

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

c. Treatment of Uncertainty and Discounting

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

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

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

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

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

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

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

C. Restoration Alternatives for Simplified Assessment Procedures

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

D. Evaluation of Restoration Alternatives

1. General

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

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

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

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

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

(f) Cost of each alternative;

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

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

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

2. Other Considerations

a. Pilot Restoration Studies

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

b. Cost Benefit Analysis

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

E. Draft Restoration Plan

1. Purpose

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

2. Contents

A Draft Restoration Plan should reflect the restoration planning process