

# **Natural Resource Damages Under CERCLA – Short Course**

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*(personal views; not those of the U.S.)*

# Objective of NRD Claim

- Restore injured natural resources to “baseline” or provide (create or preserve) equivalent resources
- Provide compensation for interim losses to the public between the injury (or 12/11/80) and full restoration/replacement
- **UNIQUE QUALITY:** The U.S. and States must use damages only to restore, replace, and/or acquire equivalent natural resources.

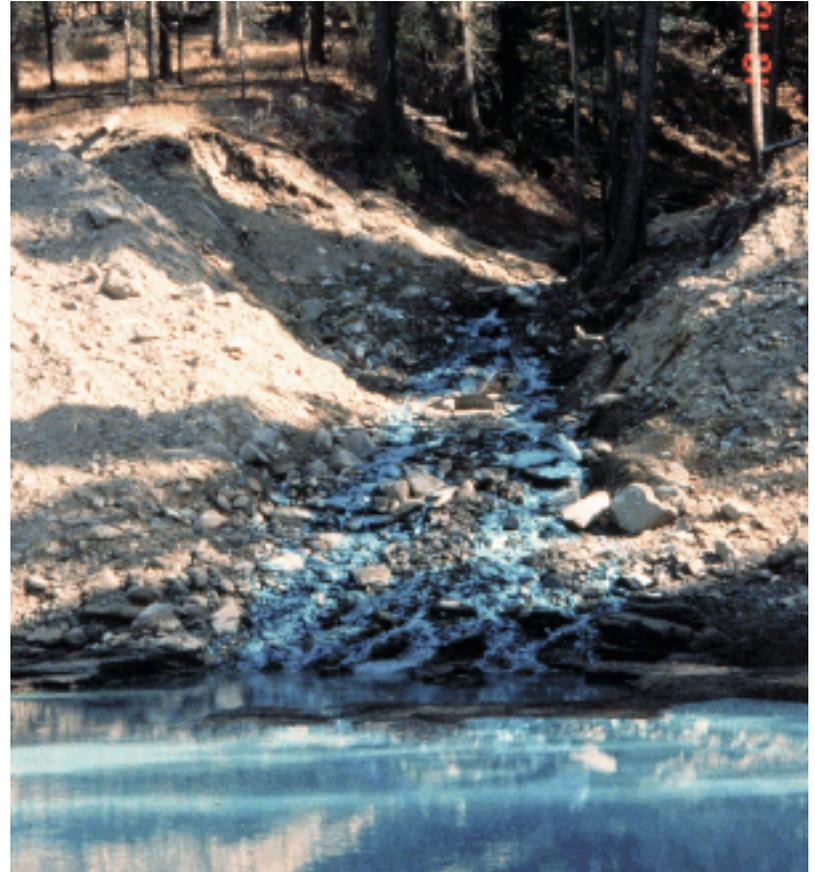
# Relationship of NRD to Cleanup

- Cleanup (removal or remedial action) seeks to eliminate exposure to harmful levels of hazardous substances or oil – preventing future harm to human health or the environment.
  - NRD addresses past harm and any continuing harm to natural resources that the cleanup work does not cure.
- >>NRD should generally be assessed after the cleanup plan is known – “residual” to cleanup.

# Examples of Residual Injuries

- Wetlands left contaminated or capped to isolate contamination
- Fishery closure or consumption advisory
- Long-term loss of reproduction due to buildup of certain toxins in birds or wildlife
- Salmon eliminated from former spawning streams due to mine or mill wastes

# Blackbird Mine Acid Drainage



# Who May Bring NRD Claims?

- Designated Federal and State officials acting as “Trustees” on behalf of the public, or Indian tribes on behalf of their members.
- Federal and State Trustees usually have concurrent claims, which may also overlap the claims of Indian tribes.

# Federal Trustees

- **Trustees of Broad Resource Categories:**
  - Secretary of the Interior (DOI)
  - Administrator of the National Oceanic and Atmospheric Administration (NOAA), within the Dept. of Commerce
- **Land-Managers:** The Department of Agriculture-Forest Service, Department of Defense, Department of Energy, etc.

# Is There a NRD Claim at Every Site?

- The key is usually water -- surface (including wetlands) or ground water.
- Think off-site, particularly when there is a discharge to surface water.

# Elements of NRD Liability

- The core elements of liability for response costs –*plus*
- *“injury to, destruction of, or loss of natural resources . . . (Injury),*
- *resulting from such a release...”* (Causation).

# Need to Prove Damages

- Damages include: (1) costs or projects to restore or replace injured natural resources;
  - (2) compensation for the public's losses from the time of injury (or 12/11/80) until full recovery to baseline; and
  - (3) assessment costs.
- New Mexico v. General Electric Co. – clear liability for ground water contamination, but failure of proof of damages

# Key Exclusions and Defenses

- No recovery for interim losses before 12/11/80 (enactment of CERCLA)
- Petroleum exclusion
- Federally permitted releases (e.g., releases in compliance with NPDES permit)
- “Irreversible or irretrievable commitment” of resources identified in EIS or comparable environmental analysis and authorized by permit or license

# Timing of Claims/Statute of Limitations

- General rule: 3 years after “discovery of the loss and its connection with the release in question.”
- Rule for most DOE sites (federal facilities and facilities listed on the NPL): 3 years after completion of the remedial action (excluding O&M)
- BUT: If President is diligently proceeding with RI/FS, no claim for NRD may be filed before selection of the remedial action

# Why Should You Care About NRD?

- Defensive imperative – avoid or manage risk of litigation
- DOE is itself a Trustee with responsibility to public
- Better remedies – ecologically sound probably means long-term stability
- Efficiencies from integrating response and restoration actions
- Express statutory requirements

# Response Agency Obligations to Coordinate With Trustees

- President "shall promptly notify the appropriate Federal and State natural resource trustees of potential damages to natural resources resulting from releases under investigation pursuant to [CERCLA]...." CERCLA § 104(b)(2) .
- President "shall seek to coordinate the assessments, investigations, and planning under this section with such Federal and State trustees." Id.
- "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 natural resource trustee and shall encourage the participation of such trustee in the negotiations." CERCLA § 122(j)(1) (emphasis added).

