

DEPARTMENT OF COMMERCE**National Oceanic and Atmospheric Administration****15 CFR Part 990**

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RIN 0648-AE13

Natural Resource Damage Assessments

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

ACTION: Final rule.

SUMMARY: Section 1006(e)(1) of the Oil Pollution Act of 1990 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. This final rule is for the use of authorized federal, state, Indian tribe, and foreign officials, referred to as "trustees." Natural resource damage assessments are not identical to response or remedial actions addressed by the larger statutory scheme of the Oil Pollution Act of 1990. 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 restoring natural resources and services injured as a result of an incident involving oil.

EFFECTIVE DATE: The effective date of the final rule is February 5, 1996.

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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 (hereinafter referred to as "incident") into or upon the navigable waters of the United States, adjoining shorelines, or the Exclusive Economic Zone. Section 1006(b) of OPA (33 U.S.C. 2706(b)) provides for the designation of federal, state, Indian tribe, and foreign natural resource trustees to determine if injury to, destruction of, loss of, or loss of use of natural resources and services has

resulted from an incident, assess natural resource damages for those injuries, 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 services under their trusteeship. Section 1006(e)(1) of OPA (33 U.S.C. 2706(e)(1)) 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.

Background

Prior to issuing this final rule, NOAA published eleven 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), 58 FR 4601 (January 15, 1993), 59 FR 1061 (January 7, 1994), 60 FR 39804 (August 3, 1995), and 60 FR 43574 (August 22, 1995). NOAA conducted a public meeting on March 20, 1991, and held four regional workshops during 1991 in Rockville, Maryland; Houston, Texas; San Francisco, California; and Chicago, Illinois, to learn of regional concerns in assessing injury and restoration for 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 a panel commissioned to evaluate the reliability of CV. 58 FR 4601.

NOAA published the proposed OPA rule on January 7, 1994 (59 FR 1061). The proposed rule contained a statement requesting specific consideration of certain issues. Immediately after publishing the proposed rule, NOAA held six regional meetings in January and February of 1994. A seventh workshop was held in March 1994 in Washington, D.C. NOAA then published an informational notice

to summarize the concerns raised in these workshops on June 22, 1994 (59 FR 32148).

Based upon comments received in response to the proposed rule and regional meetings, NOAA repropoed the rule on August 3, 1995 (60 FR 39804). Immediately after publishing the proposed rule, NOAA held two conferences in August and September of 1995 to discuss the 1995 proposed rule.

This final rule draws from the public issue-discussion process and comments received to provide a natural resource damage assessment process intended to meet OPA's goal of expeditious, cost-effective, and feasible restoration of natural resources and services injured by incidents involving oil.

This preamble is organized as follows: the Introduction gives an overview of the rule and is followed by a discussion of each of the subparts of the rule. Subpart A provides a general introduction, subpart B describes trustee authorities, subpart C gives definitions pertinent to this 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 and responses to the comments on the proposed rule.

INTRODUCTION**I. Goal of OPA: Focus on Restoration**

The goal of the Oil Pollution Act of 1990 (OPA) is to make the environment and public whole for injuries to natural resources and natural resource services resulting from an incident involving a discharge or substantial threat of a discharge of oil (incident). This goal is achieved through returning injured natural resources and services to baseline and compensating for interim losses of such natural resources and services through the restoration, rehabilitation, replacement or acquisition of equivalent natural resources and/or services. The purpose of this rule is to provide a framework for conducting sound natural resource damage assessments that achieve restoration under OPA.

Under the rule, restoration plans developed with input from the public and responsible parties form the basis of a claim for natural resource damages. Final restoration plans are presented to responsible parties for funding. In addition, the rule allows responsible parties to implement trustee-approved and monitored restoration plans. Because assessments will be conducted in the open, and responsible parties and the public will have opportunities to be

involved in the planning process, it is expected that restoration will be achieved more quickly, transaction costs will decrease, and litigation will be avoided.

NOAA believes that an assessment that focuses on evaluating injuries relevant to feasible restoration alternatives and soliciting public input in restoration planning will accomplish three major goals: validating trustee determinations regarding those actions that will make the environment and public whole; ensuring that appropriate assessment procedures for determining restoration actions for a given incident are followed; and reducing transaction costs. The rule provides for the use of a range of appropriate and cost-effective procedures for an assessment. Procedures to be used within the rule must meet certain standards: they must be capable of providing information of use in determining the type and scale of restoration appropriate for a particular injury; the additional cost of a more complex procedure must be reasonably related to the expected increase in the quality and/or quantity of information provided by the more complex procedure; and they must be reliable and valid for the particular incident. Trustees must select the most cost-effective of two or more equally appropriate assessment procedures.

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 or other exception to NEPA applies. The process identified in the rule mirrors the decisionmaking process embodied in NEPA, without requiring significantly different steps or products than those envisioned in OPA. Recognizing that NEPA compliance requirements will vary among federal agencies, and that state trustees may not be subject to NEPA, the rule describes the general processes and products required under NEPA, and provides guidance for integrating NEPA compliance into the assessment.

Finally, NOAA has developed guidance documents on various aspects of the assessment. 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 an assessment to be conducted in accordance with this rule. The documents, in their final form, will be made available through a public information distribution service, and will be announced in a future Federal Register notice.

II. Overview of the Restoration Planning Process Under the Rule

The natural resource damage assessment process in the rule includes three phases as outlined below: (1) Preassessment; (2) restoration planning; and (3) restoration implementation.

Preassessment Phase

When notified by response agencies of an incident involving oil, trustees must first determine threshold criteria that provide their authority to begin the natural resource damage assessment, such as applicability of OPA and risks to natural resources under their trusteeship. Based on early available information, trustees make a preliminary determination whether natural resources or services have been injured. Through coordination with response agencies, trustees next determine whether response actions will eliminate the threat of ongoing injury. If injuries are expected to continue, and feasible restoration alternatives exist to address such injuries, trustees may proceed with the assessment.

Restoration Planning Phase

The purpose of the Restoration Planning Phase is to evaluate potential injuries to natural resources and services, and use that information to determine the need for and scale of restoration actions. The Restoration Planning Phase provides the link between injury and restoration. The Restoration Planning Phase has two basic components: injury assessment and restoration selection.

Injury Assessment

The goal of injury assessment is to determine the nature and extent of injuries to natural resources and services, thus providing a technical basis for evaluating the need for, type of, and scale of restoration actions. Under the rule, injury is defined as an observable or measurable adverse change in a natural resource or impairment of a natural resource service. Trustees must determine that there is: (1) Exposure, a pathway, and an

adverse change to a natural resource or service as a result of an actual discharge; or (2) an injury to a natural resource or impairment of a natural resource service as a result of response actions or a substantial threat of a discharge. Trustees must also quantify the degree, and spatial and temporal extent of injuries. Injuries are quantified by comparing the condition of the injured natural resources or services to baseline, where necessary.

Restoration Selection

Once injury assessment is complete, trustees must develop a plan for restoring the injured natural resources and services. Under the rule, trustees must identify a reasonable range of restoration alternatives, evaluate and select the preferred alternative(s), and develop a Draft and Final Restoration Plan, that considers public comments. Acceptable restoration actions include any of the actions authorized under OPA (restoration, rehabilitation, replacement, or acquisition of the equivalent), or some combination of those actions.

Restoration actions under the rule are either primary or compensatory. Each restoration alternative considered will contain primary and/or compensatory restoration actions that address one or more specific injuries associated with the incident. Primary restoration refers to actions taken to return the injured natural resources and services to baseline on an accelerated time frame. Natural recovery also must be considered under primary restoration, in which no human intervention is taken to directly restore injured natural resources and/or services to baseline. Alternative primary restoration actions can range from natural recovery, to actions that prevent interference with natural recovery, to more intensive actions expected to return injured natural resources and services to baseline faster or with greater certainty than natural recovery.

Compensatory restoration includes actions to compensate for interim losses of natural resources and/or services pending recovery. The type and scale of compensatory restoration may depend on the nature of the primary restoration action, and the level and rate of recovery of the injured natural resources and/or services given the primary restoration action.

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, and of comparable value as those lost. If compensatory

actions of the same type and quality and comparable value cannot provide a reasonable range of alternatives, trustees may consider other compensatory restoration actions among the alternatives, so long as the actions, in the judgment of the trustees, will provide services of at least comparable type and quality as those lost.

To ensure that a restoration action appropriately addresses the injuries resulting from an incident, trustees must scale the action. The approaches that may be used to determine the appropriate scale of a restoration action include the resource-to-resource or service-to-service approach, and the valuation approach. The possible use of contingent valuation (CV) and other stated-preference methods of valuation to determine what scale of compensatory restoration provides an equivalent value to the lost services avoids many problems identified by commenters regarding the use of CV to calculate a dollar value for the damages as included in the 1994 proposal.

Under the resource-to-resource or service-to-service approach to scaling, trustees determine the appropriate quantity of replacement natural resources and/or services to compensate for the amount of injured natural resources or services. Trustees must consider using the resource-to-resource or service-to-service approach for actions that provide natural resources and/or services of the same type, quality, and value as those lost.

In situations where trustees must consider actions that provide natural resources and/or services that are of a different type, quality, or value than the injured natural resources and/or services, or where use of resource-to-resource or service-to-service scaling is inappropriate, trustees may use the valuation approach to scaling. To evaluate actions that provide services of a different type or quality, trustees need a common measure to compare services lost and services provided, such as the value per unit of service. Trustees first calculate the value of the lost services and then determine the value gained from different scales of the restoration action. Trustees then select the scale of the restoration action under consideration that would provide value equal to the value lost. Responsible parties are liable for the cost of implementing the restoration action that would generate the equivalent value, not for the calculated interim loss in value.

Selection of a Preferred Alternative

The identified restoration alternatives are evaluated based on a number of

factors that include: (i) cost to carry out the alternative; (ii) extent to which each alternative is expected to meet the trustees' goals and objectives in returning the injured natural resources and services to baseline and/or compensate for interim losses; (iii) likelihood of success of each alternative; (iv) extent to which each alternative will prevent future injury as a result of the incident, and avoid collateral injury as a result of implementing the alternative; (v) extent to which each alternative benefits more than one natural resource and/or service; and (vi) effect of each alternative on public health and safety. Trustees must select the most cost-effective of two or more equally preferable alternatives.

A Draft Restoration Plan will be made available for review and comment by the public, including appropriate members of the scientific community where possible. Public review and comment of the plan will depend on the nature of the incident, and any applicable federal trustee NEPA requirements. The Draft Restoration Plan will describe the trustees' preassessment activities, as well as injury assessment activities and results, evaluate restoration alternatives, and identify the preferred restoration alternative(s). After reviewing public comments on the Draft Restoration Plan, trustees must develop a Final Restoration Plan. The Final Restoration Plan will become the basis of claims for damages.

Restoration Implementation Phase

The Final Restoration Plan is presented to responsible parties to implement or to fund the trustees' costs of implementing the plan, thus providing the opportunity for settlement of damages claims without litigation. Should responsible parties decline to settle a claim, OPA authorizes trustees to bring a civil action for damages in federal court or seek an appropriation from the Oil Spill Liability Trust Fund for such damages.

DISCUSSION

Subpart A—Introduction

I. Purpose

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

natural resources and services from the date of the incident until recovery.

The purpose of this rule is to promote expeditious and cost-effective restoration of natural resources and services injured as a result of an incident. To fulfill this purpose, the rule provides a natural resource damage assessment process for developing a plan for restoration of the injured natural resources and services and pursuing implementation or funding of the plan by responsible parties. The rule also provides an administrative process for involving interested parties in the assessment, a range of assessment procedures for identifying and evaluating injuries to natural resources and services, and a means for selecting appropriate restoration actions from a reasonable range of alternatives.

II. Scope

This rule may be used by designated federal, state, tribal, and foreign natural resource trustees to determine appropriate actions to restore natural resources and/or 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 of the United States.

The Secretaries of the Interior, Commerce, Agriculture, Defense, and Energy are the primary federal natural resources trustees, although in some circumstances, the heads of other federal agencies may act as trustees of natural resources (see 40 CFR 300.600). The roles and responsibilities of the various federal trustees regarding an assessment vary according to their natural resource management responsibilities and the susceptibility of various 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 or local agencies, as provided under OPA.

The process described in the rule is not intended to affect the recoverability of natural resource damages when recoveries are sought other than in accordance with this rule.

III. Overview

The rule 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 the rule. The Restoration Planning

Phase, during which trustees evaluate information on potential injuries and use that information to determine the need for, type of, and scale of restoration, is described in subpart E of the rule. The Restoration Implementation Phase, during which trustees ensure implementation of restoration, is described in subpart F of the rule.

IV. Rebuttable Presumption

Assessments performed by federal, state, or tribal trustees in accordance with this rule receive the evidentiary status of a rebuttable presumption provided by section 1006(e)(2) of OPA (33 U.S.C. 2706(e)(2)). NOAA interprets this presumption to mean that the responsible parties have the burdens of presenting alternative evidence on damages and of persuading the fact finder that the damages presented by the trustees are not an appropriate measure of damages. This presumption applies to all assessment procedures conducted in accordance with this rule. However, where trustees use procedures that are determined not to be in accordance with this rule, trustees will not obtain a rebuttable presumption for that portion of the assessment. Assessments performed by foreign trustees in accordance with this rule are not entitled to a rebuttable presumption, as provided in section 1006(c)(1) of OPA (33 U.S.C. 2706(e)(1)).

V. Coordination

A. General

Coordination among all parties affected by an incident is crucial to an efficient and effective assessment. Coordination, in pre-incident planning and throughout the assessment, can reduce time until restoration is implemented and ensure that assessment costs are reasonable. More detailed discussion of some aspects of coordination appears in Appendix A at the end of this preamble.

B. Coordination Among Trustees

This rule encourages trustees with shared or overlapping trusteeship to coordinate their assessment activities, including coordination in pre-incident planning. Coordination among trustees will avoid duplicative claims for damages, address shared trust natural resource concerns, and result in more effective funding of assessment work. When conducting joint assessments, trustees must designate a Lead Administrative Trustee (LAT). The LAT should be selected by mutual agreement of the trustees. The LAT's duties and responsibilities are mainly

administrative, unless all trustees agree otherwise. Depending upon the circumstances of the incident, there may be co-LATs or sequential LATs for different stages of the process. This rule encourages trustees to consider using agreements, such as memoranda of understanding (MOUs), to structure both pre-incident and incident-specific activities. Trustees may act independently when there is a reasonable basis for dividing assessment responsibilities, so long as there is no double recovery of damages. However, independent assessments may not achieve prompt restoration of injured natural resources and services and may not be in the best interests of the parties involved.

C. Coordination With Response Agencies

Trustees must coordinate their activities conducted concurrently with response operations with response agencies consistent with the NCP and any pre-incident plans or MOUs. Coordination among trustees and response agencies can result in reducing or eliminating natural resource and/or service injuries residual to the cleanup. "Response" 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. Thus, the rule requires the trustees to invite the responsible parties to participate in the assessment.

The 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 means of conducting assessments, it may not be appropriate for trustees to delay assessment activities while negotiating the terms of responsible party involvement.

Trustees should extend the invitation to participate to known responsible parties as soon as practicable, but not later than the delivery of the Notice of Intent to Conduct Restoration Planning,

described in § 990.44 of the rule. The invitation to participate must be in writing, and a written response by the responsible parties is required to confirm the desire to participate. Trustees and responsible parties should consider entering into binding agreements to facilitate their interactions and resolve any disputes during the assessment. To maximize cost-effectiveness and cooperation, trustees and responsible parties should attempt to develop a set of agreed-upon facts concerning the incident and/or assessment. For example, stipulated facts might concern the types of natural resources and services injured, extent of injury or most appropriate assessment procedures to determine injury and/or restoration needs, and how the results of the procedures used will be interpreted.

The scope of the participation by responsible parties must be determined by the trustees. The rule provides a number of factors that may assist trustees in making this determination. These factors include, for identified responsible parties, the willingness of responsible parties to participate in the assessment and provide funding for assessment activities, the ability of responsible parties to conduct assessment activities in a technically sound and timely manner and to be bound by the results of jointly agreed upon studies, the degree of cooperation in response activities, and the actions of the responsible parties in prior assessments. However, the rule provides for a minimum level of responsible party participation that consists of notice of trustee determinations required by the rule, and notice and opportunity to comment on documents or plans that significantly affect the nature and extent of the assessment. Increased levels of participation by responsible parties may be developed at the mutual agreement of the trustees and responsible parties; however, final authority to make determinations regarding injury and restoration rests solely with the trustees. Submissions by responsible parties will be included in the administrative record. Trustees may end participation by responsible parties who, during the conduct of the assessment, interfere with the trustees' capability to fulfill their responsibilities under OPA and this rule.

The rule also provides that participating responsible parties may formally request use of assessment procedures other than those that have been selected by trustees as the most appropriate for the incident and injury of concern. Responsible parties must identify specific alternate procedures, and demonstrate that they meet the

requirements for acceptable assessment procedures provided in § 990.27 of the rule. In addition, because trustees will already have made a determination that a different procedure is appropriate, responsible parties must agree not to challenge the results of the requested alternate procedure and agree to fund the alternate procedure. Trustees may deny the request for alternate procedures on the grounds that they are not technically feasible or scientifically sound, are inconsistent with § 990.27 of the rule, or could not be completed in a reasonable time frame. Trustees must document the request and their response in the administrative record.

Trustees must document in the administrative record and Restoration Plan the invitation for participation by the responsible parties, briefly describe the nature and extent of the responsible parties' participation, and briefly describe, if applicable, why the responsible parties' participation was terminated.

E. Coordination With the Public

A major goal of OPA is to involve the public in the restoration planning process. At a minimum, the rule requires that trustees provide opportunities for public involvement after the trustees decide to develop a restoration plan. The rule further encourages that trustees involve the public in the assessment at any time earlier, if such involvement is expected to enhance trustees' decisionmaking or facilitate the restoration process.

Depending on the nature of the incident and expected assessment actions, public comment may be solicited at various stages to ensure the best information base is available to the trustees. 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.

To the fullest extent practicable, trustees should involve the public to:

- (i) Encourage a broad understanding of restoration and build trust, thus allowing for quicker recognition and support of the restoration process overall;
- (ii) Provide opportunities for joint fact-finding, improving the collection of quality data; and
- (iii) Incorporate public concern, providing for more effective restoration planning.

VI. 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. These actions are not required actions under the rule. More extensive discussion on these topics is included in Appendix A 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 results in technically sound and cost-effective restoration. Pre-incident planning activities may identify natural resource damage assessment teams, establish trustee notification systems, identify support services, identify natural resources and/or services at risk, identify and develop working relationships with area and regional response agencies and officials, identify available baseline information, establish data management systems, and identify assessment funding issues and options. Potentially responsible parties, cleanup agencies, representatives of local natural resource management agencies, and representatives of local environmental groups should be included in pre-incident planning to the fullest extent practicable.

C. Regional Restoration Planning

OPA intends that restoration actions make the environment and public whole for natural resource and/or service injuries resulting from an incident. Where practicable, development of restoration plans on an incident-by-incident basis is the preferred alternative to accomplish this goal. However, for many incidents, including smaller incidents, such incident-specific plan development may be impractical and costly. Yet, the impact of small incidents may still represent a significant concern for trustees, particularly where small incidents may have cumulative impacts. 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 identify existing Regional Restoration Plans or other existing restoration projects that may be applicable in the event of an incident. Regional restoration planning may consist of compiling databases that identify existing, planned, or proposed restoration projects that may provide

appropriate restoration alternatives for consideration in the context of specific incidents. Plans or projects developed on a regional basis (e.g., ecosystem, landscape, watershed, or any other basis) appropriate so long as natural resources and/or services comparable to those expected to be injured by an incident are addressed in the plans. In no event may the use of a regional restoration plan or other existing proposed restoration project violate OPA's limitation that natural resource damages must be used solely to restore, rehabilitate, replace, or acquire the equivalent of natural resources and services injured by an incident.

Subpart B—Authorities

I. Relationship to the CERCLA Natural Resource Damage Assessment 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 Federal Water Pollution Control Act (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 rule supersedes 43 CFR part 11 with regard to incidents covered by OPA. Trustees who began assessments under the CERCLA regulations before the effective date of this rule may complete those assessments in compliance with the CERCLA regulations or they may elect to use this rule to obtain the rebuttable presumption.

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.

II. Relationship to the NCP

This rule provides procedures by which trustees may determine appropriate restoration of injured natural resources and services, where such injuries are not fully addressed by response actions. Response actions and coordination with damage assessment activities are conducted pursuant to the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR part 300.

III. Prohibition on Double Recovery

Trustees are subject to a prohibition on double recovery of damages in section 1006(d)(3) of OPA (33 U.S.C. 2706(d)(3)). This rule encourages trustee coordination as a means to avoid double recovery. In general, the losses that trustees may estimate without the risk of double recovery are:

(i) The value of losses to all public uses of natural resources as measured by changes in:

(a) Monetized measures of utility or consumer surplus;

(b) Fees or other payments collectable by the government or a tribe for use of the natural resource by a private party; and

(c) Any economic rent accruing to a private party because the government or tribe does not charge a fee or price for the use of the natural resource, provided such economic rent is not recovered under a private cause of action; and

(ii) In instances where the trustee(s) is the majority operator or controller of a for-profit or not-for-profit enterprise, and the injury to the natural resource results in a reduction of net income to such an enterprise, that portion of the lost net income due the trustee(s) from this enterprise resulting directly or indirectly from the injury to the natural resource.

Trustee claims for damages under this rule should not include:

(i) Losses to the government for forgone taxes, because these are transfer payments from individuals to the government; or

(ii) Wages and other income lost by private individuals, except for that portion of income that represents uncollected economic rent, where these values may be the subject of lawsuits brought by the individuals suffering the loss.

Where restoration actions are scaled using the resource-to-resource or service-to-service scaling approach, trustees should ascertain the extent to which the restoration actions also compensate for losses typically scaled with a valuation approach.

IV. Compliance With NEPA and the CEQ Regulations

Under this rule, the National Environmental Policy Act (NEPA) applies to restoration actions taken by federal trustees, generally becoming applicable when the trustees begin the process of developing a Draft Restoration Plan under subpart E of this rule, except where a categorical exclusion or other exceptions to NEPA apply. Thus, when a federal trustee proposes to take restoration actions

under this rule, it must integrate this rule with NEPA, the Council on Environmental Quality (CEQ) regulations on NEPA, and any NEPA regulations promulgated by that federal trustee agency. In conducting the NEPA process concurrently rather than consecutively with the assessment, federal trustees are more likely to make the environment and public whole, avoid delays in restoration, and reduce transaction costs.

Likewise, certain state trustees may also have equivalent NEPA requirements, usually referred to as State Environmental Policy Acts (SEPA). Thus, where a SEPA applies to state trustees, they must consider the extent to which this rule can be integrated with their SEPA requirements. Although other trustees may not be bound by NEPA or NEPA-equivalent requirements, the trustees may still find the procedural planning process as defined under NEPA (or SEPA) useful in facilitating restoration.

The provisions of § 990.23 of this rule strictly relate to NEPA and federal trustees. The rule provides a brief description of the general procedures and products that may be expected if a restoration action is subject to a federal trustee's NEPA compliance requirements. Federal trustees should refer to the CEQ regulations and their own agency(ies) NEPA regulations for specific guidance regarding NEPA requirements.

D. Restoration Plans

1. Purpose

After selecting a restoration alternative, trustees must prepare a Draft Restoration Plan. Development of a Draft Restoration Plan provides a vehicle for informing the affected and interested public of the results of the trustees' analyses and decisions, and encouraging public review. Public review can also supplement expert peer review when comments are solicited from various professional communities or other knowledgeable persons.

2. Draft Restoration Plan

A Draft Restoration Plan should include:

(i) A summary of injury assessment procedures used;

(ii) A description of the nature, degree, and spatial and temporal extent of injuries resulting from the incident;

(iii) The goals and objectives of restoration;

(iv) The range of restoration alternatives considered, and a discussion of how such alternatives were developed and evaluated under this rule;

(v) Identification of the trustees' tentative preferred alternative(s);

(vi) A description of past and proposed involvement of the responsible parties in the assessment; and

(vii) A description of monitoring for documenting restoration effectiveness, including performance criteria that will be used to determine the success of restoration and need for interim corrective action.

When developing the Draft Restoration Plan, trustees must clearly define plan objectives that specify the desired outcome to be accomplished, and the performance criteria by which successful restoration will be judged. Trustees should, at a minimum, determine what criteria will constitute success such that responsible parties are relieved of responsibility for further restoration actions or necessitate corrective actions in order to comply with the terms of a restoration or settlement agreement.

Performance criteria include structural, functional, temporal, and/or 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 a marsh injured by oil could be described by performance criteria including the number of acres to be created, location, elevation of new habitat, species to be planted and details for planting such as density, and time frame in which identifiable stages of the project should be completed.

The types of parameters that should be addressed in monitoring include duration and frequency of monitoring needed to gauge progress and success, the level of sampling needed to detect success or the need for corrective action, and whether monitoring of a reference or control site is needed to determine progress and success. Reasonable monitoring and oversight costs cover those activities necessary to gauge the progress, performance, and success of the restoration actions developed under the plan.

3. Public Review and Comment

Public review and comment of both Draft and Final Restoration Plans will depend on the nature of the incident and any applicable federal trustee NEPA requirements, as described in §§ 990.14(d) and 990.23 of the rule, but must be sufficient to satisfy OPA's requirement for public involvement in planning restoration. Thus, trustees should consider such factors as the form of the involvement (e.g., a hearing, notice, or solicited comments), extent of

public involvement (e.g., timing and frequency), and the forum for communicating with the public (e.g., local papers, the Federal Register, direct contacts to known interested parties).

4. 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 comments on the Draft Restoration Plan. In response to the comments, the trustees may need to modify the restoration alternatives being considered, develop and evaluate alternatives that have not been given serious consideration by the trustees, supplement, improve, or modify the analyses, make factual corrections, or 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, should clearly indicate any changes to the Draft Restoration Plan.

V. Compliance With Other Applicable Laws and Regulations

When taking actions under this rule or while response actions are on-going, trustee field activities must comply with any applicable 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 under OPA and this rule, trustees should comply with those requirements. This requirement also relates to all legally applicable state, local or tribal procedural requirements. Compliance with any applicable laws, regulations, and associated permits will help to minimize duplicative and conflicting efforts. When following procedural requirements other than those specified by OPA and this rule, trustees should identify those requirements in the restoration plan. Applicable federal requirements that may need to be considered include, but are not limited to: the Endangered Species Act; the Coastal Zone Management Act; the Migratory Bird Treaty Act; the National Marine Sanctuaries Act; the National Historic Preservation Act; the Marine Mammal Protection Act; and the Archaeological Resources Protection Act. The use of NEPA as a planning

process may facilitate compliance with other federal requirements.

VI. Settlement

Trustees may settle claims for natural resource damages under this rule at any time, provided that the settlement is adequate in the judgment of the trustees to satisfy the goal of OPA and is fair, reasonable, and in the public interest, with particular consideration of the adequacy of the settlement to restore, replace, rehabilitate, or acquire the equivalent of the injured natural resources and services. Settlements by federal trustees will generally be subject to approval by the U.S. Department of Justice. Sums recovered in settlement of such claims, other than reimbursement of trustee costs, may only be expended in accordance with a restoration plan, which may be set forth in whole or in part in a consent decree or other settlement agreement, that is made available for public review.

In determining the sufficiency of settlements to meet the public interest test under other statutes, reviewing courts have afforded broad deference to the judgment of federal agencies recommending such settlements. Courts have looked to whether the agencies have considered such factors as the benefits of early settlement as opposed to delayed recovery through litigation, litigation risk, certainty in the claim, and attitude of the parties toward the settlement, among other factors.

VII. 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 assessment, typically trustees begin evaluating the need for emergency restoration during response. If response actions are still underway, trustees, through their Regional Response Team member or designee, must coordinate with the On-Scene Coordinator (OSC) before taking any emergency restoration actions. Any emergency restoration actions proposed by trustees should not interfere with on-going response actions. Trustees must explain to response agencies through the OSC prior to implementation of emergency restoration actions their reasons for believing that proposed emergency restoration actions will not interfere with on-going response actions.

Trustees must provide notice to identified responsible parties of any emergency restoration actions and, to

the extent time permits, invite their participation in the conduct of those actions, consistent with the provisions of § 990.14(c) of the rule. Trustees must also provide notice to the public, to the extent practicable, of these planned emergency restoration actions. The rule allows trustees to take emergency restoration action only if such action is feasible, likely to minimize continuing or prevent additional injury, and can be conducted at a cost that is not unreasonable. Trustees must also notify 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. The means by which this notice is provided to the public is left to the discretion of the trustees.

The costs associated with evaluating, planning, and implementing emergency restoration are recoverable costs.

VIII. Use of Assessment Procedures

A. Standards for Assessment Procedures

The rule addresses OPA's goal of efficient, cost-effective, and feasible restoration by requiring that assessment procedures be tailored to the circumstances of a particular incident and the information needed to determine appropriate restoration for that incident. The rule requires trustees to determine that the most appropriate procedures for an incident be implemented by specifying a set of standards for acceptable procedures. These standards are applicable to every assessment procedure used under the rule. To be considered in accordance with this rule, assessment procedures must meet all of the following standards:

(i) The procedures provide assessment information of use in determining the type and scale of restoration appropriate for a particular injury;

(ii) The additional cost of a more complex procedure is reasonably related to the expected increase in the quantity and/or quality of relevant information provided by the more complex procedure; and

(iii) The procedures are reliable and valid for the particular incident.

B. Assessment Procedures Available

This rule provides the use of a range of assessment procedures, from field or laboratory procedures, to model- or literature-based procedures, to a combination thereof. When practicable, assessment procedures must be chosen that provide information of use in determining the most appropriate alternative for restoring the injury resulting from the incident. In addition,

when selecting assessment procedures, trustees should consider factors such as the time and cost to implement the procedure, nature, and spatial and temporal extent of injury and information needed to determine and quantify injury, possible restoration actions for expected injuries, and information needed to determine appropriate restoration. If more than one procedure providing the same type and quality of information is available, the most cost-effective procedure must be used. A further discussion of procedures is given in Appendix B to this preamble.

Subpart C—Definitions

Relevant definitions in OPA are repeated in the rule as a matter of reference. Important terms and concepts that are either not explicitly defined or described in OPA or that require further clarification are discussed below.

Baseline

Baseline refers to the condition of natural resources and services that would have existed had the incident not occurred. Although injury quantification requires comparison to a baseline condition, site-specific baseline information that accounts for natural variability and confounding factors prior to the incident 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, some procedures 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. Counts of oiled bird carcasses can be used as a basis for quantifying incremental bird mortality resulting from an incident.

The rule does not distinguish between baseline, historical, reference, or control data in terms of value and utility in determining the degree and spatial and temporal extent of injuries. To the extent that historical data, reference data, or control data can provide valid information on which to base a determination of the conditions of the natural resource and service in the absence of the incident, these forms of data may effectively serve as baseline information.

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

- (i) Information collected on a regular basis and for a period of time from and prior to the incident;
- (ii) Information identifying historical patterns or trends on the area of the incident and injured natural resources and services;

(iii) Information from areas unaffected by the incident, that are judged sufficiently similar to the area of the incident with respect to the parameter being measured; or

(iv) Information from the area of the incident after a particular natural resources or services have been judged to have recovered.

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 by the threat or response actions related to the threat.

Injury

OPA authorizes trustees to recover damages for "injury to, destruction of, loss of, or loss of use of" natural resources (section 1002(b)(2)(A) of OPA, 33 U.S.C. 2702(b)(2)(A)). Trustees must establish that injury has resulted from an incident. Under this rule, injury is defined as an observable (i.e., qualitative) or measurable (i.e., quantitative) adverse change in a natural resource or impairment of a natural resource service.

There are two general bases for determining injury under this rule. Trustees must either determine that:

- (i) The natural resource was exposed, there is a pathway connecting the incident with the natural resource, and an adverse change to the natural resource and/or service has occurred; or
- (ii) For injuries resulting from response actions or from a substantial threat of a discharge of oil, an injury to a natural resource or an impairment of use of a natural resource service has occurred as a result thereof. Thus, under this 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 section 1001(23) of OPA (33 U.S.C. 2701(23)), the term "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.

On July 9, 1975, the U.S.

Environmental Protection Agency published a Federal Register notice to affirm that non-petroleum oils, such as fats and oils from animal and vegetable sources, are subject to oil spill reporting, civil penalties, cleanup costs, and oil spill prevention plan preparation and implementation under 40 CFR part 112 and other requirements of section 311 of the Federal Water Pollution Control Act (33 U.S.C. 1321 *et seq.*). The U.S. Environmental Protection Agency and U.S. Coast Guard have interpreted and administered section 311 as applicable to incidents of non-petroleum oils. While the mechanism of injuries by non-petroleum oils may be different than that of petroleum oils, it is evident, based on current literature, that the nature of such injuries is similar (e.g., death) for both types of oils. However, the rule provides guidance to allow consideration of differences in the physical, chemical, biological, and other properties, and in the environmental effects of such oils in determining whether injuries result from an incident involving non-petroleum oils.

Pathway

Pathway is 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:

- (i) The oil travelled through various components of an ecosystem and contacted the natural resource of concern; or
- (ii) 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

Reasonable assessment costs are costs that trustees incurred in performing assessments in accordance with this rule. Trustees may recover the reasonable assessment costs they incur under this rule even if they ultimately determine not to pursue restoration, provided that they have determined that actions undertaken were premised on the likelihood of injury and need for restoration. Under the rule, reasonable assessment costs also include administrative, legal, and enforcement costs necessary to carry out this part, monitoring and oversight costs, and

costs associated with public participation and indirect costs.

Recovery

Recovery is the return of injured natural resources and services to baseline. This concept encompasses the inherent tendency for natural resource and 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 baseline information that can be gathered relative to the incident and associated injuries.

Restoration

Restoration is any action (or an alternative), or a combination of actions (or alternatives), to restore, rehabilitate, replace, or acquire the equivalent of injured natural resources and services.

This rule includes the concepts of primary and compensatory restoration. Primary restoration is any action (whether on-site, off-site, in-kind, out-of-kind) that returns injured natural resources and services to baseline, while compensatory restoration is any action (or an alternative) taken to compensate for the interim loss of natural resources or services that occur from the date of the incident until such natural resources and services have recovered to their baseline condition. Trustees must consider, within the primary restoration component, natural recovery, in which no human intervention is taken to directly restore the injured natural resources and services. Depending on the injury of concern, primary restoration actions may include actions to actively accelerate recovery or simply to remove conditions that would make recovery unlikely. The rule discusses types of primary restoration actions that trustees may want to consider.

For some injuries, the need for and scale of compensatory restoration actions may depend on the range of feasible primary restoration actions, but trustees should evaluate the need to seek compensatory restoration for all demonstrable service losses that occur from the onset of the incident. The rule requires that trustees preferentially evaluate compensatory restoration actions that provide the same type, quality, and value of natural resources or services as those lost. Actions that provide services of comparable type, quality, and value may be considered if required to generate a range of feasible restoration alternatives for evaluation.

Services

Natural resource services are all functions that a natural resource provides for another natural resource(s) or for the public. Natural resource services may be classified as follows:

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

(ii) Public services—the public uses of natural resources or functions of natural resources that provide value to the public. Examples include fishing, hunting, nature photography, and education, among others.

Value

Value can be measured in units of natural resource services or dollar amounts. An individual's value of a good or service is represented by the maximum amount of goods, services, or money that the individual is willing to give up to obtain a specific good or service, or the minimum amount of goods, services, or money that an individual is willing to accept to forgo a specific good or service. The total value of a natural resource or service includes the value individuals derive from direct use of the natural resource, for example, swimming, boating, hunting, or birdwatching, as well as the value individuals derive from knowing a natural resource will be available for future generations. In many contexts, particularly in markets, value is represented in terms of units of money. However, value can be measured using other measures, including units of a natural resource service.

Subpart D—Preassessment Phase

I. Purpose

During the Preassessment Phase, trustees make critical determinations that shape the remainder of the natural resource damage assessment. Trustees determine, based on the circumstances of a given incident, whether actions under OPA are justified and make preliminary determinations regarding the type of injury assessment and restoration actions that may be pursued.

Other matters considered during the Preassessment Phase include funding, data collection, opening the administrative record, and inviting responsible parties' participation. Trustees may also consider the applicability of the defenses to liability provided in section 1002 of OPA (33 U.S.C. 2702).

II. Determinations

A. Determination of Jurisdiction

In order for trustees to proceed with any assessment activities under OPA, certain conditions must be met:

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

(ii) The incident does not fall within exclusionary conditions set forth in section 1002(c) of OPA (33 U.S.C. 2702(c)) (e.g., the discharge was not permitted by federal permit); and

(iii) Natural resources or services under the trusteeship of the trustee may have been, or are likely to be, injured as a result of the incident.

Frequently, the first two conditions are determined by the response agency. The U.S. Coast Guard, U.S. Environmental Protection Agency, or a state response agency may have already made the determination that OPA applies to the incident before notifying trustees. The third condition, however, is necessarily determined by each trustee.

If all of the conditions listed above are met, trustees may proceed with preassessment actions. If any one of the conditions is not met, trustees may not take additional action under this rule, except action to finalize this determination. Trustees may recover all reasonable assessment costs incurred up to this point provided that the first two conditions above were met and actions were taken with the reasonable belief that natural resources or services under their trusteeship might have been injured as a result of the incident.

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

B. Determination to Conduct Restoration Planning

1. General

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

(i) Injuries have resulted, or are likely to result, from the incident;

(ii) Response actions have not adequately addressed, or are not expected to address, the injuries resulting from the incident; and

(iii) Feasible primary and/or compensatory restoration actions exist to address the potential injuries.

If all the conditions listed above are met, trustees may proceed with

preassessment actions. If the trustees decide to proceed with the natural resource damage assessment, the trustees must issue a Notice of Intent to Conduct Restoration Planning, which is described below. If any one of the conditions is not met, trustees may not take additional action under this rule, except action to finalize this determination. However, trustees may recover all reasonable assessment costs incurred up to this point.

2. Identifying Natural Resources and Services at Risk

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

- (i) Circumstances of the incident. Factors to consider include geographic location, condition of the vessel or facility, environmental conditions;
 - (ii) Characteristics of the discharge or substantial threat of the discharge. Factors to consider include the type of oil, which may be described by its physical and chemical parameters, source, time and duration, and volume of the discharge;
 - (iii) Characteristics of the natural resources. Factors to consider 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
 - (iv) Potential for injury. Factors to consider include potential for exposure, pathways, causal mechanisms, and availability of assessment procedures and data to analyze these factors.
- Trustees must consider injuries resulting from the incident as well as from actions taken to respond to the incident.

3. Effectiveness of Response Actions in Eliminating Injury

Once trustees determine that natural resources and/or services are, or may be expected to be, injured as a result of the incident, trustees must then determine whether these injuries are likely to be adequately addressed through response actions. This analysis should also consider whether restoration is required for injuries that occurred at the time of the incident, even if injured natural resources and services are expected to return to baseline as a result of 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 initial or residual injuries, and begin identifying these actions, to

facilitate the Restoration Planning Phase of the assessment.

