



# United States Department of the Interior

OFFICE OF THE SECRETARY  
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## MEMORANDUM

To: Director, Bureau of Indian Affairs  
Director, Bureau of Land Management  
Commissioner, Bureau of Reclamation  
Director, U.S. Fish and Wildlife Service  
Director, National Park Service  
Solicitor, Office of the Solicitor

From: Steve Glomb, Director  
Office of Restoration and Damage Assessment

Subject: Best Practices for Considering Advance Restoration and Restoration Banking in the Context of Natural Resource Damage Assessment and Restoration

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## I. INTRODUCTION

The mission of the Department of the Interior's (DOI's) Natural Resource Damage Assessment and Restoration Program (NRDAR Program) is to restore natural resources injured as a result of oil spills or hazardous substance releases into the environment. In partnership with affected state, tribal, and federal trustee agencies, the NRDAR Program conducts damage assessments, negotiates legal settlements or takes other legal actions against the potentially responsible parties (PRPs) responsible for the spill or release, and uses the funds acquired from these settlements and actions to restore the public's injured resources. This document addresses how restoration banking and other "advance restoration" approaches should be considered within the NRDAR Program.

The terms "restoration banking" and "advance restoration" are not defined in NRDAR regulations, but have been discussed by NRDAR practitioners as referring to: (1) restoration conducted by a PRP after injury has occurred that is "credited" in advance of final resolution of a natural resource damages claim against that PRP ("early restoration"), or (2) restoration undertaken by a party in anticipation of marketing portions of such restoration for mitigation or

to address liability for natural resource injury from releases of hazardous substances or oil that may or may not have yet occurred (i.e., restoration “banking”). These best practices are intended to be applicable to both types of “advance restoration” for purposes of the DOI NRDAR Program.

Importantly, this approach complements and does not replace or supersede the existing statutory and regulatory framework that governs natural resource damages claims, including 42 U.S.C. § 9601 *et seq.* (Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)), 33 U.S.C. § 2701 *et seq.* (Oil Pollution Act (OPA)), 33 U.S.C. § 1251 *et seq.* (the Clean Water Act (CWA)), 42 C.F.R. § 11 (CERCLA regulations), and 15 C.F.R. § 990 (OPA regulations).

As established by these statutes and regulations, spills and releases that injure natural resources are not lawfully permitted activities. Unlike the mitigation requirements incorporated as part of regulatory programs such as CWA Section 404 permits or Endangered Species Act (ESA) incidental take permits, the natural resource damages claims authorized by CERCLA, OPA, and the CWA are legal claims that seek compensation from PRPs for the public injury and resulting harm generated by the parties’ unlawful spills or releases.

Advance restoration can be a valuable tool in natural resource damage (NRD) cases; however, its use will necessarily be constrained by the liability and litigation context of NRD claims. In an NRD case, the natural resource trustees (Trustees) seek to hold one or more particular parties liable for the costs of natural resource restoration. To establish liability, the Trustees must show specific injury to natural resources resulting from a release of hazardous substances or an unpermitted discharge of oil for which a PRP is legally responsible. Then, to establish the amount of damages, the Trustees identify the costs of restoration actions that would return the injured resources and/or the services they provide to “baseline” – the condition they would have been in without the release or discharge at issue. This may also include the diminution in value of the resources pending restoration. Thus, restoration projects in NRD cases address the specific injury at issue (a requirement often referred to as “nexus” to the injury) and are of a scale that matches up with the quantum of injury – and PRPs have the right to contest both nexus and scale in court. Moreover, before selecting specific restoration projects, the CERCLA and OPA regulations require that the Trustees must (among other things) (1) consider a reasonable range of alternative restoration actions, and (2) present the proposed project and alternatives to the public and consider public comments. Advance restoration projects, like any other restoration alternative, navigate this series of substantive and procedural hurdles when vying to be selected within an NRD case.

