIMS RPTR. 1, 4-7 (HarrisMartin ed. Premier 2006).
237 N.J. STAT. ANN. § 58:10-23.11f (West 2007)
Damage recoveries serve an important function in reimbursing the state for costs of assessment, and stimulating ongoing claims development, and recovery.239 The increased emphasis on NRD (coupled with the resources to pursue them) has generated important headway for the state in improving its environment. At a minimum, the measures have been successful in coming to closure in a large number of cases. In those that remain, the state has an aggressive litigation policy. While the cases decided to date have not always validated the state’s approach, the following observations should be helpful to those watching on the sidelines.

New Jersey encourages settlement with a “preference for restoration.”240 In lieu of monetary damages, the state prefers performance of restorative work and resource protection, “provided that reasonable allowance is made for monitoring and oversight to ensure accountability.”241 NJDEP recognized that substitute resources or resource services may often be more cost-effective and “encourages habitat equivalency analysis, consideration of both in-kind and out-of-kind substitute resources, and similar efforts to provide substantially equivalent resource services in designing compensatory restoration projects.”242

For example, for lost recreational uses, NJDEP agreed to consider “enhancements to public access, creation of or improvements to state or local parks, or the provision of other alternate recreational opportunities.”243 “Restoration projects, whether implemented by DEP or a responsible party, must bear a nexus to the injured resource and should be in the same watershed (or sub-watershed) to the extent practicable.”244

Additional direction is focused on injured groundwater: “acquisition of aquifer recharge areas, water re-use or recycling projects, infrastructure improvements to control stormwater or improve recharge, reforestation efforts to improve infiltration and water retention, or any other measure that enhances the water resource base in the affected area will be considered.”245 The more controversial aspect of groundwater is the use of the state’s groundwater valuation formula as a “settlement tool” when appropriate restorative measures can not be set.

New Jersey has convinced its own courts of its authority to manage public resources under state law as stewards for the public within that state.246 The Federal District Court for the District of New Jersey agreed, holding: “Based on their statutory duties, the Court finds that both NJDEP and the Spill Administrator perform essential government functions carried out on behalf of the State for the ultimate benefit of New Jersey's citizens.”247 Indeed, the New Jersey state law remedies (statutory and common law) precede enactment of CERCLA.248

239 NJDEP, Policy Directive 2003-7, supra note 14. The New Jersey Spill Compensation Fund can also be used for this critical NRD assessment purpose, perhaps explaining in part why New Jersey has been successful in overcoming funding shortfall confronting most other trustees. N.J. STAT. ANN. § 58:10-23.11f7.

240 Id.

241 Id.

242 Id.

243 Id.

244 Id.

245 Id.


247 Nestle, 2007 WL 703539 at *2 (citations omitted).

Moreover, New Jersey has a significant interest in this matter; here, the State's interest is nothing less than the protection of New Jersey's groundwater from hazardous spills. Indeed, the Plaintiffs in this matter seek damages to pay for the rehabilitation and restoration of the State's natural resources that were
Nevertheless, New Jersey finds itself in both the federal and state courts litigating different NRD cases. While defendants have sought removal to the federal courts, the state has, successfully, returned some cases to state court. In *NJDEP v. Nestle*, for example, the federal court found that New Jersey was the real party in interest in an NRD matter based on “the essential functions of the NJDEP and the [New Jersey] Spill Administrator and because of the significant state interest implicated in the underlying dispute.” Since the State was a party to the litigation, there was no federal diversity jurisdiction and removal was improper.

Scrutiny is required to evaluate whether New Jersey laws create more leeway for state trustees than their CERCLA counterparts create for federal trustees. Interestingly enough, the New Jersey Court cites with approval the role of the state under the New Jersey Spill Act in harmony with the trustee’s authority under CERCLA.

### 2. Lingering Issues/Inadequacies

Although the appellate court upheld New Jersey’s entitlement to seek “loss of use” damages in *Exxon-Mobil*, the New Jersey courts have not yet addressed what the State must prove to establish loss of use. In addition to the burden of proving loss of use values, the confluence of state NRD laws and CERCLA comes immediately to the fore: where does CERCLA end and state law begin?