4. Early Identification of Potential Restoration Actions

Potential restoration actions need to be identified as early in the assessment as practicable. Such identification is needed to help justify the decision to proceed with an assessment that will lead to effective restoration actions, and provide the focus for designing injury assessment studies that will produce useful information on the type and scale of restoration needed. Considerations important to the early identification of restoration actions include:

- (i) Potential nature, degree, and spatial and temporal extent of injury, with or without restoration;
- (ii) Need and potential for restoration given the types of injuries;
- (iii) Potential type and scale of restoration;
- (iv) Extent to which information relevant to determining restoration needs is known;
- (v) Time, money, and personnel required and available to obtain missing or additional information relevant to restoration; and
- (vi) Requirements imposed by other applicable laws, regulations, and permits that would affect restoration.

III. Data Collection During Preassessment Phase

This rule allows trustees to conduct data collection and analysis during the Preassessment Phase if such activities are reasonably related to making the determinations required during this phase. The purpose of data collection and analysis at this stage is to facilitate the determination of whether natural resources and/or services have been injured by the incident and may 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 and analysis during this phase must be coordinated with response actions, such that the collection and analyses do not interfere with response actions.

IV. 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 feasible restoration actions exist that

would address these injuries, the trustees may proceed with the assessment. If trustees decide to proceed, they must prepare a Notice of Intent to Conduct Restoration Planning, which documents the trustees' preassessment activities and the basis for the decision to proceed. Depending on information available at this early stage of the assessment, the notice may also include a description of the trustees' proposed strategy to assess injury and determine the type and scale of restoration. The contents of the notice may vary, but will typically discuss:

- (i) The facts of the incident;
- (ii) Trustee authority to proceed with the assessment;
- (iii) Natural resources and services that are, or are likely to be, injured as a result of the incident;
- (iv) Potential restoration actions relevant to the expected injuries; and
- (v) If determined at the time, potential assessment procedures to evaluate the injuries and define the appropriate type and scale of restoration for the injured natural resources and services.

The notice must be made publicly available. The means by which the notice is made publicly available and whether public comments are solicited on the notice is left to the discretion of the trustee.

Trustees must also provide a copy of the notice to the known responsible parties and invite their participation in the conduct of restoration planning. As provided under § 990.14(c) of the rule, the determination of the timing, nature, and extent of responsible party participation will be determined by the trustees on an incident-specific basis.

V. Administrative Record

An 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. Thus, as administrative record should be opened after trustees decide to proceed with restoration planning, and concurrently with the development of the Notice of Intent to Conduct Restoration Planning.

The administrative record must contain sufficient information to support review of the trustees' decisionmaking process. Depending on the nature and extent of the incident, assessment, and restoration planning process, the administrative record should include information relied upon during the assessment, and required by this rule. Thus, the administrative record should ordinarily include the Notice of Intent to Conduct Restoration Planning, draft and final restoration

plans, and public comments; any relevant data, investigation reports, scientific studies, work plans, quality assurance plans, and literature; and any agreements not otherwise privileged among the participating trustees or with the responsible parties.

Federal trustees should maintain the administrative record in a manner consistent with the Administrative Procedure Act, 5 U.S.C. 551–59, 701–06. 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, draft documents may be included in the administrative record if they contain 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 (and be excluded from the record) unless relied upon in choosing restoration actions.

Although this rule is silent on the standard of judicial review for an assessment conducted in accordance with this rule, NOAA expects that the administrative record will serve as the foundation for any judicial review of such assessment.

Subpart E—Restoration Planning Phase

I. Purpose

The purpose of the Restoration Planning Phase is to evaluate and quantify 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 assessment is essentially a restoration scoping exercise, and the various studies and analyses conducted during this phase should be viewed from the restoration perspective. Potential assessment activities should be examined carefully to ensure that the results will be useful and relevant to restoration.

Development of a conceptual linkage between injury and restoration early in the natural resource damage assessment process should facilitate and minimize the costs of the assessment 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 planning appropriate restoration actions. The rule provides that trustees may use a range of possible assessment procedures for injury assessment and restoration planning (see the discussion of § 990.27, "Use of Assessment Procedures").

II. Injury Assessment

A. Purpose

The goal of injury assessment, which includes determination and quantification of injury, is to evaluate the nature, degree, and spatial and 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.

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

(i) The definition of "injury" is met; and
(ii) (a) An injured natural resource has been exposed to the discharged oil, and a pathway can be established from the discharge to the exposed natural resource; and/or

(b) Any injury to or impairment of a natural resource service has occurred as a result of response actions or a substantial threat of a discharge of oil. These steps for determining injury and related concepts are described in more detail below.

B. Injury Determination

1. Definition of Injury

Under this 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 constitute injury. 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 is often thought of in terms of adverse changes in biota, the definition of injury under this rule is broader. Injuries to non-living natural resources (e.g., oiled sand on a recreational beach) as well as injuries to natural 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 establish whether natural resources came into contact with the oil from the incident. Early consideration of exposure should help to focus the assessment on those natural resources and/or services that are most likely to be injured by an incident.

Trustees must establish whether the natural resource came into contact, either directly or indirectly, with the oil discharged from the incident. Under the rule, exposure is broadly defined to include not only direct physical exposure to oil, but also indirect exposure (e.g., injury to an organism as a result of disruption of its food web). Documenting exposure is a prerequisite to determining injury, except for response-related injuries and injuries resulting from substantial threats of discharges. However, evidence of exposure alone may be insufficient 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 established with either quantitative or qualitative procedures. As with other elements of the assessment, selection of procedures for establishing oil exposure will depend on the type and volume of discharged oil, natural resources at risk, and nature of the receiving environment. A combination of assessment procedures may be necessary to determine exposure. 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 its chemical characterization. The combination of the two procedures may, however, add to the weight of evidence establishing exposure.

Trustees must determine the most appropriate procedures to evaluate exposure on an incident-specific basis. For some types of incidents, visual observation in the field and/or modeling may be adequate to document exposure. For other incidents, more involved site-specific sampling, including chemical analysis and biological data collection and analysis, may be more appropriate.

3. Pathways

To determine whether an injury resulted from a specific incident, a pathway linking the incident to the

injury must be established. As with exposure, establishing a pathway is a prerequisite to determining injury, except for response-related injuries and injuries resulting from a substantial threat of a discharge. However, 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 pathway to a predator species exists; however, such data do not, in themselves, establish that the predator species is injured).

Pathway determination may include, but is not limited to an evaluation of the sequence of events by which the discharged oil was transported from the incident and either:

- (i) 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
- (ii) Caused an indirect injury to 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 pathway relating the incident to the injured natural resource and/or service, if the injury is caused by direct exposure to oil.

Pathways may include, but are not limited to, movement/exposure through the water surface, water column, sediments, soil, groundwater, air, or biota.

As with exposure determination, trustees must determine the most appropriate procedures to evaluate whether a pathway exists on an incident-specific basis.

Understanding the potential pathways will also help to narrow the scope of the assessment, and may be important in deciding which assessment procedures to use. For example, if a particular procedure does not address injuries that occur through air or terrestrial pathways, it would not be appropriate to use that procedure in cases where such pathways are predominant.

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 related to the incident and consistent with restoration planning, developing scientific knowledge for its own sake is not part of an assessment under this rule.

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

- (i) Natural resources and services of concern;
- (ii) Kinds of procedures available to evaluate and quantify injury, and associated time and cost requirements;
- (iii) Evidence indicating exposure;
- (iv) Pathway from the incident to the natural resource and/or service of concern;
- (v) Adverse change or impairment that constitutes injury;
- (vi) Evidence indicating injury;
- (vii) Mechanism by which injury occurred;
- (viii) Potential degree, and spatial and temporal extent of the injury;
- (ix) Potential natural recovery period; and
- (x) Kinds of primary and/or compensatory restoration actions that are feasible.

Analysis of the factors above should produce a list of injuries appropriate to evaluate in the assessment.

C. Injury Quantification

Injury quantification is the process by which trustees determine the degree, and spatial and temporal extent of injuries relative to baseline. Thus, injury quantification typically provides information on the scale of restoration that may be necessary.

1. Injury Quantification Information Needs

A variety of procedures for injury quantification may be available to trustees. However, because the ultimate purpose of injury quantification is ideally to facilitate the design and scale of restoration actions, injury quantification should, at a minimum, evaluate the following factors:

- (i) Degree of the injury. Degree may be expressed in terms such as percent mortality, proportion of a population, species, community, or habitat affected,

extent of oiling, and availability of substitute services.

(ii) Spatial extent of the injury. Spatial extent may include quantification of the total area or volume of injury.

(iii) Temporal extent of the injury. Duration of injury may be expressed as the total length of time that the natural resource and/or service is adversely affected, starting at the time of the incident and continuing until the natural resources and services return to baseline.

In order to scale restoration actions, trustees may find it useful to develop an estimate of the total quantity of injury that integrates the degree, 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 total number of acres of severely oiled wetland in which vegetation is totally killed, the natural recovery time for severely oiled wetland, the total number of acres of moderately oiled wetland in which vegetation is not completely killed but the wetland has lower levels of productivity, and the 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.

2. Conceptual Approaches to Quantification

Trustees may pursue several different conceptual approaches to injury quantification. Under these approaches, injury may be quantified in terms of:

- (i) The degree, and spatial and temporal extent of injury to a natural resource;
- (ii) The degree, and spatial and temporal extent of injury to a natural resource, with subsequent translation of that adverse change to a reduction in services provided by the natural resource; or
- (iii) The amount of services lost as a result of the incident.

Examples of the first approach include quantifying the number of fish or seabird mortalities caused by a discharge of oil. Examples of the second approach include quantifying reductions in fish populations with subsequent estimation of the reduction in the value of a recreational fishing day lost, given the 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. For a

particular injury, trustees should use whichever approach is most appropriate to the circumstances of the incident.

D. Analysis of Natural Recovery

Natural recovery is a restoration alternative whereby injured natural resources and services are allowed to return to conditions prior to the incident without human intervention, following any response actions. Under this rule, trustees must estimate the time for natural recovery in order to quantify injury. Analysis of recovery times may include such factors as:

- (i) The nature, degree, and spatial and temporal extent of injury;
- (ii) The sensitivity and vulnerability of the injured natural resource and/or service;
- (iii) The reproductive and recruitment potential;
- (iv) The resistance and resilience (stability) of the affected environment;
- (v) The natural variability; and
- (vi) The physical/chemical processes of the affected environment.

Although it is desirable to account for these factors and produce a rigorous quantitative natural recovery estimate for a particular natural resource, this may not be practicable for many injuries. As with any assessment procedure used under the rule, the most appropriate procedure that meets the standards for acceptable procedures in § 990.27 of the rule must be used for estimating natural recovery. Thus, under this rule, where quantitative procedures are lacking, inadequate, or unnecessarily costly to precisely estimate natural recovery times, trustees may use appropriate qualitative procedures to develop estimates where needed.

III. Restoration Selection

A. Purpose

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

If the information on injury determination and quantification and its relevance to restoration justify restoration, trustees may proceed with restoration planning. Otherwise, trustees may not take additional assessment actions. However, trustees may recover all reasonable assessment costs incurred up to this point.

B. Developing a Reasonable Range of Alternatives

1. General

Trustees must identify a reasonable range of restoration alternatives for consideration. Each alternative is comprised of primary and/or compensatory restoration components that address one or more specific injuries associated with the incident. Primary restoration refers to any actions taken to return the injured natural resources and services to baseline on an accelerated time frame. Natural recovery, in which no human intervention is taken to accelerate recovery of the injured natural resource and service, is included under the primary restoration component. Compensatory restoration refers to any actions taken to compensate for the interim losses of natural resources and services, from the time of the incident until recovery is achieved.

Each alternative must be designed so that, as a package of one or more actions, the alternative would satisfy OPA's goal to make the environment and public whole for injuries resulting from an incident. Only those alternatives considered technically feasible and in accordance with applicable laws, regulations, or permits may be considered further under this rule. Acceptable restoration alternatives include any of the actions authorized under OPA (restoration, rehabilitation, replacement, or acquisition of the equivalent), or any combination of those actions.

2. Primary Restoration

Trustees must consider primary restoration actions, including a natural recovery alternative. 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 and services to baseline faster or with greater certainty than natural recovery.

When identifying primary restoration actions to be considered, trustees should consider whether activities exist that would prevent or limit the effectiveness of restoration actions (e.g., residual sources of contamination). Trustees should also consider whether any primary restoration actions are necessary to return the physical, chemical, and biological conditions necessary to allow recovery or restoration of the injured natural resources (e.g., replacement of sand or vegetation, or modifying hydrologic conditions). Finally, trustees should

consider whether restoration actions focusing on certain natural resources and services would be an effective approach to achieving baseline conditions (e.g., replacing essential species, habitats, or public services that would facilitate the replacement of other, dependent natural resource and service components).

3. Compensatory Restoration

In addition to primary restoration, trustees must consider compensatory restoration actions in some or all of the restoration alternatives. The extent of interim natural resource or service losses that must be addressed by a particular restoration alternative may vary depending on the level and speed of recovery generated by the primary restoration component of the restoration alternative.

To the extent practicable, when identifying the compensatory restoration components of the restoration alternatives, trustees should consider compensatory restoration actions that provide services of the same type and quality, and of comparable value as those injured. This is the preferred approach to identifying compensatory restoration actions. If such actions do not provide a reasonable range of alternatives, trustees should identify actions that, in the judgment of the trustees, will provide services of at least comparable type and quality as those injured. Where the injured and replacement natural resources and services are not of comparable value, the scaling process will involve valuation of injured and replacement services.

In general, both primary and compensatory restoration of services must be accomplished through actions to restore natural resources or to preserve or enhance the amount, quality, and/or availability of natural resources that provide the same or similar services. This may include actions to improve access to natural resources, although in selecting such actions, the trustees must carefully evaluate the direct and indirect impacts of the improved access on natural resource quality and productivity. In the natural resource damages context, a service may not be viewed as an abstract economic unit or activity that may be restored independently of the natural resources from which the service flows.

4. Scaling Restoration Actions

To ensure that a restoration action will appropriately address the injuries resulting from an incident, trustees must scale the action. For primary restoration, scaling as described in the rule

generally applies to acquisition and/or replacement actions, whereas the amount of direct restoration or rehabilitation to undertake may be determined based on such factors as area of habitat contaminated at unacceptable levels, or the volume of removed sand that should be re-supplied. The approaches that may be used to assess the appropriate scale of a restoration action to compensate for public losses include resource-to-resource or service-to-service approaches, or valuation approaches. Trustees should be careful to avoid double-counting, which could result from developing multiple restoration actions that compensate for ecological and direct human services losses over time. For example, when determining the need for compensatory restoration actions that directly address lost human services, trustees should take into account any compensation for those lost human services provided by other actions intended to compensate for lost ecological services.

a. Resource-to-Resource and Service-to-Service Scaling Approaches

Under the resource-to-resource and service-to-service approaches to scaling, the appropriate quantity of replacement natural resources and/or services is determined by obtaining equivalency between the injured and replacement natural resources and/or services, after appropriately discounting for differences in the timing of the injury and the replacement. Trustees must consider use of the resource-to-resource or service-to-service approach for actions that provide natural resources and/or services of the same type and quality, and comparable value to those injured.

Under the resource-to-resource or service-to-service approach, NOAA recommends use of habitat equivalency analysis, or comparable procedures, when injured natural resources and/or services are primarily of indirect human use (e.g., species habitat or biological natural resources for which human uses are primarily off-site). (See Appendix B at the end of this preamble for a description of habitat equivalency analysis.) If injured services are human uses (e.g., recreational services), then a behavioral model of human use may be used to determine the scale of the restoration action necessary to provide the appropriate level of human uses. For example, if the interim lost services are lost recreational beach days, then the restoration action may be designed to provide the requisite number of recreational beach days by, for example,

improving access to existing public beaches.

b. Valuation Approach

Where trustees have determined that resource-to-resource or service-to-service scaling is not appropriate, trustees may use the valuation approach to scaling. The valuation approach requires that trustees determine the amount of natural resources and/or services that must be provided to produce comparable value to the public as the loss in public value resulting from the injuries. The approach relies on the concept that lost value can be determined using one of a variety of possible units of exchange, including units of natural resource services or dollars. The valuation approach requires that the value of injured natural resources and/or services be measured explicitly, and that a restoration action provide natural resources and/or services of equivalent value to the public. To properly scale a restoration action, trustees might have to measure the values of varying sizes of the restoration action to determine the size of an action that will replace the value of injured natural resources and/or services. For proper comparison, all values lost or provided over time should be converted into present value terms by discounting.

The valuation approach may be implemented with separate calculations of losses and gains. A variety of valuation procedures is available for this purpose, including the travel cost method, factor income approach, hedonic price models, models of market supply and demand, contingent valuation, and conjoint analysis. (See Appendix B at the end of this preamble for descriptions of these procedures.)

Where feasible, trustees should use the same or similar valuation procedures for measuring the value of the injured services and the value of the services provided by the restoration actions. Trustees must ensure that bias is not introduced into the scaling calculations via the separate calculations of losses and gains, particularly when different valuation procedures are used.

Alternatively, it may be possible to implement the valuation approach with a single survey eliciting the direct resource-to-resource trade-offs between the injured natural resources and potential compensatory natural resources. Conjoint analysis, or contingent choice analysis, may provide suitable procedures for these measurements.

Trustees may use any reliable procedure suitable for scaling

compensatory restoration that meets the standards for acceptable procedures in § 990.27 of the rule. Where the circumstances are such that a site-specific application of a valuation procedure does not meet the reasonable cost criterion, the trustees may consider 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 restoration action.

If valuation of the natural resources and/or services provided by a compensatory restoration action could not, in the judgment of the trustees, be performed within a reasonable time frame or at a reasonable cost consistent with § 990.27(a) of the rule, the trustees may calculate the monetary value of the injured natural resources and/or services, and then select the scale of a restoration action that has a cost equivalent to the lost monetary value. However, the responsible parties may request that trustees value the natural resources and services provided by the restoration action, following the process outlined in § 990.14(c) of the rule.

c. Treatment of Uncertainty and Discounting

When scaling a restoration action, trustees should address the uncertainties associated with the predicted consequences of both the primary and compensatory restoration actions that will affect the level and duration of losses from the injury and gains from the compensatory restoration action. In addition, trustees must take account of the value of time in the scaling calculations by discounting 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 service value from the restoration action. The reference date for the discounting calculation is the date at which the demand is presented.

NOAA recommends that, where feasible, the trustees should use risk-adjusted measures of losses and gains, in conjunction with a riskless rate of discount reflecting the social rate of time preference for natural resources (i.e., the rate society is willing to substitute between present and future consumption of natural resources with certainty). Risk-adjusted measures of losses and gains take account of the fact that people tend to be risk averse, and must be compensated for bearing uncertainty. For example, it may be possible to compensate for uncertainty in outcomes from compensatory restoration actions with a larger scale action. Because of the difficulty in determining the rate of time preference

for goods (such as natural resources) that are not generally sold in a market, a real rate of three percent (3%) is recommended as a riskless rate, unless justification is presented for a rate more appropriate for the specific context. 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.

Existing economic literature suggests that three percent (3%) is a reasonable choice for the social rate of time preference, given that it is the middle of the range of values for the subjective rate of time preference implied by long-run growth models of the U.S. economy. Further, 3% is at the lower end of the range of the financial opportunity costs of consumption, which are relatively low for individuals who are net savers, and much higher for individuals who are net borrowers. The long-term average real after tax rate of return on 3-month Treasury bills, a proxy for a riskless savings asset, is around one percent (1%), though more recent rates are substantially higher (around 2% during the 1983–1994 period). Consumer borrowing rates depend upon the source of financing, but may exceed ten percent (10%) in real terms for many credit cards. Because consumers' use of natural resources does not occur primarily through market transactions, consumers do not necessarily adjust their inter-temporal consumption of natural resources in response to the relevant intertemporal financial trade-offs available to them; nonetheless, the financial opportunity costs provide an additional reference point.

The analysis should be conducted in real terms (e.g., in units of services, or in dollars of a specified base year). By definition, an analysis conducted in units of natural resources or services is in real terms. If the analysis is conducted in money value terms, then all money values should be specified in terms of the dollars of a specified base year. To adjust the measures of monetary losses or gains to dollars of the specified base year, the Consumer Price Index is most appropriate when the measure of losses is consumer surplus. Alternatively, for more generalized measures of losses or for future projections of inflation, trustees may use the Gross Domestic Product price index, for which the Administration predicts a time-series of future deflators every year. Sources of information for discounting are identified in the preamble discussion of discounting in the Implementation Phase.

C. Evaluation of Restoration Alternatives

1. General

Once trustees have developed a reasonable range of restoration alternatives, they must evaluate those alternatives. This evaluation is based, at a minimum, on:

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

Based on an evaluation of these factors, trustees must select a preferred restoration alternative(s). If the trustees conclude that two or more alternatives are equivalent based on the above factors, the trustees must select the most cost-effective alternative.

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 rule requires trustees to evaluate each alternative according to the factors listed above and identify a preferred alternative. NOAA believes this approach provides adequate protection against selection of an inappropriately costly alternative.

2. Pilot Restoration Projects

If the range of restoration alternatives under consideration is limited or poorly developed, or if a promising restoration action cannot be adequately evaluated without testing, trustees may implement pilot projects. Pilot projects should only be undertaken when, in the judgment of the trustees, these projects are likely to successfully provide information for the evaluation factors specified above at a reasonable cost and in a reasonable time frame. Examples of situations where pilot projects may be appropriate include application of a proven technology in a different habitat type, or using different species than those used in previous applications.

D. Restoration Plans

1. Purpose

After selecting a restoration alternative, trustees must prepare a Draft Restoration Plan. Development of a Draft Restoration Plan provides a vehicle for informing the affected and interested public of the results of the trustees' analyses and decisions, and encouraging public review. Public review can also supplement expert peer review when comments are solicited from various professional communities or other knowledgeable persons.

2. Draft Restoration Plan

A Draft Restoration Plan must include:

- (i) A summary of injury assessment procedures used;
- (ii) A description of the nature, degree, and spatial and temporal extent of injuries resulting from the incident;
- (iii) The goals and objectives of restoration;
- (iv) The range of restoration alternatives considered, and a discussion of how such alternatives were developed and evaluated under this rule;
- (v) Identification of the trustees' tentative preferred alternative(s);
- (vi) A description of past and proposed involvement of the responsible parties in the assessment; and
- (vii) A description of monitoring for documenting restoration effectiveness, including performance criteria that will be used to determine the success of restoration and need for interim corrective action.

When developing the Draft Restoration Plan, trustees must clearly define plan objectives that specify the desired outcome to be accomplished, and the performance criteria by which successful restoration will be judged. Trustees must, at a minimum, determine what criteria will constitute success such that responsible parties are relieved of responsibility for further restoration actions or necessitate corrective actions in order to comply with the terms of a restoration or settlement agreement.

Performance criteria include structural, functional, temporal, and/or 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 a marsh injured by oil could be described by performance criteria including the number of acres to be created, location, elevation of new habitat, species to be planted and details for planting such as

density, and time frame in which identifiable stages of the restoration action should be completed.

The types of parameters that should be addressed in monitoring include duration and frequency of monitoring needed to gauge progress and success, the level of sampling needed to detect success or the need for corrective action, and whether monitoring of a reference or control site is needed to determine progress and success. Reasonable monitoring and oversight costs cover those activities necessary to gauge the progress, performance, and success of the restoration actions developed under the plan.

3. Public Review and Comment

Public review and comment of both Draft and Final Restoration Plans will depend on the nature of the incident and any applicable federal trustee NEPA requirements, as described in §§ 990.14(d) and 990.23 of the rule, but must be sufficient to satisfy OPA's requirement for public involvement in planning restoration. Thus, trustees should consider such factors as the form of the involvement (e.g., a hearing, notice, or solicited comments), extent of public involvement (e.g., timing and frequency), and the forum for communicating with the public (e.g., local papers, the Federal Register, direct contacts to known interested parties).

4. 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 comments on the Draft Restoration Plan. In response to the comments, the trustees may need to modify the restoration alternatives being considered, develop and evaluate alternatives that have not been given serious consideration by the trustees, supplement, improve, or modify the analyses, make factual corrections, or 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, should clearly indicate all significant changes to the Draft Restoration Plan.

E. Use of a Regional Restoration Plan or Existing Restoration Project

The rule allows trustees to consider all or part of an existing Regional Restoration Plan or other existing, planned, or proposed environmental restoration project as one of the range of restoration alternatives, including natural recovery, evaluated to restore injuries resulting from a particular incident. Like any other restoration alternative considered, Regional Restoration Plans and existing restoration projects must be consistent with OPA's requirement that damages recovered be used solely to restore, replace, rehabilitate, or acquire the equivalent of injured natural resources and/or services. Regional Restoration Plans or other existing restoration projects meet this requirement if the plan or project will return injured natural resources and/or services to baseline and/or compensate for interim losses. Use of an existing plan or project may be considered as either a primary or compensatory restoration action under the rule, depending on the circumstances of the incident, injuries, and natural resources or services provided by the plan or project.

Under the rule, selection of an existing plan or project as the preferred restoration alternative requires that the plan or project had been developed with public review and comment, or is subject to public review and comment in accordance with the rule. The existing plan or project must also be demonstrated to provide a sufficient link to the incident in terms of the type and scale of natural resources and services provided by the plan or project.

The rule also allows trustees to recover partial funding of existing plans or projects from responsible parties, where a plan or project that represents the preferred primary or compensatory restoration for an incident will provide significantly greater levels of natural resources and/or services than those lost as a result of the incident. In these instances, trustees may request the scale of the restoration determined to be appropriate for the incident of concern. Trustees may pool such partial recoveries until adequate funding is available to implement the existing plan or project. Trustees must make diligent efforts to ensure that the selected project is implemented in a reasonable time following initial recovery of partial funding.

Subpart F—Restoration Implementation Phase

I. Introduction

After the completion of the Restoration Planning Phase, the trustees must: (i) close the administrative record that incorporates the Restoration Planning Phase and open a new administrative record for the Restoration Implementation Phase; (ii) present a demand for implementation or for damages to the responsible parties; (iii) establish an account to receive any payments from the responsible parties; and (iv) implement restoration. Additional actions that could occur during the Restoration Implementation Phase include filing an action for damages where the responsible parties refuse to implement or pay for restoration on receipt of the trustees' demand, or seeking an appropriation from the Oil Spill Liability Trust Fund, so that restoration can be implemented.

II. Administrative Record

Within a reasonable time after completing restoration planning under subpart E of the rule, 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, as a general matter, only add documents that:

(i) Are offered by any interested party that did not receive actual or constructive notice of the Draft Restoration Plan and the opportunity to comment on the Plan;

(ii) Do not duplicate information already contained in the administrative record; and

(iii) 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, at a minimum, 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 for potential use in any enforcement actions, such as seeking additional work from the responsible parties to comply with the restoration plan and implementing agreements. The record will also ensure an accurate and complete accounting of all actions and

costs associated with implementing the Final Restoration Plan.

The administrative record for restoration implementation should follow the same guidance for opening and maintaining the previous record, and for its availability as discussed in § 990.45 of the rule. The costs of maintaining the administrative record and making it available to the public are part of the costs of restoration.

III. Presenting a Demand for Damages to the Responsible Parties

If the trustees and responsible parties have successfully implemented cooperative restoration planning, the responsible parties will have thorough knowledge of the trustees' preferred restoration alternative(s) and associated costs. In the best circumstances, the responsible parties will already have entered into an enforceable agreement to either pay assessment costs and the costs associated with implementing the Final Restoration Plan, or to implement the Plan according to trustee performance criteria and with trustee oversight and reimburse trustees for assessment and oversight costs. Any such existing agreements with the responsible parties should be described in the Draft and Final Restoration Plans.

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

After completion of restoration planning under subpart E of the rule, the trustees must present a demand in writing asking the responsible parties either to:

(i) Implement the Final Restoration Plan or component of a Regional Restoration Plan or existing restoration project, subject to trustee oversight, and reimburse the trustees for their assessment and oversight costs; or

(ii) Advance to the trustees a specified sum representing assessment costs and the trustees' estimate of all direct and indirect costs associated with developing and implementing the Final Restoration Plan or some component of a Regional Restoration Plan or an existing restoration project, discounted as provided in § 990.63 of the rule.

When the trustees use a Regional Restoration Plan, as provided in § 990.56 of the rule, the demand will invite the responsible parties to implement a component of a Regional Restoration Plan or existing restoration project or advance the trustees' estimate of damages based on the scale of the restoration determined to be appropriate for the incident of concern. To avoid

litigation, the responsible parties must respond within ninety (90) calendar days in writing by paying or providing binding assurance they will reimburse trustees' assessment costs and implement the plan or pay assessment costs and the trustees' estimate of the costs of implementation.

The demand must also include: identification of the incident from which the claim arises; identification of the trustees asserting the claim and a statement of the statutory basis for their trusteeship; a brief description of the injuries for which the claim is being brought; the index to the administrative record; the Final Restoration Plan or Notice of Intent to Use a Regional Restoration Plan or Existing Restoration Project; and a request for reimbursement of reasonable assessment costs, as defined in § 990.30 of the rule and discounted as provided in § 990.63(b) of the rule; the cost, if any, of conducting emergency restoration under § 990.26 of the rule, discounted as provided in § 990.63(b) of the rule; and interest on the amounts recoverable, as provided in section 1005 of OPA (33 U.S.C. 2705), which allows for prejudgment and post-judgment interest to be paid at a commercial paper rate, starting from thirty (30) calendar days from the date a demand is presented until the date the claim is paid.

IV. Discounting and Compounding Components of the Claim

A. General

Discounting is necessary for the trustees to be able to present a claim for a "sum certain," as required by section 1001(3) of OPA (33 U.S.C. 2701(3)). The reference date for the discounting calculations is the date at which the demand is presented. Trustees must discount future restoration costs back to the present and compound assessment and emergency restoration costs already incurred forward to the present. The use of discounting in scaling restoration actions is discussed separately in subpart E of the rule.

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 tribal claims for past damage assessment and restoration costs, the state or Indian tribe may use the state or 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 past emergency restoration and assessment costs, trustees should use U.S. Treasury rate as the discount rate and represent the costs in nominal terms, since the nominal interest is observed and past costs are likely to be denominated in nominal terms. Anticipated inflation can be incorporated in estimates of future restoration costs with an appropriate inflation index.

B. Estimated Future Restoration Costs

Most restoration actions will be carried out over a period of years. If funds are insufficient to cover the full costs of restoration, including post-implementation maintenance and monitoring operations, natural resource and service recovery will be incomplete, and the public will be deprived of full compensation for the injuries. NOAA recommends that, for discounting future restoration costs, trustees specify future restoration costs in nominal terms (i.e., in terms of dollars of the year in which the costs will be incurred) and then discount the nominal costs using 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 specify 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 component-specific inflation indices are unavailable, the Gross Domestic Product price index may be used.

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, trustees should structure the claim to ensure that sufficient funds will be available to fund the entire selected restoration alternative. 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 parties carry out the restoration actions, the trustee restoration costs to be discounted will be substantially reduced, but they will

not be eliminated because trustee monitoring and oversight costs will still be included in the claim.

C. Past Assessment and Emergency Restoration Costs

Past assessment and emergency restoration costs may accrue from the time of the incident to the date of the demand. 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 compound rate for past costs incurred should reflect the opportunity cost of the money spent, NOAA recommends that the trustees use the actual U.S. Treasury rate for marketable securities of comparable maturity to the period of analysis for discounting this component of the claim. NOAA acknowledges that, at the discretion of the trustees, a state or tribal borrowing rate may be used to compound the state or 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, as well as guidance in calculation procedures, are reported in regular updates of Appendix C of Circular No. A-94, available from the OMB Publications Office (202-395-7332).

V. Unsatisfied Demands

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 seek an appropriation from 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 (3) years after the Final Restoration Plan or Notice of Intent To Use a Regional Restoration Plan or Existing Restoration Project is made publicly available, in accordance with the statute of limitations for natural resource damages under OPA (33 U.S.C. 2717(f)(1)(B) and 2712(h)(2)).

VI. Opening an Account for Recovered Damages

Section 1006(f) of OPA (33 U.S.C. 2706(f)) requires that sums recovered by trustees in satisfaction of a natural resource damage claim 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 all or an appropriate component of a Regional Restoration Plan or existing restoration project.

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 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, if such action would be consistent with the terms and objectives of the restoration plan. These accounts should be interest-bearing, revolving trust accounts.

Trustees may establish escrow accounts or any other investment accounts, if otherwise authorized by law. Funds in such accounts must only be used as specified in section 1006(f) of OPA (33 U.S.C. 2703(f)).

Trustees must maintain appropriate accounting and reporting procedures 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 made part of the administrative 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, as provided in section 1006(f) of OPA (33 U.S.C. 2706(f)).

VII. Additional Considerations

A. General

As discussed throughout the 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 may characterize the Restoration Implementation Phase, including establishment of a trustee committee and/or Memoranda of Understanding, development of more detailed workplans for the conduct of restoration actions, monitoring and oversight, and evaluation of restoration success or need for corrective actions.

B. Trustee Committee and/or Memorandum of Understanding

In many instances, it is likely that a trustee committee and/or a Memorandum of Understanding or other agreements 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 authorizing expenditures from a joint account, participating in monitoring and oversight of restoration actions, evaluating performance criteria for restoration actions, and making the determination that the goals and objectives of the Final Restoration Plan have been achieved or determining the type of corrective actions that need to be pursued, and ensuring that these actions are implemented.

C. Detailed Workplans

Depending on the incident and the restoration alternative(s), detailed workplans for accomplishing restoration goals and objectives may have been developed during the Restoration Planning Phase. Clearly, as many details outlining 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 presenting the demand or settling a claim.

D. Monitoring and Oversight

Reasonable monitoring and oversight costs are included in recoverable damages. A well-designed and executed monitoring and oversight plan is required to assess progress toward the stated goals and objectives of a restoration plan. Reasonable monitoring and oversight costs are limited to those costs necessary to determine restoration success, or the need for, type of, and scale of corrective actions. Monitoring should be designed around performance criteria that will indicate success of restoration.

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.

In some cases, pilot projects 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 contingencies that could not be fully anticipated at the time of the settlement. These funds would then be used for future actions, 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 type 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.

TREATMENT OF COMMENTS

Extension of Comment Period

Comment: Several commenters requested a 60-day extension in the public comment period. These commenters stated that an extension was required to strike the proper balance between the time allotted for

the public's review and comment, and the time needed for a thorough analysis of comments on the proposed rule. According to some commenters, the public's interest in having an adequate opportunity to review and comment on regulatory initiatives under the Administrative Procedure Act (5 U.S.C. 551-59, 701-06) should not be compromised by the establishment of arbitrary deadlines. One commenter requested that the comment period be extended for at least 60 days after the last of the guidance documents is made available for public review, as a thorough understanding and review of the guidance documents are essential to adequately present comments on the proposed rule.

Response: NOAA has made every effort to consider all comments submitted on the 1994 proposal, the August 3, 1995, proposed rule, and comments expressed during the conferences held in August and September of 1995. NOAA believes that the rule describes the assessment process in sufficient detail, including listing of decision points, determinations, decision criteria, and standards for selection of procedures such that the guidance documents are truly complementary, and not required to understand how to plan assessments in accordance with this rule.

Subpart A

Section 990.10—Purpose

Comment: Many commenters supported the scope and direction of the new proposal. Some of these commenters specifically noted that the focus on restoration is a positive change. One of these commenters stated that this approach will provide increased flexibility and improve cooperation among trustees and responsible parties in achieving restoration. Other commenters noted that this proposal is simpler and more straightforward. Several of these commenters in particular supported the move away from the use of claims based upon monetization of natural resource values.

Response: NOAA notes and appreciates the support from the commenters for the scope and direction of the rule.

Comment: While supportive of the new direction of the rule, one commenter pointed out that, as a federal agency, NOAA should recognize its fiduciary duty to Indian tribes and tribal natural resources, and take care not to impinge upon the ability of the tribes to recover damages.

Response: NOAA believes the rule's restoration focus will better facilitate

recovery of damages, while still allowing trustees, including tribes, the discretion to apply whatever assessment approach is most appropriate to the particular natural resources and services injured by a given incident.

Comment: Another commenter suggested that NOAA should consider reserving troublesome sections of the rule for future development, perhaps through one or more Federal Advisory Committee Act (5 U.S.C. App. 2) groups.

Response: NOAA does not believe that any provisions of the rule are so wholly problematic to warrant the treatment suggested by the reviewer. NOAA believes that the process embodied in the rule will facilitate development of appropriate solutions to some questions that can only be answered on an incident-by-incident basis.

Comment: One commenter stated that the new approach is an untried theory, thus it is unclear whether this approach would be better or worse than the approach under the CERCLA rule. Another commenter suggested that the provisions in the proposed rule are vague, that critical terms are undefined, and insufficient guidance is provided for implementation of the approach. Another commenter noted that the proposed rule fell short of providing trustees with a balance of discretion and constraint needed to apply the still-developing science of natural resource damage assessment within the dictates of the law.

Response: NOAA notes that the approach embodied in the rule is far from untried, rather it embodies the approaches taken in some of the most successful cooperative settlements reached to date. Trustees, responsible parties, and interested members of the public must be afforded the ability to respond to injuries resulting from incidents that can vary greatly from incident-to-incident; in this respect, natural resource damage assessment will never be a static field. NOAA has defined more terms in the final rule. The rule provides technical and legal boundaries within which assessments must fall to be in compliance with OPA. For instance, restoration must be necessary and linked to the injuries from an incident under the rule. Finally, assessment procedures must be technically appropriate for the circumstances of an incident while providing information of use in determining restoration needs.

Comment: Some commenters argued that the excessive and arbitrary assessments anticipated, given the rule's unlimited grant of discretion to trustees, will result in unnecessary financial

burdens that cannot be borne by the maritime industries. Some commenters suggested that the effect of the rule will be to rid from U.S. waters all forms of water craft, as well as to freeze businesses potentially liable under the rule. Another commenter suggested that the potential large recoveries allowed by the rule could threaten the ability of private individuals and businesses who suffer quantifiable economic losses as a result of incidents to obtain full and fair compensation for their losses.

In contrast, several commenters argued that the new proposal is significantly weaker than the 1994 proposal, with no justification except industry pressure for an untested restoration-based approach instead of the well-tested and supported economic valuation procedures. The commenters suggested that this approach will lead to greater delays in prosecuting and settling cases and that, to conform with the intent of Congress, the rule must allow trustees greater discretion in choosing assessment procedures or restoration options.

Response: The intent of the rule is solely to ensure that natural resources and their services that are injured, destroyed, or lost as a result of an incident will be restored where there is a need to do so, and where feasible and cost-effective means to accomplish restoration are available. The rule's focus on restoration will eliminate unneeded assessment studies and prevent unnecessary adversarial conflicts over misunderstood goals of trustees. This rule invites responsible parties to act cooperatively and responsibly to seek expeditious and cost-effective restoration, while clearly constraining trustees' actions to those necessary to achieve OPA's restoration goals. Thus, costs and damages will not be excessive or unpredictable. The rule has no relation to private party claims that may be brought against responsible parties under OPA, but the cost savings expected under the rule from cooperation alone should alleviate fears that some third parties will go uncompensated. In any event, uncompensated third party claims may be presented to the Oil Spill Liability Trust Fund.

Section 990.11—Scope

Comment: One commenter requested that the rule clarify that its provisions apply only to assessments being conducted under this rule, not other causes of actions, for example causes under federal admiralty or maritime law.

