DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Establishment of an Experimental Population of Southern Sea Otters

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The U.S. Fish and Wildlife Service (Service) issues a final rule governing a reintroduction of southern sea otters (*Enhydra lutris nereis*) at, and containment of them in the immediate vicinity of, San Nicolas Island, Ventura County, California for two purposes: (1) To implement a primary recovery action for a federally listed "threatened" species, and (2) to obtain data for assessing translocation and containment techniques, population dynamics, the ecological relationships of sea otters and the nearshore community, and the effects on the donor population of removal of individual otters for translocation. This experimental population will be established and managed under the authorities and guidelines of Pub. L. 99-625, 100 Stat. 3500 (1986).

EFFECTIVE DATE: This rule becomes effective on August 11, 1987.

ADDRESSES: The complete file for this rule is available for inspection, by appointment, during normal business hours at the U.S. Fish and Wildlife Service, Lloyd 500 Building, 500 NE. Multnomah Street, Suite 1650, Portland, Oregon 97232, or the Office of Sea Otter Coordination, Room E-1818, 2800 Cottage Way, Sacramento, California 95825.

FOR FURTHER INFORMATION CONTACT: Mr. Wilbur Ladd, U.S. Fish and Wildlife Service, Office of Sea Otter Coordination, Room E-1818, 2800 Cottage Way, Sacramento, California 95825 (916/978-4873) or FTS: 460-4873.

SUPPLEMENTARY INFORMATION:

Background

Species Account

The Secretary of the Interior determined in 1977 (42 FR 2968, January 14, 1977) that the southern sea otter (*Enhydra lutris nereis*) was a threatened species for purposes of the Endangered Species Act (ESA), as amended (16 U.S.C. 1531 *et seq*). Contributing to this determination was the fact that the historic sea otter population was reduced to near extinction due to commercial fur harvesting in the 1700's and 1800's. The southern sea otter (also referred to as California sea otter) presently numbers 1,300-1,400 animals and ranges from Año Nuevo, Santa Cruz County, to the Santa Maria River, San Luis Obispo County, California. Although the California population and its range has significantly increased since Federal and State bans on commercial and other hunting in 1911 and 1913, respectively, the still small population size and range, about 10 percent of historical California levels, and the otter's vulnerability to oil contamination warrant a threatened classification.

The sea otter, unlike most marine mammals, does not have blubber to provide insulation from the chilling effect of the ocean. The otter's dense pelage provides insulation and, if matted by oil or some other contaminant, the insulation is effectively eliminated and animals may die from hypothermia. The 1977 listing recognized that substantial quantities of petroleum products are shipped along the California coast, moving near the southern sea otter range, and are also transferred at marine terminals near the northern and southern ends of the range. Oil tanker traffic was and still is believed to pose the greatest oil spill risk to sea otters, although offshore outer continental shelf (OCS) oil development is currently increasing the oil spill risks. This latter risk was not a consideration when the species was listed as threatened in 1977.

In 1976, the California Department of Fish and Game (CDFG) estimated that the population numbered close to 1,800 and was increasing annually at about 5 percent. Recent information, however, indicates that the population has not grown significantly at least since the mid-1970's and may have declined somewhat over the past 10 to 15 years. As determined through studies started in 1982, this lack of growth is most likely attributable to sea otters becoming accidentally entangled and drowning in large-mesh gill and trammel nets set in nearshore waters by the local halibut fishery. CDFG biologists estimated that an average of 80 sea otters drowned annually between 1982 and 1984 and that losses ranged from 49 to 168 per year between 1973 and 1984. This threat to the population was neither recognized nor considered in the 1977 determination. The State of California has twice recently enacted legislation designed to substantially reduce or eliminate the accidental drowning of sea otters in large-mesh gill and trammel nets.

The status of southern sea otters was reviewed in the Service's 5-year review (May 1984). The review recognized the deteriorated state of the population (i.e., no growth and possibly a decline over the past 10 to 15 years, and activities in the area that can influence the population including OCS oil and gas development and incidental drowning in gill and trammel set nets) and the importance of moving rapidly forward with the major recovery tasks, including establishment of at least one additional population.

Pursuant to the ESA and Marine Mammal Protection Act (MMPA), the Service must utilize its authorities to recover the southern sea otter. The Service developed a recovery plan for the southern sea otter that was approved in 1982. This plan addresses the Service's responsibilities specifically under ESA and more generally under the MMPA. It examines possible means to protect and restore the southern sea otter and concludes that, along with completing the other recovery plan tasks, the most effective means of recovering the population is to establish at least one new colony sufficiently removed from the present range such that a large-scale oil spill could not contact both the new colony and existing population simultaneously.

For purposes of ESA the Service believes present population growth characteristics are inadequate for natural recolonization of historical, albeit not all, habitat within a reasonable period. Therefore, the Service is planning to establish at least one colony within historical range, in an area that is abundant with prey, kelp, and other habitat requirements, relatively free of toxic pollution, and sufficiently distant from the existing range so that a catastrophic oil spill will not likely contact both the existing population and the new colony of southern sea otters.

The Service contracted with James Dobbin Associates, Inc. in 1981 to map the location of and compile ecological and socioeconomic data for potential translocation zones along the Pacific coast of Washington, Oregon and California. Based on a variety of criteria, four coastal zones were delineated as having the highest potential for successful translocations: Northern Washington; southern Oregon; northern California; and San Nicolas-Santa Barbara Islands, southern California. For reasons discussed more fully herein, San Nicolas Island is considered the preferred site.

Summary of Major Issues, Comments and Recommendations

The Proposed Rule was submitted for public review concurrently with a Draft

Environmental Impact Statement (DEIS) on the proposed translocation. The Proposed Rule was published in the **Federal Register** on August 15, 1986, at which time all interested parties were invited to comment on the proposal during the comment period that extended through November 17, 1986. Commentors were advised that two separate documents were being made available for their review and that comments should be submitted on each of them. Only a few agencies, individuals and organizations identified comments as being specific to the Proposed Rule; however, many comments were received on certain aspects of the DEIS, such as the translocation plan (Appendix B), that were also pertinent to the Proposed Rule. This summary of comments has, therefore, been developed to address the major issues and concerns raised and recommendations made during the comment period, regardless if the comments were identified as being specific to the Rule, as long as the concern was pertinent to the Rule as well as to the DEIS. There were numerous comments received that were not considered to be major that are not discussed in the major issues below. Readers are referred to the Final EIS (FEIS) for specific responses to all comments received on the DEIS, including comments that are pertinent to both the Rule and DEIS but were not specifically directed to the Proposed Rule itself. A typed and signed copy of the Proposed Rule was incorporated into the DEIS as Appendix C, and was also distributed under separate cover after being published in the **Federal Register** on August 15, 1986.

Appropriate State and Federal agencies, County governments, representatives of scientific organizations and institutions and other interested parties were provided copies of the DEIS and Proposed Rule and requested to comment. A paid notice was published once during the week of August 24, 1986, in newspapers of general circulation in the areas potentially affected by the proposal; these included the following:

Coos Bay–North Bend World; Coos Bay, OR
Eugene Register–Guard; Eugene, OR
Eureka Times Standard; Eureka, CA
Ukiah Journal; Ukiah, CA
San Luis Obispo Telegram-Tribune; San Luis Obispo, CA
San Francisco Chronicle; San Francisco, CA
Monterey Peninsula Herald; Monterey, CA
Santa Cruz Sentinel; Santa Cruz, CA
The Press-Courier; Oxnard, CA
Los Angeles Times; Los Angeles, CA
Star Free Press; Ventura, CA

In addition to the paid advertisements, the Service sent a general news release on the proposal, the availability of the DEIS and Rule, and information on public hearings to approximately 500 other newspapers, radio stations, television stations and organizations in California and Oregon to further ensure that the public was aware of the Service's proposal. Three public hearings were conducted to provide additional opportunity for public comments on the proposal. The hearings were held in Ventura (September 24, 1986) and Monterey, California (September 22, 1986); and Brookings, Oregon (September 17, 1986). Approximately 435 people attended the hearings, and 97 provided testimony. Fifty-four of the 97 individuals who testified did not submit written comments (tallied below).

During the 94-day comment period, 953 (written) comment letters were received on the DEIS and Proposed Rule. Few commentors identified their comments as being specific to the Proposed Rule, but many comments on the DEIS were also applicable to the Rule and, thus, were considered in preparing both the FEIS and Final Rule. Of the 1,007 individuals and organizations that submitted oral or written comments on the proposal, 821 (81.5 percent) were in support, 140 (13.9 percent) opposed and 46 (4.6 percent) were neutral. We received one petition with 2,169 signatures that expressed concern that translocation to San Nicolas Island would jeopardize the diversity of the shellfish ecosystem throughout the Channel Islands and urged immediate zonal management. Of the 15 Federal and State agencies that commented on the proposal, two expressed support, including the Marine Mammal Commission which strongly supported the proposal and urged implementation in 1987, and 13 neither supported nor opposed the proposal, but offered comments and recommendations for consideration in preparing the Final Rule and FEIS. One elected California official expressed concern about the economic impact of the proposal on fisheries, and concluded that the potential adverse impact on the southern California sport and commercial fisheries resulting from a translocation to San Nicolas Island far outweighs the benefits to the southern sea otter. The California Resources Agency (Department of Fish and Game) in general supports recovery actions for the southern sea otter but indicated that before the Department could support this specific plan for translocation, the management zone boundary would have to be moved from Point Conception north to Point Sal or at least a "buffer" would have to be established between Point Sal and Point Conception where otter numbers could be kept low to facilitate restricting southward range expansion of the existing population beyond Point Conception.

After analysis of the comments received, the FEIS, with an attached draft final rule; was published on May 8, 1987. The rule has been widely publicized and the public is well aware of the narrow window of opportunity, beginning in mid-August, during which field activities must take place. If activities cannot begin near the outset of this narrow window, the entire project is likely to be delayed for 1 year, thus adversely affecting southern sea otter recovery.

Comment 1: Management of the existing population of California sea otters is not addressed in the translocation plan.

Service Response: The translocation plan has been prepared to comply with requirements set forth in Public Law (Pub. L.) 99–625, special legislation enacted in November 1986 which specifically authorizes and establishes requirements for translocating California sea otters. Legislative history of Pub. L. 99–625 states that the translocation plan is to provide for implementation of an important component of the Recovery Plan and that, while addressing a number of general issues related to the long-term management of California sea otters, it is primarily a planning mechanism for the translocation itself. It further states that specifications concerning long-term management of the California sea otter, including establishment of recovery goals and future translocation needs should be addressed in its next update of the Recovery Plan. The translocation plan, according to Congress, is not intended to replace the Recovery Plan as the primary long-term management document. The Service has committed to initiating a long-term management plan for the existing population immediately following the decisionmaking process on translocation. Implementation of the translocation plan will, however, constitute a form of "zonal management" involving the existing population. This will occur as a result of designating the entire Southern California Bight, from Point Conception south to Mexico including all offshore islands except San Nicolas, Begg Rock, and the translocation zone as a "no-

otter" zone. This designation will result in preventing the existing population from reoccupying historical habitat south of Point Conception through natural range expansion in the absence of the translocation to San Nicolas Island or the establishment of a "no-otter" zone or other population management scheme is contemplated in the foreseeable future for the existing population, which is expected to expand into the Southern California Bight within the next 10–20 years without such a program.

Comment 2: The translocation plan contains insufficient detail regarding the relationship of the translocation to ESA section 7 determinations, including criteria for an "established population", as required by Pub. L. 99–625.

Service Response: The translocation plan adequately addresses all of the requirements and the intent of Pub. L. 99–625. The plan provides detailed guidelines, criteria, milestones and assumptions the Secretary will utilize in making jeopardy or non-jeopardy determinations under section 7 of the ESA. It specifically addresses how the experimental population will be factored in to the section 7 analysis at various growth stages after the initial translocation of otters is undertaken. The description points out, however, that the status of the parent population will be a major factor considered in the outcome of any section 7 consultation involving either the parent or experimental population. The translocation plan also contains a specific definition for an "established experimental population" that takes into account its size, productivity, dispersal tendency, sex composition and general health. The plan describes how this definition relates to consideration of projects through the section 7 process.

Comment 3: The translocation plan contains insufficient detail regarding relationship of translocation to the overall status and recovery of the sea otter, as required by Pub. L. 99–625, and insufficient discussion of other delisting criteria.

Service Response: The translocation plan, section on the Relationship of Translocation to the Overall Status of the Southern Sea Otter, provides clarification of recovery criteria, including an example of a scenario that would represent a recovered population. It addresses future translocation needs for recovery purposes by indicating that the initial translocation could be sufficient if it resulted in a successfully established population (based on specific criteria), the parent population is showing sustained growth in size and range and the other Recovery Plan criteria were met. The example presented further defines an approach to achieving recovery goals. To go beyond what is now contained in the translocation plan would be inconsistent with the statements in the Congressional Record (131 Cong. Rec. H6466, July 29, 1985) that "The translocation plan is to provide for the implementation of an important component of the Recovery Plan. While addressing a number of general issues related to the long-term management of California sea otters, it is primarily a planning mechanism for the translocation itself. Specifications with respect to long-term management of the California sea otter, including establishment of recovery goals and future translocation needs, should also be contained in the Recovery Plan for the California sea otter. The Fish and Wildlife Service is expected to address these aspects in its next update of the Recovery Plan. The translocation plan itself, while discussing these issues, is not intended to replace the Recovery Plan as the primary long-term management document." This interpretation was reaffirmed by Senator Cranston in remarks made during Senate consideration of H.R. 4531 which was enacted as Pub. L. 99–625. *See* 132 Cong. Rec. Section 17322 (October 18, 1986).

The plan also specifies that a delisting review would be initiated upon the new population meeting the criteria for "establishment." The plan has been modified to reiterate the additional recovery criteria that must be achieved in order to consider delisting, and the five factors that must be evaluated during any consideration of delisting.

Comment 4: The translocation plan suggests that additional translocations may be needed to remove excess otters from the San Nicolas translocation or management zones or from the existing population for recovery purposes. The Service has not identified the locations of these additional translocation sites or under what circumstances additional translocations would be needed, nor has it evaluated the environmental and socioeconomic consequences of subsequent translocations.

Service Response: The translocation plan suggests that moving excess otters from the translocation or management zone to other unoccupied sites as the experimental population approaches carrying capacity would be one of several possible options to prevent significant dispersal from the zone, which could increase the problem of maintaining the management zone free of otters. Public Law 99–625 requires that otters removed from the management zone be placed either in the range of the existing population or into the translocation zone. If additional translocation sites are needed in the future, any proposal for additional translocations would have to comply with National Environmental Policy Act procedures. It is too speculative to consider at this time the sites that may be considered in the future because environmental and socioeconomic conditions may change significantly in the future. With regard to additional translocations from the existing population for recovery purposes, the Congressional Records of July 29, 1985, and October 18, 1986, respectively, state that the translocation plan is primarily a planning mechanism for the translocation itself and that future translocation needs should be addressed in the next update of the Recovery Plan.

Comment 5: The size of the translocation zone is too large; it should only include waters out to the 15-fathom isobath, which includes the normal habitat of otters. Furthermore, the size of the zone should be reduced or eliminated in the future if oil spill response capability is established in the immediate vicinity of San Nicolas Island.

Service Response: Public Law 99–625 requires that the translocation zone be defined to include the normal habitat of the sea otter plus a buffer area to insulate the experimental population from the adverse effects of activities that may occur outside of the translocation zone. In delineating the buffer area, Congress has indicated the Service should take into account factors such as wind and wave patterns, offshore currents and other oceanographic variables, as well as the type and magnitude of the activities that may adversely affect the experimental population. The translocation plan and Rule define normal sea otter habitat as all nearshore waters surrounding San Nicolas Island and Begg Rock out to a depth of 15 fathoms. The types of activities identified that may adversely affect the experimental population included incidental entanglement in large-mesh gill and trammel set nets and activities that could result in accidental oil spills, e.g., OCS oil development and tankship accidents. The buffer area was then delineated based on the estimated time it would take to respond, with existing response equipment that is based on Santa Barbara, and to control or divert an oil spill occurring at the perimeter of the zone before it moved into 15-fathoms or shallower waters where otters would be expected to be affected. Such a buffer would also include the area where incidental

entanglement in fishing nets might occur. The translocation zone thus defined extends some 10 to 19 nautical miles seaward from the 15 fathom isobath around San Nicolas Island, depending on the offshore wind and current patterns in the area. The Service believes this is a reasonable approach that fully complies with the requirements and intent of Pub. L. 99–625. The major variable is the location of significant at-sea oil spill containment and clean-up equipment. Currently, such equipment is based in Santa Barbara, with additional capability stationed offshore near Point Conception. Public Law 99–625 provides authority to modify the translocation or management zone boundaries, as well as other aspects of the plan, to accommodate new information such as significant improvements in oil spill response capability. Such modifications would, however, need to follow rulemaking and public review procedures.

Comment 6: Public Law 99–625 was enacted by Congress to authorize translocation, management and containment of an experimental population of California sea otters. The Rule must be revised to comply with this as the sole authority for conducting the proposed translocation.

Service Response: The Rule has been modified throughout to comply with requirements of Pub. L. 99–625 (formerly H.R. 1027 and H.R. 4531). The Proposed Rule anticipated enactment of Pub. L. 99–625 and was developed to comply with such legislation in the event it did become law.

Comment 7: The Service has not demonstrated ability to contain the experimental population using non-lethal methods, and the containment strategy does not provide a rapid enough response to effectively maintain the management zone free of otters.

Service Response: The Service has selected San Nicolas Island in part because it is believed to offer the greatest potential for self-containment due to the wide, deep, food-barren ocean channels surrounding it. As described in the Translocation Plan (Appendix B of the EIS), sea otter capture techniques are well developed. Further research and development is underway by the California Department of Fish and Game (CDFG) to refine and improve the existing techniques by utilizing an underwater re-breather device which CDFG believes could be a major breakthrough in decreasing the time it takes to capture specific otters. Research currently getting started in Alaska, funded by the Service, is designed to evaluate and develop techniques to influence fecundity of sea otters, and may prove useful in the future to decrease population pressures in certain situations (such as an island-based population) that otherwise may result in an increase in dispersal tendencies. The Minerals Management Service is currently contracting for studies on techniques to influence sea otter movements. All of these studies will, collectively, add to and enhance our ability to capture and remove otters from the management zone or otherwise assist the Service in containment of the translocated otters. However, even without these, the existing methods have demonstrated repeatedly that with sufficient effort otters can be captured under a variety of conditions. The very process of capturing specific numbers, ages and sexes of otters from specific locations in the present range for translocation purposes should further verify our ability to capture and move a relatively large number (up to 70 over 1–2 months) of specified individuals. Provided weather and sea conditions permit, the number of otters that can be captured in any period of time is directly dependent on the number of crews available to conduct capture operations. To accomplish containment in the future, the number of crews may have to be increased, either permanently or temporarily in order to remove otters from the management zone as required by Pub. L. 99–625. In view of the state of the art in capture techniques, the commitment of the Service to have a crew available at all times to respond to reports of otters in the management zone, and the research and development of new and improved techniques now underway or expected to be carried out in the future, the Service believes that effective containment can be carried out to the extent required in this Rule and Pub. L. 99–625.

