

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

15 CFR Part 990

RIN 0648-AE13

Natural Resource Damage Assessments

AGENCY: National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of proposed rulemaking.

SUMMARY: Section 1006(e)(1) the Oil Pollution Act of 1990 (OPA) requires the President, acting through the Under Secretary of Commerce for Oceans and Atmosphere, to promulgate regulations for the assessment of natural resource damages resulting from a discharge or substantial threat of a discharge of oil. By today's Notice, the National Oceanic and Atmospheric Administration (NOAA) is seeking comments concerning the proposed rule.

The proposed rule is for the use of authorized federal, state, Indian tribal, and foreign officials, referred to in OPA as "trustees." Natural resource damage assessments are not identical to response or remedial actions addressed by the larger statutory scheme of OPA. Assessments are not intended to replace response actions, which have as their primary purpose the protection of human health, but to supplement them, by providing a process for making the public whole for injury to natural resources and/or services.

Reviewers of this proposed rule should be aware that NOAA is subject to a consent decree that requires NOAA to submit a final rule to the **Federal Register** by the end of December 1995 (*Natural Resources Defense Council v. United States Coast Guard*, No. CV-94-4892, Order for Partial Settlement (E.D.N.Y. June 26, 1995). Due to the short timeframe for development of a final rule, reviewers should not expect any extensions of the comment period.

DATES: Written comments should be received no later than October 2, 1995.

ADDRESSES: Written comments are to be submitted to Linda Burlington or Eli Reinharz, c/o NOAA/GCNR, 1315 East-West Highway, SSMC #3, Room 15132, Silver Spring, MD 20910.

FOR FURTHER INFORMATION CONTACT: Linda Burlington (telephone (301) 713-1217) or Eli Reinharz (telephone (301) 713-3038, ext. 193), Office of General Counsel Natural Resources, FAX (301) 713-1229.

SUPPLEMENTARY INFORMATION: The Oil Pollution Act of 1990 (OPA), 33 U.S.C.

2701 *et seq.*, provides for the prevention of, liability for, removal of, and compensation for the discharge, or substantial threat of discharge, of oil into or upon the navigable waters of the United States, adjoining shorelines, or the Exclusive Economic Zone (an incident). Section 1006(b) of OPA provides for the designation of federal, state, Indian tribal, and foreign natural resource trustees to determine if injury to, destruction of, loss of, or loss of use of natural resources and/or services has resulted from an incident, assess natural resource damages, present a claim for damages (including the reasonable costs of assessing damages), recover damages, and develop and implement a plan for the restoration, rehabilitation, replacement, or acquisition of the equivalent of the injured natural resources and/or services under their trusteeship.

Section 1006(e)(1) of OPA requires the President, acting through the Under Secretary of Commerce for Oceans and Atmosphere, to promulgate regulations for the assessment of natural resource damages resulting from incidents. By today's Notice, NOAA is seeking comments concerning the proposed rule. The proposed rule is for use by designated trustees.

On January 7, 1994, NOAA published a proposed rule for assessing natural resource damages under OPA (59 FR 1061). NOAA received numerous comments on the January 1994 proposed rule. Based on these comments, NOAA is considering a fundamental restructuring of the rule to provide even greater emphasis upon restoration. To ensure that all interested parties have adequate opportunity to review and comment on this restructuring, NOAA is repropounding the rule.

There are several significant differences between today's proposed rule and the January 1994 proposed rule. First, today's proposed rule eliminates the need for the determination of "compensable values" as a separate component of a natural resource damage claim. However, this approach does not make the value of natural resources irrelevant. Value still plays an important role in designing restoration actions that will truly make the public and environment whole for the types of natural resource injuries and service losses resulting from an incident. Second, the proposed rule emphasizes that trustees will be seeking, on behalf of the public, restoration of what was lost—natural resources and/or services provided, both human and ecological. Third, the proposed rule brings selection of restoration actions

clearly into the public planning process. The public process outlined in the proposed rule affords federal agencies compliance with the requirements of the National Environmental Policy Act and accomplishes the goal of public involvement that was sought in the January 1994 proposed rule. Finally, the proposed rule authorizes trustees to determine appropriate assessment methods on an incident-specific basis, from a range of procedures including simplified methods to complex field studies. The proposed rule removes the distinction between categories of approaches termed "expedited" or "comprehensive," and provides guidance for choosing appropriate methods based on the incident and the particular natural resource injuries or service losses of concern. This proposed rule does, however, require that assessment methods be reliable and valid in the particular context, and that the methods be cost-effective.

Prior to issuing a proposed rule, NOAA published eight **Federal Register** Notices requesting information and comments on approaches to developing natural resource damage assessment procedures. 55 FR 53478 (December 28, 1990), 56 FR 8307 (February 28, 1991), 57 FR 8964 (March 13, 1992), 57 FR 14524 (April 21, 1992), 57 FR 23067 (June 1, 1992), 57 FR 44347 (September 25, 1992), 57 FR 56292 (November 27, 1992), and 58 FR 4601 (January 15, 1993). NOAA conducted a public meeting on March 20, 1991, for additional public participation into the process and held four regional workshops during 1991 in Rockville, Maryland; Houston, Texas; San Francisco, California; and Chicago, Illinois, to learn of regional concerns in coastal and inland waters. One workshop held in Alexandria, Virginia, in November, 1991, provided a forum for early discussions of various economic issues likely to be raised during the rulemaking process. In addition, on August 12, 1992, NOAA held a public hearing on the issue of whether constructed market methodologies, including contingent valuation (CV), can be used to calculate reliably passive use values for natural resources, and if so, under what circumstances and under what guidance. On January 15, 1993, NOAA published in full the report of the panel commissioned by NOAA to evaluate the reliability of CV in calculating passive use values for natural resources. 58 FR 4601.

NOAA published the proposed OPA rule on January 7, 1994 (59 FR 1061). The proposed rule contained a statement of issues of interest to

stimulate discussions on some of the more intriguing suggestions considered in developing the proposed rule. Immediately after publishing the proposed rule, NOAA held six regional meetings in January and February of 1994. A seventh workshop was held in March of 1994 in Washington, D.C., to summarize the discussions and results of the six regional meetings. NOAA published an informational notice to summarize the kinds of concerns raised in the discussions and refine some issues on which NOAA was particularly soliciting comments. 59 FR 32148 (June 22, 1994).

NOAA received numerous comments on the January 1994 proposed rule. Based on these comments, NOAA is considering a fundamental restructuring of the rule to provide even greater emphasis upon restoration. To ensure that all interested parties have adequate opportunity to review and comment on this restructuring, NOAA is repropounding the rule.

This preamble is organized in the following manner: the Introduction gives an overview of the proposed rule and is followed by a discussion of each of the subparts of this proposed rule. Subpart A provides a general introduction, subpart B describes trustee authorities, subpart C gives definitions pertinent to this proposed rule, subpart D describes the Preassessment Phase, subpart E describes the Restoration Planning Phase, and subpart F describes the Restoration Implementation Phase. Finally, the preamble provides a general summary of the comments on the January 1994 proposed rule.

INTRODUCTION

I. Goal of OPA: Focus on Restoration

The goal of OPA is to make the public and environment whole for injury to, destruction of, loss of, or loss of use (injury) of natural resources and/or services resulting from an actual or substantial threat of a discharge of oil (OPA sec. 1002(b)(2)(A)). This goal is achieved by planning and implementing appropriate actions to restore, rehabilitate, replace, or acquire the equivalent of injured natural resources and/or services (restore). The purpose of this proposed rule is to provide a framework for conducting sound natural resource damage assessments (NRDAs or assessments) that achieve restoration under OPA for incidents.

This proposed rule emphasizes several processes to achieve the goal of restoring injured natural resources and services: (1) Identification and evaluation of injuries to natural resources and/or services; (2) employing

assessment methods relevant to the circumstances of a particular incident; (3) identification and evaluation of restoration alternatives; and (4) involvement of the public in the process of selecting restoration actions appropriate for a given incident.

NOAA believes that an NRDA process that meets the essential procedural elements of identifying and evaluating relevant injuries and restoration alternatives, and soliciting public input will accomplish three major goals: (1) Involve the public in the decision of what actions will make them whole; (2) ensure that appropriate scientific procedures and methods for determining restoration actions for a given incident are followed; and (3) reduce transaction costs.

NOAA recognizes that restoration planning by federal trustee agencies is subject to the requirements of the National Environmental Policy Act (NEPA) (42 U.S.C. 4321 et seq.), except when a categorical exclusion applies. However, NOAA believes that the process identified in this proposed rule mirrors the decisionmaking process embodied in NEPA, without requiring significantly different steps or products than those envisioned in OPA. Thus, compliance with the procedures set forth in the proposed rule would fulfill the requirements of NEPA. Steps and products that are analogous under OPA and NEPA are identified in a diagram in Appendix A at the end of the preamble.

Finally, NOAA has developed guidance documents on various aspects of the NRDA process. These guidance documents are available in draft on: Preassessment, injury assessment, restoration, compensation formulas, and NEPA compliance (citations for the documents are included in the Bibliography at the end of this preamble). These draft documents are available from the address at the front of this preamble. The guidance documents are being prepared in conjunction with this rulemaking to provide additional technical information to those performing assessments under OPA and other interested members of the public. These documents will not constitute regulatory guidance, nor will they have to be followed for a damage assessment to be conducted in accordance with these regulations. The documents, in their final form, will be made available through a public information distribution service.

II. Overview of the Restoration Planning Process: NRDA Under the Proposed Rule

Regardless of the scope or scale of the incident, the restoration planning process provided in this proposed rule is generally the same. In the Preassessment Phase, trustees must first determine threshold issues that establish their authority to begin the NRDA process, such as: (1) Whether OPA is applicable (e.g., did the incident involve oil?); (2) whether an exclusion from liability under the statute applies (e.g., natural resources were affected by a discharge from a public vessel); and (3) whether natural resources under their trustee authority were potentially affected by the incident. Trustees then assess whether injuries will be adequately addressed through response actions, or whether further action is warranted to consider the need for additional restoration.

If further action is justified, the trustees prepare a "Notice of Intent to Conduct Restoration Planning," or "Notice." Based on information available at this early stage of the assessment process, the Notice may also describe the trustees' proposed strategy for assessing injury and determining appropriate restoration actions. This proposed rule advocates using injury assessment procedures that directly provide information on restoration and are cost effective.

Once the Notice is published, trustees continue with the injury assessment component of the Restoration Planning Phase, in which trustees evaluate natural resource and/or service injuries. Following injury assessment, trustees determine the type and scale of restoration to address the injuries. Restoration under the proposed rule includes two components: (1) Primary restoration—actions taken to return the injured resources and services to baseline, including the natural recovery option, and (2) compensatory restoration—actions to make the environment and public whole for resource services lost from the date of the incident until recovery of the injured resources. The type and scale of compensatory restoration are related to the type and scale of primary restoration selected. Scaling of appropriate compensatory restoration actions is accomplished on a service-to-service comparison to services lost as a result of the incident, or through valuing the loss of the services and gains from compensatory restoration projects where service-based scaling is not feasible.

Trustees develop a Draft Restoration Plan, identifying and evaluating a

reasonable range of alternatives for restoring the injuries, including a no-action alternative, and describing the trustees' tentative preferred alternatives. The Draft Restoration Plan is subject to public review and comment, after which a Final Restoration Plan is developed. The Final Restoration Plan is then implemented during the Restoration Implementation Phase, either through an agreement by the parties responsible for the incident (responsible parties) to implement restoration with trustee oversight, through immediate payment of the demand for restoration costs by the responsible parties, or through litigation to collect restoration costs.

The timing and degree of public involvement in the assessment process, and the type of documents produced at various stages of the process, will be tailored to the scope and scale of the incident. For instance, for small incidents assessed with a model or compensation formula, it may be appropriate to compress the Notice and draft restoration documents into a single document that reports the inputs used and results of the model application, along with the alternate and preferred restoration actions. In contrast, larger incidents that require in-depth site-specific studies to identify and evaluate appropriate restoration may require a series of plans that would benefit from public notice and/or comment. In addition, when trustees propose to implement part of a regional restoration plan for a given incident and that plan has previously been available for public review and comment, trustees may choose only to notify the public of the decision to link a given incident to the regional plan.

III. Issues of Interest

A. Evaluating a Reasonable Range of Restoration Alternatives

Restoration actions under this proposed rule are defined to include activities designed to make the environment and public whole for natural resources and/or services injured as a result of an incident. Restoration is defined to include primary restoration actions that return injured natural resources and services to the conditions that would have existed in the absence of the incident, and compensatory restoration actions that make the public and the environment whole for interim service losses. Thus, throughout this proposed rule, "restoration" refers to any appropriate combination of primary and compensatory restoration actions designed to address natural resource and service injuries.

NOAA proposes that trustees identify a reasonable range of restoration alternatives and then evaluate those alternatives based on such factors as: (1) Extent to which each alternative can return the injured natural resources and services to baseline and make the environment and public whole for the interim service losses; (2) extent to which each alternative improves the rate of recovery; (3) extent to which each alternative will avoid additional injury; (4) level of uncertainty in the success of each alternative; (5) extent to which each alternative benefits more than one natural resource and/or service; (6) cost of each alternative; (7) effects of each alternative on public health and safety, and the environment; and (8) whether any alternative violates any laws or regulations.

Like NEPA, this proposed rule only requires that a reasonable range of restoration alternatives be considered. Under OPA, trustees are directed to return injured natural resources and services to the condition that would have existed in the absence of the incident. Thus, trustees must evaluate possible restoration actions in light of their effectiveness in returning natural resources and services to baseline. The lowest cost restoration alternative may not always represent the preferred alternative. Instead, the costs of restoration alternatives should be evaluated by comparing the costs of alternative actions to the relative effectiveness of each in returning injured natural resources and services to baseline taking interim service losses into account. Also like NEPA, trustees following this proposed rule are required to consider a no-action alternative.

B. Regional Restoration Planning

Regional restoration planning is encouraged under this proposed rule as a mechanism to plan and implement restoration for small incidents resulting in natural resource and/or service injury, where incident-specific restoration is impractical. The regional restoration planning process can pull together proposed or desired projects from numerous public entities, where such projects would be expected to restore the types of natural resource and service injuries anticipated from incidents in particular geographic areas. Regional restoration plans will shorten the assessment schedule and reduce overall costs, especially for small incidents. NOAA proposes the NEPA programmatic environmental impact analysis as a model for evaluating regional restoration plans.

C. Technical Adequacy of Assessment Procedures

Under this proposed rule, the type and scale of technical and scientific analyses should be focused on information requirements for determining restoration given the circumstances of a particular incident. In making the determination of technical adequacy, trustees should be guided by current understanding of best scientific practices. However, when choosing among assessment procedures and methods that could provide greater levels of certainty or precision in assessment variables, trustees should evaluate the costs and time requirements of more in-depth procedures, expected increase in precision, and likelihood that greater precision will result, relative to the expected total damages for the injury being evaluated. Thus, for a given set of circumstances, use of a model or extrapolation from the scientific literature may be more appropriate for determining restoration than generating site-specific field data. This analysis of increased costs associated with expected increases in amount and quality of assessment information provided by different methods will ensure that assessment procedures and methods chosen are reasonable.

D. Public Participation

OPA section 1006(c)(5) requires that the restoration process be open to the public before final decisions are made and actions taken. The restoration planning process should provide an adequate opportunity for public participation and addressing public concerns.

In light of this requirement, NOAA is proposing an open planning process. To prevent delays in the restoration process at the time of an incident, trustees should afford the public an opportunity to be involved in planning activities prior to an incident (i.e., pre-incident planning and regional restoration plan development). If pre-incident public planning is not possible, the public must, at a minimum, be invited to participate in the development of draft and final incident-specific restoration plans. The nature of public participation will depend on the issues and actions being considered; however, common elements include: (1) Notice of the decision to proceed with restoration planning; (2) notice and comment on a Draft Restoration Plan; and (3) notice of a Final Restoration Plan. Public meetings may be appropriate in certain circumstances.

In regard to the development of a restoration plan, NOAA believes that effective public participation enhances the probability that appropriate restoration actions will be implemented. Solicitation of comments from members of the scientific community, including natural resource injury, restoration, and economic experts, as part of a public participation program may supplement expert peer review of trustee strategies, plans, and tentative decisions. This type of public participation would also satisfy NEPA's requirement that the public be involved in assessing the environmental consequences of major federal actions. NOAA also believes that Restoration Plans developed under this proposed rule serve as Environmental Impact Statements (EIS) for purposes of NEPA. Examples of restoration plans that follow the NEPA EIS format are listed in the bibliography at the end of this preamble.

Cooperative participation by responsible parties in the restoration planning process is consistent with the goals of an open process. Thus, NOAA believes that responsible parties should be invited to participate in the NRDA process, where such participation will not impede fulfilling the trustees' mandate to restore expeditiously injured natural resources and services.

DISCUSSION

Subpart A—Introduction

I. Purpose

The purpose of this proposed rule is to promote expeditious restoration of natural resources and services injured as a result of an incident. To fulfill this purpose, this proposed rule provides an administrative process for involving interested parties, a range of assessment procedures for identifying and evaluating injuries to natural resources and/or services, and a process for selecting appropriate restoration actions from a range of alternatives.

II. Scope

This proposed rule is available for use by designated federal, state, Indian tribal, and foreign natural resource trustees to determine appropriate actions to restore natural resources and services injured by a discharge, or substantial threat of a discharge, of oil into or upon navigable waters or adjoining shorelines or the Exclusive Economic Zone.

The Secretaries of the Interior, Commerce, Agriculture, Defense, and Energy are the primary federal natural resources trustees. The roles and responsibilities of the various federal departments regarding NRDA vary

according to their resource management responsibilities and the susceptibility of these natural resources and/or services to injury. Designation of federal trustees and broad guidelines describing trustee functions are addressed in subpart G of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR part 300.600. For state trustees, most governors have delegated trustee responsibilities to specific state agencies, as provided under OPA.

III. Effect of Using These Regulations

Assessments performed by federal, state, or Indian tribal trustees in accordance with these regulations receive the evidentiary status of a rebuttable presumption provided by OPA section 1006(e)(2). In brief, this presumption means that the responsible parties have the burden of proving that the trustees' claim and determinations are incorrect. This presumption applies to all assessment procedures developed under this proposed rule. However, where trustees use procedures that are determined not to be in accordance with this proposed rule, trustees will not obtain a rebuttable presumption for that portion of the assessment. Assessments performed by foreign trustees in accordance with these regulations are not entitled to a rebuttable presumption.

IV. Coordination

A. General

Coordination among all parties affected by an incident is crucial to an efficient and effective assessment. Coordination, from pre-incident planning through joint and cooperative assessment, restoration planning and implementation, can assist in decreasing the time until restoration is implemented, preventing double recovery of damages, and ensuring that assessment costs are reasonable. More detailed discussion of some aspects of coordination appears in Appendix B at the end of this preamble.

B. Coordination Among Trustees

This proposed rule encourages trustees with shared or overlapping natural resource management and protection jurisdiction to coordinate their NRDA activities, including coordination in pre-incident planning. Coordination among trustees will avoid duplicative claims for damages, address shared trust resource concerns, and result in more effective funding of assessment work. Trustees must designate a Lead Administrative Trustee for each joint assessment under this proposed rule and the NCP. This rule encourages trustees to consider

cooperation agreements such as memoranda of understanding, to structure both non-incident and incident-specific activities. Trustees may act independently when there is a reasonable basis for dividing NRDA responsibilities, so long as there is no double recovery of damages for the same incident and natural resource. However, independent assessments may not be in the best interests of the trustees, the responsible party, or in achieving prompt restoration of injured resources.

