

January 31, 2007 (corrected 2/9/07)

TO: Department of the Interior's FACA Committee on Natural Resource Damages

FROM: The Q2 Subcommittee -- John Bascietto, Bill Bresnick, Bill Brighton, Linda Burlington, Steve Kress, Craig Potter, Mark Shurtleff, Vicky Peters (with Paula Cotter), and Shannon Work

RE: Subcommittee Final Report on Question 2

THE QUESTION

The Question 2 (Q2) subcommittee was asked to address the following question:

Should DOI's Regulations provide additional guidance for determining whether direct restoration, rehabilitation, replacement, or acquisition of equivalent resources is the best strategy for addressing natural resource injuries?

The subcommittee developed a list of eight embedded questions or issues, which was circulated to and endorsed by the full Committee (after the addition of question 6 below and reallocation of a question about regional restoration plans to the Question 4 Subcommittee), as follows:

1. Should there be mandatory "threshold criteria" for restoration alternatives instead of the current system of ten unweighted discretionary criteria?
2. Are there other revisions that should be suggested to the existing criteria for evaluating restoration alternatives?
3. Do we need to foster an earlier focus on restoration in the NRDA process? If so, how?
4. Should the NRDA process be made more compatible with the "integration" or coordination of response action planning with injury assessment and restoration planning, and if so, how?
5. Should there be a preference for on-site or in-kind restoration (or any other preference among alternative strategies for restoration/replacement/acquisition)?
6. Is more guidance needed on the appropriateness of projects that provide "services" (such as recreation) without enhancing natural resources?
7. Should DOI provide further guidance on what constitutes a "reasonable number of possible alternatives" for restoration, replacement, or acquisition of natural resources to be considered by the trustees?
8. Should there be a "grossly disproportionate to value" limitation on restoration projects?

This report presents consensus responses of the Q2 subcommittee to these eight questions, including recommendations for revisions to DOI's Type B natural resource damages assessment regulations ("Type B Rule") and for the development of non-binding guidance on certain issues that the subcommittee believes are better addressed outside the regulations.

EXECUTIVE SUMMARY

In general, the subcommittee believes that substantive revisions to the Type B Rule's decision factors for the selection of projects to restore, replace, or acquire the equivalent of injured natural resources should be disfavored. First, the existing decision factors, in 11 C.F.R. § 11.82(d), have already survived judicial review, and revising them may create a fresh opportunity for a challenge in the Court of Appeals. Second, the provisions of the existing Type B Rule for evaluating potential restoration/rehabilitation/replacement/acquisition projects have the enormous benefit of allowing trustees broad discretion to tailor restoration plans to fit the unique circumstances of each case. In considering whether to provide additional guidance or to revise the Rule with respect to the selection of restoration alternatives, DOI should be careful to preserve that discretion.

Despite these reasons for caution in proposing substantive revisions, the subcommittee believes that DOI can provide constructive guidance that does not unduly constrain trustee discretion, through both non-binding guidance documents and revisions to the rule that build on the experience in restoration planning that federal, state, and tribal trustees, responsible parties, and public interest organizations have accumulated. Therefore, on balance, we recommend that DOI seriously consider revisions to the decision factors and related sections of the Type B Rule, including (1) the adoption of three threshold criteria that must be met by any restoration alternative; (2) revisions to several of the existing selection factors to make them more consistent with comparable factors in the Oil Pollution Act NRDA rule and to emphasize the key concept of nexus to the injury; and (3) several other revisions designed to encourage trustees to begin considering restoration options earlier in the assessment process and to improve coordination of natural resource damages assessment with the investigation and selection of response actions. We also recommend the issuance by DOI of new, non-binding guidance to aid trustees in evaluating certain restoration projects for lost services and to encourage the coordination of restoration with remediation.

As noted above, the subcommittee identified and examined eight sub-issues under Question 2. For the first four issues discussed below, we are recommending regulatory changes. For issues 5-7, we do not believe rule changes are needed but instead suggest that DOI consider issuing informal guidance. For issue 8, we conclude no further action by DOI is needed.

- 1. Should there be mandatory "threshold criteria" for restoration alternatives instead of just the current system of ten unweighted discretionary criteria?**

After much discussion, we concluded that alternatives that do not meet any one of the following three threshold criteria should be eliminated from consideration under § 11.82:

- (1) Compliance with applicable Federal, State; and tribal law;
- (2) Reasonable likelihood of success (in lieu of technical feasibility; see discussion below); and
- (3) Demonstrable reasonable relationship to the injured resources giving rise to the claim for natural resource damages (in lieu of nexus; see discussion below).

These threshold or screening criteria are meant to establish a floor to be met by any alternative considered under § 11.82. The intention here is to limit the discussion of alternatives to those that are reasonably likely to succeed, are reasonably connected to the injury, and are, of course, legal.

2. Are there other revisions that should be suggested to the existing criteria for evaluating restoration alternatives?

If DOI decides to revise § 11.82 to add threshold criteria, then the subcommittee also recommends revisions to § 11.82(d) to more clearly reflect the subcommittee's conclusions. The current balancing factors should be revised in several respects in order to: (a) require trustees to consider the *strength* of the relationship between the alternative and injured natural resources (in addition to requiring that, at a minimum, a "reasonable" relationship exists); (b) incorporate a preference for actions that have long-term, sustainable benefits to natural resources and services; (c) make the Type B selection criteria more similar to those in the OPA NRDA rule, at 15 C.F.R. § 930.54(a); and (d) clarify other criteria in light of the trustees' experience since the criteria were promulgated. With the recommended modifications (underlined) incorporated, the section of the rule containing the balancing criteria would read as follows:

() Factors to consider when selecting the alternative to pursue. When selecting the alternative to pursue, the authorized official shall evaluate each of the possible alternatives based on all relevant considerations, including the following factors:

- (1) The likelihood of success of each alternative. [This is identical to a factor in the OPA rule and would replace "Technical feasibility, as that term is used in this part."]
- (2) The relationship of the expected costs of the proposed action to the expected benefits from the restoration, rehabilitation, replacement, and/or acquisition of equivalent resources.
- (3) Cost-effectiveness, as that term is used in this part.
- (4) The results of any actual or planned response actions.

(5) The extent to which each alternative will prevent future injury and avoid collateral injury as a result of implementing the alternative. [This is adapted with minor revisions from the OPA rule; and would replace “Potential for additional injury resulting from the proposed actions, including long-term and indirect impacts, to the injured resources or other resources.”]

(6) The extent to which each alternative will accelerate the recovery of resources and services in comparison with the natural recovery period determined in 11.73(a)(1) of this part. [Meant as a clarification; would allow deletion of current (7), which reads “Ability of the resources to recover without alternative actions.”]

(7) The relative strength of the relationship between each alternative and the injured natural resources giving rise to the claim. [New: addresses the importance of nexus between the alternative and the injured resources.]

(8) The extent to which natural resource services provided by each alternative are sustainable over the long term. [New; incorporates a preference for permanence.]

(9) Potential effects of the action on human health and safety.

(10) Consistency with relevant Federal, State, and tribal policies.

3. Do we need to foster an earlier focus on restoration in the NRDA process? If so, how?

The subcommittee believes it is important for trustees to begin thinking about potential opportunities for restoration and the information needed to develop and assess restoration alternatives from the very start of the NRD assessment process. Under the existing Type B rule, however, trustees are first specifically directed to consider restoration alternatives in the Damages Determination Phase, which in a complex case may not occur until two years or more into the NRDA process. In order to highlight the need to initiate restoration planning early and to gather appropriate information at each point in the NRDA process, the subcommittee recommends that DOI make changes in several earlier parts of the Type B rule: add a new subsection (f) to 11.25 (Preassessment Screen), and revise the text of sections 11.31 and 11.32 (Assessment Plan), 11.61 (Injury Determination), and 11.71 (Quantification).

4. Should the NRDA process be made more compatible with the “integration” or coordination of response action planning with injury assessment and restoration planning, and if so, how?

Close coordination of response action investigations and planning with natural resource damages assessment and the development of a restoration plan offers significant benefits not only to trustees and response agencies, but also to potentially responsible parties (PRPs). First, to the extent field investigations are designed to gather information simultaneously useful to both the response agency and the trustees, coordination of the response and restoration processes will help avoid redundancies and

reduce costs. Second, where the response agency is able to take into account the trustees' assessment of injuries and the most appropriate restoration alternatives, it may often be possible to shape the response action to mitigate the natural resource injury and, therefore, reduce the need for further restoration and the size of the claim for damages. At the very least, simultaneous consideration of response and restoration options should allow the response agency and trustees to minimize the chance of inconsistency between their decisions and the risk that the level of contaminant removal selected for cleanup will be insufficient for restoration. An additional benefit is that closer coordination may increase the chances for a restoration-based settlement.

Achieving these benefits is not always easy. Obstacles include restriction on the use of appropriations and simple inadequacy of funding, confusion over similar but different regulatory missions, bureaucracy, concerns over legal authority, a project managers' lack of experience, or simple personality conflicts. Nonetheless, trustees, response agencies, and PRPs at many sites have increasingly worked to better coordinate the response and restoration processes, and two major agencies that often act as both the lead response agency and a natural resource trustee – the Department of Defense (DOD) and the Department of Energy (DOE) – have adopted policies favoring outright integration of the two processes, to the extent possible.