While there is a distinct difference between the liability structure of natural resource damages claims and the use of banking to mitigate the adverse impacts of authorized actions under various statutes such as the CWA and the ESA, the same banking and advance restoration methods and tools used in the regulatory context can potentially also help Trustees meet their statutory requirement to “restore, replace, or acquire the equivalent of” injured natural resources.<sup>1</sup> These

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<sup>1</sup> See 42 U.S.C. § 9607(f)(1).

approaches have the potential to lead to more timely restorations that benefit multiple resources at reduced costs (through economies of scope and scale) than might be achieved through traditional NRDAR approaches. The mere fact that restoration has occurred in advance of an impact to natural resources does not remove that restoration from consideration in the NRDAR context. However, the same inquiries that Trustees make when evaluating any proposed future restoration project apply to restoration banking and other advance restoration approaches as well. Furthermore, the unique temporal nature of advance restoration approaches presents additional issues that Trustees should consider when specifically evaluating banking or advance restoration projects.

## II. TYPES OF BANKING AND ADVANCE RESTORATION APPROACHES APPLICABLE TO NRDAR

There are a variety of restoration banking and advance restoration methods and tools that may be applicable as restoration alternatives in natural resource damages cases, although the potential applicability of any particular tool at a given site is entirely case-specific. These approaches include existing CWA Section 404 mitigation and ESA conservation banks with the ability to flexibly use their credits; site specific projects developed among Trustees, PRPs, and third parties; and potential future NRDAR-specific bank entities. Table 1 identifies the four general categories of restoration banking and advance restoration approaches applicable in the NRDAR context and provides examples and explanations for each.

**Table 1. Restoration Banking and Advance Restoration Approaches**

CATEGORY	EXPLANATION	EXAMPLES
<b>Restoration in Advance of Potential Impacts</b>	Projects undertaken <i>before</i> impacts to natural resources occur.	<ul style="list-style-type: none"> <li>Restoration banks (e.g., CWA 404 mitigation, ESA conservation, or NRDAR-specific banks) that were set up before the injury and have flexible credits.</li> </ul>
<b>Restoration in Advance of Completed Assessment</b>	Projects undertaken <i>after</i> impacts to natural resources occur, but <i>before</i> the completion of the natural resource damages assessment. (Usually established for a particular site.)	<ul style="list-style-type: none"> <li>Emergency Restoration.</li> <li>Restoration Up Front of Assessment/ "Early Restoration." (e.g. Deepwater Horizon case<sup>2</sup>)</li> <li>Internal PRP liability allocation through exchange of restoration credits. (e.g., Portland Harbor &amp; Lower Duwamish cases)</li> <li>Restoration banks set up by third parties to market credits to PRPs at existing NRDAR sites.</li> </ul>

<sup>2</sup> For information on this and other sites mentioned in this document, please visit the NRDAR Program’s case map and document library, found at [http://www.cerc.usgs.gov/orda\\_docs/Default](http://www.cerc.usgs.gov/orda_docs/Default).

CATEGORY	EXPLANATION	EXAMPLES
<b>Restoration in Advance of Complete/Final Resolution of a Claim</b>	Projects undertaken <i>after</i> the natural resource damages assessment is completed, but before final resolution of the NRDAR claim. (Usually established for a particular site.)	<ul style="list-style-type: none"> <li>• Staggered settlements with multiple parties. (e.g., Fox River case)</li> <li>• Partial settlement for restoration of a specific natural resource.</li> <li>• Restoration banks set up by third parties to market credits to PRPs at existing NRDAR sites.</li> </ul>
<b>Post-Settlement Restoration Planning and Implementation</b>	Projects undertaken <i>after</i> a natural resource damages settlement is completed. (Usually established for a particular site.)	<ul style="list-style-type: none"> <li>• Potential to combine settlements with common resources needing to be restored within a geographical location.</li> </ul>

### III. EVALUATING RESTORATION PROJECTS IN THE NRDAR CONTEXT

All NRDAR restoration projects, including banks and other forms of advance restoration, must be evaluated within the criteria established by CERCLA, CWA, OPA, environmental compliance statutes (e.g. NEPA, ESA, National Historic Preservation Act, and others), and their corresponding regulations. CERCLA and OPA regulations require Trustees to consider a “reasonable number” of alternatives, including a no-action alternative, and need to allow the public an opportunity to review and comment on these possible alternatives. The factors that Trustees consider when evaluating restoration project alternatives are the same whether or not the alternative has a banking or advance restoration component. Furthermore, like all proposed NRDAR projects, the selection of a restoration banking or advance restoration approach requires the agreement and approval of all affected Trustees at a specific site.