Of course, the answer will differ on a state by state basis. Nevertheless, in each case alleging state remedies, the notion of conflict preemption arises. Conflict preemption occurs, “when it is impossible to comply with both state and federal law, or where the state law stands as an obstacle to the full purposes and objectives of Congress.”

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250 *See Nestle*, 2007 WL 703539 at *1-*2; Minn. Mining & Mfg. Co., 2007 WL 2027916 at *6 (motion to remand to state court granted).
251 *Id., 2007 WL 703539 at *3.
252 *Id.* at *2.
253 *Id.
255 *Exxon Mobil*, 2007 WL 1610091, at *4. The Court notes how the NJ Spill Act definition of “damages” encompasses the CERCLA definition by reference (citations omitted). *Id.*
256 *Id.; see also* Minn. Mining & Mfg. Co., 2007 WL 2027916 at *6 (alleging state has “not even articulated fully their damages theories, which they contend will be largely determined by experts.”).
258 *Id.*
For example, the courts must decide whether CERCLA preempts the New Jersey groundwater valuations. Even though CERCLA explicitly allows non-conflicting state strategies, the court must still analyze whether the New Jersey groundwater evaluation formula conflicts with CERCLA.

In *New Mexico v. General Electric*, for example, the court held:

CERCLA’s comprehensive NRD scheme preempts any state remedy designed to achieve something other than the restoration, replacement, or acquisition of the equivalent of a contaminated natural resource . . . the remedy the State seeks to obtain through [state public nuisance and negligence] causes of action—an unrestricted award of money damages—cannot withstand CERCLA’s comprehensive NRD scheme.”

New Jersey has a much better chance of surviving the above scrutiny, because it requires any damages recovered be deposited in the New Jersey Spill Fund and restricts the use of this fund to costs of assessment and restoration.

Even though not likely preempted, it remains unclear whether other courts will require actual proof of lost uses (like the Tenth Circuit), whether a showing of commitment to use the resource will suffice, or whether the court will allow more speculation about the future value of the groundwater.

One thing that is certain about the outcome in one New Jersey case, however, is that Exxon Mobil will be liable for costs of restoration, because they have not disputed liability for physical restoration of the natural resources. Given the language of CERCLA and the D.C. Circuit’s interpretation of Congress’s preference for restoration, such an approach seems eminently sound and worthy of replication. However, the preference for restoration begs the follow on question—what is adequate restoration?

The New Jersey Policy Directive authorizes “restoration work and resource protection” in the affected area as well as substituting resources or resource services “both in-kind and out-of-kind.” The idea is sound—if tainted groundwater prevents its use as drinking water, for example, securing necessary rights and installing a new replacement well would be an in-kind substitute. Agreeing to provide bottled water to the affected community until the groundwater is remediated would be an example of an out-of-kind substitution. In either scenario, the responsible party will remain liable for the cleanup while paying for the damage caused to the natural resources.

Although such an approach is desirable, if the parties agree, such a preference might pose problems in court. Would the courts be in a position to dictate the nature and scope of these in-kind and out-of-kind substitutes; how would such measures be ordered and enforced; or, would the courts be able to place a monetary value on these costs as damages?

Assume for a moment New Jersey collects dollars in exchange for loss of use of natural resources—it is a hollow victory without systematic restoration of the State’s natural resources. In fact, translating dollars collected back into benefits for the environment might be every bit as hard as calculating the dollar value that equates to such damages in the first place.