Response: NOAA has explicitly stated in the rule that the various provisions of

this rule would apply only to assessments being conducted under this rule for purposes of bringing a natural resource damages claim pursuant to OPA and thus do not affect claims brought under other authorities.

Comment: One commenter stated that the rule should provide guidance on how to distinguish trustee claims on behalf of the public from private causes of action, particularly when natural resource injuries are caused indirectly by an incident on private property.

Response: It is not possible for NOAA to describe all instances where trustee and private party claims may appear to be duplicative. NOAA notes that the rule requires that trustees determine their jurisdiction to proceed under the rule, which includes a determination that the trustees have relevant responsibility over natural resources, as defined under OPA, that are expected to be injured by an incident. However, the preamble now includes guidance in the discussion of § 990.22 for trustees to avoid double recovery of damages with private parties.

Comment: A number of commenters remarked on NOAA's inconsistent reference to what may be assessed and what may be restored under the rule, by interchangeably using the terms "natural resources and/or services," and "natural resources or services." Similarly, the commenters suggested that the proposed rule inconsistently referred to OPA's goal as making the "environment and public whole," or simply making "the public whole."

Response: The rule has been clarified to reflect OPA's intent to make the environment and public whole for injuries resulting from an incident. This intent is clear in OPA's reference to natural resources themselves as the focus of restoration, and in the distinction between restoration costs and diminution in value as elements of a claim for damages. Complete and expeditious restoration may be the best way to make both the environment and public whole.

Section 990.13—Effect of Rule

Comment: One commenter questioned why, if a foreign entity is a trustee under OPA, such entity cannot receive the rebuttable presumption.

Response: OPA does not, by its terms in section 1006(c)(1) (33 U.S.C. 2706(c)(1)), grant the rebuttable presumption to foreign trustees.

Comment: Some commenters noted that the preamble description of the meaning of the rebuttable presumption, i.e., that the responsible party has the burden of proving that the trustees' claim and determinations are incorrect,

is wrong. Instead, the commenters stated that the rebuttable presumption is overcome when the preponderance of the evidence indicates a different result. Similarly, other commenters argued that section 1006(e)(2) of OPA (33 U.S.C. 2706(e)(2)) describes the rebuttable presumption as applying only to the determination or assessment of damages, therefore it is only the final amount of damages, not the particular steps taken to reach that result that receive the rebuttable presumption.

Response: NOAA has revised the rule to incorporate the statutory language describing the provision of a rebuttable presumption for assessments. In response to the comment regarding the meaning of such a provision, NOAA interprets this presumption to mean that the responsible parties have the burdens of presenting alternative evidence on damages and of persuading the fact finder that the damage assessment presented by the trustee(s) is not an appropriate measure of damages.

Comment: Several commenters expressed strong support for the provision found in § 990.20(b) of the proposed rule extending the rebuttable presumption to state, local, and tribal assessment procedures. Some of these commenters noted that this will promote consistency by providing an incentive for the development and use of state and tribal procedures that are consistent with the federal approach, thus benefiting responsible parties who deal with trustees from different regions of the country. One commenter noted that the five listed requirements for consistency with the proposed OPA rule are straightforward and should aid state, local, and tribal trustees in efficient implementation of the rule. Other commenters supported the provision, but suggested that the rule explicitly include compensation schedules, models, and procedures that estimate expected injuries in the language of this section. One commenter was concerned that it is unrealistic to expect any given procedure will not conflict in some way with the proposed OPA rule.

In contrast, several other commenters strongly objected to extending the rebuttable presumption to state, local, or tribal assessment procedures as being contrary to OPA. These commenters stated that the criteria provided in the rule are far too general to constitute substantive standards for the performance of assessments. The commenters argued that NOAA has no authority to define the scope of the rebuttable presumption since it is not a regulatory issue implicating the assessment of damages, but is within the exclusive province of the federal courts

to address. The commenters stated that Congress intended the rebuttable presumption to attach only to assessments performed under section 1006(d) of OPA (33 U.S.C. 2706(d)), and only according to substantive standards promulgated by NOAA, and that NOAA may not delegate this authority. One other commenter argued that it would be unfair to allow the rebuttable presumption for the plethora of assessment procedures now available.

Response: NOAA has revised § 900.20 of the rule and removed the explicit reference to state, local or tribal assessment procedures. NOAA agrees that determining the scope of application of the rebuttable presumption is not a necessary task in promulgating this rule. However, NOAA notes that existing procedures that may be applicable to assessing natural resource injuries and restoration needs may be used for assessments under this rule, regardless whether those procedures were promulgated under state laws respecting natural resource damage assessment, developed through private scientific research, or developed or adapted by the parties assessing the injuries of a particular incident. It is not feasible to identify all assessment procedures, nor the varied ways of applying such procedures, that will constitute reliable and valid technical application for all potential incidents. Thus, this rule specifies standards, in § 900.27, that must be met in order for any particular procedure to be used and deemed in accordance with this part.

Comment: One commenter stated that the rule does not provide sufficient guidance to determine whether trustees' discretionary actions are cost-effective, technically feasible, or in accordance with generally accepted scientific practices. Therefore, assessments conducted pursuant to this rule should not be granted a rebuttable presumption. Another commenter, also arguing that it would be unfair to grant a presumption to procedures that are speculative and unproven, suggested that implementation of the rebuttable presumption be delayed until there is more experience with restoration and valuation procedures.

Response: NOAA believes that the rule does provide the appropriate constraints and standards for fashioning assessments that will be technically sound, cost-effective, and reliable. The assessment focuses on determining only the types and amounts of restoration required given the particular injuries resulting from individual incidents. A requirement to use "generally accepted scientific practices" would result in overly-costly assessments in most

instances, as the goals of research science may be different than the goals of science for purposes of natural resource damage assessment and restoration. Finally, procedures cannot be deemed to be reliable or unreliable out of context; the merits of different procedures will vary depending on how they are proposed to be used in a given incident scenario. This judgment will be made by trustees, in an open record atmosphere, with input from responsible parties and the public.

Use of Other Assessment Procedures, and the Scope of the Rebuttable Presumption

Comment: Several commenters took issue with the provision in the proposed rule that allowed the rebuttable presumption to apply to other procedures in lieu of or in addition to the process described in this rule so long as the other process is "in accordance with this part." The commenters stated that Congress intended the assessment to function as an integrated unit with each step in the process leading logically to the next. The commenters also cited the *Ohio* decision (*Ohio, et al., v. U.S. Department of the Interior*, 880 F.2d 432 (D.C. Cir. 1989)) as specifically emphasizing that the rebuttable presumption is particularly appropriate given adherence to all of the regulatory procedures that, in their totality, result in a logical, disciplined, efficient, and cost-effective assessment. Several commenters argued that such a provision is contrary to the statutory goal of cost-effectiveness. Some commenters also found the language of the provision both confusing and internally inconsistent because it would be impossible for "another" process, which is a process other than one included in the rule, to still be a process that is "in accordance with" the rule.

Response: To eliminate confusion, NOAA has deleted the section referring to other procedures from the final rule. The rule provides procedural and substantive standards in § 900.27 that must be complied with in order for an assessment to be judged "in accordance" with this rule. Trustees must demonstrate that their assessments are in accordance with this rule on an incident-by-incident basis in order to obtain the rebuttable presumption.

Section 900.14—Coordination

Coordination Among Trustees

Comment: Several commenters argued that the rule should require, and that OPA mandates, trustee coordination during assessments to avoid an

adversarial and litigation-charged atmosphere among trustees and prevent double recovery of damages. Another commenter suggested that the rule limit the number of trustees to those who have clear restoration concerns for a particular incident. Some commenters suggested that the rule deny the rebuttable presumption to trustees who do not coordinate, while others suggested that an affirmative proof burden of certifying a lack of double recovery should be placed on non-coordinating trustees. Some commenters requested that model MOUs for trustee coordination be included in the rule, while others who support trustee coordination and incident-specific coordination agreements, applauded the omission of any model agreements.

Response: Changes to the rule state that trustees should coordinate their assessments in order to ensure there is no double recovery of damages. NOAA believes that any claimant that files what appears to be a duplicative claim for natural resource damages against a responsible party will face a substantial burden of proof to demonstrate that the claim has not already been satisfied. NOAA notes, however, that it is conceivable that claims for distinct natural resource injuries resulting from an incident could be effectively processed independently by trustees without double recovery of damages. Finally, NOAA strongly supports development of agreements among trustees, but realizes from experience that it is not feasible to specify a single workable model for all trustees, locales, and incidents.

Comment: Several commenters supported the designation of a Lead Administrative Trustee (LAT), so long as the rule provides flexibility in this designation. These commenters suggested that the rule allow for co-LATs or sequential LATs, recognizing that one trustee may be the lead for restoration planning while another trustee might be the lead for the implementation phase. One of these commenters stated that designation of an LAT should not be mandatory. Another commenter suggested that, in cases where an incident affects multiple trustees, the state trustee should be the LAT because of superior knowledge of "local" natural resources. Still other commenters argued that the rule should vest arbitration authority in a lead trustee, citing the *Ohio* decision as stating that such a provision is "entirely reasonable." The commenters stated that arbitration authority would be essential to settling disputes among trustees, which might disrupt

cooperative efforts among trustees and responsible parties.

Response: It has been NOAA's experience that an LAT is essential to efficiently and cost-effectively manage most assessments. Executive Order 12,777, section 1 (56 FR 54757, October 22, 1991), requires Federal trustees to designate one trustee to act as Lead Administrative Trustee for incidents at which more than one federal trustee is involved. NOAA has amended the rule to allow for co-LATs or sequential LATs. NOAA does not believe it is necessary, advisable, or within legal authority to mandate that state trustees always serve as LATs. Finally, NOAA believes it is unnecessary to provide for arbitration or veto authority in a single trustee, given the experience that demonstrates trustees have been successful in a consensus decisionmaking approach to assessments.

Comment: One commenter specifically asked that the rule address the issues associated with a trustee agency who might also be a responsible party at an incident. The commenter suggested that the trustee/responsible party would want to work closely with co-trustees to develop a restoration strategy, but recognizes that, in doing so, would open itself up to the risk of shared information being used against it as a responsible party. The commenter also asked if the co-trustees could exclude the trustee/responsible party from the assessment if the trustee/responsible party could not afford to fund the assessment activities. Other commenters stated that the rule should specifically preclude a trustee agency that is also a responsible party for a particular incident from being eligible to be an LAT for that incident. The commenters suggested that such a provision would avert conflicts of interest, minimize problems of public perception, and help the trustee/responsible party fulfill its dual obligations.

Response: NOAA notes that the rule cannot exclude participation by any trustee. Where a trustee is also a responsible party, all of the co-trustees may want to determine among themselves the nature and extent of involvement by any given trustee. Generally, participation should not be denied unless it would impede the assessment or be an inherent conflict of interest.

Coordination With Response Agencies

Comment: One commenter suggested that the rule explicitly state that restoration actions by trustees are intended to supplement the initial

response and cleanup activities of response agencies. Another commenter suggested that the rule require that response agencies coordinate with trustees.

Response: NOAA agrees that restoration actions by trustees are intended to supplement the initial response and cleanup activities of response agencies. NOAA believes that response agencies and trustees should coordinate during the response phase to prevent or minimize residual injuries to natural resources that would require restoration. However, OPA does not grant NOAA authority to place requirements on response agencies.

Coordination With Responsible Party

Comment: Several commenters stated that early and substantial involvement of the responsible party in the assessment would significantly reduce the threat of litigation and facilitate cost-effective, feasible restoration. Some of these commenters, however, stated that the rule language is somewhat ambiguous and vague as to the timing and extent of that participation, as well as the extent of the trustees' discretion in excluding or refusing to continue responsible party participation. These commenters suggested that the rule should provide for mandatory participation by the responsible party, unless the trustee can demonstrate that such participation will interfere with trustees' fulfilling their responsibilities under the rule and OPA. One of these commenters suggested that the rule provide that the parties seek mediation if reasonable disagreements develop, to prevent trustees unfairly characterizing the responsible party as interfering. Another commenter stated that the responsible party should be involved in the entire process as soon as trustees arrive on site and that the trustees should not be allowed to exclude a responsible party unless there is clearly documented evidence that the responsible party is intentionally undermining the process. Another commenter suggested that the rule encourage the parties to enter into an agreement respecting the coordination of responsible party participation, with trustees prohibited from imposing conditions that are not directly related to the efficient coordination of the process.

Other commenters expressed concerns with participation by the responsible party. These commenters argued that the rule should ensure that trustees have the discretion as to whether, when, and how the responsible parties are permitted to participate and when the trustees will

be able to dismiss a responsible party that is interfering with the process. One commenter also suggested that the decision to exclude a responsible party from the process should not be reviewable, so that trustees would not have to divert time and resources in defending that decision. Several commenters stated that the rule needs to be consistent among sections in the provisions for responsible party participation. Some commenters pointed out that the responsible party's role is unique from that of the public represented by the trustees, in that the responsible party has an interest in protecting the investment of its owners and stock holders, and that this natural conflict of interest should be acknowledged by the rule.

Some commenters suggested additional or alternative considerations for responsible party participation, including the level of cooperation provided by a particular responsible party in prior incidents and the willingness of the responsible party to defer to the trustees' final decisions. Other commenters stated that the responsible party should be subject to the same administrative record rules as the trustees and, therefore, be precluded from assembling experts and data outside the public process. One commenter noted that a need for funding should not be a determining factor in involving the responsible party in the assessment, while another commenter stated that the rule should require that the responsible party fund the assessment, requiring that the responsible party place the trustees' estimate of costs in escrow.

Response: NOAA believes that open and cooperative assessments performed by trustees and responsible parties can result in the most expeditious and cost-effective assessments and restoration. NOAA has clarified the rule to require trustees to invite identified responsible parties to participate in the assessment as early as practicable, but no later than issuing the Notice of Intent to Conduct Restoration Planning. NOAA has also clarified the rule to indicate that it is within trustees' authority to determine to what extent responsible parties may participate, and that trustees can terminate or limit responsible party participation if it interferes with trustees fulfilling their statutory obligations. The rule specifies that the minimum level of participation that will be afforded to responsible parties is notification of all determinations required by trustees under the rule, and notice and comment opportunity on all documents that may significantly affect the direction or outcome of assessment decisions. In no

event may trustees delegate essential statutory decisionmaking powers to responsible parties. The rule also now includes guidance, such as that suggested by the commenters, to determining the nature and extent of responsible party participation. Responsible party funding is not a precondition to their participation. The rule also strongly encourages formal agreements between trustees and responsible parties so as to ensure cooperation and cost-effectiveness. The parties are encouraged to reach agreement on a list of facts, such as the natural resources injured, the extent of injury, the most appropriate assessment procedures to determine injury and/or restoration needs, and how the results of the procedures will be interpreted.

Public Involvement

Comment: Several commenters noted that public involvement should be clearly designed so as not to detract from the primary goal of restoration in a timely manner. One commenter suggested a graded approach to public involvement. Some commenters noted the potential expenses of public involvement. One of these commenters stated that increased costs of public outreach efforts should be explicitly included in recoverable assessment costs or trustees will be unable to comply with these requirements. Another commenter stated that trustees should be required to give notice to the responsible party regarding the stages at which opportunities for public involvement will be provided. One commenter, however, stated that the rule should expand the provisions for public involvement and allow such involvement in several stages of the process.

Response: Public involvement is required by OPA in development of restoration plans. NOAA considers that this requirement will be fulfilled by allowing, at a minimum, opportunities for public involvement in development of draft and final restoration plans that will form the basis of any claim for damages. However, NOAA notes that it may be advantageous or necessary to seek broader public input, depending on the circumstances of a particular incident, particularly when that input can be obtained from members of the public that may have particular expertise concerning the affected environment or proposed assessment or restoration approaches. NOAA is mindful that restoration decisions made by trustees are made on behalf of the public, so public involvement should augment the decisionmaking process. Involving the public does not need to be

excessively costly if it is well-planned and tailored to the incident. The costs of public involvement required by OPA are recoverable assessment costs. Finally, as a member of the affected public, responsible parties will be notified when trustees seek public input.

Section 990.15—Facilitation of Restoration

Comment: Several commenters expressed strong support for pre-incident planning, some stating that such exercises should be required by the rule. Some of these commenters pointed out that the rule should encourage involvement of response agencies, natural resource managers, and area industry representatives in the planning process. The commenters also requested that the rule clarify how these plans might be coordinated with or included in Area Contingency Plans or U.S. Fish and Wildlife Service Recovery Plans and Habitat Conservation Plans. One commenter specifically suggested that the rule add consideration of pre-incident baseline and injury data-collection procedures and protocols to the list of possible pre-incident planning activities. One commenter asked for clarification as to whether pre-incident planning would be subject to NEPA.

Response: NOAA has clarified the rule to indicate that potentially responsible parties, appropriate response personnel, local governmental natural resource management entities, and local environmental groups or representatives should be included in any pre-incident planning. NOAA does not believe it has the authority to mandate pre-incident planning under this rule, but does note that Area Contingency Plans or U.S. Fish and Wildlife Service Recovery Plans and Habitat Conservation Plans may provide an efficient focal point for structuring pre-incident damage assessment planning. Finally, NOAA does not believe that pre-incident planning is subject to NEPA, except where Regional Restoration Plans serve as, or become part of, a programmatic Environmental Impact Statement process.

Comment: One commenter supported further development of Regional Restoration Plans with extensive federal and state natural resource agency coordination. The commenter noted, however, that funding for such planning activities is in question and asked for any information on available funding sources for such plans, other than recovered damages.

Response: NOAA believes that activities such as identifying planned,

proposed, or desired environmental restoration projects, particularly for areas expected to be injured often or severely by incidents, can provide a highly cost-effective means to identify appropriate restoration alternatives for particular incidents. NOAA suggests that development of these project databases can be a useful addition to pre-incident planning activities. Funding for these activities may come from a variety of sources such as joint funding by trustees and those parties potentially liable under OPA for restoration. Regional restoration planning in some areas is already being performed pursuant to other authorities, such as the National Estuary Program Plans.

Section 990.16—Review of Rule

Comment: Some commenters expressed support for NOAA's commitment to review and revise this rule every five years, especially with the need to keep the OPA rule consistent with the CERCLA rule, which is reviewed every two years.

Response: NOAA has determined that the specific five-year review provision is unnecessary. NOAA is committed to maintaining the accuracy and relevance of the assessment process described in the rule and will make every effort to keep it current.

Subpart B

Section 990.20—Relation to CERCLA Rules

Comment: Several commenters spoke of the need for consistency between the OPA and CERCLA rules, with one reviewer stating that the proposed OPA rule does not seem to be coordinated with the CERCLA rule. Another commenter asked, given that the OPA rule is substantially different from the CERCLA rule, whether DOI will incorporate OPA rule changes into its regulation so that it is effective for incidents inland and in the Great Lakes areas, or whether trustees and responsible parties have to operate within two separate processes. Another commenter suggested that the OPA rule is confusing in its discussion about where the OPA rule will supersede 43 CFR part 11.

Response: The Department of the Interior participated in the interagency working group that drafted and reviewed the OPA rule. Thus, NOAA and DOI took advantage of the experience gained in applying the CERCLA rules. The rule was also formulated in recognition of the differences between oil and hazardous substances, and the different nature of

the incidents involving these two types of products. NOAA has referred questions regarding incorporation of OPA rule provisions into the CERCLA rule to DOI. However, it should be noted that the OPA rule does apply to incidents in all navigable waters, which would include inland incidents and incidents in the Great Lakes. NOAA has clarified the rule to incorporate statutory language regarding where the OPA rule supersedes 43 CFR part 11.

Comment: One commenter questioned whether coal tar and other coal-derived chemicals are more appropriately classified as hazardous substances, and covered by CERCLA rule, rather than the OPA rule.

Response: NOAA notes that whether coal tar and other coal-related chemicals are oils or hazardous substances is an on-going issue that is being evaluated by the federal agencies implementing OPA.

Section 990.22—Prohibition on Double Recovery

Comment: One commenter suggested that requiring consideration of independent actions of other trustees may not be possible if trustees are acting separately rather than together.

Response: Trustees must diligently avoid double recovery of damages. In NOAA's experience, the identity of other trustees with interests in incidents has always been ascertainable early in the process, thus facilitating efforts to coordinate assessment objectives and activities.

Section 990.23—Compliance With NEPA and the CEQ Regulations

Comment: Some commenters noted that rigid compliance with NEPA notice requirements may not be desirable or necessary for incidents involving non-federal trustees, and that these notice activities should be optional at trustees' discretion. The commenters also suggested the rule should explicitly state that the provisions of the rule fulfill the public notice requirements of NEPA, even without providing the Notice of Intent to Conduct Restoration Planning.

Response: The rule has been amended to indicate that NEPA compliance is solely a federal trustee requirement, and that the procedures entailed in compliance will vary depending on the identity of federal trustees involved and their regulations governing their own NEPA conduct. The notice requirements contained in various sections of the final rule are not related solely to NEPA compliance, but are important elements to facilitate the open and cooperative process envisioned in this rule and OPA.

Section 990.25—Settlement

Comment: Some commenters were concerned that the U.S. Department of Justice (DOJ) will impede settlements, that state trustees can restore natural resources in a more efficient manner through administrative agreements, and that the rule should provide guidance for the scope and timing of DOJ participation. One of these commenters suggested that DOJ taking 3% of settlement sums for participation is unwarranted and, perhaps, an improper use of restoration money.

Response: Except where explicitly provided by statute, only the Department of Justice has the authority to compromise claims of the United States. One of these exceptions, applicable to some federal trustees operating under OPA, is a provision allowing executive agencies to compromise claims within their authority when such claims do not exceed \$100,000, or such other amounts as the Attorney General may from time to time prescribe (33 U.S.C. 3711). The Department of Justice plays a vital role in ensuring that the laws of the United States are applied similarly by different federal agencies. The costs to the Department of Justice of collecting recoveries for claims of the United States in civil litigation, as authorized by H.R. 2519 (November 16, 1993), should be included in the estimated costs of the assessment so that restoration money is not impacted.

Comment: Several commenters disagreed with the rule's provisions concerning terms of settlements. One commenter argued that the decision to accept such a settlement should be within the discretion of a trustee, so long as it is reasonable and justified. Some commenters stated that this provision could be read as establishing substantive standards to govern adequacy of a settlement, which would be inappropriate and outside NOAA's authority. Several of these commenters suggested that the rule simply provide that settlement sums may only be expended in accordance with a restoration plan that is made available for public review.

Response: NOAA has revised the settlement provision, now § 900.25, to reflect the standard of review that federal courts have used in reviewing natural resource damage assessment settlements under other laws, and settlements by federal agencies in general. Federal courts will look favorably upon the determination by an agency entrusted with authority to prosecute laws that a settlement of a claim is in the public interest—that it is

fair, reasonable, adequate, and consistent with the purposes of the governing statute. With respect to OPA, NOAA expects that a court will look to see that a trustee has made a determination of the adequacy of the settlement to restore, rehabilitate, replace, or acquire the equivalent of the injured natural resources and services. NOAA recognizes that in reviewing an agency's action in accepting a settlement a court will also look to such factors as litigation risk, time and expense to litigate, and advantages to obtaining an immediate recovery through settlement, rather than through litigation.

Section 990.26—Emergency Restoration

Comment: One commenter argued that the On-Scene Coordinator (OSC) must authorize emergency restoration and that trustees act in a consultative role during the removal phase. Another commenter suggested that any emergency restoration action had to be tied into the National Response System to alleviate any potential contradictory actions or interference with the OSC's actions. One commenter suggested that trustees do not have independent authority to act or intervene in response activities during that phase. This same commenter noted, however, that the requirement that responsible parties and the public be notified of emergency restoration actions, with the responsible parties additionally being invited to participate, will tend to foster cooperation and trust. Another commenter asserted responsible parties should be invited to participate at first notice of an emergency, not within a "reasonable time frame." Several commenters supported allowing responsible parties to implement emergency restoration. Another commenter suggested that notice to the public or responsible parties should be discretionary due to the time-sensitive nature of such actions.

Response: NOAA fully agrees that any actions conducted during the response phase should not interfere with nor be independent of the OSC's activity. The rule is clear that the OSC must be notified prior to implementation of emergency restoration actions by trustees, and that emergency restoration may not interfere with response actions. Further, the rule requires that any emergency restoration actions must be coordinated through the trustee Regional Response Team (RRT) member or designee, since the RRT is a part of the National Response System, and that this member must work through the OSC to ensure adequate coordination. In addition, the National Oil and

Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR part 300, is clear on the types of and procedures for coordination between the trustees and the OSC, who retains overall responsibility for activities during response. However, only trustees, not response entities, have the authority to assess injuries and collect restoration costs under OPA. NOAA has clarified the rule to indicate that known responsible parties must be notified and invited to participate in emergency restoration actions, to the extent time permits. Notice to the public is provided to the public, to the extent practicable, of these planned emergency restoration actions.

Comment: Another commenter noted that the requirement that emergency restoration costs should not be unreasonable appears to appropriately suggest that trustees must affirmatively demonstrate the reasonableness of such costs, without any entitlement to the rebuttable presumption.

Response: If trustees responsibly make a determination that emergency restoration is needed to prevent or minimize natural resource injury, that the action is feasible and likely to succeed, and that the costs of such action are not on their face excessive compared to the expected benefits in limiting injury, then emergency restoration actions and costs are reasonable, and entitled to a rebuttable presumption.

Comment: Another commenter questioned whether there are any exclusions for liability for damages resulting from any additional injuries caused by the emergency restoration or response actions.

Response: Liability for natural resource damages extends to injuries that result from reasonable and necessary response and emergency restoration actions taken in response to an actual or threatened discharge of oil.

Section 990.27—Use of Assessment Procedures

Criteria for Selecting Assessment Procedures—General

Comment: One commenter noted that the greater flexibility in assessment procedures provided by the proposed rule is likely to result in greater likelihood of litigation. Another commenter suggested that such flexibility may result in trustees applying numerous procedures, charging the responsible party with these costs, then basing their claim on the procedures that yield the highest damage figure. Another commenter stated that the trustees should be

required to document the decision as to why a particular assessment procedure was chosen.

Other commenters, however, agreed with the rule listing criteria that assessment procedures should meet, rather than specifying acceptable procedures themselves. Some commenters suggested that trustees must be provided flexibility to select the most efficient procedure to assess injuries, based upon factors such as reasonable cost, validity, reliability, and incident-specific considerations, however, one of these commenters suggested that the rule should simply require that procedures be reliable, valid, and cost-effective as minimum criteria and that other incident-specific factors should be considered in selection of procedures.

Response: In eliminating categories of assessment procedures, and providing instead a list of standards to guide selection of the most appropriate assessment procedure for the injury and incident at hand, the rule will make assessments less rigid and more cost-effective, and NOAA expects this will reduce litigation by fostering cooperative settlements. The rule expressly prohibits the approach suggested by the commenter in which trustees may apply a suite of procedures to produce the highest damages estimate, and charge for all of the procedures used. This approach would clearly violate provisions of § 990.27 and the definition of reasonable assessment costs. Finally, standards for selecting assessment procedures, and the types of assessment procedures available, are now included in § 990.27.

Comment: Most commenters applauded the approach taken in subpart E of the proposed rule to provide generic standards for possible assessment procedures, given the universe of procedures available and possible injuries likely to result from incidents. However, several commenters were concerned that some of the proposed criteria might be mutually exclusive and difficult to meet for all incidents. For instance, one commenter noted that procedures that meet the criterion that procedures must provide information useful in determining and quantifying restoration needs, might not be the most cost-effective procedures. The commenter also noted that procedures that provide information required for restoration determinations may entail additional costs with no assessment benefit, violating the requirement for consideration of cost. Some commenters suggested that none of these criteria be mandatory, or that only the “cost-effectiveness” and “valid

and reliable” criteria might be appropriately mandatory.

Response: The standards for acceptable procedures were moved from subpart E of the proposed rule into a new section, § 990.27, to emphasize that these standards apply to any and all procedures used in performing assessments under this rule. Procedures must meet the standards in order to be deemed part of an assessment in accordance with this rule. The concerns that one standard may be contrary to another have been resolved. The standards now provided in § 990.27 must all be met, but the criterion concerning restoration information has been changed to a recommendation, rather than a requirement, in recognition that procedures that provide information useful in restoration scaling are not always available, nor are they always cost-effective.

Comment: Some commenters were concerned that the criteria requiring cost-effectiveness and weighing benefits of a procedure against its costs might be interpreted to require strict cost-benefit analyses of all possible procedures, inappropriately diverting trustee efforts from assessment work, and needlessly driving up costs. A few other commenters suggested that strict cost-benefit analyses should be required. One commenter suggested that the balance should more appropriately weigh expected assessment costs against overall expected damages, because assessment costs cannot be meaningfully scrutinized relative to expected informational benefits from an assessment procedure.

Response: The various standards for procedures were never intended to require a strict cost-benefit analysis. The rule language has been revised to indicate that additional costs of more complex procedures must be reasonably related to the expected increase in information provided by those procedures. The standards are intended to guide trustees in selecting individual assessment procedures and discourage trustees from using procedures that do not provide information beneficial for restoration planning purposes.

Comment: Some commenters suggested that the terms “reliable” and “valid” should be expressly defined. Various definitions were offered by the commenters.

Response: The technical definitions of the terms “reliable” and “valid” vary in usages of the terms across various disciplines. In general, under this rule, these terms refer to technical judgments by experts in a particular field that a procedure is consistent with best technical practices for the measure

being investigated under the circumstances.

Specific Procedures

Comment: Many of the commenters' discussion on assessment procedures focused on how specific procedures might relate to the standards provided in the rule. Some commenters were concerned that the listing of procedures in the appendix to the preamble might be interpreted as an endorsement of those procedures. The commenters requested that the rule state that procedures that do not meet the criteria are not entitled to the rebuttable presumption. The commenters noted that, if specific procedures are listed in the preamble, NOAA has a duty to provide additional standards relating to the use of such procedures, either in the rule or in guidance documents. Other commenters stated that the rule should clarify that reliable and valid procedures are not limited to those specifically listed in the preamble and should not necessarily be excluded from use under the rule.

Response: Assessment procedures must meet the standards in the rule in order to be deemed part of an assessment conducted in accordance with this rule. No explicit or implicit endorsement, nor lack of endorsement, is intended to be given to the specific identification or omission of any particular procedure in either the preamble or rule. It is not feasible for the rule to identify all acceptable procedures, nor the acceptable applications of those procedures, for all possible circumstances of all incidents. Procedures and their applications must be evaluated on a case-by-case basis.

Comment: A number of commenters stated that NOAA should not establish requirements for use of procedures and strongly supported NOAA's decision to remove specific guidance on the application of certain procedures (e.g., contingent valuation, benefits transfer). The commenters suggested that discussion on how to apply specific procedures should be placed in guidance documents. One commenter suggested that the rule should allow trustees to use any criteria that are generally accepted by the scientific community. One commenter stated that the four criteria listed in the rule are still insufficient, and could be strengthened by distilling the most important guidelines in the guidance documents into rule language so that they will be binding upon trustees.

Response: NOAA believes that discussion on the appropriateness and use of specific assessment procedures is more suited to guidance documents.

The commenters should refer to these guidance documents as well as the literature for support along this line.

Comment: Another commenter asked that the rule clarify that trustees may use models or extrapolate from literature when it is more appropriate and cost-effective than gathering site-specific data.

Response: The rule, in § 990.27, provides that such procedures as models or literature extrapolation that meet the standards for acceptable procedures are available for use in accordance with the rule.

Option of Responsible Party to Request Alternative Procedures

Comment: Some commenters argued that trustees should be required to use an incident-specific procedure when the conditions in the rule are met. However, the commenters stated that the conditions currently in the rule are contrary to OPA because they force the responsible party to waive the right to challenge the reasonableness of the assessment costs. The commenters argued that this would force responsible parties to choose between using a procedure that may assess non-existent damages and waiving their statutory right to expect reasonable assessment costs. Another commenter noted that the responsible party should not have to advance the assessment costs if the responsible party can demonstrate that an incident-specific assessment is really appropriate and warranted. Some commenters also suggested that the rule specify a time frame for the responsible party request, such as 21 days from the time of the incident, rather than the ambiguous "acceptable time frame" currently in the rule.

One commenter pointed out that responsible parties would want to do expanded assessments in any case in order to assist in the defense of third party claims.

Some commenters noted that detailed field studies may be expensive and in those instances where the likelihood of injury is so high as to not require extensive study, trustees and responsible parties may agree that non-field-based procedures may be used.

Other commenters argued that the ultimate decision on assessment procedures should always be left to the trustees. The commenters suggested that, if trustees determine that procedures selected by a responsible party are technically unsound or would inadequately address natural resource injuries, then the trustees should have the ability to modify or reject the request. Some commenters also noted that the rule should be clarified to state

that the responsible party must advance the trustee's estimate of the costs of conducting the incident-specific assessment.

Response: The final rule has clarified, in § 990.14(c), the conditions for the responsible party option to request a different procedure than that selected by the trustees. The option will be provided to responsible parties who have accepted the trustees' invitation to participate in an assessment, and who are doing so cooperatively. Alternative procedures proposed by the responsible party must meet the standards for acceptable procedures provided in § 990.27. The rule allows trustees to reject the responsible party's request if the alternate procedure, in the judgment of trustees, is not technically feasible, not technically or scientifically sound, and could not be completed within a reasonable time frame. Because participating responsible parties will have already been afforded opportunity to review and comment on proposed procedures that trustees have selected in accordance with § 990.27, the responsible party option is really a mechanism to resolve disputes between trustees and responsible parties as to the most appropriate procedure for the injury and incident at hand. Responsible parties should be willing to fund alternative procedures they feel strongly about, given that trustees will have already made a determination that other procedures are appropriate, and they should agree not to challenge the results of procedures that they request be used. The rule has removed the requirement that responsible parties agree not to challenge the costs of those requested procedures.

Simplified Procedures—General

Comment: Several commenters raised objections to the use of simplified assessment procedures. Several commenters argued that all existing simplified procedures, federal and state, are flawed and unreliable. The commenters argued that these procedures should not be used without any field verification. Several of these commenters stated that any procedure that generates average values is by definition not incident-specific as required by OPA, basic requirements for proof of injury and causation in tort, and recent case law on causation requirements.

Several commenters argued that there are strong statutory arguments against simplified procedures under OPA. Some of these commenters stated that the wording of the various sections of OPA that set forth the natural resource damage provisions and describe liability

under OPA all explicitly speak to direct impacts "resulting from" a particular incident, not some speculative concept of what might have resulted from the incident. The commenters cite section 1002(b)(2)(A) of OPA (33 U.S.C. 2706(b)(2)(A)), "damages . . . that result from such incident," and section 1006(e)(1) of OPA (33 U.S.C. 2706(e)(1)) calling for rules to assess damages "resulting from the discharge of oil." These commenters also noted legislative history associated with these provisions in OPA. A House Committee Report (H. Rep. No. 241, Part 1, 101st Cong., 1st Sess. at 34(Sept. 13, 1989)) is quoted supporting recovery for "the natural resources that were injured." Also quoted was the Committee of Conference Report (H.R. (Conf.) Rep. No. 101-653, 101st Cong., 2d Sess. (1990) at 103) which refers to damages "resulting from an incident." These commenters also argued that Congress rejected simplified procedures under OPA because an early draft of a Senate bill (S. 686, 101st Cong., 1st Sess., § 102(d)(3)(A)(1989)) calling for simplified assessments was not incorporated into the final bill. The commenters stated that Congress could have adopted the type A model, which was in existence during the development of OPA, but didn't. In fact, the commenters noted that the Conference Report (at 109) explicitly states that the OPA rule, not the CERCLA rule, which contains the type A model, would apply to assessments under OPA.

Some commenters referred to the procedures and requirements promulgated by the U.S. Department of Transportation concerning claims against the Oil Spill Liability Trust Fund (57 FR 36314 (Aug. 12, 1992)) and suggested that such a claim would be rejected if based upon simplified procedures because such claims would not be based upon evidence of damages. These commenters argued that trustees must show evidence of actual exposure and actual injury at all levels of biological organization, not use models or literature to extrapolate upon evidence of exposure of some natural resources or lower-level biota to predict indirect exposure and a pathway to other, higher-level, biota. The commenters argued that models and literature-based procedures are unreliable and tend to overstate injury and cannot take into account the various incident-specific factors that affect the outcome of incidents.

Several commenters argued that these procedures may result in double recoveries for the same natural resources when one or more trustees

and private claimants make claims based on the same natural resources, with a few commenters suggesting that these procedures promote uncoordinated actions by trustees.

Some commenters stated that simplified assessment procedures, including models, need to incorporate uncertainty by, perhaps, giving a range of possible results rather than one definitive answer. Other commenters requested that any and all simplified procedures that might be included in the rule should be final procedures, submitted for public and industry review. Some commenters requested that the rule should provide sufficient standards and guidelines for the use of simplified procedures, including threshold levels for the use of those approaches.

One commenter suggested an alternative to the simplified procedures listed in the rule. The commenter suggested that NOAA should develop a decision tree-based simplified procedure that would enable trustees to collect limited field samples and/or make minimal field observations and then, based on a process outlined in the rule, make a determination in cooperation with the responsible party of what, if any, restoration alternatives should be pursued.

Other commenters stated that NOAA has unquestionable statutory authority to promulgate rules that include models and formulas. The commenters argued that the legislative history of OPA demonstrates Congress's desire to simplify assessment procedures and, therefore, it is NOAA's responsibility to accurately and cost-effectively promulgate the necessary procedures to make the public whole for injuries it has sustained. These commenters argued that it would be a waste of public and private resources to require trustees to conduct incident-specific assessments of injury when experience, models, and the literature are adequate to predict injury. The commenters pointed out that an assessment that incorporates the extensive preexisting body of knowledge is reliable, valid and on solid scientific standing.

Some commenters expressed surprise over the depth of concern regarding the use of the simplified assessments, since they should reduce the costs of determining restoration alternatives and provide consistency to the process. These commenters indicated that the data and the "bugs" in the simplified procedures should be the concern, rather than the use of the procedures *per se*.

The commenters stated that the argument that computer models fail to

provide an incident-specific damage assessment is without merit. The commenters pointed out that model-based assessments may not be exact, but the same can be said for physical sampling or any scientific process in which averages are employed to approximate the true conditions. The commenters noted that computer analysis is simply another tool to be used in damage assessment and that, if responsible parties are concerned that liability for damages will be inaccurately determined using models or compensation formulas, they can simply opt to have a full-scale field research operation.

Other commenters pointed out that the proposed rule listed only two types of simplified procedures, which could easily be misinterpreted to mean that these are the only two simplified assessment procedures usable under this section. To correct this problem, the commenters suggested that additional language is needed in the rule to provide flexibility and efficiency in the use of simplified procedures. The commenters requested that NOAA expand the description of "simplified procedures" by specifically referencing other procedures such as state formulas, or procedures such as habitat equivalency analysis. These commenters stated that the use of simplified procedures is the only way to determine restoration costs for the thousands of small incidents that occur annually, since trustees lack the personnel, time and financial resources to conduct in-depth, incident-specific assessments for each and every incident. Some commenters argued that, without procedures to address the vast majority of incidents, NOAA is failing to implement the intent of Congress to provide regulations that allow trustees to efficiently, reliably, and cost-effectively address the injuries to public natural resources from incidents.