Obviously, DOI alone cannot compel response agencies to coordinate their efforts with trustees. However, the subcommittee finds that with appropriate guidance as to extant rule provisions, DOI can encourage greater trustee, PRP and responder cooperation, and can facilitate understanding by the parties of the opportunities for increased efficiencies and promotion of environmental benefits already offered by the rule. Therefore, the subcommittee recommends that DOI consider making revisions to several provisions of the Type B rule and adding a new provision that would explicitly encourage trustees to pursue early coordination and integration of response and restoration processes. In addition, DOI should provide guidance on how the response agency and trustees might coordinate to achieve a common data base, collective identification of data needs and data gaps, analysis of how the remedy will affect residual injury, how the remedy might be modified to lessen injury and residual damages, and early joint identification of possible restoration opportunities. Guidance should also encourage the participating parties to consider developing written agreements that lay out the principles of how they will work together.

Our recommended new provision is as follows:

___ . *Coordination of damages assessment with response action investigations and planning.*

- i. Whenever practicable, prior to and during a remedial investigation or other investigation to support response action decisions, the affected trustee or trustees shall seek to coordinate with the lead response agency under the NCP to: (1) minimize duplication of sampling and other data collection efforts between the response investigations and damages assessment; and (2) help ensure that, to the extent appropriate, data and other information collected for the response investigations will also be useful for injury determination and restoration planning;

ii. Where appropriate, the affected trustee or trustees may seek to coordinate with the lead response agency under the NCP concerning the selection of response and restoration actions to: (1) minimize, or provide mitigation for, any potential adverse impacts of the response actions on natural resources; (2) avoid inconsistency between response and restoration actions to the greatest extent possible; and (3) select the most cost-effective combination of response and restoration actions consistent with the requirements applicable to each decision. Such coordination may occur in any manner agreed to by the lead response agency and the trustee or trustees and may include the issuance of a single, integrated decision document selecting both response and restoration actions.

5. Should there be a preference for on-site or in-kind restoration (or any other preference among alternative strategies for restoration/replacement/ acquisition)?

The subcommittee recommends that DOI issue non-binding guidance urging that trustees *consider* at least one on-site, direct (i.e., in-kind) restoration alternative in any case where response actions have not achieved full restoration to baseline.¹ However, we recommend against giving any substantive preference for on-site or in-kind restoration or otherwise adopting a hierarchy of approaches to restoration because that would unduly constrain the discretion of trustees to adapt restoration plans to the vast range of circumstances at contaminated sites and might impede the selection of more cost-effective and efficient restoration options. We also recommend against including any new requirement on this topic in the Type B rule because that would needlessly increase (even if only slightly) the rigidity of the restoration planning process.

6. Is more guidance needed on the appropriateness of projects that provide “services” (such as recreation) without enhancing natural resources?

Certain types of “restoration” projects – particularly those that are intended to provide services to humans directly rather than through the enhancement or protection of natural resources – have caused controversy and raised questions about whether the proposed actions are consistent with the trustees’ statutory mandate to restore, replace, or acquire the equivalent of the injured resources. For example, proposals to build community centers, educational facilities, boat houses or docks, parking lots near recreational areas, artificial ponds, or even an aquarium have attracted strong support from some community members or trustees but certainly do not directly restore or replace injured natural resources and, depending on the circumstances, may be legally-questionable uses of a natural resource damages recovery. We believe the addition of a “reasonable relationship” threshold criterion and the revisions to the balancing factors proposed above will give trustees an improved framework for evaluating the appropriateness of such proposals. Because those factors are necessarily fairly general, however, the subcommittee recommends that DOI also develop and issue non-binding guidance providing more detail on how trustees should evaluate several commonly-proposed types of “services restoration” projects, including research or educational

¹ As explained under issue 7 below, we further recommend that this guidance urge trustees to consider, in every case, at least one off-site restoration, replacement, or natural resource acquisition alternative.

programs and facilities; recreational amenities such as trails, cabins, restrooms, visitor centers, boat launches or piers, or parking facilities; and the stocking of sport fish to replace prior self-sustaining fisheries.

DOI should also address in guidance the problem of how to compensate for injuries to natural resources that are demonstrably of special cultural (including historical or religious) value to an Indian tribe or other citizens. Particularly when it is impossible, or will take a long time, to return the injured resources fully to baseline, the impact on cultural uses may be large and cannot necessarily be remedied by providing substitute natural resources. The subcommittee therefore recommends that DOI discuss this problem in guidance and affirmatively recognize that projects providing cultural services may be appropriate where cultural uses are lost, even with a more attenuated link to natural resource enhancement or protection than would be appropriate in other circumstances.

7. Should DOI provide guidance on what constitutes a “reasonable number of possible alternatives” for trustees to consider before making a decision on a restoration plan?

No change to the rule is needed on this issue, but non-binding DOI guidance would be appropriate and helpful to trustees. Such guidance should clarify that “a reasonable number of possible alternatives” is not a fixed number but will vary depending on the nature of the injury and the location of the natural resources injured. Normally, a reasonable range of alternatives should include at least one on-site alternative and at least one off-site alternative, as well as the “no action” alternative presently required by the Type B rule. Where any of these types of restoration is not considered, the trustees should explain why that is.

8. Should there be a “grossly disproportionate to value” limitation on restoration projects?

No. DOI’s current requirements under 11.82(d)(2) to *consider* “[t]he relationship of the expected costs of the proposed action to [its] expected benefits[,]” and to select restoration projects that are cost-effective, adequately ensure that costs will be appropriately factored into decision-making. The imposition of a test to determine whether the cost of a restoration alternative is grossly disproportionate to the value of the loss would be counter-productive as it would undermine restoration-based analysis, which is widely supported and has led to timely and efficient settlements, and instead force the parties to use economic valuation methods that are often time-consuming, expensive, and generally controversial.

DISCUSSION

I. The Existing Legal Framework

Under DOI’s Type B rule, the development of a restoration plan and the selection of natural resource restoration, rehabilitation, replacement, or acquisition alternatives are governed by 43 C.F.R. § 11.82 (fully reproduced in Attachment 1), whose current

language was adopted in DOI's initial post-*Ohio* (*State of Ohio v. United States Department of the Interior*, 880 F.2d 432 (D.C. Cir. 1989)(*Ohio*)) rulemaking, 59 Fed. Reg. 14281 (March 25, 1994). Section 11.82(a) states in part that:

The authorized official shall develop a reasonable number of possible alternatives for the restoration, rehabilitation, replacement, and/or acquisition of the equivalent of the injured natural resources and the services those resources provide. . . . The authorized official shall then select from among the possible alternatives that he determines to be most appropriate based on the guidance provided in this section.

43 C.F.R. § 11.82(a). The alternatives that may be considered are limited to “those actions that restore, rehabilitate, replace, and/or acquire the equivalent of the injured resources and services to no more than their baseline, that is, the condition without a discharge or release. . . .” 43 C.F.R. § 11.82(b)(iii). The alternatives may “range from: intensive action . . . to return the various resources and services provided by those resources to baseline conditions as quickly as possible; to natural recovery with minimal management actions.” 43 C.F.R. § 11.82(c)(1). Trustees must consider a “natural recovery” alternative in every case, 43 C.F.R. § 11.82(c)(2), and federal trustees are directed not to choose an alternative that requires the acquisition of land for federal management unless no restoration, rehabilitation, or replacement action is possible. 43 C.F.R. § 11.82(e).

The Type B rule provides a non-exclusive list of ten criteria for evaluating alternatives, as follows:

(d) Factors to consider when selecting the alternative to pursue. When selecting the alternative to pursue, the authorized official shall evaluate each of the possible alternatives based on all relevant considerations, including the following factors:

- (1) Technical feasibility, as this term is used in this part.
- (2) The relationship of the expected costs of the proposed action to the expected benefits from the restoration, rehabilitation, replacement, and/or acquisition of equivalent resources.
- (3) Cost-effectiveness, as that term is used in this part.
- (4) The results of any actual or planned response actions.
- (5) Potential for additional injury resulting from the proposed actions, including long-term and indirect impacts, to the injured resources or other resources.
- (6) The natural recovery period determined in 11.73(a)(1) of this part.
- (7) Ability of the resources to recover without alternative actions.
- (8) Potential effects of the action on human health and safety.

(9) Consistency with relevant Federal, State, and tribal policies.

(10) Compliance with applicable Federal, State, and tribal laws.

43 C.F.R. § 11.82(d). The rule provides no hierarchy among the ten listed factors, and, while all must be evaluated, none is mandatory in the sense that an alternative would have to be rejected if the individual factor is not satisfied.

Several challenges to Section 11.82 were raised and rejected in Kennecott Utah Copper Company v. U.S. Department of the Interior, 88 F.3d 1193 (D.C. Cir. 1996) (“Kennecott v. DOI”):

-No preference required for on-site restoration. The Court agreed with DOI that trustees may choose among restoration, rehabilitation, replacement, and acquisition strategies without giving any one approach priority and, therefore, rejected arguments by the State of Montana that CERCLA should be interpreted to require a preference for physically restoring resources over off-site replacement or acquisition of comparable resources. See Kennecott v. DOI, 88 F.3d at 1229.

-Consistency with response actions must be considered but is not an absolute limitation. While endorsing the rule’s direction to trustees to *consider* the effects of any actual or planned response actions, the Court rejected arguments that the rule must require consistency between restoration plans and cleanup decisions in every case. See 88 F.3d at 1219 (Although consistency between restoration and response actions is generally desirable, some degree of inconsistency may at times be necessary, “particularly where short-term and long-term considerations dictate seemingly conflicting responses (e.g., grass to prevent erosion, followed by reforestation, which kills the grass).”).