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261 *Exxon Mobil*, 923 A.2d at 398.
GAO, in a study conducted a decade ago, noted this practical disconnect between damages and restoration.\(^\text{262}\) A number of factors complicate the efforts of trustees who have done everything right and have collected NRDs. Commencing on-site restoration must often await completion of cleanup (a seemingly never-ending task in a pump and treat domain).\(^\text{263}\) NRD monies collected may be insufficient to actually pay for necessary restoration or replacement—with the gap forming an insurmountable hurdle that leaves funds idle or allows them to collect dust as they await additional collections or matching appropriations from the state.\(^\text{264}\)

3. The Need for Continued Reform

Congress intended that natural resource damage trustees should have a quick and easy NRD option.\(^\text{265}\) That has not happened at the federal level.\(^\text{266}\) While some states have sought their own alternatives\(^\text{267}\) (some more effectively than others), to date NRD recoveries have failed to meet their full potential, to the detriment of society. Because there is no well-defined standard, the tendency is to overdevelop a case so as not to risk failure if the assessment effort is challenged in court. This promotes costly and time-consuming assessment processes by all potential litigants. Since the polluter should ultimately pay for these costs (where costs are reasonable and the trustee prevails) one would expect that this would only be a minor deterrent for trustees. However, such a costly and process-intense methodology is of little utility in many cases and may be beyond the scope of the resources available to the trustee in the first place. Therefore, even though the NRDA is the key to the vault of NRDs, many trustees cannot afford the costs of this key.

With no consistent NRDA method, there can be no consistent NRD valuation. Even when following an approved NRDA process, there may be inconsistent evaluations based upon assumptions used in modeling that may or may not conform to reality. A tension in the system exists between the need for transparency in the assessment (a formula that is simple to understand and follow) and the quest for the most precise evaluation, which relies upon the “best available science.” When the best available science relies, in turn, on models or surveys of public behavior or values, the “science” loses transparency and interjects variables that substitute possibilities or probabilities for what actually occurred. The best way around valuation difficulties may be to require restoration of lost resources in lieu of monetary damages equating to the value of the damages.

It is precisely because NRDs are so hard to pin down that these costs to restore the environment are often either impractical or impossible to prove. In fact, the proper measure of natural resource damages lies somewhere between a “blank check” and an “IOU”. At the “blank

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\(^\text{262}\) \text{GENERAL ACCOUNTING OFFICE, SUPERCLEANUP: STATUS OF SELECTED FEDERAL NATURAL RESOURCE DAMAGE SETTLEMENTS 3-4, GAO/RCED-97-10, available at www.gao.gov (enter RCED number in search field).}\n
\(^\text{263}\) \text{Id. at 4.}\n
\(^\text{264}\) \text{See Id. at 4-5, Settlements may allow a stream of payments versus a lump sum, forcing trustees to delay restorative efforts until a critical mass is accumulated. Id. at 30 (Commerce Department comments to GAO).}\n
\(^\text{265}\) \text{CERCLA § 301(c)(2), Pub. L. No. 96-510 (codified at 42 U.S.C. § 9651).}\n
\(^\text{266}\) \text{2007 FAC REPORT, supra note 21, at Executive Summary (proposing actions for “faster, more efficient, and more effective restoration of injured natural resources).}\n
\(^\text{267}\) \text{Amy W. Ando & Madhu Khanna, Natural Resource Damage Assessment Methods: Lessons in Simplicity From State Trustees, 22 Contemporary Economic Policy 504, 505-06 (2004).}\n
check” end of the spectrum, States could seek damages entirely out of line with the actual damage to the environment. 268

At the “IOU” end of the spectrum, states whose Trustees are underfunded269 or who are not provided sufficient tools to obtain appropriate NRDs are left with an “IOU” from the regulated community that creates undesirable situations for all involved. Those being regulated have uncertain future liability that may depress the marketability or reuse of their property, or NRD liability may need to be carried in some manner on their books. Specific NRD Insurance requirements might be one solution to prevent businesses from unknown and unknowable damages.270

However, the public loses any time there is contamination without the prospect of appropriate liability, since the correct amount of NRDs forces industry to internalize the costs of pollution and pass those costs on to their consumers—once internalized, consumers can make more environmentally sound choices.