C. Coordination With Response Agencies

Coordination among trustees and response agencies can result in reducing or eliminating natural resource and/or service injuries residual to the cleanup. "Response" or "cleanup" refers to those actions taken under the NCP to protect public health and welfare or the environment when there is a discharge or a substantial threat of a discharge of oil, including actions to contain or remove discharged oil from water and shorelines.

D. Coordination With Responsible Parties

Active and early involvement of responsible parties may eliminate some of the problems trustees have encountered immediately following an incident, such as lack of funding, personnel and equipment. In addition, a joint trustee-responsible party assessment may be more cost-effective and avoid duplicate studies. Therefore, the proposed rule requires the trustees to invite the responsible parties to participate in the NRDA process.

The proposed rule leaves determination of the timing and extent of responsible party participation to the judgment of the trustees on an incident-specific basis. While active responsible party involvement is the preferred method of conducting assessments, it may not be appropriate for trustees to delay assessment activities while negotiating the terms of responsible party involvement.

In making a determination to allow responsible party participation in the assessment, trustees should consider factors including, but not limited to: (1) Whether responsible parties have been identified; (2) the willingness of responsible parties to participate in the assessment; (3) the willingness of responsible parties to fund assessment costs of the trustees; and (4) the willingness and ability of responsible parties to conduct assessment activities in a technically sound and timely manner.

E. Coordination With the Public

A major goal of OPA is to involve the public in the restoration planning process. The proposed rule requires trustees to provide public notice of their intent to conduct restoration planning, and allow for public review and comment on the Draft Restoration Plan. Depending on the nature of the incident and expected assessment activities, comment may be solicited at additional stages to ensure the best information base is available to trustee decisionmakers.

In highly complex incidents, or those incidents that are expected to involve multi-year efforts, trustees may have an opportunity to set up one or a series of public meetings to ensure opportunity for public input. Attendance should be encouraged by all parties that are involved, participating, or interested in the incident.

Trustees may also conduct public outreach on non-incident-specific restoration issues. Trustees are responsible for representing the public's interests in natural resources and/or services affected by incidents. Trustees can better fulfill this trust responsibility by informing the public about NRDA provisions in statutes and the processes trustees undergo in assessing injury and determining restoration actions.

To the fullest extent practicable, trustees should implement public outreach, which will:

(1) Encourage a broad understanding of restoration and build trust, thus allowing for quicker recognition and support of the restoration process overall;

(2) Provide opportunities for joint fact-finding, improving the collection of quality data; and

(3) Incorporate public concern, providing for more effective restoration planning.

V. Considerations for Facilitating Restoration

A. General

Pre-incident planning and regional restoration plan development are tools trustees should consider as means to enhance successful restoration planning and implementation. More extensive discussion on these topics is included in Appendix B at the end of this preamble.

B. Pre-Incident Planning

NOAA believes that commitment of time, funding, and personnel to planning prior to an incident will help ensure that the assessment process results in technically sound and cost-effective plans. Pre-incident plans may:

identify natural resource damage assessment teams; establish trustee notification systems; identify support services; identify natural resources and/or services at risk; identify regional and area response agencies and officials; identify available baseline information; establish data management systems; and identify assessment funding issues and options. Potentially responsible parties should be included in the pre-incident planning process to the fullest extent practicable.

C. Regional Restoration Planning

OPA emphasizes making the environment and public whole for natural resource and/or service injuries. Where practicable, incident-specific restoration is the preferred alternative to accomplish this goal. However, for many incidents, including smaller incidents, such incident-specific action may be impractical. Yet, the impact of small incidents may still represent a significant concern for trustees. Thus, to achieve OPA's mandate to restore injured natural resources and services regardless of the type and scale of those injuries, trustees are encouraged to use or modify existing regional restoration plans, or develop new regional restoration plans. Planning in a regional (e.g., ecosystem or watershed) context is appropriate so long as natural resources and/or services comparable to those expected to be injured by an incident are addressed in the plans.

VI. Review of the Regulations

Although OPA does not contain a specific provision for the update of these regulations, NOAA believes that they should be reviewed on a regular basis to keep the procedures current with new developments. Thus, NOAA is proposing that these regulations be reviewed and revised, as appropriate, at least every five years.

Subpart B—Authorities

I. Relationship to Other NRDA Regulations

A. CERCLA Regulations

The Department of the Interior (DOI) has developed regulations for assessing natural resource damages resulting from hazardous substance releases under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (42 U.S.C. 9601 et seq.), and the Clean Water Act (33 U.S.C. 1321 et seq.). The CERCLA regulations are codified at 43 CFR part 11. The CERCLA regulations originally applied to natural resource damages resulting from oil discharges as well as hazardous substance releases. This

proposed rule will supersede 43 CFR part 11 with regard to discharges of oil and substantial threats of a discharge of oil, when final. Assessments commenced under the CERCLA regulations before the effective date of the final OPA rule may be completed in compliance with the CERCLA regulations, and will be deemed conducted in accordance with the OPA regulations.

If natural resources and/or services are injured by a discharge or release of a mixture of oil and hazardous substances, trustees must use 43 CFR part 11 in order to obtain a rebuttable presumption.

B. State, local, and Indian tribal NRDA Procedures

Many states have developed their own NRDA statutes and regulations. When state, local, or Indian tribal NRDA procedures are determined to be in accordance with this proposed rule, use of these procedures will afford the trustees the evidentiary benefit of the rebuttable presumption. Under the proposed rule, state, local, or Indian tribal NRDA procedures are in accordance with the OPA regulations when the procedures:

(1) Require all recovered damages to be spent on restoration, subject to a plan made available for public review and comment, except for those damages recovered to reimburse trustees for past assessment and emergency restoration costs;

(2) Determine compensation based on injury and/or restoration;

(3) Are consistent with the standards for the technical procedures and methods outlined in § 990.51 of this part;

(4) Were developed through a public rulemaking process; and

(5) Do not conflict with OPA or this proposed rule.

II. Relationship to the NCP

The proposed rule would supplement the procedures established under the NCP for the response to an incident, and provide procedures by which trustees may determine appropriate restoration of injured natural resources and services that are not fully addressed by response actions conducted pursuant to the NCP.

III. Prohibition on Double Recovery

The proposed rule requires trustees to consider the actions of other trustees with respect to the same incident and natural resources and the effect of the prohibition on double recovery of damages in OPA section 1006(d)(3).

IV. Compliance With Other Applicable Laws and Regulations

NEPA applies to restoration planning by federal trustees, unless a categorical exclusion applies. NEPA is triggered when federal trustees issue a Notice of Intent to Conduct Restoration Planning, under § 990.43 of the proposed rule. NOAA believes that compliance with the procedures in the proposed rule would fulfill the requirements of NEPA.

When taking actions under this proposed rule, trustees must comply with all worker health and safety considerations specified in the NCP for response actions.

Where an incident implicates trustees' statutory or regulatory requirements in addition to those in OPA and this proposed rule, trustees should comply with those requirements. Compliance with all applicable laws and regulations will help to minimize duplicative and conflicting efforts. When following procedural requirements other than those specified by OPA and this proposed rule, trustees should identify those requirements in the restoration plan. Applicable requirements that may need to be considered include, but are not limited to the: Endangered Species Act; Coastal Zone Management Act; Migratory Bird Treaty Act; National Marine Sanctuaries Act; National Historic Preservation Act; Marine Mammal Protection Act; worker health and safety-related acts; and NCP. To the extent that federal trustees can legally comply with state, local, or Indian tribal procedural requirements, they should do so.

V. Settlement Authority

Trustees may settle claims for natural resource damages at any time, provided that the settlement is adequate in the judgment of the trustees to make the environment and public whole for the injury, destruction, loss of, or loss of use of natural resources and/or services that have or are likely to have occurred; with particular consideration of the adequacy of the compensation to provide for the restoration of such resources. Sums recovered in settlement of such claims may only be expended in accordance with a restoration plan that is made available for public review.

VI. Emergency Restoration

Emergency restoration actions should be considered in situations where immediate action is necessary to minimize continuing or prevent additional injury. Although emergency restoration actions may be considered and implemented by trustees at any time throughout the NRDA process if

the above conditions are met, typically trustees begin evaluating the need for emergency restoration during response. If emergency restoration actions have the potential to interfere with the response, trustees must consult and/or coordinate with response agencies prior to implementing emergency restoration. Where emergency restoration actions are not expected to interfere with response activities, trustees must notify response agencies prior to implementation of emergency restoration to inform the latter of the trustees' intended actions and reasoning for believing that no interference with the response will result.

Trustees must provide notice to the responsible parties of any emergency restoration actions and invite their participation in the conduct of those actions within a reasonable timeframe.

Emergency restoration is an exception to the OPA section 1006(c)(5) requirement that actions be subject to prior public review and comment. Because of this exception, this proposed rule allows trustees to take emergency restoration action only if such action is feasible, likely to achieve the goal of minimizing or preventing injury, and is conducted at a cost that is not unreasonable. Notifying the public of the justification for, the nature and extent of, and the results of emergency restoration actions within a reasonable time following the actions is consistent with emergency action guidance under NEPA as well.

The costs associated with evaluating, planning, and implementing emergency restoration may be claimed as part of the damages claim.

Subpart C—Definitions

There are a number of fundamental terms and concepts that are not explicitly defined or described in OPA. Interpretation of these terms and concepts plays a critical role in the NRDA process under OPA.

Relevant definitions in OPA, CERCLA, the Clean Water Act, or other related laws, and associated regulations, are repeated in this proposed rule as a matter of reference. Other terms and concepts found in this proposed rule were developed to be consistent with current usage.

This section concentrates on some of the terms and concepts that are foundational to the NRDA process under this proposed rule, such as "injury," or terms that do not possess a common meaning.

Baseline

As defined in this proposed rule, the term baseline refers to the condition of

natural resources and/or services that would have existed had the incident not occurred. Although injury quantification requires comparison to a baseline condition, site-specific baseline information may not be required. In many cases, injuries can be quantified in terms of incremental changes, rather than in terms of absolute changes relative to a known baseline. For example, Type A models do not require site-specific baseline information to quantify injury. Rather, the injury is quantified in terms of incremental adverse changes resulting from the incident. Similarly, counts of oiled bird carcasses can be used as a basis for quantifying incremental bird mortality resulting from an incident.

This proposed rule does not distinguish between baseline, historical, reference or control data in terms of value and utility in determining the degree and spatial/temporal extent of natural resource and/or service injuries. To the extent that baseline data, historical data, reference data or control data can provide valid information on which to base a determination of the projected conditions of the natural resource and/or service in the absence of the incident, these forms of data may effectively serve as baseline information. Trustees are encouraged to collect information from the field, laboratory, literature, models, or any combination thereof.

Types of information that may be useful in determining baseline include:

- (1) Information collected on a regular basis and for a period of time;
- (2) Information identifying historical patterns or trends;
- (3) Information from areas unaffected by the incident, that are judged sufficiently similar to the area of the incident with respect to the variable being measured; or

(4) Information from the area of the incident after the particular variable, e.g., interim lost use, has been judged to have recovered.

Exposure

Exposure documentation is required to determine injury under this proposed rule except when natural resource and/or service injuries are the result of response activities or the substantial threat of a discharge of oil. Exposure can be expressed broadly as direct or indirect contact with the discharged oil. Exposure may be determined, alone or in combination, through: field investigations; laboratory exposure studies; transport and fate modeling; or the literature.

Incident

An incident is any occurrence or series of occurrences having the same origin, involving one or more vessels, facilities, or any combination thereof, resulting in the discharge or substantial threat of discharge of oil into or upon navigable waters or adjoining shorelines or the Exclusive Economic Zone. When a discharge of oil occurs, natural resources and/or services may be injured by the actual discharge of oil or response activities related to the discharge. When there is a substantial threat of a discharge of oil, natural resources and/or services may also be injured.

Injury

OPA authorizes trustees to recover damages for "injury to, destruction of, loss of, or loss of use of" natural resources (sec. 1002(b)(2)(A)). Trustees must establish that injury has resulted from an incident. Under this proposed rule, injury is defined as an observable or measurable adverse change in a natural resource or impairment of a natural resource service. Measurable adverse changes may be projected through use of models or extrapolation techniques.

There are two general bases for determining injury under this proposed rule. Trustees must either determine that: (1) The natural resource was exposed, there is a pathway connecting the incident with the resource, and an adverse change to the natural resource and/or service has occurred; or (2) for injuries resulting from response actions or incidents involving a substantial threat of a discharge, an injury to a natural resource or an impairment of use of a natural resource service has occurred as a result of the incident. Thus, under this proposed rule, injury may result from direct or indirect exposure to oil, as well as from response-related activities, and loss of services is explicitly included in the definition of injury.

Oil

Under OPA section 1001(23), "oil" includes:

Oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil, but does not include petroleum, including crude oil or any fraction thereof, which is specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of section 101(14) of [CERCLA] and which is subject to the provisions of that Act.

If a component of a mixed spill is a hazardous substance under CERCLA, CERCLA and the CERCLA NRDA

regulations apply. The definition of "oil" under OPA does not cover all petroleum-related products. For instance, substances whose properties or behavior are substantially different from oil (e.g., natural gas condensates) are excluded under OPA. However, substances that are relatively similar (e.g., non-petroleum oils such as vegetable oils and animal fats) are covered by OPA. Although the U.S. EPA and U.S. Coast Guard have recognized that animal fats and vegetable oils are substantially less harmful to the environment than petroleum-based oils, the preamble to the recent revisions to the NCP states that "oil of any kind or in any form" clearly suggests the inclusion of non-petroleum oils. 59 FR 47386 (Sept. 15, 1994). This conclusion is also consistent with U.S. Department of Transportation guidance, which states that "oil" includes "petroleum, fuel oil, vegetable oil, animal oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil, but does not include natural gas condensate." 49 CFR 194.5. While the mechanism of injuries by non-petroleum oils may be different than that of petroleum oils, it is evident, based on current literature, the nature of such injuries are similar (i.e., death) for both types of oils.

According to EPA guidance, "oil" covered by OPA includes: (1) Crude oil and fractions of crude oil including the hazardous substances, such as benzene, toluene, and xylene, which are indigenous to petroleum and its refined products; and (2) hazardous substances that are normally mixed with or added to crude oil or crude oil fractions during the refining process, including hazardous substances that have increased in level as a result of the refining process. (U.S. EPA Memorandum on the Petroleum Exclusion Under the Comprehensive Environmental Response, Compensation, and Liability Act, July 31, 1987; BNA, 1988) Hazardous substances added to petroleum that increase in concentration through any process other than refining, or added as a result of contamination of the petroleum during use (including waste oil), would not be excluded from CERCLA. For example, the presence of dioxin in oil used as a dust suppressant on highways would bring a discharge of such a mixture under the jurisdiction of CERCLA, not OPA.

Pathway

Pathways include the medium, mechanism, or route by which the incident has resulted in an injury. For discharges of oil, a pathway is the sequence of events by which: (1) The oil

travelled through various components of an ecosystem and contacted the natural resource of concern; or (2) exposure to oil in one part of an ecosystem was transmitted to the natural resource of concern, without the oil directly contacting the natural resource.

Reasonable Assessment Costs

To evaluate the reasonableness of assessment costs, the incremental increase in assessment information must be reasonably related to the action's incremental cost. The scale of assessment efforts must be appropriate in the judgment of the trustees relative to the need for increased information, which is a highly incident-specific determination. The costs of an assessment or assessment actions that are focused on providing information required to determine restoration requirements must also be judged relative to the extent of injury and expected restoration costs for the incident. Reasonable assessment costs also include the administrative, legal, and enforcement costs necessary to carry out this part. Trustees may recover the reasonable assessment costs they incur under this proposed rule even if they ultimately determine not to pursue restoration, provided they establish jurisdiction under OPA during the Preassessment Phase.

Recovery

Recovery is defined in the proposed rule as the return of injured natural resources and services to baseline. This concept encompasses the inherent tendency for natural resource and/or service attributes to vary over space and time.

Projecting recovery involves determining the likelihood and rate at which natural resources and/or services will return to baseline. The availability and quality of baseline information can influence recovery projections. Trustees should use the best available information that can be gathered through field or laboratory studies, models, the literature, and other sources appropriate to the incident or injury to project recovery.

Restoration

Under this proposed rule, restoration is broadly defined as any action or combination of alternatives or actions to restore, rehabilitate, replace, or acquire the equivalent of injured natural resources and services.

This proposed rule includes the concepts of primary and compensatory restoration. Primary restoration is human intervention or natural recovery that returns injured natural resources

and services to baseline. Compensatory restoration is action taken to make the environment and the public whole for service losses that occur from the date of the incident until recovery of the injured natural resource.

Services

Natural resources are valued in terms of the services or functions they provide to other natural resources or the public. Thus, under this proposed rule, services refer to the ecological functions performed by natural resources or the public benefits derived therefrom. Such services can be classified as follows:

(1) Ecological services—the physical, chemical, and biological functions that one natural resource provides for another. Examples include provision of food, protection from predation, nesting habitat, and biodiversity, among others; and

(2) Public services—the functions that natural resources provide for the public. Examples include fishing, hunting, nature photography, education, and access, among others.

Value

An individual's value of a good is represented by the amount of other items that the individual is willing to give up to obtain or is willing to accept to forgo the good. The total value of a natural resource or service includes direct use values (e.g., values individuals derive from consuming or viewing a natural resource) and passive use values (values not linked to direct use, e.g., the value individuals derive from knowing a natural resource exists). In many contexts, particularly in markets, value is represented in terms of units of currency, the commonly accepted form of exchange. However, value can be measured using a variety of possible measures, including units of a resource service. In this proposed rule, value can be measured either in terms of units of resource services or dollar amounts.

Subpart D—Preassessment Phase

I. Purpose

During the Preassessment Phase, trustees make several critical determinations that shape the remainder of the assessment. Trustees must initially determine whether actions under OPA are justified, then proceed to make early estimates about the types of injury assessment and restoration actions that may be warranted, based on the circumstances of a given incident.

II. Determinations

A. Determination of Jurisdiction

In order for trustees to proceed with restoration planning under OPA, certain conditions must be met:

(1) An "incident" under OPA has actually occurred (i.e., there has been a discharge or substantial threat of a discharge of oil);

(2) The incident does not fall within exclusionary conditions set forth in section 1002(c) of OPA (e.g., the discharge was not allowed by federal permit); and

(3) Natural resources under the trusteeship of the trustees have or may be affected as a result of the incident.

Frequently, the first two conditions are determined by the response agency; USCG or EPA may have already made these determinations that OPA applies to the incident before notifying trustees. The third condition, however, is necessarily determined by each trustee. If any of these conditions is not met, the trustees may not take additional action under this proposed rule.

A determination that OPA applies and that a trustee has jurisdiction to act under OPA may trigger initiation of the NRDA process.

B. Determination to Conduct Restoration Planning

1. General

The key determination to be made by trustees in the Preassessment Phase is whether it appears likely that restoration actions should be pursued by the trustees. This determination depends on the following conditions:

(a) Injuries likely have resulted or will result from the incident;

(b) Response actions may not adequately address the potential injuries; and

(c) Feasible restoration actions exist to address the potential injuries.

If any of the above conditions is not met, trustees may not take additional action under this part. However, trustees may recover all reasonable assessment costs incurred up to the point when they determined that the conditions were not met. If all of the above conditions are met, the trustees must issue a "Notice of Intent to Conduct Restoration Planning" (Notice). The form and content of this Notice will vary depending on the circumstances of individual incidents, and is discussed below.

Other factors to consider during the Preassessment Phase include: funding, data collection, and opening the administrative record. Trustees may also need to consider the applicability of the

defenses to liability provided in OPA section 1003 and the monetary caps on liability provided in OPA section 1004.

