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Title: President

Comments: Comments submitted within upload PDF. Thank you for your consideration of these matters.

To Whom it May Concern, Thank you for the opportunity to comment and please accept as the official filing from Orca Conservancy the following letter. Orca Conservancy and its 20,000+ members and supporters are making these comments in regard to all analysis areas (North Zone, Central Sierra Zone, or Southern Sierra Zone) and all National Forests possibly affected by these proposed timber sales. Our understanding is that this project proposes ~5,780 miles of roads and trails throughout these regions of Northern California. Roads are the largest contributor of sediment to rivers and the impacts of recent wildfires have yet to be documented or fully understood. Our organization is aware of an Environmental Assessment (EA) conducted by USFS, but that the USFS is reluctant to conduct a more thorough Environmental Impact Statement (EIS). We formally request that USFS conduct an EIS. We formally request that you consider the impacts on all aspects of any riparian zones within this proposed project (239 sub-watersheds, including 30 municipal watersheds) and any activities associated with this proposed project that will affect Chinook and Coho salmon populations and in turn affect the Southern Resident killer whales (SRKWs) potential food source. Orca Conservancy is an all-volunteer 501(c)(3) Washington State non-profit organization, established in 1996, with the mission of working on behalf of Orcinus orca, the killer whale, and protecting the wild places on which it depends. Orca Conservancy collaborates with some of the world's top research institutions and environmental groups to address the most critical issues now facing wild orcas. The organization's urgent attention is on the population of endangered Southern Resident killer whales (SRKWs). On November 18, 2005, after evaluating the five listing factors of the Endangered Species Act (ESA), 16 U.S.C. [sect][sect] 1531-1544, the National Marine Fisheries Service (NMFS) issued a final ruling listing the SRKWs, as endangered under the Act. The Southern Resident population is comprised of three pods (identified as J-, K-, and L- pods) and is arguably the most familiar killer whale population to the general public. It occurs primarily in the Georgia Basin and Puget Sound from late spring to fall, when it typically comprises the majority of killer whales found in Washington. The population travels more extensively during other times of the year to sites as far north as the Queen Charlotte Islands in British Columbia and as far south as Monterey Bay in California.¹ As NMFS has acknowledged, "[i]nformation [hellip] confirms that [hellip] Southern Residents spend substantial time in coastal areas of Washington, Oregon and California and utilize salmon returns to these areas."² These coastal waters are recognized as an essential foraging area for this endangered population in the winter and spring, and are currently under consideration to be designated as critical habitat for the SRKW.³ Southern Resident killer whales are dietary fish-specialists and depend on abundant populations of Chinook salmon for their survival, social cohesion and reproductive success.⁴ Experts anticipate that climate change and ocean acidification will contribute to further significant declines in regional salmon abundance during the coming decades, thus impeding SRKW recovery.⁵ After over a decade of federal protection, the population has yet to show signs of significant recovery, with 73 members total as of May 2022 [ndash] now sixteen members fewer than when they were initially listed. (A 74?? member of the SRKWs, Lolita, currently resides at Miami Seaquarium⁶). Though their survival remains in question and is far from guaranteed⁷, the population growth needs to exceed 200 members to reach historical levels.⁸ A member of K pod of the SRKWs was recently spotted off the coast of Oregon, with a baby in tow. This would be K pod's first birth in approximately 11 years. Baby orcas are not included in the total population until they have reached at least a year in age, because the mortality rate is estimated at 50%. Estimating diet composition is important for understanding interactions between predators and prey and thus illuminating ecosystem function.⁹ Therefore, based on the natural history and behavior of the endangered SRKWs it is imperative that prey species, specifically Chinook salmon, are of sufficient quality and quantity are available to support not only individual growth, reproduction, and development, but to further encourage the overall growth of this population. Prey depletion is recognized as one of the major threats to the survival and recovery of the SRKW community and rebuilding depleted salmon stocks is listed as a top priority for the population. As an example of issues related to various watersheds, one of the areas at issue from viewing the maps of this project

is the Klamath river and its tributaries. Although not currently a major food source, the Klamath River, historically was the third or fourth most important river to the SRKW. There were two runs; spring run and fall run; each likely over 1,000,000 Chinook. The spring run -- which is a big component contributing to SRKW calf survival -- is down to around 100 fish which is a largely why prenatal and early post-natal mortality of this population is pushing 75%. These dismal numbers highlight the severe decline and precarious status of spring run Chinook. The loss of a unique life history type reduces the ability of the population as a whole to adapt to changing environmental conditions and therefore represents a serious threat to viability. Additionally, the fall run, which is now in the low tens of thousands is only adding to the complexities regarding SRKW survival and are vital to nursing SRKW mothers as well.

[sup1] Wiles, G. J. 2004. Washington State status report for the killer whale. Washington Department Fish and Wildlife, Olympia. 106 pp.