The containment strategy has been modified to provide a more responsive posture for capturing and removing otters from the management zone. Instead of requiring repeated and verified sightings of otters in the management zone for a week or more, as in the Proposed Rule, the Final Rule indicates that capture crews will be mobilized after receiving verified sightings of one or more otters in the management zone, as soon as weather and sea conditions permit. This response procedure is expected to provide greater likelihood that otters will not cause significant damage to fisheries or otherwise affect other legitimate uses of the management zone. It will also result in a greater likelihood that otters dispersing into the management zone, where they are less protected, will be safely captured and placed into the range of the parent population or into the translocation zone before they are harmed as a result of incidental take from otherwise lawful activities, such as entanglement in fishing nets, in the management zone.

Comment 8: As an alternative to translocating otters to San Nicolas Island, the Service should consider translocating them to the northern Washington coast or consider transporting Alaskan otters to California in the event the existing California population is decimated. The Service's genetic and taxonomic arguments in the DEIS for not considering these alternatives are not convincing.

Service Response: The reasons for not considering the alternative of translocating sea otters to Washington are discussed in detail in Section III.C.2., Alternatives That Will Not Be Addressed in the EIS, of the Draft and Final EIS. To summarize the discussion in Section III.C.2., a small population of otters of Alaskan origin has been reestablished along the northern Washington Coast. The issue of whether or not California otters are taxonomically or genetically different has been debated in the literature for years and remains unresolved. In the 1977 listing of the California sea otter as threatened, the Service acknowledged the unresolved taxonomic issues, and noted that resolution of the issue was not pertinent to the decision of whether or not the California otter should be listed because the Endangered Species Act provided for listing of geographically separate populations as well as taxonomically distinct species and subspecies. In preparing the final listing rule, the Service took a conservative view that, ultimately, the taxonomic issue could be resolved in favor of separate subspecies, so the listing utilized the subspecific designation, *Enhydra lutris nereis*. In accordance with the subspecific listing status of the southern sea otter in the list of threatened and endangered species, the Service finds that mixing two subspecies, as would occur if California otters were translocated to Washington, could result in hybrid offspring which would not be protected under the Endangered Species Act. Thus, such mixing would not only fail to promote recovery of the listed California sea otter, but could actually adversely affect the listed subspecies by tainting the gene pool sought to be conserved. Section III.C.2. of the EIS has been modified to address the suggested possibility of removing the Alaskan otters now found in Washington and replacing them with California otters. It

also acknowledges that, if the entire California population was destroyed, consideration would be given to using Alaskan otters to try and establish a new sea otter population in California as a last resort measure, but this could not be considered an affirmative recovery action. The Section also discusses other factors, such as lack of significant natural barriers, that contribute to the Washington site not being acceptable as a viable alternative.

Comment 9: There are no guarantees that funding for containment will continue to be available into the future.

Service Response: No guarantees can be made about budgets in future years; however, the Congressional directive contained in Pub. L. 99–625 that the management zone must be maintained free of otters is clear evidence of what Congress expects of the Service. Congress has indicated that it intends to monitor the effectiveness of the Service's containment effort. The Draft and Final EIS and this Rule address the possibility of loss of future Federal funding. The section entitled Criteria for a Failed Translocation describes actions that would be taken, in consultation with the State and Marine Mammal Commission, if containment becomes impossible due to decreases in funding. The section entitled Funding Mechanisms describes the potential for State and private funding to assist with translocation and containment efforts.

Comment 10: The northern boundary of the management zone should be placed at Point Sal instead of Point Conception to protect fisheries between these two points, to enhance the safety of field crews working to remove otters from the management zone, and to increase the likelihood that otters from the existing population will not spread into the important fisheries of the Southern California Bight south of Point Conception. If this is not possible, establish the area between Point Conception and Point Sal as a buffer zone (now referred to as population thinning zone).

Service Response: The management zone boundary was proposed to be established at Point Conception, which, as required by Pub. L. 99–625, means that any otter, regardless of whether it originates at San Nicolas Island or the mainland parent population, must be removed from any location south of Point Conception except the San Nicolas Island translocation zone. In a letter dated April 5, 1985, to the Chairman of the House Subcommittee on Fisheries and Wildlife Conservation and the Environment, the Director of California Department of Fish and Game indicated that establishment of a no-otter zone at Point Conception would meet the State's desire that sea otters not be allowed to reoccupy historical habitat in the Southern California Bight south of Point Conception, where important shellfisheries developed during the absence of otters.

Despite discussions involving interested parties and Congressional representatives, Pub. L. 99–625 was enacted without provision for such a thinning zone. Therefore, the Service declined to include it as part of the translocation plan. The Service acknowledges, however, that such a thinning zone, using non-lethal capture and removal methods, may be a feasible way of alleviating a problem, should it arise, of population buildup and pressures in the immediate vicinity of the management zone boundary. Use of any such thinning technique should, however, be approached cautiously through a scientific research protocol. While this approach is mentioned in the translocation plan and this Final Rule as one possible way of alleviating serious problems of maintaining the management zone free of otters, authority for such an action would have to be secured prior to its use, either through legislative amendments, scientific research permits or through the Marine Mammal Protection Act process for waiving the moratorium on taking (if delisting occurs and an optimum sustainable population (OSP) is achieved).

With regard to the recommendation that the management zone boundary be placed at Point Sal instead of Point Conception, the Service believes this, too, would not be consistent with the provisions or intent of Pub. L. 99–625. Section 1(b)(4) of Pub. L. 99–625 requires specification of a management zone that, (A) surrounds the translocation zone, and (B) does not include the existing range of the parent population or adjacent range where expansion is necessary for the recovery of the species. The Congressional intent of this provision is described in House Report 99–124 and Congressional Records for H.R. 1027 and H.R. 4531.

Specifically, the House Report states, "The reference to 'adjacent range where expansion is necessary for the recovery of the species' * * * is intended to make it clear that in establishing the management zone the Secretary shall not establish a boundary of the management zone that is coterminous with the existing range of the population, which presently extends to the Pismo Beach-Santa Maria River area on the south. Thus, for example, in the event that San Nicolas Island is chosen as the translocation site, the management zone should not include all of the area up to the southern end of the existing range. On the other hand, in the event the Secretary establishes a boundary line for the management zone at Point Conception, such a line would allow for expansion of the range of the sea otter beyond its present range and would fully comply with the requirements of this provision. This provision does not require the Service to make a formal determination of the ultimate extent of the range that is necessary for the overall recovery of the species." H.R. Rep. No. 99–124, 99th Cong., 1st Sess. at 16 (1985).

The Congressional Record of July 29, 1985, further discusses the intent of the management zone. It states, "The management zone is that area surrounding the translocation zone from which the translocated animals are to be excluded. The management zone is intended to minimize potential conflicts, within that zone, between fisheries and other resource uses and the translocated sea otters." 131 Cong. Rec. H6467 (July 29, 1985). Point Sal is only 5 miles from the present range of California sea otters. This stretch of 5 miles is characterized by sandy bottoms and generally poor quality sea otter habitat. Thus, for all intents and purposes, these 5 miles would not provide any additional habitat "needed for recovery of the species" as required by Pub. L. 99–625. Therefore, placing the management zone boundary at Point Sal would not meet the requirements of Pub. L. 99–625.

Comment 11: If the Service perceives that activities such as oil spills occurring outside of the translocation zone as defined in the Proposed Rule could adversely impact the experimental population, then the translocation zone boundary should be enlarged to prevent any activity in the management zone from affecting otters in the translocation zone.

Service Response: The translocation zone has been delineated based on the requirements of Pub. L. 99–625, i.e., that it must have appropriate characteristics for furthering the conservation of the species, and on reasonable assumptions as to the time it would probably take to respond to and control an oil spill occurring outside the zone boundary. It also takes into account the potential for incidental entanglement of otters in fishing set-nets. It should be recognized that, in accordance with Pub. L. 99–625, the protection afforded to otters in the translocation zone is through prohibitions on incidental take, directed takings, and Endangered Species Act section 7 consultations for Federal

activities. The Service has reassessed the boundaries as delineated in the Proposed Rule and finds them to be appropriate for this intended purpose. The Service interprets Pub. L. 99-625 to provide the authority to promulgate changes in the regulation whereby the boundaries of the translocation or management zone could be modified to reflect new information or significantly could be modified to reflect new information or significantly changed conditions.

Comment 12: The preferred site (San Nicolas Island) is the nearest of all sites to current Outer Continental Shelf (OCS) activities and is in an area of moderate potential for discovery of hydrocarbons. Clarification is needed why this site was selected in view of its proximity to OCS development.

Service Response: It is correct that the San Nicolas Island site is the closest of all sites considered to ongoing OCS activity, which is extensive in much of southern California. No OCS development activity has been initiated in the two alternative sites, northern California and southern Oregon, although they are listed in the Secretary's proposed 5-year plan for future OCS lease sales. There are, however, no leased tracts in the San Nicolas Island translocation zone and the closest are at least 35 miles away from the Island. The major ongoing OCS activity occurs in the Santa Barbara Channel area, which is 60 miles or more to the north of San Nicolas. Ongoing activity is not expected to affect or be affected by the presence of the experimental population. An oil spill-sea otter risk analysis was conducted to determine the relative risk of oil spills affecting San Nicolas Island, the present range, and the alternative translocation sites considered. The results indicated that San Nicolas Island is a relatively safe site compared to the present range, with the probability of sea otter mortality due to an oil spill contacting the present range being about 2.4 times greater than for oil spills to cause mortality of otters at San Nicolas. Tankship accidents, rather than OCS activity, were determined to be the likely cause of such mortality at San Nicolas. The results of the risk analysis are included in the Final EIS, Section VI.B.2., and Technical Support Document 3. The risk of spills causing sea otter mortality in the northern California zone was about twice as great as for San Nicolas Island, and the risk in the southern Oregon zone was less than half the risk at San Nicolas. With regard to effects on future OCS development, the area around San Nicolas has been deleted from previous sales due to potential conflicts with Navy activities which are conducted by Pacific Missile Test Center personnel based on San Nicolas Island. Since Navy activities around the Island are not expected to decrease, and their importance is expected to increase in the future, it may be reasonable to assume that future sales in southern California will also consider deletion of the waters around San Nicolas. The State has indicated it has no plans to develop oil within State waters around San Nicolas and the Governor has recommended to the Secretary that waters to at least 6 miles seaward of the Island be deleted from the 5-year leasing plan. According to information provided to the Service by Minerals Management Service, the OCS lands within the translocation zone may contain a mean net economic value of oil and gas resources amounting to $142-284 million, and Minerals Management Service estimates a 1 percent chance of finding economically recoverable oil and gas resources within the translocation zone. The risked mean resource value of those resources, then, would be only $1.4-2.8 million, less than any of the alternative sites.

Comment 13: The economic effects of translocation on sport and commercial fisheries are greatly underestimated and an Economic Regulatory Impact Analysis should be completed.

Service Response: Data to evaluate socioeconomic effects of the translocation on fisheries were obtained from the California Department of Fish and Game (CDFG), Statistical Branch, and National Marine Fisheries Service. There seemed to be general consensus, based on public testimony and communications with representatives of the California Department of Fish and Game, that fishermen have over the years under-reported their catches at San Nicolas Island, partly due to the system used by CDFG for reporting catches and partly due to fishermen not wanting to make public the lucrative fishing around San Nicolas. The Service has updated its data to incorporate into the Final EIS the latest two additional years of landings (1984, 1985) and has noted the values now estimated by affected fishermen of their recent landings around San Nicolas. Even with the updated data, the economic impact does not meet the criteria for the Rule to be considered a "major" Rule as defined in Executive Order 12291 and, thus, no Regulatory Impact Analysis is required. The reader is referred to Volume III (Comments and Responses) of the Final EIS for further discussion on economic impacts and changes made to improve and update estimates of fishery values affected by the improve and update estimates of fishery values affected by the translocation.

Comment 14: There is no guarantee that translocation will lead to delisting or zonal management of the existing population. These must be guaranteed.

Service Response: The Service cannot guarantee that the translocation will ensure recovery and delisting because there are other recovery objectives and delisting criteria that must also be met. The status of the parent population would also have to be factored into any consideration of delisting. The section of the Rule, Relationship of the Translocation to the Status of the Southern Sea Otter, describes in some detail how the translocation fits into the overall recovery requirements for the species. Without translocation it is very unlikely that the species would be recovered or delisted or that any form of zonal management would occur anytime in the foreseeable future. The translocation plan will implement a significant form of long-term zonal management in that it establishes an otter (translocation) zone where the experimental population will be substantially protected, and a no-otter (management) zone wherein otters will be prevented, via non-lethal means, from becoming established. The management zone encompasses the entire Southern California Bight south of Point Conception, including U.S. waters around all offshore islands (except San Nicolas, Begg Rock and the translocation zone) and the mainland coast. This would result in the *de facto* prevention of the existing population from expanding its range into southern California (which is otherwise expected to occur within the next 10-20 years) thus implementing a zonal management program involving the existing population.

Comment 15: The translocation plan does not address the total number of otters that will be needed to achieve the species' optimum sustainable population (OSP) level in California. This must be addressed.

Service Response: The Service agrees that the Draft EIS and Rule do not provide an estimate of the southern sea otters' OSP. Producing an OSP estimate is irrelevant to the purposes of the translocation, i.e., (1) to eliminate the possibility that more than a small proportion of the existing population will be decimated by any single natural or man-caused catastrophe, and (2) to gather data for assessing translocation and containment techniques, population

status, and the influence of sea otters on the nearshore marine ecosystem in order to understand better the characteristics of a population within its OSP range. The first purpose is directed toward recovery of the species pursuant to the Endangered Species Act (ESA), and the second is to better understand OSP for the sea otter, pursuant to the requirements of the Marine Mammal Protection Act (MMPA). By definition, a species listed as threatened or endangered under the ESA is automatically classified as "depleted," or below its OSP, under the MMPA. The OSP question will be dealt with in a separate long-term management planning process described in the Introduction of the Draft and Final EIS. This position is supported by statements in the Congressional Records of July 29, 1985 (House) and October 18, 1986 (Senate) when considering legislation to authorize the translocation.

Comment 16: Carrying capacity of San Nicolas Island is too small to achieve the desired recovery and research purposes. It could also result in another genetic bottleneck.

Service Response: The estimated minimum carrying capacity of San Nicolas Island is 280, and a more likely estiamte is 400–500. Although a site that had a higher carrying capacity may help the population reach its optimum sustainable population (OSP) under the MMPA more rapidly, San Nicolas Island is expected to meet the minimum requirements for a reserve colony for recovery purposes pursuant to the ESA, as described in the sections on Relationship of the Translocation to the Overall Status of the Southern Sea Otter, and Definition of an Established Experimental Population. In addition to meeting the minimum requirements for a reserve colony, San Nicolas has the added advantage over other sites of comparatively lower economic impact to fisheries and a better physical situation for minimizing dispersal and enhancing our ability to contain the experimental population. With regard to the possibility of having another genetic bottleneck, this is unlikely because the Service intends to periodically move a small number of otters (up to five per year) from the parent population to San Nicolas Island specifically to maintain the genetic exchange between the parent and translocated sea otter populations.

Comment 17: Potential adverse impacts of Navy activities on the experimental population make San Nicolas Island a poor choice.

Service Response: The potential impacts of Navy activities at San Nicolas have been evaluated in Section VI.B.2.c. of the Final EIS. The impacts of Navy activities on sea otters around the Island are expected to be insignificant. Pinnipeds are common in the same nearshore waters that would be used by sea otters. There is no evidence that members of these species have been adversely affected by any of the Navy's activities. The threatened Guadalupe fur seal is also an historical occupant of the Island and is now beginning to reestablish itself there in small numbers. There is no evidence that Navy activities will adversely affect the use of the Island by that listed species. Furthermore, while Pub. L. 99–625 specifically exempts defense-related actions from the formal section 7 consultation requirements for actions that may affect the experimental population, they are required to informally confer with the Service on any activities that are likely to jeopardize the southern sea otter. A Memorandum of Understanding will be prepared with the Navy to provide greater assurance that the Navy's activities will not adversely affect the experimental sea otter population.

Comment 18: The translocation plan should define habitat of sea otters to include all waters to a depth of 20 fathoms, not 15 fathoms, as indicated by gill net fishing closures in the present range out to 20 fathoms.

Service Response: It is important to distinguish between sea otter habitat (i.e., the area normally used by sea otters for foraging, rafting, resting, etc.) and the limit required for a gill net closure. In some parts of the pesent range sea otters forage or raft in waters deeper than 15 fathoms; however, this appears to be atypical—most foraging and resting occurs in shallower waters. At the translocation site, there is an abundance of food resources and kelp in waters less than 15 fathoms so otters would not normally be expected to be found in waters deeper than 15 fathoms. Thus, in calculating the translocation zone, the 15-fathom contour is used to define the habitat of the otters. In the unique situation along the current range where a number of otters have been observed drowned in fishing nets set outside the 15-fathom State fishing closure, all have been observed caught in nets set at 15 or 16 fathoms. Of the 220 miles of coastline now occupied, less than 10 percent has been closed to this type of fishing as far out as 20 fathoms. The unique bathymetry that has necessitated these closures in the present range does not appear to occur around San Nicolas. Public Law 99–625 also requires a buffer area to be included in the translocation zone, in addition to the normal habitat of the otter. In the Service's view, the area between 15 and 20 fathoms would be considered a buffer for purposes of fishing restrictions to prevent incidental entanglement of otters. Thus, statements are included in the Final EIS and this Rule that the Service expects the State to close the area out to 20 fathoms around San Nicolas to large mesh gill and trammel set-net fishing. Even if no such closure is invoked by the State, the incidental taking of sea otters in fishing nets would still be a violation of the Endangered Species Act and Marine Mammal Protection Act anywhere in the translocation zone which extends 10–19 nautical miles seaward of the 15-fathom isobath, far beyond the 20-fathom depth curve.

Comment 19: All oil development should be prohibited anywhere within the translocation zone, as implied by definition in Public Law 99–625 that this zone should have appropriate characteristics for furthering conservation of the species.

Service Response: Public Law 99–625 establishes the requirements as to the protections afforded the experimental population within the translocation zone. It requires that the formal Endangered Species Act section 7 consultation process be used to consider federally permitted activities within the zone such as oil resource development. Congress imposed this process rather than a total prohibition on any particular activity. Proposals for oil development within the translocation zone would necessarily be viewed as the Service currently views such activities in the section 7 process, that is, to determine if the action is likely to jeopardize the continued existence of the southern sea otter population as a whole, and, if a jeopardy situation exists, attempt to identify reasonable and prudent alternatives, and to identify reasonable and prudent measures to minimize the impacts of incidental take if such take is anticipated. Once the sea otter has recovered to the point where the species is delisted, the section 7 process would no longer be required, but the protections of the Marine Mammal Protection Act and the prohibitions of Pub. L. 99–625 on incidental and directed take would still apply with regard to the otters within the translocation zone.

Comment 20: Successful establishment of one new population would not, by itself, significantly dilute the impacts of a major oil spill nor would it be sufficient to allow delisting More than one new colony may be needed and other recovery plan objectives must be met.