While the question of when a restoration project was completed will not impact all of the criteria used by Trustees to evaluate restoration alternatives and choose a preferred alternative, the unique temporal nature of restoration banks and other advance restoration tools will affect some criteria, including, but not limited to: nexus to injury, cost-effectiveness, feasibility, and the relationship of expected costs to expected benefits.

#### A. “Reasonable Number” of Alternatives

Both the CERCLA and the OPA regulations direct Trustees to develop and consider a “reasonable number” of alternatives before selecting their preferred alternative.<sup>3</sup> At a minimum, this needs to include a “no action” or “natural recovery” alternative. What constitutes a reasonable number of alternatives depends upon the nature of the proposal and the facts of each

<sup>3</sup> See 43 CFR § 11.80(c); 15 CFR § 990.53(a)(2).

case.<sup>4</sup> When evaluating an alternative that includes advance restoration components, Trustees should consider evaluating a non-advance restoration component as part of their alternatives analysis.

Additionally, this process of reviewing potential NRDAR restoration alternatives includes an opportunity for the public to review and comment on the possible alternatives. Usually this is accomplished by publishing a draft restoration plan that details the possible alternatives and how they restore, rehabilitate, replace, and/or acquire the equivalent of the injured resources. This helps ensure that the human communities most closely tied to the injuries feel that their voices are being heard and their needs met by the restoration.

## **B. Factors to Consider When Evaluating Alternatives**

The various NRDAR regulations provide a number of factors that Trustees are to consider when evaluating possible alternatives in a draft restoration plan. These include, but are not limited to: the technical feasibility of the alternative, the cost-effectiveness of the alternative, the results of any actual or planned response actions, the potential for additional injury resulting from the proposed actions, the nexus of the restoration objective to the restoration injury, and the relationship of the expected costs to the expected benefits anticipated to be achieved by an alternative. These factors apply regardless of whether a project is proposed to take place in the future or has been completed in advance. The consideration of some of these factors will look the same whether or not an alternative includes advance restoration components. However, the consideration of other factors will take on additional nuance when Trustees are considering an alternative that includes some advance restoration.

### ***Nexus to Injury***

When developing a draft restoration plan, Trustees establish restoration goals and objectives that are specific to the particular injured natural resources and lost services resulting from an incident.<sup>5</sup> These goals and objectives are an integral part of the eventual restoration of a site. Trustees evaluate whether restoration alternatives meet their objectives for returning the injured natural resources and services to baseline conditions and compensating the public for interim losses. This is true whether the projects that comprise the alternative are proposed projects or already-existing projects.

Already-existing projects, like banks and advance restoration approaches, must address and be “currently relevant to, the same or comparable natural resources and services as those identified as having been injured” in order to be acceptable as part of a preferred alternative.<sup>6</sup> This nexus between an advance restoration project and the particular injury at a site is a key consideration for Trustees evaluating potential bank projects as part of an alternative. Nexus is a site-specific

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<sup>4</sup> See CEQ Memorandum to Agencies, “Forty Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations” (Mar. 16, 1981 - Question 1b and Answer). <http://docplayer.net/153547-Council-on-environmental-quality-executive-office-of-the-president.html>

<sup>5</sup> See e.g., 15 CFR 990.55(b)(2).

<sup>6</sup> 15 CFR § 990.56(b)(iii).

consideration that Trustees evaluate on a case-by-case basis.<sup>7</sup> For a bank or advance restoration approach to be considered in the NRDAR context, the focus of the project must match up with and address the particular injury implicated by the NRDAR site, as identified by the Trustees. Additionally, regardless of the units of measure the bank employs (“discounted service acre years,” acres, etc.) the Trustees must be satisfied that the quantity and quality of the restoration received compensates for the injury in question.

### ***Cost-effectiveness***

In addition to nexus to injury, the CERCLA and OPA regulations require Trustees to evaluate each proposed restoration alternative based on cost-effectiveness.<sup>8</sup> In the NRDAR context, consideration of cost-effectiveness refers to identifying the least costly alternative among alternatives that provide the same or a comparable level of benefits in the judgement of the Trustees. It does not simply mean choosing the least expensive alternative.

Through economies of scale and other variables, restoration banks and other advance restoration approaches may be able to produce restoration outcomes more cost-effectively than individual post-injury projects. For example, in addition to considering direct costs when evaluating cost-effectiveness, Trustees can also consider the potential reduction in opportunity costs related to implementation timelines offered by banking or advance restoration projects. However, these determinations are case-specific and will be made by the particular case Trustees.

