

SAR - DEIS - Chapter 3 - Biological - Biodiversity

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0022283-002

The Copper River Delta is one of the largest, contiguous wetlands on the Pacific Coast. Wetlands contain more biodiversity than any other environmental biome. Wetlands provide habitat for a great variety of plants, insects, and animals. The various plants that grow only in wetland habitats serve as a buffer to filter surface runoff and reduce land erosion.

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0029063-035 Biodiversity We suggest the Final EIS consider the role of the CNF in conserving biodiversity of the Kenai Peninsula. By focusing management categories and prescriptions on small watersheds we believe the Draft EIS loses sight of the larger, important functions the CNF performs in maintaining wildlife populations and biological diversity on the Kenai Peninsula. Therefore, we recommend that the Final EIS place more emphasis on that portion of the CNF within the Kenai Peninsula, because from a wildlife conservation viewpoint, the Kenai Peninsula is ecologically distinct from the other areas within the CNF for the following reasons

1. Some fish and wildlife populations on the Kenai Peninsula are apparently geographical and perhaps genetically isolated from populations of the same species inhabiting mainland Alaska and other administrative/ecological regions within the CNF. Because comparative (between Kenai Peninsula and mainland Alaska) genetic studies are lacking for many mammalian species on the Kenai Peninsula, it cannot be safely assumed that free interchange between such populations are still occurring, especially considering the level of human development and roads/highways/valleys connecting the Kenai Peninsula to mainland Alaska

2. Because of this geographic isolation, and based on current telemetry studies, there appears to be minimal or no genetic interchange among some wildlife populations on the Kenai Peninsula and mainland Alaska. Some examples given include brown bears, lynx, and wolves-- species that are currently classified as threatened or endangered in the continental United States because of isolation and habitat fragmentation, destruction, development and disturbance. Little is also known about the population dynamics, immigration and emigration of wolverines on the Kenai Peninsula including the CNF.

3. Those portions of the CNF within the Kenai Peninsula, therefore, play an extremely critical role in the conservation of wildlife, especially resident mammalian species with limited mobility and hence ability to discover and successfully cross the narrow land connection between the Kenai Peninsula and mainland Alaska. This geographic "bottleneck" greatly reduces, and for some species may actually prevent, genetic interchange among certain Alaskan wildlife populations. The importance of this narrow geographic area within

the CNF in creating a barrier to wildlife movements will increase in the future as human development, roads, etc. increase, especially in the valley bottoms. The fact that it took

wolves over 50 years to naturally recolonize the Kenai Peninsula from mainland Alaska after being extirpated on the Kenai Peninsula in the early 1900's and the fact that caribou never naturally recolonized, and had to be reintroduced to, the Kenai Peninsula after being extirpated in the early 1900's attests to the great difficulty some wildlife populations have in immigrating to the Kenai Peninsula from mainland Alaska.

4. The future of certain species, especially wide-ranging carnivores on the Kenai Peninsula, may depend on how lands within the CNF on the Kenai Peninsula are managed today and in the future. Large carnivores will be particularly vulnerable to future habitat disruption and human development and disturbance on the Kenai Peninsula because of their large spatial requirements, (sometimes exceeding hundreds of square kilometers per individual), their dispersed and highly fluctuating food sources, and their movement across administrative

boundaries (Kenai NWR, CNF, KEFJ, etc.). The functions of the CNF in sustaining these

important Kenai Peninsula wildlife populations are at least two-fold: 1) to provide relatively disturbance-free and unobstructed wildlife travel corridors in valleys within the CNF in order to permit the free-ranging movement of immigrant and emigrating wildlife between the western Kenai Peninsula lowlands and eastern mountainous regions of the Kenai Peninsula to mainland Alaska, and 2) to minimize the impacts of human disturbance and development in areas of the Kenai Peninsula that are known to be especially important to wildlife or which are adjacent to other areas on the Kenai Peninsula mandated to conserve fish and wildlife populations and habitats in their natural diversity.

Otherwise, certain Kenai Peninsula wildlife populations may become even further isolated from mainland Alaska populations and may eventually be considered for listing as threatened or endangered populations. The Kenai Peninsula brown bear was recognized as a population of

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special concern by the state of Alaska in 1998. Other potential or future candidates may include

wolverine, lynx, or wolves, as suitable habitats shrinks, areas become developed, and road access and human disturbance increases on the rapidly growing Kenai Peninsula. A major topic in the Biodiversity section is fragmentation. We recommend that fragmentation be

reduced by managing lands along the Kenai NWR boundaries using the same land management plan as the Refuge (category I -wilderness designation). By limiting motorized access, forest restoration efforts, and human disturbance from the Kenai NWR eastern boundary west to the Seward highway, the CNF can maintain larger tracts of undisturbed land for wildlife breeding, refugia, and foraging, especially for species with large ranges of movement (brown bear, wolves, wolverine). Reducing fragmentation increases population viability, and reduces the probability of species extinction.

0029063-055

Page 3-63, Line 666. Table 3-21 The Final EIS should include information on how each species was rated for use in the species diversity matrix; for example, how was a species ranked as O, 1, 2 or 3, and what were the criteria for that ranking.

Page 3-65, Table 3-22 For clarification, we suggest footnotes be added in the table and correlated with the text at the bottom of the table.

Page 3-67, Lines 721 -722 We request that a reference be identified in the Final EIS to validate the

statement, "alterations from timber sales or other forest management activities are temporary." We believe some alterations may not be temporary; the disturbance or interaction with other biotic or abiotic factors can cause an entirely different forest stand to develop in its place (i.e., Mystery Creek mechanical crushing in the 1970's regenerated more spruce than the preferred broadleaf species, since browsing intensity on birch saplings by moose was high).

Page 3-83. Line 1151 Other general effects of fragmentation which we suggest adding to the

Final EIS include an increase in generalist species which are more resilient in patchy habitats

Also, edges can have negative consequences for wildlife by modifying distribution and dispersal of wildlife, and by increasing incidence of nest predation and parasitism.

Page 3-84. Line 1229 Road construction would lead to an increase in human access. We suggest expanding this discussion in the Final EIS because increased use may cause diverse and persistent ecological effects. Roads and trails increase access and increase the efficiency of natural resource exploitation. Roads open up areas to increased illegal poaching and legal hunting, and have been shown to reduce population sizes of many species including brown bears, Canada lynx, wolves, and black bears. Roads also increase both legal and illegal fishing in streams and lakes. Other obvious and sometimes subtle ecological effects are discussed by Trombulak and Frissell (2000).

Page 3-86, Figure 3-10 Individual species are not identified and the Y-axis is not marked. The Final EIS should clarify whether the Y-axis relates to species richness and whether species richness is based on the percent of the category 1, 2, 3, 4, or 5 prescription.