Service Response: The Service agrees that one successful translocation in itself is not sufficient for delisting the sea otter. All the tasks identified under Objective 1 of the Recovery Plan Outline must be accomplished prior to the Service proposing to delist the sea otter. Delisting the sea otter will require evaluating all the factors put forth under section 4(a) of the Endangered Species Act. However, as stated in the Rule, section on Relationship of the Translocation to the Overall Status of the Southern Sea Otter, the successful establishment of one additional independent colony could achieve one of the three delisting criteria. The decision as to whether or not more than one translocation is needed will depend on the status of the parent population at the time and the degree to which the other two delisting criteria had been met. The translocation plan and Rule, in the section entitled Relationship of the Translocation to the Overall Status of the Southern Sea Otter, contain an example of a scenario in which a single translocation would be sufficient for recovery if the other delisting criteria had been adequately addressed and the status of the parent population is improving. This section has also been revised to clarify that the status of the parent population would also have a bearing on whether or not one additional colony would be sufficient to meet this delisting criteria, and to describe the factors that would have to be evaluated and satisfactorily addressed prior to delisting. In view of the purposes of establishing the reserve colony, i.e., to replenish a damaged parent population and establish a viable, self-sustaining entity that would be distant enough from the parent population that a single catastrophic oil spill would not impact both populations, the Service feels that the establishment of a colony that met the criteria described for "an established population" would substantially contribute to the overall recovery of the population. The idea of establishing a second colony was not intended simply to dilute the threat of an oil spill, but also to ensure that there would be a viable part of the population that could never be affected by the same serious spill that may impact the existing population. A colony meeting the establishment criteria in this Rule would not only accomplish that objective but would also serve the added function of providing a certain number of replacement animals on a sustained basis to repair the parent population if it ever became necessary to do so.

Comment 21: In view of the numerous threats made about harming the otters if translocation proceeds to San Nicolas Island, the Service should maintain a strong law enforcement presence at the Island for at least 5 years.

Service Response: The Rule has been modified to provide that at least two enforcement officers will be assigned specifically to protect the experimental population for at least 3–5 years, and longer if a hostile environment still exists. Before reducing the enforcement effort, the situation would be analyzed to determine if such reductions would be likely to result in harm to the new population. In addition, the long-term presence of Navy and Service Research personnel should serve to deter illegal harassment of the colony. If serious enforcement problems arise, Service Special Agents from other areas would be brought into the investigation to supplement the on-site enforcement officers.

Comment 22: Discussion of birth control or lethal culling as methods of controlling growth and dispersal of the experimental population, a threatened species, is inappropriate and should be deleted from the translocation plan and Rule.

Service Response: Public Law 99–625 requires the Service to maintain the management zone otter-free using non-lethal techniques. The Service's preferred course is to allow natural factors to drive population growth and maintain equilibrium density with little or no dispersal. However, non-lethal management techniques, in addition to capture and removal, will be considered if necessary to maintain the management zone. The Rule, under Containment Strategy, has been revised to clarify that additional authority would be required if lethal taking were to ever be considered. Although not authorized at present, the Service believes that limited use of lethal controls may at some point need to be considered as a last resort option for maintaining the management zone free of otters. Thus, it is only prudent to mention in this section that such taking may eventually require legislative consideration, although it is not authorized at present. Consideration of any additional authority to allow such taking would require extensive public involvement. Zonal management of sea otters will likely be an important part of the Service's long-term program to manage and protect sea otters throughout the range of the species. The Service has been urged to consider zonal management of sea otters by the Marine Mammal Commission as well as the State. The Service also recognizes that zonal management of sea otters in California, by culling or other lethal means, probably will never be an acceptable procedure to most people. Thus, the only option for limiting population growth, once all areas designated as "otter zones" are full, may be through the reduction of fecundity. The Service recognizes that its principal responsibility at present is to help improve the status of the California population. However, if efforts to recover the population are successful, population limitation may be necessary at some time in the future. Since non-lethal techniques to limit sea otter population growth are not yet available, the Service has proposed a sequence of activities, outlined in the translocation plan and Rule, to develop such techniques. Field tests will be done in Alaska. The Service has no intention of using any such limiting techniques on the California population until it is fully recovered, and then only after thorough consultation with the California Department of Fish and Game, the Marine Mammal Commission, and the interested public.

Comment 23: The proposed action has no long-term management plan for the existing sea otter population. There must be a long-term plan before translocation can be agreed to.

Service Response: The Service acknowledges that the translocation plan and Rule do not address the full range of management issues associated with the existing population, but it does go far in addressing both recovery and zonal management issues in that it establishes the entire Southern California Bight, except for the San Nicolas Island translocation zone, as a "no-otter" zone. The question of OSP for sea otters is highly complex, far more than simply deciding where otters should be and where they should not. It may require years, and additional studies, to develop a final OSP figure for southern sea otters. Because of the complexity and likely extended period needed to address the OSP questions, we do not agree that accomplishing the principal recovery objective of establishing a reserve colony should have to wait until the OSP issue is resolved. The Service has committed to initiating a process to develop a long-term management plan immediately after the decisionmaking process on translocation is completed. This view is supported by the House and Senate Congressional Records on H.R. 1027 and H.R. 4531, which state that long-term management, recovery goals, and future translocation needs should be

addressed in the next update of the recovery plan and that the translocation plan itself is not intended to replace the recovery plan as the primary long-term management document. They also clearly state that the translocation plan is primarily a planning mechanism for the translocation itself.

Comment 24: The translocation plan (Appendix B of the Draft and Final EIS) should be incorporated in its entirety into the Final Rule in order to fully comply with H.R. 4531.

Service Response: The Final Rule has been prepared to meet the specific requirements set forth in Pub. L. 99–625 and its legislative history for development of a plan. The Rule as now written contains all the elements required by Pub. L. 99–625. The translocation plan contained in Appendix B of the Draft and Final EIS is merely an expanded discussion of elements contained in the Rule and its content was developed through the rulemaking and National Environmental Policy Act process. The elements of the Appendix B translocation plan that are legally required by Pub. L. 99–625 have been incorporated into the Final Rule.

Comment 25: The Criteria for a Failed Translocation are not responsive enough. The timeframe for deciding whether or not the translocation has failed is too long. The State should be able to request immediate termination action by the Service. If funding for containment is not adequate at any time, the translocation should be declared a failure.

Service Response: The Service disagrees. There must be flexibility to deal with problems, if they arise. The State is a cooperator and will be fully involved in the monitoring of any problem and fully consulted in any decision to declare the translocation a failure. Furthermore, it would require another rulemaking procedure to propose the initial relocation. The Service and State, in consultation with the Marine Mammal Commission, need adequate time and flexibility to evaluate and seek solutions to problems before terminating the project and removing the experimental population.

Comment 26: In the Service's definition of an "established experimental population", one commentor disagrees with including a recruitment figure along with a total number or, if the recruitment figure is essential, the definition should be broadened to include other options including (1) a total experimental population of 170 or carrying capacity, whichever is the lower number, and (2) a total experimental population of 150 males and females with a positive growth rate over a 3-year period. Under one definition of "recruitment", the 20-recruit criterion may never be reached, or the criterion would not continue to be met as the population approaches carrying capacity. The commentor disagrees also with the Service's assumption that the reserve colony must serve as a source of otters to repair a damaged parent population. Its only purpose should be to exist as a viable, self-sustaining population. Anything beyond that is a bonus and should be considered as a "harvestable surplus" for replenishing the parent population, but should not be a requirement for the reserve colony.

Service Response: The Service believes these alternative criteria are not needed for the following reasons: (1) The definition of recruitment has been clarified in the Final Rule; it does not mean population growth, rather it means the number of pups that survive and become independent juveniles (subadults); (2) recruitment as defined and clarified in the text is vital for the purposes of recovery of the sea otters; (3) the definition of an established population has been broadened and now takes into consideration the situation where recruitment may diminish below 20 otters per year as the population approaches carrying capacity; and (4) should the sex and age ratios shift to be similar to those found in the existing population, even at a colony size less than the expected minimum carrying capacity (i.e., 280 otters), the recruitment criteria should still be met. For example, with a population size of 150 sea otters, approximately 75 would likely be females (50 percent) of which about 56 (75 percent of 75) would be of breeding age, from which about 42 (75 percent) would pup annually. Assuming a 50 percent pup mortality, approximately 21 pups would be recruited from that colony. With a population of 280 otters, there may be nearly twice that number of pups recruited. The Service also disagrees with the recommendation to delete the criterion for an "established population" of 20 recruits. The purpose of the second population is more than simply serving as a viable, self-sustaining entity; it must have the additional utilitarian purpose of restoring the population as a whole should the parent population be decimated. In order to accomplish this, the experimental population must be of sufficient size and reproductive viability to withstand the sustained removal of at least 25 animals per year in order to reestablish a population or repair a seriously damaged parent population should it be necessary to do so. The implication of not having this utilitarian purpose is that, even if the parent population were decimated, the surviving experimental population would be sufficient to perpetuate the species with no need to use it to restore a population elsewhere. If that were the case, which the Service does not accept, a much larger second population would be needed than what San Nicolas Island is expected to support or, alternatively, several other populations would be needed at other sites. The available information on habitat quality and carrying capacity at San Nicolas Island, combined with the numbers and sex composition of the animals to be translocated (primarily females), strongly suggests that the recruitment of at least 20 young into the experimental population for 3 to 5 years should be readily achieved, possibly by the end of the first 5 years. To clear up confusion that may exist on the term "recruitment", the term is meant, for purposes of defining an established population and protection and recovery needs for the sea otter, as the number of young-of the-year that successfully enter the population during the year as weaned, independent subadults (juveniles). Recruitment is not synonymous with net increase or growth of the population for this purpose. This clarification has been added to the translocation plan and Rule, section on Relationship of the Translocation to the Overall Status of the Southern Sea Otter, Definition of an Established Experimental Population. The definition of an established experimental population has also been revised and clarified to take into consideration the situation that, as the population approaches or reaches carrying capacity (equilibrium density), recruitment may be slowed considerably due to density-dependent factors such as lower reproductive rate or high pup mortality.

Comment 27: The amended listing table for the experimental population should be modified to correct information on the existing population concerning the scientific and common name, to delete reference to the subspecies name, and to modify the historical range to include all of Alaska and Canada.

Service Response: This Final Rule does not amend the original listing, except to add a section to establish an experimental population. To modify the original listing would require a separate rulemaking procedure under section 4 of the Endangered Species Act. The suggested change, were it to be made, would indicate that the Alaskan population is also listed as threatened,

which is not supported by available data.

Comment 28: The proposed management zone would preclude sea otters from ever being restored to historical habitat now incorporated into the Channel Islands National Park. Since it is the policy of the National Park Service to restore native species where possible and practical, the Service should at least include Santa Barbara Island in the translocation zone.

Service Response: The Service notes that the plan, if successful, will result in prevention of sea otters from reoccupying historical habitat under National Park Service jurisdiction in coastal southern California, unless San Nicolas Island were to be added to the National Park System in the future. Limiting the new colony to San Nicolas Island would achieve the recovery plan objective of establishing a reserve breeding colony, while mitigating and minimizing the impacts to fisheries and other concerns. The Service is committed to initiating a long-term management plan for the existing mainland population in which recommendations will be made for future distribution and population objectives. The restoration of southern sea otters to other areas in the National Park System (outside of the management zone) that have historical sea otter habitat should be considered in the long-term management plan. Please also refer to Section II.A.4. of the Final EIS which summarizes the criteria used in the three-year mapping and evaluation project conducted by James Dobbin Associates, Inc. None of the Islands of the Channel Islands National Park, with the exception of Santa Barbara Island, were deemed suitable as a translocation zone for recovery purposes. Because of their proximity to tanker transportation routes and of significant conflicts with fisheries, these islands were deemed less suitable. Thus, none of the other islands of the Channel Islands National Park were included in the areas given final consideration in the Environmental Impact Statement. The Service agrees that the inclusion of Santa Barbara Island would lend itself well to a joint Fish and Wildlife Service–National Park Service effort to protect the new colony, as well as enhance the enjoyment and education of Park visitors to Santa Barbara Island. The inclusion of Santa Barbara Island in the translocation zone would, however, result in additional impacts by sea otters at the site and could make containment more difficult to achieve. Because of its close proximity to the mainland and other islands, translocation of sea otters to Santa Barbara Island would increase the potential for dispersal of sea otters to other islands and the mainland where fisheries and other activities could be adversely affected.

Comment 29: The research activities associated with translocation could have a significant adverse impact on pinniped populations and the threatened Guadalupe fur seal at San Nicolas Island.

Service Response: The Service has been in contact with National Marine Fisheries Service (NMFS) regarding the potential impact of the activity on the Guadalupe fur seal, and on November 12, 1985, in a letter from the Regional Director, Southwest Region, National Marine Fisheries Service to the Acting Regional Director, Region 1, U.S. Fish and Wildlife Service, NMFS indicated that translocation of sea otters to San Nicolas Island will not adversely affect the Guadalupe fur seal. The Service has been conducting studies at San Nicolas since 1980. There is no evidence that these activities along the shores of San Nicolas Island have been any more disruptive to marine bird and mammal populations than other research activities, and probably less disruptive than many. All research activities on the Island have been closely coordinated with Pacific Missile Test Center Senior Biologist Mr. Ron Dow, with the intent of minimizing possible detrimental effects of human presence on the Island's wildlife. It should be noted that none of the baseline sites in littoral habitats are in areas where pinnipeds typically haul out. One site at which Service biologists are studying the dynamics of black abalone population is near a California sea lion *(Zalophus)* haul-out area; however, this site is visited only during winter when disturbance to *Zalophus* is probably minimal and these visits are coordinated with Mr. Dow's office. There is no indication that sampling of the subtidal sites, or any of the other diving activities being or planned to be undertaken by the Service at San Nicolas Island, have adversely affected pinnipeds other than to attract sea lions. All possible care will be taken to minimize disturbance to presently occurring populations of marine birds and mammals at San Nicolas Island. All activities on the Island are presently, and will continue to be, coordinated with Mr. Dow's office. In addition, the Service will consult with the Southwest Fisheries Center, NMFS, to assure that the increased activities of Service researchers on the Island pose no threat to existing pinniped populations. Radio tracking and observational studies will generally be done from vantage points offering some elevation above sea level that are away from shore. It is highly unlikely that these activities will disturb pinnipeds any more than those resulting from ongoing research activities, including hands-on tagging of adult and newborn pinnipeds, surveys, behavioral and physiological studies, etc. Sea otter surveys are most effectively done by flying offshore and looking downward and inshore toward the animals. It is anticipated that the survey aircraft will remain at least several hundred meters offshore during the surveys, usually much farther. In order to be certain that these activities do not disturb hauled-out pinnipeds (by stampeding them into the water), test flights will be made to determine the altitude and distance from shore that can be flown without disturbing the animals. Surveys will be done using methods determined to be least disruptive to other species of birds and mammals already living on the Island. These preliminary studies and activities will also be coordinated closely with NMFS and Mr. Ron Dow, or their designated representatives.

Comment 30: The Service should shift much of the preamble discussions of the Rule relative to the Relationship of Translocation to the Status of the Species and to Future Endangered Species Act section 7 Determinations into the Regulation Promulgation which amends § 17.84 of Part 17, Code of Federal Regulations, in order to comply with Pub. L. 99–625.

Service Response: Public Law 99–625 requires the translocation plan to be developed through rulemaking procedures for public review and comment which has been done through the issuance of a Proposed and this Final Rule. Public Law 99–625 does not, in the Service's view, require every detail of the translocation plan or preamble discussions to be codified as part of the final regulation. Congress, in enacting Pub. L. 99–625 several months after the Proposed Rule had been published, did not indicate that the Service had misinterpreted the intent of the law, and did not provide additional direction.

Comment 31: The suggestion was made that a new definition be added to the regulation for a "stabilized population" and that the definition of "carrying capacity" be included in the regulation as well as the preamble.

Service Response: Both definitions have been added to the regulation because they have very important meanings in terms of how the translocation relates to future Endangered Species Act section 7

determinations. These definitions help clarify the growth stages of the experimental population on which section 7 analyses will be based.

Comment 32: The suggestion was made that additional background information, taken from the Recovery Plan, should be added to the regulation to help place the importance of translocation to the overall recovery effort into better perspective.

Service Response: The passages have been added to the regulation as suggested since they are taken directly from the Recovery Plan and do add perspective on the role of translocation. Statements have been added that the successful establishment of this experimental population could fully satisfy the first of three criteria (i.e., establishment of at least one additional colony) described in the Recovery Plan. This is qualified, however, by pointing out that the parent population must also be increasing and expanding its range from its present size and distribution in order to meet the broader criterion that the overall population must be increasing at a sustainable rate in a large enough area of its original habitat that only a small proportion of the population could be decimated by any single natural or man-caused catastrophe. This is consistent with the discussion in the preamble and the example given of a scenario that would represent a "recovered population."

Comment 33: The Service was requested to include definitions and discussion of the growth stages of the experimental population in the regulation as well as the preamble and translocation plan, including transplant stage, initial growth and reestablishment stage and post-establishment and growth stage.

Service Response: The Service declines. These stages are all discussed in the preamble of this Rule. The key milestones of the growth stages—stabilized population, established population, and carrying capacity—are defined in the regulation. The Service sees no utility in including the additional, lengthy descriptions of each growth stage in the regulation since the milestones, which are defined in the regulation, are the critical factors in determining how each growth stage influences section 7 (ESA) analyses and possible delisting actions.

Comment 34: In several places of the Proposed Rule, several commentors suggested that the terms "the primary criterion" be used rather than terms such as "a key criterion" when referring to the relationship of translocation to overall recovery of the species.

Service Response: The importance and relevance of the translocation to recovery is explained throughout the Rule. To utilize the suggested phrase "the primary criterion" diminishes the importance of the other recovery criteria as well as the status of the parent population. The Service believes that meeting the other criteria, as well as having a healthy, expanding and growing parent population, are of equal importance to the translocation. Therefore, the suggested changes have not been made.

Comment 35: One commentor suggested that a procedure be included in the regulation whereby the Service would publish notice in the Federal Register of the population estimate, if the Service estimates the size to be either 70 or 150 animals, and to invite public comment concerning whether the population is "stabilized" or "established." It was also suggested that the regulation include a process whereby a person may petition the Service to determine that the translocated population is "established" or "stabilized" and require the Service to make findings and publish notice in the Federal Register within 180 days of the estimated size and status of the translocated population.

Service Response: The commentor provides no justification or rationale for why this lengthy, expensive and time consuming process is needed, or why existing procedures would not accomplish their objective. Since the definitions of "stabilized" and "established" are generally relevant only from the standpoint of conducting section 7 analyses or initiating a delisting review, there are already formal procedures in place to describe the status of the experimental population. The Biological Opinion issued for any section 7 consultation would contain appropriate data and conclusions on the status of both the experimental and parent populations. Once the Service determines that the experimental population meets the "established" criteria, it will conduct what is comparable to a 5-year status review as well as a delisting review, the results of which would be made available to the public. Additionally, section 4 (b) and (c) of the ESA already provide for petitioning the Service for a reclassification of a listed species and for publication of the results of 5-year reviews, respectively. Thus, the Service declines to incorporate the additional formal public notice and review procedures suggested.

Comment 36: The suggestion was made that the Criteria for a Failed Translocation be included in the regulation as well as in the preamble of the Rule.

Service Response: The Criteria for a Failed Translocation are critical to whether or not the experimental population will achieve its intended purposes or have to be terminated, which would involve Service evaluation and informal rulemaking procedures. Because they hold such importance to the future continuation of the experimental population as well as to future conflicts with fisheries and other uses in the translocation and management zones, the Service agrees with the suggestion and has incorporated the Criteria for a Failed Translocation into the final regulation.

