

US EPA ARCHIVE DOCUMENT

AVAILABILITY OF NATURAL RESOURCE DAMAGE ASSESSMENT MODELING

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Office of Solid Waste
U.S. Environmental Protection Agency

Introduction

Under Section 107(a)(4)(C) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA), persons are liable for damages for injury to, destruction of, or loss of publicly owned or managed natural resources, and the reasonable costs of assessing such injury.

The term “natural resources” is defined by CERCLA Section 101(16) to include:

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 (including the resources of the fishery conservation zone established by the Fishery Conservation and Management Act of 1976), 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.

Section 301© of CERCLA requires the President to promulgate two types of regulations for the assessment of natural resource damages, Type A regulations, which are the standard procedure for simplified assessments in coastal and marine environments, using the Natural resource Model for Coastal and Marine Environments (NRDAM/CME), and Type B regulations, which are the general procedures for conducting natural resource damage assessments, and the alternative methodologies for conducting assessments in individual cases. The President delegated the responsibility for issuing these regulations to the Department of Interior (DOI).¹ The DOI has codified its natural resource damage regulations in 43 CFR part 11.

A. Regulatory Status

Status of DOI Rulemakings

The Department of Interior has promulgated a series of rules for the assessment of damages for injuries to natural resources on August 1, 1986 (51 FR 27674) establishing Type B procedures, March 20, 1987 (52 FR 9042) establishing Type A procedures, on February 22, 1988 (53 FR 5166) to amend 43 CFR part 11 to conform with amendments to CERCLA, and on March 25, 1988 (53 FR 9769) technical corrections to the NRDAM/CME.

The promulgation of these natural resource damage regulations was very controversial since industry and environmental groups disagreed over exactly what damages would be assessed, how damages to the natural environment would be calculated, and how non-use valuation would be integrated into the procedures.

¹ Executive order No. 12316, 46 Fed Reg 42237 (Aug. 14, 1981)

Legal Challenges to DOI Rulemakings

Type B regulatory challenges were consolidated with the lead case entitled State of Ohio v. United States Department of Interior (Ohio v. Interior), No. 68-1529 and Type A regulatory challenges were consolidated as State of Colorado v. United States Department of Interior (Colorado v. Interior), No. 87-1265. The U.S. Court of Appeals for the District of Columbia ruled on July 14, 1989 (see 880 F.2d 432 D.C. Cir. 1989) that DOI should revise the Type B procedures and remanded the NRDAM/CME model. As a result of these lawsuits, DOI has promulgated a series of rulemaking in 1994 (59 FR 14261) and 1995 to respond to the Court

NOAA Damage Rulemakings

On January 7, 1994 NOAA published a proposed rule for assessing natural resource damages resulting from oil discharges into navigable waters under the Oil Pollution Act (33 U.S.C. 2701 et seq) (see 59 FR 1062). This rule was finalized on January 5, 1996 (see 15 CFR Part 990). This rule is important since it incorporated the most recent modeling of damages.

B. Agency Natural Resource Damage Activity

As noted above, the DOI and NOAA are the delegated authorities to establish regulations on natural resource damage procedures. Since most natural resource damage claims are related to Superfund sites, the EPA continues to assist trustees in their evaluation of natural resource damages. As a result of the U.S. Court of Appeals for the District of Columbia rulings on July 14, 1989 (see 880 F.2d 432 D.C. Cir. 1989), and DOI's publishing an advanced notice of proposed rulemaking on September 22, 1989 (54 FR 39016) which announced DOI's intent to comply with the 1989 U.S. Court of Appeals rulings, the Agency took several actions to assure that natural resource damage procedures were integrated into other Agency activities. EPA developed a manual entitled, Superfund Natural Resource Trustee Notification and Coordination Manual, USEPA, Region 10, September, 1989, to assist EPA CERCLA site managers in understanding and complying with laws and regulations concerning Natural Resource Trustees.

The Office of Solid Waste prepared a report entitled, Preliminary Identification of Approaches Used in Valuating Natural Resources, November, 1990, which sought to identify how states valued various natural resources. This report also surveyed the literature on natural resource damage estimation to assure the Agency that it more fully understood the methods used to assess such damages. The Office of Solid Waste also held a meeting entitled, Environmental Benefits Estimation Workshop on April 16, 1991 which brought together leading economists to present descriptions of various methods used to assess natural resource damages (see Appendix A -Final Agenda for the Workshop). Since 1991, the Office of Solid Waste and Emergency Response has carefully monitored DOI and NOAA regulatory

development. Further, EPA has assisted trustees in assessing natural resource damages at a number of sites.