Other commenters argued that, since most incidents are less than 1000 gallons, NOAA should make it a priority to include in the rule a credible simplified tool. The commenters suggested that the lack of such a procedure will result in a rule that does not fully meet the intent of OPA, since, at this time, the options listed in the rule are not available to trustees, nor is there any guarantee that they will ever become available. The commenters stated that provisions should be included in the rule that would allow for the development and use of other simplified procedures. Other commenters specifically suggested that passive values should be incorporated into these simplified procedures.

Response: NOAA agrees that OPA intends that responsible parties be held liable only for restoration needed to redress the injuries caused by specific incidents. NOAA does not believe that simplified procedures, such as the type A model *per se*, contravene the OPA liability limitations to actual injuries caused by specific incidents. However, the rule does not suggest, state, or imply that these procedures are acceptable procedures in all instances. Like any assessment procedure proposed for use under the rule, simplified procedures must meet the criteria for acceptable procedures listed in new § 990.27. If a tool is not appropriate for the circumstances of an incident, it cannot be used and still receive a rebuttable presumption for assessments performed in accordance with this rule. The final rule, however, does not explicitly reference "simplified" procedures as a distinct category of assessment procedures, and does not identify any particular procedure(s) as appropriate for particular circumstances. This determination must be made by trustees on an incident-by-incident basis.

NOAA places no significance on the omission of reference to simplified procedures in the final language of OPA. Congress merely chose not to tie NOAA's hands in promulgating these rules. The same conference committee report relied upon by many commenters to disavow simplified procedures states that these regulations should be designed to simplify the trustees' task of assessing and recovering the full measure of damages resulting from an incident. NOAA believes that Congress clearly intended that the rule should facilitate prompt, cost-effective restoration, by providing a technical framework focused on restoration, not on needless scientific experimentation.

While simplified procedures may be used as a stand-alone assessment procedure for small incidents, these procedures are rarely, if ever, used for larger incidents without some level of field assessment. In these instances, simplified procedures are used to quantify the extent of injury and scale restoration actions only after field investigations have determined that natural resources have been exposed, injuries have been demonstrated, or lost use has occurred.

Type A Model

Comment: Several commenters argued that there are serious shortcomings in DOI's proposed type A models, and that NOAA should not allow use of these models in their current form under any conditions. Some of these commenters argued that NOAA should reserve this

section until the models are made reliable. The commenters raised specific objections to certain provisions of the proposed type A models (e.g., cleanup and containment of oil, use of dispersants, bird oiling probabilities, boating and fishing closures, potentially grossly disproportionate restoration costs, possibly arbitrary and speculative mitigation costs). Many of these commenters argued that these unexplained problems make the proposed models unusable. Other commenters suggested that NOAA should continue to review and revise the models and subject them to further public comment.

Some of these commenters stated that NOAA has not undertaken any review of the type A models that could constitute an independent finding of reliability. One of these commenters raised several procedural arguments regarding the rule's adoption of the type A models, particularly that adopting the proposed type A models would violate the Administrative Procedure Act principles of notice and opportunity for comment because the public cannot, at present, know what the final type A rule would be in the future. The commenter argued that, if NOAA wishes to use type A procedures, it must develop and propose its own version and subject it to public comment. Other commenters stated that the rule's criteria for the use of the type A model are too vague in simply requiring conditions "sufficiently similar" to those required under the CERCLA rule. Another commenter requested that NOAA revise the rule to specify that the type A models should not be used when the services provided in an area differ from those contained in the models, or when field observations clearly contradict model results.

Some commenters disagreed with the use of models to assess injury because of the potential for determining damages where no injury exists. The commenters also argued that the lack of actual data in these procedures makes it impossible for trustees to evaluate restoration alternatives in the manner required by the rule. One commenter, although supporting the concept of a simplified procedure, urged NOAA not to adopt the type A models until they can be corrected to prevent occasionally arbitrary and unreasonable results and to focus on restoration, consistent with OPA. One commenter noted that predictions made through the use of models should not be allowed since these assume that an adverse change will always occur, whereas the evidence of past incidents shows that injury is not inevitable.

One commenter noted that, if NOAA incorporates simplified procedures developed by DOI, NOAA would be engaged in a redelegation of its statutory authority under OPA.

Response: First, NOAA was not tasked with promulgating any specific type of assessment procedure, thus there was no such duty that was inappropriately re-delegated to DOI. Further, as discussed above, DOI's type A models are not incorporated *per se* into the rule. Trustees desiring to use the models must evaluate whether these tools meet the acceptable procedures standards listed in § 990.27, and if they are not met, trustees must determine whether use of the tools outweighs the loss of the rebuttable presumption, or whether another procedure exists that does meet the acceptable procedures standards. In addition, even if trustees have selected a procedure in accordance with the standards in § 990.27, such as the type A model, participating parties who disagree with this decision can identify valid and reliable alternate procedures and request that trustees implement the alternate procedure, as provided in § 990.14(c)(6) of the rule. Trustees must consider this request and determine whether to accept or reject the request based upon such factors as feasibility, validity, relevance, and timeliness of the suggested procedure. The various technical concerns raised by commenters may only be valid if a model is applied in certain circumstances, thus it would be inappropriate to bar use of the models completely under this rule.

Compensation Formulas

Comment: Many comments received on the compensation formula proposed in 1994 deal with such issues as: utility for small incidents; understating or overstating damages; questions regarding factual underpinnings of the formulas; assumptions of injury built into the formulas; lack of authority to promulgate non-site-specific assessment procedures; predicted detrimental impacts on the oil industry; conclusive nature of formulas; size of incidents appropriate for application of formulas; relationship to state formulas; generation of formulas from the type A models; as well as several comments about specific technical or factual aspects. Several commenters on the 1995 proposed rule supported NOAA's decision to reserve the compensation formulas and strongly urged NOAA to withdraw the formulas from the final rule. Some commenters noted that the formulas were based on the earlier versions of the proposed type A models and, therefore, did not benefit from later

improvements and corrections made to those models. The commenters, however, suggested that the development of the compensation formula guidance document seems to confer a regulatory or legal status to a tool that should be limited to an informal aid to settlement discussions.

Many commenters were concerned about the withdrawal or reservation of the compensation formulas. The commenters argued that, without these tools, trustees are unlikely to be able to fulfill their responsibility to make the environment and public whole. The commenters noted that the procedures for incident-specific assessments are too rigorous and costly for most small incidents so that these small incidents will not be adequately addressed, with the losses being absorbed by the public in the form of lost natural resources and services.

Several commenters pointed out that, by promulgating a compensation formula, NOAA has the opportunity to provide an alternative to individual state models and promote some consistency in the assessment of damages resulting from smaller incidents. These commenters suggested that NOAA should either recalculate the compensation formulas with the most current version of the type A models and publish the formulas in an interim final rule, or include the original formulas, which could then be withdrawn when new formulas are published using the final type A models.

On the issue of the use of the formulas in an actual assessment, some commenters specifically requested that NOAA establish that only the data inputs into the formulas are contestable, but that the algorithms of the formulas are not, similar to the standard for the Social Security disability regulations and Medicare regulations, where the diagnosis of a malady is contestable but the costs of treating the malady are not.

Response: The proposed rule of 1995 reserved the compensation formula primarily due to revisions being made in the type A models on which the formulas were based. The final rule, however, does not incorporate compensation formulas as acceptable procedures *per se*; like any other proposed assessment procedures, compensation formulas must meet the criteria for acceptable procedures in § 990.27 of the rule in order to be in accordance with the rule. NOAA still supports the concept of such simplified procedures as compensation formulas. NOAA developed a guidance document in 1995 on how one might recreate scenarios contained in the 1994

compensation formulas using the revised type A models. This guidance document is still available for use. When the type A models under development are promulgated by DOI as final rules, NOAA intends to generate the compensation formulas again.

Types of Assessment Procedures Available

Comment: Several commenters argued that, because trustees would be allowed to use the four listed procedures alone or in any combination, trustees could recover damages that are not based on proof that the incident actually and proximately caused an actual natural resource injury, in conflict with OPA. Some commenters requested that the rule require that the procedures be appropriate for the types of incidents to which they will be applied. These commenters argued that the proposed procedures lack adequate rigor and that some of the procedures result in far more persuasive scientific evidence than other, abstract procedures.

Several of these commenters argued that literature-based procedures are not defined and are not allowed under the CERCLA rule. The commenter stated that this procedure will allow an injury determination based solely on the reporting of an injury in the literature, without considering the conditions existing at the incident of concern, which are determinative of the effects. Other commenters argued that even laboratory studies alone are insufficient to demonstrate injury in the field and cannot take account of incident-specific compensatory mechanisms that may be at work in an actual population of biota. The commenters stated, therefore, that laboratory evidence must be combined with field verification that an injury has actually occurred.

One commenter argued that the guidance provided in the rule on incident-specific procedures fails to meet basic requirements for proof of injury and causation. The commenter stated that the listed procedures can only, at best, suggest that injury may have occurred and, therefore, should not be allowed without field verification. Some commenters stated that the rule should provide explicit acceptance criteria for the use of procedures to ensure that actual injury and causation are established, based on scientifically valid and reliable evidence that the natural resource was in fact exposed, directly or indirectly, to the discharged oil (with an exception for substantial threat), that the natural resource has in fact experienced injury, and that exposure to oil is known to cause such injury in the field. These commenters

note that the rule should provide that these criteria may be waived, in whole or in part, only with the concurrence of the responsible party.

Another commenter noted that trustees have broad discretion under the rule to decline to use the DOI type A models, and thereby employ costly incident-specific studies and analyses whose costs could equal or exceed damages. The commenter recommended that the rule should require trustees to use the DOI type A models whenever the criteria for applying such procedures listed at 43 CFR 11.33 may be satisfied.

Response: The rule adopts a general approach, that a range of assessment procedures, from simplified to more detailed, should be available to the trustees so that assessments can be appropriately tailored to incidents. Procedures for documenting and quantifying any particular injury must be selected by considering a variety of factors, all focused on making the determination of necessary restoration actions, while ensuring that assessments are technically valid and cost-effective. Procedures selected must be capable of determining injury pursuant to subpart E of the rule.

Scaling Procedures Listed in Appendix B of the Preamble

Habitat Equivalency Analysis

Comment: Several commenters stated that HEA is a new and unproven procedure and has limited application for assessments. Some commenters argued that the procedure is inconsistent with economic theory since there is no direct relationship between the cost of replacement and the value of the natural resource. Commenters noted that HEA is based on many assumptions, such as: strict proportionality between unit of measure and value; substituting cost for value yields social gain; marginal natural resource values assumed constant over time; and service flows assumed constant and additive across time. The commenters noted that fulfilling the assumption of equal unit value is difficult and that the chosen metric may not reflect the unique characteristics that define the flow of services from the habitat. Commenters suggested that: HEA does not address fundamental assessment issues, such as: the concept of baseline, making it difficult to estimate percent of baseline services lost; in a complex release in which different natural resource services are injured to different extents, there is no obvious way short of economic valuation of the services to combine the

different levels of impairment into a single index which would allow all the impaired natural resources to be expressed in terms of a single unit; HEA is not useful for habitats that are not replaceable or reproducible; and that problems occur in incorporating unit values of indigenous habitat when restoration converts one habitat type to another. The commenters noted that it is problematic to use HEA to address lost use services, because changes that may occur in the unit value of currently offered services at the improved site need to be considered (e.g. effects of congestion). Also, the commenters noted that physical natural resource measures do not reflect quality, and thus do not reflect appropriate consumer surplus values. The commenters suggested that HEA does not measure benefits of compensatory replacement, increasing the chances of selecting restoration actions for which the costs are disproportionate to the value of the lost services. Also, other commenters noted that substitutes must be taken into account when measuring service reductions.

Other commenters, however, supported the use of HEA, stating that the procedure is appropriate, cost-efficient, and effective. One commenter suggested that HEA not be limited in use to ecological services. The commenter stated that the description of the procedure should clarify that the metrics used are simply indicators of overall environmental quality, not complete measures of damages.

Commenters suggested that, when using HEA, trustees should provide evidence that the unit values of the lost and replacement services are likely to be equivalent. The commenters stated that HEA should explicitly account for baseline service quantification issues. The commenters also argued that, because the components of HEA embody substantial uncertainty, the trustees should undertake explicit sensitivity analysis as part of HEA. The commenters suggested that HEA should focus on overall habitat or ecosystem services and not on individual organisms or specific ecosystem components not of significance to overall functioning of a system. Some commenters stated that HEA models should be used for biological/ecological services, not human use services. The commenters also argued that the habitat or species replacement cost procedure should be specifically excluded by the rule, except where natural resources and/or services are actually restored.

Travel Cost Method

Comment: Some commenters suggested that trustees should use multi-site random utility models instead of single-site analyses in conducting travel cost studies. The commenters noted that the travel cost studies should clearly show the linkage between the injuries and a reduction in services, as well as allowing for unrestricted substitution between recreation opportunities. Finally, the commenters suggested that the sample of users should be representative of the population being studied and the travel costs should be measured accurately to reflect the true costs to the recreators.

Factor Income Method

Comment: Some commenters noted that the factor income method is an unreliable procedure for calculating values when natural resources vary in abundance over time. Other commenters stated that the factor income approach measures private economic losses, not losses to the public, and is inappropriate for use in assessments under OPA.

Hedonic Price Model

Comment: Commenters suggested that the hedonic price model is generally inappropriate for assessments, due to major difficulties with potential double recovery for public and private losses. Other commenters suggested that the hedonic pricing method should not be used for incidents because of the brief and temporary nature of incidents and their impacts.

Market Models of Demand and Supply

Comment: Several commenters stated that the market models of demand and supply are poorly specified in the rule, and that the rule should specify their use and some standards for that use.

Contingent Valuation

Comment: Many of the commenters argued that CV should not be used in scaling. The commenters argued that CV has not been proven reliable, that it should not be used for transitory effects, and would generate overstated damage claims. Some of these commenters noted that CV is a highly controversial procedure, and has not survived rigorous peer review within an atmosphere of impartial scientific research.

Some commenters argued that the inherent upward bias in CV would drive up the cost of restoration. However, other commenters noted that concerns about CV may be satisfied if it were used in "both sides" of the scaling calculation (i.e., to calculate both the

losses from the injury and the gains from the replacement action). This way, the overall scale of the selected restoration alternative would likely not be affected.

Many commenters stated that the rule should allow for the use of CV. Some commenters noted that CV is reliable if performed properly. These commenters noted that CV has already been endorsed by the *Ohio* court. Other commenters stated that test-retest CV experiments show that CV can be reliable. Several commenters pointed out that CV is essential for obtaining damages for lost passive values. Commenters also argued that CV should be used in scaling. The commenters argued that trustees should retain as broad a spectrum of valuation procedures as possible.

One commenter indicated that survey procedures can elicit what the public needs for compensation by presenting different restoration choices and, therefore, gaining information on the scale of restoration actions needed. Another commenter suggested that mail-out surveys could be used to assess relative values, even though the Blue Ribbon Panel recommended in-person surveys for dollar determinations. Other commenters noted the particular utility of parts of CV, such as focus groups and survey procedures, in planning restoration.

Many commenters argued that CV should not be included in the final rule; however, that if it is included, the rule should contain specific standards for its use, and it should not be accorded the rebuttable presumption. Several of the commenters stated that the rule should include the Blue Ribbon Panel's recommendations on study design, implementation and verification. Other commenters argued that damages considered by respondents in CV surveys should reflect only injuries that have been established in injury determination and quantification. These commenters also stated that CV scenarios should not be based on willingness to pay to prevent incidents. The commenters stated that the rule should provide for scope tests that: show substantial variation with the size of the commodity; focus only on natural resource damages; and exclude no respondents when carried out. The commenters also recommended that, for response rates: standards must be developed for calculating response rates and zero value should be attributed to survey nonrespondents as a conservative approach to handling nonresponse bias. The commenters suggested that CV should not be employed in cases where nonuse values

are expected to be small and that additivity tests should be required. The commenter also stated that a zero value should be attributed to individuals unaware of the injury before the survey was administered.

Conjoint Analysis

Comment: Several commenters stated that conjoint analysis is an unproven procedure for natural resource applications, and is not reliable. Some of the commenters noted that conjoint analysis may be better than CV, but it raises similar difficulties. Some commenters noted the importance of realistic descriptions. The commenters also suggested the procedure is subject to the potential for protest valuation. The commenters suggested that, when using the procedure, trustees need to define a relevant population for sampling and for use in the scaling calculations. The commenters suggested that the results of the analysis can be very sensitive to design decisions, implementation, and interpretation decisions. The commenters pointed out that preferences are still expressed under hypothetical conditions. The commenters also suggested that respondents are unlikely to be familiar with the different attributes and levels of habitat services and are inexperienced in evaluating their relative merits, that some respondents may feel the answers are the purview of scientific experts rather than the general public, and that answers to early questions may be of lower quality due to learning effects during course of survey. The commenters stated that respondents may experience fatigue in evaluating numerous options. The commenters also stated that the experimental design can easily become burdensome. The commenters noted the problem of environmentally correlated attributes when using the procedure. The commenter noted that a component-wise valuation would be useful in calculating compensatory damages for partially injured natural resources. The commenters argued that, because of a close relationship between conjoint analysis and CV, all the issues raised by the NOAA Blue Ribbon Panel may need to be considered.

However, some of these commenters noted that the procedure need not be limited to evaluating restoration alternatives that provide services of the same type and quality and subject to comparable scarcity and demand conditions as interim lost services. The commenters suggested that the procedure could reduce assessment costs, since a single conjoint questionnaire could evaluate the lost

interim services, as well as the services from several different restoration alternatives.

The commenters argued that conjoint analysis should not be used to estimate passive use values. The commenters also suggested that the population of survey respondents should be familiar with the goods involved, the survey should present the choices in terms that are concrete and realistic as possible, and the investigators should test for and present evidence that the results are not sensitive to extraneous design decisions. The commenters stated that the elicitation format should be designed to prevent interviewer bias and protest valuation. Some of these commenters stated that the experimental design should be consistent with accepted design standards. The commenter noted that the applications should include at least two different elicitation formats, and should perform sensitivity analysis on the effects of format choice. The commenters suggested that the attributes used in the survey should reflect: characteristics of the natural resource that are salient to the responder, temporal nature of lost services, and restoration alternatives that are technically feasible. The commenters also stated that the estimation of results should be consistent with utility theoretic principles. The commenter noted that the study should include a description of commodities that serve as substitutes for the lost and replacement services and that the relevant population to be sampled should be limited to users of the same type of services or to individuals sufficiently familiar with the natural resource to be able to form preferences for the relevant services. Commenters also stated that, if the conjoint analysis includes a price term, the following standards should be added: the conjoint analysis should not be used to measure nonuse values; trustees should empirically demonstrate that respondents have considered their budget constraints; the survey should use a payment vehicle that is appropriate for the type of value to be measured, is credible, incentive-compatible, avoids implied value cuing, and distributes burden of payment equitably; the survey should include design points that test for "warm glow" effects; trustees should demonstrate empirically that results are sensitive to scope of lost services; and trustees should determine the extent of the relevant population whose values are to be included and document and justify that determination.

Benefits Transfer

Comment: Several commenters stated that the responsible party must be allowed to challenge the merits of valuation studies conducted by the trustees, rather than allowing the trustee to use values derived from some other study.

Some commenters pointed out that the benefits transfer approach should not be accepted uncritically. Other commenters, however, argued for more flexibility in the use of the procedure.

Several commenters stated that studies to be used in the benefits transfer approach should address natural resources and services similar to those injured by the incident, should be scientifically sound, should use reliable valuation procedures, and should not attempt to measure passive use values, since no reliable studies have been conducted to date.

Response: NOAA believes that the standards set forth in § 990.27 are sufficient to allow trustees and responsible parties to determine the acceptability of a particular assessment procedure for a given incident. NOAA supports the use of all of the procedures discussed in Appendix B of the preamble as reliable and valid within the appropriate context and when performed in accordance with accepted professional practices. NOAA does not believe that the rule should set forth specific standards regarding the implementation of individual procedures, as it is not feasible to prescribe all valid uses of these procedures. The validity and reliability of procedures will depend on the circumstances of particular incidents. However, NOAA is considering the development of a separate guidance document addressing issues pertaining to the use of the procedures discussed above to scale restoration actions under the resource-to-resource or service-to-service and valuation scaling approaches.

Thus, NOAA believes that most of the comments received, which relate to potential problems with certain applications of these procedures, will be dealt with in the context of specific incidents. If procedures do not meet the standards listed in the rule they are not acceptable procedures to use pursuant to this rule. In addition, responsible parties have the option to request alternative procedures that meet the requirements of the rule, if they do not accept the trustees' judgment that a procedure is reliable for the circumstances of an incident.

In response to some common concerns expressed relative to all

procedures, NOAA offers the following: (1) Trustees must make a determination that procedures are reliable and valid for the circumstances of an incident; (2) there must be no double recovery of damages for the same injury or loss; (3) only public losses are recoverable by trustees under this rule; (4) primary restoration only recovers to baseline or comparable conditions or levels; and (5) the rule requires that the most cost-effective of equally appropriate procedures be used.

Subpart C—Definitions

Section 990.30—Definitions

General

NOAA has revised certain definitions in the rule to ensure that these definitions conform with those that are explicitly defined in OPA.

Comment: Many commenters made reference to various terms used in the proposed rule considered to be vague and likely to hamper expeditious restoration if they are not defined. These terms include: “observable;” “measurable;” “adverse;” “impairment;” “nexus;” “reliable;” “valid;” “comparable;” “equivalent;” “same;” “similar;” “scarcity;” “demand;” “scale;” “scaling;” and “substantial threat.”

Response: NOAA intends that the majority of these terms have their ordinary and customary meaning for purposes of this rule, but offers the following clarification. “Reliable” and “valid” refer to technical judgments by experts in a particular field that a procedure is consistent with best practices for the measure being investigated under the circumstances. “Equivalent” and “comparable,” as applied to acquiring natural resources or services other than those injured or lost, have the meaning used in the legislative history of OPA—natural resources that can enhance the recovery, productivity, and survival of the ecosystem affected by a discharge, preferably in proximity to the affected area. (H.R. (Conf.) Rep. No. 101–653, 101st Cong., 2d Sess. at 109 (1990).) “Demand” has the meaning used in section 1013 of OPA (33 U.S.C. 2712), encompassing presenting a claim for damages, based upon a plan for restoration of injured natural resources and services, to a responsible party for payment or implementation. “Substantial threat” will be determined by response entities on a case-by-case basis. Finally, “scale” and “scaling” refer to the size or extent, and procedures to determine appropriate size, of injuries or restoration actions.

Comment: Many other commenters felt that NOAA should reinsert some of

the terms, which were included in the January 1994 proposed rule but were left out in the current proposed rule, or add new terms. These terms include: “damages;” “emergency restoration;” “interim restoration;” “ecological services or natural resources of special importance;” “passive use;” “commercial and productive services;” “recreational services;” “services of natural resources of special significance”; and “Regional Restoration Plan.”

Response: NOAA has incorporated the statutory definition of “damages” into the rule and has expanded the discussion of emergency restoration and Regional Restoration Plans in the preamble. NOAA has also expanded the discussion of “services” and “value” and does not believe that detailed discussion of various specific types of natural resource services is necessary.

Baseline

Comment: A few commenters stated that the definition of “baseline” is too restrictive, while others felt that the definition is too flexible. Commenters on both sides stated that NOAA should provide additional clarification. Some commenters argued that “baseline” should not be so strictly applied as to prohibit use of information collected reliably but on an intermittent or short-term basis, if it provides a valuable comparison. These commenters suggested that trustees should be allowed to make comparisons against reference, historical, or control conditions. Another commenter stated that baseline data must provide a reliable estimate of variability in the natural resources and services of interest, and that historical or reference data may not be adequate. The commenter pointed out that, in the absence of reliable data on variability, there cannot be a “baseline,” however, there can be a “basepoint” or “reference point.”

Response: Baseline under this rule is used to determine the extent of natural resource injury such that the appropriate scale of restoration actions can be determined. NOAA has simplified the definition of “baseline” to encompass the use of “control,” “historical” and “reference” data. Trustees and responsible parties may use any data, so long as that data are reliable (e.g., appropriately collected) and relevant (e.g., collected sufficiently recently) to the incident such that a “baseline” can be determined. In terms of assessing baseline, procedures should be chosen to meet the standards contained in the rule, including expected costs and expected increases

in the quality of the estimate of baseline conditions.

Comment: One commenter suggested that NOAA change the definition of “baseline” to read: “Baseline means the condition of the natural resource and/or service that would exist had the incident not occurred.” The commenter noted that, since baseline is not static over time, defining the term in past tense could be misleading or misinterpreted.

Response: Natural resources or services may only be restored to their expected current condition or level had the incident not occurred. It may not be appropriate to interpret baseline solely with reference to the condition of the natural resources at the time of the incident for all injuries or losses, although that condition may well be valuable evidence of the baseline.

Comment: Several commenters insisted that baseline, like injury and restoration, may only be assessed with respect to natural resource services, and more specifically, services used directly by the public, as opposed to the condition of the natural resources themselves.

Response: OPA is very clear that injury and restoration apply to natural resources themselves. Further, restoration of injured natural resources is one element of a claim for damages, distinct from the diminution in value of injured natural resources suffered by the public from the time of an injury until recovery.

Contributing Factor

Comment: One commenter expressed concern that the term “contributing factor,” present in the 1994 proposed rule, is absent in the repropoed rule. Other commenters supported omission of a discussion of this concept from the rule, although these commenters differed in their view as to whether a more or a less rigorous standard should be applied by reviewing courts.

Response: Under the new structure of the rule, NOAA does not believe that a discussion of this concept is needed.

Cost-effective

Comment: A number of commenters emphasized that Congress intended that assessments be cost-effective, but suggested there are no meaningful restraints on the number, extent, or cost of damage assessment activities that trustees may implement under the rule.

Response: NOAA agrees that assessments, as well as restoration, must be cost-effective, and believes the definition indicates that the least costly of several procedures accomplishing the same goals with outcomes of similar

quality must be selected by trustees. NOAA suggests that the extent of assessment actions and costs are appropriately limited under both OPA and this rule through the reasonable cost requirement, the standards for acceptable procedures in § 990.27 of the rule, and the pervasive requirement to focus activities on determining needed restoration.

Discharge

Comment: Some commenters requested clarification of the definition of "discharge."

Response: In response to comments, NOAA has replaced the previous definition of "discharge" with the statutory definition.

Exposure

Comment: One commenter suggested that exposure should be defined to mean the presence of any detectable amount of the discharged oil, including oil sheen. Several other commenters recommended that exposure be defined as in 43 CFR § 11.14(q), when natural resources "may be" in contact with oil, rather than requiring actual evidence of exposure.

Response: For the purposes of this rule, exposure refers to direct or indirect contact with oil. A sheen does indicate that the surface water natural resource has been exposed, which may affect services provided, such as boating.

Incident

Comment: Some commenters suggested that the definition of "incident" should be replaced with the statutory definition.

Response: NOAA has replaced the previous definition of "incident" with the statutory definition.

Injury

Comment: A number of commenters noted that the definition of injury is an improvement from that of the January 1994 proposed rule and that of the CERCLA rule's definition, in that it is simpler, easier to apply, and includes adverse impacts that might be excluded under the CERCLA rule delimiting specific categories of injury.

In contrast, other commenters argued that the definition of injury is insufficient because it applies to natural resources themselves, rather than strictly to services provided by natural resources, and does not incorporate the concept of baseline. Some of these commenters suggested that the definition allows the mere presence of a contaminant in water to be an injury. These commenters suggested that NOAA redefine injury as "(a) an

observable or measurable adverse change in a natural resource that produces a quantifiable reduction in the level of services provided by that natural resource, or (b) an observable or measurable impairment of a natural resource service," further specifying that "such change and/or impairment must be measured relative to baseline."

According to these commenters, although the physical, chemical, and biological characteristics of a natural resource contribute to the type and level of services it offers, the public does not value those characteristics in and of themselves, it values only the services the natural resource provides. Thus, the commenters argued that, if a change in a natural resource does not affect such services, it cannot constitute a compensable injury. The commenters stated that, to the extent that trustees obtain compensation for harm to the environment as something separate from the services provided to the public, society would be overcompensated for its loss. Further, these commenters suggested that compensable natural resource service losses be restricted to those of "measurable ecological significance" (effects are manifested at the population, community or ecosystem level) and/or those used directly by the public.

In addition, the commenters suggested that failure to include reference to baseline in the definition of injury will allow trustees to measure adverse changes relative to pristine, pre-industrial levels.

Response: NOAA believes that OPA clearly intends that injuries to natural resources themselves form the primary focus of trustees' restoration actions. This intent is evident in the definition of liability under the statute ("injury to, destruction of, loss of, or loss of use of natural resources"), as well as the measure of damages under the statute which provides an explicit distinction between liability for injuries to natural resources (costs to restore) and liability for interim lost services (diminution in value). Adoption of the commenters' approach to assessment and restoration would severely undercompensate the public for injuries suffered as a result of an incident and would result in a needless sacrifice of natural resources that could otherwise be cost-effectively restored. The only way to ensure that all valuable present and future services of natural resources are available to the public is to restore the injured natural resources to their pre-incident condition. The rule requires trustees to quantify injuries relative to baseline, which is defined as the without-the-incident condition of the natural

resources. This requirement clearly prevents assumption of a "pre-industrial" baseline. NOAA does not believe that the concept of baseline has useful meaning in defining injury, as opposed to quantifying injury. Finally, because the rule requires a measurable or observable adverse change in a natural resource or service to be documented in addition to exposure, the "mere presence" of oil will not constitute an injury under the rule.

Comment: One commenter suggested that an existing state regulatory definition of injury be adopted to allow for consistent natural resource damage assessment within the state.

Response: NOAA believes that the definition of injury in the rule is consistent with the intent of OPA to facilitate expeditious, necessary, and cost-effective restoration.

Comment: Some commenters suggested the terms "measurable" and "observable" inappropriately allow injury to be determined using simplified procedures, notably the type A model or compensation formulas, which assume that injury always occurs from the presence of oil in the environment. Other commenters suggested that NOAA clarify that models that predict expected injuries based on past data are encompassed within the definition of injury.

Response: The commenters are referred to the procedures for determining injury in § 900.51 of the rule. The definition of injury must be met, and exposure and a pathway must be documented to determine injury. Any procedure used to document injury, exposure, and pathway must meet the standards enumerated in new § 990.27 of the rule, which seeks to ensure that the most technically appropriate procedure for the circumstances of an incident and an injury be used to make injury determinations, including those for exposure and pathway.

Comment: One commenter suggested that the injury definition be broadened to include habitat degradation.

Response: NOAA believes that OPA and the rule do apply to habitat degradation caused by incidents, so long as the requirements of the rule for determining injury are met.

Oil

Comment: A few commenters agreed that animal fats and vegetable oils are covered by OPA's definition of oil, but asserted that their limited capacity to cause harm in the environment should exempt them from coverage by this rule, or provide for a separate assessment process specifically tailored to these

different products. The commenters argued that Executive Order No. 12,866 on Regulatory Planning and Review requires that differential treatment be afforded these products. Other commenters similarly requested clarification as to whether natural or synthetic gas products, or coal tar and other coal-derived chemicals are classified as oil for purposes of the rule.

Response: NOAA notes that the commenters do recognize the capacity for animal fats and vegetable oils to cause natural resource injury if they are released in significant quantities. These products are included in the definition of oil under the NCP. NOAA believes that the rule's Preassessment Phase requirement that trustees assess the likelihood of natural resource injuries resulting from a discharge, along with the requirement that injury actually be determined prior to quantification, will provide appropriate safeguards for nonharmful products discharged into the environment. The preamble advises trustees that the nature of the product discharged (e.g., differences in physical, chemical, biological, and other properties, and environmental effects) should be evaluated in the trustee's Preassessment Phase. As to synthetic gas and coal-derived chemicals, substances that have been classified as hazardous substances are clearly not covered by this rule, but by the CERCLA rule.

Pathway

Comment: One commenter stated that the definition of "pathway" is somewhat vague in the use of the term "nexus."

Response: NOAA has replaced the term "nexus" with "link," to refer to the required connection between an incident and a natural resource or service of concern.

Person

Comment: Several commenters suggested that the definition of "person" should be modified to include agencies of the federal government.

Response: NOAA notes that the rule definition is consistent with the statutory definition.

Reasonable Assessment Costs

Comment: One commenter noted that the costs of conducting assessments represent unanticipated financial burdens on trustee agencies, so the rule should include provisions that require responsible parties to reimburse trustees for all legitimate expenses associated with incidents covered by the rule. Several commenters suggested that oversight costs for responsible party

participation and/or implementation of any assessment activities should be explicitly recoverable. While several commenters supported inclusion of administrative, legal, and enforcement costs in the definition, others strongly opposed this as outside NOAA's statutory authority. These commenters pointed to rulings prohibiting recovery of court costs in CERCLA cost recovery actions, and suggested that damage assessment costs necessarily cease at the point monetary damages are determined for a claim. Some commenters stated that duplicate assessment costs incurred as a result of trustees' failure to coordinate their efforts should be explicitly excluded from recovery.

Response: OPA defines damages as the costs of restoration, plus the reasonable cost of assessing those damages. Thus, damages encompasses whatever actions are reasonable and lawful under OPA to implement restoration, clearly including administrative, legal, and enforcement costs, as well as monitoring and oversight costs. OPA's requirement for public involvement in developing a restoration plan to form the basis of a claim for damages presented to a responsible party likewise makes the reasonable costs of facilitating public participation recoverable. OPA prohibits double recovery of damages, including assessment costs. However, NOAA does not believe that an inference of double assessment costs should be drawn solely from the fact that two or more trustees are assessing damages independently. The reasonableness of damage assessment costs must be evaluated relative to the specific injury for which a restoration action is being considered.

Comment: With respect to incremental costs and benefits, one commenter suggested that the phrase "reasonably related" is vague and subjective and should be modified. Another commenter stated that reasonable costs should include "expected" before "incremental cost" and "incremental increase." Some commenters interpreted the proposed rule to require a strict cost-benefit analysis in selecting any assessment procedures. One commenter suggested that the definition of "reasonable assessment costs" should not use word "reasonably" to define "reasonable." One commenter suggested that the reasonable cost definition should return to the 1994 proposed language of "reasonable under the circumstances, but only if in accordance with the rule."

Response: NOAA agrees that the 1995 proposed definition of reasonable costs was somewhat vague. NOAA also believes that the element of the

reasonable cost definition in the proposed rule, requiring incremental costs and benefits to be evaluated, is duplicative of the analysis trustees must make in selecting all assessment procedures used under this rule, as provided in the new § 990.27. Thus, this element has been deleted from the definition. The new provision in § 990.27 of the rule does not require a strict cost-benefit analysis of assessment procedures, as this would result in unreasonable assessment costs. Rather the costs and benefits analysis is intended to constrain the scope and scale of assessments to fit the circumstances of individual incidents and injuries.

Comment: Several commenters suggested that assessment costs should be strictly proportional to damages, with some suggesting that costs must not exceed damages to be reasonable, consistent with the CERCLA rule. Another commenter stated that assessment costs should be proportionate to the value of the restoration action, rather than the cost of that action. Other commenters suggested that reasonable costs must be related to the severity of an incident. Several commenters were troubled by allowing recovery of assessment costs where restoration is not pursued.

Response: NOAA agrees that trustees should determine an appropriate relationship between assessment costs and the costs of restoration and compensation sought as a result of the incident. However, NOAA does not believe that a strict proportion, or a cost ceiling equal to total damages or total value, is appropriate for all cases. There may be instances where assessment costs to determine appropriate restoration are necessarily high due to unique sampling or testing requirements, yet high costs would be justifiable given the importance of undertaking restoration—for instance, where an endangered species population has been injured. The rule places strict limits on instances where trustees can recover assessment costs if they do not pursue restoration. Trustees must have made, in good faith, all determinations required in the rule and proceeded in the assessment with a reasonable expectation that injury had occurred and restoration was needed.

Comment: One commenter stated that reasonable assessment costs should only include those costs associated with an assessment made at the site of the incident, not any assessment costs incurred at regional restoration sites. Other commenters argued that trustee costs of NEPA compliance and production of an administrative record

should not be recoverable, pointing to the CERCLA rule's omission of these procedural requirements.

Response: Reasonable assessment costs include costs associated with evaluating restoration alternatives and selecting an equally preferred approach for an incident. Costs associated with identifying and evaluating existing regional restoration plans or other existing proposed restoration projects among a range of alternatives to restore injuries resulting from an incident are reasonable costs under the rule. In addition, NOAA believes that maintenance of an administrative record will be a cost-effective mechanism of keeping the public and responsible parties informed of the progress and results of an assessment, and judges these costs to be reasonable costs of assessment. Similarly, because NEPA compliance is an existing statutory requirement applicable to restoration actions by federal trustees, these compliance costs are recoverable, just as any permitting requirements would be recoverable in implementing restoration under OPA.

Recovery

Comment: Several commenters argued that a focus on recovery of natural resources themselves, as opposed to services is counter to OPA's mandate. Other commenters suggested that baseline be explicitly incorporated within the definition of recovery, to ensure that the proper focus is the "without an incident" condition.

Response: As discussed under the definition of injury above, the condition of natural resources themselves may lawfully be assessed in identifying and quantifying injuries. NOAA does not believe that baseline needs to be redefined in the definition of recovery, but agrees that recovery refers to the condition the natural resources and services would have been had the incident not occurred.

Responsible Party

Comment: Some commenters requested revisions to the 1994 proposal's definition of "responsible party" to conform with the statutory definition.

Response: NOAA has replaced the definition of responsible party with the statutory definition.

Restoration

Comment: Most commenters were satisfied with the definition of restoration as encompassing all authorized actions under the statute (restoration, rehabilitation, replacement, acquisition of the equivalent), without

setting a preference for any of the statutory alternatives. Other commenters, however, felt that the rule limited trustee discretion in requiring consideration of restoration measures over acquisition measures.

Response: The rule does not require that restoration, rehabilitation, or replacement be considered before acquisition of equivalent natural resources. Acquisition of the equivalent is a viable option and includes actions that would enhance the recovery, productivity, and survival of the ecosystem affected by a discharge, preferably in proximity to the affected area.

Comment: Several commenters suggested that the distinction between "primary" and "compensatory" restoration needs clarification. Some of the commenters suggested that primary restoration should include any action, whether on-site, off-site, in-kind, or out-of-kind, that will return natural resource and/or service levels back to baseline condition. These commenters supported defining compensatory restoration as actions to make the environment and public whole for interim losses resulting from the incident.

Some commenters stated that the proposed rule could be interpreted to limit primary restoration to actions focused on the injured natural resources themselves. These commenters stated that relegating replacement or acquisition alternatives that use other natural resources solely to compensatory restoration is inconsistent with section 1006(d)(1)(A) of OPA (33 U.S.C. 2706(d)(1)(A)), which prescribes replacement and acquisition of the equivalent as measures of "primary restoration."

Response: NOAA intends that primary restoration actions encompass all actions authorized under section 1006(d)(1)(A) of OPA (33 U.S.C. 2706(d)(1)(A)), while compensatory restoration includes actions to compensate for the diminution in value of injured natural resources or services pending their recovery (section 1006(d)(1)(B) of OPA (33 U.S.C. 2706(d)(1)(B))). NOAA does not believe that OPA contains any explicit preference for a specific type of restoration, or whether it be accomplished on or off-site and has revised the rule. Because damages recovered for diminution in value must be spent solely to restore, rehabilitate, replace, or acquire the equivalent of the interim natural resource injuries, trustees should assess damages for diminution in value in terms of these types of actions. NOAA has amended the rule to reflect these considerations.