B. Simplified Strategies Used By Other States

In 2004, the Journal of Contemporary Economic Policy released an article discussing simplified NRD methodologies implemented by state trustees.271 The article was based upon a nationwide study of trustees that was published earlier that year.272 Based on the results, it appears trustees are struggling for ways to credibly determine natural resource damages using data that is already available about the injury, without having to resort to complex, sophisticated, time-consuming, and costly assessments.273

This seems to mirror the goal of Congress in directing the President to develop Type A Regulations in the first place. For states using their own simplified methods, “the estimate that emerges is, however, likely to be somewhat inaccurate and more vulnerable to challenge by a potentially responsible party (PRP) if the case cannot be settled out of court.”274 There are, therefore, two sides to the simplified methodology coin—1) the ability to assess quickly and cheaply in cases that reach settlement, and 2) for cases that do not settle, the necessity to start over with more costly assessment measures or risk losing a litigated case.

268 Arguably, the litigation posture of the State of New Mexico fell into this “Blank Check” approach.
269 See Assn of State and Territorial Solid Waste Management Officials, Natural Resource Task Force Report, February 1997[hereinafter ASTSWMO Report] (many states have no funding for NRD programs); available at http://www.astswmo.org/working%20folder%20with%20Publications%20-20Sept%202; see also Ando & Khanna, supra note 267, at 504.
270 See Benjamin J. Richardson, Mandating Environmental Liability Insurance, 12 DUKE ENVTL. L. & POL’Y F. 293 (2002) (advocating insurance to insulate against environmental liabilities including natural resource damages). One problem with conventional environmental insurance might be “time-on-the-risk” allocation which would allow insurance awards for a continuing environmental harm (for example, leaching) to be reduced by the annual share of liability the purchaser agreed to absorb as a deductible. For example, if an insured had a $50,000 annual deductible and the process of contamination endured over 20 years, the insurance recovery would be reduced by $1 million. See Mich. Court Affirms ‘Time On the Risk’ Allocation in Environmental Case, GLOBAL WARMING & NATURAL RESOURCE DAMAGES REPORT 8-9, (HarrisMartin, Apr. 2007), citing Wolverine World Wide Inc. v. Liberty Mut. Ins. Co., No. 260330 (Mich. Ct. App. 2007).
271 Ando & Khanna, supra note 267, at 504.
272 Ando, et. al., NRDA Methods and Cases, supra note 85. A survey of trustees in 2006 confirms the continued vitality of the conclusions drawn from the survey. See ISRAEL, supra note 19 at 32B-118, Part D (“A State-by-State Guide to NRD Programs in All 50 States”).
273 Ando, et. al., NRDA Methods and Cases, supra note 85, at 2.
274 Id.
Notwithstanding these risks, five states have developed simplified assessment methodologies. Since “a wide variety of assessment methods have been shown in practice to be successful tools . . . that will stand up in a settlement-negotiation process,” other trustees should be receptive to implementing simplified procedures. In addition, DOI should be receptive to developing similar simplified methodologies to support settlements.

The most successful state methodologies share the following advantageous characteristics: 1) they are integrated into the state law; 2) they utilize information already required to be obtained under other state or federal laws; 3) the methodology is in some way linked to restoration; 4) a variable in the methodology is habitat dependent; and, 5) the laws are reasonably transparent. It would be ideal if any of the current methodologies satisfied all five attributes. However, since none of them do, each attribute is instead explained in the context of one or more state’s approaches.

Although many states have their own laws addressing NRDs, only Florida, New Jersey, and Washington include simplified assessment methodologies within their state laws. New Jersey’s provisions are, in part, regulatory versus statutory, raising the specter of a legal challenge for incompatibility with the statutory scheme. On a positive note, regulations are easier to update or change if better simplified methods emerge. All of the state laws could be improved by introducing a presumption in favor of the trustee if the methodologies are followed. If less vulnerable to legal challenge, “transaction costs would be lower, and social welfare would be increased.”