-“Grossly disproportionate to value” test rejected. The Court also declined to require DOI to include an exception to the general rule that trustees should seek to return the injured resources and services to baseline where the costs of full restoration/replacement, and/or acquisition would be “grossly disproportionate” to the value of the injured resources. See 88 F.3d at 1218. The Court found that the decision criteria provided by the rule, which include the requirement that trustees consider “[t]he relationship of the expected costs of the proposed action to [its] expected benefits . . . [.]” are sufficient to exclude unreasonably costly actions. Id.

NOAA’s rule for natural resource damages assessments under the Oil Pollution Act (“OPA”) provides an overlapping, but in some respects different, set of criteria. The OPA rule requires that every project satisfy two threshold criteria:

(a) the alternative must be technically feasible, and

(b) the alternative must comply with applicable laws.

15 C.F.R. § 930.53(a)(2). Alternatives that pass the threshold criteria are then to be evaluated based on, at a minimum:

- (1) The cost to carry out the alternative;
- (2) The extent to which the alternative is expected to meet the trustees' goals and objectives in returning the injured natural resources and services to baseline and/or compensating for interim losses;
- (3) The likelihood of success of each alternative;
- (4) The extent to which each alternative will prevent future injury as a result of the incident and avoid collateral injury as a result of implementing the alternative;
- (5) The extent to which each alternative benefits more than one natural resource and/or service; and
- (6) The effect of each alternative on public health and safety.

15 C.F.R. § 930.54(a) (*see* Attachment 2).

II. Subquestions Addressed by Q2 Subcommittee

A. Should there be mandatory “threshold criteria” for restoration alternatives instead of just the current system of ten unweighted discretionary criteria?

The subcommittee proposes an approach similar to the approach in the OPA regulations, which identify technical feasibility (as defined there) and compliance with law as threshold criteria and then focus on identification of a range of restoration alternatives prior to the application of the evaluation criteria. The threshold criteria are really in the nature of screening criteria to be used to qualify a reasonable set of alternatives for further consideration based on the application of the other criteria. In general, we prefer this approach because it allows the trustees to eliminate plainly-inappropriate proposals early, before undertaking the more extensive analysis necessary to apply the full set of decision factors.

In addition to the OPA Rule's threshold criteria, we think it is desirable to adopt a threshold requirement that there be a clear nexus or linkage of any alternative to the trustees' goals of returning injured natural resources and their services to baseline conditions, and we commend this approach to the Committee.

(1) Compliance with Applicable Law

Unlike CERCLA's permit exemption for remedial actions, restoration actions must comply with existing law. Therefore the establishment of this criterion as an initial screen makes sense.

(2) Reasonable likelihood of success

Originally we had considered technical feasibility to be a strong candidate as a threshold criterion, but given what we saw as a problematic definition of technical feasibility in Part 11, we decided to eliminate it altogether as a restoration selection factor in § 11.82(d) rather than attempt to redefine the term in § 11.14(qq). In general, we concluded that the existing definition might have a chilling effect on innovation and that a better and more realistic approach would be to require that a restoration plan has a reasonable chance of successful completion in an acceptable period of time. As a result, we recommend the substitution of likelihood of success for technical feasibility as a criterion in § 11.82(d)(1).

(3) Demonstrable reasonable relationship to the injured resources giving rise to the claim for natural resource damages

The adoption of this threshold criterion is intended to be consistent with our views on the importance of having a reasonable nexus between the restoration and the injuries. Since CERCLA requires that trustees demonstrate some linkage between the resource injuries and proposed restoration, we decided, after considering the OPA approach, to recommend elevating this requirement to threshold criterion status. Therefore, instead of requiring the somewhat abstract and potentially troubling concept of a nexus, we embraced what we regard as clearer and more definitive language.

Accordingly, after much discussion, we concluded that alternatives that do not meet any one of the following three threshold criteria should be eliminated from consideration under § 11.82:

- (1) Compliance with applicable Federal, State; and tribal law;
- (2) Reasonable likelihood of success (in lieu of technical feasibility; see discussion below); and
- (3) Demonstrable reasonable relationship to the injured resources giving rise to the claim for natural resource damages (in lieu of nexus; see discussion below).

The applicability of these threshold or screening criteria is intended to establish a floor to be met by any alternative to be considered under § 11.82. The intention here is to limit the discussion of alternatives to those that are reasonably likely to succeed, are reasonably connected to the injury, and are, of course, legal. Projects passing this screen could then be included in a reasonable range of alternatives that would then be evaluated using balancing factors similar to those in § 11.82(d) of the existing Type B rule.

The subcommittee did not resolve where in the regulations the new threshold criteria should be added. One possibility is revision of 11.82(c), which could be rewritten to more clearly reflect our conclusions. Further clarification could also be added as § 11.82(b)(3), which currently describes the steps to be taken in developing a reasonable number of possible alternatives.

B. Are there other revisions that should be suggested to the existing criteria for evaluating restoration alternatives?

As noted above, the recommended threshold criteria would act as a screening mechanism in the sense that only alternatives that meet all three threshold criteria would be eligible for further consideration based on the application of the other criteria. Qualifying projects should then be evaluated using factors similar to those in § 11.82(d) of the existing Type B Rule. The application of these non-threshold criteria should be accomplished in a manner that allows careful consideration of the relative strengths of each alternative. The application of criteria at this point is, in effect, a balancing test.

While the subcommittee supports the inclusion of both threshold criteria and balancing factors in the rule, we believe that the current balancing factors should be revised in several respects in order to: (a) require trustees to consider the *strength* of the relationship between the alternative and injured natural resources (in addition to requiring that, at a minimum, a “reasonable” relationship exist); (b) incorporate a preference for actions that have long-term, sustainable benefits to natural resources and services; (c) make the Type B selection criteria more similar to those in the OPA NRDA rule, at 15 C.F.R. § 930.54(a); and (d) clarify other criteria in light of the trustees’ experience since the criteria were promulgated.

a. Is there a need for regulatory revisions or only for non-binding guidance?

In general, substantive revisions to the Type B rule’s decision factors in § 11.82(d) should be disfavored. First, the existing decision factors have already survived judicial review, and revising them may create a fresh opportunity for a challenge in the Court of Appeals. Second, no one has complained that the existing factors unduly constrain trustees’ discretion to fashion a restoration plan to fit the specific facts of each case. As discussed above, the subcommittee strongly believes this discretion is highly desirable and important to preserve. Moreover, DOI can effectively mitigate at least part of the problem described above through non-binding guidance. Nonetheless, if DOI adopts this subcommittee’s recommendation to adopt threshold criteria, we further recommend that the agency consider modifications to the decision factors currently in the rule for the following reasons:

First, trustees appear to have made very little formal use of the Type B decision factors in assessments (one of the few being Fox River/Green Bay), which suggests that they have not viewed the factors as providing valuable guidance. This lack of use also means that the factors can be revised without concern about losing the benefits of extensive precedents or an established “practice.”

Second, the existing Type B balancing factors do not explicitly address key issues that are inherent in the restoration planning process. Perhaps most importantly, the rule does not require trustees to evaluate the extent to which an alternative will provide *long-term* benefits to the ecosystem and the public). In addition, the rule provides little guidance on how to evaluate several specific types of “restoration of human services” alternatives that have been suggested repeatedly in individual cases, including proposals to construct buildings or other facilities for research or educational programs, or to fund the programs themselves; the construction of recreational amenities such as trails, cabins,

restrooms, visitor centers, boat launches or piers, or parking facilities; programs to stock fish species popular for recreation or to build or fund the operation of fish hatcheries; and proposals to fund programs, such as park maintenance or sewage treatment plant upgrades, that are also a normal part of the responsibilities of trustee agencies or of sister government agencies. While it would be impractical to address all such issues directly in a workable list of decision factors, the rule should at least provide an intellectual framework that makes it easier for trustees (and the public) to analyze such issues in light of the rule's overall objectives and policies. In the subcommittee's view, the existing criteria do not provide such a framework.

Third, to the extent any revisions to the Type B rule are being considered, this is an opportunity to narrow the differences between DOI's rules under CERCLA and comparable provisions of the NRDA rule under OPA. The restoration planning processes under CERCLA and OPA present essentially identical procedural and substantive issues. Nonetheless, the CERCLA and OPA rules contain significantly different criteria for selecting among restoration alternatives. To the extent practicable, it seems desirable to make the decision criteria for restoration planning under CERCLA and OPA more similar to one another and to develop guidance common to both processes.

Therefore, in addition to adding threshold criteria, the subcommittee also recommends revisions to § 11.82(d) to provide more practical assistance in choosing among potential alternatives.

b. *What rule revisions should be considered?*

To narrow the focus of our discussion of possible revisions, we used two "ground rules": (1) Add to or change existing criteria only to address a specific omission or other deficiency; and (2) look first to the OPA rule for potential revised criteria and craft new language only when that rule does not fully address the identified deficiency. Applying these ground rules we recommend the addition of selection factors for two particularly significant issues that, as noted above, the existing Type B rule does not directly address:

- the relationship (or "nexus") between a proposed alternative and the injured natural resources and the services they provided, and
- the extent to which an alternative will provide long-term benefits to the ecosystem and the public.

Nexus

The first element missing from the existing decision factors – the degree of nexus between an alternative and the injury – is central to the analytical framework that trustees need to address the "human services" projects described above. Our proposal (described under question 3 above) to adopt a threshold criterion allowing trustees to consider only those alternatives that have a "demonstrable reasonable relationship" to the injured natural resources should screen out projects that are plainly inconsistent with the statutory requirement to use recoveries only for restoration. That should not be the end to the analysis of "nexus," however. Rather, we believe trustees should go on to compare alternatives by *how close* or *how strong* the nexus is – i.e., how close will each proposed alternative come to achieving the trustees' core objectives of returning injured resources and/or the services they provided to baseline, and compensating for interim losses. The

closer the connection between the alternative and the specific injury at issue in the case, the clearer it is that the project is appropriate. On the other hand, if the trustees cannot articulate a relationship between an alternative and specific injured resources or lost services of the injured resources, that alternative would not be favored under the proposed decision matrix, and other alternatives should be explored.