Comment: Several commenters asserted that NOAA has improperly broadened potential recovery for diminution in value by dressing it up as compensatory restoration, and defining these actions as those to make the environment whole, in addition to making the public whole. These commenters argued that compensatory restoration may only replace interim lost service flows to the public.

Response: The diminution in value of natural resources may be measured by a number of metrics, such as dollars or quanta of services lost. If no restoration actions are taken, or recovery with active restoration may still require a number of years, many types of services may be lost or diminished in the interim period, including ecological services, and OPA does not intend that only certain types of lost services be compensated. Diminution in value under the rule still appropriately encompasses interim lost services pending recovery and has not been broadened. The rule requires that trustees determine restoration actions to compensate for these losses rather than monetize the claim.

Comment: A number of commenters asked for or offered additional clarification on the distinction between "natural recovery" and "no action." Several commenters requested that NOAA delete the no action alternative. Several commenters strongly disagreed with classifying natural recovery as restoration, while several others appreciated the explicit requirement to consider natural recovery, which they expect will often provide the most cost-effective mechanism to return natural resources to baseline. One of the commenters noted that there should be a requirement that restoration only be undertaken if it significantly accelerates natural recovery. Finally, some commenters remarked on the difficulty and expense likely to be incurred to estimate the time required for natural recovery.

Response: NOAA has deleted the "no action" alternative from the final rule, as it was confusing in the context of evaluating restoration alternatives at the stage that injury and the need for restoration have been determined. The final rule will continue to require that natural recovery be evaluated as one of a range of primary restoration actions—actions intended to return injured natural resources and services to baseline conditions. The rule already requires trustees to assess the relative capability of each restoration alternative to accelerate recovery, so it is not necessary to add a requirement that a restoration alternative significantly

accelerate recovery relative to natural recovery. Finally, the rule requires that procedures to estimate natural recovery be evaluated according to the standards governing acceptability of any other assessment procedure, including the cost of alternative procedures relative to expected informational benefits for the circumstances of a particular incident. Thus, the rule allows that natural recovery may be estimated qualitatively or quantitatively. The rule also provides a number of factors as guidance in estimating natural recovery timelines.

Services

Comment: Many comments on the definition of services discussed the distinctions between "ecological" and "human" services. One commenter stated that the definition appropriately encompasses both concepts, but that the term "public services" is overly restrictive. By using the term "public" services, the commenter suggested that NOAA may inadvertently preclude recovery for lost services that benefit many individuals but not the general public. To address this problem, the commenter urged NOAA to use the term "human services" rather than "public services" throughout its final rule.

A number of commenters argued that the proposed definition of compensable services is faulty in including functions performed by one natural resource for another. These commenters suggested that ecological services are only compensable to the extent they provide services of value to the public, because ecosystem functions do not have economic value unless they help to support service flows to people.

These commenters further suggested that the proposed definition exceeds the scope of NOAA's authority since OPA does not authorize trustees to assess damages on behalf of non-human things or beings. The commenters noted that the measure of damages under OPA refers to losses to the public, since it is only people who have values for natural resource services. The commenters pointed out that the legislative history of OPA also makes it clear that "diminution in value" refers to the lost use value standard for measuring natural resource damages used in the *Ohio* decision (880 F.2d at 462-480)(H.R. (Conf.) Rep. No. 101-653, 101st Cong., 2d Sess. 108 (1990)), which made it apparent that the lost use value standard related to lost values to the public. Further, the commenters stated that the CERCLA rule on remand from *Ohio* specifies that compensable value means the value of "services lost to the public." 43 CFR 11.80(b).

Response: Humans and other species in the ecosystem are inextricably linked; consequently, ecological services are generally linked to human services. Trustees may not double-count public losses attributable to injured natural resources by seeking compensation both for human losses and for the ecological services that will return the same direct human services. However, in some cases it may be much more cost-effective to focus on the ecological services that occur on-site rather than the human services that occur off-site as a result of these ecological interactions. For example, a wetland habitat may provide on-site ecological services such as faunal food and shelter, sediment stabilization, nutrient cycling, and primary productivity. Off-site human services may include commercial and recreational fishing, bird watching along the flyway, water quality improvements for drinking water supply or the aesthetics of nearby residential property, and storm protection for on-shore properties due to the creation of wave breaks.

Consequently, the inclusion of ecosystem services is consistent with OPA. However, trustees must ensure that they do not seek compensation both for human losses and for the ecological services that will return the same direct human services, which would create a double recovery.

Comment: Many commenters asserted that the concept of baseline should be built into the definition of compensable services. These commenters suggested that baseline measures of use services should incorporate relevant site-specific factors that influence demand for the services and should reflect established committed uses rather than speculative levels of use. The commenters stated that NOAA should include the CERCLA's rule definition and requirement of "committed use" in its rule, which is defined as either "a current public use; or a planned public use for which there is a documented legal, administrative, budgetary, or financial commitment before the discharge of oil or release of a hazardous substance" (43 CFR 11.14).

Response: NOAA does not believe that baseline must be incorporated into the definition of services, given the requirement to quantify services injuries relative to baseline. NOAA agrees with the commenters that speculative future uses of natural resources are not compensable under OPA and that this limitation is inherent in the requirement that trustees determine the existence of injury or service injuries before quantifying restoration requirements.

Comment: Several commenters suggested that the definition of "services" should explicitly include both "direct and passive uses." Some of these commenters also requested that NOAA include examples of passive services in the definition.

Response: NOAA agrees that compensable services include both direct and passive uses, and that the rule provides for recovery of both.

Value

Comment: A number of commenters supported the definition of "value" as proposed. However, other commenters suggested that this definition is vague, and needs to be refined. One commenter suggested that the definition of "total values" in the rule and the discussion in the preamble are not consistent. Another commenter did not understand what the "units" represent in the definition, with another commenter suggesting that OPA restricts compensation to dollars. A few commenters indicated that NOAA should replace the word "good" with goods or services, as people value both goods and services. One commenter suggested that NOAA change the last sentence to read: "The total value of a natural resource and/or service is equal to the sum of all values held by an individual across all individuals."

Finally, a few commenters argued that passive values should be excluded because they cannot be reliably measured. The commenters suggested that NOAA's silence results in an equal treatment of use and nonuse values; implicitly allowing for the calculation of nonuse values using contingent valuation without any specific standards.

Response: NOAA does not believe that OPA restricts measuring lost value solely in terms of dollars, and has amended the rule to allow for computation in terms of goods, services, or money.

Subpart D—Preassessment Phase

Section 990.40—Purpose

Comment: Several commenters felt that the proposed new language on preassessment is a significant improvement over the January 1994 proposal. These commenters stated that the new Preassessment Phase achieves the necessary goals of this early stage of an assessment, which is to cost-effectively and timely determine whether injuries to natural resources have likely occurred such that further trustee action on behalf of the public is warranted.

A few general concerns, however, were expressed by one commenter. This

commenter was under the impression that preassessment activities require identification (as reflected by the qualifier "observable") and quantification (as reflected by the qualifier "measurable") of injury. The commenter noted that observing adverse changes is typically less difficult than measuring actual or approximate losses, suggesting that this portion of the rule not be so narrow as to require precise measurement of degradation in situations where a loss has been observed. To facilitate more effective mitigative strategies, the commenter suggested preassessment activities be segregated into analyses of impacts to aquatic organisms and habitat.

The same commenter further stated that the costs of conducting preassessment activities may represent unanticipated financial burdens on trustees. The commenter suggested the rule include provisions that require responsible parties to reimburse trustees for all legitimate expenses associated with incidents covered by the rule.

Response: The purpose of Preassessment Phase activities is to determine whether it is legitimate for trustees to take action under this rule for purposes of OPA, and whether it is reasonable to do so, given their responsibilities to act on behalf of the public to see that injured natural resources and services are restored. At this stage of an assessment, actual determination and quantification of injury are not required. Costs should not necessarily be great at this phase of an assessment, depending on the circumstances of an incident and resulting injuries, and trustees are encouraged to contain costs by limiting the amount of data collection and analysis conducted, and to coordinate early with response agencies and responsible parties to prevent duplicative efforts.

Section 990.41—Determination of Jurisdiction

Comment: One commenter stated that the notification language is too weak and that the OSC or lead response agency should be required to notify natural resource trustees. This commenter indicated that the OSC or lead response agency should not only consult with the affected trustees concerning removal actions, but should also consult with affected trustees concerning protection strategies.

Response: NOAA notes that coordination between the OSC and trustees is covered in section 1011 of OPA (33 U.S.C. 2711) and in the NCP. The duties of the OSC, including

coordination, are covered by other rulemakings, not this rule.

Excluded Discharges

Comment: One commenter suggested that the language in this part should be modified to exclude only those discharges that are in compliance with a permit under federal, state or local law. The commenter pointed out that discharges that exceed permitted limits should not receive an exemption from natural resource damages liability simply because they emanate from a permitted discharge point.

Another commenter remarked that tribal permits should also be included within this language.

Response: The language of the rule copies the statutory language on excluded discharges, including the reference to permits under local law. NOAA interprets the phrase "permitted by a permit" to mean that only discharges that are authorized by, and thus in compliance with, the terms of a permit are eligible for the exclusion.

Comment: One commenter noted that public vessels are used as an example of exclusion from liability and suggested it would be helpful for the preamble to reiterate that exclusion in addition to the permitted discharge exclusion. Another commenter questioned why onshore facilities subject to the Trans-Alaska Pipeline Authority Act (TAAPA), 43 U.S.C. 1651 *et seq.*, are exempt from liability.

Response: NOAA has amended the preamble to include the citation to the OPA sections providing for the excluded discharges and notes that the TAAPA facility exclusion is provided by OPA.

Comment: Another commenter noted that the Oil Spill Liability Trust Fund cannot be accessed to initiate assessments for incidents originating from a federal facility. The commenter asked what mechanisms exist that would allow for restoration given this situation.

Response: NOAA notes that trustee agencies may be called upon to carry out restoration out of agency budgets where there are no other funding sources available.

Injured Natural Resources or Services

Comment: Several commenters stated that the rule necessitates identification and notification of all trustees in order to determine whose trust natural resources may be injured, which is crucial to coordination among trustees.

One commenter indicated that the rule should clearly state that all physical, on-site trustee activities, including data collection and analysis,

occurring concurrently with removal efforts are subject to the approval and overall direction of the OSC. The commenter stated that the rule should also require effective coordination between natural resource trustees and participants in the incident response, consistent with the NCP (40 C.F.R. § 300.305(e), 50 FR 47384, 47445 (Sept. 15, 1994)).

Response: NOAA agrees that coordination among all affected trustees is extremely important, especially during Preassessment Phase activities. The requirements for coordination are enumerated in § 900.14 of the rule rather than in individual subparts, to emphasize that the duty to coordinate is applicable to the entire assessment. NOAA does not believe that an explicit requirement to identify and contact other trustees should be included in the rule. Trustees need maximum flexibility during the often hectic response phase to ensure that, among other things, ephemeral data is collected. NOAA notes that identification and contact among trustees virtually always occurs during the response phase, if for no other reason than requests for initiation funding from the Oil Spill Liability Trust Fund require such coordination.

The requirement to coordinate with the OSC is also included in § 990.14. Although NOAA agrees and the rule reflects that trustee activities may not interfere with response activities, NOAA disagrees that any requirement exists, nor should it exist, that the OSC must approve all trustee activities. Many of these activities are far outside the realm of authority or interest of the OSCs.

Decision to Proceed

Comment: One commenter indicated that injury determination should be a precondition to trustee jurisdiction. The commenter pointed out that restoration under OPA is, by definition, wholly retrospective, and does not extend to measures designed to prevent or contain "threatened discharges." The commenter stated that the injury determination in § 990.51 should be satisfied in the Preassessment Phase before the restoration planning process begins.

Response: NOAA disagrees with the comment. Injury determination is properly part of the formal assessment, and is not required during the Preassessment Phase. Determination of injury at this point may result in unreasonable assessment costs without some sort of screening process provided in this phase.

Section 990.42—Determination to Conduct Restoration Planning.

Considerations

Comment: One commenter suggested that the conditions in this part are subjective and require more specific guidance. However, another commenter was concerned about being required to complete some of the determinations at such an early stage in the process when it may be particularly difficult to determine whether response actions will adequately address injuries.

Response: There is necessarily a subjective component in trustees applying their best professional judgment to existing or readily available information in order to make the determinations in this section. NOAA believes that this balance of judgment and data analysis is most appropriate and cost-effective at this stage of an incident.

Comment: A number of commenters indicated that the responsible parties should be included (and officially notified) in the determination to conduct restoration planning. The commenters questioned whether the administrative record will be open during this stage, and whether all data used to make a determination to conduct restoration planning will be made available to responsible parties.

Response: The rule provides that identified responsible parties be notified and invited to participate in the assessment as soon as practicable, but no later than the point that trustees decide to conduct restoration planning and prepare a public notice to that effect. Participating responsible parties will be provided documents detailing the determinations that are required under the rule. The rule also indicates that the administrative record should be opened concurrently with issuing the Notice of Intent to Conduct Restoration Planning. The record is available to responsible parties as well as any other member of the public.

Comment: Another commenter noted that the need for restoration is based on an evaluation of whether response actions will alleviate the residual injuries. The commenter suggested that the rule should clarify that both residual injuries and direct, initial injuries are to be considered at this point.

Another commenter suggested that it may also be difficult to determine whether feasible restoration alternatives exist when the trustees do not yet know the full extent of the injuries. A number of commenters were concerned that the notion of "feasible" might be narrowly interpreted to mean "on-site/in-kind," in which case restoration may not be

possible. One of these commenters suggested that the rule allow both primary and/or compensatory restoration actions that might be considered.

Response: NOAA agrees that all injuries occurring from the time of the initial or threatened discharge should be considered in evaluating the efficacy of response actions in alleviating the need for restoration. Response actions may be effective in restoring some injuries caused by the initial incident, for instance by removing oil from a sandy beach so that the beach can be reopened. While this response action may restore a natural resource service to baseline, it would not compensate for the interim lost use that occurred during the closure period. The rule has also been amended to indicate that feasible primary or compensatory restoration actions should be assessed in making the determination to proceed with restoration planning.

Decision to Proceed

Comment: Several commenters supported the provision authorizing trustees to recover reasonable assessment costs incurred up to the point that preassessment determinations are made. However, one commenter notes that it is thus incumbent upon the trustees to limit their assessment costs. The commenter suggested that prompt decisions by the trustees on jurisdiction and the need for restoration will ensure that costs are contained, and eliminate the possibility for responsible parties to delay completion of response measures until such trustee determinations are made. The commenter thus recommended trustees be required to make both determinations within ninety (90) days of an incident.

Response: The rule provides that all reasonable costs of assessment are recoverable, including those costs incurred up to the point trustees decide not to pursue restoration. Costs must meet the rule's definition of "reasonable assessment costs" to be recoverable. NOAA disagrees with the need for or utility of a ninety-day limit on making the determination to conduct restoration planning, and doubts that fear of this determination will cause responsible parties to drag out costly response activities. NOAA believes that any time limit would be arbitrary, given the great variability in the progress and timing of cleanup activities from incident to incident.

Section 990.43—Data Collection

Comment: One commenter questioned how the determinations in § 990.42 are to be made based upon "readily

available information." The commenter suggested this limitation is acceptable if it includes all the sources listed in this section. One commenter also suggested the term "limited" in the proposed rule may imply that if trustees went too far in data collection, they might not be entitled to the rebuttable presumption and/or costs for that data collection because they might not be considered "reasonable." A few commenters stated that, so long as the data to be collected is reasonably related to the assessment, no other restrictions should be placed on its collection. In contrast, one commenter noted that there are no controls specified in this part over the expense or timing of preassessment data collection activities.

Response: The rule has been amended to specify that data collection and analysis that are reasonably related to the purposes of the Preassessment Phase may be conducted in accordance with the rule. The rule provides guidance on the types of information that may be useful in making Preassessment Phase determinations. The term "limited" has been removed from the rule, but was originally intended to suggest that data collection should be related to the determinations required to be made at this stage, and thus to the nature of the incident and its injuries, and the relevance and utility of available information.

Comment: Another commenter suggested that trustees should be able to use models or extrapolations from scientific literature when it is more appropriate and cost effective than gathering site-specific data.

Response: NOAA notes that the type of analysis suggested by the commenter is exactly the type of reliance upon existing information that this section intends to be available to trustees, if such information is relevant to the incident.

Section 990.44—Notice of Intent to Conduct Restoration Planning

Comment: Several commenters suggested that the rule should explicitly acknowledge the need for flexibility in completing the Preassessment Phase. The commenters noted that, since incidents vary greatly in scope, the effort invested by trustees should be proportional to the magnitude of the incident, therefore, the rule should allow the public notice and participation steps to be compressed, when appropriate. Other commenters pointed out that the proposed language requires trustees to prepare a public notice, even if they have declined to proceed with an assessment. Another commenter suggested that trustees

should be required to provide the specific authority for which the trustees are asserting a potential claim in the Notice.

Response: NOAA believes that the rule does direct trustees to tailor their preassessment activities to the nature and extent of an incident, given the determinations that this section requires trustees to make. Section 990.14(d) has been amended to explicitly provide that the degree, extent, and timing of public participation prior to development of a draft restoration plan is within the discretion of the trustees. The final rule also indicates that the manner of making the Notice of Intent to Conduct Restoration Planning publicly available will depend on the nature and extent of the incident. The final rule also explicitly requires that the notice reference the specific authority under which trustees are pursuing a claim for restoration of their trust natural resources.

Comment: One commenter suggested that notice requirements to the responsible party, and required contents of the notice, are unclear. Another commenter noted the requirements to prepare a notice and open the administrative record should be moved to a later point in the assessment, so that such requirements will not hamper necessary trustee activities.

Response: NOAA has amended the rule to indicate that a written copy of the notice must be sent to identified responsible parties, and the rule at § 990.44 now specifies information for inclusion in the notice. The rule provides trustees the flexibility to conduct essential Preassessment Phase activities that will allow them to make the requisite determination that they should proceed with restoration prior to turning their efforts to preparing a Notice of Intent to Perform Restoration Planning and opening an administrative record.

Section 990.45—Administrative Record Review on the Record

Comment: Several commenters argued that the rule should not be silent on the standard of review for assessments, but should emphatically, specifically, and clearly state that the standard of review applicable to trustee decisions, based upon an administrative record, is like that of any other "final agency action" contemplated under the Administrative Procedure Act (5 U.S.C. 551–59, 701–06), or applicable State or tribal counterparts. Some of these commenters suggested that because OPA authorizes NOAA to provide for the administrative adjudication of damages (33 U.S.C. 2706

(c)–(e)), the promulgation of a rule providing for such administrative adjudication would ensure that OPA's restoration goals are met. These commenters also objected to NOAA's failure to provide for procedures to administratively adjudicate natural resource damages that should, in particular, provide for a hearing to be held by a neutral arbitrator when requested as the statute requires.

Several commenters noted that, if NOAA is wrong about the effect of the rule, then following the rule will severely prejudice the trustees. The commenters stated that, if responsible parties are successful in conducting "shadow" assessments and convincing courts that they are entitled to trials *de novo*, then the public will be ill-served by trustees complying with the rule. The commenters pointed out that, unlike the responsible parties, trustees will be forced to reveal their claim, data, procedures, and analyses in an open process and losing any litigation privileges on their scientific information, which will put trustees at a distinct disadvantage in litigation compared to responsible parties. The commenters also noted that protections are necessary so that a breakdown of a cooperative process, in which information has been shared, does not undermine the ability of trustees to make recoveries and complete restoration.

Several commenters described the expected benefits of review on the administrative record process, including greatly reduced amounts of litigation, and associated transaction costs, greater public participation in damage assessment and restoration decisions, and enabling trustee agencies to make decisions on natural resource damage assessments and restoration plans within their areas of expertise, instead of having courts decide extremely complex technical, scientific, and economic determinations. Other commenters stated that record review would be beneficial to the responsible party, who will be able to contest any trustee decisions from a neutral, common body of data which they may help to develop.

Other commenters argued that the Seventh Amendment to the U.S. Constitution, which guarantees a jury trial in suits at common law, does not preclude record review of the damage determination, stating that the Supreme Court has interpreted this language as applying to actions analogous to those brought in 18th-century English courts of law as opposed to courts of equity or admiralty. The commenters argued that a claim for damages to natural resources

is much more analogous to an equitable action than a legal one. Some commenters stated that record review is also mandated by the rebuttable presumption since it would make no sense for there to be such a presumption absent record review. The commenter noted that the rebuttable presumption is based on the existence of a full record and careful administrative decisions.

Other commenters addressed other statutory processes that grant record review to comparable regulatory processes, such as NEPA. The commenters pointed out that, although the cases are not directly on point, a few courts have applied a deferential standard of review to decisions of state or local agencies made pursuant to NEPA. One commenter specifically stated that NOAA should not try to imply that NEPA compliance is intended to or construed as an indirect means of attaining deferential review on record.

Some commenters suggested that the rule now creates a negative inference regarding applicability of record review by retreating from its earlier, wholly defensible position. The commenters stated that NOAA need not make the standard of review mandatory in the rule, but should express its legal opinion in the preamble regarding record review based on the "arbitrary and capricious" standard.

Several commenters endorsed the decision not to expressly address in the rule a standard of judicial review, but the commenters argued that legal and policy considerations dictate that NOAA should not imply such a standard either. The commenters noted that simply changing "compensable values" to "compensatory restoration" is not enough to bring such components under a presumed preferential standard of review. The commenters argued that, since this element remains based on the same statutory provision for "diminution in value," it would still be subject to *de novo* review.

One commenter noted that the rule provides so little meaningful restraint on trustee discretion, the unfairness of a record review approach is patent.

Response: NOAA agrees that damage assessment determinations made pursuant to OPA constitute final agency actions typically subject to review on the record by federal courts, and fully expects that this is the standard of review that will be applied. NOAA agrees with the benefits and rationales discussed in support of record review, and also agrees that the rebuttable presumption is not inconsistent with review on the record. NOAA does not agree that diminution in value

necessarily provides for *de novo* review by a court, given that this is but one element of a claim for damages, all of which must be applied to restoration. NOAA does not believe that many responsible parties are interested in conducting "shadow" assessments.

However, NOAA does not believe that it is within the scope of responsibility tasked to NOAA to promulgate natural resource damage assessment regulations to specify reviewing court procedures and protocols. No negative inference should be drawn from lack of declaration within the rule that review on the record is the expected standard of review.

Comment: Some commenters noted that preparation of an administrative record need not significantly delay the assessment or "overwhelm" trustees in conducting assessments. The commenter stated that it is usually rather simple and straightforward for the trustee contemporaneously to organize all documentation supporting its decisions into an administrative record, and that such preparation will save tremendous time and resources in preparing for a record review trial, although not necessarily for a trial *de novo*.

Some commenters stated that the responsible party should be required to meet the same public disclosure standards as the trustees, to whatever extent they are involved in the assessment. These commenters noted that public involvement is made more meaningful and restoration plans are more properly suited to the injury as more data is available, and the availability of data also removes the uncertainty of litigation as well. One commenter expressed concern that the use of the record will compromise trustees' litigation, with no corresponding risk for the responsible party. Some commenters noted that sharing information may be an enticement to responsible parties to join trustees in an assessment; this incentive would not exist if the trustee is required to reveal information in the record in any case.

Response: NOAA agrees that preparation of an administrative record need not delay the assessment. Past experience has indicated that secretive assessments are not in the best interests of the public or the natural resources. It is in all parties' interests to openly and cooperatively determine what restoration actions are needed as a result of an incident, so that restoration can be implemented quickly. NOAA believes that delayed restoration defeats the purposes of OPA. NOAA does not believe that responsible parties are

likely to gain any advantage by not participating equally and openly in preparation of the administrative record, and expects a reviewing court would view with disfavor the withholding of information to spring upon the trustees at the eve of trial.

Contents of the Record

Comment: One commenter asked for clarification as to what types of documents should be included in the administrative record.

Response: NOAA points out that federal trustees should maintain the administrative record, including what documents might be included in administrative record, in manner consistent with the Administrative Procedure Act. Trustees should be guided by an understanding that all documents relied upon in making ultimate determinations about restoration should be included in the record.

Comment: Some commenters expressed concern that third party litigants would use the information in the record to advance private claims. One commenter suggested that attempts by third parties to obtain information from the record would delay the restoration process. Another commenter noted that the kind of information in the record, focused on restoration, may not be particularly helpful to third party litigants.

Response: It is not uncommon that private parties use publicly available information obtained from governments to support their private claims. Information gathered during an assessment on behalf of the public should not be withheld from the public. NOAA does not expect that allowing public access to an administrative record will result in delays in restoration.

Subpart E—Restoration Planning Phase

Section 990.51—Injury assessment

Causation

Comment: Some commenters stated that the proposed rule does not clearly require trustees to use sound and reliable science, or provide specific requirements to be met in the various steps of the injury assessment. Several commenters stated that the rule must include rigorous standards and criteria for determining that an observed injury was caused by an incident to avoid unsupported, unnecessary, and unreasonable claims. One commenter noted that if the damage assessment is used for evidence collection, the question of how the data will be used

raises a question of the level of confidence.

Response: The treatment of injury determination within the rule supports the use of sound and reliable science to demonstrate that injuries identified have resulted from the incident. This treatment embodies the principles and practices of natural resource damage assessments developed over the past several years.

Comment: Several commenters raised concerns regarding demonstrating causation for injuries resulting from response actions or a substantial threat of a discharge. These commenters noted that trustees must still show clear and specific causation for those injuries resulting from the response or threat, not from some other cause. Other commenters also stated that the rule should clarify that injury assessment is not limited solely to addressing injury residual to response actions, but should include direct, initial injuries.

Response: For injuries resulting from an actual discharge, trustees must evaluate exposure and pathway and demonstrate that injury resulted from the incident. For injuries resulting from a response action or a substantial threat of a discharge, trustees must also demonstrate that the injury occurred because of the incident. Under this rule, assessments are not limited solely to addressing injuries residual to response actions, but include the direct, initial injuries. Evidence supporting the linkage between the incident and injury must be established to demonstrate injury. The rule's requirement to quantify injuries relative to baseline may provide the proof of causation.

Comment: One commenter requested that the rule state that an incident should be deemed the cause of an injury if the incident was a contributing factor to an indivisible injury, as provided in the 1994 proposal.

Response: NOAA does not believe it is appropriate to advocate legal standards of causation in the rule. Injuries must be determined to have occurred, then quantified relative to baseline, to be in accordance with the rule.

Injury Determination

General

Comment: Several commenters stated that the exceedance of some threshold or criterion by itself should not constitute an injury unless it can be shown to be relevant to each phase of injury determination, have population, habitat, or ecosystem level effects, or directly affect the human population. The commenters noted that the rule

should require injury determination and quantification for such injuries unless there are special circumstances such as threatened or endangered species.

Response: NOAA disagrees that the suggested limitations on the definition of injury are appropriate or warranted given OPA's mandate to make the environment and public whole. If an injury resulting from an incident can be cost-effectively and reliably determined and quantified, and feasible, cost-effective, environmentally-beneficial restoration actions can be identified, then restoration should be pursued. However, NOAA does not suggest that each and every injury, regardless of its nature and scale, should be pursued in an assessment. Trustees proceed with an assessment when the information on injury is adequate to justify restoration.

Comment: Some commenters suggested that the acceptance criteria in the CERCLA rule for injuries should be adopted in this rule. Other commenters did not understand the need for acceptance criteria, which were viewed as too restrictive and narrow. Another commenter specifically asked that the rule make the assessment consistent with the Archaeological Resources Protection Act (ARPA), 16 U.S.C. 1361 *et seq.*, or at least incorporate the ARPA criteria.

Response: The rule does not list specific acceptance criteria for injuries *per se*. The rule does, however, include factors aimed at achieving meaningful restoration. NOAA believes that the rule is adaptable and will allow trustees to select the injuries and assessment procedures that will provide reliable and valid information to determining appropriate restoration. Thus, the assessment process described in the rule should be flexible enough to incorporate the concerns and goals of ARPA.

Demonstrating Exposure and Pathway

Comment: Several commenters argued that allowing demonstration of exposure and pathway by procedures other than field procedures would allow trustees to claim injury without leaving their desks. The commenters stated that the rule should require trustees to show evidence of actual exposure and a pathway. Another commenter, however, suggested that trustees might use procedures other than those used in the field to demonstrate exposure and a pathway, if environmental conditions or other assumptions are comparable between the proposed procedures and the actual field conditions. Some commenters suggested that the phrase "plausible pathway" be changed to "reasonably likely pathway."

Response: Like any other assessment procedure used under this rule, procedures to determine exposure and pathway must meet the standards for acceptable procedures in § 990.27. Thus, the most appropriate procedure for the circumstances will be selected by trustees, and NOAA does not believe that any of the suggested limitations or qualifiers are necessary in the rule.

Focus on Services

Comment: Many commenters argued that injury assessment should focus on the services provided by a natural resource rather than simply the natural resource's physical, chemical, or biological properties. The commenters noted that, given that ecosystems need some level of disturbance to maintain biological diversity, and the difficulty in determining recoverability of natural resources since natural resource stability does not exist, adverse effects to natural resources that cannot be linked to services provided to the public or the overall functioning of the population, community, or ecosystem ought not be considered under the rule.

Response: OPA states that trustees "shall assess natural resource damages" (section 1006(c)) and that these damages are "for injury to, destruction of, loss of, or loss of use of, natural resources" (section 1002(b)(2)(A)). The language of OPA clearly does not indicate a preference for services over natural resources.

On a practical basis, the determination of recovery is possible, as demonstrated by the wealth of information on this topic in the literature and summarized on NOAA's restoration guidance document, listed in the Bibliography at the end of the preamble. Ecological concepts such as stability, although not static, can also be reasonably determined and thus used to define recovery. This is also supported by the literature. Thus, contrary to the commenter's position, NOAA maintains that recovery of natural resources, as a practical matter, can and must be considered in order to fulfill OPA's goal of making the environment and public whole.

Panel of Experts

Comment: Some commenters suggested that NOAA establish a team of experts in ecology to provide a better scientific basis for determining and quantifying injury to natural resources. These commenters also had specific concerns with the use of certain procedures, e.g., biomarkers, and the manner of accounting for indirect effects.

Response: NOAA does not believe it is necessary at this time to convene a panel of experts. Instead, the standards for procedures provided in § 990.27 should address the concerns about certain procedures on a case-by-case basis.

Types of Injuries

Comment: Several commenters suggested that the rule include a list of pre-accepted biological and non-biological injuries and parameters such as reproductive success and juvenile or adult survival. The commenters stated that the rule should also provide a mechanism to modify the list of accepted injuries as new information becomes available. These same commenters stated that, whether or not such a list is finalized, the rule should allow an injury to be determined based on a discharge, known concentrations, and literature documentation that such substances in such amounts injure certain natural resources. One commenter suggested the rule implies that trustees will assess injuries that do not meet some unarticulated threshold. The commenter stated that the decision to select injuries for assessment should be left to the discretion of the trustees.

Response: The rule does provide that it is within the discretion of trustees to select subsets or representative injuries and parameters from the suite of injuries and parameters to include in the injury assessment and restoration planning. Rather than specify discrete categories for limiting this scope, e.g., recreational importance, the rule encourages a focus on accomplishing meaningful restoration by identifying factors to consider in selecting injuries to include in the assessment. The guidance document on injury provides information on the types of injuries that may result from incidents involving oil.

Framework for Assessment

Comment: One commenter indicated that the rule should provide a framework that is interpretable to all trustees. The commenter suggested that the ecological risk assessment procedure would greatly facilitate the assessment.

Response: NOAA believes that the rule does provide a comprehensible, logical, and straightforward assessment procedural framework. The general logic of ecological risk assessment is reflected in the assessment process in the rule. However, NOAA does not believe that the approach typically involved in risk assessment is appropriate for all, or even most, incidents.

Injury Procedures

Comment: One commenter stated that the rule should more clearly state that both quantitative and qualitative procedures may be used in an injury assessment.

Response: Both quantitative and qualitative procedures are available to trustees under this rule. This flexibility is made clear in the discussion of the standards for acceptable procedures in § 990.27 and in the definition of injury in § 990.30.

Proceeding With the Assessment

Comment: One commenter stated that the rule requires that all of the listed criteria for determining injury must be met before trustees may proceed with an assessment. The commenter noted that it might not be feasible to have documented all the criteria at this point, thus the rule should simply require that trustees "consider" these criteria before proceeding with restoration planning.

Response: The conditions in the rule are intended to encourage a focus on necessary and meaningful restoration. Therefore, proceeding with an assessment at this stage is contingent upon demonstrating injury.

Public Involvement

Comment: Some commenters argued that there should be greater public involvement in the injury determination, quantification, and restoration process so that the public will be allowed to participate in the selection of injuries to be included in the assessment. The commenter noted that the public may be aware of injuries of which the responsible party and trustees are unaware. The commenters stated that, if the public input is to be meaningful and comply with OPA, the public must be given a formal means of involvement throughout the process.

Response: The rule acknowledges the value of involving the public in the assessment, and requires that trustees provide opportunities for public involvement after making the decision to develop restoration plans. Additional opportunities may be provided at any time prior to this decision if such involvement facilitates the decisionmaking process or helps to avoid delays in restoration.

Section 990.52—Quantification

Baseline

Comment: Some commenters stated that the rule does not require quantification relative to baseline. Commenters noted a number of difficulties associated with determining baseline for quantification purposes

including the use of historical data that may not reflect current conditions at the site of the assessment and the need to account for natural variability or confounding influences to adequately compensate for injuries without overestimating the injuries. The commenters also pointed out that non-equilibrium systems are the rule, so baseline may be difficult to define, let alone achieve. Finally, the commenters also noted that funding is rarely if ever available for establishing baseline.

Some commenters argued that quantification should focus on services rather than natural resources, therefore baseline should be defined as the flow of services to the public that would have existed in the absence of the incident.

Response: The approach for quantification does relate injury to baseline. The rule acknowledges the inherent difficulties in collecting traditional baseline data and has been expanded to encompass other appropriate types of data for comparison. Broadening the concept of baseline will allow trustees to more appropriately adapt the quantification approaches to the circumstances of an incident. NOAA also notes that strict reliance on services is neither explicitly stated nor implied under OPA. Thus, the definition of baseline and its application to quantification is retained in the rule.

Quantification Approaches

Comment: A number of commenters argued that the rule should require quantification of the reduction in services resulting from the incident, as required in the CERCLA rule. Some of the commenters stated that the dichotomy of measuring the change in the natural resource itself, or directly in the services is unnecessary and that only the measurement of reduced services can serve as a predicate for compensable natural resource damages. Some commenters argued that NOAA should adopt acceptance criteria for injury quantification, such as: service reductions must be linked to the discharge and the natural resource injury; service reductions must be measured relative to baseline; service reductions must be measured in terms of functions provided by the injured natural resources, not the physical quantities or qualities of the natural resources; and measurements of service reductions must account for the presence and availability of substitute services.

Response: The rule allows trustees to assess the injured natural resources directly and/or directly assess the lost services provided by injured natural

resources. NOAA believes that narrow restrictions on assessing services to humans will fall far short of fulfilling the intent of OPA to make the environment and public whole. NOAA believes that the public does value and benefit from productive, functional, and healthy natural resources, habitats, and ecosystems. Neglecting OPA's mandate to restore that which was injured and substituting natural resources on a narrow cost and human use basis would result in real degradation of the natural resources. Establishing additional quantification criteria focusing on human services would be inappropriate.

Scale of Injury

Comment: One commenter stated that quantification should be limited to only those injuries necessary, and only to the degree necessary, to develop appropriate restoration measures. Some commenters pointed out that a consideration of the extent of injuries should not be restricted to the physical boundaries of the incident, particularly where natural resources at risk are highly mobile and seasonal in their distributions.

Response: Quantification is appropriate where injury has been determined to have resulted from the incident. Where information on injury provided by quantification procedures is adequate to justify restoration, then restoration actions should be pursued. Also, under the rule, the spatial and temporal extent of injury is not restricted to the physical boundaries of the incident and trustees may consider the particular characteristics of a natural resource, including its mobility, in quantifying injury.

Committed Services

Comment: Some commenters requested that the rule allow reduction in service flows only for established or "committed" services to avoid speculative recoveries.

Response: The provisions in the rule relating to quantification of services lost relative to baseline ensure that speculative recoveries are avoided.

Injury Quantification Procedures

Comment: One commenter stated that the rule should call for field-based quantification procedures, including a set of general and basic standards for quantifying reductions in services. Other commenters requested that the rule provide trustees with the ability to choose one or any combination of quantification procedures, so long as there is no double recovery.

Response: NOAA does not believe that the rule should prescribe limited or

specific procedures for quantifying injury, as it is infeasible to determine the universe of procedures that would be appropriate for all incidents. Such a limitation would prevent trustees from using the most appropriate procedure for the circumstances of the incident, and would likely prevent use or adaptation of procedures to provide quantification information that is useful in restoration scaling. Instead, the rule provides standards in § 990.27 for use in determining appropriate procedures. The rule does allow trustees to use a combination of the suggested quantification approaches, but prohibits trustees from applying injury quantification procedures in a manner that would result in double recovery.

Substitutes

Comment: One commenter argued that the rule fails to require consideration of substitutes when injury is defined in terms of a reduced population as opposed to a broad enough category to incorporate substitution.

Response: Substitution is not explicitly identified as a factor in quantifying injuries because it is only relevant to a subset of injuries or losses—those that relate to value flowing from behavioral opportunities available to humans.

Natural Recovery

Comment: Several commenters stated that the requirement for estimating the time for natural recovery may be difficult to meet, and that the rule should instead call for this estimate when such estimate is readily available and cost-effective, and when no primary restoration is likely to be effective.

Response: NOAA acknowledges the difficulty in estimating natural recovery and has provided the necessary flexibility to trustees. The rule has been amended to provide that recovery may be estimated quantitatively or qualitatively, depending on the circumstances of the incident and procedures available that meet the standards for procedures under § 990.27.

Section 990.53 Restoration Selection—Developing Restoration Alternatives

General

Comment: Many commenters supported the shift in focus from monetization of damages to scaling of restoration actions. These commenters stated that the proposed rule properly places the focus of the damage assessment on the ultimate goal of OPA to restore injured natural resources and

services, and incorporates best current practices currently being used by trustees and responsible parties to achieve this goal in an expeditious manner. However, many other commenters raised concerns that the scaling approach would lead to delays and increased assessment costs, since trustees would undertake studies of lost services and replacement services, and would not substantially further the goal of reducing transaction costs. Other commenters suggested that requiring trustees to quantify all damages in terms of specific restoration actions and costs places trustees in the position of either settling for compensation for immediately apparent, short-term losses or delaying the restoration process while waiting for long-term injuries to become apparent. One commenter noted that the public will not be served in either case; therefore, trustees should be allowed to recover damages, then determine the most appropriate restoration approach over time. Another commenter argued that as accurate assessment becomes more difficult and costly, less scientific rigor will be required.