Comment 37: The suggestion was made that a particular quote from a recent Jeopardy Biological Opinion rendered by the Service on full development of oil and gas resources in the northern Santa Maria Basin be included in the regulation. The quote, taken from the Conservation Recommendation section of the Opinion, describes the linkage between a successful translocation to future section 7 determinations and the overall recovery of the species. It indicates that future conflicts between OCS oil and gas development and sea otters can be significantly diminished or avoided if the recovery effort is accelerated and a second colony can be established over the next 5–10 years.

Service Response: The quote in the Opinion was actually in reference to the discussion in the Proposed Rule and translocation plan for this translocation which already contains substantial discussion of the relationship of translocation to future section 7 determinations and recovery of the species. The Service does not believe the quote adds to what is already discussed in the translocation plan and Rule, so the suggested addition has not been adopted.

Comment 38: One commentor suggested that, in addition to considering the existence of a translocated population both qualitatively and quantitatively for section 7 purposes during the initial growth and reestablishment stage, the translocated otters should be viewed as having greater value to the population as a whole than an equal number of otters in the parent population. The rationale given for this suggestion is that otters at the new site are exposed to a lower risk than the parent population and because, even during this stage, the translocated otters could possibly be used to re-populate a damaged parent population.

Service Response: The Service disagrees with the rationale for the suggestion. To say that the translocated otters have a greater worth than otters in the parent population during the initial growth and reestablishment stage because they are subject to a lower degree of risk would be a superficial and arbitrary weighting of the worth of an individual. During this stage in particular, the experimental population would not be expected to be able to supply animals in the numbers needed (25 or more per year) to restore a damaged parent population and still remain a viable, self-sustaining breeding colony. Furthermore, even after the experimental population has "stabilized" and is showing positive signs of eventually becoming an established population, its ultimate fate is still uncertain. Its status is precarious and its numbers during this stage may not even be any greater than the original number translocated. The experimental population at this stage may or may not be able to survive on its own as a self-sustaining entity, and a translocation back to the mainland, should the parent population be decimated, would add to the stress of the original relocation to a new environment. Thus, a case might even be made that, during this stage, the value of a member of the experimental population could be less than that of an otter in the parent population. Thus, the Service sees no justifiable reason to view otters in the experimental population during this stage as having greater value than the same number in the parent population. Thus, the change has not been made in the Rule.

Comment 39: One commentor suggested that language be added to the regulation that "once the population is established, the Service shall assume that the primary goal of the Recovery Plan has been accomplished and, therefore, that the risk to the sea otter from a major oil spill has been reduced to an acceptable level."

Service Response: The Service disagrees with the suggestion because, as discussed under previous comments, such a statement would diminish, even ignore, the importance of the other criteria and objectives in the Recovery Plan as well as the status of the parent population. As already described in the Rule, establishment would trigger a delisting review, but the status of the other recovery criteria and parent population would be important factors in determining if the risk of oil spills to the sea otter had been reduced to an acceptable level. No change has been made in the regulation or preamble to reflect this suggestion.

Description of Action

The Service will establish through translocation a colony of southern sea otters at San Nicolas Island, Ventura County, California. As required by Pub. L. 99-625, two zones, a "translocation zone" and an otter-free "management zone," will be established. The colony will be protected, studied and contained within the specified translocation zone (see IDENTIFICATION OF ZONES segment of the Preamble, infra). Surrounding the translocation zone is the management zone wherein sea otters will be removed if they are found there to minimize potential conflicts with other uses of the resources, to protect those otters because the management zone has less stringent protection measures for sea otters, and to evaluate existing, and, as necessary, develop additional techniques for containing sea otters.

This rule, once implemented, will simultaneously aim for the achievement of these primary objectives: (1) Meeting one essential criterion for recovery and potential delisting of the southern sea otter population under the Endangered Species Act (ESA), and (2) obtaining information and furthering research objectives necessary for present and future management decisions and better understanding and defining the optimum sustainable population (OSP) for this population under the Marine Mammal Protection Act (MMPA). The proposed rule was written in a format that addressed three possible legislative authorities that the Service believed could exist at the time a final rule was published. Since the publication of the proposed rule, Congress passed H.R. 4531 on October 18, 1986, and the President signed into effect Pub. L. 99-625 on November 7, 1986, which parallels one of the legislative scenarios described in the proposed rule. Appropriate modifications have been made in this Final Rule to reflect this legislative authority which is described under the LEGISLATIVE AUTHORITY section of the Preamble.

Pre-Translocation Phase

Activities during this phase emphasize: (1) Assessment of the existing population and the acquisition and analysis of behavioral data, (2) development of a plan for capturing and holding sea otters for translocation, including determination of the optimum size, age, and sex composition of the translocated colony, (3) collection of baseline data on the ecosystem at the translocation site, and (4) completing the public notice and review requirements of the National Environmental Policy Act and Administrative Procedures Act.

1. Assessment of the Existing Population

Insofar as possible, it is necessary to evaluate the possible impacts of removing animals from the existing population for the purpose of translocation, and to develop a monitoring program to test hypotheses concerning expected impacts and to detect and measure unforeseen impacts. Present monitoring programs are done mainly by the Service and California Department of Fish and Game (CDFG). Population surveys are, at present, conducted twice annually by using the following techniques.

Most of the coastline within the range of the population, being accessible by road, is surveyed from shore by teams of two observers each. The remaining areas are surveyed from aircraft. Behavioral studies are being done by observing tagged (flipper-tagged and radio-implanted) and untagged individual sea otters in some portions of the range. The principal emphasis of these studies is to obtain better information on population trend, distribution, movement, diet, and activity patterns.

An increased effort will be devoted to obtaining behavior and movement information from individuals marked with flipper tags and implanted radio transmitters prior to the translocation. During the year prior to the translocation, up to 30 individuals from the parent population will be instrumented with radios that have a predicted battery life of about 2 years. About half of the radioed animals will be among the translocated individuals. The use of radio telemetry according to this design will allow documentation of 24-hour time budgets, foraging behavior, social interactions, and movement patterns before and after the animals are translocated. These data will be used to compare behaviors and movements of individuals before and after the translocation, at both the mainland capture site and the translocation site, as well as to understand better the effects of translocation on the parent population.

2. Removal of Animals From the Existing Population

Limited information is presently available from which to make a judgment on the optimum number, and the age and sex composition of animals to be translocated. Jameson et al.'s (1982) review of previous translocations of sea otters in the eastern North Pacific Ocean indicates a correlation between

success rate and size of the translocated population. However, there are limits to the practicality of this correlation. Logistics, effects of removal on the donor population, and the potential for rapidly achieving and exceeding the minimum estimated carrying capacity (280) for the San Nicolas Island translocation zone, which could conceivably result in a population crash and ultimately a lower equilibrium density for some time period, are factors that must be considered. Based on these findings, and considering that the future welfare of the existing population probably would be best served by minimizing the number of animals taken from it while maximizing the likelihood of success, up to 70 animals will be moved from the existing population to the translocation site in the first year. The limit of 70 animals is set so that the removal will not exceed the expected population growth rate of 5 percent, assuming the current population numbers about 1,400. The estimated long-term growth rate for the population prior to the recently experienced entanglement mortality was about 5 percent per year (CDFG 1976).

No more than 250 animals will be moved in total from the existing population for translocation purposes. Strategies for years 2, 3, 4, 5 and beyond will be governed by the success of preceding effort. Translocation of additional animals will be terminated once a relatively stable group of 70 animals at San Nicolas Island, including both males and females, has been achieved. If, as expected, most of the translocated animals remain within the translocation zone, there will be no supplemental translocation in subsequent years except for genetic enhancement (if necessary) from the parent population involving up to 5 otters per year. However, if a substantial decline is seen in the population or serious imbalance in the sex ratio, additional animals may be moved to ensure success of the translocation.

Most, but not all, of the translocated animals will be sexually immature (i.e., independent, up to about 2 years of age). By selecting young animals for the translocated population, it is expected that post-release dispersal will be minimized and that the future growth rate of the population will be maximized (Kenyon 1969). A further advantage of mainly using juveniles is that they are less likely to interact aggressively while in captivity or following release. The sex ratio of the immature animals selected for translocation will be approximately 4 females to 1 male, although a range of from 3.5:1 to 6:1 will be considered acceptable.

Of the animals translocated each year, up to 20 will be adults. The purpose of moving adults will be to compare movement patterns, particularly dispersal tendencies away from the translocation site, between adult and juvenile sea otters as well as to provide a small number of sexually mature animals that could begin reproducing almost immediately. In selecting animals for translocation, an adult sex ratio of 3 females to 1 male, or 15 females to 5 males will be sought.

3. Studies at the Translocation Site

Since 1980 the Service has been conducting a monitoring program of the intertidal and shallow subtidal ecosystems at San Nicolas Island. The purposes of this program are: (1) To determine the dynamics of nearshore communities relatively free of human influence, in order to contribute to the eventual determination or refinement of an OSP level for sea otters in California pursuant to the MMPA; and (2) to establish baseline ecological information in order to document the range of influences that sea otters, should they be restored there, would have on various components of nearshore communities by comparing changes which occur following translocation with a pre-translocation data base. Densities of abalone, sea urchins, other invertebrates, fish, and kelps, and percent cover of the benthic algal association, are surveyed twice annually at each sample site. Lobster populations are also being surveyed twice annually in late spring and late summer. Kelp canopies are photographed twice annually using aerial infrared techniques, once during the summer maximum extent of the canopy and once during its late winter minimum extent. Data from this program should adequately document spatial and temporal patterns of the sea otter's influence on the coastal ecosystem.

Translocation Phase

Activities during this phase will consist of capture, transport, and release of sea otters. These activities could last 5 years or more, depending on their success, although it is expected that most of this phase will be completed in the first year.

All capture, transport, and release activities will be done if possible between mid-August and mid-October. Earlier in the summer, strong northwesterly winds blow along the coast of California. These winds create heavy seas that would be a detriment to capture operations, although the release site itself is well protected from prevailing weather. After mid-October, the probability of winter storms from the North Pacific Ocean greatly increases. Although capture operations could be halted during such periods with no serious consequences, an inopportune storm could have catastrophic effects at the holding and release sites by increasing work hazards, as well as posing and release sites by increasing work hazards, as well as posing dangers to the otters.

1. Capture, Holding and Tagging

Capture locations will be selected preferably from about the southern one-third of the current range, primarily on the basis of logistical convenience, availability of desired age and sex groups, and welfare of the animals. Techniques proven to be effective and safe in previous translocations and other research on sea otters will be used. Simultaneous capture operations will be centered at Point Piedras Blancas and Morro Bay because both locations offer adequate harboring facilities for small boats.

Point Piedras Blancas is the only location well within the existing sea otter range that is logistically suitable for capturing sea otters. All sex and age classes are present and available for capture near Point Piedras Blancas. At least two sites in the vicinity of Piedras Blancas contain small concentrations of immature male and female sea otters. The primary capture area will extend from Cambria in the south to Salmon Creek in the north. After capture, sea otters will be shuttled to temporary holding facilities. In most cases, individuals will be in transit for no longer than 4 hours.

In the event that the desired number and composition of animals cannot be obtained from the areas described above, it is possible that additional individuals will be taken from the north end of the population's range near Monterey and Santa Cruz. These individuals will be captured from the area between Yankee Point and Point Santa Cruz.

Animals will be captured by: (1) Diver held devices (as developed by CDFG), (2) dip nets used from a small boat (as currently used by Service research personnel at Point Piedras Blancas for catching newly independent otters) or, (3) surface entangling nets (as used by the Service in California and Alaska, and by the Alaska Department of Fish and Game in Alaska). The dip net technique will probably be used extensively since it has been used very successfully in previous research

projects for capturing immature sea otters. Most of the translocated animals will be sexually immature, and most of the pups born in any year are weaned and become independent from their mothers by fall, which is judged to be the most suitable time of year for the translocation.

Each captured animal will be placed in a holding box (approximately 20" wide, 36" long, 24" deep) similar to those developed by the Departments of Fish and Game in Alaska and California. These boxes have proven to be safe and effective for transporting sea otters short distances. Each individual will be taken to the docking facility and carried, or transported by truck, to the holding facilities and then, for translocation to San Nicolas Island, the sea otters will be trucked to the respective local airports.

Under optimum conditions, all animals to be translocated in a given year will be held at the capture sites or holding facilities prior to their movement to San Nicolas Island. All animals are expected to be captured within three weeks. If logistic or weather-related difficulties are encountered, it may be necessary to spread the translocation effort over a period of up to 60 days. Under these circumstances, smaller groups of otters will be maintained at holding facilities, with two or more separate transport and release operations. At least 24 otters will be moved to San Nicolas Island during the first transport. All animals will be examined at the holding facility by a veterinarian (with experience treating marine mammals) before they are moved to the Island. The animals will be fed fish fillets and squid (*ad libitum*), supplemented by other shellfish species as available. Males and females will be held in separate tanks, and isolated from public view or disturbance to the greatest extent practicable. Twenty-four hour security and observation will be provided at all times when otters are in captivity. Handling of otters in captivity will be kept to a minimum.

All individuals will be tagged with color-coded temple tags on the interdigital webbing of the rear flippers, in varying combinations of color and position which allow identification of individuals from a distance. A permanent mark or tag, such as a small ear tag (as used by CDFG, Ames et al. 1983) and miniature transponders (implanted subdermally) will also be used to help assure "in hand" recognition of individuals in case flipper tags are lost. As previously described under "Assessment of the Existing Population," up to 30 individuals will be captured up to one year before each transplant period and implanted with radio transmitters. Approximately half of these animals will be recaptured and translocated.

Animals will be weighed and their sex determined at the time of capture. Blood samples from some of the animals will be taken for genetic and veterinary studies. Teeth will be examined for general condition at the time of capture. Each animal will be injected with tetracycline, if safe and effective doses can first be determined by the Service or veterinary community, in order to provide a potential marker for future age and growth studies. Only animals judged to be in good health by the veterinarian will be moved to the translocation site. Sick animals will be released or treated by the veterinarian and then released in the capture area upon recovery.

2. Transport

The animals will be transported from the holding facilities to San Nicolas Island by aircraft. If necessary, the cargo area will be air conditioned to 65 °F or less to prevent the animals from overheating. Animals will be accompanied and kept under surveillance while in flight. During transport, the animals will be held in individual cages. The animals will not be fed during transport. They will be sprinkled with cold water or ice if there are indications of overheating.

Under optimum conditions of weather with high capture rate, animals will be flown in several groups to San Nicolas Island. The flight will take place once all animals are in hand and judged to be in good condition. The animal will be offloaded from the aircraft at San Nicolas onto trucks, and driven immediately to the release site.

3. Release

Animals will be held in floating pens which will be securely anchored in the sand bottom at Daytona Beach, San Nicolas Island. This site is protected from onshore winds and heavy seas, which normally are from the northwest during summer and fall. It is the most suitable anchorage at San Nicolas Island and there is road access to the area.

A series of 8 to 10 floating holding pens will be used and there will be no more than 15 individuals in any pen. Males and females will be held separately. Unusually aggressive animals will be isolated from the others. The holding pens will be approximately 12' long by 12' wide by 6" deep, and constructed of a frame of aluminum tubing covered by 2" stretch nylon net. The pens will be buoyed with styrofoam blocks attached to the outside such that about two-thirds of the pens' depth is submerged. A haul-out platform for the otters will be provided on the interior of each pen. This pen design has been used successfully in previous sea otter research.

A charter vessel, with large freezer capacity to store food, will anchor and standby at Daytona Beach during the entire period that animals are being held in the floating pens. This vessel will provide a platform for 24-hour surveillance of the animals while they are in captivity at San Nicolas Island. In addition, it will serve as a food storage facility. While in captivity at San Nicolas Island, the animals' diet will be supplemented with locally common food resources. If necessary, additional food could be air freighted from Point Mugu Naval Air Station to San Nicolas Island, and put aboard the vessel.

The animals will be held from two to five days in floating pens at the release site. It is thought that this interval will allow the animals to recover from the stress of transit and to become more accustomed to the area. The animals will be released passively by opening the floating pens and allowing them to leave at will. To encourage feeding in their new environment, the otters will not be fed during the last 6 hours in captivity. The release will take place shortly after dawn in order to allow maximum time during daylight for the animals to visually orient to their new environment, and to allow shore-based of southern California that are not now occupied by sea otters. If dispersal from San Nicolas Island were to result in return to the existing population, no further effort will be made to capture the dispersing animals and return them to the translocation site except as described under Containment Efforts. If dispersal were from San Nicolas Island to some other location, the animals will be captured, and depending on the circumstances, returned and released to either the donor population or the translocation site, with return to the donor population being preferred.

Ecosystem level studies at San Nicolas Island primarily will involve monitoring littoral and sublittoral baseline stations (this includes populations of abalone, sea urchins, and fishes), kelp canopy distribution and abundance, and lobster populations. These studies will continue at the present level of effort with adjustments as needed to improve design or sampling sufficiency. This information, in conjunction with the pre-translocation data base and the population level

studies, will provide documentation of changes in the structure of the nearshore ecosystem as the sea otter population increases from low to high densities. Additional studies will be done on: (1) The population biology of red and black abalones, (2) lobster populations, (3) plant-herbivore interactions, (4) reef fish populations, and (5) socioeconomic issues, such as the effects on kelp harvesting, shellfish and finfish harvest, and recreational activities. These studies will be necessary to understand the nature and causes of change brought about by the sea otters, and the potential effects of such changes on recreational and socioeconomic activities as well as effects on the experimental population itself and its optimum sustainable population level.

2. Containment Efforts

Because it is an island with abundant prey in surrounding waters and is separated from other shallow water areas where food is available by long distances of deep open ocean, dispersal away from San Nicolas Island is expected to be negligible, at least prior to attainment of carrying capacity. As the animals approach carrying capacity, an increase in dispersal to nearby islands and perhaps the southern California coast might occur. It would be possible to limit the population at or below carrying capacity and thus prevent large-scale dispersal away from the island, by one of the following techniques: (1) Selective removal of animals from the translocation zone using non-lethal methods and relocation to the parent population; or (2) imposing birth control measures on some of the individuals within the translocation zone.

The Service and CDFG will jointly manage an effort to locate otters that may disperse from the translocation zone into the management zone. This effort will rely heavily on public participation/reporting. A "hot line" number will be established and publicized so that individuals who observe otters in the management zone could report the number and location of sea otters observed. The Service will seek appropriate agreements with other Federal and State agencies that have jurisdiction within the management zone (e.g., CDFG, Navy, National Marine Fisheries Service and National Park Service) to assist in reporting, verifying and capture of otters and protection of other resources in the areas where capture and removal operations will be conducted. Aerial reconnaissance by CDFG and/or the Service will be initiated if studies at the translocation site indicate that a significant proportion (e.g., 10–20 percent) of the animals may have dispersed from the translocation zone. Radio-implanted otters that leave the translocation zone will be tracked to the extent possible. If verified sightings of one or more sea otters are made at any location within the management zone, field crews will be mobilized as soon as weather and sea conditions permit to capture and remove the otter(s) from the zone.