Accordingly, we suggest adding a new decision factor similar to the following: “The relative strength of the relationship between each alternative and the injured natural resources giving rise to the claim.”

Long-term nature of benefits

At the heart of the natural resource damages provisions of CERCLA and OPA are two principles: that the government (federal, state, and tribal) holds or manages natural resources as a “trust” for the benefit of the public; and that the only appropriate way to vindicate the public’s interests when this trust is injured is to rebuild the trust (which can be done either by directly repairing the specific injured resources or by somehow creating or making available equivalent resources). Both of these principles imply that the public interests in natural resources protected by these statutes are, in many cases, long-term, or even essentially (from our limited human perspective) permanent. That, in turn, suggests that trustees should strongly favor restoration alternatives that promise enduring improvements or protections of natural resources, with benefits to future generations counting at least as heavily as benefits to the current population. None of the existing Type B decision criteria, and none of the OPA criteria, reflects this fundamental point in any way.

To fill this void, we recommend that DOI consider adding a new criterion similar to the following: “the extent to which the natural resource services provided by each alternative are sustainable over the long term.” This formulation would not necessarily preclude trustees from selecting an alternative that provides only temporary benefits, *e.g.* as compensation for interim losses that fell heavily on an identifiable community, or projects that are inherently vulnerable to natural destructive forces (such as coastal marsh projects in Louisiana). However, it would in effect force trustees to articulate specific reasons for selecting actions with only short-term benefits and, appropriately, put pressure on them to give greater consideration to alternatives that will hold up for the long run.

Other potential improvements

If DOI decides to pursue rulemaking, the subcommittee suggests that the agency also consider the following revisions, in order of priority.

(a) Amend factor (6) in the current rule to read (new language underlined): The extent to which each alternative will accelerate the recovery of resources and services in comparison with the natural recovery period determined in 11.73(a)(1) of this part. This revision makes clear the purpose for which the natural recovery period is being considered. It would also allow the deletion of factor (7) in the current rule, which reads “Ability of the resources to recover

without alternative actions.” That factor adds nothing to the analysis required under the amended sixth factor, and deleting it would not be a substantive change – but would keep the number of decision factors from growing.

(b) Substitute for criterion (1) (“Technical feasibility, as that term is used in this part”) the comparable criterion from the OPA rule: “the likelihood of success of each alternative.” This change would require trustees to take into account differences in the probability that various restoration alternatives will hold up without further action, while recognizing that the art/science of natural resource restoration is at a relatively early stage of development and that it will sometimes be appropriate for trustees to select actions that have not yet been proven to the point that they clearly satisfy the “technically feasible” standard as defined in the existing rule.

(c) Replace criterion (5) in the existing Type B rule (“Potential for additional injury . . .”) with “The extent to which each alternative will prevent future injury and avoid collateral injury as a result of implementing the alternative.” This language is very similar to criterion (4) from the OPA rule (“The extent to which each alternative will prevent future injury as a result of the incident, and avoid collateral injury as a result of implementing the alternative[.]”). However, we suggest deleting the phrase “as a result of the incident” in the OPA rule language because trustees should be permitted to consider the benefits of preventing future injuries from any cause, not just those resulting from the original incident.

[Note that factor (10) in the current version of Section 11.82(d), “Compliance with applicable Federal, State, and tribal laws,” would no longer be needed as a balancing factor if it is adopted as a threshold criterion in accordance with the subcommittee’s recommendation.]

With the recommended modifications (underlined) added, the section of the rule containing the balancing criteria would read as follows:

() *Factors to consider when selecting the alternative to pursue.* When selecting the alternative to pursue, the authorized official shall evaluate each of the possible alternatives based on all relevant considerations, including the following factors:

(1) The likelihood of success of each alternative. [This is identical to a factor in the OPA rule and would replace “Technical feasibility, as that term is used in this part.”]

(2) The relationship of the expected costs of the proposed action to the expected benefits from the restoration, rehabilitation, replacement, and/or acquisition of equivalent resources.

(3) Cost-effectiveness, as that term is used in this part.

(4) The results of any actual or planned response actions.

(5) The extent to which each alternative will prevent future injury and avoid collateral injury as a result of implementing the alternative. [This is adapted with minor revisions from the OPA rule; and would replace “Potential for additional injury resulting from the proposed actions, including long-term and indirect impacts, to the injured resources or other resources.”]

(6) The extent to which each alternative will accelerate the recovery of services in comparison with the natural recovery period determined in 11.73(a)(1) of this part. [Meant as a clarification; would allow deletion of current (7), which reads “Ability of the resources to recover without alternative actions.”]

(7) The relative strength of the relationship between each alternative and the injured natural resources giving rise to the claim. [New: addresses the importance of nexus between the alternative and the injured resources.]

(8) The extent to which natural resource services provided by each alternative are sustainable over the long term. [New; incorporates a preference for permanence.]

(9) Potential effects of the action on human health and safety.

(10) Consistency with relevant Federal, State, and tribal policies.

C. Do we need to foster an earlier focus on restoration in the NRDA process? If so, how?

Under the existing Type B rule, trustees are first specifically directed to begin considering restoration alternatives during the Damage Determination Phase, when they prepare a Restoration and Compensation Determination Plan (“RCDP”). *See* 43 C.F.R. § 11.80. Where the trustees are following the rule step by step, this consideration would typically occur two years or more into the NRDA process. The subcommittee considered various ways to require, or at least encourage, screens for restoration opportunities earlier in the process, possibly beginning at the preassessment stage. Such a change would foster early restoration-based settlements, would help ensure timely identification of alternatives that might become unavailable if not acted on early (e.g., valuable habitat available for purchase, which might be acquired for development if the trustees do not act early), may facilitate the incorporation of restoration into remedial planning, and would allow the trustees to design the assessment to provide the information needed to evaluate the identified restoration possibilities.

Since all damages recovered must be spent on some restoration activity, it makes sense that evaluating potential restoration actions provide the focus of an assessment. An assessment that enables appropriate matching and scaling of lost resources and services to potential restoration gains would validate trustee determinations regarding those actions that will make the environment and public whole, ensure that appropriate assessment procedures for determining restoration actions for a given incident are followed, and reduce transaction costs. An early restoration focus will facilitate recovery of damages, while still allowing trustees the discretion to apply whatever assessment approach is most

appropriate to the particular natural resources and services injured by a given incident. It does not benefit the natural resources or the public if monies are collected without a view toward how they will be spent, or if sufficient funds to implement any meaningful action are not collected.

The subcommittee believes it is important for trustees to begin thinking about potential opportunities for restoration and the information needed to develop and assess restoration alternatives from the very start of the NRD assessment process. In order to highlight the need to initiate restoration planning early and to gather appropriate information at each point in the NRDA process, the Subcommittee recommends that DOI make changes in several earlier parts of the Type B rule:

First, the trustees are required to complete a Preassessment Screen Determination (PASD), based upon readily available information that will document the decision as to whether to proceed with an assessment. Sections 11.25 (a) – (e) require trustees to identify potential pathways of exposure and exposed areas, to estimate concentrations, and to identify potentially affected resources. In particular, § 11.25 (e)(2) provides:

A preliminary estimate, based on information readily available from resource managers, of the services of the resources identified as potentially affected shall be made. This estimate will be used in determining which resources to consider if further assessment efforts are justified.

Trustees presumably will not conduct preliminary estimates in cases where they have determined that a release does not justify an assessment. In such situations, scoping of potential restoration actions would likewise be inappropriate. However, where PASDs conclude further assessment is justified, an early focus on restoration should be encouraged. We recommend that § 11.25(f) be added to the regulation to read as follows:

§ 11.25 Preassessment screen—preliminary identification of resources potentially at risk.

(f) Potential restoration actions

To the extent practicable, a preliminary identification of potential restoration projects or project types, based on information readily available, shall be made. These projects should be considered as appropriate to guide further assessment activities and restoration planning.

Obviously, data will be incomplete at the end of the Preassessment Phase. However, in most cases, the trustees will be able to foresee the general types of restoration that may be available for the types of likely resource injuries. If there are insufficient data to identify appropriate restoration actions, the trustees can so indicate. The main purpose of adding the language above to § 11.25 is to encourage trustees to focus on restoration early in the assessment process.

Once trustees determine that an NRDA is warranted, they are to develop an Assessment Plan, but before doing so, they are to send a Notice of Intent to Perform an Assessment to all identified potentially responsible parties. We suggest amending § 11.32(a)(2)(iii)(A) to provide as follows:

The Notice shall invite the participation of the potentially responsible party, ... in the development of the ... assessment...The Notice shall briefly describe, to the extent known, the site, vessel, or facility involved, the discharge of oil or release of hazardous substance of concern ...,the resources potentially at risk, *and, if practicable, potential restoration projects or types of projects that would provide appropriate compensation for injuries to natural resources.* The Notice shall also contain a statement of authority for asserting trusteeship... over those natural resources identified as potentially at risk.

Including initial identification of potential restoration projects in the Notice could spur potentially responsible parties to consider early restoration-based cooperative assessments and/or settlement of potential claims, thereby jump-starting actual restoration.