2. Identifying Natural Resources and/or Services at Risk

Determining whether natural resources and/or services are, or are likely to be, injured requires that trustees consider the:

(a) Circumstances of the incident. Factors to consider may include geographic location, source, type, time and duration, and volume of the discharge;

(b) Characteristics of the discharge or threatened discharge. Factors to consider may include physical parameters of the oil;

(c) Characteristics of the natural resources. Factors to consider may include the natural resources in the area of the incident, the services they provide, habitat and species types, seasonal implications on sensitive life stages, and unique ecological components; and

(d) Potential for injury. Factors to consider may include potential for exposure, plausible pathways, causal mechanisms, and availability of assessment procedures and data to analyze these factors.

3. Effectiveness of Response Actions in Eliminating Injury

Once trustees ascertain that trust resources and/or services are, or may be expected to be, injured as a result of the incident, trustees can make the determination whether these concerns are likely to be adequately addressed through response actions. If response actions will not alleviate residual natural resource and/or service injuries, trustees must determine whether there is a need and potential for restoration actions to address residual impacts, and begin identifying these actions, to facilitate the Restoration Planning Phase of the NRDA process.

4. Early Identification of Potential Restoration Actions

Whenever practicable, potential restoration actions need to be identified as early in the NRDA process as possible. Such identification is needed to help justify the decision to proceed with an assessment that will lead to restoration actions, and provide focus for designing injury assessment studies that will produce useful information on the type and scale of restoration needed for injured natural resources and services. Some considerations important to the early identification of restoration actions include:

(a) Potential nature, degree, and spatial/temporal extent of injury, with or without restoration;

(b) Need and potential for restoration;

(c) Potential scope and scale of restoration;

(d) Extent to which relevant information is known, or the time and money required to obtain such information; and

(e) Requirements imposed by other laws and regulations that would affect restoration.

If trustees determine that restoration actions are appropriate to the incident, the trustees should proceed to the Restoration Planning Phase.

III. Notice of Intent to Conduct Restoration Planning

If the trustees determine that there is a reasonable likelihood that injury has occurred as a result of the incident and restoration actions that would address these injuries should be pursued, the trustees may proceed with injury assessment. At this point, the trustee must prepare the Notice of Intent to Conduct Restoration Planning documenting the trustees' preassessment activities and the basis for the decision to proceed. Depending on information available at this early stage of the assessment process, the Notice may also include a description of the trustees' proposed strategy to assess injury and determine the scope and scale of restoration. The contents of a Notice may vary, but will typically discuss:

(a) The facts of the incident;

(b) Trustee authority to proceed with assessment;

(c) Natural resources and/or services that are, or are likely to be, injured as a result of the incident;

(d) Potential restoration actions relevant to the expected injuries; and

(e) If determined at the time, potential procedures to assess injuries, and determine the appropriate scope and scale of restoration for the affected natural resources and services.

The Notice must be made publicly available. The means by which it is made publicly available and whether public comments are solicited on the Notice will depend on the scope and scale of the incident, and the need to conduct further investigation to identify likely injury assessment and restoration actions, among other things. Trustees must also provide a copy of the Notice to the known responsible parties and invite their participation in the conduct of restoration planning.

IV. Administrative Record

The administrative record facilitates the restoration process by providing a

central repository for all materials relied upon by trustees in making final determinations about restoration actions appropriate for an incident. The administrative record should be opened after trustees determine the need to conduct restoration planning. The Notice will identify a trustee representative to contact with questions regarding the administrative record.

The administrative record must contain sufficient information to support the public's review of the trustees' decisionmaking process. The administrative record must contain documents and other factual information considered by trustees in selecting assessment actions, including documents that support options the trustees ultimately rejected. Pertinent documents submitted in a timely manner by the responsible parties and public, including public comments, must be included in the administrative record.

The administrative record should be limited to final documents when possible. Where no final document is available at the time of selection of restoration actions, the draft may be included in the administrative record if the document contains information not found in other documents in the record, but which is considered by the trustees in selecting a restoration action. Pre-decisional, deliberative internal agency memoranda should be treated like draft documents, i.e., excluded from the record, unless relied upon in choosing restoration actions.

Ordinarily, the administrative record should include: the Notice, draft and final restoration plans, and public comments. Any relevant data, investigation reports, scientific studies, work plans, quality assurance plans, decision documents, and literature may be included in the administrative record. Any agreements among the participating trustees or with the responsible parties should also be included in the administrative record.

Although this proposed rule is silent on the standard of review for NRDA, NOAA expects that assessments and restoration selection based on an open administrative record will be afforded review on the record by the courts.

V. Data Collection During Preassessment

This proposed rule allows trustees to conduct limited data collection and analysis throughout the Preassessment Phase. The purpose of data collection at this stage is to facilitate the determination of whether natural resources and/or services have been injured by the incident and require

some form of restoration. Ephemeral information (i.e., information that may be lost if not collected immediately) may also be collected during the Preassessment Phase if the information is necessary for any stage of the restoration planning process. In addition, information needed to design and implement anticipated assessment procedures may be collected during this phase. Data collection during this phase must be coordinated with response actions such that the collection does not interfere with or hinder the response actions.

Subpart E—Restoration Planning Phase

I. Purpose

The purpose of the Restoration Planning Phase is to evaluate information on potential injuries to natural resources and/or services (injury assessment), and use that information to determine the need for and scale of restoration actions (restoration selection). The NRDA process is essentially a restoration scoping exercise, and the various studies and analyses conducted during this phase should be viewed from the restoration perspective.

During the Restoration Planning Phase, trustees should focus on determining which natural resources and services need to be restored, and how to design and scale that restoration. Potential NRDA activities should be scrutinized closely to ensure that the results will be useful and relevant to restoration.

The Restoration Planning Phase integrates and provides the linkage between injury and restoration, through the injury assessment and restoration selection components of the phase. Development of a conceptual linkage between injury and restoration early in the NRDA process (i.e., in the Preassessment Phase) should both expedite the assessment process and minimize costs by assisting the trustees in: focusing on the most relevant injuries to be included in the assessment; designing studies that are relevant to restoration; and designing appropriate restoration projects.

II. General Criteria for Acceptable Procedures

In order to be in accordance with this proposed rule, any procedures for assessing injury and scaling restoration actions must be consistent with the following criteria:

(a) If available, injury determination and quantification procedures that provide information of use in determining the appropriate type and

level of restoration appropriate for a particular injury or loss shall be used;

(b) If a range of procedures providing the same type and quality of assessment information are available, the most cost-effective procedure will be used;

(c) The incremental cost of more complex studies must be reasonably related to the expected increase in relevant assessment information provided by the more complex study; and

(d) Procedures selected must be reliable and valid for the particular context.

III. Injury Assessment

A. Purpose

The goal of injury assessment, which includes determination and quantification of injury, is to determine the nature, degree, and spatial/temporal extent of injuries to natural resources and/or services, thus providing a technical basis for evaluating the need for and scale of restoration. While the basic steps discussed below are applicable to all assessments, selection of approaches for demonstrating exposure, pathway, and injury will be incident-specific. Thus, this proposed rule provides a range of possible procedures and methods for injury determination and quantification, including simplified (e.g., models, literature extrapolation) and more detailed procedures (e.g., generation of original data). Trustees are encouraged to use simplified procedures, when appropriate.

Under OPA, trustees must determine whether injuries "resulted from" the incident. Establishing that a specific injury has resulted from a particular incident may be accomplished through a number of procedures, alone or in combination. These include field investigations, laboratory studies, models, and the literature.

To determine injury under this proposed rule, trustees must determine if:

(1) The definition of "injury" is met; and

(2) The injured natural resource has been exposed to the discharged oil and a pathway links the incident and the injured natural resource and/or service, or,

for injuries resulting from response actions or incidents involving a substantial threat of a discharge, an injury or an impairment of use of a natural resource service has occurred as a result of the incident.

If any of the above conditions for determining injury provided in this section is not met, trustees may not take

additional action under this part. However, trustees may recover all reasonable assessment costs incurred up to the point when they determined that the conditions were not met. If all the conditions are met, trustees may proceed with the assessment. These steps and concepts are described in more detail below.

B. Injury Determination

1. Definition of Injury

Under this proposed rule, trustees must determine if the definition of "injury" has been met. "Injury" is defined as an observable or measurable adverse change in a natural resource or impairment of a service.

Injury includes adverse changes in the chemical or physical quality or viability of a natural resource. The simplest example is death of an organism, but indirect, delayed, or sublethal effects may also be considered. Other potential categories of injuries include adverse changes in: survival, growth, and reproduction; health, physiology and biological condition; behavior; community composition; ecological processes and functions; physical and chemical habitat quality or structure; and services to the public.

Although injury often is thought of in terms of adverse changes in biota, the definition of injury under this rule is broader. Injuries to non-living resources (e.g., removal of oiled sand on a beach) as well as injuries to resource services (e.g., lost use associated with a fisheries closure to prevent harvest of tainted fish, even though the fish themselves may not be injured) may be considered.

This list of potential adverse changes is not intended to be inclusive of all injuries that trustees may evaluate.

2. Exposure

The purpose of the exposure portion of an injury assessment is to determine whether natural resources came into contact with the oil from the incident. Early consideration of exposure (i.e., ideally during the Preassessment Phase) should help to focus the assessment on those natural resources and/or services that are most likely to be affected by an incident.

Trustees must determine whether the natural resource came into contact, either directly or indirectly with the oil discharged from the incident. Under this proposed rule, exposure is broadly defined to include not only direct physical exposure to oil, but also indirect exposure (e.g., injury to a organism as a result of a food web disruption). Documenting exposure is a prerequisite to determining injury,

except for response-related injuries and injuries from substantial threats of discharges. However, evidence of exposure alone may not be sufficient to conclude that injury to a natural resource has occurred (e.g., the presence of petroleum hydrocarbons in oyster tissues may not, in itself, constitute an injury).

Exposure can be demonstrated with either quantitative or qualitative methods. As with other elements of the NRDA process, selection of approaches for demonstrating oil exposure will depend on the type and volume of discharged oil, natural resources at risk, and nature of the receiving environment. For example, chemical analysis of oil in sediments, alone, may not be adequate to conclude that a benthic organism was otherwise exposed to the oil. Likewise, the presence of petroleum in fish tissue, alone, may not be adequate to link the exposure to the discharge because metabolism of the oil may blur the chemical characterization. The combination of the two approaches may, however, demonstrate exposure.

Typically, procedures for exposure analysis include: (a) Field observations or measurements; (b) laboratory exposure studies; (c) transport and fate modeling; and (d) the literature. This proposed rule emphasizes that these procedures may be used alone, or in combination, depending on the specific nature of the incident. Trustees must determine the most appropriate approach to evaluating exposure on an incident-specific basis. For example, for some types of incidents, visual observation in the field and/or modeling may be sufficient to evaluate exposure. For other incidents, more involved site-specific sampling, including chemical analysis and biological data collection, may be more appropriate.

3. Pathways

To determine whether an injury resulted from a specific incident, a plausible pathway linking the incident to the injury must be identified. As with exposure, demonstrating a pathway is a prerequisite to determining injury, but evidence of a pathway, alone, is not sufficient to conclude that injury has occurred (e.g., demonstrating that prey species are oiled can be used to document that a plausible pathway to a predator species exists. However, such data do not, in themselves, demonstrate that the predator species is injured).

Pathway determination can include evaluation of either:

(a) The sequence of events by which the discharged oil was transported from the incident and came into direct

physical contact with the exposed natural resource (e.g., oil transported from an incident by ocean currents, wind, and wave action to directly oil shellfish); or

(b) The sequence of events by which the discharged oil was transported from the incident and caused an indirect impact on a natural resource and/or service (e.g., oil transported from an incident by ocean currents, wind, and wave action cause reduced populations of bait fish, which in turn results in starvation of a fish-eating bird; or, oil transported from an incident by currents, wind, and wave action causes the closure of a fishery to prevent potentially tainted fish from being marketed).

Pathway determination does not require that injured natural resources and/or services be directly exposed to oil. In the example provided above, fish-eating birds are injured as a result of decreases in food availability. However, trustees must always determine the existence of a plausible pathway relating the incident to the injured natural resource and/or service, even if the injury is not caused by direct exposure to oil.

Pathways can include, but are not limited to, movement/exposure through the: water surface; water column; sediments, including bottom, bank, beach, floodplain sediments; groundwater; soil; air; direct accumulation; and food-chain uptake.

As with exposure determination, procedures for pathway analysis include field investigations, laboratory studies, modeling, and the literature. As noted above, this proposed rule emphasizes that these procedures may be used alone, or in combination, depending on the specific nature of the incident. Trustees must determine the most appropriate approach to determine whether a plausible pathway exists on an incident-specific basis.

Understanding the potential pathways will also help to narrow the scope of the NRDA investigation, and may be important in deciding which assessment procedures to use. For example, the Type A model does not address injuries that occur via air or terrestrial pathways, thus it would not be appropriate in such cases.

4. Selection of Injuries to Include in the Assessment

During the Preassessment Phase, trustees may collect information on a wide range of potential injuries. As a result, a long inventory of potential injuries resulting from the incident is often developed. Because the collection of information on injury must be

directly related to the incident and consistent with restoration planning, developing scientific knowledge for its own sake is not appropriate under this rule.

To compile the inventory of potential injuries, trustees should determine the extent to which the following information is known or can be obtained for each injury:

- (a) The natural resource/service of concern;
- (b) The adverse change that constitutes injury;
- (c) The potential degree, and spatial/temporal extent of the injury;
- (d) The evidence indicating injury;
- (e) The mechanism by which injury occurred;
- (f) The evidence indicating exposure;
- (g) The pathway from the incident to the natural resource/service of concern;
- (h) The potential natural recovery period;
- (i) The kinds of primary and/or compensatory restoration actions that are feasible; and
- (j) The kinds of procedures available to evaluate the injury, and the time and money requirements.

The result of the above analysis will be a list of injuries to be evaluated in the assessment.

C. Injury Quantification

Injury quantification is the process by which trustees determine the degree and spatial/temporal extent of injuries. Thus, injury quantification is the means by which appropriate restoration is determined.

1. Conceptual Approaches to Quantification

Trustees may pursue one or more of several different conceptual approaches to injury quantification. Under these approaches, injury may be quantified in terms of: (a) The degree and spatial/temporal extent of injury to a natural resource; (b) the degree and spatial/temporal extent of injury to a natural resource with subsequent translation of that change to a reduction in services provided by the natural resource; or (c) the amount of services lost as a result of the incident. Examples of the first approach include quantifying the number of seabird mortalities caused by a discharge of oil, or measurement of the area of a river in which hydrocarbon concentrations exceed water quality standards. Examples of the second approach include quantifying reductions in fish populations with subsequent estimation of the number of recreational fishing days lost as a result of this injury, or quantifying the amount of lost spawning habitat as a result of

oiling with subsequent estimation of the number of fish that would have been produced by that habitat. An example of the third approach includes direct measurement of the number of beach user days lost as a result of a beach closure. Trustees are encouraged to use whichever approach, or combination of approaches, is most appropriate to the circumstances of the incident.

For reasons indicated in subpart C under the definition of baseline in the preamble, site-specific baseline information may not be required.

2. Injury Quantification Information Needs

Because the purpose of injury quantification is to design and scale restoration actions, a large number of quantification measures may be adopted by trustees. In general, injury quantification should be designed to evaluate injury by addressing the following:

- (a) Degree of the injury. Degree may be expressed in terms of percent mortality, proportion of a population, species, community, or habitat affected, extent of oiling, and availability of substitute services.
- (b) Spatial extent of the injury. Spatial extent may include quantification of the total area or volume of injury.
- (c) Temporal extent of the injury.

Duration of injury may be expressed as the amount of time that the natural resource and/or service will be injured until natural recovery occurs, including past and interim injury periods.

In order to scale restoration actions, trustees may find it useful to develop an estimate of the total quantity of injury that integrates severity, and spatial and temporal extent of injury. For example, quantification of the total losses of wetland habitat injured by oil could be obtained by estimating the: (a) Total number of acres of severely oiled wetland in which vegetation is totally killed; (b) natural recovery time for severely oiled wetland; (c) total number of acres of moderately oiled wetland in which vegetation is not completely killed but the wetland has lower levels of productivity; and (d) natural recovery time for moderately oiled wetland. This information could be combined to quantify the total number of "acre-years" of wetland injury to scale restoration actions.

D. Analysis of Natural Recovery

Trustees must estimate the time for natural recovery without restoration, but including any response actions. Recovery is defined as a return of injured natural resources and services to baseline. Analysis of recovery times

may include evaluation of factors such as: (a) Degree and spatial/temporal extent of injury; (b) sensitivity of the injured natural resource and/or service; (c) reproductive potential; (d) stability and resilience of the affected environment; (e) natural variability; and (f) physical/chemical processes of the affected environment. Approaches to estimating recovery times include literature reviews of recovery at similar sites or for similar species, computer models, and professional judgement.

E. Injury Assessment Procedures and Methods

1. General

Whenever practicable, procedures should be chosen that provide information of use in determining the restoration appropriate for that injury. This proposed rule provides a range of assessment approaches, from simplified to more detailed. The technical and scientific adequacy of approaches will be judged based on the circumstances of the incident and injuries, and the information needed to determine restoration actions. Trustees should, however, first determine whether simplified assessment procedures are appropriate for a given incident. In general, more detailed assessment procedures may include, alone or in any combination, (a) field investigations; (b) laboratory methods; (c) model-based methods; and (d) literature-based methods.

2. Selection of Procedures

Trustees must base their selection of assessment procedures on an evaluation of the following factors:

- (a) Potential nature, degree, and spatial/temporal extent of the injury;
- (b) Potential restoration actions for the injury;
- (c) Range of assessment procedures available, including the applicability of simplified assessment procedures;
- (d) Time and cost necessary to implement the assessment procedures; and
- (e) Relationship between the information generated by the assessment procedures and the information needed for restoration planning.

When trustees have made a determination that a simplified assessment procedure is the most appropriate procedure for a given incident or injury, the responsible parties may request that trustees use incident-specific assessment procedures instead of a simplified assessment procedure if the responsible parties, in a timeframe acceptable to the trustees:

- (a) Identify the incident-specific assessment procedures to be used and

the reasons supporting the technical appropriateness of such procedures for the incident or injury;

- (b) Advance the costs of using such incident-specific assessment procedures; and

- (c) Agree not to challenge the reasonableness of the costs of using such incident-specific assessment procedures.

3. Simplified procedures

- a. Type A procedures. Trustees may use the Type A procedures identified in 43 CFR part 11, subpart D, that address oil discharges provided that conditions are sufficiently similar to those listed in 43 CFR 11.33 regarding use of the procedures. For further discussion, see Appendix C to this preamble.

- b. Compensation Formulas. In the January 1994 proposed rule, NOAA proposed compensation formulas for use for small incidents in estuarine and marine environments and inland waters. NOAA is now considering temporarily reserving those formulas. For further discussion, see Appendix C to this preamble.

4. Incident-specific procedures

Trustees may also use incident-specific assessment procedures, provided they are cost-effective and relevant to determining the scope and scale of restoration appropriate for that injury. Incident-specific assessment procedures include, alone or in any combination:

- (i) Field methods;
- (ii) Laboratory methods;
- (iii) Model-based methods; and
- (iv) Literature-based methods.

IV. Restoration Selection

A. Purpose

Once injury assessment is completed, trustees must develop a plan for restoring the injured natural resources and services. Under the proposed rule, trustees must identify a reasonable range of restoration alternatives, evaluate those alternatives, select an alternative, develop a Draft Restoration Plan for public review, and produce a Final Restoration Plan that addresses public concerns.

B. Development of a Reasonable Range of Alternatives

1. General

Trustees must identify a reasonable range of alternative restoration actions for consideration, except as provided in § 990.58 regarding the use of a Regional Restoration Plan. Generally, trustees will identify a package of actions and/or services. However, if there is a

reasonable basis for separately evaluating actions to restore separate natural resources and/or services, then trustees may do so. Acceptable restoration actions include any of the actions authorized under OPA (i.e. restoration, rehabilitation, replacement, or acquisition of the equivalent), any combination of those actions, and natural recovery.