# Kalamazoo River, MI

- Removal action under AOC issued Feb. 2007, for 1.5-mile segment above Plainwell Dam
- Remedy is to dredge or cap River sediments; excavate and backfill floodplain soil
- Initial EPA proposal was for rip-rap to control erosion; Trustees persuaded EPA to choose re-contouring of banks and replanting to maximize habitat value while also controlling erosion
- No NRD covenant, but coordination assures reduction in interim losses

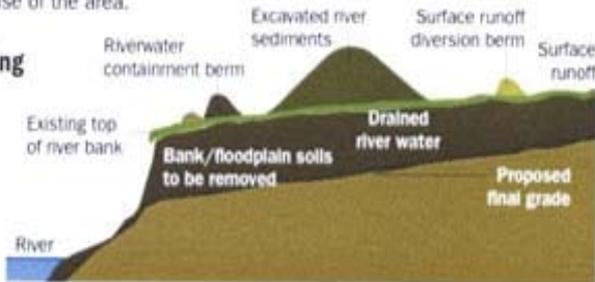
# Plainwell segment of Kalamazoo River

## Restoring the landscape

The state of Michigan owns 123 acres on either side of the 1.5-mile stretch of the river. Once the contaminated sediments have been removed from the river and surrounding land, the banks will be restored to a gentle slope and planted with native water plants to encourage wildlife and recreational use of the area.

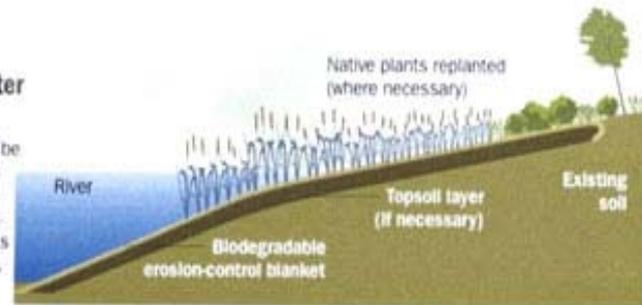
### River bank during processing

Where possible, the contractor will use contaminated soil up the river bank as an initial filter for the drained water.



### River bank after restoration

The river bank will be restored based on the natural flow of the river. In this example, the flow hits the opposite bank.



Sources: Environmental Protection Agency; Gazette research

# Fernald - 1987



# Fernald - 2008



# Natural Resource Damage Assessment Regulations

- CERCLA rule for large cases (“Type B rules”) issued by DOI in 1994; last amended in 2008
- Simplified model (“Type A rule”) to compute damages in small CERCLA cases – issued for marine ecosystems and the Great Lakes only
- Separate rule for NRDA under Oil Pollution Act, issued by NOAA in 1996

# OPA Rule's Innovations: the Paradigm Shift in NRD

Damages Are Usually Measured Entirely by Restoration Costs

- Primary Restoration – projects to return natural resources and services to “Baseline”, *plus*
  - Compensatory Restoration – projects to compensate public for interim losses, from time of initial injury to time primary restoration is complete.
- >> Direct economic valuation of loss is used only when it is not practical to develop a restoration plan.

# Damages Under New Paradigm

- Economic valuation is now used mainly for “scaling” of restoration - determining the amount of restoration needed to offset the loss
- Habitat Equivalency Analysis (HEA) and Resource Equivalency Analysis (REA) preferred to scale “resource to resource”
- Conjoint analysis to scale “service to service”
  - Traditional “value to value” and “value to cost” comparisons are fallback methods

# Habitat or Resource Equivalency

- Equation or model that scales compensatory restoration to match estimated ecological losses
- Can be used either for “habitats” (HEA) or “resources” (REA)
- Challenge is choosing a good “metric” to compare service flows

# Great Lakes Dredge and Dock

- Vessel ran aground in Florida Keys National Marine Sanctuary, after a pipe hanging from the barge it was towing dug a long scar in seagrass beds
- Seagrass in the pipe scar took 3 years to recover.
- Estimated seagrass recovery time at the grounding site was 70 years even after restoration; hundreds of years without restoration

# Great Lakes D&D Litigation

- HEA used to calculate the amount of *additional* area of seagrass planting needed to compensate for the years of interim loss, both in the pipe scar and at the grounding site
- Method was challenged at trial and upheld by both trial and appellate courts. See United States v. Great Lakes Dredge and Dock Co., 259 F.3d 1300, 1305 (11th Cir. 2001).

# Other Examples of HEA/REA “Currencies”

- Discounted salmon spawning years
- Discounted Service Acre Years (DSAY's)

# Cooperative NRD Assessments

- Diplomacy is the norm for Trustees – making a virtue of necessity
- Focus on project costs as the measure of damages has helped draw PRPs into cooperative roles and maintain cohesion among Trustees of divergent perspectives