Where further assessment is appropriate, the regulations should consistently encourage a focus on restoration. For example, the purpose of the Assessment Plan is stated in § 11.30; it could be modified as follows:

The purpose of the Assessment Plan is to ensure that the assessment is performed in a planned and systematic manner, that methodologies selected ... can be conducted at a reasonable cost,..., *and that restoration planning can occur as soon as practicable in the NRDA process.*

In addition, § 11.31 gives guidance on the content and level of detail in the Assessment Plan. A phrase could be added to § 11.31(a)(2) to remind the trustees that the focus of the assessment is restoration, as follows:

§ 11.31 What does the Assessment Plan include?

(a) General content and level of detail. (1) The Assessment Plan must identify and document the use of all of the type A and/or type B procedures that will be performed.

(2) The Assessment Plan shall be of sufficient detail to serve as a means of evaluating whether the approach used for assessing the damage is likely to be cost-effective and meets the definition of reasonable cost, as those terms are used in this part. The Assessment Plan shall include descriptions of the natural resources and the geographical areas involved, *and potential restoration projects or project categories that would likely provide compensation for the injured resources.* The Assessment Plan shall also include a statement of the authority for asserting trusteeship, or co-trusteeship, for those natural resources considered within the Assessment Plan. The authorized official's statement of the authority for

asserting trusteeship shall not have the force and effect of a rebuttable presumption under 11.91(c) of this part. In addition, for type B assessments, the Assessment Plan shall include the sampling locations within those geographical areas, sample and survey design, numbers and types of samples to be collected, analyses to be performed, preliminary determination of the recovery period, and other such information required to perform the selected methodologies.

In the next section, § 11.32(f)(2) requires trustees, at the completion of the Injury Determination Phase, to review the methodologies for the Quantification and Damage Determination Phases to ensure that these methodologies remain consistent with the results of the Injury Determination Phase and with the requirements of reasonable costs. The focus on restoration could be included in these requirements as follows:

§ 11.32 How does the authorized official develop the Assessment Plan?

(f) Plan review. (1) After the Injury Determination phase is completed and before the Quantification phase is begun, the authorized official shall review the decisions incorporated in the Assessment Plan.

(2) The purpose of this review is to ensure that the selection of methodologies for the Quantification and Damage Determination phases is consistent with the results of the Injury Determination phase, that the use of such methodologies remains consistent with the requirements of reasonable cost, as that term is used in this part, *and that the selected methodologies provide information pertinent to restoration decisions.*

Next, § 11.61 introduces the Injury Determination phase. Under § 11.61(b) -- Purpose, the following language could be added to encourage Trustees to design injury assessments so as to facilitate the development and scaling of restoration actions. For example,

The purpose of the Injury Determination phase is to ensure that only assessments involving well documented injuries resulting from the discharge of oil or release of a hazardous substance proceed through the type B assessment, and that data gathered for injury determination, for example, target species, key service losses, and metrics for calculating losses, be appropriate for the development and scaling of restoration projects.

Similarly, § 11.71, Quantification phase -- service reduction quantification, provides another opportunity to integrate restoration planning earlier into the process. We recommend amending § 11.71(d)(3) as follows:

Selection of resources, services, and methodologies. Specific resources or services to quantify and the methodology for doing so should be selected based upon the following factors:

Consistency of the measurement with the requirements of the economic *or restoration scaling* methodology to be used,

D. Should the NRDA process be made more compatible with the “integration” or coordination of response action planning with injury assessment and restoration planning, and if so, how?

The subcommittee supports coordination of response actions and restoration to reduce the likely need for “second clean ups,” and to maximize opportunities for efficiency and minimization of cost by evaluating remedies at the same time as restoration needs. Specifically, the subcommittee recommends that DOI consider promulgation of a new provision that would explicitly encourage trustees to pursue early coordination and integration of response and restoration processes. DOI should also provide guidance on how the response agency and trustees might coordinate to achieve a common data base, collective identification of data needs and data gaps, analysis of how the remedy will affect residual injury, how the remedy might be modified to lessen injury and residual damages, and early joint identification of possible restoration opportunities. Guidance should also encourage the participating parties to consider developing written agreements that lay out the principles of how they will work together.

Background

Natural resource damage assessment and restoration are usually implemented by trustees after the response actions have been selected. Unlike either the U.S.EPA or the trustees, a potentially responsible party (PRP) is involved in both of these regulatory processes and therefore is concerned about possible inconsistency – a cleanup that must be partly undone to restore, or one that makes natural resource injury worse. Also, there is a perception (only infrequently realized) that the current NRDA regulation represents a kind of “second clean up.” However, the much more common experience is lost opportunity for efficiency and minimization of cost when the remedy is selected before and without regard for restoration needs.

Close coordination among trustees and PRPs and “integration” of natural resource concerns into response actions is a possible solution to the problems of perception and lost opportunity. Trustees frequently have expertise that can be helpful to both the response agencies and the PRPs. Earlier coordination of the response and restoration processes and early integration of natural resource trustee concerns will help avoid redundancies in the two processes. Both PRPs and the trustees are motivated to define and limit work scope and reduce assessment costs. An additional benefit is that with closer coordination and integration comes an increase in the chance for a restoration-based settlement. That is because the scope of the necessary restoration actions may emerge from an integrated process sooner rather than later.

Some obstacles to integration of response and restoration were identified. Lack of funding, confusion over similar but different regulatory missions, bureaucracy, concerns over legal authority, a project managers’ lack of experience, or simple personality conflicts are a few examples. However, the committee finds that with appropriate guidance as to extant rule provisions, DOI can encourage greater trustee, PRP and responder cooperation, and can facilitate understanding by the parties of the opportunities for increased efficiencies and promotion of environmental benefits already offered by the rule. For example, in coordination with response authorities, the parties should look for opportunities to perform early scoping of possible restoration assessment action.

Coordination may even evolve into an invitation for early trustee involvement with remedial data collection and feasibility planning. Remedial investigations performed with trustee input are more likely to provide useful information for an Assessment Plans.

Under CERCLA, clean up of contamination works to prevent or reduce risks to human health and the environment, and natural resource restoration aims to compensate the public by restoration or replacement of those natural resources injured or lost due to the contamination. The natural resource damage assessment and restoration are usually implemented by trustees after the response actions to clean up hazardous waste sites have been selected. The result can be a process tilted toward after-the-fact (of response) restoration actions, lost opportunity, and litigation, rather than on resource restoration.

A legitimate fear for a PRP is inconsistency – a cleanup that must be partly undone to restore, or one that makes natural resource injury worse. Whether fair or unfair, there is a perception in the PRP community that the current NRDA regulations represent a kind of “second clean up.” Occasionally, a second action or a lawsuit awaits the PRP who has neglected to assess and account for natural resource damages at a CERCLA site. Such a result, in practice, very rarely happens, but it remains a risk. The much more common peril is that an opportunity for efficiency and minimization of costs may be lost when the remedy is selected before and with little regard for restoration needs. Ideally, to maximize efficiencies and predictability, regulators would combine cleanup with restoration considerations – true integration of decision-making.

Benefits of Integrating NRDA and Response Action Selection Processes

Close coordination is possible if the key parties recognize the potential benefits of integration. Trustees frequently have expertise in environmental sciences and natural resources under their management that can be helpful to both the response agencies and the PRPs. Also, earlier incorporation and more accurate characterization of the potential natural resource risks into the response investigations will help avoid redundancies in the two processes. Among the PRP motivations for integrating restoration with response are defining and limiting work scope, reducing assessment costs and potential liabilities, and achieving more predictability earlier in the process.

A natural resource damage assessment can require a great deal of data, as does a response action. In many cases, much of those data could be collected during the response phase of a cleanup, when contractors and responders initially deploy on site and are mobilized for investigation. If data are needed for both response and natural resource damage assessment purposes, integration offers a chance to get all the data at once and avoids duplication of the efforts of the PRP and the trustees. Collection of data in one effort, and consensus on the type of data to be collected, lessens assessment costs for Trustees and, ultimately, the PRP. Because PRPs may only have to mobilize once and data are in a form usable by all parties, the additional cost to collect data for NRDA may only be greater than remedial data costs by a small increment. Collection of data all at once, according to agreed-upon methods, lessens the likelihood for data conflict and heightens confidence in the reliability of the data.

Coordination not only may eliminate duplication of efforts and costs during data collection efforts, but also may save time and money that would be spent pursuing a full natural resource damage assessment for residual damages. For example, natural

resource risk information gained as a result of the ecological risk assessments performed for a remedial investigation / feasibility study (RI/FS), can provide source, transport/fate, and exposure information that will be needed for a preassessment screen, injury assessment, and restoration planning. Such coordination can also help avoid situations where the effects of the remedy may be more harmful to natural resources than leaving the contamination in place, and by preventing harm due to remedies planned without restoration in mind.

By considering NRD issues during response planning, residual damages may be reduced. For example, revegetation on caps and covers could be upgraded with native plants that provide superior habitat along with stabilization of cover material, or instead of using concrete-lined diversion ditches, other materials that might support macroinvertebrate communities could be used. The result may be more timely and complete correction of environmental harms (i.e., the injuries that give rise to both remedy and restoration), and avoidance or reduction of the need for additional restoration.

If trustees are included in the decisions about what remedial data to collect and decisions about remediation, the chances for an expedited settlement of natural resource damages based on the information collected are heightened. It also makes it more likely that the parties can agree on the extent of injury and the scope of necessary restoration. Thus, cooperation and integration increases the chance for a restoration-based settlement. Integration can also avoid trustees coming into the remedial process late, possibly delaying settlement or placing a PRP in a position of having an unresolved liability.