Response: Trustees are required, under section 1006(c) of OPA (33 U.S.C. 2706(c)), to “develop and implement a plan for the restoration, rehabilitation, replacement, or acquisition of the equivalent, of the natural resources under their trusteeship.” By permitting a variety of possible restoration activities, this section of OPA leaves to the trustees’ discretion the determination of the most appropriate activity, recognizing the legislative history’s indicated preference for restoration over acquisition of equivalent natural resources. All damages recovered must be spent on some restoration activity. Thus, it makes sense that evaluating potential restoration actions provide the focus of an assessment. It does not benefit the natural resources or the public if monies are collected without a view toward how they will be spent, nor whether sufficient funds have been collected to implement any meaningful action. OPA is not about collecting money. NOAA believes that, contrary to some comments, the restoration approach will generally speed restoration and avoid litigation, by alleviating distrust that claims for monetary damages are speculative and punitive. Practical experience in implementing the restoration scaling approach in past cooperative assessments has led NOAA to the belief that this approach is effective in significantly expediting the restoration of injured natural resources

and services, and that the benefits to the environment and public do not come at the expense of increased assessment costs. While trustees now must assess replacement services in addition to lost services in most incidents, NOAA believes that, in general, a net increase in assessment costs will not result, due to both the cooperative provisions set forth within this rule and the removal of the requirement that trustees estimate the monetary value of damages. NOAA also believes that the standards for assessment procedures set forth in § 990.27(a) of the rule will ensure a sufficient level of rigor for all assessments.

Range of Alternatives

Comment: Some commenters requested guidance on what might be an appropriate range of restoration alternatives. Other commenters noted, however, that the rule should not require the development and consideration of a predetermined number of potentially unreasonable alternatives.

Response: NOAA does not agree with the commenters who recommended a limit on the range of alternatives trustees should consider. Trustees should consider a range of alternatives that is reasonable for the incident of concern, and the specific natural resources injured. The rule requires that only actions that are feasible and legal be considered. The range of feasible actions may vary greatly, depending on the types of injuries suffered, or the nature of the environment or habitat, among other things. Guidance on the types of actions and how they might be considered is provided in the Restoration Guidance Document, referenced in the Bibliography at the end of this preamble.

Natural Recovery Alternative

Comment: Some commenters suggested that, when injuries are not extensive or are short-term, no restoration actions are needed, therefore, the rule should more strongly require consideration of natural recovery. Many commenters supported the requirement that trustees always consider natural recovery as an option. Several commenters stated that the rule should adopt a preference for natural recovery.

Other commenters stated that the language regarding the “no action” alternative is confusing. Another commenter suggested that the confusion over the terms might be a result of the different objectives of OPA and NEPA.

Several commenters stated that the rule should set out reasonable

expectations for analysis of natural recovery, especially where injuries are evident from the Preassessment Phase investigations and feasible restoration alternatives exist. These commenters suggested either deleting the requirement to evaluate a no action alternative or making it optional.

Response: The rule requires that natural recovery be evaluated as a primary restoration action in every case. "No action" refers to alternatives in which trustees take no primary restoration action and no compensatory restoration actions. Natural recovery, which must be considered for each incident, is only considered under the primary restoration component of the alternative and only refers to direct restoration involving no human intervention. Trustees have the discretion to choose any combination of primary and/or compensatory restoration actions, given the circumstances of the incident.

Primary Restoration

Comment: Many commenters requested that the rule clarify the distinction or relationship between primary and compensatory restoration. Another commenter, however, suggested that this was a distinction without any significance. Some commenters interpreted the regulations to allow only on-site, in-kind actions in primary restoration. Some commenters noted that, if the rule is interpreted to limit primary restoration to actions focused on the injured natural resources themselves, and to relegate replacement or acquisition actions solely to compensatory restoration, it is inconsistent with OPA, which authorizes replacement and acquisition of the equivalent as measures for primary restoration. Other commenters noted that primary restoration could include any action, whether on-site, off-site, in-kind, out-of-kind, that returns natural resource and/or service levels back to baseline condition.

Response: NOAA has sought to clarify the distinction between primary and compensatory restoration, including specifying explicitly in the preamble discussion of the definition of "restoration" that primary restoration may include on-site, off-site, in-kind, and/or out-of-kind restoration actions that return injured natural resources and services to baseline. Actions to restore, replace, rehabilitate, or acquire the equivalent of injured natural resources or services may be considered in evaluating both primary and compensatory restoration actions.

Comment: Some commenters suggested that primary restoration

should attempt to make the public whole by returning net services to the public to baseline.

Response: NOAA believes that in most cases, primary restoration alone will not be sufficient to make the environment and public whole. When incidents result in interim lost services, an additional compensatory restoration component will be necessary to fully compensate for injuries to trust natural resources.

Comment: One commenter stated that the rule should require a hierarchy of alternatives, such as on-site, in-kind; off-site, in-kind; and off-site, with substitute natural resources or services with equivalent economic value.

Response: NOAA does not support the development of such a hierarchy, since it may prevent the trustees from selecting and implementing the alternative which best meets the criteria for evaluation of alternatives presented in § 990.54(a).

Acquisition of the Equivalent

Comment: One commenter contended that acquisition of the equivalent is inconsistent with the stated aim of compensatory awards and should not be considered. The commenter questioned how acquiring the equivalent restores the injured natural resources, since the effects of most incidents are transient. Some commenters on the 1994 proposal objected to the ranking of restoration alternatives whereby acquisition of the equivalent is the option of last resort, especially where natural resources are subject to development or other pressures (e.g., in urban areas). The commenter stated that trustees should be free to acquire the equivalent even if other restoration alternatives are possible. Some commenters stated that the goal of restoration is to make the public whole through whatever alternatives are available under OPA, which may or may not include returning natural resources to baseline.

Response: NOAA contends that, in some instances, acquisition of equivalent natural resources or services may be necessary to adequately compensate the environment and public. The present rule does not prevent acquisition of the equivalent even in the presence of other feasible alternatives.

Restoration of Services

Comment: Several commenters argued that restoration alternatives must be formulated and evaluated by reference to the services provided by the injured natural resource, not the natural resource itself. Therefore, the commenter suggested that NOAA

should make every effort to clarify that the restoration of services of natural resources refers only to those services or functions provided to society.

Commenters added that the service-focus is needed to select the most cost-effective, rational, and efficient restoration alternatives. The commenters argued that allowing trustees to choose full physical restoration where a less expensive alternative can fully replace the services provided by the natural resource is contrary to the goal of cost-effectiveness since the additional expenditure required for full physical restoration provides no additional benefit to the public. Other commenters suggested that a natural resource-based approach could result in overcompensating the public.

Response: The rule focuses all assessment decisions on restoration, and making the environment and public whole. Primary restoration focuses on the injured natural resources themselves, as authorized by OPA's language basing liability and damages on injuries to natural resources themselves, while compensatory restoration focuses on the services that are lost as a result of the incident, and which are not compensated for by implementing the primary restoration action. Both elements must be considered in designing restoration alternatives. Because OPA defines damages to include both the cost of restoration and diminution in value, a focus solely on natural resources or solely on services risks undercompensating the environment and the public.

Other considerations

Comment: Several commenters suggested that a focus on "certain key species or habitats" may lead to controversy, since terms are not defined. The commenters noted that there is sufficient guidance in the quantification section on this issue and that these terms are not needed. However, the commenters suggested that, if the terms are retained, the phrase "key services" should be added.

One commenter suggested that there is the need to develop procedures that allow for non-predictable attributes of the ecosystem. The commenter noted that, for other programs requiring restoration, a poor job has been done in the past of documenting restoration outcomes needed to provide data for development of new models.

One commenter stated that the procedures for restoration under OPA are unlikely to replace injured natural resources because of inadequate

knowledge on critical habitat functions, long-term success and the lack of procedures to assess impacts due to multiple stressors.

Response: The final rule retains the guidance that primary restoration actions that return key natural resources or services to baseline may be an appropriate restoration alternative if, for instance, such an action would facilitate return or recovery of other natural resources. The concept of key services has been added to the rule. NOAA believes that the rule's requirements to determine standards to gauge the success of restoration actions, and performance criteria to measure the progress of actions in achieving goals and success, will provide the types of information through monitoring that the commenters suggest are needed.

Compensatory Restoration Mandatory Inclusion

Comment: Some commenters argued that the inclusion of compensatory restoration should be required in all planning efforts, and not be discretionary. Some of these commenters stated that if trustees do not include compensatory restoration actions, they should include a written justification for compelling reasons of why such actions were not included.

Response: The rule and preamble have been revised to reflect that trustees must consider compensatory restoration action and also must document this decision in the restoration plan.

General

Comment: Many commenters noted that there are too many undefined terms, e.g., "scarcity," "comparable," "equivalent," used in the compensatory restoration provisions.

Response: NOAA has amended the rule to require that the relative value of injured and replacement natural resources and services be evaluated, rather than scarcity and demand.

Comment: Several commenters suggested that the compensatory restoration approach seems to have been structured as an attempt to circumvent the difficulties in accurately measuring interim lost values. However, the commenters stated that the concepts of compensatory restoration and scaling do not address the defects of the 1994 proposal and that these concepts are based upon economically and legally unsound assumptions and, therefore, fail to comply with the statutory measure of damages.

Response: NOAA has put forth the revised rule with the intent of expediting restoration of injured natural

resources and services. NOAA believes that the compensatory restoration approach in this rule is technically and legally sound, and consistent with the language and intent of the statute, and more appropriate to adequately assess and compensate for interim losses than previous approaches.

Concept of Compensatory Restoration

Comment: Several commenters argued that the concept of compensatory restoration creates the potential for exaggerated or excessive damage awards and will enable excess money to be spent on natural resource projects without limitations. Some of these commenters argued that this approach has insufficient constraints on the application of procedures, which may result in double counting, assessments beyond the scope of OPA, or damages that are grossly disproportionate to the value of the natural resources.

Response: NOAA believes that the standards provided in the rule for acceptable procedures, the prohibition on double recovery, and the opportunities for public review and input provide constraints sufficient to avoid the problems suggested by the commenters.

Services Eligible for Compensatory Restoration

Comment: Some commenters suggested that the rule is unclear as to what types of services would be eligible for compensatory restoration. The commenters stated that the rule should have an additional section that would list protocols that would enable trustees and responsible parties to easily ascertain what service functions were impaired by the incident, if any, and then make rational decisions about what types of projects would serve as adequate restoration.

Response: NOAA has developed draft guidance documents, listed in the Bibliography at the end of the preamble, that directly address these commenters' concerns. These guidance documents will be finalized after the rule is final. All quantifiable lost services for which feasible restoration actions can be identified are compensable under the rule.

Components Included Under Compensatory Restoration

Comment: Some commenters noted that the rule should clarify that compensatory restoration is defined as actions to make the environment and public whole for interim losses. Another commenter noted that compensatory restoration could also address any additional injury associated with the

incident. On the other hand, another commenter stated that interim lost values should not be collected by trustees because that would be double recovery, and that collection of these damages should be allowed only if there is a mechanism for distributing those recoveries to the group injured by the incident.

Some commenters noted that the rule should clarify that compensatory restoration is defined as actions to make the environment and public whole for interim losses. Another commenter noted that compensatory restoration could also address any additional injury associated with the incident.

Response: In order to make the public whole for the resource injuries, it is not sufficient to ensure that the resources are returned to baseline condition, the public also must be compensated for the losses from the time of the injury until full recovery of the resources. For example, when beaches, parks, or fisheries are closed and natural resource stocks are injured, people either will lose or will have impaired opportunities for fishing, hunting, hiking, birdwatching, and other activities. OPA provides that the measure of damages includes recovery of the costs of restoring natural resources and services to baseline, plus compensation for interim losses (and for assessment costs). These recoveries are not to be distributed to affected groups or individuals, rather OPA requires that they be used to restore, rehabilitate, replace, or acquire the equivalent of the injured natural resources. The recoveries are to be collected and spent on natural resource restoration actions by the public agencies managing the natural resources in trust for the public.

Private parties also may have standing to claim for private losses resulting from a particular incident. Double recovery is not allowed under statute. Public and private claims are for logically different categories of losses. Specific provisions are articulated in the rule in order to avoid double recoveries.

Comment: Some commenters stated that the rule should not allow for recovery of any private losses because of the potential for double recovery. These commenters noted that such recoveries would include economic rent, private recreational losses (consumer surplus), lost commercial revenue, and government revenues. One commenter stated that changes in economic rent as a result of an incident are too complicated to estimate reliably because of changes in factor costs and other prices. Another commenter argued that trustees should not be able to collect for economic rent even when private

parties do not make such claims because this recovery by trustees is not included within the language of OPA.

Some commenters noted that the final rule should include the "multiplier impact" from interim losses to estimate the true loss. These same commenters also stated that the final rule should consider nationwide, statewide, and regional assessments to account for areas affected outside the direct impact area.

Another commenter suggested that the final rule should clarify the factors that may weigh into a natural resource damage assessment involving subsistence resources, particularly nutritionally and culturally critical, as well as highly regulated natural resources.

Response: The preamble discussion of § 990.22 has been revised to provide trustees with detailed guidance in distinguishing between public and private economic losses in order to avoid double recovery. Under the valuation scaling approach, trustees are entitled to scale restoration actions based on the total diminution in value of lost or diminished services from injured public trust natural resources not recovered by a private party. One component of this total diminution in value is the resulting reduction in economic rent, which represents the income that accrues to a producer as a result of access to an unpriced natural resource. The procedures identified for calculating economic rent are well accepted economic procedures. The rule, in § 990.27, provides standards for a case-by-case determination of reliable application of any procedures employed by trustees.

In general, private parties can make claims for damages under common law only when a private proprietary interest has been injured (with an exception under admiralty that commercial fishermen do not require an injury to a proprietary interest). These claims are generally limited to "economic" (i.e., financial) losses. This restriction excludes claims for lost consumer surplus attributable to impaired recreation. See *Alaska Sport Fishing Ass'n v. Exxon Corp.*, 34 F.3d 769 (9th Cir. 1994) (affirming dismissal of private claims on behalf of approximately 130,000 recreational anglers seeking compensation for the *Exxon Valdez* spill.)

Ambiguities could arise where impaired recreational uses of public natural resources are linked with uses of private property that is injured due to an incident. In this case, the trustees would seek full recovery occur except for those losses being sought by private

parties so that double recovery did not occur.

The loss of government fees attributable to a reduction in government services as a result of injuries from an incident are appropriately elements of public claims. On the other hand, the changes in expenditures captured by the multiplier effect do not represent public losses. For example, when an incident occurs, tourists may shift the location of their vacations to other substitute sites. The loss in hotel and restaurant business at the site of the incident will have a ripple effect on suppliers of goods and services for those businesses. The "multiplier effect" captures the second- and later-round losses in expenditures from an incident. However, the shift in tourist expenditures to hotels and restaurants at substitute sites (and to substitute activities) will bring comparable gains, with a comparable positive multiplier effect. The net impact will be zero in markets in which there is no change in price or direct impairment of productive capacity as a result of the incident. Consequently, public claims do not take into account shifts in expenditures as a result of the incident. Private parties may be able to file claims for such losses.

In addressing claims for subsistence losses the trustees must take into account all of the services provided by the injured resources, including nutrition and cultural/spiritual values.

Because evaluation of compensatory restoration actions requires scaling of the natural resources or services lost and linking them to appropriate compensatory restoration actions, there will be no double recovery for services restored under primary restoration actions. This approach should also ease concerns over speculative injuries being included in an assessment, as only measurable service losses, and only public losses, will be included.

Restorable Natural Resources

Comment: Some commenters noted that the rule should not limit restoration to "restorable" natural resources or services since, from an ecosystem point of view, almost any injury can be redressed at least in part even if the particular services or site cannot be.

Response: NOAA agrees and believes the rule is sufficiently flexible to provide compensation for those natural resources or services that are not directly restorable.

Types of Compensatory Actions

Comment: One commenter stated that the rule should require that lost services and the replacement services be truly

equivalent in type and quality. Other commenters, however, suggested that trustees may also consider, when establishing the range of compensatory restoration actions, actions that provide comparable injured natural resources and/or services. These commenters noted that the rule is unclear whether trustees may examine restoration options that provide comparable services in those cases where there are sufficient options that restore same-type services. The commenters suggested that this limitation should be removed and trustees permitted to identify and choose any restoration options since a limitation to "same or comparable" services is too narrow given the complexity of natural ecosystems and their use (and nonuse) by humans. One commenter stated that the division between ecological and human services is blurry and that in planning restoration of lost services, it is often possible to restore both ecological and human services through the same action. Other commenters pointed out that the rule does not require that the selected compensatory restoration actions will have any connection whatever with the injured natural resources.

Response: The rule states that trustees must consider compensatory restoration actions that provide services of the same type and quality and comparable value as those injured. However, if a reasonable range of actions meeting these criteria is not available, trustees are afforded the flexibility to consider actions that provide natural resources and services of comparable type and quality. The rule also develops a clear linkage between the injured natural resources and services and the selected compensatory action(s) by requiring that trustees develop restoration alternatives that provide services of the same or comparable type and quality.

Scaling

Scaling Primary Restoration Actions

Several commenters suggested that scaling of primary, as well as compensatory, restoration will be necessary.

Response: The rule has been revised to provide that scaling of actions generally applies to primary restoration actions that involve either replacement or acquisition of equivalent natural resources and/or services.

Scaling Compensatory Restoration Actions

Inclusion of Passive Use Values

Comment: Some commenters stated that the heavy reliance on services for

scaling may result in passive use services and services flowing from the unique character of a natural resource being excluded from recoveries, and that, even if they are included, the direct restoration approach is unlikely to be successful. Some commenters stated that passive uses should specifically be used in scaling the restoration actions.

Some commenters noted that the loss of passive values should be compensated because such values represent part of the total value, therefore damages, under OPA. Other commenters noted that the rule should encourage rather than discourage the recovery of passive values in order to increase the incentives for actions to avoid and reduce such damages.

Several other commenters specifically argued that passive use values should not be included in scaling restoration actions, primarily because such values cannot be measured reliably. Other commenters stated that including such values would unreasonably extend the scope of potential liability for responsible parties; would generate overstated damage claims, and would be punitive. Some of these commenters argued that such values are inappropriate for compensation because they are already incorporated into the legal requirements and compliance programs of OPA and, therefore, recovery of such values in natural resource damage cases would result in double recovery. Some commenters stated that Congress did not expressly provide for the recovery of passive values in OPA and that such values are overly inclusive and unrealistic. One commenter suggested that passive value loss is not meaningful within the statute.

Some commenters stated that, generally, incidents involve short-term, transitory injuries, therefore recovery for lost passive values is especially inappropriate because such recoveries would be punitive.

Some commenters noted that future effects from injuries are highly speculative and, in the case of small injuries, insignificant; therefore, any passive value determinations should be reduced to real, near-term losses if they are to be included in a damage claim. Other commenters pointed out that compensable values should have a maximum recovery period for the future. One commenter suggested that some passive values involve behavioral traces, contrary to the proposed rule definition, and that the rule should encourage the measurement of observable damages, even for those who do not directly use the natural resource.

Other commenters suggested that such values are not only speculative, but are not economic in nature.

Response: NOAA believes that the flexibility provided by the range of available scaling approaches will prevent the public from being deprived of full compensation. By allowing trustees to consider restoration actions providing natural resources and services of comparable type, quality and value, the rule provides a means for compensating the public for injuries to unique natural resources, even in cases where direct restoration of these injured natural resources is either not feasible or fails to bring the injured natural resources and/or services fully back to baseline.

NOAA notes that there is a general consensus in the economic community that passive use values exist. Under OPA, and in accordance with the *Ohio* decision, passive use values may be used in calculating the level of compensation necessary to fully compensate the public. The procedures used to quantify passive use losses are subject to the same standards for acceptable procedures in § 990.27 as all other procedures used to scale compensatory restoration actions. NOAA recognizes that in cases involving temporary injury, individuals may not experience a significant sense of loss. However, there are cases where the death of individual members of a species may cause a significant loss in passive use values even though the species levels may at some point return to baseline.

Where appropriate, NOAA supports the inclusion of reliably calculated passive use values in the scaling process. NOAA notes that some of the commenters' concern about inclusion of passive use losses may have been addressed by defining compensation for interim losses in terms of the cost of compensatory restoration actions rather than as the value of interim losses. Furthermore, in the revised format for claims, valuation procedures, including stated preference methods, are used to make relative comparisons between the loss and the compensatory restoration action gains, rather than to generate absolute dollar amounts of lost value for a claim. Scaling compensatory restoration actions may involve a single survey eliciting the direct resource-to-resource trade-offs between the injured natural resources and potential compensatory natural resources. In this case it is not necessary to elicit a monetary value for natural resources.

Alternatively, scaling may involve a two-sided calculation, in which measures of both loss due to injury and

gains from compensatory restoration actions are estimated separately. Where valuation procedures are employed, the decision as to the appropriate scale of a restoration action will require a relative comparison of the loss in value and the potential gains in value. NOAA recommends that, where feasible, trustees should use the same or similar valuation procedures for both sides of the calculation in order to reduce the possibility of bias in the scaling calculations.

Inclusion of Nonmeasurable Functions

Comment: Some commenters stated that the rule should include nonmeasurable functions provided by natural resources, allowing for subjective assessments by trustees in determining the value of such losses. One of these commenters specifically requested that the rule acknowledge the spiritual, cultural, and religious nature of services unique to tribes. Some commenters argued that full consideration must be given to all of the natural resource services, whether they are of direct human use or not.

Response: The rule does not limit the range of services to be included in scaling compensatory restoration actions, except to the extent that the procedures used to assess service injuries and scale compensatory restoration meet the standards presented in § 990.27.

Need for Guidelines in Conduct of Scaling

Comment: Many commenters suggested that the rule should contain guidelines for the scaling approach and procedures in the rule. Several commenters argued that economic valuation procedures are not sufficiently accurate or reliable at this time to allow trustees to make the comparison of services gained to services lost in a reliable way in many cases. Some commenters noted that detailed guidance is necessary to expedite damage claims and to avoid lengthy and expensive litigation.

Some commenters stated that experimental and/or unreliable scaling procedures should not be accorded the rebuttable presumption under the rule. Several commenters argued that the absence of standards would allow the rebuttable presumption for any valuation procedure, no matter how poorly structured, including unnamed procedures that the trustees believe are appropriate. Therefore, some of these commenters stated that the rule should clearly define what "valid" and "reliable" mean with regard to assessment procedures. The

commenters also suggested that trustees who choose to use new or unorthodox procedures should be required to demonstrate that these procedures provide comparable or higher levels of validity and reliability than the procedures previously recognized by NOAA.

Several other commenters, however, supported the decision to remove specific guidance on procedures from the rule and place them in guidance documents. These commenters argued that the rule should not establish premature or overly prescriptive procedural requirements for any economic or natural science procedure, since such procedures are the subject of research and refinement.

Response: NOAA notes that the rule has been revised to provide a set of standards in § 990.27 with which to judge all procedures under consideration, as well as factors to consider when selecting among those procedures. Assessments using procedures that meet these standards may receive the rebuttable presumption, if they are otherwise performed in accordance with the rule. In addition, NOAA is considering the development of a separate guidance document on resource-to-resource, service-to-service, and valuation scaling procedures.

Choice of Resource-to-Resource and Service-to-Service vs. Valuation Scaling Approaches

Comment: Many commenters opposed mandating the use of the service-to-service scaling approach for restoration options providing the "same type and quality" of services subject to "comparable scarcity and demand conditions." These commenters state that this requirement restricts the flexibility of trustees in an assessment. The commenters stated that the restriction is unworkable, given the lack of direction as to what constitutes "same type and quality" and "comparable scarcity and demand conditions." The commenters stated that trustees should be allowed maximum flexibility in selection of the most efficient assessment procedure. Some commenters pointed out that the requirement of service-to-service for any portion of restoration where in-kind natural resources or services are feasible will in some cases present difficulty in application of valuation procedures for remaining portions of a claim due to problems of double counting or indivisible losses and gains. The commenters argued that the selection of procedures should be based on factors such as reasonable cost, validity, reliability and incident specific

considerations, which will not always favor the use of service-to-service scaling over valuation. The commenters pointed out that OPA defines the measure of damages to include "diminution in value" to the public; therefore, NOAA's authority to preclude trustees from assessing diminution in value in monetary terms is questionable. Some of these commenters argued that the service-to-service approach is not yet well developed, especially in the areas of human uses. However, the commenters pointed out that economic procedures have been well developed and frequently relied upon and should be accorded equal weight in the rule.

Some commenters noted that the rule does not clearly specify when trustees should use the service-to-service instead of the valuation scaling approach.

Response: NOAA agrees with the comments recommending elimination of the requirement to use a resource-to-resource or service-to-service scaling procedure when determining the scale of a compensatory restoration action that provides natural resources and/or services that are of the same type and quality and are subject to comparable natural resource scarcity and demand conditions as those lost. Consequently, NOAA has modified the rule to maximize the trustees' flexibility in choosing the most appropriate scaling approach. The trustees must now consider, but are not required to implement, a resource-to-resource or service-to-service approach for actions that provide natural resources and/or services of the same type and quality, and of comparable value to those lost. NOAA also has replaced the phrase "comparable scarcity and demand" with "comparable value." The rule requires that the relative value of injured and replacement natural resources and services be evaluated.

Use of Public Natural Resources for Restoration Actions

Comment: Some commenters argued that the compensatory restoration approach would transfer to the polluter for free the consumer surplus provided by public natural resources. The commenters stated that many public goods and natural resources provide a public benefit in excess of the cost of maintaining them. The commenters pointed out that a restoration-based approach is preferable to industry because it focuses on the cost of restoring an injury, rather than the value of the injury; that the difference between these two figures is the surplus value inherent in the natural resource. Therefore, the commenters argued that the responsible party pays the "cost,"

the "surplus" is contributed and the appropriate "value" is achieved. The commenters stated that the rule must be amended to require restoration actions of a magnitude that create a net benefit (i.e., subtracting the pre-existing value) equal to the injury.

Response: The rule does require that restoration actions create comparable benefits to those that were lost due to the injury. NOAA agrees that trustees should only count the incremental benefits created by a restoration action. For example, if an action is rehabilitating a wetland currently functioning at 50% effectiveness, only the incremental improvements beyond 50% should be taken into account. Trustees also should carefully consider the opportunity costs associated with the use of public natural resources for compensatory restoration actions. For example, if the restoration action is to transform land currently in upland use into marsh, the opportunity cost of forgoing the previous upland uses needs to be taken into account.

Consideration of Economic Benefits

Comment: One commenter suggested that scaling should also consider the economic benefits resulting from the incident.

Response: The economic benefits resulting from incidents will accrue primarily to individuals and, in most cases, will represent transfer payments rather than net social benefits. For example, whereas hotels in the area of an incident may lose tourist business, hotels in a substitute location may incur gains comparable to the on-site hotel losses. Just as losses to private parties are not included in the trustees' claim, neither should private gains be included.

Use of Same Procedure to Measure Injured and Replacement Natural Resources/Services

Comment: Several commenters argued that the same procedure should be used to measure the value of losses and value of benefits of restoration. One commenter pointed out that the use of different assessment procedures for the same injury or loss would make it impossible to adjust accurately for bias and that the rule should require that trustees use procedures that are not subject to upward bias.

Response: NOAA agrees that, where feasible, use of the same procedure to measure the value of injuries and benefits is recommended to reduce the opportunity for introducing bias in the scaling of compensatory restoration. However, NOAA believes that requiring trustees to use the same procedures to

measure the value of injuries and benefits is overly restrictive, since such a requirement may preclude trustees' ability to apply revealed preference procedures (i.e., procedures based on data on use of natural resources) in a range of circumstances. Revealed preference methods can only be used to value natural resources and opportunities to use natural resources with characteristics that fall within the range of currently existing natural resources and use opportunities. Consequently, though it may be feasible to value lost recreational use of a particular natural resource with a revealed preference method, such as the travel cost model, it will not be feasible to evaluate the benefits of a proposed compensatory restoration action if its attributes are outside of the range of what is currently available. For example, if there are no dune walkways at regional beaches it will not be feasible to value a restoration action constructing a dune walkway with revealed preference methods. NOAA believes that the issue of bias is addressed by the requirement in § 990.27(a) requiring assessment procedures to be reliable and valid for the particular context.

Discretion to Use Valuation Procedures

Comment: Several commenters argued that the rule gives virtually unbounded discretion to the trustees with regard to valuation procedures. The commenters were concerned that valuation "sneaks in the back door" through the restoration planning process by allowing the option to value lost services while not valuing the services gained.

Response: NOAA believes that the conditions under which the trustees may employ the valuation scaling approach are sufficiently specified in § 990.53(d). Under the valuation scaling approach, trustees explicitly or implicitly measure the value of both the natural resources/services lost and natural resources/services provided by the selected restoration action(s). The one exception is when the valuation of the replacement natural resources/services cannot be performed within a reasonable time frame or at reasonable cost, but the valuation of natural resources/services lost is practicable.

Comment: Some commenters requested clarification as to what conditions invoke the "unreasonable cost" exception in which trustees may use the interim loss in value to scale the restoration claim, rather than scaling the action by demonstrating that an action of the chosen size will provide benefits

equal to the interim losses from the injury.

Response: Assessment costs are deemed to be unreasonable if trustees fail to follow the guidance provided in the rule. For example, the additional costs of a procedure must be related to the information expected to be gained with that procedure, as provided in § 990.27 of the rule. These standards are intended to avoid excessive costs in an assessment.

Comment: Several commenters pointed out that the rule does not, but should, explicitly provide for the use of valuation procedures when a responsible party challenges the cost of service-to-service restoration as disproportionate to the value of the damages.

Response: Section 990.14(c)(5) allows responsible parties to request assessment procedures other than those selected by the trustees, if they follow the procedures for making the request in § 990.14(c)(5) and the alternative procedures meet the standards for acceptable procedures provided in § 990.27.

Comment: Several commenters argued that the responsible party should not have the unilateral right to require economic valuation of restoration options. The commenters noted that such an option would result in the responsible party having more rights than the trustees to choose assessment procedures, which would be improper and unfair. The commenters stated that the trustees, in all cases, should have the right to use valuation procedures.

Another commenter argued that the option for the responsible party to request a more specific procedure contravenes OPA, which requires trustees to perform assessments, advance costs, file, and establish claims for damages.

Response: The rule has been revised to allow the trustees to reject the responsible parties' proposed alternate assessment procedures if they do not meet the criteria specified under § 990.14 (c)(5)(iii), and thus the requirements for acceptable procedures described in § 990.27.

Discounting and Uncertainty Addressing Uncertainty

Comment: Several commenters stated that trustees should be required to address uncertainties in measures of losses and gains as a separate matter from discounting. Some of these commenters suggested addressing uncertainties using a Monte Carlo framework. The commenters pointed out that differences in discount rates are

driven by financial risks, which are unrelated to uncertainties in measuring lost or replacement service flows. The commenters stated that the use of risk-adjusted discount rates should be eliminated from the rule.

Other commenters, however, suggested that the language "must address the uncertainties associated with the predicted consequences of the alternative" should be revised to read "should address when possible in a valid manner."

Response: NOAA agrees that, where feasible, the trustees should use risk-adjusted measures of losses and gains, in conjunction with a riskless rate of discount reflecting the social rate of time preference for natural resources. However, in cases where the streams of losses and gains cannot be adequately adjusted for risks, trustees should use a discount rate that incorporates a suitable risk adjustment to the riskless rate. NOAA agrees that in some cases, Monte Carlo analysis may be an appropriate approach to addressing uncertainties. The discount rate employed in a scaling application is to reflect the social rate of time preference for the injured and replacement natural resources and/or services. Because of the difficulty in determining the rate of time preference for goods, such as natural resources, that are not generally sold in a market, a real rate of 3% is recommended as a riskless rate, unless justification is presented for a rate more appropriate for the specific context.

Use of "Over-Compensation"

Comment: One commenter questioned the amount of "over-compensation" that should be included in the restoration plan as a contingency for possible lack of restoration action success. The commenter suggested that such over-compensation could be used to account for restoration aspects that do not produce the expected results or fail completely. The commenter suggested that responsible parties would agree to over-compensation if doing so would provide absolute closure for the responsible party.

Response: This comment basically restates the requirement in § 990.53(c)(4) that trustees must evaluate the uncertainties associated with the projected consequences of the restoration action. The selected restoration action(s) should be scaled to incorporate the reasonable range of uncertainty associated with the level of natural resources/services that will be provided by the action(s).

Bounds on discount rates

Comment: Several commenters suggested that the rule should place some bounds on an appropriate discount rate for societal time preference. These and other commenters also requested guidance on risk and uncertainty.

One commenter suggested that, in the case where services will be lost or interrupted for a relatively short period of time, trustees should use the OMB projected rates of return on 20-year U.S. Treasury bills, rather than a long-term average of past rates. The commenter noted that a long-term average may be unduly influenced by unusually high or low past rates arising from past economic circumstances not applicable to the period in question. The commenter suggested that, should the final rule mandate a long-term average, trustees should calculate that average as a moving average to give more weight to recent rates. The commenter also recommended that, in the event that the damages must be estimated for an extended period, the most distant projection available from OMB be used. Finally, the commenter suggested that the discount rates for HEA should be real, after-tax, riskless rates.

Some commenters suggested that a discussion should be placed in the preamble that describes a discount range of 3% to 7% as generally reasonable for most future benefits associated with restoration actions, and a range of 0% to 3% for discount rates associated with natural resource and/or service losses. The commenters stated that it is appropriate to discount future losses at a very low rate, if at all.

Some commenters suggested that the procedure for determining a discount rate should reflect the guidelines for water resource projects since those projects provide a much closer analogy to natural resource damage assessments than the lease-purchase or benefit/cost and cost-effectiveness analysis currently in use.

Response: For scaling restoration actions, the appropriate rate of discount is the social rate of time preference for the injured natural resources, i.e., the rate at which society is willing to trade off natural resources during the period of the incident for natural resources during the period of restoration action. NOAA is recommending that use a 3% discount rate as a proxy for the social rate of time preference (unless justification for a more appropriate rate is presented).

Because the public use of natural resources does not occur primarily through private market transactions,

consumers do not necessarily adjust their inter-temporal consumption of natural resources in response to the relevant intertemporal financial trade-offs available to them, as represented by the U.S. Treasury rates. U.S. Treasury rates (both realized and projected future rates) have been relatively volatile over the last few years, even for long-term rates. There is no particular reason to assume that the volatility of the observed financial rates carries over to the social rate of time preference for these non-marketed goods.

NOAA is considering the development of a separate guidance document on resource-to-resource, service-to-service, and valuation scaling procedures that would address issues pertaining to discounting, risk, and uncertainty in greater detail.

Comment: One commenter also stated support for the use of state and tribal borrowing rates in calculation of present value of assessment costs. This commenter agreed with the use of discount rates that represent the yield on recoveries available to the trustees. Several commenters noted that, when the state is the lead administrative trustee, the corresponding state borrowing rate should be used as the discount rate instead of the U.S. Treasury rate.

Response: NOAA supports the use of state or tribal rates where appropriate. However, designation of the lead administrative trustee is primarily an administrative decision and should not substantively affect the choice of an appropriate discount rate, except to the extent that it affects the yield on recoveries available to trustees.

Discounting and HEA

Some commenters suggested that the rule should clarify the role of discount rates in HEA. The commenters stated that the rule should explicitly state the assumptions that the unit dollar value of forgone services equals the unit dollar value of the restoration services and these dollar values do not change over time, in order for financial discount rates to be appropriate in HEA models.

Response: NOAA does not disagree with the substance of these comments, but believes that such a level of detail regarding specific procedures is most appropriately included in guidance documents, rather than the rule itself.

Sensitivity of Scale to Discount Rate Choice

Comment: Some commenters noted that the choice of discount rate is largely responsible for the resulting size of the compensatory restoration action.

Response: The sensitivity of the scale of compensatory restoration action to a given discount rate will depend on the relationships among a number of factors including, but not limited to, the duration of the injury, the time necessary for the compensatory restoration action(s) to provide full service flows, and the lifespan of the compensatory restoration action(s).

Choice of Appropriate Inflation Index

Comment: One commenter recommended using the Gross Domestic Product (GDP) deflator when the adjustment is being made to determine the present value of future restoration costs or when a stream of future service flows is being discounted, and using the Consumer Price Index when lost consumer surplus requires discounting. The commenter stated that when a clear distinction cannot be drawn, the GDP deflator should be used because it is more general.

Response: NOAA believes that this structure for scaling restoration actions is generally acceptable and consistent with the rule language. However, by definition, a quantity of services is already in real terms. Quantities of services generally will not need adjustment with a price index because they only appear in the scaling calculation, which will generally be carried out in real terms (with a real discount rate). For purposes of calculating restoration costs, more specific indices, such as construction and employment cost indices, may be used where appropriate and available.

Section 990.54 Restoration Selection—Evaluation of Alternatives

Selection Criteria for Alternatives

Comment: Many commenters had suggestions for revisions to the selection criteria for restoration alternatives. These commenters argued that the selection criteria in the rule provide no overall standard for selection of alternatives. Some commenters suggested that without standards for evaluating and selecting restoration alternatives, there are no meaningful bounds on responsible party liability.

Other commenters, however, argued that the rule should establish no specific "weight" for any of the selection factors, that such a requirement would limit the flexibility required for restoration and could undermine the validity of the whole process. One commenter stated that the requirement to minimize damages is unnecessary so long as trustees are required to document the relevant factors and tradeoffs in selecting a restoration alternative and

explain their selection in response to any public comments prior to the implementation of the restoration plan.

Response: NOAA believes that the modified criteria for evaluation of restoration alternatives presented in § 990.54 in the final rule are sufficient to ensure that selected alternatives are reasonable, cost-effective, and adequate to compensate the environment and public for injuries to natural resources and/or services. The selection of restoration actions that truly make the environment and public whole is a highly incident-specific analysis, and NOAA believes that prescribing a rigid hierarchy of selection criteria will not facilitate achieving OPA's compensatory goal. Trustees must evaluate the numerous selection criteria listed in the rule, at a minimum, and describe in the draft restoration plan how each factor played in the selection and elimination of alternatives.

Comment: Some commenters pointed out that, if all the parties agree to a restoration solution, the trustees should not have to develop numerous restoration alternatives.

Response: Under the rule, trustees may settle claims for natural resource damages at any time, provided that the settlement is adequate in the judgment of the trustees to satisfy the goal of OPA and is in the public interest. However, it is expected that even early settlement will entail an evaluation of available restoration actions in order to meet the varied interests of all parties.

Cost Effectiveness

Comment: Some commenters argued that the rule should specifically require cost effectiveness as the major selection criterion. Other commenters disagreed, stating that a simple requirement to select the most "cost-effective" option is too narrow and should not be required. These commenters argued that cost-effectiveness alone disregards distributional differences and ecological integrity, which may well leave a natural resource seriously impaired. The commenters suggested that the selection decision should be driven by criteria that emphasize making the environment and public whole, both in aggregate and by user group.

Response: NOAA fully supports choosing the least costly restoration action(s) among equivalent alternatives. However, NOAA believes that prescribing a rigid hierarchy of selection criteria, including designating one criterion as always singularly more important than others, will not facilitate achieving OPA's compensatory goal.

Minimization of Costs/Damages

Comment: A number of commenters stated that, when sufficient data on costs and benefits are available, trustees should ultimately base their selection of restoration alternatives on a cost-effective approach that will minimize total damages or make the public whole at the least cost. The commenters stated that selection of the alternative that minimizes damages is consistent with economic theory, OPA's legislative history, and the decision in *Ohio*. Many other commenters opposed any strict requirement to minimize damages as inconsistent with the statutory language of OPA (section 1106(d)(1)) as well as the holding in *Ohio* overturning the approach contained in the 1986 version of the CERCLA rule that directed trustees to recover the lesser of restoration cost or diminution in value. The commenters stated that OPA contains the statutory preference of restoration, and not the minimization of damages.