Restoration alternatives may have two components: (a) Primary restoration, which is human intervention or natural recovery that returns injured natural resources and services to baseline; and (b) compensatory restoration, which is action taken to make the environment and the public whole for service losses that occur from the date of the incident until recovery of the injured natural resources.

What constitutes a reasonable range of alternatives will vary from case to case but must always include a no-action alternative. A no-action alternative is not the same as a natural recovery alternative. Under the no-action alternative, no human intervention would be taken for primary or compensatory restoration. In contrast, under a natural recovery alternative, human intervention could be taken for compensatory restoration action. A natural recovery alternative could also include minimal primary restoration actions by trustees to prevent interference with natural recovery (e.g., closing an area to human traffic).

2. Primary Restoration

Alternative primary restoration actions can range from natural recovery with no human intervention, to actions that prevent interference with natural recovery, to more intensive actions expected to return injured natural resources to baseline faster or with greater certainty than natural recovery.

When developing the primary restoration components of the restoration alternatives, trustees must define the desired outcome to be accomplished, and the criteria by which successful recovery will be judged. The goals and objectives should be clear and site-specific. The trustees should define the minimal acceptable criteria for recovery.

When identifying primary restoration alternatives to be considered, trustees should first consider whether activities exist that would limit the effectiveness of restoration actions (e.g., residual sources of contamination). Trustees should also consider whether any primary restoration actions are necessary or feasible to return the physical, chemical, and biological conditions necessary to allow recovery

or restoration of the injured resources (e.g., replacement of sand or vegetation). Trustees should consider whether restoration actions focusing on certain key species or habitats would be an effective approach to achieving baseline conditions.

3. Compensatory Restoration

In addition to primary restoration, trustees have the discretion to include a compensatory restoration action in some or all of the restoration alternatives. The service loss that must be addressed by a particular compensatory restoration action will vary depending on the nature of the primary restoration component of the overall restoration alternative.

a. Developing Types of Alternatives

When identifying the compensatory restoration components of the restoration alternatives, trustees must first consider compensatory restoration actions that provide services of the same type and quality as those lost. This is the preferred approach to identifying compensatory restoration actions. If, however, such actions are infeasible, or too few in number to provide a reasonable range of alternatives, trustees may then include other compensatory restoration actions among the alternatives, so long as the actions will provide services of at least comparable type and quality as those lost, in the judgment of the trustees.

b. Scaling Compensatory Restoration Actions

To ensure that a compensatory restoration action will appropriately compensate for the service loss, trustees must scale the action. The approaches that may be used to assess the appropriate scale of a compensatory restoration action include the service-to-service approach and the valuation approach.

i. Service-to-Service Approach

Under the service-to-service approach to scaling, the appropriate quantity of replacement services is determined by obtaining equivalency between lost and replacement services after discounting appropriately. Trustees must use the service-to-service approach for alternatives that provide services that are of the same type and quality, and are subject to comparable resource scarcity and demand conditions as those lost. The third criterion is being proposed to address situations where the public will no longer have the same level of need for services of the same type and quality as those lost by the time the compensatory restoration alternative

could be implemented. In such situations, a strict equivalency between quantities of lost and replacement services may not adequately compensate the public. NOAA solicits comment on the proposed criteria for use of the service-to-service approach.

Under the service-to-service approach, NOAA recommends use of habitat equivalency analysis when lost resource services are primarily of indirect human use, for example, species habitat or biological resources. (See Appendix D at the end of this preamble for a description of habitat equivalency analysis.) If lost services are human uses, for example recreational services, then a behavioral model of human use may be used to determine the scale of project necessary to attract the appropriate level of human uses. For example, if the interim lost services are lost recreational beach days, then the restoration alternative may be designed to provide the requisite number of recreational beach days by, perhaps, improving access to existing public beaches.

NOAA is interested in receiving comments on these suggested methods as well as any additional methods that might be appropriate for use with the service-to-service approach.

ii. Valuation Approach

In situations where trustees must consider alternatives that provide services that are of a different type or quality, or are subject to non-comparable resource scarcity or demand conditions than those services lost, trustees may use the valuation approach to scaling.

The valuation approach requires that trustees determine the amount of services that must be provided to produce the same value lost to the public. The approach relies on the idea that lost value can be determined using one of a variety of possible units of exchange, including units of resource services or dollars. The valuation approach requires that the value of lost services be measured explicitly and that the compensatory restoration alternative provide services of equivalent value to the public. To properly scale the compensatory restoration alternative, the trustee might have to measure the values of varying sizes of the compensatory restoration alternative to determine the size of a project that will replace the value of lost services. For proper comparison, all values lost or provided over time should be converted into present value terms by discounting.

Measuring the value of lost services in terms of units of replacement services rather than dollars may be the most

direct approach to scaling the compensatory restoration alternative. Although such procedures are currently not well-defined in the literature, it is likely that the method would use a form of conjoint analysis. Other valuation methods include the travel cost method, factor income approach, hedonic price models, models of market supply and demand, and contingent valuation. (See Appendix D at the end of this preamble for descriptions of these methods.) Trustees are not limited to these methods, and may use any reliable method suitable for calculating interim lost value. Where the circumstances are such that a site-specific application of one of these valuation methods does not meet the reasonable cost criterion, the trustees may consider estimating interim lost value using benefits transfer. The choice of approaches in a particular context will depend upon the types of injuries and the type of services provided by the compensatory restoration alternative.

Trustees should consider using similar methods for measuring the value of the lost services and the value of the services provided by the compensatory restoration alternatives. If different valuation methods are used, then trustees should take steps to ensure that the variation in methods does not introduce bias. NOAA seeks comment on possible approaches for assessing and adjusting for biases that may occur in this situation.

If valuation of the services provided by an alternative could not, in the judgment of the trustees, be performed consistent with the definition of reasonable assessment costs, the trustees may calculate the value of the lost services and then select the scale of a restoration alternative that has a cost equivalent to the lost value. The responsible parties will have the option of requesting that the trustees value the alternative, if the responsible parties, within a timeframe acceptable to the trustees, advance the costs of doing so and agree not to challenge the reasonableness of the costs of performing such valuation.

Because the reformulated unified restoration approach envisions a fundamentally different role for valuation methods from what was contained in the January 1994 proposed rule, NOAA has not included standards for utilization of such methods in today's proposed rule. However, NOAA is still considering, and seeks comment on, whether standards for the use of valuation methods, including contingent valuation, should be included in the final rule (or in accompanying guidance documents),

and, if so, what level of guidance would be appropriate.

c. Treatment of Uncertainty and Discounting

When scaling a compensatory restoration action, trustees should address the uncertainties associated with the predicted consequences of restoration projects and must discount to the present the interim lost services, or the value of interim lost services due to the injury as well as the gain in services or the gain in service value from the restoration project. The reference date for the discounting calculation is the date at which the demand is presented.

The choice of an appropriate discount rate is linked to the treatment of uncertainties associated with the losses due to the injury and the gains from the compensatory restoration alternative.

NOAA recommends that, where feasible, the trustees should use risk-adjusted measures of losses and gains, in conjunction with a riskless rate of discount serving as a proxy for the consumer rate of time preference. Alternatively, if the streams of losses and gains cannot be adequately adjusted for risks, then NOAA recommends use of a discount rate that incorporates a suitable risk adjustment to the riskless rate.

The periods of losses due to injury and, particularly, the period of gains from compensatory restoration projects potentially extend far into the future. Because the rates of return on financial instruments vary substantially through time and future rates can be predicted imperfectly, NOAA recommends use of a long-term average of the rates of return from the selected instrument. The analysis will be conducted either in nominal terms (i.e., in dollars of the year in which the losses or gains are incurred) or in real terms (e.g., in units of services, or in dollars of a specified base year). The nominal U.S. Treasury rate shall be used if the components of the claim are denominated in nominal terms. Otherwise, if components of the claim are denominated in real terms (of the discounting reference year), then real U. S. Treasury rates are to be used. To calculate the real rates, trustees should use an appropriate price index to remove expected inflation from the appropriate nominal U.S. Treasury rate.

NOAA seeks comment on various issues related to discounting the streams of consumer losses and gains. For what uncertainties is it most important for trustees to develop adjustments? What procedures are suitable for adjusting the streams of losses and gains for uncertainty? What is the appropriate

price index to employ to adjust nominal discount rates for inflation (e.g., Gross Domestic Product deflator, or Consumer Price Index)? Should the discount rate be an after-tax rate, rather than a pre-tax rate? Is a long-term average of the rates of the selected instrument the best predictor of future rates? If so, over what period should the average be calculated?

U.S. Treasury bill and bond rates may be found in the Federal Reserve Bulletin, issued monthly, or the Treasury Bulletin, issued quarterly. The Gross Domestic Product fixed-weighted price index and the Consumer Price Index may be found in the Survey of Current Business, issued monthly, and the Economic Report of the President, issued annually. The Administration prediction for future Gross Domestic Product deflators is updated twice annually at the time the budget is published in January or February and at the time of the Mid-Session Review of the Budget in July. The current Treasury rates and inflation adjustment assumptions are reported in regular updates of Appendix C of Circular No. A-94, available from the OMB Publications Office (202-395-7332).

C. Restoration Alternatives for Simplified Assessment Procedures

Simplified assessment procedures, described in § 990.54(d) of the proposed rule, provide different types of results or output that can be used in designing and scaling incident-specific restoration actions. For example, when using the Type A model, trustees have several alternative approaches: (1) A restoration plan may be developed to address the injuries predicted by the model; (2) the restoration actions predicted by the Type A model may be implemented; or (3) the lost values resulting from a model run may be used to identify the scale of a project. As discussed below, the proposed rule also allows trustees to consider using a Regional Restoration Plan instead of developing an incident-specific restoration plan when they have used simplified assessment procedures.

D. Evaluation of Restoration Alternatives

1. General

Once trustees have developed the restoration alternatives, they must evaluate those alternatives. This evaluation is based on the:

- (a) Extent to which each alternative can return the injured natural resources and services to baseline and make the environment and public whole for interim service losses;
- (b) Extent to which each alternative improves the rate of recovery;

(c) Extent to which each alternative will avoid additional injury;

(d) Level of uncertainty in the success of each alternative;

(e) Extent to which each alternative benefits more than one natural resource and/or service;

(f) Cost of each alternative;

(g) Effects of each alternative on public health and safety, and the environment; and

(h) Whether any alternative violates any laws or regulations.

Based on evaluation of the listed factors, trustees select a preferred restoration alternative. If there are two or more preferred alternatives, trustees must select the most cost-effective alternative.

2. Other Considerations

a. Pilot Restoration Studies

If the range of restoration alternatives under consideration is limited or poorly developed, trustees may implement pilot studies.

b. Cost Benefit Analysis

When selecting a restoration alternative, trustees should consider the relationship between costs and benefits. However, reducing the selection process to a strict comparison of restoration costs to monetized natural resource values is not required and may not be appropriate. Instead, the proposed rule would require trustees to evaluate each alternative according to a number of factors, identify a preferred alternative, select the most cost-effective alternative if there is more than one preferred alternative, and provide the public and responsible parties with an opportunity to review and comment on the trustees' selection. NOAA believes this approach provides adequate protection against selection of an inappropriately costly alternative. NOAA seeks comment on alternative approaches to the restoration selection process.

E. Draft Restoration Plan

1. Purpose

After selecting a restoration alternative, trustees must prepare a Draft Restoration Plan. Development of a Draft Restoration Plan provides a vehicle for: (a) Informing the affected and interested public of the results of the trustees' analyses and decisions, and encouraging public comments; and (b) performing expert peer review, when comments are solicited from various professional communities or other knowledgeable persons.

2. Contents

A Draft Restoration Plan should reflect the restoration planning process

as provided above and must, at a minimum, contain: (a) A summary of injury assessment procedures and methods used; (b) a description of the nature, degree, and spatial/temporal extent of injuries to natural resources and/or services resulting from the incident; (c) the goals and objectives of restoration; (d) the range of restoration alternatives considered and a discussion of how such alternatives were identified and developed; (e) a discussion of the trustees' evaluation of the restoration alternatives; (f) a description of a monitoring plan for documenting restoration effectiveness and the need for corrective action and performance criteria for judging the success and completion of restoration and the need for corrective action; and (g) a description of the involvement of the responsible parties in the assessment process, and proposed involvement in the restoration process.

The types of parameters that should be addressed in the monitoring plan may include: (1) Duration; (2) frequency of monitoring needed to gauge progress and success; (3) the level of sampling needed to detect success or the need for corrective action; and (4) whether monitoring of a control or reference site is needed to determine progress and success.

Performance criteria include structural, functional, temporal, and other demonstrable goals that the trustees should determine with respect to all restoration actions. For example, an agreement to create new intertidal marsh habitat as compensation for marsh impacted by oil could be described by performance criteria including the number of acres to be created, the location, the elevation of new habitat, the species to be planted and details for planting such as density, and the timeframe in which identifiable stages of the project should be completed.

3. Public Review and Comment

The information provided in the Draft Restoration Plan must be adequate to allow the public to objectively assess the injuries resulting from the incident and restoration actions being considered to remedy those injuries. The Draft Restoration Plan must be made available for at least a thirty (30) calendar day public review and comment period.

The type of notice, review, and comment procedures may vary depending on the nature and scale of restoration actions proposed. For instance, notice may be accomplished through the **Federal Register**, local newspapers, state press releases, etc., and review and comment may be

facilitated through written responses, advisory committees, public meetings, etc.

F. Final Restoration Plan

After reviewing public comments on the Draft Restoration Plan, trustees must develop a Final Restoration Plan. As part of the Final Restoration Plan, trustees must consider and respond to all comments on the Draft Restoration Plan. In response to the comments, the trustees may need to: (1) Modify the restoration alternatives being considered; (2) develop and evaluate alternatives that have not been given serious consideration by the trustees; (3) supplement, improve, or modify the analyses; (4) make factual corrections; or (5) explain why the comments do not warrant further trustee response, citing the reasons to support the trustee position, and possibly indicate the circumstances that would trigger reappraisal or further response. In the Final Restoration Plan, trustees indicate the restoration alternatives that will be implemented and include the information in the Draft Restoration Plan. The format of the Final Restoration Plan, which essentially follows that of the Draft Restoration Plan, must clearly indicate any changes to the Draft Restoration Plan.

If trustees plan to make significant changes to the Draft Restoration Plan in response to comments, revisions will be documented for public notice along with issuance of the Final Restoration Plan.

G. Use of Regional Restoration Plans

If trustees used a simplified assessment procedure, the proposed rule allows them to consider using a Regional Restoration Plan instead of developing an incident-specific restoration plan. Under the proposed rule, trustees may use an existing Regional Restoration Plan provided that the Plan:

(i) Was developed subject to public review and comment; and

(ii) Addresses and is currently relevant to the same or comparable natural resources and/or services as those identified during injury assessment as having been injured.

If these conditions are met, trustees may present the responsible parties with a demand for the damages calculated by the simplified assessment procedure and use the recovered sums to implement the Regional Restoration Plan.

If there is not an existing Regional Restoration Plan that meets these conditions and the information provided by the simplified assessment

procedure does not support development of an incident-specific restoration plan, trustees may present the responsible parties with a demand for the damages calculated by the simplified assessment procedure and place the recovered funds into an account with other similar recoveries, until such time that sufficient funds to develop plan and implement a new Regional Restoration Plan are collected. Recoveries may only be commingled in this manner where natural resource and/or service injuries were similar for the incidents represented by pooled funds, and where the incidents were within the same region (i.e. ecosystem or watershed). New Regional Restoration Plans would then be developed subject to public review and comment.

Trustees should develop criteria and procedures governing pooling of funds and obligating portions of damages from simplified procedures to planning costs. Such criteria should address: (1) The length of time money should be maintained in an account before developing and implementing Regional Restoration Plans; and (2) suggested maximum percentages of recoveries that may be used for developing Regional Restoration Plans.

NOAA requests comments on the concepts and specific guidelines for pooling recoveries from simplified assessments and use of those monies.

If trustees use a Regional Restoration Plan, they must prepare a Notice of Intent to Use a Regional Restoration Plan. The Notice must include:

(1) A description of the nature, degree, and spatial/temporal extent of injuries to natural resources and/or services resulting from the incident;

(2) A description of the existing Regional Restoration Plan and an explanation of how the conditions for use of a Regional Restoration Plan are met; or a description of the anticipated process for developing a new Regional Restoration Plan and an explanation of why the information provided by the simplified assessment procedure does not support development of an incident-specific restoration plan; and

(3) Identification of the damage amount sought and the calculation of that amount.

Trustees must make a copy of the Notice publicly available.

Subpart F—Restoration Implementation Phase

I. Introduction

At the completion of the Restoration Planning Phase, the trustees must: (a) Close the administrative record that

incorporates the Restoration Planning Phase and open a new administrative record for the Restoration Implementation Phase; (b) present a demand for restoration costs or implementation to the responsible parties; (c) establish an account to receive any payments of sums to be received from the responsible parties; and (d) implement restoration. Additional actions that could occur during the Restoration Implementation Phase include litigating a claim for damages where the responsible parties refuse to pay for or implement restoration on receipt of the trustees' demand, or presenting a claim for damages to the Oil Spill Liability Trust Fund, so that restoration can be implemented.

II. Administrative Record

Once a Final Restoration Plan or Notice of Intent to Use a Regional Restoration Plan has been issued, the administrative record of the Restoration Planning Phase must be closed. Except as noted below, no additional documents will be placed in the record. The closed record will constitute the body of information supporting the trustees' decisions through restoration planning.

Once the record is closed, trustees may only add documents that:

- (a) Are offered by an interested party that did not receive actual or constructive notice of the Draft Restoration Plan and the opportunity to comment on the Plan;
- (b) Do not duplicate information already contained in the administrative record; and
- (c) Raise significant issues regarding the Final Restoration Plan.

For practical reasons, it is likely that trustees will need to open and maintain an additional administrative record to document implementation of restoration. This record should document all Restoration Implementation Phase decisions, actions, and expenditures, including any modifications made to the Final Restoration Plan. This record is necessary to keep the public informed and potentially for use in any enforcement actions, such as seeking additional work from the responsible parties to comply with the restoration plan and implementing agreements.

The administrative record for restoration implementation should follow the same guidance for opening and maintaining the previous record, and for its availability.

III. Presenting a Demand for Damages to the Responsible Parties

If the trustees and responsible parties have successfully implemented a cooperative restoration planning process, the responsible parties will have thorough knowledge of the trustees' preferred restoration actions and associated costs. In the best circumstances, the responsible parties will already have entered into an enforceable agreement to either pay the costs associated with implementing the Final Restoration Plan, or to implement the Plan according to trustee performance criteria and with trustee oversight. Any such agreements with the responsible parties will have been described in the Draft and Final Restoration Plans reviewed by the public.

However, where a cooperative relationship with responsible parties has not been achieved, the trustees must follow some specific statutory requirements to recover natural resource damages, as described below.

After development of a Final Restoration Plan or a Notice of Intent to Use a Regional Restoration Plan, the trustees must present a demand in writing asking the responsible parties either to:

- (a) Implement the Final Restoration Plan or portion of a Regional Restoration Plan subject to trustee oversight and reimburse the trustees for their assessment and oversight costs; or
- (b) Advance to the trustees a specified sum representing all direct and indirect costs associated with developing and implementing the Final Restoration Plan or some portion of a Regional Restoration Plan.