Obstacles to Integration

There are obstacles to integration of response and restoration at sites where EPA (or a state) is the lead on response. First, there are real or perceived constraints on some federal agencies, e.g., DOE, DOD, to fund other trustees' activities. Such constraints sometimes prevent EPA and other Federal RPs from funding investigative work and restoration activities requested by trustees. Also, the response agencies have separate regulatory and legal authorities, which may not allow seamless interaction. There are generally a number of decision-makers on both the response agency and trustees sides, leading to a very complex, and often frustrating dynamic. Trustees tend not to have pre-existing budgets to use towards assessment as needed, while financial considerations may lead PRPs to reduce and/or defer expenditures for NRD work. The process of integrating response and restoration requires a partnership among the PRP, the response agency, and the trustees. Developing such a partnership requires certain skills and attitudes in a process that, historically, has been perceived as adversarial. Thus, lack of funding, confusion over similar but different regulatory missions, bureaucracy, concerns over legal authority, project managers' lack of experience, or simple personality conflicts, among many other potential difficulties, can pose challenges to parties attempting to integrate NRDAR into response programs.

DOE/DOD Policies on Integrating Response and Restoration

DOE and DOD have adopted policies encouraging such integration on sites where they are the lead response agency as well as a natural resource trustee. As background, the DOE/DOD experience can point to lessons that might be helpful throughout the

cleanup/restoration world, because some of the obstacles that exist in the private sector are not present, or play out differently in the area of federal facility cleanup. Most importantly, since DOE/DOD are both cleanup managers and trustees they should not have to struggle to get trustee issues on the table, or reconcile disparate regulatory interpretations, or convince EPA or the state that it is in the cleanup agencies' best interest to integrate restoration and trustee considerations into the process. They can just do it. Also, these agencies have a statutory duty to conduct assessment and restoration, irrespective of the time constraints frequently imposed by statute of limitations on other federal and state trustees.

DOE has found that the most effective way to perform its dual natural resource trustee/CERCLA lead agency role is to proactively integrate natural resource trustee concerns with environmental restoration and waste management activities. The trustees at several DOE sites are represented on Trustee Councils or identified in site-specific Memoranda of Understanding (MOU). The natural resource trustees assist DOE's project managers by contributing their technical expertise to site conceptual modeling and data quality objective development.

DOE's integration of natural resource trustee concerns into a remedial or removal action does not *per se* constitute "restoration." Because such actions are still response actions whose limited natural resource elements are designed to assess risk, enhance environmental benefit or avoid environmental harm, they can be implemented with funding from the same environmental restoration project budget. For example, if a remedial action includes the digging out of "hot spots" of contamination, the subsequent refilling of those areas by inclusion of a surface water impoundment instead of clean fill, is part of the response action, not a separate restoration action, even though the new impoundments might create fish and wildlife habitat. Similarly, if the areas adjacent to the impoundments need regrading and revegetation, doing so in a manner that encourages the creation of wetlands where none previously existed, fulfills a remedial action purpose without having "restored" lost wetlands.

Recommendations for DOI

There is no regulatory or statutory prohibition against performing "integrated" response actions that address the concerns of the trustees and also take advantage of the work of on-scene responders. To the contrary, they encourage and even require such coordination,, especially early in the NRDA and at intermediate stages. However, DOI could take two actions to help foster the integrated approach to response and restoration: Guidance and regulatory revision.

Suggested New Guidance:

Guidance can help the NRD community to make early integration standard operating procedure. Therefore, the committee recommends guidance pointing trustees to the opportunity to influence remedies, accelerate restoration, and save money. Guidance could explicitly encourage trustees to work with PRPs and response agencies by highlighting existing opportunities for trustee involvement, such as the following rule sections.

Section 11.23 (PAS)(f) Coordination. (1) In a situation where response activity is planned or underway at a particular site, assessment activity shall be coordinated with the lead agency consistent with the NCP.

(2) Whenever, as part of a response action under the NCP, a preliminary assessment or an OSC Report is to be, or has been, prepared for the site, the authorized official should consult with the lead agency under the NCP, as necessary, and to the extent possible use information or materials gathered for the preliminary assessment or OSC Report, unless doing so would unnecessarily delay the preassessment screen.

(3) Where a preliminary assessment or an OSC Report does not exist or does not contain the information described in this section, that additional information may be gathered. Trustees should coordinate such information gathering with the lead agency to the extent practicable.

(4) If the natural resource trustee already has a process similar to the preassessment screen, and the requirements of the preassessment screen can be satisfied by that process, the processes may be combined to avoid duplication.

Recommended guidance to trustees and PRPs: to think ahead of the needs of the PAS phase to the response action planning process conducted by the responders. That process is an opportunity to perform early scoping of possible restoration assessment action. Coordination with the response authorities can lead to early trustee involvement in the response planning. Trustees can provide this input, for example, by offering expertise to identify natural resources at risk, perform conceptual modeling of the risk problem, and assisting in the development of data quality objectives used by EPA and other responders to plan data collection efforts. The results of ecological risk assessments or other similar preassessment screen processes used by other trustees could be considered by trustees in performing joint or unilateral preassessment screens.

Section 11.30 What does the authorized official do if an assessment is warranted?

(a) If the authorized official determines during the Preassessment Phase that an assessment is warranted, the authorized official must develop a plan for the assessment of natural resource damages, using existing data from any response action to the extent practicable.

Recommended guidance to trustees and PRPs: Coordination with the response authorities can lead to early trustee involvement in remedial data collection and feasibility planning. Trustees can provide this input, for example, by offering expertise to identify natural resources at risk, perform conceptual modeling of the risk problem, and assisting in the development of data quality objectives used by EPA and other responders to plan data collection efforts.

Section 11.31 (Assessment Plan). *(c)(3) The Assessment Plan shall contain information sufficient to demonstrate that the damage assessment has been coordinated to the extent possible with any remedial investigation feasibility study or other investigation performed pursuant to the NCP.*

Recommended guidance to trustees and PRPs: Look to the on-going or completed ecological risk assessments performed as part of the Remedial Investigation conducted by the responders and the Feasibility Study wherein potential remedial alternatives are discussed. Trustees should be able to discern whether the response action risk

assessments have provided sufficient data to feed into the information on natural resource damage assessment required for the Assessment Plan and whether it is possible to begin scoping possible restoration actions based upon the possible remedial actions.

Section 11.32 How does the authorized official develop the Assessment Plan?

(a) Pre-development requirements. The authorized official shall fulfill the following requirements before developing an Assessment Plan.

(1) Coordination ...

(a)(iv) The authorized official shall to the extent practicable coordinate with any response agencies and use existing remedial investigation data.

Recommended guidance to trustees and PRPs: Emphasize the opportunity presented and elaborate upon the kinds of coordination actions that trustees and response agencies have employed in the past. The results of exposure analysis and any modeling of contaminant fate and transport in the environment, plus identification of environmental receptors during the baseline risk assessments are examples of existing data gathered by the response agencies.

Section 11.37 Must the authorized official confirm exposure before implementing the Assessment Plan?

(b) Procedures. (1) Whenever possible, exposure shall be confirmed by using existing data, such as those collected for response actions by the OSC or Remedial Project Manager, or other available studies or surveys of the assessment area.

Recommended guidance to trustees and PRPs: Exposure is usually confirmed by preliminary or operational removal action or remedial investigations and through an RI/FS conducted by the responders. These processes present opportunities for the trustees to piggy-back on the responders' studies in order to obtain exposure data. Trustees might offer their expertise to identify the natural resource receptors at risk and receptors for which exposure sampling and analysis is needed.

Guidance should discuss how the response agency and trustees should work together during the RI/FS and ROD phases so that remedial actions and restoration can be incorporated together. Trustees and the PRPs should also work together when the RI/FS work plan is being prepared and on the ecological risk assessment. This coordination can result in a common data base, collective identification of data needs and data gaps, analysis of how the remedy will affect residual injury, how the remedy might be modified to lessen injury and residual damages, and early joint identification of possible restoration opportunities.

Guidance should discuss how the trustees could determine NRDA sampling and analysis requirements and use these to suggest or inform the development of data quality objectives (DQOs) for the response investigations; develop site conceptual models for risk and injury investigations with an eye toward identifying the natural resources at risk; use the response action results to suggest or inform new questions or assumptions regarding potential natural resource injuries and injury determinations, e.g., determine the potential for collateral ecological damage due to the proposed remedial actions; and begin

restoration planning at the outset of a remedial project, keyed to a properly scoped response action work plan and relevant data collected by the on-scene responders (assisted by or in collaboration with the trustees and PRPs).

Guidance should encourage parties involved in an integrated assessment to consider developing written agreements that lay out the principles of how they will work together. Provisions can address decision making on types of studies and interpretation of data, structure (such as technical working groups) that might be put into place for working together, roles and responsibilities of the parties, how agreements on injury and restoration will be memorialized, and how funding will be handled. These agreements can define the outcomes the parties are working towards. Such agreements help keep parties on track and moving forward, and signal the commitment of the parties to the process of working together.

Guidance should alert the parties that an integrated process will work best when the PRPs are actively engaged in the response actions. Participating PRPs are in a better position to plan for, collect, and integrate Assessment Plan information into their response actions. Trustees should make every practical attempt to engage with the PRPs and regulatory agencies before the remedy is decided.

Suggested Regulatory Changes

Notwithstanding the benefits to be gained through more detailed guidance, in order to facilitate a more rigorous integration of restoration and response, the subcommittee recommends that DOI consider revisions to several provisions of the Type B rule. As discussed above, there are opportunities for integration in at least the following areas: 1) identification and evaluation of natural resource risk and injury; 2) determination of the restoration work scope and development of a restoration plan; and 3) identification of actions needed to mitigate loss or injury to natural resources during the response action. In particular, if the planned remedy would itself cause collateral ecological injury, the trustees should be assured the chance for input before the final remedial decision.