### ***Feasibility***

Technical feasibility considers the likelihood of success of each restoration alternative. Analysis of the likelihood of success looks at whether similar projects have been implemented successfully previously, the technical merits of an implementing entity, the adequacy of funds, and the long-term viability of projects, among other factors.

As part of the determination of feasibility, the trustees should evaluate the effects of climate change on the long-term viability of the project. For example, if a project is selected that may be impacted by changes to climate (e.g., sea level rise along coastal areas or fluctuations in seasonal weather in other areas), the trustees may want to select a different project, especially if the originally selected project may not meet the long-term credits for the injury that the project is to offset.

Another factor trustees should consider is whether the project provides additional resilience to the effects of climate change and how it supports local, regional, or national goals for habitat, species, or community protection. While the preferred restoration project must meet the goals of the NRDAR case and have a nexus to the injury, a secondary criterion for evaluating the feasibility of the project would be the added benefit of the project meeting specific resilience goals. For example, a NRDAR project that restores coastal dune habitat for species protection may also make the dune habitat and adjacent communities more resilient to storm damage.

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<sup>7</sup> In the past, Trustees have evaluated the nexus between injury and restoration projects at various scales, including site-specific, watershed-level, and landscape-level scale, depending on the specifics of the particular case.

<sup>8</sup> See e.g., 43 CFR § 11.82(d)(3).

Banking and other advance restoration approaches may have an advantage over future proposed projects as Trustees can evaluate whether a particular project is technically feasible much more easily when that project is already completed or nearing completion. Trustees can move directly to the further analyses regarding the long-term feasibility of the project as constructed. In the case of CERCLA sites with lengthy remedial activities, Trustees may also consider planning for new banks and advance restoration approaches to be viable restoration alternatives.

### ***Relationship of Costs to Benefits***

Trustees also evaluate restoration alternatives to determine whether they benefit more than one natural resource or service, or prevent future injuries to natural resources while avoiding collateral environmental harm. There is more certainty in the analysis of how the expected costs relate to the expected benefits of a project when Trustees consider a known banking or advance restoration approach as part of a restoration alternative. Cost estimation is much more straightforward with banks and other advance restoration approaches. Furthermore, the portfolio approach taken by many restoration banks means that these projects often leverage benefits to multiple resources. All of these elements are variables that Trustees can consider when evaluating a restoration alternative that includes advance restoration components.

## **IV. ADDITIONAL CONSIDERATIONS WHEN EVALUATING BANKS AND ADVANCE RESTORATION APPROACHES**

Because of the unique nature of banks and advance restoration approaches, Trustees should keep additional considerations in mind when evaluating projects that incorporate one of these approaches. For example, when considering the use of an existing ESA conservation bank, the Trustees must ensure that the bank has the flexibility to sell credits for NRDAR purposes.<sup>9</sup> Trustees need to carefully review a bank's prospectus or mitigation banking instrument for this and other important information. In addition, when considering a bank or other advance restoration approach, Trustees should anticipate questions about baseline, evaluate whether they will have a preference for "enhancement" over "preservation" projects, the relationship of the project to the local communities, and consider other case-specific issues.

### ***Bank Documentation and Operational Reports***

Trustees should carefully review a bank's underlying documentation and any existing operational reports (e.g., monitoring reports) when considering the use of a bank project as a component of restoration. Bank documentation should include an instrument, charter, or prospectus that describes the physical and legal characteristics of the bank, including: goals and objectives, geographic service area, ownership and site protection instrument for the included lands, performance standards, monitoring requirements, accounting procedures, methods for

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<sup>9</sup> The regulations concerning CWA 404 mitigation banks provide those banks (and other compensation projects) the flexibility to use their credits to satisfy the environmental requirements of other programs. *See e.g.*, 40 CFR 230.93(j).

determining credits and debits, credit release schedule, provisions for long-term management and maintenance, reporting protocols, financial assurances, and adaptive management plan.

The DOI case team should involve their case Solicitor and their departmental economist in its review of bank documentation. In addition, for all banks, Trustees need assurances that credits will be properly retired and not double-counted under other programs, and that adaptive management strategies for failure to meet performance criteria are in place.