The demand must also include: (a) Identification of the incident from which the claim arises; (b) identification of the trustees asserting the claim; (c) a brief description of the injuries for which the claim is being brought; (d) the index to the record; (e) the Final Restoration Plan or Notice of Intent to Use a Regional Restoration Plan; and (f) a request for reimbursement of:

- (i) Reasonable assessment costs;
- (ii) The cost, if any, of conducting emergency restoration; and
- (iii) Interest on the amounts recoverable under OPA section 1005, which provides for prejudgment and post-judgment interest to be paid at a commercial paper rate, starting from 30 calendar days from the date a demand is presented until the date the claim is paid.

IV. Discounting and Compounding the Components of the Claim

A. General

Discounting and compounding are necessary for the trustees to be able to present a claim for a "sum certain." The reference date for the discounting and compounding calculations is the date at which the demand is presented. Trustees must discount, or compound, the two components of the claim: (1) Future restoration costs; and (2) damage assessment and emergency restoration costs already incurred.

NOAA recommends that trustees use the U.S. Treasury borrowing rate on marketable securities of comparable maturity to the period of analysis for both calculations, with some qualifications noted below. Alternatively, for state or Indian tribal claims for past damage assessment and restoration costs, the state or Indian tribe may use the state or Indian tribal borrowing rate on marketable securities. The analysis should be conducted either in terms of nominal values (denominated in dollars of the year in which the losses or gains are incurred) or in constant dollars of a specified base year. For compounding forward past emergency restoration and assessment costs, it seems more straightforward to employ the nominal Treasury rate as the discount rate and to represent the costs in nominal terms, since the nominal interest is observed and past costs are likely to be denominated in nominal terms. Future restoration costs can be adjusted for inflation using an appropriate inflation index for the major categories of costs.

B. Estimated Future Restoration Costs

Most restoration projects will be carried out over a period of years. If funds are insufficient to cover the full costs of restoration, including post-construction maintenance and monitoring operations, natural resource recovery will be incomplete, and the public will be deprived of full compensation for the injuries. NOAA recommends that trustees use the nominal U.S. Treasury rate for marketable securities of comparable maturity to the period of analysis, when this rate of return is available to the trustees for investment of settlement monies. To denominate the future restoration costs in nominal terms, the trustees should employ the indices of projected inflation appropriate to the major components of the restoration costs (e.g., construction price indices for construction costs; the federal employee wage index for trustee monitoring costs).

If legal and/or institutional constraints prevent investment of settlement monies yielding the U.S. Treasury rate for marketable securities of comparable maturity to the period of analysis, then it is incumbent upon the trustees to structure the claim to ensure that sufficient funds will be available to fund the entire set of restoration activities. One option is to calculate the discounted value of this component of the claim using an alternative discount rate that represents the yield on settlement monies available to the trustees. An alternative option is to structure a multi-year schedule for claim payments to ensure it provides the cash flow for each year required for planned expenditures.

If the settlement is structured so that the responsible party carries out the restoration projects, the trustee restoration costs to be discounted will be substantially reduced, but not eliminated because trustee monitoring costs will still be included in the claim.

C. Past Assessment and Emergency Restoration Costs

Damage assessment and emergency restoration costs may have been accruing from the time of the incident. To calculate the present value of these costs at the time the demand is presented to the responsible parties, the trustees will compound forward the costs already incurred. Because the rate of interest employed as the discount rate for past costs incurred should reflect the opportunity cost of the money spent, NOAA suggests that the trustees use the actual U.S. Treasury rate for marketable securities of comparable maturity to the period of analysis for compounding this component of the claim. NOAA acknowledges that, at the discretion of the trustees, a state or Indian tribal borrowing rate may be used to compound the state or Indian tribal component of past costs. Where the costs are denominated in dollars of the year in which they were incurred (i.e., in nominal terms), the nominal interest rate should be employed.

D. Sources of Data

U.S. Treasury bill and bond rates may be found in the Federal Reserve Bulletin, issued monthly, or the Treasury Bulletin, issued quarterly. The Gross Domestic Product fixed-weighted price index and the Consumer Price Index may be found in the Survey of Current Business, issued monthly, and the Economic Report of the President, issued annually. The Administration prediction for future Gross Domestic Product deflators is updated twice annually at the time the budget is

published in January or February and at the time of the Mid-Session Review of the Budget in July. The current Treasury rates and inflation adjustment assumptions are reported in regular updates of Appendix C of Circular No. A-94, available from the OMB Publications Office (202-395-7332).

V. Uncompensated Claims

If the responsible parties deny all liability for the claim or fail to settle the claim embodied in the demand within ninety (90) calendar days after they are presented with the demand, trustees may elect to commence an action in court against the responsible parties or guarantors, or to present the uncompensated claim to the Oil Spill Liability Trust Fund. Thus, delivery of the demand should be made in a manner that establishes the date of receipt by the responsible parties.

Judicial actions and claims must be filed within three years after the Final Restoration Plan or Notice of Intent to Use a Regional Restoration Plan is made publicly available, as provided in the statute of limitations for natural resource damages under OPA (33 U.S.C. 2717(f)(1)(B) and 2712(h)(2)).

VI. Accounts

OPA section 1006(f) requires that damages recovered by trustees be retained, without further appropriation, in a revolving trust account. Sums recovered for past assessment costs and emergency restoration costs may be used to reimburse the trustees. All other sums must be used to implement the Final Restoration Plan, implement an existing Regional Restoration Plan, or develop and implement a new Regional Restoration Plan.

Where multiple trustees are involved in a recovery, trustees may wish to establish a joint account. One acceptable mechanism would be an account under the registry of the applicable federal court when there is a joint recovery involving federal and non-federal trustees. The joint account should be managed by the trustees through an enforceable written agreement that specifies the parties authorized to endorse expenditures out of the account, and the agreed-upon procedures and criteria for such expenditures.

Although a joint trustee account may be the preferred approach, trustees also have the option of dividing the recoveries and depositing their respective amounts in their own separate accounts. These accounts should be interest-bearing, revolving trust accounts. These accounts may be incident-specific or funds that allow

deposit of natural resource damages and expenditure in accordance with the limitations set forth in OPA.

Trustees may establish escrow accounts or any other investment accounts unless specifically prohibited by law. Funds in such accounts must only be used as specified in OPA section 1006(f).

Trustees must maintain appropriate accounting and reporting methods to keep track of the use of sums recovered. Brief reports on the status of the sums recovered and expenditures for particular incidents should be reported in the record for the Restoration Implementation Phase.

Any sums remaining in an account established under this section that are not used either to reimburse trustees for past assessment and emergency restoration costs or to implement restoration must be deposited in the Oil Spill Liability Trust Fund.

VII. Implementation of the Restoration Plan

A. General

As discussed throughout this proposed rule, the Final Restoration Plan may be implemented by the trustees, or by the responsible parties with trustee oversight. In either case, several common steps will characterize the Restoration Implementation Phase, including: (1) establishment of a trustee committee and/or MOU; (2) development of more detailed workplans for the conduct of restoration actions; (3) monitoring and oversight; and (4) evaluation of restoration success or need for corrective actions.

B. Trustee Committee and/or MOU

In many instances, it is likely that a trustee committee and/or MOU will have governed trustee involvement through the Restoration Planning Phase. However, it is critical that these agreements extend through the Restoration Implementation Phase, or that new agreements or committees are formed for the restoration implementation. At a minimum, representatives of each participating trustee agency should be appointed to an oversight committee. Functions of such a committee may include: (1) Authorizing expenditures from a joint account; (2) participating in monitoring of restoration actions; (3) evaluating performance criteria for restoration actions; and (4) making the determination that the goals and objectives of the Final Restoration Plan have been achieved or that corrective actions need to be pursued.

C. Detailed Workplans

Depending on the incident, detailed workplans for accomplishing restoration goals and objectives may or may not have been developed during the Restoration Planning Phase. Clearly, as many details to outline the restoration expectations, performance criteria, timelines, criteria for success, etc., should be included in the Final Restoration Plan and in agreements with the responsible parties as are practicable to determine prior to restoration implementation. Performance criteria are essential for meaningful trustee monitoring and oversight of restoration projects.

D. Monitoring and Oversight

Reasonable monitoring costs are included in recoverable damages. A well-designed and executed monitoring plan is required to assess progress toward the stated goals and objectives of a restoration plan. Reasonable monitoring costs cover those activities necessary to gauge the progress, performance, and success of the restoration actions, and not to generate purely scientific information.

E. Restoration Success and Corrective Actions

Restoration plans, particularly those including agreements for responsible parties to implement restoration, must identify criteria against which success and completion of restoration actions will be judged. Thus, trustees should, at a minimum, determine: (a) What criteria will constitute success, such that responsible parties are relieved of responsibility for further restoration actions; and (b) what criteria will necessitate corrective actions in order to comply with the terms of a restoration or settlement agreement. For example, in the intertidal marsh creation example used above, success may be defined as survival of planted marsh grass at a rate of 80% vegetative cover two years after completion of planting.

In some cases, pilot studies will lessen the need for corrective measures. In other cases, settlement agreements can include reopeners to deal with specific points of uncertainty, for instance, for significant injuries that could not be determined and/or quantified at the time of a settlement. Another possibility is for the responsible parties to deposit an agreed-upon amount of money in an escrow account to cover future corrective actions that could not be fully anticipated at the time of the settlement. These funds would then be used for future actions once defined, or revert to

the responsible parties if not needed. In most cases, trustees should consider including a mechanism to deliberate the need for and type of corrective actions in a settlement agreement where the types of contingencies that suggest the need for corrective actions cannot be completely foreseen.

In all cases, the scope and scale of corrective actions must be determined relative to the restoration goals and objectives set out in the Final Restoration Plan. In addition, trustees must recognize that circumstances well beyond the control of any of the parties may not be the basis of requiring corrective actions, such as natural occurrences that would meet an "Act of God" standard.

General Summary of and Response to Comments on the January 1994 Proposed Rule

NOAA received numerous comments on the January 1994 proposed rule. NOAA appreciates the time and effort expended by the commenters. Commenters raised many thought-provoking points that have led NOAA to reconsider the overall approach of the rule. The bulk of the comments fell into eight general categories.

First, NOAA received many comments about the need to keep natural resource damage assessments focused on the ultimate goal of expeditious restoration rather than the abstract study of injuries, calculation of monetary damage figures, or time-consuming and expensive litigation. Today's proposed rule is designed to place even greater emphasis on early restoration planning.

Second, many commenters addressed the standards for calculating compensable value in the January 1994 proposed rule. Today's proposed rule eliminates the need for the determination of compensable values as a separate component of a damage claim. The proposed rule does not render the value of natural resources irrelevant; however, it does fundamentally change the role of valuation in assessments. Valuation is now used to determine the scale of appropriate restoration actions rather than a monetary damage figure.

Third, commenters raised concerns about coordination among trustees and with responsible parties and the level of trustee discretion afforded under the proposed January 1994 rule. Today's proposed rule provides for a public planning process designed to ensure that all interested parties have an opportunity for involvement and that the trustees' decisionmaking process is subject to public scrutiny. The proposed

rule also redefines "reasonable assessment costs" to provide greater clarification of when trustees' assessment activities are appropriate.

Fourth, NOAA received voluminous comments on the various assessment procedures. In regard to the compensation formulas, as discussed in Appendix C to this preamble, NOAA has decided to reserve the compensation formulas for now. Some commenters expressed confusion over the distinction between expedited and comprehensive damage assessments. The proposed rule no longer categorizes assessments as expedited or comprehensive and instead authorizes trustees to determine appropriate assessment methods on an incident-specific basis from a range of procedures including simplified methods to complex field studies.

Fifth, other commenters raised concerns about use of Regional Restoration Plans. The proposed rule provides additional guidance on when and how Regional Restoration Plans may be used.

Sixth, NOAA received many comments on the standards for determining injury. Under today's proposed rule, the definition of "injury" has been modified to require demonstration of a measurable or observable adverse change. The proposed rule also provides new guidance on determining injury, including guidance on selecting injury studies that provide information that is relevant for restoration planning.

Seventh, NOAA received mixed comments on the provisions in the January 1994 proposed rule concerning administrative record review. This proposed rule continues to require development of an open administrative record containing documents relied upon by trustees in assessing and selecting restoration actions appropriate for particular incidents, including relevant comments and submissions received from responsible parties and other interested persons. Although this proposed rule is silent on the standard of review, NOAA continues to expect that courts will perform review on the administrative record.

Finally, many commenters expressed concern about the volume of guidance on preassessment activities contained in the January 1994 proposed rule. Today's proposed rule includes a streamlined Preassessment Phase.

Due to the extent of the changes in today's proposed rule, many of which render earlier comments inapplicable, NOAA is not providing a detailed treatment of all comments received. Instead, the proposed rule and preamble embody the response to the comments

received. After reviewing today's proposed rule, commenters should resubmit any comments that they think are still applicable, as well as provide any new comments.

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Regional Restoration Plans

The National Estuary Program (NEP), established by Congress in 1987, has

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The State of Florida enacted the Surface Water Improvement and Management (SWIM) Act to develop plans that will address restoration of significant watersheds within its borders (SWIM Plan. 1993. Lower St. Johns River Basin. St. Johns River Water Management District, Palatka, FL; SWIM Plan. 1993. Lake Apopka. St. Johns River Water Management District, Palatka, FL; SWIM Plan. 1991. SWIM Plan for the Upper Oklawaha River Basin. St. Johns River Water Management District, Palatka, FL; Adamus, C. 1991. SWIM Priority Ranking. St. Johns River Water Management District, Palatka, FL). Numerous other federal, state, tribal, and community restoration and conservation programs and plans exist as well.

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APPENDIX A—COMPARISON OF RELEVANT OPA/NRDA AND NEPA COMPONENTS

OPA/NRDA process	NEPA parallels
<p style="text-align: center;">Facilitating Restoration</p> <ul style="list-style-type: none"> • Pre-incident planning • Regional restoration planning • Cooperation and coordination • Public participation <p style="text-align: center;">Preassessment Phase</p> <ul style="list-style-type: none"> • Procedural Components <ul style="list-style-type: none"> —Determine trustee jurisdiction —Determine need for restoration planning —Publish "Notice of Intent to Conduct Restoration Planning" —Open administrative record • Limited data collection • Emergency restoration actions <p style="text-align: center;">Restoration Planning Phase</p> <ul style="list-style-type: none"> • Procedural Components <ul style="list-style-type: none"> —Injury Assessment Component (Injury Determination/Quantification) —Restoration Planning Component —Develop Draft Restoration Plan —Public Review/Comment —Develop Final Restoration Plan • Range of injury assessment procedures (simplified to more detailed) • Range of restoration alternatives (primary/compensatory restoration; natural recovery/no action) • Evaluation of restoration alternatives 	<p style="text-align: center;">Facilitating the NEPA Process</p> <ul style="list-style-type: none"> • Programmatic EIS. • Interagency cooperation. • Public involvement. <p style="text-align: center;">Environmental Assessment</p> <ul style="list-style-type: none"> • Procedural Components. <ul style="list-style-type: none"> —Need/purpose for restoration. —"Notice of Intent" for NEPA scoping. —Open Analysis File/Planning Record. —Emergency actions. <p style="text-align: center;">NEPA Process</p> <ul style="list-style-type: none"> • Procedural Parallels. <ul style="list-style-type: none"> —NEPA scoping process begins. —Draft EIS. —Public Review/Comment. —Final EIS. —Affected Environment (before restoration). —Range of restoration alternatives (including proposed/no action) and Environmental Consequences. —Cost-benefit analysis.

APPENDIX A—COMPARISON OF RELEVANT OPA/NRDA AND NEPA COMPONENTS—Continued

OPA/NRDA process	NEPA parallels
<p style="text-align: center;">Restoration Implementation Phase</p> <ul style="list-style-type: none"> • Procedural Components • Close Administrative Record for Restoration Planning Phase • Opening administrative record for Restoration Implementation Phase • Present Demand • Establish account for recoveries • Implement Final Restoration Plan (includes monitoring/corrective actions) 	<p style="text-align: center;">NEPA Process</p> <ul style="list-style-type: none"> • Procedural Parallels. <ul style="list-style-type: none"> —Close original Analysis File/Planning Record. —Open second Analysis File. —“Record of Decision”. —Implement Final EIS.

EIS = Environmental Impact Statement.

Appendix B—Considerations to Facilitate the Restoration Process

I. Pre-incident Planning

General

NOAA believes that commitment of time, funding, and personnel to up-front planning prior to an incident will help ensure that the NRDA process results in appropriate restoration plans. Thus, trustees are encouraged to develop pre-incident plans.

Pre-incident Plan Contents

NOAA suggests that pre-incident plans:

(a) Identify natural resource assessment teams. The restoration process needs a systematic, interdisciplinary approach to insure the integrated use of science, economics, and law required in planning and implementing restoration. Trustees are encouraged to identify appropriately experienced personnel needed for natural resource assessment teams at the area and regional levels.

Personnel required for natural resource assessment teams should be appropriate to the scope and scale of the incident and natural resources and/or services affected. For instance, for incidents with complicated or long-term ecological impacts, the core team could include a natural resource trustee coordinator, restoration expert, resource biologist, environmental (petroleum) chemist, resource economist, quality assurance specialist, data manager/sample custodian, statistician, resource attorney, and administrative support specialist. If at all possible, the team should not be *ad hoc*; members should be knowledgeable about relevant statutes and regulations, and be able to establish a working relationship with the various parties likely to be involved in incidents.

(b) Establish trustee notification systems. Prompt notification is essential for efficient and effective initiation of the restoration process. Response personnel are required under the NCP to notify trustees whenever natural resources under their jurisdiction or management have been, or are likely to be, injured or lost as a result of an incident involving oil.

Thus, each trustee should establish emergency notification protocols so that the process can be initiated on a 24-hour basis. Notification could be coordinated to minimize the number of calls response personnel must make to the trustees. Notification protocols are also needed within the trustee agencies so that appropriate

regional and local personnel can be informed of an incident. Area and Regional Contingency Plans should include contact information for each trustee and clear, unambiguous criteria for trustee notification (e.g., all spills, spills over a certain size, location, etc.).

(c) Identify likely support services. In many circumstances, the trustees may require specialized contractor support. For example, research vessels may be necessary for sample collection, or outside experts may be necessary to design and conduct studies. If, as part of pre-incident planning, the trustees can identify appropriate support services and pursue contracting procedures that will expedite incident-specific hiring of contractors, potentially detrimental delays in the assessment process can be avoided during actual incidents.

The types of support and expertise expected, as well as potential contractor and expert names, should be identified as part of pre-incident planning. Contracts should be established to allow rapid acquisition of contractor services. Identified contractors may even be called on to participate in pre-incident planning so that all parties are familiar with the specific needs of the restoration process.

Backup services should also be identified since the needs of both response and natural resource activities can exceed even regional capabilities.

(d) Identify natural resources and/or services at risk. In the NCP, regional and area planning committees are responsible for the identification of natural resources under their jurisdiction that are potentially vulnerable to oil spill incidents for given geographic areas. The plans may, for example, identify wetland habitats near oil terminals or bird rookeries near shipping routes. If there is an incident, the response teams will focus their efforts on protection of these natural resources and/or services considered most vulnerable.

Trustees should actively participate in such planning committees to identify natural resources and/or services at risk. Further, trustees should identify and evaluate possible assessment procedures for these natural resources and/or services. In addition to participating actively in regional and area planning activities, trustees should develop a working relationship with response agencies and officials.

(e) Identify available baseline and other relevant information. Trustees should identify and catalogue sources of baseline information as part of pre-incident planning,

including seeking input on sources of information. Types of information that may be important include: (1) Petroleum hydrocarbon contamination in indicator organisms; (2) species census and inventory; (3) baseline data on species populations; (4) recreational use statistics; (5) values for selected natural resources and/or services; and (6) restoration measures applicable to injured natural resources and services. Familiarity with the types of baseline information and identification of data gaps and needs will allow the trustees to formulate better study designs and restoration approaches;

(f) Establish data management systems. Data management and record keeping are critical throughout the restoration process. Data management systems may best be designed during pre-incident planning to minimize the possibility of losing critical information during an incident. For small incidents, this may be a relatively simple filing system, but for large incidents, a centralized computer-based system may be essential.

