primarily with how income and wealth are divided among regions and groups. Changes in employment, household income and local or state tax revenues are frequently used to portray regional effects.

## A Net-Cost With and With-out Approach

Designation of critical habitat will often result in both economic gains and losses. Careful application of a with and without analytical framework will help to distinguish between the two. For example, with critical habitat recreation such as bird watching may be preserved that otherwise would have been lost because of a development project or continued habitat loss. The national economic value of the preserved recreation and the regional jobs and household income it produces are gains, or benefits, of designation. Without critical habitat, an area may have been used for developed recreational purposes, but critical habitat designation would prohibit those uses. The values and jobs associated with that now precluded use become a loss (benefit foregone) due to critical habitat designation. It is the net effect of these changes in both the national and regional accounts that is important. Describing what probably would have happened to an area of potential critical habitat in both the with and without scenarios, both currently and in the future, is an important part of the analysis. The availability of data limits quantification of the net effects in many instances.

## Baseline for Analysis

As noted earlier, the economic effects of critical habitat designation are incremental to those already created by the Clean Water Act and other statutes, and by listing the snowy plover as threatened. Actions taken for those other purposes establish the baseline for this analysis. It is the marginal increase in species protection provided by designation of critical habitat and the marginal change in costs, regional impacts, and benefits that the designation produces that are relevant to this analysis.

## Data Requirements

The Service has notified Federal agencies having jurisdiction over the areas being proposed as critical and asked them to estimate the effect of designation on their activities. Each agency was sent detailed maps and legal descriptions of the proposed areas and asked to identify areas for which they were responsible. They were then asked to provide detailed descriptions of

activities on those areas that may be affected by critical habitat designation, in three situations:

Without Listing: Activities that would have been taking place in the proposed area if there had been no listing of the snowy plover as threatened.

With Listing: Activities that would be taking place once any existing or anticipated restrictions to avoid jeopardy decisions in section 7 consultations were put in place. This level of activity becomes the baseline for evaluation of the incremental effect of critical habitat designation.

With Critical Habitat: Activities expected to take place once any anticipated restrictions to avoid adverse modification decisions in section 7 consultations were put in place. The difference between this level and the With-Listing level is the impact attributable to designating critical habitat.

Land management agencies were asked to quantify their responses as much as possible in terms of days of beach use, cattle grazing, etc., and to estimate any change in their operational costs as a result of listing and of designating critical habitat. Other Federal agencies that may be affected by critical habitat through their regulatory or funding roles were also sent maps and legal descriptions of the proposed critical habitat and were asked if any of the areas were involved in pending or anticipated permit or funding actions. Responses to those requests will form the empirical basis of the economic analysis. The Service is also seeking information about such possible actions during the public comment period.

## The Exclusion Process

This section summarizes the procedure that will be followed prior to a final rule in determining whether or not to exclude an area (or areas) from designation as critical habitat for the western snowy plover. The criteria used to help reach a determination and the steps followed are described below.

Section 3(5)(A) of the Endangered Species Act of 1973 (Act), as amended, generally defines critical habitat as:

(i) The specific areas within the geographical area occupied by the species, at the time it is listed \* \* \* on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection.

Section 3 further states that in most cases critical habitat will not encompass the entire range of the species. The Act also directs the Secretary to consider economic and other relevant impacts in the designation of critical habitat. Section 4(b)(2) states:

The Secretary shall designate critical habitat, and make revisions thereto \* \* \* on the basis of the best scientific data available and after taking into consideration the economic impact, and any other relevant impact, of specifying any particular area as critical habitat. The Secretary may exclude any area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific and commercial data available, that the failure to designate such area as critical habitat will result in the extinction of the species concerned.

Exclusion of an area as critical habitat would only eliminate the protection provided by the destruction or adverse modification standard of section 7; it would not alleviate the need to comply with other requirements of the Act in that area, such as section 7 consultation on jeopardy and section 9 prohibitions on take. These requirements would apply regardless of whether or not critical habitat is designated for a particular area.

The authority to make determinations under section 4(b)(2) of the Act has been delegated to the Director of the Fish and Wildlife Service. Implementation of section 4(b)(2) requires three determinations: (1) The conservation benefits to the species of including an area as critical habitat, (2) the economic and other costs of including an area, and (3) the cumulative effects of exclusions on the probability of species extinction. If the exclusion of an area or areas from critical habitat would result in species extinction, then exclusion of the critical habitat area(s) would not be authorized under the Act.

The process used to evaluate critical habitat areas to determine whether the benefits of exclusion outweigh the benefits of inclusion as critical habitat can be summarized in several sequential steps:

Step 1 Identify areas that meet the definition of critical habitat in section 3(5) of the Act.

Step 2 Conduct an economic analysis to determine the anticipated economic consequences of designating areas as critical habitat.

Step 3 Identify the applicable economic, biological, and other information that need to be considered to determine whether to retain, exclude, or modify areas as critical habitat.

For the western snowy plover, the Service is proposing specific critical habitat areas that the Service believes are essential to the plovers' conservation. The biological value and