Response: NOAA supports the consideration of the relationship between costs and benefits when selecting a preferred restoration alternative(s). However, NOAA does not support reducing the selection process to a strict cost-benefit or cost-minimization decision rule. The rule requires trustees to identify and consider a reasonable range of restoration alternatives for a given incident, or for individual injuries of an incident. The rule further enumerates specific criteria that must be considered by trustees in selecting preferred restoration approaches from the range of alternatives. These criteria include feasibility, likelihood of success, effectiveness, and speed with which baseline will be returned, benefits to multiple natural resources, and cost. Consideration of these criteria will constitute a qualitative cost-benefit analysis that is appropriate to the task at hand—restoration—and will ensure that cost-effective actions are selected.

Qualitative Assessments

Comment: Some commenters stated that benefits should be required to be quantified in cases where it is practicable. One commenter suggested that, for cases where benefits cannot be measured at reasonable cost, the assessment should be qualitative; however, qualitative assessment should not be used to justify very costly restoration.

Response: The resource-to-resource, service-to-service, and valuation scaling approaches all inherently involve the quantification of benefits of the selected

restoration alternative(s), either in terms of quantifying the level of natural resources/services or the value provided by the restoration actions. The evaluation standards for selecting the preferred alternative(s) presented in § 990.54 represent a combination of quantitative and qualitative factors.

Not Grossly Disproportionate

Comment: A number of commenters stated that the trustees should also be required to compare costs to benefits/value of services, to determine whether the cost of the alternative being evaluated is grossly disproportionate to the value of the injured natural resources or, alternatively, to the benefits of that alternative. Some commenters requested that NOAA clarify the term "grossly disproportionate," and state whether it has a role in the process, especially in the compensatory restoration process.

Response: NOAA believes that the evaluation and selection of restoration alternatives according to the factors provided in the rule will ensure that preferred actions are commensurate with the value of natural resource losses.

Reinstatement Costs

Comment: One commenter argued that restoration should be based on the reasonable cost of reinstatement of the environment under the international regime.

Response: The international regime allowing recovery of reasonable reinstatement costs generally incorporates only direct restoration of natural resources directly injured by an incident, which is more narrow than actions authorized by OPA and thus would not be appropriate for this rule.

Violation of Laws and Regulations

Comment: Another commenter argued that the criterion concerning violation of laws or regulations be taken into account in determining the viability of a particular alternative, rather than in determining which restoration alternative(s) is preferred.

Response: NOAA agrees that legality of alternatives is a screening criterion to eliminate alternatives from consideration, and has amended § 990.53 of the rule to reflect this.

Effects on Public Health and Safety

Comment: Some commenters noted that any alternative considered should not exacerbate natural resource injuries or otherwise cause adverse effects on public health, safety or the environment.

Response: NOAA agrees. Section 990.54 of the rule directly states that these factors must be considered by trustees when evaluating restoration alternatives.

Pilot Projects

Comment: Several commenters suggested that the provision allowing pilot projects should be revised, or at least clarified. Some of the commenters argued that the responsible parties should not be required to fund pilot projects. Other commenters stated that pilot projects should only be allowed where they can be shown to be reasonable, relevant, and linked directly to the incident of concern.

Response: The rule has been clarified to indicate that pilot projects may only be undertaken when additional information is needed to identify and evaluate the feasibility or likelihood of success of restoration alternatives, and where they can be undertaken in a reasonable time frame and at a reasonable cost.

Section 990.55—Restoration Selection—Preparation of a Draft and Final Restoration Plan

Comment: One commenter expressed concern about placing injury determination and quantification information in the Draft Restoration Plan, making this information available to the public and the responsible party, all within the context of civil litigation. The commenter recommends that trustees be granted some litigation privilege to protect their potential claim.

Response: This information, if relied upon by the trustees in decisionmaking, is essential to meaningful public involvement.

Comment: Some commenters suggested that the proposed restoration planning process prior to presenting a demand to responsible parties places unreasonable expectations on the parties. These commenters suggested that the rule naively assumes that restoration efforts can be described in terms of a detailed restoration plan in a short period of time after completing assessment studies. These commenters, noting the *Exxon Valdez* experience, suggested that this will not always be practicable. The commenters requested that the rule provide trustees authority to make additions, substitutions, or other modifications to the restoration plan based on experience and additional information gained in the implementation phase.

Response: The extent to which trustees can, and need to, develop specific, detailed workplans to implement restoration actions as part of

draft or final restoration plans will depend on the circumstances of the incident, the nature of the preferred restoration actions, and trustees' relationship with responsible parties. It may be possible to reach binding agreements regarding the nature and scale of actions that will constitute restoration and compensation, with an agreed upon timetable for developing the implementation plans for those actions. Often it will be advantageous to all parties that the responsible parties or their representatives develop the workplans based on the trustees' goals and objectives. However, if a cooperative relationship has not been possible or effective, and trustees expect they may have to implement restoration themselves or litigate to recover the funds to implement restoration, it is in the best interests of the public for trustees to have a plan that provides the most accurate estimate of required restoration costs possible. Depending on the preferred alternative, detailed work or implementation plans may have been developed for prior actions, parts or all of which may be applicable to the incident at hand.

Comment: Some commenters disagreed with a prescribed minimum public comment period for all incidents, while others stated that 30 days should be an absolute requirement, with a corresponding requirement that trustees respond to public comments in the subsequent 30 days.

Response: NOAA has removed a specific time requirement for a public notice and comment period, realizing that the circumstances of individual incidents and localities, and in addition the requirements for NEPA or other regulatory compliance, are so varied that any one specified time may be inappropriate.

Comment: A number of commenters stated their belief that restoration monitoring costs are not recoverable as natural resource damages. These commenters cite judicial decisions barring oversight costs as recoverable response costs under CERCLA, and an explicit reference to "monitoring" within OPA, respecting recovery from the Oil Spill Liability Trust Fund of the costs of monitoring removal actions. Other commenters agreed that monitoring is essential to the successful implementation of restoration, and urged that rule language be more explicit regarding the scope, extent, and purpose of recoverable monitoring costs. These commenters suggested that monitoring costs should be related to the value of the natural resource being restored, that monitoring should only be conducted long enough to ensure that

the action is proceeding as planned, and that the rule should provide for performance bonds if implementation is conducted by responsible parties.

Response: NOAA believes that restoration monitoring costs are a recoverable component of natural resource damages. Monitoring is essential to ensure that restoration actions accomplish their intended goals and objectives and do not cause unanticipated harm to the environment or public health. In addition, monitoring is essential to determine whether the terms of restoration agreements have been met, upon which a release from liability is premised. NOAA agrees that the rule itself should speak to the purposes and scope of monitoring, and has amended the rule accordingly.

Section 990.56—Use of Regional Restoration Plans or Existing Restoration Projects

Comment: Several commenters argued that using Regional Restoration Plans to spend money generated from simplified assessments is contrary to OPA and traditional tort principles of individualized injury and causation. Some commenters noted that the legislative history of OPA demonstrates a rejection of such regional approaches to restoration (H.R. 1465, 1st Cong., 1st Sess. (1989), a predecessor bill to OPA, contained a natural resource damage civil penalty section (1006(g)(4)) that allowed funds recovered to go to "general enhancement of the ecosystem"). The commenters made the point that common law tort principles applicable under OPA require damages to be used to restore a specific injury to a specific natural resource in order to be compensatory rather than punitive.

Some commenters argued that, for small incidents where incident-specific plans would be unreasonable, trustees should allow natural recovery. The commenters stated that there is no OPA mandate to restore injured natural resources and services regardless of the scope and scale of those injuries, and that, in such cases, OPA firmly implies liability for small incidents is *de minimis* in the absence of actual evidence of significant natural resource services losses. One commenter suggested that regional plans could not possibly identify precisely where discharged oil would go, and in the actual event of an incident, a regional plan will likely be inapplicable. Other commenters noted that before a regional plan could be used, a link between the actual injury and the plan must be established.

Some commenters argued that such plans would be self-fulfilling and

become a proxy for investigating injuries. Several commenters noted that, under these provisions, trustees could amass large sums of money to undertake various quasi-public works projects, having no connection whatsoever to any of the incident sites. These commenters argued that this provision will allow trustees to essentially do an "end run" around the legislative process and to pursue their own ends, which is clearly not authorized by OPA.

One commenter argued that this provision would be fundamentally unfair to responsible parties who will have no opportunity to participate in the development of these regional plans.

Several commenters strongly encouraged the use of Regional Restoration Plans, stating that trustees must have multiple options available for redressing injuries. These commenters stated that Regional Restoration Plans allow trustees to maximize the effectiveness of a restoration action by combining recoveries from other incidents. Some of these commenters noted that only Regional Restoration Plans can provide for an effective response to the cumulative impacts of many small incidents. These commenters argued that such plans are clearly within the ambit of OPA and that there is no provision in OPA requiring that damages collected be spent remediating the specific site injured. In fact, the commenters noted that contrary intent is evident in Congress' inclusion of acquisition of equivalent natural resources as a restoration option.

Several commenters expressed concern that the rule limits use of a Regional Restoration Plan to situations where a simplified assessment procedure was used. The commenters argued that whether damages from a specific incident are best used independently, or to fund part of a Regional Restoration Plan, is a separate issue that is not related to the type of assessment procedure used. They stated that, if implementation of a project plan provides suitable compensation for injuries that occurred as a result of a discharge, trustees should be able to use that specific project plan.

Other commenters expressed concern about restrictive language related to "commingling" of simplified assessment recoveries and the use of newly developed Regional Restoration Plans. These commenters stated that it would be difficult at best to define "similar" natural resources or services in relation to small incident impacts and that pooling of small incident damages should not be tied to such a criterion. The commenters suggested

that the only criterion for pooling of small incident settlements should be the lack of affordable and efficient restoration alternatives given the size of the damage recovery.

One commenter requested more guidance in the rule for criteria for developing and implementing such plans. One commenter said the proposed rule was unclear about the calculation of appropriate costs for cases where the formulas or type A models were used and even more confusing where calculation of such costs are necessary for the implementation of a regional restoration plan. Another commenter stated that the costs of developing regional plans is not an appropriate use of recovered natural resource damages.

Commenters proposed a number of guidelines to permit regional restoration planning under OPA, when the trustee and the responsible party agree that it is appropriate, including: (1) There is an ecological relationship between the injured natural resources and the objectives of the regional restoration plan; (2) on-site restoration is either not technically feasible or not cost effective; (3) the level of services provided by the proposed restoration action is substantially similar to that provided by the injured natural resources; (4) the restoration measures will be beneficial given the potential for natural recovery; (5) the measures are likely to be successful in significantly accelerating the natural recovery of the injured population or area; (6) the proposal will not itself result in degradation of the environment; and (7) the cost of the program is not out of proportion to the value of the natural resources.

One commenter asked whether NOAA will initiate a regional restoration planning process and identify areas where regional plans could be of high priority, or whether it is incumbent upon industry and state trustees to do so. Another commenter noted that pre-incident planning may not be achievable in all cases, and recommended NOAA's rule endorse post-incident development of Regional Restoration Plans, with public review and comment, for application of subsequent recoveries.

Some commenters suggested that regional restoration plans identify areas within the region in need of restoration or acquisition that are important to various species of fish and wildlife vulnerable to incidents and prioritize them by cost of restoration. In addition, this commenter suggested that the trustees be required to make a showing that it is environmentally ineffective to restore the injured natural resource and

that restoration of another would provide substantially greater benefit to the ecology injured by the incident.

Some commenters suggested the importance of early public involvement in the prioritization of areas most heavily injured by incidents and to ensure that the restored areas serve the same human populations as those served by the injured natural resources. One commenter noted that Regional Restoration Plans inappropriately exclude local participation in restoration planning, as large-scale efforts would bar smaller attempts.

Response: NOAA agrees that OPA intends that responsible parties be held liable only for restoration needed to redress the injuries caused by specific incidents. Injury must be determined under the rule for all incidents. However, NOAA also views regional restoration planning as one means to resolve liability for injuries in an expeditious and cost-effective manner.

The rule has been amended to make it clear that in no event will the use of a regional restoration plan violate OPA's limitation that natural resource damages be used solely to restore, replace, rehabilitate, or acquire the equivalent of the natural resources and/or services injured by an incident. OPA's legislative history defines "equivalent" natural resources as those that will enhance the recovery, productivity, and survival of the ecosystem affected by a discharge, preferably in proximity to the affected area (Conference Report at 109). The requirements in the rule are strict enough to ensure that regional restoration plans or other existing restoration projects used in lieu of an incident-specific plan do not violate OPA's constraints on expenditure of damages. Whether an existing plan or project represents restoration, rehabilitation, replacement, or acquisition of the equivalent will depend on the nature of the incident and the restoration plan or project.

The final rule also requires that use of possible restoration actions in an existing plan or project be evaluated within the range of restoration alternatives that trustees are required to consider, including natural recovery. But the rule recognizes that it may be in the best interests of all parties not to expend funds developing incident-specific restoration plans in all instances.

Experience with past incidents has shown that responsible parties have often identified existing planned or proposed environmental restoration actions that may have been developed by local governmental natural resource agencies or environmental groups, and

proposed to fund these actions as compensation for the injuries of an incident. NOAA intends regional restoration planning to build on this cost-effective approach to restoration planning, by developing databases that identify existing or desirable unfunded actions in a manner that will allow an appropriate linkage between actions and particular incidents. The geographic scale of a "regional" plan database will likely vary with locality, variability of local environmental conditions, and expected local impacts from incidents, but actions can be scrutinized in terms of the type and scale of natural resources and/or services they are expected to provide. If projects match the incident in terms of the scale of injuries and the scale of expected natural resources or services that will be provided, responsible parties may be given the option to fund or implement the project. If the scale of the incident and the project do not appear consistent, trustees may request that responsible parties pay damages equal to the relative proportion of the total cost of the project that would compensate for the scale of injuries from the incident. Such partial recoveries may be pooled until funding is adequate to implement the project.

The rule has been revised to eliminate restrictions on the type of assessment procedures that will enable use of a regional restoration plan or other existing restoration project, and have omitted any restrictions on how partial recoveries may be pooled or commingled pending collection of adequate funds to implement a project.

Finally, the rule is clear in providing for responsible party participation in identification of appropriate existing plans or projects that will resolve their liability for the injuries from a particular incident. The rule also provides that potentially responsible parties be given an opportunity to participate in any pre-incident development of regional restoration plans or existing restoration project databases.

Subpart F—Restoration Implementation Phase

Section 990.60—Purpose

Comment: Some commenters noted that the provision requiring Final Restoration Plans in the context of incident-specific assessments is a significant improvement over past proposals, since the current proposal bases the liability claim on projected costs of implementing the Final Restoration Plan, rather than developing a financial payment for liability and then deciding what to do with the

money. Some of these commenters had argued that the 1994 proposal, with the Final Restoration Plan being developed in the Post-Assessment Phase, violated OPA by allowing trustees to spend recoveries on non-site-specific restoration actions, i.e., implementing restoration plans other than those developed by the trustees in the assessment phase and that supported the damage claim.

Response: NOAA agrees that recoveries will be used to implement the restoration plans developed through the assessment, except where new information received after completion of the plan indicates that the plan needs to be modified to conform to the standards of this rule. Any such modification must be made by a public process documented in the administrative record for restoration implementation.

Section 990.61—Administrative Record

Comment: One commenter approved of opening a parallel administrative record for the implementation phase to ensure that there is accurate and complete accountability of all activities and costs. The commenter suggested, however, that the provisions allowing addition of documents to the record is questionable and should be deleted. The commenter noted that the trustees should be required to document their implementation or the responsible party's implementation of the restoration plan, that the monitoring requirements were adhered to, and that cost effective or cost beneficial requirements were followed. The commenter suggested that the rule also should specify the documents expected to be placed in the administrative record by the trustees.

Response: The final rule restricts augmenting the closed record of assessment except where new information raises significant issues regarding final restoration decisions, is not duplicative of information already in the record, and is offered by an interested party that did not receive actual or constructive notice of the availability of the draft plan. NOAA agrees with the commenter's suggestions to provide some minimum requirements for documents or determinations to be included in the Implementation Phase record, and has amended the rule to include this guidance.

Section 990.62—Presenting a Demand

Comment: Several commenters complained that the rule language is vague in terms of discretion over the form of a demand presented to responsible party. These commenters noted that restoration actions involve

management of natural resources and numerous laws at federal, state, tribal, and foreign levels that require that specific agencies maintain the responsibility for decisions involving management of natural resources. The commenters argued that NOAA cannot delegate this responsibility away from trustees to responsible parties. The commenters stated that the trustee should not be required in every case to go first to the responsible party for restoration implementation, but should evaluate, prior to commencing implementation of restoration actions, the most efficient procedure of implementing the plan. This evaluation should include consideration of the responsible party's ability to accomplish effective conduct of the restoration actions.

Several other commenters strongly supported the provisions allowing the responsible party to either implement the restoration plan or pay damages. The commenters also stated that linking liability to the responsible party's implementation of a plan is a significant improvement over earlier proposals.

Another commenter asked why there are different standards for allowing a responsible party to implement all or part of an incident-specific versus a Regional Restoration Plan.

Response: The rule does not delegate any essential trustee functions or responsibilities to responsible parties, nor does it create any inalienable rights in responsible parties with respect to implementation of restoration. This provision in the rule recognizes that responsible parties or their agents may be far better equipped to implement restoration promptly and cost-effectively, given certain constraints on governmental spending and contracting authorities. The rule also recognizes that trustees must act responsibly in allowing responsible parties to implement restoration, and this decision regarding participation should be evaluated according to at least the same criteria suggested in § 990.14(c) for determining the scope of responsible party participation in any stage of the assessment. The rule requires trustees to identify performance criteria to gauge the success of restoration efforts, and encourages monitoring and oversight to confirm that restoration actions are carried out as intended in agreements with the responsible party.

The rule has been amended to remove the unintended differences in standards for responsible party implementation of incident-specific versus regional restoration plans.

Prejudgment Interest

Comment: Several commenters suggested that more flexibility must be added to address those circumstances when a substantial period of time elapses from the date the demand for payment is made to the date payment is actually made; in such cases, trustees should be able to use date of payment as the time to which to discount future costs or inflate "present" cost estimates to present value of the restoration action.

Response: This rule addresses interest up to the point that the formal demand is presented to the responsible parties. Section 1005 of OPA (33 U.S.C. 2705) addresses the payment of pre-judgment interest from the point the demand is made until the claim is paid.

Comment: Some commenters argued that interest computed on past costs amounts to prejudgment interest and section 1005 of OPA (33 U.S.C. 2705) provides that such interest runs only from 30 days after claim is presented and is to be paid at a commercial paper rate. Therefore, the commenters stated that the rule cannot allow recovery of interest on periods prior to demand, which would give trustees prejudgment interest in excess of that which Congress deemed proper.

Response: NOAA notes that interest recovered on past costs represents lost opportunity costs for the trustees, intended to encourage prompt payment of claims. Such a recovery is not an inappropriate recovery of prejudgment interest.

Section 990.64—Unsatisfied Demands

Comment: Several commenters stated that NOAA should clarify that uncompensated financial damages for compensatory restoration, which is intended to represent compensation for diminution in value, may not be sought from the Oil Spill Liability Trust Fund (Fund); only site-specific plans for primary restoration may be paid from that Fund.

Response: The Oil Spill Liability Trust Fund (Fund) is not available to federal trustees for payment of uncompensated damages under section 1012(a)(4) of OPA (33 U.S.C. 2712(a)(4)) (see Matter of USCG-OSLTF, B-255979, 1995 Comp. Gen. LEXIS 670 (October 30, 1995)). However, federal trustees may seek an appropriation from the Fund for implementation of restoration plans. The rule does not provide for recovery of monetized damages, but does provide for the use of restoration

actions that will restore, replace, rehabilitate, or acquire equivalent of interim lost services.

Comment: Several commenters suggested that the language allowing the responsible party to agree to a demand in order to forestall legal action should be changed to require a responsible party to either pay the demand or enter into an enforceable agreement within 90 calendar days after the trustees present the demand to perform services.

Response: NOAA agrees that the suggestion is a useful clarification of OPA's requirements in light of the rule's allowance for responsible party implementation of restoration actions.

Comment: One commenter strongly objected to the requirement that trustees cannot file a civil judicial action until 90 calendar days after presentation of the demand to the responsible party. This commenter argued that this provision has no statutory support, would serve no purpose, and might prove to be a problem for statute of limitations considerations.

Response: NOAA believes that the contested provision is consistent with the plain meaning of section 1013(c) of OPA (33 U.S.C. 2713(c)).

Section 990.65—Account

Comment: Some commenters suggested that the rule should specify that administrative costs associated with setting up a trustee account are compensable. Some commenters suggested that, if the damage amount is not placed in an interest-bearing account, the rule should allow adjustment to the appropriate state rate.

Response: NOAA notes that recovery is provided by OPA for costs incurred as a result of an incident. Therefore, the costs associated with setting up accounts are also recoverable. Also, NOAA agrees that adjustments should be made if damages are not placed in an interest-bearing account.

Comment: Some commenters expressed support for the idea of creating separate, interest-bearing accounts to hold recovered sums. One of these commenters, however, stated that joint trust accounts can be a problem between state and federal trustees, if the accounts are required to be registered under a federal court. The commenter suggested that joint recoveries should be exempt from the requirements of the Miscellaneous Receipts Act, and that NOAA should explicitly allow for administration of joint restoration accounts by reputable non-profit organizations that address restoration/

replacement/acquisition types of activities at local, state, or national levels. Some of these commenters asked for clarification as to why escrow accounts could be used. One commenter stated that interest accrued on these accounts should be required to be used for restoration.

Response: The rule explicitly allows the use of such accounts. Also, interest earned on recoveries (not including recoveries for past costs incurred) should be used only for restoration.

Comment: Some commenters strongly encouraged NOAA to provide guidance on implementing accounting procedures, although there was concern that rigorous accounting procedures would be expensive for trustees and thus recovery for accounting costs should be allowed.

Response: In 1986, EPA implemented *Financial Management Procedures for Documenting Superfund Costs*. This document is available from the Office of the Comptroller, Financial Management Division, Superfund Accounting Branch. These procedures provide guidance to ensure that documentation of EPA's costs for cleaning up Superfund sites are complete and accurate and can be furnished if litigation is required. These procedures are also relevant guidance to trustees on procedures of recordkeeping that will satisfy the requirement that costs be appropriate/accurate/reasonable. NOAA recognizes that certain expenses are inherent in any cost-tracking system. Recovering such costs as part of the assessment and restoration implementation costs is appropriate since it enables a trustee to demonstrate when, how and where funds for natural resource restoration have been expended, therefore these costs are recoverable.

Trustees must maintain appropriate accounting and reporting procedures to keep track of the use of sums recovered. As determined by the trustee, brief reports on the status of the sums recovered and expenditures for particular damage assessment or restoration activities may be reported in the administrative record for the restoration phase.

Comment: One commenter noted that there is no definition of "excess damages" in the proposed rule, and requested that the rule explicitly state that excess damages must not be collected, or, if collected, must be returned to the responsible party.

Response: NOAA believes that damages will never be "excessive" or in "excess" of the costs needed to restore injured natural resources and/or services if assessments are conducted in accordance with this rule, and restoration is implemented in a timely manner. However, NOAA can envision circumstances where unanticipated environmental conditions require adjustments to restoration actions, conceivably resulting in surplus damages.

Comment: Several commenters strongly disagreed with the language that requires all excess restoration funds to be placed in the Oil Spill Liability Trust Fund. These commenters noted that damages are generally settled jointly between state and federal trustees and the responsible party and that any excess funding should first be available for additional restoration. The commenters suggested that the responsible party should not expect to recover excess funds unless they are willing to pay additional funding for the restoration cases that result in deficits (e.g., a contingency fee), due to factors beyond the control of the trustees. These commenters recommended, at a minimum, that remaining funds should be deposited in both federal and state response trust funds, where states have such a fund.

Response: The rule allows for the recovery of damages required by OPA, namely: (1) The cost of restoring, rehabilitating, replacing, or acquiring the equivalent of, the injured natural resources and/or services pending restoration; (2) the diminution in value of those natural resources pending restoration; plus (3) the reasonable cost of assessing those damages. The recovery of those three items is not excess recovery. Trustees are to use the money to restore, rehabilitate, replace, or acquire the equivalent of the injured natural resources and/or services provided by those natural resources and to reimburse the reasonable costs of conducting the assessment. Any recoveries that may be left over after implementing the restoration plan must be deposited in the Oil Spill Liability Trust Fund, in accordance with the provisions of section 1006(f) of OPA (33 U.S.C. 2706(f)).

Section 990.66—Additional Considerations

Comment: One commenter suggested that the final rule establish timetables for the development and implementation of restoration plans.

Response: NOAA disagrees that any time table for developing and implementing restoration plans could have broad enough applicability for all possible incidents without hampering the process for some subset of incidents.

Comment: Several commenters indicated the importance of monitoring and oversight and the need to plan for failure of a restoration plan. Other commenters argued that monitoring costs are not recoverable because such costs are not mentioned in section 1002 of OPA and, therefore, not intended by the statute.

Response: As discussed in response to comments on the definition of reasonable assessment costs, NOAA believes that monitoring and oversight costs are recoverable damages. NOAA agrees with the importance of monitoring and oversight and has amended the rule to specifically discuss the purpose and scope of monitoring and oversight activities within the restoration implementation phase.

Comment: One commenter stated that allowing for reopeners within the rule will make it difficult for businesses to anticipate costs and create proper reserves. Other commenters questioned the degree to which a responsible party could be held accountable for a restoration plan selected by the trustees that did not work, requesting that NOAA reexamine the propriety of reopeners and raised the question as to who should bear the risks inherent in implementing a Restoration Plan. Another commenter suggested that the rule provides no standards for mid-course corrections, but that such standards are needed. One commenter questioned whether a responsible party would be subject to the restoration plan if that responsible party had not been involved in the development of that plan.

Response: Reopeners may be required to properly ensure that the environment and public are appropriately made whole for the injuries from a particular incident. Thus, reopeners should reflect the degree of certainty in the assessment of the nature and extent of injuries and losses. NOAA also agrees that reopeners must not be used irresponsibly, i.e., holding responsible parties accountable for unknowable consequences for an indeterminate period of time. Trustees must specify criteria upon which restoration actions will be judged successful, so that responsible parties may understand the goals and targets for their actions. Both parties should strive to identify any uncertainties in

successful implementation of a plan such that requests for additional actions on the part of the responsible party will not likely result. NOAA has amended the rule to provide some guidance on the nature of performance criteria that trustees should consider in formulating agreements with responsible parties.

Comment: One commenter suggested that the selection of a lead trustee to coordinate implementation of restoration should be mandatory.

Response: Section 990.14 of the rule advises identification of a lead administrative trustee, or co-lead administrative trustees, for all phases of a joint assessment.

Bibliography

NOAA Guidance Documents

All of the following NOAA Guidance Documents are currently in draft form and are expected to be available as Final Guidance Documents within a short time following promulgation of this final rule. A Notice of Availability will be published in the Federal Register as soon as the Final Guidance Documents are complete.

- Michel, J. and E. Reinharz. 1994. Preassessment Phase Guidance Document. National Oceanic and Atmospheric Administration, Office of General Counsel Natural Resources, Damage Assessment Regulations Team, Silver Spring, MD.
- NOAA. 1993. Restoration Guidance Document for Natural Resource Injury Resulting from a Discharge of Oil. National Oceanic and Atmospheric Administration, Office of General Counsel Natural Resources, Damage Assessment Regulations Team, Silver Spring, MD.
- NOAA. 1995. Specifications for Use of the NRDAM/CME Version 2.2 to Generate: Compensation Formula for Natural Resource Damage Assessments under OPA. National Oceanic and Atmospheric Administration, Office of General Counsel Natural Resources, Damage Assessment Regulations Team, Silver Spring, MD.
- NOAA. 1995. Injury Guidance Document for Natural Resources and Services under the Oil Pollution Act of 1990. National Oceanic and Atmospheric Administration, Damage Assessment and Restoration Program, Silver Spring, MD.
- NOAA. 1995. NEPA Compliance in Natural Resource Damage Assessment Guidance Document. National Oceanic and Atmospheric Administration, Damage Assessment and Restoration Program, Silver Spring, MD.

Department of the Interior Documents

DOI. 1987. Measuring Damages to Coastal and Marine Natural Resources: Concepts and Data Relevant to CERCLA Type A Damage Assessments (NRDAM/CME technical document). U.S. Department of the Interior, Office of Environmental Policy and Compliance, Washington, D.C., DOI-14-01-0001-85-C-20, Vol I-II.

DOI. 1993. The CERCLA Type A Natural Resource Damage Assessment Model for the Great Lakes Environments (NRDAM/GLE). U.S. Department of the Interior, Office of Environmental Policy and Compliance, Washington, D.C., Vol I-III.

DOI. 1994. The CERCLA Type A Natural Resource Damage Assessment Model for Coastal and Marine Environments (NRDAM/CME). U.S. Department of the Interior, Office of Environmental Policy and Compliance, Washington, D.C., Vol I-VI.

Appendix A—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 assessment results in appropriate and cost-effective restoration. 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 requires an interdisciplinary approach to ensure the integrated use of science, economics, and law necessary 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 injured. For instance, for incidents with complicated or long-term ecological injuries, the core team could include a natural resource trustee coordinator, restoration expert, natural resource biologist, environmental (petroleum) chemist, natural resource economist, quality assurance specialist, data manager/sample custodian, statistician, natural 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 as a result of an incident.

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 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 incidents, incidents over a certain size, location, etc.).

(c) Identify likely support services. In many circumstances, 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 can be avoided during incidents.

The types of support and expertise expected to be needed, 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 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 incidents for given geographic areas such as 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 services at risk. Further, trustees should identify and evaluate possible assessment procedures for these natural resources and services.

(e) Identify area and regional response agencies and officials. In order to participate actively in area and regional planning activities, trustees should identify the response agencies and officials. Developing a working relationship with these response agencies and officials will optimize coordination between assessment and response activities following an incident.

(f) Identify available baseline and other relevant information. Trustees should identify and catalog 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: (i) Petroleum hydrocarbon contamination in indicator organisms; (ii) species census and inventory data; (iii) baseline data on species populations; (iv) recreational use statistics; (v) values for selected natural resources and services; and (vi) 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.

(g) 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: (i) Type and volume of data; (ii) uses and users of the data; (iii) availability of existing data management structures; (iv) quality assurance needs; (v) reporting requirements; and (vi) accessibility of the data. Data management should also include provisions for distribution of updates for the trustees and others on a timely basis; and

(h) 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, including: (i) Responsible parties; (ii) Oil Spill Liability Trust Fund (Fund); and (iii) 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 environment and public whole for injuries to natural resources and services. Where practicable, incident-specific restoration plan development is the preferred approach. 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 make the environment and public whole, trustees are strongly encouraged to use or modify existing restoration plans, identify other existing restoration projects, or develop new regional restoration plans. Such regional planning is appropriate so long as natural resources and services comparable to those expected to be injured 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 the 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 incidents to specific natural 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 services injured 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 as early in the process as possible.

Incentives for Coordination

Incentives for coordination 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 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. However, cooperative arrangements allowing for responsible party implementation of assessment activities are subject to trustee oversight because of the trustees' fiduciary responsibility to the public.

Agreements

Trustees should consider Memoranda of Understanding (MOUs) to formalize their co-trustee 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.

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.

The rule 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 if the trustees wish to access the Fund to initiate natural resource damage assessment activities. Where appropriate, the trustees may designate co-LATs, consisting of a federal LAT and the state, tribal, or foreign trustees. Trustees may also elect to provide for sequential LATs to cover different stages of the restoration planning and implementation process.

The LAT should be selected by mutual agreement of the trustees. In designating a LAT, trustees may want to consider such factors as: relative extent of jurisdiction over natural resources and services injured by an incident; capability and willingness to conduct assessment actions; 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.

Co-Trustee Responsibilities

Co-trustees should be prepared to participate fully in the restoration planning and implementation process by: participating in or conducting those studies or analyses for which they have special expertise or management authority; making staff available to participate in other assessment activities, in particular, to represent the trustee in decisions requiring co-trustee 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 an assessment; liability for natural resource damages is limited to damages for injuries 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 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, the rule requires trustees to invite the responsible parties to be full or partial participants in the assessment and restoration process, whenever it can be achieved without compromise of the trustees' statutory obligations to act on behalf of the public trust.

Enforceable Agreements

Trustees and responsible parties should consider entering into agreements to facilitate their interactions and resolve any disputes during the assessment. To maximize cost-effectiveness and cooperation, trustees and responsible parties should attempt to develop a set of agreed-upon facts concerning the incident, assessment, and/or restoration. For example, stipulated facts might concern the types of natural resources and services injured, the extent of injury, or the most appropriate assessment procedures to determine injury and/or restoration needs, and how the results of the procedures used will be interpreted.

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 B—Assessment Procedures

Any procedures used to assess injury and scale restoration actions (i.e., procedures used throughout the natural resource damage assessment) must meet all of the standards listed in § 990.27 of the rule if they are to be in accordance with the rule. The rule allows for the use of a range of assessment procedures.

The scientific and technical adequacy of these procedures will be judged based on the circumstances of the incident and associated injuries, and the information needed to determine restoration actions. If a range of assessment procedures providing the same type and quality of information is available, the least costly procedure must be used.

Type A Procedures

The Department of the Interior (DOI) is responsible for developing "type A" assessment procedures under CERCLA. These procedures were originally intended to cover both hazardous substance releases as well as oil discharges. This rule would allow trustees to use any final type A procedure incorporated into DOI's regulations that addresses discharges of oil.

Compensation Formulas

As part of the 1994 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 formula was developed using early drafts of type A models being developed by DOI. The purpose of the formula is to readily estimate impacts based on the amount of oil discharged and several simple data inputs. The compensation formula was reserved in the 1995 proposed rule.

DOI is scheduled to issue the final revised type A models in early 1996. When those models are final, NOAA intends to reissue the compensation formulas. Pending the final promulgation of the models, NOAA has developed a guidance document to provide an interim tool for such a purpose.

The compensation formula guidance document is intended to provide instructions on how to recreate the incident scenarios used to develop the 1994 proposed estuarine/marine compensation formulas. Using the data in the guidance document, trustees will have a 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 natural resource damage assessment or in settlement discussions.

Restoration Scaling Procedures

The following is a list of procedures that are mentioned in this preamble as potential approaches to scaling restoration actions. The trustees are not limited to these procedures and may use

any procedure deemed to be appropriate to the particular situation, pursuant to the guidance given above and in § 990.27 of the final rule.

A. Habitat Equivalency Analysis

This procedure may be used to scale restoration actions that replace entire habitats that support multiple species or that replace individual species that provide a variety of natural resource services. To ensure that the scale of the restoration action 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 restoration action(s) over time.

B. Travel Cost Method

The travel cost method is principally employed to model demand for recreational experiences. This measurement procedure 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/or when the incident 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 literature value from a single-site model, without full accounting for substitutes, is the only available estimate, an appropriate adjustment should be made to the estimate of trip value.

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

C. Factor Income Approach

This approach can be employed to calculate changes in economic rent under certain special conditions; in more general cases, the procedure appropriate for calculating economic rent is market models of supply and demand. The factor income 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.) An incident may decrease the quality and/or quantity of a natural resource, and thereby effectively increase the cost of employing a natural resource input in a production process. For example, contamination of water supplies or of sediments in navigational waterways may increase the costs of providing drinking water or of maintaining navigational waterways through dredging. Where the prices of the final product and of the other factors of production do not change, the change in economic rent is simply the sum of the changes in factor costs (or factor income) for the affected inputs.

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 natural 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. The change in value of the property owners associated with the reduction in the quality or accessibility, as may occur due to an incident, may be captured in the value of the property if the effect is large enough. All else equal, the decrease in property values as a result of a discharge measures the change in use value of the injured coastline natural resources accruing to local property owners. This measure of the reduction in value of coastline natural resources will not capture any loss in value of the natural resources that may accrue to members of the public who do not own 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 natural 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 method 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: (i) A description of the good/service to be valued and the context in which it will be provided, including the method of payment; (ii) questions regarding the respondent's willingness to pay for the good or service; and (iii) questions concerning demographics or other characteristics of the respondent to interpret and validate survey responses.

G. Conjoint Analysis

Conjoint analysis is a survey procedure 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 restoration actions with varying levels or types of services. The goal is to obtain the value of the injured services in terms of alternative natural resource services so that restoration actions can be scaled directly using the resource-to-resource or service-to-service approaches or the valuation 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 natural resource valuation question in a different context.

Where natural 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. 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 natural 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, Regulatory Flexibility Act, Paperwork Reduction Act and Executive Orders 12630, 12778, and 12612

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 rule will not have a significant economic effect on a substantial number of small entities. The rule is intended to make more specific, and easier to apply, the standards set out in OPA for assessing injury to natural resources and/or services 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 parties will benefit by increased ease of application of law in this area.

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

The final rule has been reviewed under Executive Order 12,866 and has been determined to constitute a significant regulatory action. However, because of the difficulty of evaluating

the effects of alternatives to this rule, the Office of Information and Regulatory Affairs within the Office of Management and Budget has waived preparation of the assessments described in sections 6(a)(3)(B) and 6(a)(3)(C) of Executive Order 12,866 for the final rule.

It has been determined that this rule does not have takings implications under Executive Order 12,630. The Department has certified to the Office of Management and Budget that this rule meets the applicable standards provided in sections 2(a) and 2(b)(2) of Executive Order 12,778. It has been determined that this rule does not have federalism implications under Executive Order 12,612.

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: December 21, 1995.

D. James Baker,

Under Secretary for Oceans and Atmosphere.

Under the authority of the Oil Pollution Act of 1990, and for the reasons set out in this preamble, title 15 of the Code of Federal Regulations, chapter IX is 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 goal of the Oil Pollution Act of 1990 (OPA), 33 U.S.C. 2701 *et seq.*, is to make the environment and public whole for injuries to natural resources and services resulting from an incident involving a discharge or substantial threat of a discharge of oil (incident).

This goal is achieved through the return of the injured natural resources and services to baseline and compensation for interim losses of such natural resources and services from the date of the incident until recovery. The purpose of this part is to promote expeditious and cost-effective restoration of natural resources and services injured as a result of an incident. To fulfill this purpose, this part provides a natural resource damage assessment process for developing a plan for restoration of the injured natural resources and services and pursuing implementation or funding of

the plan by responsible parties. This part also provides an administrative process for involving interested parties in the assessment, a range of assessment procedures for identifying and evaluating injuries to natural resources and services, and a means for selecting restoration actions from a reasonable 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, and, if designated by the Governor of the state, local officials to act on behalf of the public as trustees for natural resources and for the designation of Indian tribe and foreign officials to act as trustees for natural resources on behalf of, respectively, the tribe or its members and the foreign government. This part may be used 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. This part is not intended to affect the recoverability of natural resource damages when recoveries are sought other than in accordance with this part.

§ 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, type of, and scale 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 Rebuttable presumption.

Any determination or assessment of damages to natural resources made by a Federal, State, or Indian trustee in accordance with this part shall have the force and effect of a rebuttable presumption on behalf of the trustee in any administrative or judicial proceeding under OPA.

§ 990.14 Coordination.