Trustees may decide to develop consistent data management formats, such as field, laboratory and quality assurance forms, to facilitate data management. At a minimum, data management should address the: (1) Type and volume of data; (2) uses and users of the data; (3) availability of existing data management structures; (4) quality assurance needs; (5) reporting requirements; and (6) access to the data. Data management should also include provisions for distribution of updates for the trustees and others on a timely basis; and

(g) Identify assessment funding issues and options. Funding of trustee activities should be addressed during pre-incident planning because of the need to initiate actions expeditiously after an incident. Trustees may have several sources of potential funding, the: (1) Responsible parties; (b) Oil Spill Liability Trust Fund; and (c) agency funding. Trustees should consult the most up-to-date guidance available from the U.S. Coast Guard for access to the Fund and incorporate these procedures into pre-incident planning.

II. Regional Restoration Planning

General

OPA emphasizes making the public whole for injuries to natural resource and/or services. Where practicable, incident-specific restoration is the preferred alternative to compensate the public for their losses. However, for many incidents, such incident-

specific planning may be impractical because, for instance, injuries are not extensive or are short-term. For small incidents, incident-specific planning costs may be high compared to the estimated damages.

Thus, to achieve OPA's mandate to restore injured natural resources and services regardless of the scope and scale of those injuries, trustees are strongly encouraged to use or modify existing restoration plans, or develop new regional restoration plans. Such regional planning is appropriate so long as natural resources and/or services comparable to those expected to be affected by an incident are addressed in the plans.

Availability of Regional Restoration Plans

Trustees may rely on or adjust existing regional restoration plans, so long as they have followed or can be modified to meet the planning requirements under this proposed rule. Lacking existing regional plans, trustees should seek to develop such plans. The trustees may organize these plans based on such factors as geography (e.g., ecosystems or watersheds), injuries anticipated from incidents, or restoration alternatives.

Regional restoration plans must be developed or annotated in such a way that trustees are able to justify linking the injuries from a particular incident or set of incidents with a specific restoration project or set of projects within the plan. This may be facilitated by describing the types of injuries anticipated from oil incidents to specific resources within a region, and describing these injuries in terms of the types and importance of functions and services, ecological and human use.

III. Coordination

General

Trustee coordination is crucial to an efficient and effective assessment and restoration planning process because of the need to address shared trustee interests in natural resources and/or services affected by incidents. OPA prohibits double recovery of damages, which strongly suggests that, where multiple trustees are involved in an incident, they actively coordinate their activities from as early in the process as possible, as well as through pre-incident planning activities.

Incentives for Coordination

Incentives for cooperation include:

(a) Access to funding—requests for reimbursement of the costs of initiating natural resource damage assessment from the Fund require that trustees attempt to coordinate their assessments and their funding requests;

(b) Conflict resolution—lack of coordination among the trustees or with the responsible parties will likely produce an adversarial, litigation-charged atmosphere. A joint trustee-responsible party effort will help resolve legal, administrative and technical conflicts; and

(c) Pooling limited resources—a joint trustee-responsible party effort will allow the pooling of financial and human resources for more efficient and effective restoration planning and implementation.

Trustees will benefit greatly if coordination procedures can be established well before an

incident occurs. It must be emphasized that all cooperative arrangements are subject to trustee oversight because of their fiduciary responsibility to the public.

Agreements

Trustees should consider Memoranda of Understanding (MOU) to formalize their cotrustee relationships. The MOU or similar agreements may be prepared either in anticipation of an incident or shortly after an incident. It is important that trustee agreements address, at a minimum: the purpose of the agreement; trustee participants; trustee organization; trustee responsibilities; and a decisionmaking process.

Trustee agreements may serve as the foundation for building pre-incident plans for natural resource activities as discussed above. Of special importance is the selection of a Lead Administrative Trustee (LAT).

Lead Administrative Trustee (LAT)

When conducting joint assessments under this rule, trustees must designate a Lead Administrative Trustee (LAT). The LAT serves as the contact for trustee interaction with response agencies, responsible parties and the public, and provides general administrative support to the restoration process.

This proposed rule also does not require that a LAT be a federal agency. However, when more than one federal trustee(s) is involved, the federal trustees must select a federal LAT (FLAT) if the trustees wish to access the Fund to initiate natural resource activities. In such cases, the FLAT will coordinate federal efforts with the selected LAT. In addition, if a federal agency is participating in the NRDA, NEPA is applicable, and a federal trustee must serve as the lead agency for NEPA planning purposes. Where appropriate, the trustees may designate co-LATs, consisting of a federal LAT and the state, tribal, or foreign trustees.

A LAT should be selected by mutual agreement of the trustees. In designating a LAT, trustees may want to consider such factors as: Jurisdictional oversight; capability and willingness to address trust resources; and sequence and duration of involvement in the incident or similar incidents. Selection of a LAT should be made as soon as practicable after notification of an incident.

Cotrustee Responsibilities

Cotrustees should be prepared to participate fully in the restoration process by: Participating in or conducting those studies or analyses for which they have special expertise or management authority; make staff available to participate in other NRDA activities, in particular, to represent the trustee in decisions requiring cotrustee unanimity; and committing financial resources. Each trustee may limit this participation based on the extent of injury to its natural resources as well as legal and financial constraints.

Coordination With Response Agencies

To the fullest extent practicable without interfering with response activities, natural resource concerns should be integrated with response activities before pursuing a NRDA;

liability for natural resource damages is limited to damages for injuries or losses residual to the response phase, plus any injuries related to the response. NOAA strongly encourages trustees to coordinate natural resource injury assessment activities, such as gathering ephemeral data related to an oil spill incident, with response actions. Mechanisms to coordinate response and trustee data gathering needs and processes may also be addressed in pre-incident planning.

Coordination With the Responsible Parties

Under OPA, trustees have the responsibility to determine appropriate actions to restore injured natural resources and services. However, NOAA strongly encourages trustees to include the responsible parties as full or partial participants in the restoration process, whenever it can be achieved without compromise of the trustees' statutory obligations to act on behalf of the public trust. In determining whether, when and how to invite the responsible parties to participate, trustees may consider factors including, but not be limited to, the: willingness of the responsible parties to participate; capability of the responsible parties to participate (e.g., knowledge, expertise, and personnel); and (c) willingness of the responsible parties to pay for the restoration process.

Enforceable Agreements

Trustees are encouraged to enter into enforceable agreements with cooperative responsible parties. Enforceable agreements may have several benefits, including keeping trustees and responsible parties dealing openly with each other, and reducing transaction costs associated with separate assessment studies. Enforceable agreements may address any or all parts of the restoration process, but should contain, at a minimum, provisions for: the type and level of participation, joint or independent; deliverables; funding; public review; and termination.

NOAA encourages the trustees and responsible parties to conduct joint assessment activities. For joint activities, enforceable agreements should stipulate that the trustees and responsible parties are: obligated to use jointly-collected data; barred from collecting new or different data that challenges jointly-collected data; obligated to document such jointly-collected data; barred from challenging the scientific or technical adequacy of methods agreed upon under the agreement; and encouraged to develop binding stipulations regarding the interpretation and use of joint study results.

Negotiations with the responsible parties should not prevent the trustees from proceeding with their obligations to develop the restoration plan in a timely fashion.

Coordination Among the Responsible Parties

While it is obviously not as easy to identify the mix of potential responsible parties that will participate in a given incident, there are issues that can be addressed in general terms by the potential responsible parties in advance, that will enable them to enter the cooperative restoration process more

efficiently and effectively. In an incident with a single well-identified responsible party, the ability to assess the situation, identify the appropriate course of action and most effectively implement a cooperative response will be improved by pre-incident planning. In an incident with multiple potential responsible parties, the need for pre-incident planning is more apparent. In this latter situation, the potential responsible parties need to consider the efficacy of a cooperative restoration process, and the terms under which they would consider entering into such a process.

Appendix C—Simplified Injury Assessment Procedures

I. Type A Models

The Department of the Interior (DOI) is responsible for developing simplified "Type A" NRDA procedures under CERCLA. These procedures were originally intended to cover both hazardous substance releases as well as oil discharges. This proposed rule would allow trustees to use any final Type A procedure incorporated into DOI's regulations that addresses oil discharges, so long as the conditions of an incident under OPA are sufficiently similar to the conditions set forth at 43 CFR 11.33 for use of the Type A procedures.

Only one final Type A procedure has been incorporated into DOI's regulations. That procedure is a computer model applicable to minor discharges in coastal and marine environments, known as the Natural Resource Damage Assessment Model for Coastal and Marine Environments (NRDAM/CME) Version 1.2.

The NRDAM/CME Version 1.2 is composed of three submodels that predict the physical fate of the spilled substance, the biological effects, and the economic damages caused by the incident. The physical fates submodel database predicts the dispersion, concentration, and eventual fate of the discharged oil. The model accounts for mechanical removal of oil from the environment and the normal weathering, degradation, and evaporation process. The biological effects submodel uses the output from the physical fates submodel, user-supplied information on habitat type and fishing closures, and a regionally and seasonally specific database of marine and estuarine fish, invertebrates, and birds to predict biological injury. The economic damages submodel determines the monetary compensation necessary for the lost use of the injured resources. The economic database includes values for commercially and recreationally harvested species, beach use, and bird watching.

DOI has issued a proposed rule to revise the NRDAM/CME Version 1.2 to comply with the decision in *Colorado v. U.S. Department of the Interior*, 880 F.2d 481 (D.C. Cir. 1989) and as part of the statutorily-mandated review and update of DOI's NRDA regulations. 59 FR 63300 (Dec. 8, 1994). The updated version of the model (Version 2.2) includes significantly more detailed data and more sophisticated computer technology. The revised model also includes a fourth submodel focusing on restoration costs. Interior has also proposed a Type A

procedure for minor discharges in the Great Lakes, known as the Natural Resource Damage Assessment Model for Great Lakes Environments (NRDAM/GLE) Version 1.31. 59 FR 40319 (August 8, 1994). When final, trustees may use the revised NRDAM/CME and the NRDAM/GLE for assessments under OPA.

II. Compensation Formulas

As part of the proposed regulations, NOAA proposed a compensation formula that could be used for small incidents in both the estuarine and marine environments and the Great Lakes (and other inland waters). The purpose of the formula is to readily estimate impacts based on the amount of oil discharged and several simple data inputs.

To maintain consistency with existing procedures and facilitate public review of the estuarine and marine formula, the NRDAM/CME Version 1.2 was used to estimate damages in a representative range of hypothetical spill scenarios. Those results were the basis of the estuarine and marine compensation formula. The basic algorithms of the physical fates and biological submodels within the NRDAM/CME Version 1.2 were deemed appropriate for this approach. However, to use more recently-developed information, revised databases were substituted for both the current biological and economic databases in the NRDAM/CME Version 1.2. A restoration submodel was also added to allow the use of average restoration costs to the extent possible.

The inland waters compensation formula was proposed before DOI published a proposed rule incorporating the NRDAM/GLE Version 1.31. Therefore, NOAA used an earlier draft of the NRDAM/GLE to develop the formula and provided that earlier version for public review with the January 1994 proposed rule.

DOI is currently scheduled to issue the final revised NRDAM/CME and the final NRDAM/GLE in early 1996. One option NOAA has considered is to wait until those models are final and reissue the compensation formulas. However, to repeat the formula development after the models are final would require an additional three to five months, thereby delaying interested parties' use of the formulas until late 1996. Trustees need some simple method available for at least an order of magnitude estimate of impacts that, "on average," are likely to result from relatively small discharges of oil. Thus, a guidance document has been developed to provide an interim tool for such a purpose.

The compensation formula guidance document is intended to provide instructions on how, using the proposed NRDAM/CME Version 2.2 to recreate the spill scenarios used to develop the 1994 proposed estuarine/marine compensation formulas. This guidance will allow interested parties to recreate the scenarios with the proposed models, which are significantly different in some ways from the draft models used to develop the proposed formulas. This approach also will allow reviewers to comment on the possibility of NOAA recreating the formulas once the NRDAM/

CME and the NRDAM/GLE are promulgated as final rules. This approach should allow an evaluation of how the compensation formulas might change from that proposed in January 1994 and provide approximate estimates of damages for hypothetical spills based on the formula if it is developed using the versions of the NRDAM/CME and NRDAM/GLE that are promulgated as final rules in the future.

Using the data in the guidance document, trustees will have a simplified, cost-effective tool to use in estimating expected impacts of most discharges of oil. This information may prove to be useful in early decisionmaking in a NRDA or in settlement discussions. In order to use this guidance, trustees must have the proposed computer models developed by DOI. Computer diskettes containing the NRDAM/CME Version 2.2 and the NRDAM/GLE Version 1.31 can be obtained from the Office of Environmental Policy and Compliance, Room 2340, Department of the Interior, 1849 C Street, NW, Washington, DC 20240, telephone: (202) 208-3301.

Appendix D—Compensatory Restoration Scaling Methods

The following is a list of methods that are mentioned in this preamble as potential approaches to scaling compensatory restoration alternatives. The trustees are not limited to these methods and may use any method that are deemed to be appropriate to the particular situation.

A. Habitat Equivalency Analysis

This method may be used to scale restoration projects that replace entire habitats that support multiple species or that replace individual species that provide a variety of resource services. To ensure that the scale of the compensatory restoration project does not over- or under-compensate the public for injuries incurred, the trustees must establish an equivalency between the present value of the quantity of lost services and the present value of the quantity of services provided by the compensatory restoration project(s) over time.

B. Travel Cost Method

The travel cost method is principally employed to model demand for recreational experiences. This measurement technique evolved from the insight that the travel costs an individual incurs to visit a site are like a price for the site visit. In essence, the travel cost method assesses an individual's willingness to travel further (thereby incurring higher travel costs) in order to recreate at more highly valued sites. It is important to take into account the availability and quality of substitute recreation sites. Multiple-site models of recreational demand, such as the random utility model, focus attention on the recreationist's choice among alternative recreational sites. This version of the travel cost model is particularly appropriate where many substitutes are available to the individual and when the discharge has affected quality at multiple sites. For this reason, multiple-site models of recreational demand are preferred to single-site models, unless it is feasible to include in the single-site model price and quality information

about the relevant substitute sites (or there are no substitute sites). If a single-site model is employed without full accounting for substitutes, an appropriate adjustment should be made to the estimate of trip value.

In cases where the change in resource services to be analyzed is out of the range of data on actual travel behavior, trustees may choose to collect contingent behavior data. Contingent behavior refers to the behavior of users or potential users of a resource service under hypothetical conditions presented to them in the travel cost survey.

C. Factor Income Approach

This approach relies upon the production function model that relates the contribution of inputs to the production of an output. (Inputs are also referred to as factors of production.) Changes in the availability or price of inputs will affect the availability and price of the output and hence the level of income accruing to the producer. Where unpriced natural resources are an input in the production process, producer income will include both economic profit (the amount of profit a producer requires to keep capital in this use in the long run) and economic rent (the income accruing to a producer as a result of access to an unpriced resource). A discharge may decrease the quality and/or quantity of a resource and thereby effectively increase the cost of acquiring the natural resource input. As a result, the injury may reduce the economic rent accruing to the producer from use of the public trust resource. The change in economic rent attributable to a discharge can be evaluated by calculating the change in surplus either in the product market or in the input markets. Where the output price is not affected, the change in economic rent is simply the sum of the change in factor costs (or factor income) for each affected input.

D. Hedonic Price Model

The hedonic price model relates the price of a marketed commodity to its various attributes. In the natural resource damage assessment context, it may be used to determine the change in value of some nonmarket services from public trust resources (for example, environmental amenities such as water or air quality) where they function as attributes of private market goods, such as property. For example, the value of beach front property may be directly related to the quality and accessibility of the adjacent coastline. Reduction in the quality or accessibility, as may occur due to a discharge, will be captured in the value of the property. All else equal, the decrease in property values as a result of a discharge measures the change in use value of the injured coastline resources accruing to local property owners. This measure of the reduction in value of coastline resources will not capture any loss in value of the resources that may accrue to members of the public who own no property in the area.

E. Market Models of Demand and Supply

For those goods and services regularly traded in markets, economists typically rely upon market transactions to reveal the values that individuals place on the goods and services and the costs of producing them.

When the quality of the resource directly affects the value individual consumers place on a good or service, the correct measure of damage is the change in consumer surplus, or individuals' willingness-to-accept compensation plus the economic rent component of producer surplus, if any, for the injuries associated with the discharge.

F. Contingent Valuation

The contingent valuation (CV) method determines the value of goods and services based on the results of carefully designed surveys. The CV methodology obtains an estimate of the total value, including both direct and passive use values of a good or service by using a questionnaire designed to objectively collect information about the respondent's willingness to pay for the good or service. A CV survey contains three basic elements: (1) A description of the good/service to be valued and the context in which it will be provided, including the method of payment; (2) questions regarding the respondent's willingness to pay for the good or service; and (3) questions concerning demographics or other characteristics of the respondent to interpret and validate survey responses.

G. Conjoint Analysis

A conjoint analysis is a survey technique that is used to derive the values of particular attributes of goods or services. Information is collected about individuals' choices between different goods that vary in terms of their attributes or service levels. With this information, it is possible to derive values for each particular attribute or service. If price is included as an attribute in the choice scenarios, values can be derived in terms of dollars which can be used with the valuation approach.

Alternatively, it is possible to value attributes in terms of units of replacement services. Survey respondents would be presented with choices between two or more options that may represent resource projects with varying levels of services. The goal is to obtain the value of the injured services in terms of alternative resource services so that restoration projects can be scaled directly using the service-to-service approach.

H. Benefits Transfer Approach

Benefits (or valuation) transfer involves the application of existing value estimates or valuation functions and data that were developed in one context to address a sufficiently similar resource valuation question in a different context.

Where resource values have been developed through an administrative or legislative process and are relevant and reliable under the circumstances, the trustees may use these values, as appropriate, in a benefits transfer context. NOAA solicits comment on the type of administratively and legislatively established values that would be appropriate for this purpose. Other values may be used so long as three basic issues are considered in determining the appropriateness of their use: the comparability of the users and of the natural resource and/or service being valued in the initial studies and the transfer context; the comparability of the change in quality or

quantity of resources and/or services in the initial study and in the transfer context (where relevant); and the quality of the studies being transferred.

National Environmental Policy Act, Executive Order 12866, Regulatory Flexibility Act, and Paperwork Reduction Act

The National Oceanic and Atmospheric Administration has determined that this rule does not constitute a major federal action significantly affecting the quality of the human environment. Therefore, no further analysis pursuant to Section 102(2)(C) of the National Environmental Policy Act of 1969 (42 U.S.C. 4332(2)(C)) has been prepared. The Assistant General Counsel for Legislation and Regulation, in accordance with the Regulatory Flexibility Act, certifies to the Chief Counsel for Advocacy, Small Business Administration, that this proposed rule will not have a significant economic effect on a substantial number of small entities. The proposed rule is intended to make more specific, and easier to apply, the standards set out in OPA and CERCLA for assessing damages for injury to natural resources as a result of actual or threatened discharges of oil. The rule is not intended to change the balance of legal benefits and responsibilities among any parties or groups, large or small. To the extent any are affected by the rule, it is anticipated that all will benefit by increased ease of application of law in this area.

It has been determined that this document is a significant rule under Executive Order 12866. The rule provides optional procedures for the assessment of damages to natural resources. It does not directly impose any additional cost.

It has been determined that this rule does not contain information collection requirements that require approval by the Office of Management and Budget under 44 U.S.C. 3501 et seq.