In addition, the committee recommends adding a new provision, similar to the following, that would explicitly encourage trustees to pursue early coordination and integration of response and restoration processes with the goal of increasing efficiencies, minimizing assessment and restoration cost, and avoiding adverse environmental impact.

Coordination of damage assessment with response action investigations and planning.

- i. Whenever practicable, prior to and during a remedial investigation or other investigation to support response action decisions, the affected trustee or trustees shall seek to coordinate with the lead response agency under the NCP to (1) minimize duplication of sampling and other data collection efforts between the response investigations and damages assessment, and (2) help ensure that, to the extent appropriate, data and other information collected for the response investigations will also be useful for injury determination and restoration planning;

ii. Where appropriate, the affected trustee or trustees may seek to coordinate with the lead response agency under the NCP concerning the selection of response and restoration actions to (1) minimize, or provide mitigation for, any potential adverse impacts of the response actions on natural resources, (2) avoid inconsistency between response and restoration actions to the greatest extent possible, and (3) select the most cost-effective combination of response and restoration actions consistent with the requirements applicable to each decision. Such coordination may occur in any manner agreed by the lead response agency and the trustee or trustees and may include the issuance of a single, integrated decision document selecting both response and restoration actions.

By pursuing this approach with the lead response agency, the trustees and PRPs will be in a better position to reach a restoration-based settlement.

E. Should there be a preference for on-site or in-kind restoration (or any other preference among alternative strategies for restoration/replacement/acquisition)?

On-site, in-kind restoration often provides the most direct and reliable way to put the environment back to its baseline condition. However, direct on-site restoration may be impractical, and, in some situations, off-site restoration actions or actions that provide substitute resources may be more efficient and even, ultimately, more effective. For example, where a hazardous substance spill has killed a number of migratory birds, the optimal way to compensate for the loss (after preventing future exposure on-site) may be a project that preserves or upgrades nesting or feeding habitat in a different part of the affected birds' migratory range, instead of taking further action at or in the immediate vicinity of the site. Similarly, the removal of introduced predators on the breeding range of certain seabirds may promote recovery of the affected species by increasing the productivity of its breeding population, and may be more efficient than alternatives at the site of the injury.

Among the situations in which off-site restoration may be the better approach are where (a) residual on-site contamination (left in place under an engineered cap or based on a balancing of costs and risks) limits the effectiveness of on-site restoration; (b) an off-site project could provide similar ecological benefits but superior human use benefits due to increased access or a more attractive location; or (c) the availability of other funding sources or synergies give trustees greater opportunities to "leverage" more restoration at an off-site location. Moreover, there are circumstances in which in-kind restoration may not provide as much benefit as an "out-of-kind" project. For example, a project to restore or protect riparian vegetation may provide more ecological services at no additional cost in comparison to "in-kind" restoration of injured upland vegetation. So long as the superior benefits of such projects are calculated to provide appropriate compensation for the injury, such projects should be encouraged or at least allowed under the regulations.

The existing Type B Rule, as affirmed by *Kennecott v. DOI*, provides flexibility to trustees so that they may be sensitive to the unique situation associated with each hazardous spill, including the option to consider off-site restoration projects or actions to provide substitute resources and services that may not be precisely the same as those that were injured. The subcommittee believes it is important to preserve this flexibility and

that a strict hierarchy of on-site versus off-site restoration actions might prevent trustees from selecting and implementing the alternative that best meets the criteria in §11.82(d) for evaluating alternatives. Therefore, the subcommittee recommends against giving on-site or in-kind alternatives a substantive preference or creating a hierarchy among different kinds of restoration actions.

At the same time, we believe that trustees should at least examine whether both an on-site/in-kind and an off-site restoration alternative would be appropriate in every case. Although the trustee(s) may conclude that any on-site alternative is unworkable or inferior in comparison to other options, requiring *consideration* of on-site and off-site restoration projects seems appropriate in all cases should not be unduly burdensome since the trustees will necessarily be examining conditions at the site anyway, and will help ensure that trustees do not settle on an alternative without fully considering different options. We recommend that DOI encourage consideration of such alternatives in every case through guidance rather than in regulatory text. Expanding the formal requirements of the rule in this manner would provide only minor benefits to the quality of trustee decision-making while adding a ground for challenging an otherwise sound restoration plan.

F. Is more guidance needed on the appropriateness of projects that provide “services” (such as recreation) without enhancing natural resources?

In addition to the revisions to existing selection factors discussed above, the subcommittee recommends that DOI develop and issue non-binding guidance on how trustees should evaluate several commonly-proposed “services restoration” projects.

Service “restoration” projects – particularly those that are intended to provide services to humans directly rather than through the enhancement or protection of natural resources, such as building recreational facilities – have caused controversy and raised questions about whether the proposed actions are consistent with the trustees’ statutory mandate to restore, replace, or acquire the equivalent of the injured resources. Human service restoration projects include, for example, constructed recreational facilities. Although we believe the proposed revisions to the balancing factors will provide an improved framework for trustee decision-making, the subcommittee also believes that restoration selection could be streamlined and improved with the aid of a specific analytical framework that could be applied to alternatives such as research or educational programs and facilities; recreational amenities such as trails, cabins, restrooms, visitor centers, boat launches or piers, or parking facilities; and the stocking of sport fish to replace prior self-sustaining fisheries. Such a framework is best provided in guidance because of the difficulty in anticipating the myriad of issues and conditions that may arise at individual sites.

DOI should also address in guidance the problem of how to compensate for injuries to natural resources that are demonstrably of special cultural (including historical or religious) value to an Indian tribe or other citizens. Particularly when it is impossible, or will take a long time, to return the injured resources fully to baseline, the impact on cultural uses may be large and cannot necessarily be remedied by providing substitute natural resources. The subcommittee therefore recommends that DOI discuss this problem in guidance and affirmatively recognize that projects providing cultural services

may be appropriate where cultural uses are lost, even with a more attenuated link to natural resource enhancement or protection than would be appropriate in other circumstances.

Problems in evaluating projects to restore human services.

This issue arises where trustees pursue projects that would provide human use benefits directly as opposed to projects that would provide those benefits less directly through restored natural resources. Restoring services rather than natural resources is emphasized in such projects. The efforts might include making more resources available for human use or providing more people with opportunities to use existing resources. For example, a new fishing dock would allow more people to fish, and increasing fish stocks would make more fish available to people. Other examples within this category are boat ramps, trails, cabins, visitor centers, park facilities, environmental education facilities and programs, parking lots, stocked fishing ponds and aquaria. Concerns with projects of this nature center on two factors: the strength of the connection between the services they provide and the lost, injured, or destroyed natural resource; and the proportion of sums recovered that is committed to providing human services without an increase in ecological services – or even at the expense of ecological services.

“Sums recovered” under CERCLA for natural resource damages generally must be used to “restore, replace, or acquire the equivalent of” injured, lost or destroyed natural resources. 42 U.S.C. § 9607(f)(1). Under DOI’s natural resource damages regulations, the lost services that the injured, lost, or destroyed natural resources would have provided are compensable:

The measure of damages is the cost of restoration, rehabilitation, replacement, and/or acquisition of the equivalent of the injured natural resources and the services those resources provide. Damages may also include, at the discretion of the authorized official, the compensable value of all or a portion of the services lost to the public for the *time period from the discharge or release until the attainment of the restoration, rehabilitation, replacement, and/or acquisition of equivalent of the resources and their services to baseline.*

43 C.F.R. § 11.80 (emphasis added). As indicated in the italicized language, compensation claims may include the period starting with the release and ending with the return of resources and services to baseline. The selection of restoration alternatives is limited, however, by factors the regulations require to be considered, including cost-effectiveness and the relationship between a project’s cost and its expected benefits. 43 C.F.R. § 11.82(d).

Additionally, the DOI regulations permit trustees to consider alternatives that will return the natural resources and services to baseline as quickly as possible.

The possible alternatives considered by the authorized official that return the injured resources and their lost services to baseline level could range from: *Intensive action on the part of the authorized official to return the various resources and services provided by those resources to baseline conditions as quickly as possible;* to

natural recovery with minimal management actions. Possible alternatives within this range could reflect varying rates of recovery, combination of management actions, and needs for resource replacements or acquisitions.

43 C.F.R. § 11.82(c)(1)(emphasis added). Projects that directly provide human use benefits more rapidly than would resource restoration serve this section's purposes, but under CERCLA, must relate to restoring, replacing, or acquiring the equivalent of the natural resource.

It is also instructive to consider the OPA regulations that bear on this point.

The goal of the Oil Pollution Act of 1990 (OPA), 33 U.S.C. 2701 et seq., is to make the environment and public whole for injuries to natural resources and services resulting from an incident involving a discharge or substantial threat of a discharge of oil (incident). *This goal is achieved through the return of the injured natural resources and services to baseline and compensation for interim losses of such natural resources and services from the date of the incident until recovery.*

15 C.F.R. § 990.10(emphasis added). Thus, direct restoration of human services is permissible under both the CERCLA and OPA regulations, so long as it consistent with the statutory requirement that NRD recoveries be used only to restore, replace, or acquire the equivalent of the injured resources.

Potential guidance on human services projects.

On the subject of "services projects," the full FACA Committee should recommend that DOI issue further non-binding guidance, in addition to the revisions to the Type B rule suggested above. Past disagreement among stakeholders and trustees indicate further guidance on the appropriateness of projects that provide "services" (such as recreation) without enhancing natural resources would be useful.

Guidance on the propriety of projects that directly provide human services could range from imposing limits on those projects, to expressly defining the strength of the connection needed between the project and the natural resource, to identifying specific instances where such projects are appropriate. Each of the possibilities discussed below may be used individually or in combination.