California’s simplified methodology is perhaps the most transparent and easy to implement. It also satisfies characteristics 2-4 above, because it uses information already reported to the state, is restoration focused, and is based upon the types of habitat injured. Using existing habitat-equivalency analysis, derived from earlier case-specific studies, members of California’s Department of Fish and Game divided their state habitats into eight types, then established a different table of damages for each habitat type. The average costs established in previous studies to return each habitat type to baseline conditions was calculated per unit of habitat affected, and the results generated a matrix of values based on the duration of injury on

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275 These states are Florida, California, Washington, Minnesota, & New Jersey. Ando & Khanna, supra note 267, at 506.
276 Ando, et. al., NRDA Methods and Cases, supra note 85, at 2.
277 As an ideal, Ando & Khanna recommend the following characteristics: simple to use, legally recognized, transparent, damage estimates correlate to scope of injuries, net present value is calculated appropriately, estimates reflect loss of both use and nonuse values; and are reflective of socioeconomic characteristics of the affected population. Ando & Khanna, supra note 267, at 506.
278 “[T]hese methods are flawed in ways that are likely to induce chronic bias in the estimates they yield. Thus, there could be a large payoff to society if simplified methods less egregiously at odds with economic theory of valuation could be used instead.” Ando and Khanna, supra note 267, at 514.
279 See generally ISRAEL, supra note 19 at 32B-118-155, Part D (24 states identified with NRD statutes).
280 Ando, et. al., NRDA Methods and Cases, supra note 85, at 26.
281 Id. at 42-43. For the latest version of New Jersey groundwater regulations, see http://www/nj.gov/dep/nrr/nri/nri_gw.htm (last visited Aug. 13, 2007).
282 Ando and Khanna, supra note 267, at 505.
283 Id.
284 Id.
one axis and degree of injury on the other. Using the tables, the cost information per unit of habitat from the chart is then simply multiplied by the total units of habitat affected.

Washington and Florida primarily use simplified assessment methods for oil spills, although Florida’s statute permits its use for other hazardous substances as well. Both states ascribe different values based upon the harmfulness of the oil released and the spill volume. Both also consider the location of the spill, and type and quantity of habitat affected.

Florida uses three categories for harmfulness and twelve habitat types to break down a cost per unit of habitat damaged. This cost is then multiplied by the amount of impacted area (similar to the California approach). In addition, Florida also considers factors based upon location of the spill (such as distance from shore or special management area), compensation for wildlife deaths of endangered species or threatened species, and an additive cost of the assessment itself.

Washington’s methodology is somewhat more complex. Harmfulness has three components, including acute toxicity, mechanical injury (based on the specific gravity of the oil spilled) and persistence scores rated from one to five. Habitat vulnerability is based upon a statewide habitat inventory and ascribes different values for sixteen marine and estuary regions and one hundred thirty-one sub regions. The marine and estuary environments are further subdivided into thirty-seven habitat types. Vulnerability scores are increased if a species of importance, a threatened species, or an endangered species has been exposed to the spill. Some of the factors are additive while others are multipliers, including a normalization factor used to bring damages into a range of one to fifty dollars per gallon spilled. Finally, a credit in the form of a reduction is applied to account for response measures by the polluter at the time of the spill, but even the most responsible PRP cleanup results in damages of at least one dollar per gallon of oil spilled.

As demonstrated in the various approaches, there is a trade-off between precision and transparency. Although all of these models are easy to use (they all involve plugging existing data into a table, matrix, or formula), when more variables are added, the methodology becomes harder to follow. The Type A federal rules suffer from this same fault.

In ongoing efforts to review and improve federal NRD rules, DOI-sponsored study groups should thoughtfully consider these various simplified state approaches. The federal
government should benefit from the efforts—successes and mistakes—of the simplified state programs. Because these programs serve as a laboratory for different methodologies, it is only logical that the federal government would want to capture and share the best aspects of each program.