List of Subjects in 15 CFR part 990

Coastal zone, Endangered and threatened species, Energy, Environmental protection, Estuaries, Fish, Fisheries, Fishing, Gasoline, Historic preservation (archeology), Hunting, Incorporation by reference, Indian lands, Marine pollution, Migratory birds, National forests, National parks, National Wild and Scenic Rivers System, Natural resources, Navigable waters, Oil, Oil pollution, Petroleum, Plants, Public lands, Recreation and recreation areas, Rivers, Seashores, Shipping, Waterways, Water pollution control, Water

resources, Water supply, Water transportation, Wetlands, Wildlife.

Dated: July 28, 1995.

Douglas K. Hall,

Assistant Secretary for Oceans and Atmosphere.

Under the authority of the Oil Pollution Act of 1990, 33 U.S.C. 2706(a), and for the reasons set out in this preamble, title 15 of the Code of Federal Regulations, chapter IX is proposed to be amended to add a new Subchapter E—Oil Pollution Act Regulations and a new part 990 as set forth below.

SUBCHAPTER E—OIL POLLUTION ACT REGULATIONS

PART 990—NATURAL RESOURCE DAMAGE ASSESSMENTS

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Subpart A—Introduction

§ 990.10 Purpose.

The purpose of this part is to promote expeditious restoration of natural resources and services injured as a result of an incident involving the discharge or substantial threat of a discharge of oil. To fulfill this purpose, this part provides a natural resource damage assessment process for developing a plan for the restoration of the injured natural resources and services and pursuing implementation or funding of the plan by responsible parties. This part provides an administrative process for involving interested parties, a range of assessment procedures for identifying and evaluating injuries to natural resources and/or services, and a process for selecting appropriate restoration actions from a range of alternatives.

§ 990.11 Scope.

The Oil Pollution Act of 1990 (OPA), 33 U.S.C. 2701 et seq., provides for the designation of federal, state, Indian tribal, and foreign officials to act on behalf of the public as trustees for natural resources. This part is available for use by these officials in conducting natural resource damage assessments when natural resources and/or services are injured as a result of an incident involving an actual or substantial threat of a discharge of oil.

§ 990.12 Overview.

This part describes three phases of a natural resource damage assessment. The Preassessment Phase, during which trustees determine whether to pursue restoration, is described in subpart D of this part. The Restoration Planning Phase, during which trustees evaluate information on potential injuries and use that information to determine the need for and type of restoration, is described in subpart E of this part. The Restoration Implementation Phase, during which trustees ensure implementation of restoration, is described in subpart F of this part.

§ 990.13 Effect of using this part.

(a) *Rebuttable presumption for claims.* If federal, state, or Indian tribal trustees act in accordance with this part and file a judicial or administrative claim for

natural resource damages, then the claim and all determinations made by the trustees during the development of the claim will be presumed correct unless the responsible parties present evidence adequate to rebut the presumption.

(b) *Use of other assessment procedures and methods.* Trustees may use other natural resource damage assessment procedures and methods in lieu of or in addition to the process described in this part. However, any component of a natural resource damage claim based on use of another process will only be given a rebuttable presumption if such process is in accordance with this part.

§ 990.14 Coordination.

(a) *Other trustees.* (1) If an incident affects the interests of multiple trustees, the trustees may act jointly under this part. Trustees must designate a lead administrative trustee to act as coordinator and contact point for joint assessments.

(2) If there is a reasonable basis for dividing the natural resource damage assessment, trustees may act independently under this part, so long as there is no double recovery of damages for the same incident and natural resource.

(3) Trustees may develop pre-incident or incident-specific memoranda of understanding to coordinate their activities.

(b) *Response agencies.* Trustees must coordinate their activities with response agencies consistent with the NCP and any pre-incident plans developed under § 990.15(a) of this part. Trustees may develop pre-incident memoranda of understanding to coordinate their activities with response agencies.

(c) *Responsible parties.* Trustees must invite the responsible parties to participate in the NRDA process, including preassessment and emergency restoration activities, where appropriate and such participation will not interfere with trustees fulfilling their responsibilities under these regulations and OPA.

(d) *Public.* Trustees may provide opportunities for public involvement in addition to those specified in subparts D through F of this part. Such opportunities may include solicitation of public comment at additional stages of the process, public meetings on trustee activities concerning specific incidents, and public outreach on non-incident-specific restoration issues.

§ 990.15 Considerations to facilitate restoration.

In addition to the procedures provided in subparts D through F of this part, trustees may take other actions to further the goal of expeditious restoration of injured natural resources and services, including:

(a) *Pre-incident planning.* Trustees may engage in pre-incident planning activities. Pre-incident plans may: identify natural resource damage assessment teams; establish trustee notification systems; identify support services; identify natural resources and/or services at risk; identify regional and area response agencies and officials; identify available baseline information; establish data management systems; and identify assessment funding issues and options.

(b) *Regional Restoration Plans.* Trustees may develop Regional Restoration Plans. These plans may be used to support a claim as provided in § 990.58 of this part.

§ 990.16 Review and revision of this part.

This part will be reviewed and revised as appropriate as often as necessary, but no less than once every five years.

Subpart B—Authorities

§ 990.20 Relationship to other natural resource damage assessment regulations.

(a) *CERCLA regulations*—(1) *General.* The Department of the Interior has developed regulations for assessing natural resource damages resulting from hazardous substance releases and discharges of oil under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. 9601 et seq., and the Clean Water Act, 33 U.S.C. 1321 et seq. Those regulations are codified at 43 CFR part 11. Those regulations originally applied to natural resource damages resulting from oil discharges as well as hazardous substance releases. This part supersedes 43 CFR part 11 with regard to oil discharges under OPA.

(2) *Assessments commenced before the effective date of this part.* If trustees commenced a natural resource damage assessment for an oil discharge under 43 CFR part 11 prior to the effective date of this part, they may complete the assessment in compliance with 43 CFR part 11 and obtain a rebuttable presumption, or they may elect to use this part.

(3) *Oil and hazardous substance mixtures.* If natural resources are injured by a discharge or release of a mixture of oil and hazardous

substances, trustees must use 43 CFR part 11 in order to obtain a rebuttable presumption.

(b) *State, local, or tribal procedures.* Trustees may use state, local, or tribal natural resource damage assessment procedures in lieu of this part and obtain a rebuttable presumption provided that the state, local, or tribal procedures are in accordance with this part. State, local, or tribal procedures are in accordance with this part when the procedures:

(1) Require all recovered damages to be spent on restoration, subject to a plan made available for public review and comment, except for those damages recovered to reimburse trustees for past assessment and emergency restoration costs;

(2) Determine compensation based on injury and/or restoration;

(3) Are consistent with the standards for the technical methods described in § 990.51 of this part;

(4) Were developed through a public rulemaking process; and

(5) Do not conflict with OPA or this part.

§ 990.21 Relationship to the NCP.

This part supplements the procedures established under the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR part 300, for the response to an incident. This part provides procedures by which trustees may determine appropriate restoration of injured natural resources and services that are not fully addressed by response actions conducted pursuant to the NCP.

§ 990.22 Prohibition on double recovery.

When taking actions under this part, trustees must consider the actions of other trustees with respect to the same incident and natural resources and the effect of the prohibition on double recovery of damages in 33 U.S.C. 2706(d)(3).

§ 990.23 Compliance with other applicable laws and regulations.

(a) *NEPA.* The National Environmental Policy Act (NEPA), 42 U.S.C. 4321 et seq., applies to restoration planning by federal trustees, unless a categorical exclusion applies. NEPA is triggered when federal trustees issue a Notice of Intent to Conduct Restoration Planning under § 990.43 of this part. Compliance with the procedures set forth in subparts E and F of this part fulfills the requirements of NEPA.

(b) *Worker health and safety.* When taking action under this part, trustees must comply with all worker health and

safety considerations specified in the NCP for response actions.

(c) *Resource protection.* When acting under this part, trustees must ensure compliance with any applicable federal consultation or review requirements, including but not limited to: the Endangered Species Act of 1973, 16 U.S.C. 1531 et seq.; the Coastal Zone Management Act of 1972, 16 U.S.C. 1451 et seq.; the Migratory Bird Treaty Act, 16 U.S.C. 703; the National Marine Sanctuaries Act, 16 U.S.C. 1431 et seq.; the National Historic Preservation Act, 12 USC 470; and the Marine Mammal Protection Act, 16 U.S.C. 1361 et seq.

(d) *State, local, and tribal procedural requirements.* To the extent that federal trustees can legally comply with state, local, and tribal procedural requirements they should do so.

§ 990.24 Settlement.

Trustees may settle claims for natural resource damages at any time, provided that the settlement is adequate in the judgment of the trustees to make the environment and public whole for the injury, destruction, loss of, or loss of use of natural resources and/or services that have or are likely to have occurred; with particular consideration of the adequacy of the compensation to provide for the restoration of such resources. Sums recovered in settlement of such claims may only be expended in accordance with a restoration plan that is made available for public review.

§ 990.25 Emergency restoration.

(a) Trustees may take emergency restoration action before completing the process established under this part, provided that:

(1) The action is needed to minimize continuing injury or prevent additional injury to natural resources and/or services;

(2) The action is feasible and likely to minimize continuing or prevent additional injury; and

(3) The costs of the action are not unreasonable.

(b) If response actions are still underway and emergency restoration actions have the potential to interfere with such response actions, trustees must coordinate with the On-Scene Coordinator (OSC) before taking any emergency restoration actions. Where emergency restoration actions are not expected to interfere with ongoing response actions, trustees must notify the OSC of their intended actions prior to implementation and explain their reasons for believing that no interference with the response will result.

(c) Trustees must provide notice to the responsible parties of any emergency restoration actions and invite their participation in the conduct of those actions within a reasonable timeframe.

(d) Trustees must provide public notice of any emergency restoration actions within a reasonable timeframe after completion of such actions. The notice must include a description of the justification for, the nature and extent of, and the results of emergency restoration actions.

Subpart C—Definitions

§ 990.30 Definitions.

Baseline means the condition of the natural resource and/or service that would have existed had the incident not occurred. Baseline data include historical data, reference data, control data, and data on incremental changes (e.g., number of dead animals).

Cost-effective means the least costly activity among two or more activities that provide the same or comparable level of benefits.

Discharge means any emission (other than natural seepage), intentional or unintentional, and includes, but is not limited to, spilling, leaking, pumping, pouring, emitting, emptying, or dumping.

Exclusive Economic Zone means the zone established by Presidential Proclamation Numbered 5030, dated March 10, 1983, including the ocean waters of the areas referred to as "eastern special areas" in Article 3(1) of the Agreement between the United States of America and the Union of Soviet Socialist Republics on the Maritime Boundary, signed June 1, 1990.

Exposure means direct or indirect contact with the discharged oil.

Incident means any occurrence or series of occurrences having the same origin, involving one or more vessels, facilities, or any combination thereof, resulting in the discharge or substantial threat of discharge of oil into or upon navigable waters or adjoining shorelines or the Exclusive Economic Zone.

Indian tribe means any Indian tribe, band, nation, or other organized group or community, but not including any Alaska Native regional or village corporation, which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians and has governmental authority over lands belonging to or controlled by the tribe.

Injury means an observable or measurable adverse change in a natural

resource or impairment of a natural resource service. Injury may occur directly or indirectly to a natural resource and/or service. Injury incorporates "destruction," "loss," and "loss of use" as provided in OPA.

National Contingency Plan (NCP) means the National Oil and Hazardous Substances Pollution Contingency Plan codified at 40 CFR part 300, which addresses the identification, investigation, study, and response to incidents.

Natural resources means land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by the United States (including the resources of the Exclusive Economic Zone), any state or local government or Indian tribe, or any foreign government.

Navigable waters means the waters of the United States, including the territorial sea.

Oil means oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil. However, the term does not include petroleum, including crude oil or any fraction thereof, that is specifically listed or designated as a hazardous substance under 42 U.S.C. 9601(14) (A) through (F).

Oil Spill Liability Trust Fund means the Oil Spill Liability Trust Fund, established by section 9509 of the Internal Revenue Code of 1986 (26 U.S.C. 9509).

On-Scene Coordinator or *OSC* means the federal official pre-designated by the U.S. Environmental Protection Agency or the U.S. Coast Guard to coordinate and direct response actions under the NCP, or the government official designated by the lead response agency to coordinate and direct removal actions under the NCP.

OPA means the Oil Pollution Act of 1990, 33 U.S.C. 2701 et seq.

Pathway means a nexus between the incident and a natural resource and/or service.

Person means an individual, corporation, partnership, association, state, municipality, commission, or political subdivision of a state, or any interstate body.

Public vessel means a vessel owned or bareboat chartered and operated by the United States, or by a state or political subdivision thereof, or by a foreign nation, except when the vessel is engaged in commerce.

Reasonable assessment costs for assessments performed under this part means those costs that:

(1) Are incurred by trustees in accordance with this part;

(2) Are proportionate to the restoration costs, except in cases where assessment costs are incurred but trustees do not pursue restoration, provided that trustees have determined they have jurisdiction under § 990.41 of this part; and

(3) Result from use of procedures for which the incremental cost is reasonably related to the incremental increase in assessment information.

Reasonable assessment costs also include the administrative, legal, and enforcement costs necessary to carry out this part.

Recovery means the return of injured natural resources and/or services to baseline.

Response means actions taken under the NCP to protect public health and welfare, or the environment when there is a discharge or a substantial threat of a discharge of oil, including actions to contain or remove discharged oil from water and shorelines.

Responsible party means:

(1) *Vessels*. In the case of a vessel, any person owning, operating, or demise chartering the vessel.

(2) *Onshore facilities*. In the case of an onshore facility (other than a pipeline), any person owning or operating the facility, except a federal agency, state, municipality, commission, or political subdivision of a state, or any interstate body, that as the owner transfers possession and right to use the property to another person by lease, assignment, or permit.

(3) *Offshore facilities*. In the case of an offshore facility (other than a pipeline or a deepwater port licensed under the Deepwater Port Act of 1974 (33 U.S.C. 1501 et seq.)), the lessee or permittee of the area in which the facility is located or the holder of a right of use and easement granted under applicable state law or the Outer Continental Shelf Lands Act (43 U.S.C. 1301–1356) for the area in which the facility is located (if the holder is a different person than the lessee or permittee), except a federal agency, state, municipality, commission, or political subdivision of a state, or any interstate body, that as owner transfers possession and right to use the property to another person by lease, assignment, or permit.

(4) *Deepwater ports*. In the case of a deepwater port licensed under the Deepwater Port Act of 1974 (33 U.S.C. 1501–1524), the licensee.

(5) *Pipelines*. In the case of a pipeline, any person owning or operating the pipeline.

(6) *Abandonment*. In the case of an abandoned vessel, onshore facility,

deepwater port, pipeline, or offshore facility, the persons who would have been responsible parties immediately prior to the abandonment of the vessel or facility.

Restoration means any action, or combination of actions, to restore, rehabilitate, replace, or acquire the equivalent of injured natural resources and services. Restoration includes:

(1) Primary restoration, which is either human intervention or natural recovery that returns injured natural resources and services to baseline; and

(2) Compensatory restoration, which is action taken to make the environment and the public whole for service losses that occur from the date of the incident until recovery of the injured natural resource.

Services or natural resource services means the functions performed by a natural resource for the benefit of another natural resource or the public.

State means any of the states of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Commonwealth of the Northern Marianas, or any other territory or possession of the United States.

Trustees or natural resource trustees means those officials of the federal and state governments, of Indian tribes, and of foreign governments, designated under 33 U.S.C. 2706(b).

Value means the amount of items an individual is willing to give up to obtain a good or is willing to accept to forgo a good. Under this part, value may be measured either in terms of units of natural resource services or dollar amounts. The total value of a natural resource or service is equal to the sum of all individuals' values.

Vessel means every type of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water, other than a public vessel.

Subpart D—Preassessment Phase

§ 990.40 Purpose.

The purpose of this subpart is to provide a process by which trustees determine if they have jurisdiction to pursue restoration under OPA and, if so, whether it is appropriate to do so.

§ 990.41 Determination of jurisdiction.

(a) Upon learning of an incident, trustees must determine whether there is jurisdiction to pursue restoration under OPA. To make this determination, trustees must decide if:

(1) An incident as defined in § 990.30 of this part has occurred;

(2) The incident involves a discharge or a substantial threat of a discharge that is neither:

(i) Permitted under a permit issued under federal, state, or local law;

(ii) From a public vessel; nor

(iii) From an onshore facility subject to the Trans-Alaska Pipeline Authority Act, 43 U.S.C. 1651, et seq.; and

(3) Natural resources under the trusteeship of the trustees have or may be affected as a result of the incident.

(b) If any of the conditions listed in paragraph (a) of this section are not met, trustees may not take additional action under this part. If all of these conditions are met, trustees may proceed under this part.

§ 990.42 Determination to conduct restoration planning.

(a) If trustees determine that there is jurisdiction to pursue restoration under OPA, trustees must determine, based on readily available information, if:

(1) Injuries likely have resulted or will result from the incident;

(2) Response actions may not adequately address the potential injuries; and

(3) Feasible restoration actions exist to address the potential injuries.

(b) If any of the conditions listed in paragraph (a) of this section are not met, trustees may not take additional action under this part. However, trustees may recover all reasonable assessment costs incurred up to the point when they determined that the conditions were not met. If all the conditions are met, trustees may proceed under this part.

§ 990.43 Notice of Intent to Conduct Restoration Planning.

(a) If trustees determine that all the conditions in § 990.42(a) of this part are met, they must prepare a Notice of Intent to Conduct Restoration Planning. The Notice will include a discussion of the trustees' analysis under §§ 990.41 and 990.42 of this part.

(b) Trustees must make a copy of the Notice publicly available.

(c) Trustees must send a copy of the Notice to the known responsible parties and invite their participation in the conduct of restoration planning.

§ 990.44 Administrative record.

If trustees make a determination to conduct restoration planning, they must open a publicly available administrative record. Trustees must include in the administrative record: the Notice of Intent to Conduct Restoration Planning; documents and other factual information considered by the trustees when assessing injury and selecting a restoration action under subpart E of

this part, including studies performed by the trustees; and documents that are submitted in a timely fashion by the responsible parties or other members of the public.

§ 990.45 Data collection.

Trustees may conduct limited data collection during the Preassessment Phase. Data collection during the Preassessment Phase must be coordinated with response actions such that the collection does not interfere with or hinder the response actions. Trustees may collect the following types of data during the Preassessment Phase:

(a) Data reasonably expected to be necessary to make a determination of jurisdiction under § 990.41 of this part or a determination to conduct restoration planning under § 990.42 of this part;

(b) Ephemeral data; and

(c) Information needed to design or implement anticipated assessment procedures under subpart E of this part.

Subpart E—Restoration Planning Phase

§ 990.50 Purpose.

The purpose of this subpart is to provide a process by which trustees evaluate information on potential injuries to natural resources and/or services (injury assessment), and use that information to determine the need for and scale of restoration actions (restoration selection).

§ 990.51 Criteria for acceptable procedures.

In order to be in accordance with this part, any procedures for assessing injury under §§ 990.52 and 990.53 of this part and scaling compensatory restoration actions under § 990.55(c)(3) of this part must meet the following criteria:

(a) If available, injury determination and quantification procedures that provide information of use in determining the type and level of restoration appropriate for a particular injury must be used;

(b) If a range of procedures providing the same type and quality of assessment information is available, the most cost-effective procedure must be used;

(c) The incremental cost of a more complex study must be reasonably related to the expected increase in relevant assessment information provided by the more complex study; and

(d) The procedures used must be reliable and valid for the particular context.

§ 990.52 Injury assessment—injury determination.

(a) *General.* After issuing a Notice of Intent to Conduct Restoration Planning under § 990.43 of this part, trustees must determine if any injuries to natural resources and/or services have resulted from the incident. To make this determination, trustees must determine if:

- (1) The definition of "injury" has been met; and
- (2) Natural resources have been exposed to the discharged oil, and a pathway links the injured natural resource and/or service to the incident; or, for injuries resulting from response actions or incidents involving a substantial threat of a discharge, an injury to a natural resource or an impairment of use of a natural resource service has occurred as a result of the incident.