### ***Application of Advance Restoration Credits***

When utilizing pre-existing restoration bank credits, the Trustees for a particular case determine how available advance restoration credits will be valued and applied to offset NRDAR liability. Trustees may enter into prospective agreements with third party restoration bank developers to determine how advance restoration credits will be valued and applied to offset NRDAR liability for a particular case.

### ***Baseline***

Like any other proposed NRDAR restoration project, a project incorporating a bank or advance restoration approach is required to go out for public review and comment. One line of questioning that Trustees can anticipate receiving from the public when proposing an advance restoration approach is whether that project represents a potential additional restoration opportunity, or if it should be considered part of “baseline” conditions. The public could ask: “regardless of whether you select this advance restoration project, hasn’t the benefit achieved by the project (whether preservation or enhancement) already accrued?” Trustees need to be prepared to discuss this question and provide a suitable response to the public that addresses how the proposed use of an advance restoration component would amount to the ecological uplift necessary to return the system to baseline because the projects were undertaken specifically with advance restoration in mind.

### ***“Preservation” versus “Enhancement”***

Similarly, when faced with evaluating a restoration bank project, Trustees should consider whether that bank was set up to simply preserve or actively enhance the resource it seeks to protect. The determination of whether there is a preference for enhancement over preservation, or vice versa, is a case- and site-specific determination to be made by the Trustees in light of the injury at the site, the overall threat to the viability of the resources in question, as well as the Trustees’ restoration goals and objectives.

### ***Relationship of the Project to the Local Communities***

As restoration projects directly benefit a local community, through restoring an injured resource, creating jobs, increasing recreational outlets, or increasing species habitat, it is vital to consider the needs of the community when evaluating the feasibility of a project. For example, for cases in which a tribe is a member of the trustee council, ensuring that a restoration project meets the tribe’s goals in restoring an injured resource, whether it be the lost cultural use of a resource or the resource itself, is key. As tribal lands are limited, and potential projects may be conducted outside of a reservation’s boundaries or those areas with ceded tribal interest, another level of

review or deliberation may be required to ensure the project meets the goals of restoring the tribes lost resource.

Another consideration that is important when evaluating the feasibility of a project is the relationship to an underserved or under-represented community. To ensure that the project meets the needs of the community, the Trustees should evaluate not only how the project supports the community but also on how the information is relayed. For example, if the area lacks wide-spread internet access, the Trustees should focus on more frequent and local in-person meetings that distribute information versus wide-spread electronic distribution. In addition, the Trustees should consider whether they want to prioritize the creation of jobs that a project will provide, both to adults as well as to youth of all ages that may be able to assist with various parts of the project (e.g., the educational aspect of planting trees and shrubs or monitoring plant growth after planting).

### ***Other Considerations***

Because the nature of NRDAR is so case-specific, the preceding list of considerations is not exhaustive. When considering the use of a bank or other advance restoration approach, Trustees should also consider issues including, but not limited to: the length of time of land protection, the compatible and non-compatible uses described in the bank instrument or prospectus, the performance history of the bank, the extent of financial assurances, whether the monitoring and maintenance program is consistent with the Trustees' goals, whether anticipated long-term management activities have been adequately described and funded, whether there are additional planned restoration efforts, and the nature of any adaptive management plan.

## **V. CONCLUSION**

NRDAR focuses on establishing liability for injury to public natural resources and litigating, if necessary, for damages to restore or replace these resources. It includes both a legal process and an assessment and restoration planning process (with public involvement) that addresses specific harms. This is fundamentally different from a process that seeks to avoid or mitigate impacts from authorized projects or activities. Nevertheless, advance restoration tools and techniques formulated for mitigation – such as restoration, mitigation, and conservation banks -- can be effectively utilized in the NRDAR context when appropriate.

This document is intended to describe a basic decision framework for Trustees when considering advance restoration to address NRDAR injury. DOI intends to work cooperatively with state, tribal, and other federal Trustees to both gain experience and refine the application of advance restoration tools and techniques to NRDAR claims.

## **VI. CONTACTS**

Please direct any questions about this document to Steve Glomb, Director, Office of Restoration and Damage Assessment (ORDA) at 202-208-4863 or to Mark Huston, Deputy Director, ORDA, at 202-208-6528.