Capture will be done by experienced State and/or Federal personnel using one or more of the same techniques used in the translocation effort, such as: (1) Diver-held devices; (2) surface entangling nets; or (3) dip nets. Additional techniques, such as injection of immobilizing drugs with darts, will be developed in the future, if deemed necessary. Captured otters will be returned to either the translocation zone or to the existing range. Most will either be returned to the original capture site in the existing range or released in the vicinity of Monterey Bay where their behavior will be compared with those returned to the original capture site. Animals either will be flown or moved by air-conditioned van to the release site. If not already implanted, captured animals will, to the extent possible, be implanted with a radio transmitter in order to obtain detailed information on their behavior following their release.

Capture and relocation will serve as an effective containment technique as long as there is available habitat where sea otters are desired. Public Law 99–625 requires that otters captured in the management zone must be returned either to the translocation zone or the range of the parent population. Eventually, after all such areas are occupied, population stabilization may require an artificial balancing of overall births and deaths (Hofman 1985). Therefore, research will be initiated to identify and evaluate techniques for limiting population growth by reducing fecundity. This work will be done in three stages, including a thorough review of literature on birth control in other wild mammal populations, laboratory experiments to test the most promising techniques if any are identified, and then field experiments in Alaska with Alaskan sea otters. Other techniques such as culling, or non-lethal thinning of the donor population, to minimize dispersal into the management zone would require additional authority.

3. Protection of Translocated Population

At least two enforcement officers will be integrated into the translocation effort. The officers will establish regular contacts with the other parties involved in the translocation process, develop a working knowledge of the sea otter recovery and research program and potential law enforcement problems, and develop a cooperative enforcement arrangement with other agencies with jurisdictional responsibilities, e.g., U.S. Coast Guard, National Marine Fisheries Service, California Department of Fish and Game, U.S. Navy, and National Park Service to assist with protecting the experimental population in the most effective and efficient manner possible. The officers will be equipped with a sea-going vessel and equipment to carry out frequent enforcement patrol and surveillance to minimize the chance of harassment or other illegal activities affecting the translocated sea otters. Both the on-site officers and the translocation research team will be monitoring the new colony, therefore, any illegal activities will likely be observed and enforcement actions taken. At a minimum, the officers will be needed for the duration of the actual translocation and for at least 3–5 years thereafter, after which their continued full-time need will be evaluated.

Legislative Authority

Public Law 99–625 enacted on November 7, 1986 is the primary Federal legislative authority under which this translocation plan will be implemented. In enacting Pub. L. 99–625 Congress has provided the authority and established the requirements for translocating, establishing and managing a second colony of California sea otters. This special legislative authority, similar to section 10(j) of the ESA, provides for the establishment, containment, and management of an experimental population of California sea otters pursuant to a translocation plan which must be developed by regulation and administered by the Service in cooperation with the appropriate agency of the State of California. Pub. L. 99–625. Section 1(b) 100 Stat. 3500 (1986). Pursuant to the requirements of section 1(b) of Pub. L. 99–625, this translocation plan must include the following:

(1) The number, age, and sex of sea otters that will be relocated.

(2) The manner in which the sea otters will be captured, translocated, released, monitored, and protected.

(3) The specification of a zone (herein referred to as the "translocation zone") to which the experimental population will be relocated. This translocation zone must have appropriate characteristics for furthering the conservation of southern sea otters.

(4) The specification of a zone (herein referred to as the "management zone") that— (A) Surrounds the translocation

zone; and (B) does not include the existing range of the parent population or adjacent range where expansion is necessary for the recovery of the species.

The purpose of the management zone is to: (i) Facilitate the management of sea otters and the containment of the experimental population within the translocation zone, and (ii) to prevent, to the maximum extent feasible, conflict with other fishery resources within the management zone by the experimental population. Any sea otter found within the management zone must be treated as a member of the experimental population. The Service will use all feasible non-lethal means and measures to capture any sea otter found within the management zone and return it to either the translocation zone or the range of the parent population.

(5) Measures, including an adequate funding mechanism, to isolate and contain the experimental population.

(6) A description of the relationship of the implementation of the translocation plan to the status of the species under the [Endangered Species] Act and to determinations of the Secretary under section 7 of the Act.

While the experimental population of sea otters generally is to be treated as a threatened species for purposes of the ESA, section 1(f) of Pub. L. 99-625 provides that, for purposes of implementing the translocation plan, no act by authorized Service or State officials that is necessary to effect the relocation or management of any sea otter under the plan may be treated as a violation of either the ESA or the MMPA.

Identification of Zones

Section 1(b) of Pub. L. 99-625 requires the translocation plan to specify two zones for the experimental population, a translocation zone and a management zone. Public Law 99-625, Section 1(b) 100 Stat. 3500 (1986). The translocation zone is the area in which California sea otters are to be relocated, and it must have appropriate characteristics for furthering the conservation of the species, including occupiable habitat and a buffer to insulate the experimental population from adverse effects of activities that may occur outside the translocation zone. The management zone is to surround the translocation zone, but cannot include the existing range of the parent population or adjacent range where expansion of the parent stock is necessary for recovery of the species. The purposes of the management zone are to facilitate management and containment of the experimental population and to minimize to the maximum extent feasible conflict between the experimental population and fishery resources and oil and gas exploration and development activities. Any sea otter found within the management zone is to be returned to either the translocation zone or to the range of the parent population. Public Law 99-625, Section 1(b)(4) 100 Stat. 3500 (1986).

This rule establishes a translocation zone for the experimental population at San Nicolas Island, the nearby islet of Begg Rock, and surrounding waters within the following coordinates:

North Latitude/West Longitude

33°27.8'/119°34.3'
33°20.5'/119°15.5'
33°13.5'/119°11.8'
33°06.5'/119°15.3'
33°02.8'/119°26.8'
33°08.8'/119°46.3'
33°17.2'/119°56.9'
33°30.9'/119°54.2'

The translocation zone boundary is drawn taking into account the availability of food resources, rafting sites and kelp beds as well as wind and wave patterns, offshore currents and other oceanographic variables and the types and magnitude of activities that may adversely affect the experimental population. 131 Cong. Rec. H6467 (July 29, 1985). Waters surrounding San Nicolas Island out to at least the 15-fathom contour within these coordinates provide highly suitable habitat for California sea otters. Hstorically, sea otters were present at San Nicolas Island in considerable numbers. Kelp forests flourish near the island and prey species such as abalone, sea urchins, crabs, clams and mussels are abundant. A buffer area is added to that area identified as sea otter habitat (i.e., coastal waters within the 15-fathom contour). This buffer area is based on wind and sea conditions, projected movement of oil from hypothetical oil spills and response time required to contain or divert those spills using one or more of the existing oil spill response vessels. The area delineated by the coordinates of the translocation zone provides sufficient response time to intercept and divert or possibly contain an oil spill occurring anywhere outside the translocation zone before it could reach sea otter habitat within the 15-fathom contour around the Island, provided weather and sea conditions permit effective deployment of containment equipment. The translocation zone is also large enough to provide a buffer between sea otter habitat and fishing activities in the management zone that may result in incidental entanglement.

The management zone set forth in this rule consists of all waters, islands, islets, and land areas seaward of mean high tide subject to the jurisdiction of the United States, including State tidelands, located south of Point Conception, California (34°26.9' N. Latitude), except for any area within the translocation zone. The management zone surrounds the translocation zone and begins approximately 50 miles to the south of the southern limit of the existing range of the parent population which is at the Santa Maria River. Thus, as required by Pub. L. 99-625, the management zone surrounds the translocation zone and does not include any of the existing range of the parent population or any adjacent range where natural expansion may be necessary for recovery of the species. As discussed later in this preamble, the Service will use all feasible non-lethal means and measures to capture any sea otter found within the management zone and return it to either the translocation zone or to the range of the parent population. Capture and relocation of sea otters found in the management zone will serve to contain the experimental population, to minimize conflicts between sea otters and fishing and oil and gas exploration and development activities in the management zone, and to protect those otters because the management zone has less stringent protection for otters.

Protective Regulations

Pub. L. 99-625 generally provides that any member of the experimental population of California sea otters shall be treated as a threatened species. Pub. L. 99-625, section 1(c), 100 Stat. 3500 (1986). Section 9(a)(1)(G) of the ESA prohibits any violation of a regulation pertaining to a threatened species promulgated by the Secretary pursuant to authority provided by the ESA. 16 U.S.C. 1538(a)(1)(G). Section 4(d) of the ESA authorizes the Secretary to issue protective regulations for threatened species. 16 U.S.C. 1533(d).

Pub. L. 99-625 provides several exceptions to otherwise enforceable restrictions for California sea otters belonging to the experimental population. Regardless of the zone, no act by an authorized Service or State official that is necessary to effect the relocation or management of a California sea otter under the translocation plan may be treated as a violation of the ESA or the MMPA. Pub. L. 99-625, section 1(f), 100 Stat. 3500 (1986). Within the translocation zone,

Pub. L. 99–625 provides an exception to sections 7(a)(2) and the incidental taking provisions of the ESA for "defense-related agency actions" which the law defines as agency action carried out directly by a military department. However, section 7(a)(4) of the ESA (the informal conference process) will apply to defense-related actions occurring within the translocation zone. Within the management zone, Pub. L. 99–625 provides an exception from taking prohibitions of the ESA and MMPA for incidental taking during the course of an otherwise lawful activity.

Within both the translocation zone and the management zone, this rule will, with some exceptions, impose all of the prohibitions provided for endangered species by 50 CFR 17.21(a)–(f). Section 4(d) of the ESA authorizes the Secretary to impose with respect to a threatened species any or all prohibitions applicable to endangered species. 16 U.S.C. 1533(d). For both zones, this rule provides an exception to the prohibitions for actions by authorized Service or California Department of Fish and Game officials or their designated agents that are necessary to effect relocation or management of a California sea otter under the translocation plan. For both zones, this rule provides an exception to the prohibitions for any action authorized by a threatened species permit pursuant to 50 CFR 17.32 (for example, a permit authorizing research involving an experimental population sea otter to be carried out by a university or college).

With regard to the translocation zone, this rule provides an exception to the prohibitions for incidental taking during the course of a defense-related agency action carried out directly by a military department. The term "military department" does not include the Coast Guard. See H.R. Rep. No. 99–124, 99th Cong., 1st Sess. 18 (1985). As discussed previously, this exception is required by Pub. L. 99–625, section 1(c). Because the Service will be conferring with the Navy through the ESA section 7(a)(4) process on any action that is likely to jeopardize the continued existence of the listed sea otters, and will develop a Memorandum of Understanding with the Navy, the Service does not anticipate that Navy operations on the island or its surrounding waters will adversely affect an experimental population of California sea otters.

Within the management zone, this rule provides an exception to the prohibitions for incidental taking that occurs during the course of an otherwise lawful activity. As discussed previously, this exception is required by Pub. L. 99–625 to avoid conflicts between sea otters and fishing activities, oil and gas exploration and development, and other resource-related activities. See H.R. Rep. No. 99–124, 99th Cong., 1st Sess. 3, 16–17 (1985); 131 Cong. Rec. H6468 (July 29, 1985). For the reasons given above, the Service finds that the protective regulations contained in this rule are necessary and advisable for the conservation of the experimental population of sea otters.

Applicability of Section 7(a)(2) Within the Translocation and Management Zones

Under section 7(a)(2) of the ESA, Federal agencies must ensure that any action authorized, funded, or carried out by them is not likely to jeopardize the continued existence of an endangered species or a threatened species or result in the destruction or adverse modification of designated critical habitat. Any Federal action that "may affect" an endangered or threatened species or critical habitat must be evaluated through formal consultation under section 7. The southern sea otter, a threatened species, is generally protected by this interagency consultation requirement.

Pub. L. 99–625 establishes precise limits on the applicability of section 7(a)(2) to an experimental sea otter population. Under Pub. L. 99–625 the location of the Federal action is controlling: If the proposed Federal action is to be implemented within the translocation zone (except for defense-related agency actions and actions initiated prior to the enactment of Pub. L. 99–625), then the requirements of section 7(a)(2) would apply; if the proposed action is to be implemented within the management zone (although adverse effects could spill over into the translocation zone), then section 7(a)(2) does not apply, unless the proposed action "may affect" the parent population of southern sea otters. Pub. L. 99–625 further provides that the informal conference requirement of section 7(a)(4) of the ESA applies to Federal activities within the management zone and to defense-related activities (*i.e.*, actions directly implemented by a military department) in either zone.

Containment

Pub. L. 99–625 requires, as a component of the translocation plan, that the Service describe measures, including an adequate funding mechanism, to isolate and contain the experimental population. The legislation emphasizes the importance of maintaining an otter-free management zone in order to prevent, to the maximum extent feasible, conflict with fishery and other resources within the management zone by the experimental population. Pub. L. 99–625 delegates broad authority to capture and remove, by non-lethal means, otters from any location within the management zone, including units of the National Park System or marine sanctuaries. *See* 131 Cong. Rec. H6467 (July 29, 1985). The legislative history for Pub. L. 99–625 specifically acknowledges that members of the parent population may occur within the management zone and requires their removal in order to maintain that zone free of otters. 131 Cong. Rec. H6467 (July 29, 1985) states that successful implementation of a "zonal management" concept could greatly improve the recovery of the sea otter by reducing threats to the species and by reducing conflicts with other resources. Containment of the experimental population at San Nicolas Island by maintaining the surrounding management zone as otter-free will result in implementation of zonal management for southern California south of Point Conception since maintenance of the otter-free zone associated with the experimental population will also result in prevention of natural expansion of the parent population into any area of the management zone south of Point Conception in southern California.

The methodology for conducting the containment effort was described previously under "Post-Translocation Phase, 2. Containment Efforts." If verified sightings of one or more sea otters are made at any location within the management zone where they could impact fisheries or be in danger from incompatible activities, field crews will be mobilized to capture and remove the otter(s) from the zone as soon as weather and sea conditions permit.

With regard to containment, it will be desirable to determine when the population is approaching carrying capacity of the habitat within the translocation zone. This should be evident from information that would be obtained in the monitoring program. The following changes are expected as the population approaches carrying capacity: (i) The growth of the population is expected to decline; (ii) juvenile mortality rate is expected to increase to about 70 percent or higher; (iii) the time spent foraging is expected to increase from 20–30 to over 50 percent of the total time budget; and (iv) the diet is expected to diversify to include less nutritious prey and prey that requires more energy to obtain.

As discussed earlier in this document, a minimum of about 10 years is expected for the population to reach carrying capacity. Dispersal away from San Nicolas Island is expected to be negligible, at least prior to attainment of carrying capacity. As the animals approach carrying capacity, dispersal to nearby islands and perhaps the southern California coast may occur. It would be possible to limit the population at or below carrying capacity, and thus prevent large-scale dispersal away from the Island and possibly maintain a higher reproductive rate, by one of the following three techniques: (i) Capturing animals from the population for translocation elsewhere, (ii) imposing birth control measures on some of the individuals; or (iii) selective or random culling of the population which would require changes in statutory authority if lethal means were to be considered. A permanent Sea Otter Management and Coordination Office will be established and maintained at a field location near the "management zone." The Office will coordinate the containment effort, verify and respond to reports of otters in the management zone, maintain public relations and interagency coordination and cooperation, serve as a contact point and source of information for the public and other agencies, continue to coordinate the overall recovery program for the California sea otter, and take the lead in working with the State(s) on a long-term management plan for the southern sea otter. The Office will work closely with State biologists to remove otters from the management zone.

Funding Mechanisms

Successful implementation of this plan depends on an adequate commitment of funding and personnel. The Service will seek funding through its normal Congressional appropriations process. Contributions from other Federal sources and non-Federal sources may also be obtained. Federal funding will be administered through the U.S. Fish and Wildlife Service. Although the Service cannot obligate funds for which it has not received an appropriation, the Service has funding in the FY-87 budget for translocation, research, protection, and containment of the experimental population.

The Service can also enter into interagency agreements for the transfer of Federal funds from another agency to the Service. Such an agreement will be sought when interagency cooperation would facilitate achieving mutual program policies, requirements, or goals. Also, unexpended balances of Federal funds may be available for grants for specific activities and can be granted by the Service to States that have entered into cooperative agreements under section 6 of the ESA. Research, management, protection and containment of the translocated population will be considered an appropriate use of such funds while the species is listed under the ESA. The State of California may also request grants in Wildlife Restoration (Pittman-Robertson) Act, or, under section 110 of the MMPA for these purposes, subject to the availability of funds.

Non-Federal funding could be received through donations, and such donations will be administered through the National Fish and Wildlife Foundation.

Effects on Recovery and Section 7 Determinations

Pub. L. 99-625 requires that the translocation plan contain a description of the relationship of implementation of the plan to the status of the species under the ESA and to determinations of the Secretary under section 7 of the ESA. The following section describes those relationships. Terminology used reflects the language contained in Pub. L. 99-625, as well as in the ESA. Throughout this discussion, the terms new population, experimental population, and colony are used interchangeably when referring to the translocated otters.

Relationship to the Status of the Species

The recovery plan for the southern sea otter contains five goals and numerous objectives that must be accomplished for the species to be considered for removal from the Federal list of endangered and threatened species. The five broad goals are to: (1) Minimize the risk of oil spills; (2) minimize the possible effects of oil spills; (3) minimize vandalism, harassment, and incidental take of sea otters; (4) monitor recovery progress of the existing population and any new colonies; and (5) integrate recovery plans into development and management plans of local coastal governments. This translocation is intended to address primarily the goal of minimizing the possible effects of oil spills. Specifically, the recovery plan states the following in regard to delisting, which is directly relevant to the relationship of a translocation to the overall status of the species:

> Delisting should be considered when the southern sea otter population is stable or increasing at sustainable rates in a large enough area of their original habitat that only a small proportion of the population would be decimated by any single natural or man-caused catastrophe. To reach this point: (1) at least one additional population of sea otters must be established outside the current population range, (2) the existing population of sea otters and its habitat must be protected, and (3) the threat from oil spills or other major environmental changes must be minimized.

The recovery plan specifically describes the importance of translocation to recovery and delisting where it states the following:

> Sea otter translocation, if properly designed and implemented, should provide the necessary foundation for ultimately obtaining the Recovery Plan's objective and restoring the southern sea otter to a non-threatened status and maintaining OSP by: (i) Establishing a second colony (or colonies) sufficiently distant from the present population such that a smaller portion of southern sea otters will be jeopardized in the event of a large-scale oil spill, and (ii) establishing a data base for identifying the optimal sustainable population level for the sea otter. Subsequently the number and location of additional translocations that may be necessary to obtain the optimal level should be determined.

The successful establishment of the experimental population to be carried out pursuant to this rule should fully satisfy the first criterion specified above from the Recovery Plan, provided that the parent population is showing sustained growth and expanding its range from its present size and distribution. However, if such growth and expansion is not occurring, the establishment of a single new population may not be sufficient to satisfy the broader criterion that the population must be increasing at a sustainable rate in a large enough area of its original habitat that only a small proportion of the population would be decimated by any single natural or man-caused catastrophe.

In order to consider whether recovery is attained, the other criteria, as well as the status of the parent population, would need to be evaluated in depth to determine whether or not oil spill and other major environmental or population threats are minimized to the maximum extent practicable. Although progress toward achievement of all five recovery plan goals would have to be evaluated and each goal met before delisting could occur, the establishment of at least one additional colony would be a prerequisite to consideration of delisting in order to meet the recovery plan requirements.