V. COOPERATION VERSUS LITIGATION

A. Advantages of Cooperation

“As NRD enforcement has evolved, government trustees and potentially responsible parties (PRPs) have increasingly sought to work cooperatively to assess natural resource damages.” 299 Cooperation potentially benefits both parties and the environment. By avoiding lengthy litigation, the restoration work can begin much sooner, which is a clear win for the environment. 300 In addition, cooperation usually entails the PRP funding the costs of assessment. 301

Natural resource trustees are generally understaffed and under-funded. 302 Because the cost of NRD assessment can be expensive, 303 this under-funding presents a hurdle that trustees must overcome in pursuit of NRDs. Even though responsible parties are ultimately on the hook for the costs of assessment, if the trustee lacks the seed money to perform a defensible assessment in the first place, the process of recovery is never triggered and the environment is never restored. NOAA recognizes this sad reality in its Cooperative Assessment Project (CAP) framework. 304 DOI implicitly acknowledges the same phenomena in its budgeting process, whereby it prioritizes approval of cooperative assessments with PRPs in order to free its sparse appropriated assessment dollars for other promising proposals from the field. 305

Cooperation provides a means around the funding problem by allowing the responsible parties to fund the assessment in the first place. As mentioned, the PRP is liable for the assessment costs anyway, so there is no legal disadvantage (if the responsible party is in fact liable) from performing the assessment and absorbing those costs now versus later. In practice, there is actually a financial advantage to the PRP from partnering in the assessment, because

299 Israel, supra note 18, at 4.
302 Id. (“Absent a willing PRP to finance the assessment, the trustees may lack resources to do so.”); Ando et. al., NRDA Methods and Cases, supra note 85, at 3, 5 29 (14 states with no NRD program, others generally have few staff members and do not employ an economist). See also GAO-03-850, supra note 4, at 25 (crisis may be most severe for state trustees as “Officials in 6 of the 10 EPA regions agreed that states in their region faced fiscal problems and anticipated that shortfalls could cause problems with state’s future cleanup capabilities.”).
303 “Trustee assessment costs for the Exxon Valdez exceeded $100 million for studies.” Bill Conner [Chief of NOAA Damage Assessment Center] & Ron Gouguet [Chief of NOAA Coastal Resource coordinators], GETTING TO RESTORATION, 20 ENVTL. L. INST. 2004, available at http://www.darrp.noaa.gov/partner/cap/pdf/gtreli04.pdf (table at 28 shows representative costs of assessment ranging from $460,000 to $2,000,000);
304 NOAA CAP Framework, supra note 300, at 2 (“Trustees may further benefit by: restoring contaminated sites that might not otherwise be addressed or [that might] be addressed more slowly . . . .”).
305 DOI 2007 BUDGET JUSTIFICATIONS, supra note 197, at 1, 21-22 (more proposals than available funding; highest priority based on likelihood of achieving restoration, continued focus on cooperative assessments). DOI receives only about $4 million per year in appropriated funds for damages assessment; this amount is supplemented with about $2 million annually in recovered funds from settlements. Id.
participation affords better insight into and control over its costs. NOAA even allows cooperative cautious assumptions which are protective of the environment to substitute for expensive studies where there is no need for litigation-quality assessments.  

Cooperation also ensures that the responsible party understands the methodology and the data derived from the restoration assessment itself, so there should be less suspicion as to the amount of restoration necessary. Much like PRPs would rather take charge of the cleanups under CERCLA (for the same beneficial control concerns), PRPs can serve their own practical interests by conducting the NRD assessments. Proactive restoration measures can be adopted that take advantage of opportunities for restoration in tandem with ongoing remediation. “Sensible early restoration” can restore the injured resource more quickly. This should result in reduced financial exposure to loss of use damages. In addition, the PRP can help transform its public image from “bad guy” to “good guy” through positive recognition from the trustee that the PRP is part of the solution, not a recalcitrant polluter unwilling to own up to its liabilities.

The final advantage to both parties from cooperation is that it fosters a more beneficial long term relationship. By depolarizing the parties—defusing tensions that are inevitable during litigation—a more beneficial long term partnership is fostered that is better suited to collectively address the traditionally long lasting restoration activities characteristic of CERCLA sites. NOAA captures this sentiment nicely: “The greatest need and opportunity for cooperation . . . are for sites affected by chronic hazardous substance or oil contamination.”

