

access permission from private landowners, before initiating field work.

B. Comments Regarding Alternative Projects

Comment: Several respondents suggested that the murre recolonization project should be implemented as a pilot study at a reduced level of funding, and that the savings should be used to fund other projects, including: Rhinoceros auklet restoration, additional habitat acquisition for marbled murrelets, acquisition of property containing a common murre colony at Cape Vizcaino in Mendocino County, a fisheries task force to reduce mortality of seabirds in gill nets of the central California fishing industry, efforts to reduce impacts of chronic oil pollution on seabirds, gull control and other projects on the Farallon Islands, and genetic studies of Pacific coast murre.

Response: The draft Plan was revised and more detail has been provided in the Restoration Alternatives Considered and Selected section of the Final plan. The Service intends to approach this project in phases. The initial phase focuses on direct restoration activities at Devil's Slide and San Pedro rocks, and monitoring at other sites. The project will be scaled up to include implementation of recolonization techniques at Hurricane Rock and Castle Rock after several years of monitoring, if appropriate. This phased approach was implicit in the Draft Plan and has been further clarified in the Final Plan. A reduced level of effort will not provide sufficient information to evaluate whether the project is working, and diversion of money to other projects may not allow implementation of the project over the entire ten year period that may be necessary to achieve the project's goals. Consequently, the Service does not feel it would be acting in the public interest to shift large sums of money from the murre recolonization project to other projects at this time.

This decision does not mean that the Service or the Trustees reject the argument that some of the alternative projects that were suggested would be beneficial to natural resources injured by the Apex Houston Oil Spill. On the contrary, many of these projects, including rhinoceros auklet restoration and acquisition of the murre colony at Cape Vizcaino, were considered during settlement negotiations. Other suggested projects, including projects to reduce seabird mortality from gill nets and chronic oiling, are already underway with funding from other sources within the Trustee agencies. The murre recolonization project and the murrelet

habitat acquisition project were given priority because the Trustees feel that these two projects best address restoration needs of local populations of the species that were most seriously impacted by the spill. The Alternatives Considered section of the Final Plan has been expanded to better address these concerns.

The Service intends to carefully manage project expenditures to stay within the proposed budget, and will attempt to realize savings wherever possible. In addition, the settlement money will be invested in an interest-bearing account within the Department of the Interior's Natural Resource Damage Assessment and Restoration fund. In general, the priority for use of any savings realized through this strategy will be continuation of murre restoration efforts beyond 10 years and acquisition of marbled murrelet nesting habitat, as per the Consent Decree. Other alternatives that are cost effective and have clear benefits to injured resources will receive future consideration from the Trustee Council on a case-by-case basis if their implementation will not compromise the objectives of the two main projects.

C. Comments Regarding Details of the Plan

1. Project Duration and Goals.

Comment: Several respondents expressed concern that 10 years may not be long enough to achieve the goals of this project because murre have inherently low reproductive rates, usually do not breed until they are several years old, and may not breed in years when oceanic conditions are not favorable.

Response: The Service agrees that 10 years may be the minimum amount of time necessary to achieve the goal of recolonizing common murre at sites from which they have been extirpated. The long-term goal of restoring these colonies and the central California population to pre-spill numbers will almost certainly require more than 10 years. The Goals section was revised in the Final Plan to clarify the Service's short and long-term goals. The Service believes that the goals of the project can best be achieved through immediate implementation of recolonization efforts, and through continued efforts via other State and Federal programs to protect central California murre from human disturbance, chronic oiling, and entanglement in gill nets while the recolonization efforts are underway.

2. *Disturbance of Murre and Other Nesting Seabirds.* *Comment:* Several respondents cautioned the Service to either forego or proceed carefully with

implementation of restoration efforts at Hurricane Rock and Castle Rock to avoid disturbing the remaining murre nesting at these sites.

Response: The Service agrees that unnecessary disturbance of the remaining murre nesting at these sites should be avoided. This concern was expressed in the Draft Plan and has been clarified in the Final Plan. Efforts at these sites will be limited to monitoring of behavior and reproductive success for the first 2 years of the project. After 2 years, the Service may deploy social attractants at these sites, but only where it is deemed necessary to encourage murre to recolonize lost subcolonies or suitable, unoccupied rocks.

Comment: Several respondents cautioned the Service to minimize disturbance of Brandt's cormorants and western gulls that nest at Devil's Slide Rock and other sites where recolonization is proposed.

Response: The Service agrees that disturbance of other nesting seabirds should be minimized during this project. Human disturbance will be minimized by deploying social attractants during the non-breeding season, conducting aerial surveys at appropriate heights to be determined in consultation with the Gulf of the Farallones National Marine Sanctuary and other agencies, and by making behavioral observations through telescopes located in blinds, on boats, or on the mainland, rather than in the middle of colonies.

In the few instances where formation of new murre colonies has been observed in central California, these new colonies were established within existing Brandt's cormorant colonies, possibly because these locations provided greater protection from gull predation (Ainley and Boekelheide 1990). Common murre and Brandt's cormorants also nest together at several colonies along the coasts of California and Oregon (Carter et al. 1992, Carter and Takekawa unpubl. data, R. Lowe pers. comm.). Because common murre can sometimes supplant cormorants and gulls from nesting areas, the potential exists for cormorant reproductive success to be reduced at recolonization sites (Ainley and Boekelheide 1990). However, the Service believes this problem can be minimized by deploying social attractants in such a way that murre obtain the benefits of proximity to nesting cormorants without usurping cormorant nest sites. Behavior and reproductive success of cormorants and gulls nesting on recolonization sites will be monitored to help determine the effect of murre recolonization on local seabird communities.