The relationship of translocation to the status of the California sea otter population, from an ESA standpoint, would change sequentially through distinct stages. The critical element in the sequence is the point at which the experimental population would be

determined by the Service to be "established," based on specific scientific criteria. The Service defines "established experimental population" as one which meets the following criteria: (1) An estimated minimum of 150 healthy male and female sea otters residing within the translocation zone, little or no emigration into the management zone occurring, and a minimum annual recruitment of 20 sea otters into the experimental population occurs within the translocation zone for at least 3 years of the latest five-year period; or (2) replacement yield is sufficient to maintain the experimental population at or near carrying capacity during the post-establishment and growth phase or the carrying capacity phase of the experimental population. Recruitment, for this purpose, means young-of-the-year that are weaned, independent from their mothers, and are entered into the population as subadults (juveniles).

The population estimate would be derived by the Service from periodic ground and aerial counts conducted by the Service and/or California Department of Fish and Game, or designated agents thereof, with appropriate adjustment factors to account for visibility or other counting technique biases. Annual recruitment would be derived by the Service using a combination of factors such as known pup production and mortality and annual growth of the experimental population as a whole as evidenced by results from periodic counts and population estimates.

The minimum of 150 otters estimated to be residing within the translocation zone and minimum annual recruitment of 20 are based on the expectation that this combination should be sufficient to be self-sustaining and to supply at least 25 primarily immature otters per year for 1 to 3 years if it became necessary for replenishing the parent population in the event of a catastrophic event such as a large oil spill. A minimum of 25 immatures is believed necessary based on empirical evidence from previous translocation efforts in which sea otters from Alaska have been used to attempt to reestablish populations in other areas of historic habitat (Jameson et al. 1982). The figure of 25 is believed to be a reasonable minimum number that, if translocated, for the most part would remain in an area and form a breeding nucleus from which repopulation through natural reproduction might occur. Carrying capacity, a threshold that would be determined through research, would not necessarily have to be reached in order for the new population to be considered established.

In addition to defining when the experimental population would be considered established, criteria are also needed to describe the circumstances in which the Service would consider the translocation to have failed. The translocation would generally be considered to have failed if one or more of the following conditions exist:

(1) If, after the first year following initiation of translocation or any subsequent year, no translocated otters remain within the translocation zone and the reasons for emigration or mortality cannot be identified and/or remedied;

(2) If, within three years from the initial transplant, fewer than 25 otters remain and the reasons for emigration or mortality cannot be identified and/or remedied;

(3) If, after two years following the completion of the transplant phase, the experimental population is declining at a significant rate and the translocated otters are not showing signs of successful reproduction (i.e., no pupping is observed); however, termination of the project under this and the previous criterion may be delayed if reproduction is occurring and the degree of dispersal into the management zone is small enough that the effort to continue to remove otters from the management or no-otter zone would be acceptable to the Service and the California Department of Fish and Game (CDFG).

(4) If the Service determines, in consultation with CDFG and the Marine Mammal Commission, that otters are dispersing from the translocation zone and are becoming established within the management zone in sufficient numbers to demonstrate that containment cannot be successfully accomplished. This standard is not intended to apply to situations in which individuals or small numbers of otters are sighted within the management zone or temporarily manage to elude capture. Instead, it is meant to be applied when it becomes apparent that, over time (one year or more), otters are relocating from the translocation zone to the management zone in such numbers that: (1) An independent breeding colony is likely to become established within the management zone, or (2) they could cause economic damage to fishery resources within the management zone. It is expected that the Service could make this determination within a year provided Service could make this determination within a year provided sufficient information is available;

(5) If the health and well-being of the experimental population should become threatened to the point that the colony's continued survival is unlikely, despite the protections given to it by the Service, State, and applicable laws and regulations. An example would be if an overriding military action for national security were proposed that would threaten to devastate the colony and removal of the otters was determined to be the only viable way of preventing the loss of the individuals.

If, based on any one of these criteria, the Service concludes, after consultation with CDFG and Marine Mammal Commission, that the translocation has failed to produce a viable, contained experimental population, this rulemaking will be amended to terminate the experimental population, and all otters remaining within the translocation zone will be captured and placed back into the range of the parent population. Efforts to maintain the management zone free of otters would then be curtailed after all reasonable efforts had been made to remove all otters that were still within the management zone at the time of the decision to terminate the experimental population. Reasonable efforts would include efforts up to the point that the Service and CDFG jointly determine that further efforts would be futile.

Prior to declaring the translocation a failure, a full evaluation would be conducted into the probable causes of the failure. If the causes could be determined and legal, reasonable remedial measures identified and implemented, consideration would be given to continuing to maintain the experimental population. If such reasonable measures could not be identified and implemented, the results of the evaluation would be published in the Federal Register with a proposed rulemaking to terminate the experimental population.

The following is a general description of the stages of growth and establishment of the experimental population, and how they will relate to the status of the California sea otter population as a whole. Figure C.1 is a schematic illustration of the stages of growth and establishment of an experimental sea otter population.

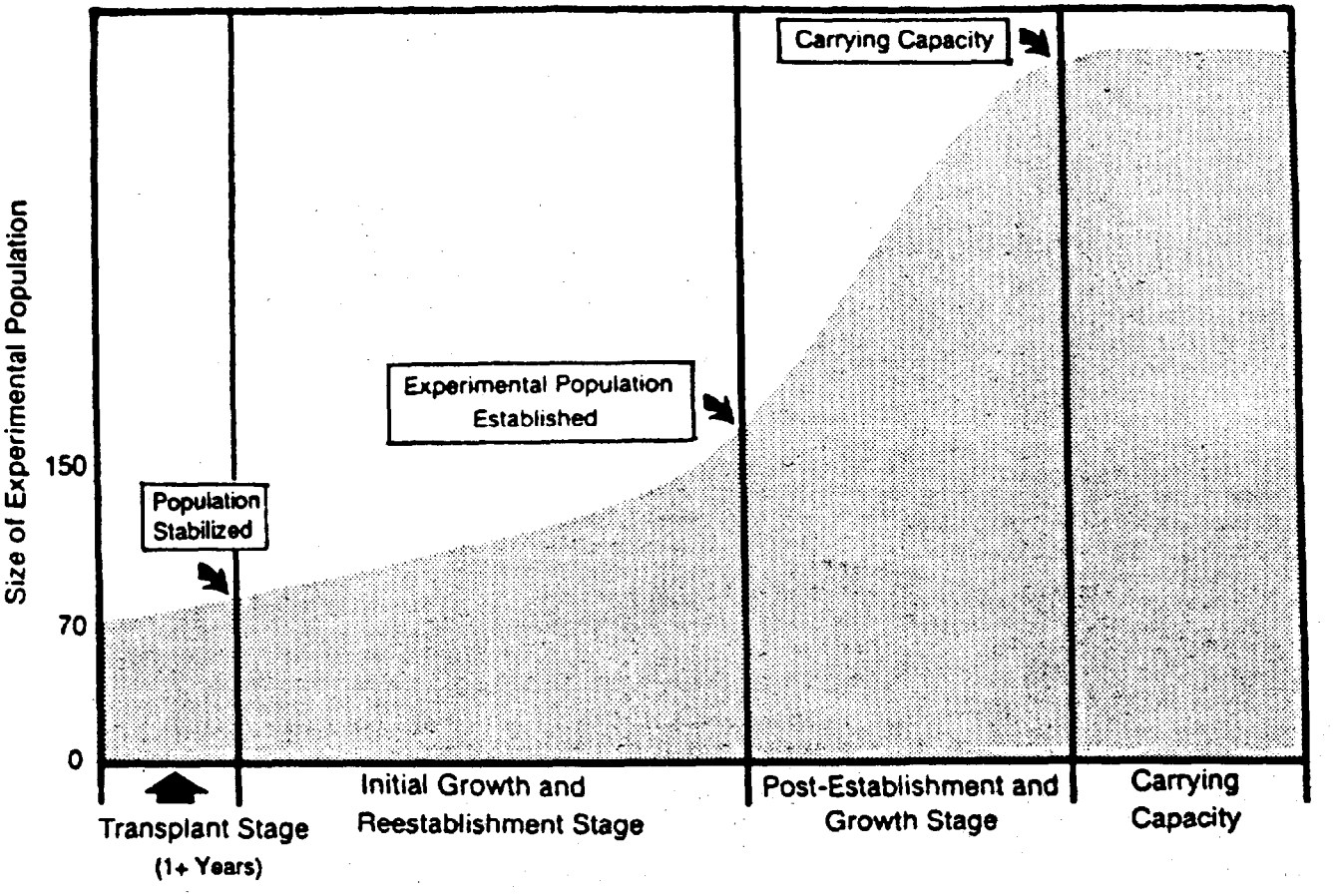

Figure C.1. Stages of establishment and growth of an experimental population of sea otters.

1. Transplant Stage

This constitutes the approximately one-year period during which sea otters from the parent population will be actively captured and relocated to the translocation site. Up to 70 otters will be moved to the site during the first year, supplemented as necessary with no more than 70 individuals in any subsequent year, although numbers in subsequent years are expected to be much less than 70. If, as expected, most of the translocated otters remain within the translocation zone until population growth due to natural reproduction can be demonstrated, there will be no supplemental translocation to the site in subsequent years except for occasional small numbers (up to five per year) to provide for genetic exchange with the parent population. However, if a substantial decline is seen in the population or a serious imbalance in the sex ratio occurs, additional otters may be moved to the site in subsequent years. Translocation will not exceed an annual maximum of 70 or a total of 250 sea otters. Based on this strategy, and if a sufficient mix of healthy male and female otters (equal to or greater than the number of otters that were released from the holding pens, or 70 otters, whichever is less) exists within the translocation zone and are apparently sedentary and showing little or no sign of dispersing from the zone, the transplant period will end. The population would thus be considered "stabilized" and is expected to enter into the initial growth and reestablishment stage. This could occur after the first year or perhaps later if supplements are necessary. A status review of the parent population, comparable to the five-year reviews required by the ESA, will be conducted near the beginning of translocation to serve as a baseline for evaluating recovery progress.

2. Initial Growth and Reestablishment Stage

This comprises the period between the end of the transplant stage (i.e., the population is stabilized) and the point at which the criteria for establishment of the experimental population are met. It is a period of intense observation of both the experimental population and the parent population. The primary focus will be to evaluate how well the new population is adapting to its new environment and, in particular, its reproduction and dispersal tendencies. It is also a period for evaluating the effects of translocation on the parent populaton, including effects on growth, range expansion or range recession. The initial growth and reestablishment period will likely be at least 5–6 years, depending on how long it takes for the nucleus of the new population to achieve the "established state" recruitment criteria and to reach a minimum estimated size of 150.

After the new population is deemed to be established, the Service will evaluate the overall success of the translocation and relate it to the recovery plan goals and criteria and the previous five-year and annual status reviews of the

population as a whole. The southern sea otter will be eligible for delisting consideration if the translocation is successful (i.e., the population established), the other recovery tasks satisfied, and the parent population is increasing and expanding its range. Upon achieving all three criteria the Service will initiate procedures for delisting. The Secretary's determination of the status of the sea otter must consider the following factors pursuant to section 4(a) of the Endangered Species Act: (1) The present or threatened destruction, modification, or curtailment of its habitat or range; (2) overutilization for commercial, recreational, scientific, or educational purposes; (3) disease or predation; (4) the inadequacy of existing regulatory mechanisms; or (5) other natural or manmade factors affecting its continued existence. Research on the experimental population and related changes in the ecosystem will continue, as will containment and maintenance of the designated management zone as otter-free by the Service and/or CDFG.

It is conceivable that, under ideal conditions, nearly all of the 15 adult females and some of the 40 females translocated as immatures could be reproducing within the first 2–3 years of the initial growth and reestablishment stage; however, the new population could not be deemed established until a minimum population estimate of 150 in combination with a minimum annual recruitment of 20 for at least 3 of the last 5 years had been achieved. If recruitment and population growth did not occur at this rate initially, the period of initial growth and reestablishment would continue until the criteria for establishment were met, or until it was determined that the experimental population had failed. The translocation is designed to maximize the chance of success, thus, it is likely that the experimental population will become established relatively quickly after completion of the transplant phase.

The Service does not consider the mere presence of sea otters in the translocation zone as an indication that a new population is established. If a catastrophic event were to decimate a portion of the parent population, it is possible that the relocated otters could be used to restore the damaged portion of the parent population; however, it would also likely eliminate the value of the new population to serve as a reserve colony for providing stock to restore subsequently damaged areas and it could eliminate the reproductive viability of the colony such that the remaining animals could not be self-sustaining. Therefore, to be considered established it must be a reproductively viable unit, capable of maintaining itself even if 25 animals are removed each year for 1 to 3 years or replacement yield is sufficient to maintain the experimental population at or near carrying capacity during the post-establishment and growth phase or carrying capacity phase for purposes of repairing damage to the parent population. Ultimately, the translocation zone should have a carrying capacity capable of supporting a population large enough to supply at least 25 mostly immature animals yearly on a sustained basis for purposes of repopulating areas of the existing range in the event that a catastrophic event decimates a portion of the parent population.

A single additional reproductively viable population of sea otters could be sufficient for recovery of the species pursuant to ESA. Thus, it is possible that recovery and delisting could occur with a single successful translocation, assuming that other recovery tasks are satisfied.

3. Post-Establishment and Growth Phase

This is the period after the experimental population is deemed established and actively growing toward the carrying capacity of the habitat within the translocation zone. During this period, intensive research and monitoring will continue in order to document changes in the nearshore ecosystem of the translocation zone, and the behavior, reproduction, and dispersal tendencies of otters in the experimental population.

During the post-establishment and growth stage, the experimental population will contribute to the total size of the California sea otter population and its numbers and location will be added to those of the parent population when describing the population size and distribution of the California sea otter for any purpose.

Under the current approved recovery plan, recovery criteria are not defined in terms of specific population goals, but, rather, by the need to establish at least one additional colony and protect the existing mainland population in California. Because establishment of the experimental population, along with achievement of other recovery plan goals, could be sufficient to consider delisting from the threatened species list, the addition of otters during the post-establishment and growth stage of the experimental population normally would not influence the overall status of the California sea otter for ESA purposes since this component of the recovery plan would have been satisfied upon the experimental population becoming established. However, if a catastrophic event were to decimate all or a large part of the parent population, the size of the experimental population would be a factor in determining whether or not the California sea otter should remain listed as "threatened" or reclassified as "endangered."

4. Carrying Capacity

This represents the point at which the experimental population reaches the carrying capacity of its habitat, defined as an ecological state in which the numbers of animals remain relatively constant and in balance with the available food supply (assuming that population growth is limited by food availability), also referred to as "equilibrium density." It is expected that, as the new population approaches carrying capacity, the growth rate will decline, the dispersal tendency of some otters may increase, natural juvenile mortality will accelerate, the time spent foraging by the otters will increase significantly, and the diet will become measurably more diversified. At this point, the growth rate of the colony might have slowed or even stopped.

Attainment of an equilibrium density in the experimental population will not necessarily influence the legal status of the southern sea otter population for purposes of ESA, beyond that which occurs at the time the new colony is deemed established. This is because the initial establishment of the experimental population will be sufficient to consider delisting if the other recovery tasks have been met.

To summarize the relationship of translocation to the status of the California sea otter pursuant to ESA, this relationship will be time-phased and will vary with the stages of growth of the translocated population. The recovery plan states that in order for recovery and delisting from the Federal list of endangered and threatened species to occur, a number of criteria must be met. A key one is that at least one additional population must be established outside the current range but separated from the existing population such that it would not be possible for a large oil spill to contact and decimate both the new colony (or colonies) and the existing population. The definition of "established" is pivotal to a description of the relationship to the population as a whole. The experimental population will not be sufficient to meet one of the criteria for delisting under ESA until the Service deems the new population to be established. The minimum time required will probably be

five years after the actual translocation begins, and it may be longer, depending primarily on the recruitment and mortality rates and the degree to which the experimental otters remain within the translocation zone. Both the transplant and initial growth and reestablishment stages must occur before the new population can be judged to be established. During these two stages, the experimental population will have no influence on, nor help to improve, the legal status of the southern sea otter under ESA, although during the initial growth and reestablishment stage the number of otters within the translocation zone will be added to those in the donor population for purposes of conducting ESA section 7 consultations if there are at least as many otters in the zone as were moved there during the transplant stage and if successful reproduction is occurring in the translocation zone.

Once the new population is deemed established, removal of the southern sea otter from the threatened list could be considered, although delisting will depend on the degree to which other recovery criteria have also been met. The Service will conduct a formal status review relative to the donor population near the beginning of translocation, and again at the time the experimental population is deemed established. This would provide the basis for evaluating the requisite factors to be considered prior to delisting the species.

An example of the conditions that may constitute meeting the recovery objectives is if: (1) The donor population has for the most part been consistently increasing in range and number (above the 1982 baseline); (2) the level of oil spill and related risks is minimized; (3) an oil spill response plan has been implemented and does afford measurable protection (i.e., good likelihood of capturing, cleaning, and rehabilitating oiled sea otters, and a good likelihood of containing and cleaning up an oil spill); (4) incidental take, vandalism, and harassment have been minimized; (5) habitat quality and biological parameters are not adversely changing to the detriment of the population; and (6) the experimental colony is determined to be established. This should achieve the desired goal for sea otter recovery, i.e., that the California sea otter population is naturally capable of withstanding perturbations of an environmental or man-caused nature.

Subsequent to the population becoming established as a viable breeding colony, it is anticipated that it would enter a growth stage, during which it would grow toward carrying capacity. During the post-establishment and growth stage, and at carrying capacity, the experimental population normally will influence the legal status (pursuant to ESA) of the overall California population no more than when it was initially deemed to be established, but the size and health of the experimental population will be a significant factor in evaluating whether the level of threat to the species continues to warrant listing under the ESA. One potential deviation from this would be if the parent population were to be substantially diminished; should that occur, the size of the experimental population at that point would have a bearing on whether the remaining sea otters remain classified as threatened or should be reclassified as endangered, or relisted if a delisting action had previously been completed.

Relationship to Future ESA Section 7 Determinations

The discussion, terms, and conclusions described under the previous section are directly applicable to this section. Pursuant to Pub. L. 99–625 formal section 7 consultations will be generally required relative to the experimental population (prior to delisting), regardless of its size or growth stage for all Federal actions that are proposed to be undertaken within the translocation zone that are not defense-related and that may affect the experimental population. Within the management zone, no formal consultations will be required for actions that may affect the experimental population (unless the action may affect the donor population), but pursuant to section 7(a)(4) the Federal agency proposing the action will be required to informally confer with the Service on projects that are likely to jeopardize the continued existence of the southern sea otter.

During the transplant and initial growth and reestablishment stages, it will not be known if the experimental population will eventually take hold and become a viable, self-perpetuating unit. Therefore, it cannot be considered as available for restoring a damaged parent population, and thus will not contribute significantly to recovery. However, for section 7 purposes, after the translocated population has stabilized and then during the growth and reestablishment stage, the numbers associated with the experimental population will be added to those of the parent population if they are at least equal to the number originally translocated to the translocation zone and successful reproduction is occurring. For example, if there are 100 sea otters in the translocation zone, at least some of which are reproducing successfully, and 1,400 in the parent population, the total population of California sea otters will be considered to equal 1,500 for purposes of evaluating a Federal project through section 7 consultation. Once the translocated otters become stabilized and enter into the initial growth and reestablishment stage, but before meeting the criteria for an established population, the experimental population will have an existence value that will be taken into consideration for section 7 purposes, both quantitatively and qualitatively. Its numbers will be added to those of the parent population in order to analyze impacts of a Federal action on the southern sea otter population as a whole. Moreover, as part of the analysis of the impacts on the population as a whole, the impacts of proposed Federal actions will be analyzed in a manner to clearly determine the relative risk to each of the two populations (parent population and experimental population). It is assumed, based on the oil spill risk analysis that was conducted for the translocation, that no single oil spill or similar event could affect both the parent population and experimental population, and it is expected that the otters present in the translocation zone will be relatively healthy, productive and well adjusted to their new environment during the initial growth and reestablishment stage.