The cooperative approach is clearly gaining traction with many PRPs, as well as the principal federal trustees. “The vast majority—over 95 percent—of NOAA’s trustee concerns at hazardous waste sites and oil spills are resolved using cooperative, integrated approaches.” DOI “has been involved in over thirty-five cooperative assessments across the country” (compare this number with its active caseload of 68 cases, including 46 assessments). In addition, in May 2007, after two years of study, the NRDAR Federal Advisory Committee recommended efforts to push toward simplified methodology for assessment and emphasis on restoration versus damages “by promoting cooperation—in lieu of costly and time consuming adversarial processes—among natural resource trustees and potentially responsible parties.”

One way to deal with valuation problems is to avoid them. If valuation issues cannot be avoided, another way to deal with them is to approach them cooperatively, especially since PRPs are liable for the assessment costs anyway. Both sides can mutually ensure a defensible valuation—protecting the interests of the public, the environment, and industry while avoiding the expense and inconvenience of litigation.

Of course, if the PRPs will not agree to cooperate, the government has no choice but to litigate. Otherwise, it seems that this option costs the government nothing, since the results of

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306 Conner & Gouguet, supra note 303, at 27-28.
307 PRPs may lead cleanup efforts. 42 U.S.C. § 9607.
308 Israel, supra note 18, at 5.
309 Id.
310 See NOAA CAP Framework, supra note 300, at 2 (benefit to PRPs includes positive recognition from trustees and public).
311 This is analogous to the gain expected from alternative dispute resolution compared to litigation.
312 NOAA CAP Framework, supra note 300, at 3.
314 DOI 2007 BUDGET JUSTIFICATIONS, supra note 197, at 17-18.
315 2007 FAC REPORT, supra note 21, at 7.
successful cooperation are an agreed settlement. The same can not always be said of the PRP. For some PRPs, litigation will be inevitable, because the trustees are unreasonable in their NRD demands (as in New Mexico v. Gen. Elec. Co.).

B. Trade-offs

There are a number of trade-offs or sacrifices a PRP must make if it decides to cooperate. Most notably, unless the PRPs are certain that they are liable for damaged natural resources, they are giving up the ability to force the government to prove its case. One advantage of litigation is that, “[u]nlike other environmental claims, the government bears a significant burden to show that the injury resulted from a release or discharge by the defendant.” 316

In court, the PRP also has the ability to challenge the NRDA itself. Even in those remote cases when the rebuttable presumption arises, the defendant has an opportunity, at a minimum, to attempt to rebut the assessment. 317 For example, “losses may be extrapolated to a larger area or population [than warranted],” and underlying assumptions may be unfounded. 318

Other advantages of litigation include opportunities for large corporations to seek to develop desirable precedent; the ability for culpable corporations to delay paying for what is owed; and, the prospect that the trustee will not file on time or at all. 319 In addition, the ecosystem that had been damaged may begin to rebound on its own after the cleanup, and the potential exists that NRDs could diminish or die off if sufficient time passes. 320

For example, loss of a predator species (because of factors unrelated to the pollution) could allow accelerated waterfowl recovery due to lower than expected natural mortality rates. Or, unprecedented flooding could dilute residual waterborne chemicals with a commensurate restorative effect. Although these developments would be good news for the environment, they would also reward foot-dragging by PRPs.

VI. RECOMMENDATIONS

Where a statute is clear and constitutional, the courts should have no problem enforcing it. The NRDA provisions of CERCLA appear clear; however, there is no articulation in the statute concerning how to value compromised resources. Such a shortcoming could be cured with additional legislation (specifying, for instance, a methodology to be used to evaluate NRDs associated with contaminated ground water). In addition, the agencies charged with carrying out the Congressional NRD mandate are entitled to considerable deference in promulgating rules to establish NRD valuations. Either legislation, or improved NRD regulations are needed.