(a) *Trustees.* (1) If an incident affects the interests of multiple trustees, the trustees should act jointly under this part to ensure that full restoration is achieved without double recovery of damages. For joint assessments, trustees must designate one or more Lead

Administrative Trustee(s) to act as coordinators.

(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.

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

(b) *Response agencies.* Trustees must coordinate their activities conducted concurrently with response operations 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—(1) Invitation.* Trustees must invite the responsible parties to participate in the natural resource damage assessment described in this part. The invitation to participate should be in writing, and a written response by the responsible parties is required to confirm the desire to participate.

(2) *Timing.* The invitation to participate should be extended to known responsible parties as soon as practicable, but not later than the delivery of the "Notice of Intent to Conduct Restoration Planning," under § 990.44 of this part, to the responsible party.

(3) *Agreements.* Trustees and responsible parties should consider entering into binding agreements to facilitate their interactions and resolve any disputes during the assessment. To maximize cost-effectiveness and cooperation, trustees and responsible parties should attempt to develop a set of agreed-upon facts concerning the incident and/or assessment.

(4) *Nature and extent of participation.* If the responsible parties accept the invitation to participate, the scope of that participation must be determined by the trustees, in light of the considerations in paragraph (c)(5) of this section. At a minimum, participation will include notice of trustee determinations required under this part, and notice and opportunity to comment on documents or plans that significantly affect the nature and extent of the assessment. Increased levels of participation by responsible parties may be developed at the mutual agreement of the trustees and the responsible parties. Trustees will objectively consider all written comments provided by the responsible parties, as well as any other recommendations or proposals that the

responsible parties submit in writing to the Lead Administrative Trustee.

Submissions by the responsible parties will be included in the administrative record. Final authority to make determinations regarding injury and restoration rest solely with the trustees. Trustees may end participation by responsible parties who, during the conduct of the assessment, in the sole judgment of the trustees, cause interference with the trustees' ability to fulfill their responsibilities under OPA and this part.

(5) *Considerations.* In determining the nature and extent of participation by the responsible parties or their representatives, trustees may consider such factors as:

(i) Whether the responsible parties have been identified;

(ii) The willingness of responsible parties to participate in the assessment;

(iii) The willingness of responsible parties to fund assessment activities;

(iv) The willingness and ability of responsible parties to conduct assessment activities in a technically sound and timely manner and to be bound by the results of jointly agreed upon studies;

(v) The degree of cooperation of the responsible parties in the response to the incident; and

(vi) The actions of the responsible parties in prior assessments.

(6) *Request for alternative assessment procedures.* (i) The participating responsible parties may request that trustees use assessment procedures other than those selected by the trustees if the responsible parties:

(A) Identify the proposed procedures to be used that meet the requirements of § 990.27 of this part, and provide reasons supporting the technical adequacy and appropriateness of such procedures for the incident and associated injuries;

(B) Advance to the trustees the trustees' reasonable estimate of the cost of using the proposed procedures; and

(C) Agree not to challenge the results of the proposed procedures. The request from the responsible parties may be made at any time, but no later than, fourteen (14) days of being notified of the trustees' proposed assessment procedures for the incident or the injury.

(ii) Trustees may reject the responsible parties' proposed assessment procedures if, in the sole judgment of the trustees, the proposed assessment procedures:

(A) Are not technically feasible;

(B) Are not scientifically or technically sound;

(C) Would inadequately address the natural resources and services of concern;

(D) Could not be completed within a reasonable time frame; or

(E) Do not meet the requirements of § 990.27 of this part.

(7) *Disclosure.* Trustees must document in the administrative record and Restoration Plan the invitation to the responsible parties to participate, and briefly describe the nature and extent of the responsible parties' participation. If the responsible parties' participation is terminated during the assessment, trustees must provide a brief explanation of this decision in the administrative record and Restoration Plan.

(d) *Public.* Trustees must provide opportunities for public involvement after the trustees' decision to develop restoration plans or issuance of any notices to that effect, as provided in § 990.55 of this part. Trustees may also provide opportunities for public involvement at any time prior to this decision if such involvement may enhance trustees' decisionmaking or avoid delays in restoration.

§ 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 expediting 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 services at risk, identify area and regional response agencies and officials, identify available baseline information, establish data management systems, and identify assessment funding issues and options. Potentially responsible parties, as well as all other members of the public interested in and capable of participating in assessments, should be included in pre-incident planning to the fullest extent practicable.

(b) *Regional Restoration Plans.* Where practicable, incident-specific restoration plan development is preferred, however, trustees may develop Regional Restoration Plans. These plans may be used to support a claim under § 990.56 of this part. Regional restoration planning may consist of compiling databases that identify, on a regional or watershed basis, or otherwise as appropriate, existing, planned, or proposed restoration projects that may

provide appropriate restoration alternatives for consideration in the context of specific incidents.

Subpart B—Authorities

§ 990.20 Relationship to the CERCLA natural resource damage assessment regulations.

(a) *General.* Regulations for assessing natural resource damages resulting from hazardous substance releases under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended (CERCLA), 42 U.S.C. 9601 *et seq.*, and the Federal Water Pollution Control Act (Clean Water Act), 33 U.S.C. 1321 *et seq.*, 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 part supersedes 43 CFR part 11 with regard to oil discharges covered by OPA.

(b) *Assessments commenced before February 5, 1996.* If trustees commenced a natural resource damage assessment for an oil discharge under 43 CFR part 11 prior to February 5, 1996 they may complete the assessment in compliance with 43 CFR part 11, or they may elect to use this part, and obtain a rebuttable presumption.

(c) *Oil and hazardous substance mixtures.* For natural resource damages resulting from 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.

§ 990.21 Relationship to the NCP.

This part provides procedures by which trustees may determine appropriate restoration of injured natural resources and services, where such injuries are not fully addressed by response actions. Response actions and the coordination with damage assessment activities are conducted pursuant to the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR part 300.

§ 990.22 Prohibition on double recovery.

When taking actions under this part, trustees are subject to the prohibition on double recovery, as provided in 33 U.S.C. 2706(d)(3) of OPA.

§ 990.23 Compliance with NEPA and the CEQ regulations.

(a) *General.* The National Environmental Policy Act (NEPA), 42 U.S.C. 4321 *et seq.* and Council on Environmental Quality (CEQ) regulations implementing NEPA, 40 CFR chapter V, apply to restoration

actions by federal trustees, except where a categorical exclusion or other exception to NEPA applies. Thus, when a federal trustee proposes to take restoration actions under this part, it must integrate this part with NEPA, the CEQ regulations, and NEPA regulations promulgated by that federal trustee agency. Where state NEPA-equivalent laws may apply to state trustees, state trustees must consider the extent to which they must integrate this part with their NEPA-equivalent laws. The requirements and process described in this section relate only to NEPA and federal trustees.

(b) *NEPA requirements for federal trustees.* NEPA becomes applicable when federal trustees propose to take restoration actions, which begins with the development of a Draft Restoration Plan under § 990.55 of this part. Depending upon the circumstances of the incident, federal trustees may need to consider early involvement of the public in restoration planning in order to meet their NEPA compliance requirements.

(c) *NEPA process for federal trustees.* Although the steps in the NEPA process may vary among different federal trustees, the process will generally involve the need to develop restoration plans in the form of an Environmental Assessment or Environmental Impact Statement, depending upon the trustee agency's own NEPA regulations.

(1) *Environmental Assessment.* (i) *Purpose.* The purpose of an Environmental Assessment (EA) is to determine whether a proposed restoration action will have a significant (as defined under NEPA and § 1508.27 of the CEQ regulations) impact on the quality of the human environment, in which case an Environmental Impact Statement (EIS) evaluating the impact is required. In the alternative, where the impact will not be significant, federal trustees must issue a Finding of No Significant Impact (FONSI) as part of the restoration plans developed under this part. If significant impacts to the human environment are anticipated, the determination to proceed with an EIS may be made as a result, or in lieu, of the development of the EA.

(ii) *General steps.* (A) If the trustees decide to pursue an EA, the trustees may issue a Notice of Intent to Prepare a Draft Restoration Plan/EA, or proceed directly to developing a Draft Restoration Plan/EA.

(B) The Draft Restoration Plan/EA must be made available for public review before concluding a FONSI or proceeding with an EIS.

(C) If a FONSI is concluded, the restoration planning process should be

no different than under § 990.55 of this part, except that the Draft Restoration Plan/EA will include the FONSI analysis.

(D) The time period for public review on the Draft Restoration Plan/EA must be consistent with the federal trustee agency's NEPA requirements, but should generally be no less than thirty (30) calendar days.

(E) The Final Restoration Plan/EA must consider all public comments on the Draft Restoration Plan/EA and FONSI.

(F) The means by which a federal trustee requests, considers, and responds to public comments on the Draft Restoration Plan/EA and FONSI must also be consistent with the federal agency's NEPA requirements.

(2) *Environmental Impact Statement.*

(i) *Purpose.* The purpose of an Environmental Impact Statement (EIS) is to involve the public and facilitate the decisionmaking process in the federal trustees' analysis of alternative approaches to restoring injured natural resources and services, where the impacts of such restoration are expected to have significant impacts on the quality of the human environment.

(ii) *General steps.* (A) If trustees determine that restoration actions are likely to have a significant (as defined under NEPA and § 1508.27 of the CEQ regulations) impact on the environment, they must issue a Notice of Intent to Prepare a Draft Restoration Plan/EIS. The notice must be published in the Federal Register.

(B) The notice must be followed by formal public involvement in the development of the Draft Restoration Plan/EIS.

(C) The Draft Restoration Plan/EIS must be made available for public review for a minimum of forty-five (45) calendar days. The Draft Restoration Plan/EIS, or a notice of its availability, must be published in the Federal Register.

(D) The Final Restoration Plan/EIS must consider all public comments on the Draft Restoration Plan/EIS, and incorporate any changes made to the Draft Restoration Plan/EIS in response to public comments.

(E) The Final Restoration Plan/EIS must be made publicly available for a minimum of thirty (30) calendar days before a decision is made on the federal trustees' proposed restoration actions (Record of Decision). The Final Restoration Plan/EIS, or a notice of its availability, must be published in the Federal Register.

(F) The means by which a federal trustee agency requests, considers, and responds to public comments on the

Final Restoration Plan/EIS must also be consistent with the federal agency's NEPA requirements.

(G) After appropriate public review on the Final Restoration Plan/EIS is completed, a Record of Decision (ROD) is issued. The ROD summarizes the trustees' decisionmaking process after consideration of any public comments relative to the proposed restoration actions, identifies all restoration alternatives (including the preferred alternative(s)), and their environmental consequences, and states whether all practicable means to avoid or minimize environmental harm were adopted (e.g., monitoring and corrective actions). The ROD may be incorporated with other decision documents prepared by the trustees. The means by which the ROD is made publicly available must be consistent with the federal trustee agency's NEPA requirements.

(d) *Relationship to Regional Restoration Plans or an existing restoration project.* If a Regional Restoration Plan or existing restoration project is proposed for use, federal trustees may be able to tier their NEPA analysis to an existing EIS, as described in §§ 1502.20 and 1508.28 of the CEQ regulations.

§ 990.24 Compliance with other applicable laws and regulations.

(a) *Worker health and safety.* When taking actions under this part, trustees must comply with applicable worker health and safety considerations specified in the NCP for response actions.

(b) *Natural Resources protection.* When acting under this part, trustees must ensure compliance with any applicable consultation, permitting, 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 *et seq.*; the National Marine Sanctuaries Act, 16 U.S.C. 1431 *et seq.*; the National Historic Preservation Act, 12 U.S.C. 470 *et seq.*; the Marine Mammal Protection Act, 16 U.S.C. 1361 *et seq.*; and the Archaeological Resources Protection Act, 16 U.S.C. 470 *et seq.*

§ 990.25 Settlement.

Trustees may settle claims for natural resource damages under this part at any time, provided that the settlement is adequate in the judgment of the trustees to satisfy the goal of OPA and is fair, reasonable, and in the public interest, with particular consideration of the adequacy of the settlement to restore, replace, rehabilitate, or acquire the

equivalent of the injured natural resources and services. Sums recovered in settlement of such claims, other than reimbursement of trustee costs, may only be expended in accordance with a restoration plan, which may be set forth in whole or in part in a consent decree or other settlement agreement, which is made available for public review.

§ 990.26 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 or prevent additional injury;
- (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, trustees, through their Regional Response Team member or designee, must coordinate with the On-Scene Coordinator (OSC) before taking any emergency restoration actions. Any emergency restoration actions proposed by trustees should not interfere with on-going response actions. Trustees must explain to response agencies through the OSC prior to implementation of emergency restoration actions their reasons for believing that proposed emergency restoration actions will not interfere with on-going response actions.

(c) Trustees must provide notice to identified responsible parties of any emergency restoration actions and, to the extent time permits, invite their participation in the conduct of those actions as provided in § 990.14(c) of this part.

(d) Trustees must provide notice to the public, to the extent practicable, of these planned emergency restoration actions. Trustees must also provide public notice of the justification for, nature and extent of, and results of emergency restoration actions within a reasonable time frame after completion of such actions. The means by which this notice is provided is left to the discretion of the trustee.

§ 990.27 Use of assessment procedures.

(a) *Standards for assessment procedures.* Any procedures used pursuant to this part must comply with all of the following standards if they are to be in accordance with this part:

- (1) The procedure must be capable of providing assessment information of use in determining the type and scale of restoration appropriate for a particular injury;

(2) The additional cost of a more complex procedure must be reasonably related to the expected increase in the quantity and/or quality of relevant information provided by the more complex procedure; and

(3) The procedure must be reliable and valid for the particular incident.

(b) *Assessment procedures available.* (1) The range of assessment procedures available to trustees includes, but is not limited to:

- (i) Procedures conducted in the field;
- (ii) Procedures conducted in the laboratory;
- (iii) Model-based procedures, including type A procedures identified in 43 CFR part 11, subpart D, and compensation formulas/schedules; and
- (iv) Literature-based procedures.

(2) Trustees may use the assessment procedures in paragraph (b)(1) of this section alone, or in any combination, provided that the standards in paragraph (a) of this section are met, and there is no double recovery.

(c) *Selecting assessment procedures.* (1) When selecting assessment procedures, trustees must consider, at a minimum:

- (i) The range of procedures available under paragraph (b) of this section;
- (ii) The time and cost necessary to implement the procedures;
- (iii) The potential nature, degree, and spatial and temporal extent of the injury;
- (iv) The potential restoration actions for the injury; and
- (v) The relevance and adequacy of information generated by the procedures to meet information requirements of restoration planning.

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

Subpart C—Definitions

§ 990.30 Definitions.

For the purpose of this rule, the term: *Baseline* means the condition of the natural resources and services that would have existed had the incident not occurred. Baseline data may be estimated using historical data, reference data, control data, or data on incremental changes (e.g., number of dead animals), alone or in combination, as appropriate.

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

CEQ regulations means the Council on Environmental Quality regulations implementing NEPA, 40 CFR chapter V.

Damages means damages specified in section 1002(b) of OPA (33 U.S.C. 1002(b)), and includes the costs of assessing these damages, as defined in section 1001(5) of OPA (33 U.S.C. 2701(5)).

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, as defined in section 1001(7) of OPA (33 U.S.C. 2701(7)).

Exclusive Economic Zone means the zone established by Presidential Proclamation 5030 of March 10, 1983 (3 CFR, 1984 Comp., p. 22), 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, as defined in section 1001(8) of OPA (33 U.S.C. 2701(8)).

Exposure means direct or indirect contact with the discharged oil.

Facility means any structure, group of structures, equipment, or device (other than a vessel) which is used for one or more of the following purposes: exploring for, drilling for, producing, storing, handling, transferring, processing, or transporting oil. This term includes any motor vehicle, rolling stock, or pipeline used for one or more of these purposes, as defined in section 1001(9) of OPA (33 U.S.C. 2701(9)).

Fund means the Oil Spill Liability Trust Fund, established by section 9509 of the Internal Revenue Code of 1986 (26 U.S.C. 9509), as defined in section 1001(11) of OPA (33 U.S.C. 2701(11)).

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, as defined in section 1001(14) of OPA (33 U.S.C. 2701(14)).

Indian tribe (or tribal) 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, as defined in section 1001(15) of OPA (33 U.S.C. 2701(15)).

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 the terms "destruction," "loss," and "loss of use" as provided in OPA.

Lead Administrative Trustee(s) (or LAT) means the trustee(s) who is selected by all participating trustees whose natural resources or services are injured by an incident, for the purpose of coordinating natural resource damage assessment activities. The LAT(s) should also facilitate communication between the OSC and other natural resource trustees regarding their activities during the response phase.

NCP means the National Oil and Hazardous Substances Pollution Contingency Plan (National Contingency Plan) codified at 40 CFR part 300, which addresses the identification, investigation, study, and response to incidents, as defined in section 1001(19) of OPA (33 U.S.C. 2701(19)).

Natural resource damage assessment (or assessment) means the process of collecting and analyzing information to evaluate the nature and extent of injuries resulting from an incident, and determine the restoration actions needed to bring injured natural resources and services back to baseline and make the environment and public whole for interim losses.

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, as defined in section 1001(20) of OPA (33 U.S.C. 2701(20)).

Navigable waters means the waters of the United States, including the territorial sea, as defined in section 1001(21) of OPA (33 U.S.C. 2701(21)).

NEPA means the National Environmental Policy Act, 42 U.S.C. 4321 *et seq.*

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), as defined in section 1001(23) of OPA (33 U.S.C. 2701(23)).

On-Scene Coordinator (or OSC) means the official 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 response actions under the NCP.

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

Pathway means any link that connects the incident to a natural resource and/or service, and is associated with an actual discharge of oil.

Person means an individual, corporation, partnership, association, state, municipality, commission, or political subdivision of a state, or any interstate body, as defined in section 1001(27) of OPA (33 U.S.C. 2701(27)).

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, as defined in section 1001(29) of OPA (33 U.S.C. 2701(29)).

Reasonable assessment costs means, for assessments conducted under this part, assessment costs that are incurred by trustees in accordance with this part. In cases where assessment costs are incurred but trustees do not pursue restoration, trustees may recover their reasonable assessment costs provided that they have determined that assessment actions undertaken were premised on the likelihood of injury and need for restoration. Reasonable assessment costs also include: administrative, legal, and enforcement costs necessary to carry out this part; monitoring and oversight costs; and costs associated with public participation.

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

Response (or remove or removal) means containment and removal of oil or a hazardous substance from water and shorelines or the taking of other actions as may be necessary to minimize or mitigate damage to the public health or welfare, including, but not limited to, fish, shellfish, wildlife, and public and private property, shorelines, and beaches, as defined in section 1001(30) of OPA (33 U.S.C. 2701(30)).

Responsible party means:

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

(b) *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.

(c) *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.

(d) *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.

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

(f) *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, as defined in section 1001(32) of OPA (33 U.S.C. 2701(32)).

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

(a) *Primary restoration*, which is any action, including natural recovery, that returns injured natural resources and services to baseline; and

(b) *Compensatory restoration*, which is any action taken to compensate for interim losses of natural resources and services that occur from the date of the incident until recovery.

Services (or *natural resource services*) means the functions performed by a natural resource for the benefit of another natural resource and/or the public.

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) of OPA.

United States and *State* means the several 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, and any other

territory or possession of the United States, as defined in section 1001(36) of OPA (33 U.S.C. 2701(36)).

Value means the maximum amount of goods, services, or money an individual is willing to give up to obtain a specific good or service, or the minimum amount of goods, services, or money an individual is willing to accept to forgo a specific good or service. The total value of a natural resource or service includes the value individuals derive from direct use of the natural resource, for example, swimming, boating, hunting, or birdwatching, as well as the value individuals derive from knowing a natural resource will be available for future generations.

Vessel means every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water, other than a public vessel, as defined in section 1001(37) of OPA (33 U.S.C. 2701(37)).

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) *Determination of jurisdiction.* 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 has occurred, as defined in § 990.30 of this part;

(2) The incident is not:

(i) Permitted under a permit issued under federal, state, or local law; or
(ii) From a public vessel; or
(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 trustee may have been, or may be, injured as a result of the incident.

(b) *Proceeding with preassessment.* If the conditions listed in paragraph (a) of this section are met, trustees may proceed under this part. If one of the conditions is not met, trustees may not take additional action under this part, except action to finalize this determination. Trustees may recover all reasonable assessment costs incurred up to this point provided that conditions in paragraphs (a)(1) and (a)(2) of this section were met and actions were taken with the reasonable belief that natural resources or services under their

trusteeship might have been injured as a result of the incident.

§ 990.42 Determination to conduct restoration planning.

(a) *Determination on restoration planning.* If trustees determine that there is jurisdiction to pursue restoration under OPA, trustees must determine whether:

(1) Injuries have resulted, or are likely to result, from the incident;

(2) Response actions have not adequately addressed, or are not expected to address, the injuries resulting from the incident; and

(3) Feasible primary and/or compensatory restoration actions exist to address the potential injuries.

(b) *Proceeding with preassessment.* If the conditions listed in paragraph (a) of this section are met, trustees may proceed under § 990.44 of this part. If one of these conditions is not met, trustees may not take additional action under this part, except action to finalize this determination. However, trustees may recover all reasonable assessment costs incurred up to this point.

§ 990.43 Data collection.

Trustees may conduct data collection and analyses that are reasonably related to Preassessment Phase activities. Data collection and analysis during the Preassessment Phase must be coordinated with response actions such that collection and analysis does not interfere with response actions. Trustees may collect and analyze 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.

§ 990.44 Notice of Intent to Conduct Restoration Planning.

(a) *General.* If trustees determine that all the conditions under § 990.42(a) of this part are met and trustees decide to proceed with the natural resource damage assessment, they must prepare a Notice of Intent to Conduct Restoration Planning.

(b) *Contents of the notice.* The Notice of Intent to Conduct Restoration Planning must include a discussion of the trustees' analyses under §§ 990.41 and 990.42 of this part. Depending on information available at this point, the notice may include the trustees'

proposed strategy to assess injury and determine the type and scale of restoration. The contents of a notice may vary, but will typically discuss:

- (1) The facts of the incident;
- (2) Trustee authority to proceed with the assessment;
- (3) Natural resources and services that are, or are likely to be, injured as a result of the incident;
- (4) Potential restoration actions relevant to the expected injuries; and
- (5) If determined at the time, potential assessment procedures to evaluate the injuries and define the appropriate type and scale of restoration for the injured natural resources and services.

(c) *Public availability of the notice.* Trustees must make a copy of the Notice of Intent to Conduct Restoration Planning publicly available. The means by which the notice is made publicly available and whether public comments are solicited on the notice will depend on the nature and extent of the incident and various information requirements, and is left to the discretion of the trustees.

(d) *Delivery of the notice to the responsible parties.* Trustees must send a copy of the notice to the responsible parties, to the extent known, in such a way as will establish the date of receipt, and invite responsible parties' participation in the conduct of restoration planning. Consistent with § 990.14(c) of this part, the determination of the timing, nature, and extent of responsible party participation will be determined by the trustees on an incident-specific basis.

§ 990.45 Administrative record.

(a) If trustees decide to proceed with restoration planning, they must open a publicly available administrative record to document the basis for their decisions pertaining to restoration. The administrative record should be opened concurrently with the publication of the Notice of Intent to Conduct Restoration Planning. Depending on the nature and extent of the incident and assessment, the administrative record should include documents relied upon during the assessment, such as:

- (1) Any notice, draft and final restoration plans, and public comments;
- (2) Any relevant data, investigation reports, scientific studies, work plans, quality assurance plans, and literature; and

(3) Any agreements, not otherwise privileged, among the participating trustees or with the responsible parties.

(b) Federal trustees should maintain the administrative record in a manner consistent with the Administrative Procedure Act, 5 U.S.C. 551–59, 701–06.

Subpart E—Restoration Planning Phase

§ 990.50 Purpose.

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

§ 990.51 Injury assessment—*injury determination.*

(a) *General.* After issuing a Notice of Intent to Conduct Restoration Planning under § 990.44 of this part, trustees must determine if injuries to natural resources and/or services have resulted from the incident.

(b) *Determining injury.* To make the determination of injury, trustees must evaluate if:

- (1) The definition of injury has been met, as defined in § 990.30 of this part; and
- (2)(i) An injured natural resource has been exposed to the discharged oil, and a pathway can be established from the discharge to the exposed natural resource; or
- (ii) An injury to a natural resource or impairment of a natural resource service has occurred as a result of response actions or a substantial threat of a discharge of oil.

(c) *Identifying injury.* Trustees must determine whether an injury 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.

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

(e) *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 a natural resource service has occurred as a result of the incident.

(f) *Selection of injuries to include in the assessment.* When selecting potential injuries to assess, trustees should consider factors such as:

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

§ 990.52 Injury assessment—*quantification.*

(a) *General.* In addition to determining whether injuries have resulted from the incident, trustees must quantify the degree, and spatial and temporal extent of such injuries relative to baseline.

(b) *Quantification approaches.* Trustees may quantify injuries in terms of:

- (1) The degree, and spatial and temporal extent of the injury to a natural resource;
- (2) The degree, and spatial and temporal extent of injury to a natural resource, with subsequent translation of that adverse 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) *Natural recovery.* To quantify injury, trustees must estimate, quantitatively or qualitatively, the time for natural recovery without restoration, but including any response actions. The analysis of natural recovery may consider such factors as:

- (1) The nature, degree, and spatial and temporal extent of injury;
- (2) The sensitivity and vulnerability of the injured natural resource and/or service;

- (3) The reproductive and recruitment potential;
- (4) The resistance and resilience (stability) of the affected environment;
- (5) The natural variability; and
- (6) The physical/chemical processes of the affected environment.

§ 990.53 Restoration selection—developing restoration alternatives.

(a) *General.* (1) If the information on injury determination and quantification under §§ 990.51 and 990.52 of this part and its relevance to restoration justify restoration, trustees may proceed with the Restoration Planning Phase. Otherwise, trustees may not take additional action under this part. However, trustees may recover all reasonable assessment costs incurred up to this point.

(2) Trustees must consider a reasonable range of restoration alternatives before selecting their preferred alternative(s). Each restoration alternative is comprised of primary and/or compensatory restoration components that address one or more specific injury(ies) associated with the incident. Each alternative must be designed so that, as a package of one or more actions, the alternative would make the environment and public whole. Only those alternatives considered technically feasible and in accordance with applicable laws, regulations, or permits may be considered further under this part.

(b) *Primary restoration.* (1) *General.* For each alternative, trustees must consider primary restoration actions, including a natural recovery alternative.

(2) *Natural recovery.* Trustees must consider a natural recovery alternative in which no human intervention would be taken to directly restore injured natural resources and services to baseline.

(3) *Active primary restoration actions.* Trustees must consider an alternative comprised of actions to directly restore the natural resources and services to baseline on an accelerated time frame. When identifying such active primary restoration actions, trustees may consider actions that:

(i) Remove conditions that would prevent or limit the effectiveness of any restoration action (e.g., residual sources of contamination);

(ii) May be necessary to return the physical, chemical, and/or biological conditions necessary to allow recovery or restoration of the injured natural resources (e.g., replacing substrate or vegetation, or modifying hydrologic conditions); or

(iii) Return key natural resources and services, and would be an effective

approach to achieving or accelerating a return to baseline (e.g., replacing essential species, habitats, or public services that would facilitate the replacement of other, dependent natural resource or service components).

(c) *Compensatory restoration.* (1) *General.* For each alternative, trustees must also consider compensatory restoration actions to compensate for the interim loss of natural resources and services pending recovery.

(2) *Compensatory restoration actions.* To the extent practicable, when evaluating compensatory restoration actions, trustees must consider compensatory restoration actions that provide services of the same type and quality, and of comparable value as those injured. If, in the judgment of the trustees, compensatory actions of the same type and quality and comparable value cannot provide a reasonable range of alternatives, trustees should identify actions that provide natural resources and services of comparable type and quality as those provided by the injured natural resources. Where the injured and replacement natural resources and services are not of comparable value, the scaling process will involve valuation of lost and replacement services.

(d) *Scaling restoration actions.* (1) *General.* After trustees have identified the types of restoration actions that will be considered, they must determine the scale of those actions that will make the environment and public whole. For primary restoration actions, scaling generally applies to actions involving replacement and/or acquisition of equivalent of natural resources and/or services.

(2) *Resource-to-resource and service-to-service scaling approaches.* When determining the scale of restoration actions that provide natural resources and/or services of the same type and quality, and of comparable value as those lost, trustees must consider the use of a resource-to-resource or service-to-service scaling approach. Under this approach, trustees determine the scale of restoration actions that will provide natural resources and/or services equal in quantity to those lost.

(3) *Valuation scaling approach.* (i) Where trustees have determined that neither resource-to-resource nor service-to-service scaling is appropriate, trustees may use the valuation scaling approach. Under the valuation scaling approach, trustees determine the amount of natural resources and/or services that must be provided to produce the same value lost to the public. Trustees must explicitly measure the value of injured natural resources and/or services, and then

determine the scale of the restoration action necessary to produce natural resources and/or services of equivalent value to the public.

(ii) If, in the judgment of the trustees, valuation of the lost services is practicable, but valuation of the replacement natural resources and/or services cannot be performed within a reasonable time frame or at a reasonable cost, as determined by § 990.27(a)(2) of this part, trustees may estimate the dollar value of the lost services and select the scale of the restoration action that has a cost equivalent to the lost value. The responsible parties may request that trustees value the natural resources and services provided by the restoration action following the process described in § 990.14(c) of this part.

(4) *Discounting and uncertainty.* When scaling a restoration action, trustees must evaluate the uncertainties associated with the projected consequences of the restoration action, and must discount all service quantities and/or values to the date the demand is presented to the responsible parties. Where feasible, trustees should use risk-adjusted measures of losses due to injury and of gains from the restoration action, in conjunction with a riskless discount rate representing the consumer rate of time preference. 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.

§ 990.54 Restoration selection—evaluation of alternatives.

(a) *Evaluation standards.* Once trustees have developed a reasonable range of restoration alternatives under § 990.53 of this part, they must evaluate the proposed alternatives based on, at a minimum:

(1) The cost to carry out the alternative;

(2) The extent to which each alternative is expected to meet the trustees' goals and objectives in returning the injured natural resources and services to baseline and/or compensating for interim losses;

(3) The likelihood of success of each alternative;

(4) The extent to which each alternative will prevent future injury as a result of the incident, and avoid collateral injury as a result of implementing the alternative;

(5) The extent to which each alternative benefits more than one natural resource and/or service; and

(6) The effect of each alternative on public health and safety.

(b) *Preferred restoration alternatives.* Based on an evaluation of the factors under paragraph (a) of this section, trustees must select a preferred restoration alternative(s). If the trustees conclude that two or more alternatives are equally preferable based on these factors, the trustees must select the most cost-effective alternative.

(c) *Pilot projects.* Where additional information is needed to identify and evaluate the feasibility and likelihood of success of restoration alternatives, trustees may implement restoration pilot projects. Pilot projects should only be undertaken when, in the judgment of the trustees, these projects are likely to provide the information, described in paragraph (a) of this section, at a reasonable cost and in a reasonable time frame.

§ 990.55 Restoration selection—developing restoration plans.

(a) *General.* OPA requires that damages be based upon a plan developed with opportunity for public review and comment. To meet this requirement, trustees must, at a minimum, develop a Draft and Final Restoration Plan, with an opportunity for public review of and comment on the draft plan.

(b) *Draft Restoration Plan.* (1) The Draft Restoration Plan should include:

- (i) A summary of injury assessment procedures used;
- (ii) A description of the nature, degree, and spatial and temporal extent of injuries resulting from the incident;
- (iii) The goals and objectives of restoration;
- (iv) The range of restoration alternatives considered, and a discussion of how such alternatives were developed under § 990.53 of this part, and evaluated under § 990.54 of this part;
- (v) Identification of the trustees' tentative preferred alternative(s);
- (vi) A description of past and proposed involvement of the responsible parties in the assessment; and
- (vii) A description of monitoring for documenting restoration effectiveness, including performance criteria that will be used to determine the success of restoration or need for interim corrective action.

(2) When developing the Draft Restoration Plan, trustees must establish restoration objectives that are specific to the injuries. These objectives should clearly specify the desired outcome, and the performance criteria by which successful restoration will be judged. Performance criteria may include structural, functional, temporal, and/or

other demonstrable factors. Trustees must, at a minimum, determine what criteria will:

- (i) Constitute success, such that responsible parties are relieved of responsibility for further restoration actions; or
 - (ii) Necessitate corrective actions in order to comply with the terms of a restoration plan or settlement agreement.
- (3) The monitoring component to the Draft Restoration Plan should address such factors as duration and frequency of monitoring needed to gauge progress and success, level of sampling needed to detect success or the need for corrective action, and whether monitoring of a reference or control site is needed to determine progress and success. Reasonable monitoring and oversight costs cover those activities necessary to gauge the progress, performance, and success of the restoration actions developed under the plan.

(c) *Public review and comment.* The nature of public review and comment on the Draft and Final Restoration Plans will depend on the nature of the incident and any applicable federal trustee NEPA requirements, as described in §§ 990.14(d) and 990.23 of this part.

(d) *Final Restoration Plan.* Trustees must develop a Final Restoration Plan that includes the information specified in paragraph (a) of this section, responses to public comments, if applicable, and an indication of any changes made to the Draft Restoration Plan.

§ 990.56 Restoration selection—use of a Regional Restoration Plan or existing restoration project.

(a) *General.* Trustees may consider using a Regional Restoration Plan or existing restoration project where such a plan or project is determined to be the preferred alternative among a range of feasible restoration alternatives for an incident, as determined under § 990.54 of this part. Such plans or projects must be capable of fulfilling OPA's intent for the trustees to restore, rehabilitate, replace, or acquire the equivalent of the injured natural resources and services and compensate for interim losses.

(b) *Existing plans or projects—(1) Considerations.* Trustees may select a component of a Regional Restoration Plan or an existing restoration project as the preferred alternative, provided that the plan or project:

- (i) Was developed with public review and comment or is subject to public review and comment under this part;

(ii) Will adequately compensate the environment and public for injuries resulting from the incident;

- (iii) Addresses, and is currently relevant to, the same or comparable natural resources and services as those identified as having been injured; and
- (iv) Allows for reasonable scaling relative to the incident.

(2) *Demand.* (i) If the conditions of paragraph (b)(1) of this section are met, the trustees must invite the responsible parties to implement that component of the Regional Restoration Plan or existing restoration project, or advance to the trustees the trustees' reasonable estimate of the cost of implementing that component of the Regional Restoration Plan or existing restoration project.

(ii) If the conditions of paragraph (b)(1) of this section are met, but the trustees determine that the scale of the existing plan or project is greater than the scale of compensation required by the incident, trustees may only request funding from the responsible parties equivalent to the scale of the restoration determined to be appropriate for the incident of concern. Trustees may pool such partial recoveries until adequate funding is available to successfully implement the existing plan or project.

(3) *Notice of Intent To Use a Regional Restoration Plan or Existing Restoration Project.* If trustees intend to use an appropriate component of a Regional Restoration Plan or existing restoration project, they must prepare a Notice of Intent to Use a Regional Restoration Plan or Existing Restoration Project. Trustees must make a copy of the notice publicly available. The notice must include, at a minimum:

- (i) A description of the nature, degree, and spatial and temporal extent of injuries; and
- (ii) A description of the relevant component of the Regional Restoration Plan or existing restoration project; and
- (iii) An explanation of how the conditions set forth in paragraph (b)(1) of this section are met.

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.* Within a reasonable time after the trustees have completed restoration planning, as provided in §§ 990.55 and 990.56 of this part, they must close the administrative record. Trustees may not add

documents to the administrative record once it is closed, except where such documents:

(1) Are offered by interested parties 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, as provided in § 990.45 of this part. The costs associated with the administrative record are part of the costs of restoration. Ordinarily, the administrative record for implementation of restoration should document, at a minimum, all Restoration Implementation Phase decisions, actions, and expenditures, including any modifications made to the Final Restoration Plan.

§ 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 parties.

(b) *When a Final Restoration Plan has been developed.* Except as provided in paragraph (c) of this section and in § 990.14(c) of this part, the demand must invite the responsible parties to either:

(1) Implement the Final Restoration Plan subject to trustee oversight and reimburse the trustees for their assessment and oversight costs; or

(2) Advance to the trustees a specified sum representing trustee assessment costs and all trustee costs associated with implementing the Final Restoration Plan, discounted as provided in § 990.63(a) of this part.

(c) *Regional Restoration Plan or existing restoration project.* When the trustees use a Regional Restoration Plan or an existing restoration project under § 990.56 of this part, the demand will invite the responsible parties to implement a component of a Regional Restoration Plan or existing restoration project, or advance the trustees' estimate of damages based on the scale of the restoration determined to be appropriate for the incident of concern, which may be the entire project or a portion thereof.

(d) *Response to demand.* The responsible parties must respond within

ninety (90) calendar days in writing by paying or providing binding assurance they will reimburse trustees' assessment costs and implement the plan or pay assessment costs and the trustees' estimate of the costs of implementation.

(e) *Additional contents of demand.*

The demand must also include:

(1) Identification of the incident from which the claim arises;

(2) Identification of the trustee(s) asserting the claim and a statement of the statutory basis for trusteeship;

(3) A brief description of the injuries for which the claim is being brought;

(4) An index to the administrative record;

(5) The Final Restoration Plan or Notice of Intent to Use a Regional Restoration Plan or Existing Restoration Project; and

(6) A request for reimbursement of:

(i) Reasonable assessment costs, as defined in § 990.30 of this part and discounted as provided in § 990.63(b) of this part;

(ii) The cost, if any, of conducting emergency restoration under § 990.26 of this part, discounted as provided in § 990.63(b) of this part; and

(iii) Interest on the amounts recoverable, as provided in section 1005 of OPA (33 U.S.C. 2705), which allows for prejudgment and post-judgment interest to be paid at a commercial paper rate, starting from thirty (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 should 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, trustees must compound the 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 U.S.

Treasury rates of various maturities and 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 Unsatisfied demands.

(a) If the responsible parties do not agree to the demand within ninety (90) calendar days after trustees present the demand, the trustees may either file a judicial action for damages or seek an appropriation from the Oil Spill Liability Trust Fund, as provided in section 1012(a)(2) of OPA (33 U.S.C. 2712(a)(2)).

(b) Judicial actions and claims must be filed within three (3) years after the Final Restoration Plan or Notice of Intent to Use a Regional Restoration Plan or Existing Restoration Project is made publicly available, in accordance with 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 or all or an appropriate component of a Regional Restoration Plan or an existing restoration project.

(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 criteria and procedures, and personnel for authorizing expenditures out of such joint accounts.

(c) *Interest-bearing accounts.* Trustees may place recoveries in interest-bearing revolving trust accounts, as provided by section 1006(f) of OPA (33 U.S.C. 2706(f)). Interest earned on such accounts may only be used for restoration.

(d) *Escrow accounts.* Trustees may establish escrow accounts or other investment accounts.

(e) *Records.* Trustees must maintain appropriate accounting and reporting procedures 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, as provided by section 1006(f) of OPA (33 U.S.C. 2706(f)).

§ 990.66 Additional considerations.

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

(1) Establish a trustee committee and/or memorandum of understanding or other agreement to coordinate among affected trustees, as provided in § 990.14(a)(3) of this part;

(2) Develop more detailed workplans to implement restoration;

(3) Monitor and oversee restoration; and

(4) Evaluate restoration success and the need for corrective action.

(b) The reasonable costs of such actions are included as restoration costs.

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