Although the estimated size of both the parent population and experimental population will be combined for section 7 purposes, the reduction in the likelihood of a jeopardy opinion will probably be only a small fraction and probably not quantifiable. When considering adverse effects and incidental take associated with a proposed project and cumulative effects that may affect the donor population, the number of otters removed from the donor population for translocation purposes will have to be taken into consideration for projects proposed during the transplant stage. However, since only a maximum of 70 will be translocated the first year, and probably only small supplements taken if needed during subsequent years, there will not likely be any measurable effect on section 7 opinions relative to the parent population after the first year of the translocation.

Once the experimental population becomes established, but prior to the formal delisting of the southern sea otter, the existence of the experimental population will affirmatively influence

determinations of non-jeopardy, and it will be considered part of the overall southern sea otter population for section 7 purposes in direct proportion to its size. For example, if the experimental population numbered 150 and the donor population 1,300, for section 7 purposes the southern sea otter population would number 1,450, and the projected impacts from the project would be based on the proportion of the 1,450 that could be affected. In addition to simply adding the sizes of both the donor and experimental populations together, the experimental population will also be available to annually contribute at least 25 mostly immature otters for restoring a damaged donor population. This potential contribution will be factored into a section 7 biological opinion in its assessment of impacts of the proposed Federal project and the time required for the donor population to recover itself from the expected impacts of the Federal project. The fact that two viable, geographically separate populations exist at that point will reduce the likely extent of impacts from the proposed Federal action on the species as a whole and, thus, affect determinations of jeopardy and non-jeopardy pursuant to section 7.

With regard to determinations of jeopardy or non-jeopardy, as the experimental population grows toward the maximum number that its habitat can support, i.e., carrying capacity, the likelihood of jeopardy determinations for Federal actions will decrease proportionally for comparable projects with comparable types of impacts. Thus, there will be an inverse relationship between the size of the experimental population (after establishment occurs) and the likelihood of jeopardy determinations associated with section 7 consultations on projects affecting either the parent or the experimental population. Figure C.2. graphically describes this hypothetical relationship. However, the status of the experimental population is not the only factor that will be considered in section 7 evaluations. The status of the donor population, as well as the baseline environmental or population threats at the time and cumulative impacts of future non-Federal actions expected to occur and affect either population at the time of the consultation, will also be taken into account. Once the experimental population becomes established and the southern sea otter delisted, no further section 7 consultations will be required relative to either the parent or experimental populations. If a catastrophic event were to completely decimate the parent population subsequent to the species being delisted, the experimental population could be considered for re-listing as threatened or endangered, but such re-listing would follow the normal listing procedures prescribed under section 4(a) of the Endangered Species Act, including a rulemaking process and opportunity for public review and comment.

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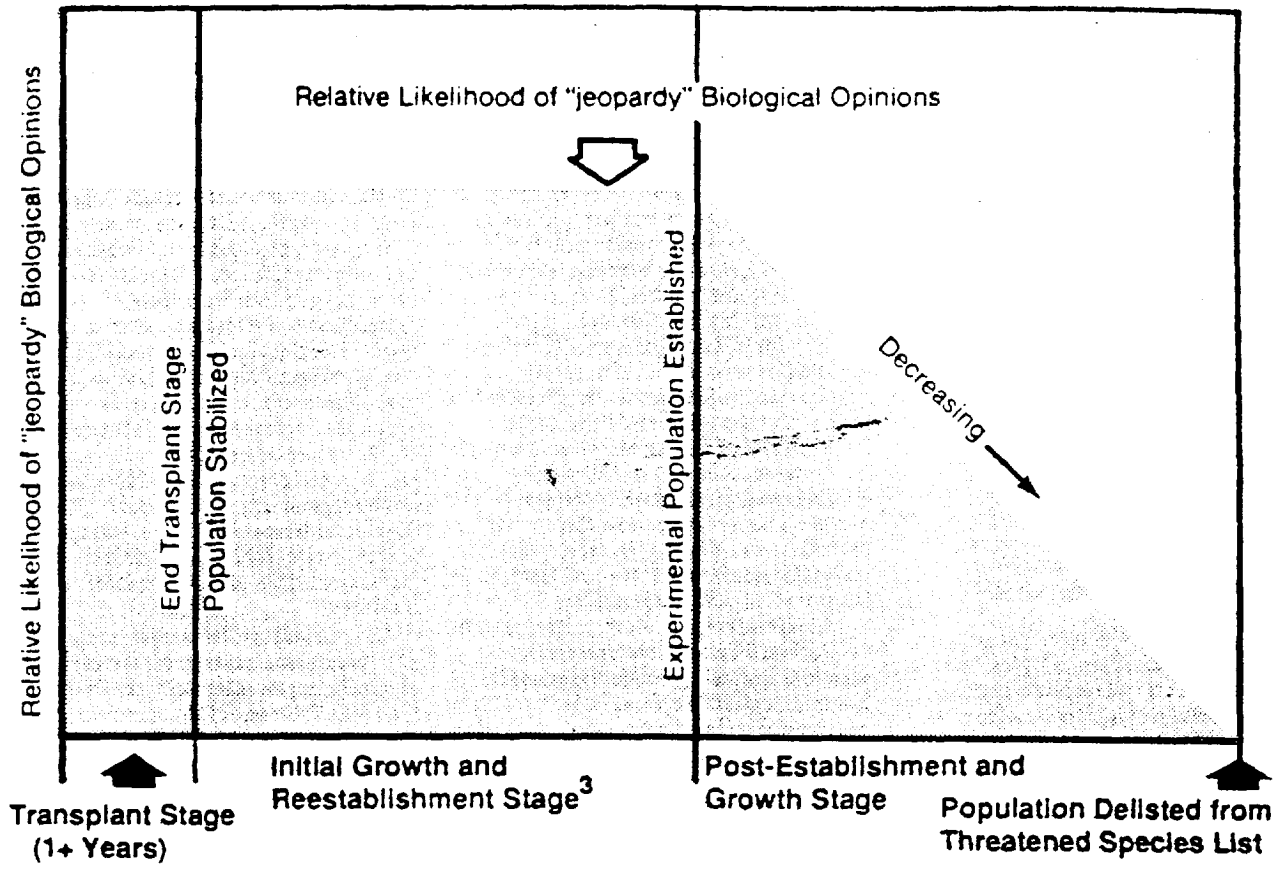

Figure C.2.
Hypothetical relationship between establishment and growth of an experimental population of southern sea otters and the relative likelihood of "jeopardy" Biological Opinions being rendered under the Endangered Species Act Section 7 consultation process.[1,2]

[1]Length of each stage on the horizontal axis does not necessarily represent real time.

[2]Actual Biological Opinions rendered would be contingent upon the magnitude of impacts expected to result from the specific project and the current status and trend of the parent (donor) population, as well as the size and status of the experimental population.

[3]During the Initial Growth and Reestablishment Stage, a measurable decrease in the likelihood of a "jeopardy" Biological Opinion is possible, depending on the the actual size and status of the experimental population, but not likely. The existence of a reproducing aggregation of otters separate from the parent population that would not be affected by impacts to parent population would be taken into consideration in Biological Opinions rendered during the Initial Growth and Reestablishment stage.

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Translocation as a Conservation Measure

Pursuant to the Congressional directive in the Committee Report (H.R. Rep. No. 99–124, 99th Cong. 1st Sess. 16 (1985)), the Service has used section 10(j)(2)(A) of the ESA as guidance in evaluating the possible effect of the translocation on the parent population. The following criteria were considered in making such an evaluation:

(1) Any possible adverse effects on extant populations of (southern sea otters) as a result of removal of individual * * * for introduction elsewhere;

(2) The likelihood that any such experimental population will become established and survive in the foreseeable future;

(3) The relative effects that establishment of an experimental population will have on the recovery of the species; and

(4) The extent to which the introduced population may be affected by existing or anticipated Federal or State actions or private activities within or adjacent to the experimental population area. 50 CFR 17.81(b).

The previous discussion on the relationship of the success of a translocation to the ultimate recovery of southern sea otters clearly shows that the successful establishment of an experimental population will further the conservation of the southern sea otter; the following discussion explains the basis for the Service's finding in accordance with the four criteria.

Although a short-term reduction in the size of the parent population of southern sea otters will result as a consequence of translocation, any adverse effects of removal of no more than 70 mostly immature otters the first year and only supplemental removals in subsequent years if needed should be temporary and diminished by natural growth and expansion of the parent population, and will be outweighed by the achievement of a primary recovery criterion that can result from a successful translocation. The short-term reduction in size of the existing (parent) population will be proportionate to or less than the numbers translocated depending on the degree to which the removal of animals compensates for some level of natural mortality in the parent population. However, the numbers, sex and age of otters removed will be carefully selected to avoid any lasting effects on the parent population. Otters will be individually caught, removed and then translocated in small groups. Up to 70 animals will be translocated the first year, with only minor supplemental translocations in subsequent years, if necessary, to help ensure that the translocated population is successfully established or for genetic exchange purposes. The number to be taken in any one year is less than the normal recruitment rate of the population. As designed in the translocation plan, monitoring of the parent population as well as the experimental population should determine the success of the first year's effort and each subsequent year's effort as well as the effect(s) on the parent population. The program will be modified or terminated if new information indicates that continuing the project may be adverse to the health and viability of the parent population of southern sea otters (e.g., the parent population is diminished by some catastrophic event prior to the transplant stage being completed).

The Service has determined that the translocation will not result in significant adverse effects on the parent population. The impacts and risks associated with translocation must be weighed against the threat of catastrophic oil spills and the associated risks to the parent population if this action is not undertaken. If the translocation is successful, one outcome would be the establishment of a new colony of southern sea otters, which would ameliorate the species' present vulnerability to oil spills that, if they occurred, could jeopardize the continued existence of the southern sea otter.

There is a strong likelihood that an experimental population of southern sea otters released at San Nicolas Island will become established within 10 years after translocation is begun, and possibly in as few as 5 years. Current information indicates that necessary habitat requirements exist around San Nicolas Island to support a viable breeding colony of sea otters, and, although further field research would be of benefit in assessing particular habitat needs and population dynamics of a translocated population, the Service believes that the prospects for a successful translocation are excellent.

Since 1965, translocation of Alaskan sea otters has been successfully used for restoration purposes in southeast Alaska, northern Washington, and the Canadian Province of British Columbia. Although early efforts to translocate Alaskan otters to St. George Island (Pribilof Islands) failed, their failure is attributed mainly to inexperience in transportation, care, and limited knowledge of physiological requirements of sea otters and the harsh ice conditions that occurred around the Island after translocation was carried out. The procedural problems have since been rectified (via research studies and modification in care and transportation techniques) as illustrated by subsequent, successful releases in other areas. Alaskan sea otters were successfully released in Oregon; however, subsequent monitoring studies noted a decline in number (although pupping had occurred) and a concurrent movement of at least some of the animals northward. These animals may have merged into translocated populations of Alaskan otters to the north. The Service has evaluated past translocation success in developing procedures to maximize the likelihood of successful release and establishment of southern sea otters. Effective, humane techniques for capturing, relocating and releasing sea otters now exist. The Service anticipates that translocation and colony establishment will likely occur with little or no abnormal mortality.

The preceding discussion on the effects of translocation on the recovery of southern sea otters clearly shows that the establishment of an experimental population of otters is essential to the recovery of the species. The factors outlined earlier in the preamble, in the section entitled "Effects on Recovery and ESA Section 7 Determinations," have been considered by the Service in reaching the conclusion that the establishment of a new sea otter colony—one that is not subject to the same risk of loss faced by the parent population from a catastrophic oil spill—will improve the recovery potential for the southern sea otter.

Lastly, although some Federal, State, and private activities on and near San Nicolas Island could affect the experimental population, these impacts are expected to be minor, if they occur at all. Appropriate measures are proposed to protect the translocated otters from more serious threats. Despite the fact that the experimental population will not be risk-free, the Service finds that, after balancing all relevant factors, the translocation will further the conservation of southern sea otters.

San Nicolas Island is within the boundary of the Southern California oil and gas outer continental shelf (OCS) lease offering area (Point Buchon to the California-Mexico border). The Department of the Interior, Minerals Management Service has offered lease sales for tracts in this general area in 1966, 1968, 1975, 1979, 1982, and 1984. The next proposed sale that could include the San Nicolas Island area is scheduled for 1989. If tracts around the Island were leased, it is unlikely that

development would occur before 1992 since an exploratory program would be conducted first to determine if any recoverable reserves are present. The oil and gas industry has expressed some interest in the general area (i.e., the outer banks and basins); however, tracts offshore San Nicolas Island have been regularly deleted from previous sales to avoid potential military (Navy) conflicts. Naval activities on and around San Nicolas Island include automated tracking of missiles and submarines with some infrequent nearshore field exercises that involve firing of live ammunition in limited areas. To date, such activities have not adversely affected the sizeable populations of other marine mammals that inhabit waters near the island. Because the Service will coordinate with the Navy in developing a Memorandum of Understanding for operations on the Island, and if Naval activities are likely to jeopardize the southern sea otter the Service will enter into informal conferral on Navy activities pursuant to section 7(a)(4) of the ESA, the Service believes military activities will not pose significant threats to the reintroduced colony. The closest blocks with active oil and gas leases are located about 30 miles northwest of San Nicolas Island. Deletions are made on a lease sale-by-lease sale basis and, therefore, withdrawal of tracts around the Island from future sales is not a certainty. Oil development in waters immediately surrounding San Nicolas Island could significantly affect the introduced colony if an oil spill were to occur, but in view of the conflict between OCS development and military activities in the area and the outcomes of previous lease sales around San Nicolas, it is doubtful that development in the immediate vicinity will occur in the foreseeable future. Furthermore, proposed oil development plans within the translocation zone would be subject to formal ESA section 7(a)(2) consultation with the Service, a requirement that would likely ensure that the development would not jeopardize the continued existence of the species and would minimize any possible incidental take. To date, there has been no interest expressed by the State to lease tidelands around San Nicolas Island for oil development. The State has designated the waters surrounding San Nicolas Island an Area of Special Biological Significance (ASBS). The State and Regional Water Resources Control Boards prohibit the direct discharge of wastes into an ASBS or its immediate vicinity, petroleum discharges included. This designation provides an added measure of protection to sea otters at San Nicolas Island.

A State-controlled action that may affect southern sea otters is the setting of commercial gill and trammel fishing nets in sea otter habitat. Sea otters have been incidentally entangled and drowned in large-mesh set nets that are typically used to catch halibut in their present range. Mortality in these nets has, until recently, resulted in the average annual loss of about 6 percent of the population (an average of 80 otters per year, 1982–84). The effect this activity would have on a reintroduced colony is expected to be minimal because the State has taken a position that areas where such incidental taking of sea otters might occur will be closed to fishing with this type of gear. In view of previous actions by the CDFG and State Legislature, it is reasonable to believe that the State will close any area where sea otters are translocated out to a depth of at least 15 fathoms (the depth that SSO's normally inhabit) or farther if necessary to eliminate sea otter entanglement. Enforcement of such closures would be carried out by State agents, and Service agents would enforce the prohibition against incidentally taking sea otters around San Nicolas Island. If the State did not close the portion of the translocation zone that otters would inhabit to such fishing activities, the prohibition against incidental take under Pub. L. 99–625 would still be enforceable by the Service.

It also is important to recognize that an unknown number of southern sea otters in their present mainland range are illegally shot annually. Sea otters off San Nicolas Island will be vulnerable to this malicious act if specific measures are not taken to prevent it. Although no individuals have yet been convicted for shooting otters in the currently occupied range, the relatively small size, isolation, and difficult access to San Nicolas Island, and the intense research, monitoring and law enforcement effort designed to protect this experimental population should minimize or eliminate the likelihood that otters will be illegally taken there.

National Environmental Policy Act (NEPA)

A Final Environmental Impact Statement pursuant to NEPA is now available to the public at the Regional Office and Office of Sea Otter Coordination, U.S. Fish and Wildlife Service, at the address listed above.

Formal Consultation

As required by section 7(a)(2) of the ESA, the Service has concluded formal consultation on translocation of southern sea otters to San Nicolas Island. The biological opinion states that the proposed translocation is not likely to jeopardize the continued existence of southern sea otters.

Executive Order 12291, Paperwork Reduction Act and Regulatory Flexibility Act

The Service has determined that this is not a major rule as defined by Executive Order 12291, that the rule will not have a significant economic effect on a substantial number of small entities as described in the Regulatory Flexibility Act, 5 U.S.C. 601 *et seq.*, and that the rule does not contain any information collection or record keeping requirements as defined in the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 *et seq.* These conclusions were reached after conducting an analysis that is documented in a Determination of Effects of Rules, which is on file and available for public review at the address listed under "For Further Information Contact."

The translocation of southern sea otters to San Nicolas Island, may cause economic impacts to commercial and sport fisheries; oil and gas exploration, development and production; mariculture; and commercial kelp harvest. However, the total economic impacts of this action, on an annual basis, will be substantially less than $100 million, and there will not be a major increase in costs or prices for consumers, individual industries, Federal, State or local governmental agencies, or geographic regions as a result of implementation of this Rulemaking. Lastly, the rule does not generate significant adverse effects to competition, employment, investment, productivity, innovation, or to the ability of domestic enterprises to compete with foreign enterprises in domestic or international markets.

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California Department of Fish and Game. 1976. A proposal for sea otter protection and research, and request for return of management to the State of California. Unpubl. report. Jan. 1976. 2 vol.

Hofman, R.J. (Ed.). 1985. Workshop to assess possible methods for regulating the distribution and movements of sea otters. U.S. Marine Mammal Commission. Rept. No. MMC–84/05. Washington, DC.

Jameson, R.J., K.W. Kenyon, A.M. Johnson, and H.M. Wight. 1982. History and status of translocated sea otter populations in North America. Wildl. Soc. Bull. 10(2):100–107.
Kenyon, K.W. 1969. The sea otter in the eastern Pacific Ocean. N. Amer. Fauna 68:1–352.

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List of Subjects in 50 CFR Part 17

Endangered and threatened wildlife, Marine mammals, Fish, Plants (agriculture).

Regulation(s) Promulgation

Accordingly, Part 17, Subchapter B of Chapter I, Title 50 of the Code of Federal Regulations, is hereby amended as set forth below:

PART 17—[AMENDED]

1. The authority citation for Part 17 is revised to read as follows:

Authority: Pub. L. 93–205, 87 Stat. 884; Pub. L. 94–359, 90 Stat. 911; Pub. L. 95–632, 92 Stat. 3751; Pub. L. 96–159, 93 Stat. 1225; Pub. L. 97–304, 96 Stat. 1411 (16 U.S.C. 1531 *et seq.*); Pub. L. 99–625, 100 Stat. 3500 (1986), unless otherwise noted.