DOI guidance could suggest limits on how far trustees may stray from ecological restoration or enhancement when using sums recovered for lost human use services.

The new guidance could state that the *primary purpose of* restoration is to restore, enhance, or protect natural resources, while permitting human use projects if demonstrated to be appropriate under the site's circumstances. This approach would be consistent with the responsibilities of natural resource trusteeship while preserving the trustees' discretion and site-specific flexibility. Also, this approach is less likely than others to result in arbitrary decision-making. The flexibility and discretion preserved by

this approach, however, leaves open the potential for outside influences on decision-makers. A difficulty also exists in identifying a standard applicable to all sites, *i.e.*, the standard required to justify departure from ecological restoration.

DOI guidance could also seek to strike a balance by *providing a preference* for ecosystem restoration while leaving open opportunities for human use projects. This approach also preserves the trustees' flexibility and discretion, and may not suffer from the potential for arbitrariness that might exist with other approaches. But, as with the first, the flexibility and discretion preserved by this approach leaves open the potential for outside influences on decision-makers.

Factors could be identified for trustees to consider when developing a human use project. Trustees pursuing an educational project, for example, could be required to show how human behavior affected by the project is connected to the natural resources, and the rationale underlying the identified connection. While this approach may not suffer from arbitrariness, it could result in unanticipated limitations of site-specific discretion and flexibility.

The guidance could suggest that trustees set out *proportions* (e.g., dollars or number of projects) for what percentage of projects would be focused on restoring natural resources and what proportion on restoring human use services. An advantage of this approach is it would retain some of the flexibility presently available in the regulations while at the same time limiting the exposure of trustees' decision-making to outside influences. On the other hand, it would be difficult to determine in a vacuum where the proportion/percentage line should be drawn since ecological and public interests, as well as the interests of diverse trustees, vary from one site to another. Accordingly, it may be most appropriate to permit decisions for use of sums recovered to be made on a case-by-case basis. Additionally, the broadly applicable limitations included in this approach may result in arbitrary decisions.

The guidance could articulate *outside bounds* of what can be done toward human use restoration. When compared to the previous approach, this one preserves greater flexibility and permits trustee representatives to exercise their expertise and knowledge of site needs. Additionally, this approach may not risk arbitrary decisions. But this approach suffers the same difficulty as the previous, to a lesser degree, with respect to applying the same standard to all sites – in this instance, the boundaries imposed on enhancing human use.

Finally, consistent with the discussions of “nexus” above, the guidance could provide examples and explanation that would assist trustees in evaluating the *strength* of connection between the injured natural resources at issue and the human use enhancement being proposed.

Due to the various problems just discussed, the subcommittee does not recommend amending the DOI regulations or creating guidance to limit how far trustees can stray from ecological restoration or enhancement when using sums recovered from lost human use services.

The Type B rule or DOI guidance should affirmatively recognize that a project providing cultural services (but not enhancing natural resources) is appropriate where cultural uses were lost.

Most commonly, cultural values are directly connected to natural resources where those resources are under the trusteeship of the states, the U.S. National Park Services (American culture) and Indian tribes (tribal-specific culture). Recognition in guidance that projects are appropriate when providing cultural services but not enhancing natural resources would foster trustee efforts to reinvigorate lost or diminished cultural values. For example, the long-term impacts of mining contamination on human resource use can extend for generations, resulting in the loss of connection to, and appreciation of, the affected resources. Those losses of connection and appreciation could be restored by educating member of the tribe and the public on the specific services the resources provided and their cultural values. Such education could occur at a tribal learning facility where the identification and uses of riparian plants for food, medicine, and clothing are demonstrated. Funding such a facility would be, we believe, appropriate. Consequently, the subcommittee recommends guidance be adopted to affirmatively recognize that cultural services projects are appropriate where cultural uses were lost, even when not enhancing natural resources, provided they relate to a reasonable degree to the lost resources and services.

G. Should DOI provide guidance on what constitutes a “reasonable number of possible alternatives” for trustees to consider before making a decision on a restoration plan?

No change to the rule is needed on this issue, but DOI guidance should clarify that “a reasonable number of possible alternatives” is not a fixed number but will vary depending on the nature of the injury and the location of the natural resources injured. Normally a reasonable range of alternatives should include at least one on-site alternative and at least one offsite alternative, as well as the “no action” alternative presently required by the Type B rule. Where any of these types of restoration is not considered, the trustees should explain why that is.

It may seem intuitive that, in order to select the best restoration plan, the Trustees need to adequately examine the alternatives. It is possible that there may be only one way anyone may see to accomplish restoration or replacement; however, in that situation the Trustee will likely be faced with criticism for having insufficient imagination. More often, the issue for the Trustee will be a broad range of suggestions which, if all were to be comprehensively analyzed, would require an excessive amount of time and resources to accomplish. In that case, the trustee must narrow the number of alternatives to be given detailed analysis. Defining a number or even a specific numerical range that would constitute a “reasonable range of alternatives” is, in the view of our subcommittee, inappropriate if not impossible.

A number of recommendations of our subcommittee will have a limiting effect on the range of alternatives to be given a full detailed analysis. First, by identifying three specific criteria (reasonably likely to succeed, reasonably connected to the injury, and legal) among the existing list of criteria as threshold criteria, the range will be constrained. Secondly, encouraging an earlier focus on restoration will, we believe, generate more creative ideas unconstrained by remedial activities already in place.

Additionally, we believe that a possible shortage of ideas will be made less likely by encouraging two specific alternatives to be generated. It is incumbent upon the trustees to always consider the “no action” alternative. Frequently this is the natural attenuation approach. There may be a variety of reasons for a “no action” approach to be of interest to various interested entities. Regardless of how viable the “no action” alternative turns out to be, we believe it must be considered.

As discussed above, it is also important in our view that the Trustee makes a serious effort to consider at least one on-site restoration alternative and one off-site restoration alternative. We do not suggest that an on-site project must be selected over off-site projects; particularly where migratory wildlife is involved, it is easy to understand that off-site activity could be preferable. Among other potential situations in which on-site restoration would not be preferred are where residual on-site contamination might reduce benefits that would otherwise be provided by a project; where an off-site project could provide similar ecological benefits but superior human use benefits due to increased access or more attractive location; where Trustees may have greater opportunity to leverage more restoration at off-site locations. In-kind restoration may not always provide as much benefit as "out-of-kind" projects. So long as the superior benefits of such projects are calculated to provide fair offsets for potentially responsible parties' liability and debit, such projects should be considered under the regulations. Nevertheless, we do believe that, all things being equal (which we understand they never are), it is desirable to have on-site restoration.

In the end, we believe it is important that guidance encourage trustees to consider a range of alternatives that is reasonable for the incident of concern and the specific natural resources injured. The range of restoration alternatives that will meet the threshold criteria as we have recommended them may vary greatly depending on the nature of the environment or habitat involved and the injuries suffered. In any case, among those alternatives that are reasonably likely to succeed, reasonably connected to the injury, and legal should be both a “no action” alternative and an on-site restoration alternative.

H. Should there be a “grossly disproportionate to value” limitation on restoration projects?

We unanimously think the answer to this question should quite clearly be “no.” For DOI to require a valuation analysis beyond the present requirement of § 11.82(d)(2) to *consider* “[t]he relationship of the expected costs of the proposed action to [its] expected benefits[,]” would not be helpful to any of the interested parties so long as there is no generally-accepted method of defining the value of the injured resources.

As noted above in the background discussion, the court challenge to § 11.82 of the DOI regulations included a request that DOI provide an exemption from restoration that is “grossly disproportionate” to the value of the injured resources. Also as noted, the court declined. *Kennecott v. DOI*, 88 F.3d at 1218.

The DOI regulations currently have two decision factors that address cost. Section 11.82(d)(2) requires a comparison of costs and benefits while § 11.82(d)(3) is a cost-effectiveness consideration. Cost-effectiveness is a comparative tool that helps one judge between or among alternatives. Insisting that the cost of the project be somehow

“proportionate” to the value of the resources would be an amplification of the existing cost-benefit provision in that it is cost-benefit analysis that makes absolute, rather than comparative, judgments and can conclude that a project is or is not worth doing. On the other hand, cost effectiveness for purposes of § 11.82(d)(3) is defined in § 11.14(j) to mean “that when two or more activities provide the same or a similar level of benefits, the least costly activity providing that level of benefits will be selected.”

We do not believe that there is any significant disagreement on the principle that money should not be wasted in the process of “restor[ing], replac[ing] or acquir[ing] the equivalent of” injured, lost, or destroyed natural resources. The issue is how one places an economic “dollars and cents” value on given resources. There have been significant levels of effort by academics and people in the public policy world to try to measure the value of injured resources in monetary terms. Every effort has been severely criticized by some significantly interested constituency. The litigation history is unhelpful. Imposing, the “grossly disproportionate” test would undermine restoration- based NRDA and force economic valuation of resources in every case – even though consensus has formed that such valuation is less likely to lead to prompt, amicable resolution of NRD claims.

III. Conclusion

The subcommittee generally supports a restoration selection approach that allows a large degree of discretion, and does not recommend a wholesale overhaul of existing regulations. However, a few targeted revisions to remedy-selection provisions is desirable. If DOI undertakes a rulemaking to incorporate threshold criteria, the subcommittee further suggests that other regulatory refinements to the existing selection factors should be adopted. The subcommittee also recommends a number of targeted revisions to the Rule to encourage an earlier focus on restoration alternatives. Lastly, the subcommittee believes guidance on a few specific issues could improve and accelerate trustee decision-making.