C. Natural Resource Damage Assessments at Mine Sites

There have been a number of natural resource claims at mine sites. It should be noted that these claims are among the largest in dollar amounts and have long litigation histories. The purpose of this section is to simply identify some of the largest damage claims at mines, not to summarize their court histories. Among the first natural resource claims at mines was the claim filed by Idaho against Bunker Hill (see *Idaho v. Bunker Hill*, 635 F. Supp. 665, 675-676 (D. Idaho 1986)). This claim involves natural resource damages to surface water, ground water, and biota at the Bunker Hill Superfund site. The estimated costs of natural resource damage at this site were estimated at hundreds of millions of dollars.

Natural resource damage claims were recently settled at the Blackbird Mine in Idaho for approximately \$60 million. Natural resource claims were filed at the Iron Mountain Superfund site. The estimated costs of natural resource damage at this site were unavailable for this analysis however this site may require perpetual treatment of acid rock drainage.

One of the most extensive natural resource claims at a mine was filed by Montana against the Atlantic Richfield Company at the Clarks Fork Superfund site (see Civil Action No. CV 83-317-HLN-CCL). Based on assessment studies conducted by Montana (see Appendix -Preassessment Screen:Clark fork River Basin, Montana , October, 1991), the costs of natural resource damages at the Clark Fork have been estimated to exceed \$600 million.

In 1992, United States District Court ruled in 810 F. Supp. 553 (check citation) that Utah had failed to adequately assess natural resource damages at the Kennecott Corporation's operations in the Bingham Mining District, near Salt Lake City, Utah. The Court's ruling is important since it directly summarizes the nature and extent of damages at the site. This record indicates that natural resource damages at the site may exceed several hundred million dollars.

Currently, the Coeur d'Alene Tribe and the Departments of the Interior and Agriculture are undertaking a Natural Resource Damage Assessment in the Coeur d'Alene Basin of northern Idaho. The study area covers approximately 1500 acres and the main cause of damage is from historic mining and mineral processing. The assessment process began in 1991 and is ongoing. As of 1995, Idaho has settled its portion of the claim for \$4 million. A description of the nature and extent of environmental damages in the Coeur d'Alene Basin can be found in the Coeur d'Alene Natural Resource Damage Assessment Public Information Updates dated September 1995, and March 1996. (See Appendix). The estimated total costs of natural resource damage at this site were estimated at \$600 million to \$1.3 billion.

D. GAO findings

The Government Accounting Office (GAO) issued a report entitled, Superfund- Outlook for and Experience with Natural Resource Damage Settlements, April 1996 (GAO/RCED-96-71), which noted that there are approximately 60 sites on federal lands which may have natural resource damage claims exceeding \$5 million. Not all of these sites are mine sites. Of the 98 natural resource damage cases settled as of April, 1995, six of those sites were mine sites with damage cost of \$35 million.² This testimony indicates that when natural resource damage claims are finalized at mine sites, they are quite costly, involve years of evaluation, and require complicated restoration and recovery approaches.

E. Conclusion

The DOI began regulatory development of natural resource damage procedures in 1986 and concluded a first round of regulation by late 1988. The Agency began its data collection activities for the 1985 Report to Congress on Wastes from the Extraction and Beneficiation of Ores and Minerals (1985 RTC) in 1983. The 1985 RTC included information on environmental damages caused by extraction and beneficiation, however the report did not discuss how mining was causing natural resource damages. As a result of the consolidated lawsuits filed against DOI, there was a period of time covering roughly five years (from 1989 to 1990) where there was some uncertainty over how regulations governing the calculation of natural resource damages would be accomplished. Since 1991 there have also been a series of damage claims at mine sites which have given the Agency additional insight into the nature and extent of natural resource damages at mines. Further, with the recent completion of regulations by DOI and NOAA, there now exists a series of models and procedures to determine natural resource damages. It is apparent to the Agency that since these procedures are now available, it is prudent that they be used to assist the Agency in determining whether additional regulatory action would decrease the future likelihood of natural resource damages.

² Testimony of Peter Guerro, director, Environmental Protection Issues, GAO, for Subcommittee on Water Resources and Environment, House Committee on transportation and Infrastructure Hearing (July 11, 1995).

Bibliography

Note-A copy of each of the following reports can be found in Appendix 1 of this report.

US EPA, Superfund Natural Resource Trustee Notification and Coordination Manual, Region 10, September, 1989

US EPA, Office of Solid Waste, Preliminary Identification of Approaches Used in Valuating Natural Resources, November, 1990

US EPA, Office of Solid Waste, Final Agenda, Environmental Benefits Estimation Workshop on April 16, 1991.

US EPA, OERR, Preassessment Screen:Clark fork River Basin, Montana, Region 8, October, 1991

US EPA, Coeur d'Alene Natural Resource Damage Assessment Public Information Updates Region 10, dated September 1995, and March 1996.

US Government Accounting Office (GAO), Superfund-Outlook for and Experience with Natural Resource Damage Settlements, April 1996 (GAO/RCED-96-71)

Appendix 1