2. § 17.11(h) is amended by revising the entry for "Otter, southern sea" under MAMMALS in the list of endangered and threatened wildlife as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
MAMMALS							
Otter, southern sea	*Enhydra lutris nereis*	West Coast, USA (WA, OR, CA) south to Mexico (Baja, California).	Entire, except where listed below	T	21, 284	NA	NA
Do	do	do	All areas subject to U.S. jurisdiction south of Pt. Conception, CA (34°26.9' N. Lat.) [Note: status governed by Pub. L. 99–625, 100 Stat. 3500.].	[See 17.84(d)]	21, 284	NA	17.84(d)

* * * * *

3. Section 17.84 is amended by adding paragraph (d) as set forth below:

§ 17.84 Special rules—Vertebrates.

* * * * *

(d) Southern sea otter (*Enhydra lutris nereis*).

(1) *Definitions.* The definitions set out in § 17.3 apply to this paragraph (d). For purposes of this paragraph—

(i) The term "defense-related agency action" means an agency action proposed to be carried out directly by a military department, which does not have as its intended purpose the taking of southern sea otters. For purposes of this definition, the United States Coast Guard is not a military department.

(ii) The term "management zone" means that area delineated in paragraph (d)(5)(i) of this section which surrounds the translocation zone and separates the translocation zone from the existing range of the parent population and adjacent range where expansion of the parent population is necessary for the recovery of southern sea otters.

(iii) The term "member of the experimental population of southern sea otters" includes any southern sea otter, alive or dead, found within the translocation zone or the management zone, and any part or product of any such southern sea otter.

(iv) The term "parent population" means the population of southern sea otters existing along the central California coast north of the management zone.

(v) The term "translocation zone" means the area delineated in paragraph (d)(4)(i) of this section within which an experimental population of southern sea otters is released and contained.

(vi) The term "established experimental population of southern sea otters" means a translocated population that meets the following criteria: An estimated combined minimum of 150 healthy male and female sea otters residing within the translocation zone, little or no emigration into the management zone occurring, and a minimum annual recruitment to the experimental population in the translocation zone of 20 sea otters for at least 3 years of the latest 5-year period, or replacement yield sufficient to maintain the experimental population at or near carrying capacity during the post-establishment and growth phase or carrying capacity phase of the experimental population.

(vii) The term "stabilized population" is a population of sea otters within the translocation zone at the conclusion of the movement of animals from the parent population, except for purposes of genetic enhancement, which (A) is equal to or greater than the number of otters that were released from the holding pens alive and healthy, or 70 otters, whichever is less, and (B) is exhibiting growth. A stabilized population would represent the point at which the experimental population shifts from the transplant stage to the initial growth and reestablishment stage.

(viii) The term "carrying capacity" means the ecological state in which the numbers of sea otters within the translocation zone remain relatively constant and in balance with the available food supply.

(2) *Description of experimental population.* The experimental population of southern sea otters shall include all southern sea otters found within the translocation zone or the management zone. The Service will translocate no more than 70 southern sea otters during the first year, supplemented as necessary with up to 70 otters per year in subsequent years from the parent population to the translocation zone. Although a maximum of 250 southern sea otters may be moved from the parent population in order to establish the experimental population in the translocation zone, it is not likely that supplemental translocation after the initial 70 will involve more than small numbers of southern sea otters, although under this plan a maximum of 70 could be moved if needed in each year up to a total of 250. Of the animals translocated each year, up to 20 will be adults, at a sex ratio of about 3:1, females to males. The remainder will be weaned, immature otters. The sex ratio of the immature otters selected for translocation will be approximately 4 females to 1 male.

(3) *Translocation process.* (i) *Capture.* Capture locations will be selected primarily from the southern third of the range of the parent population. Sea

otters will be captured between early August and mid-October using: diver-held devices, dip nets, surface entangling nets, or other methods which may be proven to be safe and effective in the future. All captured otters will be tagged and examined by a veterinarian experienced in treating marine mammals. During the year prior to each translocation effort, a maximum of 30 otters will be captured and implanted with radio transmitters for observation and study of behavior. Up to 15 of these animals will be recaptured and translocated.

(ii) *Transport.* All animals to be translocated will be held in specially constructed holding facilities prior to their movement to the translocation zone. Access to and care of animals will be restricted to Federal and State personnel and designated agents directly involved with the translocation. Each captured animal will be placed in a carrying cage and transported by truck to the local airport, from which point they will be flown to the translocation zone. From there they will be trucked to the release site. No fewer than 20 animals will be moved to the translocation zone at a single time.

(iii) *Release.* The animals will be held for up to five days in secured floating pens at the release site. No more than 10 individuals will be held in any pen, and males and females will be held separately. The animals will be released passively by opening the floating pens and allowing them to leave at will.

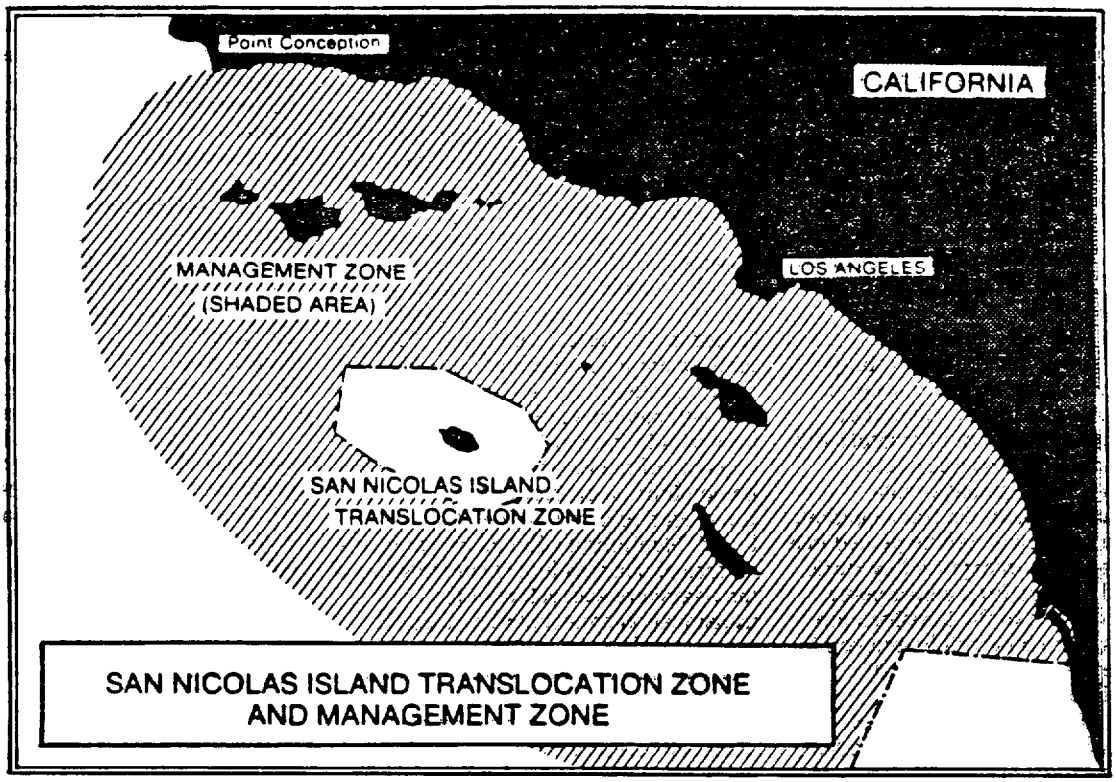
(iv) *Monitoring.* Monitoring will be conducted on both the parent population and the experimental population by State and Federal biologists and their designated agents. Monitoring the parent population will be done to determine the effects of removal of otters on the growth and range expansion or recession of the parent population. Monitoring of the parent population will continue at least through the translocation period and into the foreseeable future. Monitoring of the experimental population will begin with the first release of translocated otters and will continue at least until either the new population reaches the carrying capacity of the habitat and establishes an equilibrium density or the translocation is determined to have failed. Monitoring will include intensive studies of changes in key components of the nearshore ecosystem of the translocation zone including benthic organisms, kelp and finfish. Monitoring, using ground and aerial observations, will also include intensive observation and documentation of the movements, distribution, foraging and reproductive behavior, dispersal tendencies, growth and reproductive rates, prey selection, and social interactions of sea otters in the experimental population. Results of monitoring the experimental population and the parent population will also be compared and evaluated.

(v) *Protection.* At least two law enforcement officers will be specifically assigned, at least for the initial three- to five-year period after the actual translocation of animals, to conduct patrols and prevent illegal taking of southern sea otters in the translocation zone. Cooperative enforcement arrangements will be developed with other agencies having law enforcement activities in the area such as the U.S. Coast Guard, National Marine Fisheries Service, California Department of Fish and Game, U.S. Navy, and National Park Service to assist with protecting the experimental population.

(4) *Translocation zone.* (i) There is established a translocation zone for southern sea otters comprised of San Nicolas Island, Begg Rock, and the surrounding waters within the following coordinates:

N. Latitude/W. Longitude
33°27.6'/119°34.3'
33°20.5'/119°15.5'
33°13.5'/119°11.6'
33°06.5'/119°15.3'
33°02.8'/119°26.8'
33°08.8'/119°46.3'
33°17.2'/119°56.9'
33°30.9'/119°54.2'

(ii) A map depicting the translocation zone is set forth below:



Translocation Zone Coordinates: (North Latitiude/West Longitude)	Management Zone:
33°27.8'/119°34.3', 33°20.5'/119°15.5' 33°13.5'/119°11.8', 33°06.5'/119°15.3' 33°02.8'/119°26.8', 33°08.8'/119°46.3' 33°17.2'/119°56.9', 33°30.9'/119°54.2'	All U.S. areas south of Point Conception (34°26.9' N. Latitude) except the translocation zone.

(iii) *Prohibitions.* Except as provided in paragraph (d)(4)(iv), all of the provisions in § 17.21 (a) through (f) shall apply to any member of the experimental population of southern sea otters within the translocation zone.

(iv) *Exceptions.* The prohibitions of paragraph (d)(4)(iii) shall not apply to:

(A) Any act by the Service, the California Department of Fish and Game, or an authorized agent of the Service or the California Department of Fish and Game that is necessary to effect the relocation or management of any southern sea otter under the provisions of this paragraph;

(B) Any taking of a member of the experimental population of southern sea otters that is incidental to, and not the purpose of, the carrying out of a defense-related agency action as defined in paragraph (d)(1)(i) of this section; or

(C) Any act authorized by a permit issued under § 17.32.

(5) *Management zone.* (i) There is established a management zone for southern sea otters comprised of all waters, islands, islets, and land areas seaward of mean high tide subject to the jurisdiction of the United States located south of Point Conception, California (34°26.9' N. Latitude), except for any area within the translocation zone delineated in paragraph (d)(4)(i) of this section.

(ii) A map depicting the management zone is set forth in paragraph (d)(4)(ii) of this section.

(iii) *Prohibitions.* Except as provided in paragraph (d)(5)(iv), all of the provisions in § 17.21 (a) through (f) shall apply to any member of the experimental population of southern sea otters within the management zone.

(iv) *Exceptions.* The prohibitions of paragraph (d)(5)(iii) shall not apply to:

(A) Any act by the Service, the California Department of Fish and Game, or an authorized agent of the Service or the California Department of Fish and Game that is necessary to effect the relocation or management of any southern sea otter under the provisions of this paragraph;

(B) Any taking of a member of the experimental population of southern sea otters that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity within the management zone delineated in paragraph (d)(5)(i) of this section; or

(C) Any act authorized by a permit issued under § 17.32.

(6) *Containment.*—The following containment measures, listed in order of preference, will be employed to prevent significant emigration of southern sea otters from San Nicolas Island and occupation of habitat within the management zone:

(i) Capture of animals within the management zone for return to the experimental population or to the range of the parent population using non-lethal means. If verified sightings of one or more sea otters are made at any location within the management zone, field crews will be mobilized as soon as weather and sea conditions permit, to capture and remove the otter(s) from the zone. Capture will be done by experienced State and/or Federal personnel or other designated agents, using one or more of the same techniques used in the translocation effort, such as diver-held devices; surface entangling nets; dip nets; or other effective methods which may be developed for capturing sea otters in the future. Animals either will be flown or moved by air-conditioned van to the release site.

(ii) Artificial reduction of fecundity for some sea otters within the experimental population. [Reserved]

(iii) Selective or random, non-lethal removal of members of the experimental population within the translocation zone. [Reserved]

Containment measures will be administered by the Fish and Wildlife Service's Office of Sea Otter Management and Coordination (OSOMC), in consultation and cooperation with the California Department of Fish and Game. The OSOMC will work closely with State biologists to remove otters from the management zone. Federal funding received through the normal appropriations process will be used for research, protection, and containment of the experimental population. Grants to the State of California under 16 U.S.C. 1535, may be employed to facilitate the measures outlined above. Public donations for management and containment of the experimental population will be accepted with assistance from the National Fish and Wildlife Foundation.

(7) *Effects of translocation on recovery and interagency cooperation.*—(i) *Background.* The Recovery Plan specifically describes the importance of translocation to the delisting of the southern sea otter under the Endangered Species Act. The Plan states:

> Sea otter translocation, if properly designed and implemented, should provide the necessary foundation for ultimately obtaining the Recovery Plan's objective and restoring the southern sea otter to a non-threatened status and maintaining OSP by: (i) Establishing a second colony (or colonies) sufficiently distant from the present population such that a smaller portion of southern sea otters will be jeopardized in the event of a large-scale oil spill, and (ii) establishing a data base for identifying the optimal sustainable population level for the sea otter.

Thus the translocation, and establishment of a population of sea otters has been identified by the Recovery Plan as a critical action necessary for the recovery and delisting of the species. With regard to the relationship of a successful translocation to the initiation of a delisting action under the Endangered Species Act. The Plan states:

> Delisting should be considered when the southern sea otter population is stable or increasing at sustainable rates in a large enough area of their original habitat that only a small proportion of the population would be decimated by any single natural or man-caused catastrophe. To reach this point: 1) At least one additional population of sea otters must be established outside the current population range, 2) the existing population of sea otters and its habitat must be protected, and 3) the threat from oil spills or other major environmental changes must be minimized.

The successful establishment of the experimental population to be carried out pursuant to this rule should fully satisfy the first criterion specified above from the Recovery Plan, provided that the parent population is showing sustained growth and expanding its range from its present size and distribution. However, if such growth and expansion is not occurring, the establishment of a single new population may not be sufficient to satisfy the broader criterion that the population must be increasing at a sustainable rate in a large enough area of their original habitat that only a small proportion of the population would be decimated by any single natural or man-caused catastrophe.

(ii) *Effect on recovery.* The translocation will not influence the legal status of the species until such time as the Service determines that the experimental population is established. Once established, other factors such as the status of the parent population and completion of other recovery tasks will be considered. If the experimental population becomes established and the other recovery tasks identified in the recovery plan for the southern sea otter are attained, the southern sea otter will be eligible for consideration for delisting in accordance with the requirements of 50 CFR 424.11(d). If a catastrophic event were to significantly diminish the parent population, the size of the experimental population would be a factor in determining whether or not the southern sea otter should remain listed as "threatened" or reclassified as "endangered," or if relisting should be considered if a delisting action had been completed.

(iii) *Effect on interagency cooperation.* In determining the likelihood of jeopardy or non-jeopardy opinions for proposed Federal actions that "may affect" southern sea otters, the probability of jeopardy determinations will decrease proportionally for comparable projects with comparable types of impacts as the experimental population grows from the point of being established toward the maximum number that its habitat can support, i.e., carrying capacity. Thus, there is an inverse relationship between the size of the experimental population (after being determined to be established) and the probability of jeopardy determinations associated with section 7 consultations under the Endangered Species Act for projects affecting either the parent or the experimental population. However, the status of the experimental population is not the only factor to be considered in section 7 evaluations. The status of the parent population, as well as the cumulative impacts, baseline level of threats, and effects of the action on either population, will also be taken into account. In addition to considering the size of the experimental population, the contribution that such population could make toward helping restore a damaged parent population will also be a factor that will be considered during section 7 evaluations. For section 7 purposes, once the translocated otters become stabilized and enter into the initial growth and reestablishment stage, but before meeting the criteria for an established population, the experimental population will have an existence value that will be taken into consideration both quantitatively and qualitatively. Its numbers will be added to those of the parent population for purposes of analyzing the impacts of a Federal action on the southern sea otter population. Moreover, during the initial growth and reestablishment stage, as part of the analysis of the impacts on the population as a whole, the impacts of proposed Federal actions will be analyzed to clearly determine the relative risk to each of the two populations (parent population and the experimental population).

(8) *Determination of a failed translocation.*—The translocation would generally be considered to have failed if one or more of the following conditions exists:

(i) If, after the first year following initiation of translocation or any subsequent year, no translocated otters remain within the translocation zone and the reasons for emigration or mortality cannot be identified and/or remedied;

(ii) If, within three years from the initial transplant, fewer than 25 otters remain in the translocation zone and the reason for emigration or mortality cannot be identified and/or remedied;

(iii) If, after two years following the completion of the transplant phase, the experimental population is declining at a significant rate and the translocated otters are not showing signs of successful reproduction (i.e., no pupping is observed); however, termination of the project under this and the previous criterion may be delayed if reproduction is occurring and the degree of dispersal into the management zone is small enough that the efforts to continue to remove otters from the management zone are acceptable to the Service and California Department of Fish and Game;

(iv) If the Service determines, in consultation with the affected State and Marine Mammal Commission, that otters are dispersing from the translocation zone and becoming established within the management zone in sufficient numbers to demonstrate that containment cannot be successfully accomplished. This standard is not intended to apply to situations in which individuals or small numbers of otters are sighted within the management zone or temporarily manage to elude capture. Instead, it is meant to be applied when it becomes apparent that, over time, otters are relocating from the translocation zone to the management zone in such numbers that: (A) An independent breeding colony is likely to become established within the management zone, or (B) they could cause economic damage to fishery resources within the management zone. It is expected that the Service could make this determination within a year provided sufficient information is available;

(v) If the health and well-being of the experimental population should become threatened to the point that the colony's continued survival is unlikely, despite the protections given to it by the Service, State, and applicable laws and regulations. An example would be if an overriding military action for national security was proposed that would threaten to devastate the colony and removal of the otters was determined to be the only viable way of preventing the loss of the individuals.

(vi) If, based on any one of these criteria, the Service concludes, after consultation with the affected State and Marine Mammal Commission, that the translocation has failed to produce a viable, contained experimental population, this rulemaking will be amended to terminate the experimental population, and all otters remaining within the translocation zone will be captured and all healthy otters will be placed back into the range of the parent population. Efforts to maintain the management zone free of otters will be curtailed after all reasonable efforts have been made to remove all otters that are still within the management zone at the time of the decision to terminate the translocated population. A joint State-Service consultation will determine when all reasonable efforts have been made and additional efforts would be futile.

(vii) Prior to declaring the translocation a failure, a full evaluation will be conducted into the probable causes of the failure. If the causes could be determined, and legal and reasonable remedial measures identified and implemented, consideration will be given to continuing to maintain the translocated population. If such reasonable measures cannot be identified and implemented, the results of the evaluation will be published in the **Federal Register** with a proposed rulemaking to terminate the experimental population.

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Susan Recce,

Acting Assistant Secretary for Fish and Wildlife and Parks.

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