[sup2] Michael J. Ford, Nat'l Marine Fisheries Serv., Status Review Update of Southern Resident Killer Whales 26 (2013). In fact, evidence indicates that Southern Residents spend the majority of time in coastal and offshore waters. Cf. M. Bradley Hanson, et al., Assessing the Coastal Occurrence of Endangered Killer Whales Using Autonomous Passive Acoustic Recorders, 134 J. OF THE ACOUSTICAL SOCIETY OF AMERICA 3486, 3486 (2013) [hereinafter Coastal Occurrence] (explaining that "on average the whales occur in inland waters less than half of the days each year").

[sup3] 12-Month Finding on a Petition to Revise the Critical Habitat Designation for the Southern Resident Killer Whale Distinct Population Segment, 80 FR 9682, published 2/24/2015 Center for Biological Diversity, Petition to Revise the Critical Habitat Designation for the Southern Resident Killer Whale (*Orcinus orca*) under the Endangered Species Act 5 (Jan. 16, 2014).

5 See, e.g. Lisa G. Crozier et al., Predicting Differential Effects of Climate Change at the Population Level with Life-Cycle Models of Spring Chinook Salmon, 14 GLOBAL CHANGE BIOLOGY 236, 237, 247 (2008) (predicting that global warming and changing ocean conditions will lower survival and fertility among all populations of Pacific salmon (*Oncorhynchus* spp.)).

6 Amendment to the Endangered Species Act Listing of the Southern Resident Killer Whale Distinct Population Segment, 80 FR 7380, published 2/10/2015.

7 Olesiuk, P. F., M. A. Bigg and G. M. Ellis. 1990. Life history and population dynamics of resident killer whales (*Orcinus orca*) in the coastal waters of British Columbia and Washington State. Report of the International Whaling Commission (Special Issue 12):209-243. Estimates neonate mortality between 37-50%.

8 Palo (1972) put forth a tentative estimate of 225- 300 whales for Puget Sound and the Georgia Basin in 1970 (Palo, G. J. 1972. Notes on the natural history of the killer whale *Orcinus orca* in Washington State. Murrelet 53:22-24).

9 Ford et al. 2016. Estimation of a Killer Whale (*Orcinus orca*) Population's Diet Using Sequencing Analysis of DNA from Feces. <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0144956>

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In reviewing the draft Klamath, Mendocino, Shasta-Trinity, and Six Rivers National Forest Hazard Tree Removal Project Biological Assessment written by Patricia A. Krueger, the document falls short of full biological assessments. She lists several endangered species within those zones, but there is no mention of impacts that road building, herbicides, pesticide pollution or forest removal will have on sedimentation and or water quality that would have impacts on salmon rearing habitats. Even though, there is a general citation related to coho salmon: Phillips, R.W. 1961. The embryonic survival of coho salmon and steelhead trout as influenced by some environmental conditions in gravel beds. In 14th Annual Report Pacific Marine Fisheries Commission, pp. 60 -73. This biological assessment does not consider the effects of pollution from pesticide and herbicide use and sedimentation on the Klamath, Mad, Russian, Eel, or Smith rivers and their tributaries. The USFS needs to evaluate its impacts these proposed projects would have on critical habitat for threatened and endangered salmon.

Currently, under the California Endangered Species Act of 1984 (Fish & G. Code [sect] 2050 et seq.), Coho Salmon (*Oncorhynchus kisutch*) and Chinook salmon (*Oncorhynchus tshawytscha*) are listed as threatened and endangered respectively. Section 9 of the ESA prohibits any person from taking an endangered species. 16 U.S.C. [sect] 1538(a)(1)(B). NMFS has extended the take prohibition to Chinook salmon and steelhead trout as species listed as threatened with extinction. 50 C.F.R. [sect] 223.203(a). Considering the endangered status of these salmon populations and their significance to another endangered species, the SRKW; we are requesting the USFS to recognize the ecosystem-wide impacts in its review of these proposed timber sales and in the development of an EIS. If your agency is conducting disturbance activities (road building, logging, etc.) on a tributary that drains in the Pacific Ocean between Monterey, CA, and the Oregon border, the USFS

should be considering the impacts those activities will have on chinook salmon rearing habitat tributaries and in turn, the SRKW. As a sampling of the rivers for consideration within the USFS necessary review, would be Smith, Klamath, Trinity, Mad and Eel rivers to name a few that can produce Chinook salmon. The USFS should focus its efforts on high-use roads and other roads that serve a critical purpose, coupled with a review of the existing road network to see which roads are no longer necessary. The Southern Resident community of orcas are the most intensively studied population of marine mammals in the world, and what we've learned is that healthy Chinook and Coho salmon runs are critical to their recovery. The recovery and restoration of west coast rivers is key to the survival of these whales and addressing the threat of prey abundance is a priority in recovery plans for this critically endangered population. Their historic use of California waters qualifies this community as an important resource to the state of California and should be considered when evaluating the USFS's potential impact with this extremely large proposal. Thank you for your consideration of these matters.