

Editorial

Leveraging natural resource damage assessments in the face of climate change

When it comes to future environmental conditions that will accompany climate change, some species will feel the pressure more acutely than will others. The primary tool to mitigate the impacts of climate change to these species, outside of societal behavioral changes that decelerate climate change, is habitat conservation, creation, and/or restoration (herein, collectively referred to as “restoration”). One avenue to achieving critical restoration in the near term is settling natural resource damage (NRD) claims. However, NRD claims often languish in the assessment process, sometimes for more than a decade. During those years, opportunities for restoration efforts to mature are lost, as are associated benefits that could be realized by the natural resources and the general public.

Fortunately, US NRD regulations allow for the assessment of impacts and the development of restoration projects to occur simultaneously. This opportunity to expedite NRD settlements is recognized by NRD practitioners and states, as well as federal and/or tribal agencies that manage natural resources (collectively, the “trustees”), but it is rarely taken advantage of. That must change. We are faced with rapidly shifting environments and can no longer afford to adhere to a stepwise process. Rather, now is the time to quantify damages and develop restoration-based settlements in parallel, referred to herein as a “parallel process.” Within the parameters of this approach, the negotiating parties should focus restoration project development on mitigating or eliminating nonchemical environmental stressors, as appropriate.

BACKGROUND

The goal of the NRD process, described in 43 Code of Federal Regulations Part 11, is to compensate the public for losses resulting from the unpermitted release of hazardous substances or oil under the Comprehensive Environmental Response, Compensation, and Liability Act, Clean Water Act, or the Oil Pollution Act. Losses are defined as injuries or measurable, observable adverse effects, to natural resources and their services. More plainly stated, the party responsible for the unpermitted release must compensate the public for the injury to the environment caused by the release. This compensation is achieved through a settlement with the trustees and typically involves a restoration project(s) completed by the responsible party and/or the provision of funds by the responsible party for the trustees

to implement a restoration project(s) (trustee entities, such as the US Department of Fish and Wildlife [Unsworth & Petersen, 1995], often publish guidance documents that describe NRD in plain terms). Litigation as a method for resolving trustee NRD claims, although a possible outcome, is rare.

The European Union (EU) has a similar process for handling NRD under its Environmental Liability Directive (ELD) (ELD 2004/35/CE). Although the primary focus of the ELD is the prevention of accidental releases, the purposes and procedures described therein for remediation and compensation in the event of an accidental release mirror those used in the United States. The ELD was adopted in 2004, so improvements to the NRD process in the United States may serve as an example as procedures under the ELD continue to be defined and developed (ELD 2021/C118/01).

INCREASING EFFICIENCY

Multiple factors may contribute to the length of time that it takes to settle an NRD claim. Some claim elements—such as the parties' inexperience with NRD settlements, an unengaged responsible party, or a lack of coordination

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(either among the trustee representatives or within a responsible party group)—can be challenging to address. However, a parallel process can mitigate two of the issues that often contribute to a slow NRD claim settlement: (1) the desire to be exact when quantifying injury to natural resources and (2) the need for a party to “know the injury (both type[s] and scale[s])” prior to substantive restoration discussions.

The notion that injury can be determined with exactitude is a fallacy—there are always assumptions and uncertainties in quantifying injury. However, there are also assumptions and uncertainties when calculating the benefits of a restoration project. Rather than seeking a precise accounting of injury or restoration benefits, parties should strive to reach a settlement wherein estimated injury and estimated benefit overlap; such a settlement will result in appropriate compensation. While the parties' understanding of natural resource injuries may evolve with additional data analysis and site-specific studies, the general types of injury

(i.e., natural resources likely injured, nature of injuries [survival, growth, reproduction, etc.]) can be estimated from previous investigations into the contamination and published literature.

It is in the interests of the negotiating parties to quicken the rate at which NRD settlements are reached. For the potentially responsible party, a faster settlement means sooner resolution regarding its impact on natural resources and associated liability; such an expedited schedule offers both administrative benefits (e.g., release of liability) and improved public perception for the company. For the trustees, a faster settlement means that associated restoration project(s) can be implemented sooner, thereby compensating the public earlier, and that the injured resources will realize the project benefits more rapidly.

If complete resolution of liability (i.e., a final settlement) is unattainable in the near term, the negotiating parties should attempt to find common ground on an injury category or type such that an interim restoration project can be completed. For an interim restoration project to be feasible, the trustees must be willing to agree—in a legally binding capacity—to a “credit” (i.e., calculated benefit of the restoration project to balance against the calculated injury due to the unpermitted release) for the project. Otherwise, the potentially responsible party assumes all the risk. Credit and implementation of an interim restoration project aligns with trustee responsibilities, as the ecological services from the project will benefit both the public and the environment.

FOCUS ON CLIMATE-RESILIENT RESTORATION PROJECTS

It is a general maxim of NRD practitioners that “good projects get you to settlement.” In other words, high-quality, well-conceived restoration projects are a motivator for the negotiating parties to reach settlement. Typically, NRD restoration projects are developed through a generalized process of identifying ways to create, restore, or preserve habitat for injured resources. However, the increasing pressures of climate change are creating an opportunity for parties to focus on addressing current stressors to natural resources and to seek ways to mitigate or eliminate those stressors to improve a resource's trajectory. Many nonchemical stressors are related to or will be exacerbated by climate change, including warmer temperatures, increased drought, flooding and other extreme weather events, and habitat loss due to sea level rise. Restoration projects that target climate-vulnerable species should be encouraged, because such projects will contribute to local

climate resiliency, align with trustee priorities, and be more likely to yield high credits toward compensating for injury.

Pursuing restoration project development by focusing on nonchemical stressors also offers more opportunity for creativity and efficiency. A suggested framework for implementing this approach is as follows:

- 1) Scope likely NRD resource injuries by evaluating available site data and conducting a literature review.
- 2) Identify nonchemical stressors for resources that are likely injured.
- 3) Prioritize addressing nonchemical stressor(s) that may be exacerbated by climate change.
- 4) Consult literature and local and/or regional restoration plans that address mitigation of those priority stressor(s).
- 5) Develop a list of restoration types and/or locations that address those stressor(s).
- 6) Evaluate the feasibility of implementing these opportunities.

If the negotiating parties follow this framework to develop restoration project(s), they will also be quantifying natural resource injury. As the estimated injury is refined, the restoration project(s) under consideration can be scaled accordingly.

It is both possible and important to improve the current pace of NRD settlements by implementing a parallel process and conducting injury estimation concurrently with restoration project development. As the effects of climate change increase, implementing high-quality habitat restoration efforts is ever more critical. It is time to roll up our sleeves.

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Annie F. Gibbs: Writing—original draft, writing—review and editing; **D. Michael Johns:** Writing—review editing.

REFERENCE

- Unsworth, R. E., & Petersen, T. B. (1995). *A manual for conducting natural resource damage assessment: The role of economics*. Prepared for: Division of Economics Fish and Wildlife Service US Department of the Interior, Industrial Economics, Incorporated.