Although cooperative approaches should be commended, a more predictable enforcement regime would better motivate responsible parties to cooperate rather than litigate. All of the advantages of a cooperative approach discussed above can be fostered through a better/stronger/faster litigation contingency for those who do not settle or work with their respective trustees. As might be expected from the discourse above, enabling the trustees to

316 Israel, supra note 18, at 4.
317 The rebuttable presumption is “as yet untested in the courts.” Israel, supra note 19, at 32B-58.
318 Id.
319 See id.
320 Israel, supra note 18, at 4.
proceed in a simplified fashion and allowing trustees the benefit of a presumption in favor of their assessment, would foster a more credible NRDA system.

As seen in the states of Florida and Washington, trustees can benefit from a simplified system based upon a matrix of damages. Such simplified approaches are still predicated on the most critical aspects of any discharge of hazardous substances: namely, the characteristics of the substance(s) released, the volume discharged, and the sensitivity of the receiving environment. The sensitivity can be further divided into sensitive flora, sensitive fauna, sensitive habitat, and otherwise precious resources.

An inflator for destruction of rare or endangered plant or animal species would motivate more cautious behavior when facing the prospect of losing such biodiversity forever. While the cost of breeding and repopulating a species may be available for some plants or animals, it would nevertheless be desirable to at least include an educated guess at similar unknown expenses so that the value of the NRDA is not understated.

If DOI were to promulgate a true simplified NRDA methodology at the time of the next biennial review and revision, this would go a long way toward giving trustees the tools they need to cheaply, quickly and transparently conduct NRDA. Such methodologies would better motivate responsible parties to cooperate and restore the environment. If Congress’ true intent is to prefer restoration and if the trustees can have the resources they need to motivate mutually beneficial restoration programs the giant might not be sleeping much longer. All society would benefit from the acceleration of the corrective measures. Business and industry would benefit from putting these costs behind them.

Absent action on the part of DOI, Congress should review the decision charts in use in Florida and Washington and adopt a similar measure as the simplified federal standard. Creating a truly simple method that is easy to use and carries either a rebuttable presumption, or strict liability, for natural resource damages calculated in conformity therewith, would enable trustees to quickly pursue and collect damages in the simplest cases.

Congress should also commit a few hundred million dollars to fund a “war chest” for trustees under CERCLA to investigate and assess more complex natural resource damages.322 Under the OPA, and under successful state programs, trustees have access to their respective spill funds to perform such natural resource damage assessments.323 However, under the present CERCLA scheme, recourse to the Superfund is unavailable, unless “all administrative and judicial remedies to recover the amount from persons who may be liable” have been exhausted.”324 Unfortunately, when underfunded, the trustees can not afford to assess the damages to seek judicial remedies in the first place. Appropriating funds to conduct the initial assessment, without first exhausting judicial remedies, would cure the trustees underfunding dilemma and should pay dividends later as the monies recouped for the assessments are actually restored to the trustees, to be used for future assessments, restoration or replacement of injured natural resources.

323 33 U.S.C. § 2712 (a)(2) (access to Oil Spill Liability Trust Fund under OPA); N.J. STAT. ANN. § 58:10-23.11f7 (access to New Jersey Spill Fund under state law).
VII. CONCLUSION

However inauspicious my initial encounter with the subject of natural resource damages, it served to alert me to the enormous potential benefit to the environment that lay in appropriate use of NRDs. Where natural resource damages have been ignored, both the environment and the public affected by that environment continue to suffer. Tragically, when trustees and PRPs entrench for litigation, opportunities to promptly remedy past harms are lost for years or even decades. Therefore, reinvigorating NRD recoveries benefits both nature and society.

While the cooperative restoration philosophy embraced by NOAA and increasingly being embraced by DOI shows tremendous promise, regulatory or statutory changes are nevertheless still necessary to enable trustees to enjoy a valuable presumption in litigation. This article suggests appropriate regulatory and legislative changes to better allow trustees to carry out the functions Congress originally intended.

325 "For a complex waste site, it takes at least five years to conduct a damage assessment, and an additional five to 10 years if litigation is required." Conner & Gouguet, supra note 303, at 20.