(b) *Injury.* Trustees must determine whether an injury, as defined in § 990.30 of this part, has occurred and, if so, identify the nature of the injury. Potential categories of injury include, but are not limited to, adverse changes in: survival, growth, and reproduction; health, physiology and biological condition; behavior; community composition; ecological processes and functions; physical and chemical habitat quality or structure; and public services.

(c) *Exposure and pathway.* Except for injuries resulting from response actions or incidents involving a substantial threat of a discharge of oil, trustees must determine whether natural resources were exposed, either directly or indirectly, to the discharged oil from the incident, and estimate the amount or concentration and spatial/temporal extent of the exposure. Trustees must also determine whether there is a plausible pathway linking the incident to the injuries. Pathways include, but are not limited to: the sequence of events by which the discharged oil was transported from the incident and came into direct physical contact with a natural resource; or the sequence of events by which the discharged oil was transported from the incident and caused an indirect injury.

(d) *Injuries resulting from response actions or incidents involving a substantial threat of a discharge.* For injuries resulting from response actions or incidents involving a substantial threat of a discharge of oil, trustees must determine whether an injury or an impairment of use of a natural resource service has occurred as a result of the incident.

(e) *Selection of injuries to include in the assessment.* When selecting

potential injuries to assess, trustees must consider:

- (1) The natural resource/service of concern;
- (2) The adverse change that constitutes injury;
- (3) The potential degree, and spatial/temporal extent of the injury;
- (4) The evidence indicating injury;
- (5) The mechanism by which injury occurred;
- (6) The evidence indicating exposure;
- (7) The pathway from the incident to the natural resource/service of concern;
- (8) The potential natural recovery period;
- (9) The kinds of primary and/or compensatory restoration actions that are feasible; and
- (10) The kinds of procedures available to evaluate the injury, and the time and money requirements.

(f) Procedures.

Trustees perform injury determination using the assessment procedures described in § 990.54 of this part.

(g) *Proceeding with the assessment.* If any of the conditions for determining injury provided in paragraph (a) of this section is not met, trustees may not take additional action under this part. However, trustees may recover all reasonable assessment costs incurred up to the point when they determined that the conditions were not met. If all the conditions are met, trustees may proceed under this part.

§ 990.53 Injury assessment—quantification.

(a) *General.* In addition to determining whether injuries have resulted from the incident, trustees must quantify the degree and spatial/temporal extent of such injuries. Trustees perform injury quantification using the assessment procedures described in § 990.54 of this part.

(b) Trustees may quantify injuries in terms of:

- (1) The degree and spatial/temporal extent of injury to a natural resource;
- (2) The degree and spatial/temporal extent of injury to a natural resource relative to baseline with subsequent translation of that change to a reduction in services provided by the natural resource; or
- (3) The amount of services lost as a result of the incident.

(c) Trustees must estimate the time for natural recovery without restoration, but including any response actions. Analysis of recovery times may include evaluation of factors such as:

- (1) Degree and spatial/temporal extent of injury;
- (2) Sensitivity of the injured natural resource and/or service;

- (3) Reproductive potential;
- (4) Stability and resilience of the affected environment;
- (5) Natural variability; and
- (6) Physical/chemical processes of the affected environment.

§ 990.54 Injury assessment—selecting assessment procedures.

(a) *General.* When performing injury assessment, trustees must select appropriate assessment procedures. Trustees may use simplified or incident-specific assessment procedures as described in paragraphs (d) and (e) of this section. Trustees may also use more than one assessment procedure provided there is no double recovery.

(b) *Selection of assessment procedures.* When selecting assessment procedures, trustees must consider:

- (1) Potential nature, degree, and spatial/temporal extent of the injury;
- (2) Potential restoration actions for the injury;

(3) Range of assessment procedures available, including the applicability of simplified assessment procedures;

(4) Time and cost necessary to implement the assessment procedures; and

(5) Relevance between the information generated by the assessment procedures and the information needed for restoration planning.

(c) *Request for incident-specific assessment procedures.* When trustees have made a determination that a simplified assessment procedure is the most appropriate procedure for a given incident or injury, the responsible parties may request that trustees use incident-specific assessment procedures instead of a simplified assessment procedure if the responsible parties, in a timeframe acceptable to the trustees:

(1) Identify the incident-specific assessment procedures to be used and the reasons supporting the technical appropriateness of such procedures for the incident or injury;

(2) Advance the costs of using such incident-specific assessment procedures; and

(3) Agree not to challenge the reasonableness of the costs of using such incident-specific assessment procedures.

(d) *Simplified assessment procedures.*

(1) *Type A procedures.* Trustees may use type A procedures identified in 43 CFR part 11, subpart D, that address oil discharges provided that conditions are sufficiently similar to those listed in 43 CFR 11.33 regarding use of the procedures.

(2) *Compensation Formulas.*

[Reserved]

(e) *Incident-specific assessment procedures.* Trustees may use incident-

specific assessment procedures including, alone or in any combination:

- (1) Field methods;
- (2) Laboratory methods;
- (3) Model-based methods; and
- (4) Literature-based methods.

§ 990.55 Restoration selection—development of a reasonable range of alternatives.

(a) *General.* After trustees have determined and quantified injury under §§ 990.52 and 990.53 of this part, they must identify a reasonable range of restoration alternatives for consideration, except as provided in § 990.58 of this part regarding use of a Regional Restoration Plan. Each alternative may identify an overall package of actions for addressing the injured natural resources and/or services of concern, or actions to restore individual injured natural resources and services, where there is reasonable basis for separately evaluating actions to restore separate natural resources and/or services. The range of alternatives must include a no-action alternative under which no human intervention would be taken either for primary restoration or for compensatory restoration.

(b) *Primary restoration.* (1) *General.* Each alternative must include a primary restoration component.

(2) *Types of alternatives.* When identifying primary restoration alternatives to be considered, trustees must consider whether:

(i) Conditions exist that would limit the effectiveness of primary restoration actions (e.g., residual sources of contamination);

(ii) Primary restoration actions are necessary or feasible to return the physical, chemical, and biological conditions necessary to allow recovery or restoration of the injured resources (e.g., replacement of sand or vegetation); and

(iii) Primary restoration actions focusing on certain key species or habitats would be an effective approach to achieving baseline conditions.

(c) *Compensatory restoration.* (1) *General.* In addition to primary restoration, trustees have the discretion to include a compensatory restoration component in some or all of the restoration alternatives.

(2) *Types of alternatives.* When identifying the types of compensatory restoration alternatives to be considered, trustees must first identify compensatory restoration actions that, in the judgment of the trustees, provide services of the same type and quality as those injured. If such actions are infeasible or too few in number to provide a reasonable range of

alternatives, trustees may identify other actions provided that those actions provide services of comparable type and quality as those injured.

(3) *Scaling compensatory restoration actions.*

(i) *General.* After trustees have identified the types of compensatory restoration alternatives that will be considered, they must determine the scale of those alternatives that will make the environment and the public whole.

(ii) *Service-to-service scaling approach.* When determining the scale of a compensatory restoration alternative that provides services that are of the same type and quality, and are subject to comparable resource scarcity and demand conditions as those lost, trustees must use the service-to-service scaling approach. Under the service-to-service scaling approach, trustees determine the scale of the compensatory restoration alternative that will produce services equal in quantity to those lost.

(iii) *Valuation scaling approach.* (A) When determining the scale of a compensatory restoration alternative that provides services that are of a different type or quality, or are subject to non-comparable resource scarcity or demand conditions as those lost, trustees may use the valuation scaling approach. Under the valuation scaling approach, trustees determine the amount of services that must be provided to produce the same value lost to the public. Trustees must explicitly measure the value of lost services and then determine which scale of the compensatory restoration alternative will produce services of equivalent value to the public.

(B) If valuation of the services provided by the compensatory restoration alternative cannot, in the judgment of the trustees, be performed at a reasonable assessment cost, as defined in § 990.30 of this part, the trustees may estimate the dollar value of the lost services and select the scale of the alternative that has a cost equivalent to the lost value. The responsible parties may request that trustees value the services provided by the alternative if the responsible parties, within a timeframe acceptable to the trustees, advance the costs of doing so and agree not to challenge the reasonableness of the costs of performing such valuation.

(iv) *Discounting and uncertainty.* When scaling a compensatory restoration alternative, trustees must address the uncertainties associated with the predicted consequences of the alternative and must discount all service quantities and/or values to the date the demand is presented. Where feasible, trustees should use risk-adjusted

measures of losses due to injury and gains from the compensatory restoration alternative, in conjunction with a riskless rate of discount. If the streams of losses and gains cannot be adequately adjusted for risks, then trustees may use a discount rate that incorporates a suitable risk adjustment to the riskless rate. When discounting future service quantities or values, trustees may use the appropriate inflation index to adjust nominal rates of discount into real terms.

(d) *Restoration alternatives for simplified assessments.* If trustees used a simplified assessment procedure under § 990.54(d) of this part, they may develop a reasonable range of restoration alternatives for addressing the injuries assessed by that simplified assessment procedure based on consideration of any combination of:

- (1) Injury predictions, if any, provided by the simplified assessment procedure;
- (2) Restoration recommendations, if any, provided by the simplified assessment procedure; and
- (3) Lost values, if any, calculated by the simplified assessment procedure.

§ 990.56 Restoration selection—evaluation of alternatives.

(a) Once trustees have developed a reasonable range of restoration alternatives under § 990.55 of this part, they must evaluate the alternatives based on:

- (1) Extent to which each alternative can return the injured natural resources and services to baseline and make the environment and the public whole for interim service losses;
- (2) Extent to which each alternative improves the rate of recovery;
- (3) Extent to which each alternative will avoid additional injury;
- (4) Level of uncertainty in the success of each alternative;
- (5) Extent to which each alternative benefits more than one natural resource and/or service;
- (6) Cost of each alternative;
- (7) Effects of each alternative on public health and safety, and the environment; and
- (8) Whether any alternative violates any laws or regulations.

(b) Based on the evaluation of the factors listed in paragraph (a) of this section, trustees must select a preferred restoration alternative. If there are two or more preferred alternatives, trustees must select the most cost-effective alternative.

(c) Where additional information is needed to identify and evaluate the restoration alternatives, trustees may implement pilot studies.

§ 990.57 Restoration selection—preparation of a Draft and Final Restoration Plan.

(a) *Draft Restoration Plan.* After selecting a preferred restoration alternative under § 990.56 of this part, the trustees must prepare a Draft Restoration Plan. The Draft Restoration Plan must include:

- (1) A summary of injury assessment procedures and methods used;
- (2) A description of the degree, nature, and spatial/temporal extent of injuries to natural resources and/or services resulting from the incident;
- (3) The goals and objectives of restoration;
- (4) The range of restoration alternatives considered and a discussion of how such alternatives were identified and developed under § 990.55 of this part;
- (5) A discussion of the trustees' evaluation of the restoration alternatives under § 990.56 of this part;
- (6) A description of a monitoring plan for documenting restoration effectiveness and the need for corrective action and performance criteria for judging the success and completion of restoration and the need for corrective action; and
- (7) A description of the involvement of the responsible party in the assessment process, and proposed involvement in the restoration process.

(b) *Public review and comment.* The Draft Restoration Plan must be made available for public review and comment for at least 30 calendar days. The type of notice, review, and comment procedures used will depend on the nature of the incident and the restoration actions being proposed.

(c) *Final Restoration Plan.* After reviewing public comments on the Draft Restoration Plan, trustees must develop a Final Restoration Plan. The Final Restoration Plan must include: the information specified in paragraph (a) of this section; a response to public comments; and an indication of any changes made to the Draft Restoration Plan. Trustees must make the Final Restoration Plan publicly available.

§ 990.58 Restoration selection—use of a Regional Restoration Plan.

(a) *General.* If trustees used a simplified assessment procedure under § 990.54(d) of this part, they may consider using a Regional Restoration Plan instead of developing an incident-specific restoration plan.

(b) *Existing Regional Restoration Plan.* (1) Trustees may use an existing Regional Restoration Plan provided that the Plan:

- (i) Was developed subject to public review and comment; and

(ii) Addresses and is currently relevant to the same or comparable natural resources or services as those identified during injury assessment as having been injured.

(2) If the conditions set forth in paragraph (b)(1) of this section are met, trustees may present the responsible parties with a demand under § 990.62 of this part for the damages calculated by the simplified assessment procedure and use the recovered sums to implement the Regional Restoration Plan as provided in § 990.65 of this part.

(c) *New Regional Restoration Plan.* (1) If there is not an existing Regional Restoration Plan that meets the conditions of paragraph (b)(1) of this section and the information provided by the simplified assessment procedure does not support development of an incident-specific restoration plan, trustees may present the responsible parties with a demand under § 990.62 of this part for the damages calculated by the simplified assessment procedure and place the recovered funds into an account with other similar recoveries under § 990.65 of this part, until such time that sufficient funds to develop and implement a new Regional Restoration Plan are collected. Recoveries may only be commingled in this manner where injuries to natural resources and/or services were similar for the incidents represented by pooled funds, and where the incidents were within the same region (i.e. ecosystem or watershed).

(2) New Regional Restoration Plans must be developed subject to public review and comment.

(d) *Notice of Intent to Use a Regional Restoration Plan.* If trustees intend to use a Regional Restoration Plan instead of developing an incident-specific restoration plan, they must prepare a Notice of Intent to Use a Regional Restoration Plan. Trustees must make a copy of the Notice publicly available. The Notice must include:

- (1) A description of the nature, degree, and spatial/temporal extent of injuries to natural resources and/or services resulting from the incident;
- (2) A description of the existing Regional Restoration Plan and an explanation of how the conditions set forth in paragraph (b)(1) of this section are met; or a description of the anticipated process for developing a new Regional Restoration Plan and an explanation of why the information provided by the simplified assessment procedure does not support development of an incident-specific restoration plan; and

(3) Identification of the damage amount sought and the calculation of that amount.

Subpart F—Restoration Implementation Phase**§ 990.60 Purpose.**

The purpose of this subpart is to provide a process for implementing restoration.

§ 990.61 Administrative record.

(a) *Closing the administrative record for restoration planning.* After the trustees prepare the Final Restoration Plan or the Notice of Intent to Use a Regional Restoration Plan, they must close the administrative record. Trustees may not add documents to the record once it is closed. However, trustees may add documents relating to a Final Restoration Plan if such documents:

- (1) Are offered by an interested party that did not receive actual or constructive notice of the Draft Restoration Plan and the opportunity to comment on the Plan;
- (2) Do not duplicate information already contained in the administrative record; and
- (3) Raise significant issues regarding the Final Restoration Plan.

(b) *Opening an administrative record for restoration implementation.* Trustees may open an administrative record for implementation of restoration.

§ 990.62 Presenting a demand.

(a) *General.* After closing the administrative record for restoration planning, trustees must present a written demand to the responsible parties. Delivery of the demand should be made in a manner that establishes the date of receipt by the responsible party.

(b) *When a Final Restoration Plan has been developed.* Except as provided in paragraph (c) of this section, the demand must ask the responsible parties to either:

- (1) Implement the Final Restoration Plan subject to trustee oversight and reimburse the trustees for their oversight costs; or
- (2) Advance to the trustees a specified sum representing all costs associated with implementing the Final Restoration Plan, discounted as provided in § 990.63(a) of this part.

(c) *When a Regional Restoration Plan is used.* If the trustees intend to use a Regional Restoration Plan under § 990.58 of this part, the demand must ask the responsible parties to pay damages in the amount calculated by the simplified assessment procedure under § 990.54(d) of this part. Depending on the circumstances, it may

also be feasible for the responsible parties to implement selected portions of the Regional Restoration Plan.

(d) *Additional contents of demand.*

The demand must also include:

- (1) Identification of the incident from which the claim arises;
- (2) Identification of the trustees asserting the claim;
- (3) A brief description of the injuries for which the claim is being brought;
- (4) The index to the administrative record;
- (5) The Final Restoration Plan or Notice of Intent to Use a Regional Restoration Plan; and
- (6) A request for reimbursement of:
 - (i) Reasonable assessment costs, as defined in § 990.30 of this part, compounded as provided in § 990.63(b) of this part;

(ii) The cost, if any, of conducting emergency restoration under § 990.25 of this part, compounded as provided in § 990.63(b) of this part; and

(iii) Interest on the amounts recoverable under 33 U.S.C. 2705, which provides for prejudgment and post-judgment interest to be paid at a commercial paper rate, starting from 30 calendar days from the date a demand is presented until the date the claim is paid.

§ 990.63 Discounting and compounding.

(a) *Estimated future restoration costs.* When determining estimated future costs of implementing a Final Restoration Plan, trustees must discount such future costs back to the date the demand is presented. Trustees may use a discount rate that represents the yield on recoveries available to trustees. The price indices used to project future inflation must reflect the major components of the restoration costs.

(b) *Past assessment and emergency restoration costs.* When calculating the present value of assessment and emergency restoration costs already incurred by trustees, trustees must

compound the past costs forward to the date the demand is presented. To perform the compounding, trustees may use the actual U.S. Treasury borrowing rate on marketable securities of comparable maturity to the period of analysis. For costs incurred by state or tribal trustees, trustees may compound using parallel state or tribal borrowing rates.

(c) Trustees are referred to Appendices B and C of OMB Circular A-94 for information about nominal and real U.S. Treasury rates of various maturities and for further guidance in calculation procedures. Copies of Appendix C, which is regularly updated, and of the Circular are available from the OMB Publications Office (202-395-7332).

§ 990.64 Uncompensated claims.

(a) If the responsible parties do not agree to the demand within 90 calendar days after trustees present the demand, the trustees may either file a judicial action for damages or file a claim for uncompensated damages with the Oil Spill Liability Trust Fund.

(b) Judicial actions and claims must be filed within three years after the Final Restoration Plan or Notice of Intent to Use a Regional Restoration Plan is made publicly available, as provided in 33 U.S.C. 2717(f)(1)(B) and 2712(h)(2).

§ 990.65 Opening an account for recovered damages.

(a) *General.* Sums recovered by trustees in satisfaction of a natural resource damage claim must be placed in a revolving trust account. Sums recovered for past assessment costs and emergency restoration costs may be used to reimburse the trustees. All other sums must be used to implement the Final Restoration Plan, implement an existing Regional Restoration Plan, or develop and implement a new Regional Restoration Plan.

(b) *Joint trustee recoveries.* (1) *General.* Trustees may establish a joint account for damages recovered pursuant to joint assessment activities, such as an account under the registry of the applicable federal court.

(2) *Management.* Trustees may develop enforceable agreements to govern management of joint accounts, including agreed-upon procedures and criteria and personnel for authorizing expenditures out of such joint accounts.

(c) *Interest-bearing accounts.* Trustees may place recoveries in interest-bearing revolving trustee accounts.

(d) *Escrow accounts.* Trustees may establish escrow accounts or other investment accounts unless specifically prohibited by law.

(e) *Records.* Trustees must maintain appropriate accounting and reporting methods to document expenditures from accounts established under this section.

(f) *Oil Spill Liability Trust Fund.* Any sums remaining in an account established under this section that are not used either to reimburse trustees for past assessment and emergency restoration costs or to implement restoration must be deposited in the Oil Spill Liability Trust Fund.

§ 990.66 Additional considerations.

Upon settlement of a claim, trustees should consider the following actions to facilitate implementation of restoration:

(a) Establishment of a trustee committee or memorandum of understanding to coordinate among affected trustees;

(b) Development of more detailed workplans to implement restoration;

(c) Monitoring and oversight of restoration; and

(d) Evaluation of restoration success and the need for corrective action.

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