(AA), the Recovery Team made the following recommendations to NMFS:

(1) Listing Status under the ESA: The Recovery Team recommended that NMFS list the Steller sea lion as two separate population segments, split to the east and west of 144° W long. (a line near Cape Suckling, AK). The Recovery Team recommended that the western population segment be listed as endangered and that the eastern population segment be listed as threatened

(2) Commercial fisheries: A change in food availability is the leading hypothesis for the cause of the Steller sea lion decline. Reduced juvenile recruitment appears to be the proximate cause of the decline and juvenile Steller sea lions appear to feed primarily in areas near rookeries and haulouts. The Recovery Team recommended that NMFS evaluate the need to close or otherwise regulate any or all nearshore fisheries around Steller sea lion rookeries and major haulouts west of 144° W long. in order to enhance food availability.

(3) Research: The Recovery Team recommended that the individual research projects being undertaken under the Recovery Plan be peer reviewed to assess the need for changes in research direction and priorities. Indepth research program reviews will be accomplished over the next few years and will include review by outside experts, as necessary. The four major components of the research program to be individually evaluated are: (1) Population monitoring (Peer review of the population monitoring program was completed in 1992 (Rosenberg 1992)); (2) satellite telemetry studies; (3) physiology/health studies; and (4) food habits and foraging ecology studies. Results of this peer review process are expected to be used to revise the Recovery Plan.

The Recovery Team also recommended that NMFS direct additional effort, and seek additional funding, to better assess Steller sea lion prey resources in the North Pacific.

(4) Subsistence harvest: The Recovery Team recommended that NMFS work with the newly formed Alaska Native Steller Sea Lion Commission toward the goals of developing self-management and monitoring of subsistence harvests, establishing biologically acceptable harvest levels, and reducing struck and lost rates.

The Recovery Team recommendations relative to reclassification of the species have been considered in this proposed determination. Management recommendations also are being considered and will be evaluated in

more detail during the review of existing regulations and through the consultation process.

IV. Proposed Population Determinations

As described above, only a "species" may be listed as threatened or endangered under the ESA, and this term is defined to include any subspecies of fish or wildlife and any distinct population segment of any species of fish or wildlife that interbreeds when mature. On December 21. 1994. NMFS and the U.S. Fish and Wildlife Service proposed a policy to clarify their interpretation of the phrase "distinct population segment" for the purposes of listing, delisting, and reclassifying species under the ESA (59 FR 65884, December 21, 1994). Although this is only a proposed policy at this time, it represents the best available guidance for interpreting the term "distinct population segment." NMFS proposes to use the criteria announced in the December 21, 1994 proposed policy to assess the presence of distinct populations of Steller sea lions.

The proposed policy outlines three elements that should be considered in any decision regarding the status of a possible distinct population segment: Discreteness of the population segment in relation to the remainder of the species to which it belongs; the significance of the population segment to the species to which it belongs; and the population segment's conservation status in relation to the ESA's standards for listing. The first two elements are discussed below, and conservation status is discussed separately for each proposed population segment in the following section and within the context of the five factors that are evaluated below.

(1) Discreteness: Under the proposed policy a population segment of a vertebrate species may be considered discrete if it is either markedly separated from other populations of the same taxon as a consequence of physical, physiological, ecological, or behavioral factors (quantitative measures of genetic or morphological discontinuity may provide evidence); or delimited by international governmental boundaries that are significant in light of section 4(a)(1)(D) of the ESA. The former criterion is particularly relevant for Steller sea lions.

Genetic studies provide the strongest evidence that discrete populations of Steller sea lions exist. Bickham et al. (in press) collected genetic samples from 224 Steller sea lion pups on rookeries in Russia, the Aleutian Islands, the western and central Gulf of Alaska, southeastern Alaska, and Oregon. Mitochondrial DNA analyses of these samples identified a total of 52 haplotypes (sets of alleles of closely linked genes that tend to be inherited together, uniquely identifying a chromosome) that could be further grouped together into eight lineages. Bickham et al. found a distinct break in haplotype distribution between the four western localities and the two eastern localities. Cluster analysis indicated that the eight lineages could be subdivided into two genetically differentiated populations, with the division at about Prince William Sound. Ono (1993) conducted similar analyses on samples obtained from 11 Steller sea lions on Año Nuevo Island, CA, and found seven haplotypes. Six of these were identical to those identified from southeastern Alaska and Oregon by Bickham et al., and one was unique to Año Nuevo Island.

Tagging and branding studies provide evidence that the breeding behavior of Steller sea lions probably reduces opportunities for genetic mixing among rookeries although Steller sea lions have been documented to travel large distances during the non-breeding season. The majority of females marked as pups, then later resighted as adults, have returned to their rookery of birth to breed (Calkins and Pitcher, 1982; NMFS, 1995). The few resighted females observed breeding at rookeries other than their natal site were all at rookeries near their birth rookery. This apparent natal site fidelity not only reduces genetic mixing among rookeries, but it also makes it less likely that declining rookeries will be bolstered by recruitment from other rookeries.

Satellite telemetry studies also provide evidence of "homing" behavior in Steller sea lions. Generally, tracked sea lions forage from a central place (either a rookery or nearby haulout) and return to that place at the end of a foraging trip that may vary in duration from hours to months (Merrick et al., 1994).

Population trend data provide further evidence of separation among these two population segments. The Steller sea lion population east of Cape Suckling (with the exception of the portion in southern California) has remained stable since the 1970s, whereas the population to the west has declined dramatically. It is also worth noting that the only break in the distribution of Steller sea lions along the Alaskan coast occurs in the Yakutat area, near the proposed longitudinal border that would delineate the western and eastern populations.