



Sitka ♦ Craig ♦ Valdez ♦ Naknek ♦ Metlakatla

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Chugach National Forest's Supervisor's Office
Attn: Draft Land Management Plan
161 East 1st Avenue, Door 8
Anchorage, AK 99501
Submitted via email to chugachplanrevision@fs.fed.us

RE: Comments on the Chugach National Forest Draft Land Management Plan and EIS

To Whom It May Concern:

Please accept these comments in objection to the US Forest Service's (USFS) Draft Land Management Plan and Draft Environmental Impact Statement (hereafter referred to collectively as the "draft Plan") for the Chugach National Forest. Although other local stakeholders will likely question the appropriateness of the draft Plan's many references to hatchery production based on procedural considerations, Silver Bay Seafoods instead objects to the anti-hatchery and anti-commercial use bias that appears to be prevalent throughout the document. We believe that many of the draft Plan's misstatements regarding hatchery production reflect a generally poor understanding of the Prince William Sound (PWS) area's salmon fishery resources and we encourage Chugach National Forest and USFS leadership to solicit more substantive comments from informed local stakeholders on this issue before finalizing this process. Some specific criticism of the document's wording may be found below.

Silver Bay Seafoods is a vertically integrated, primarily fishermen-owned processor of frozen salmon, herring, and other seafoods products for both domestic and export markets. Silver Bay began in 2007 as a single salmon processing facility in Sitka, Alaska, and has since grown into one of the largest seafoods companies in Alaska. Silver Bay has state of the art, high volume processing and freezing facilities throughout Alaska, currently operating in Sitka, Craig, Valdez, Naknek and Metlakatla. The company is also active in the California squid fishery.

Silver Bay began participating in the PWS commercial salmon fishery in 2010, maintains a significant market share in the fishery, and is interested in ensuring its long-term sustainability and viability. Following the record-setting season of 2015 in which the PWS management area's salmon harvests and estimated ex-vessel values were among the best in the state for the third time in a handful of years (2010, 2013, and 2015), Silver Bay embarked on an expansion of its operations in Valdez. Silver Bay Seafoods and its fishermen-owners pursued this expansion based in part on their shared and successful experiences in the PWS salmon fishery, and a faith in the State of Alaska's consistent science-based management of the area's salmon fishery resource. Silver Bay and its fishermen-owners participate in many of the forums associated with this fishery, including service on boards of directors for the area's hatchery operators, and engagement with private-public collaborations which exist between commercial fishery participants and representatives of Alaska's Department of Fish and Game (ADF&G). This includes participation in the local hatchery planning process which occurs through the Copper River/Prince William Sound Regional Planning Team (RPT), which USFS Cordova Ranger District staff serve on in an ex-officio capacity.

Criticism specific to the draft Plan's contents include misstatements made on **pages 291 and 292** of the document:

"The total number of wild pink salmon (harvest plus escapement) returning to this area has averaged around 10 million fish since 1960. Since 1970, the total number of chum salmon returning to the same area has averaged 1 million fish. There is no indication that either species is increasing or decreasing. However, a large hatchery program for both species was established in the early 1990s. Hatchery fish from these programs now dominate the catch of salmon in Prince William Sound. Commercial fisheries catches have

ranged up to 71.7 million fish over the last 20 years (Botz et al. 2013). Not all hatchery fish are caught or return to hatchery facilities. A portion of the hatchery fish stray into natural stream habitats used by wild fish. The effect of these stray hatchery fish may be harmful to the productivity and fitness of wild salmon in Prince William Sound (Brenner et al. 2012)."

The author(s) reference to wild pink salmon production in PWS is notable in some ways, although lacks proper context. The first contemporary PWS hatcheries were built in the 1970s in response to low runs, with the area's general purse seine fishery being closed altogether for the 1972 and 1974 fishing seasons (Botz et al. 2012; Evenson et al. 2018). According to Ruggerone and Irvine (2018), the total number of wild pink salmon (harvest plus escapement) returning to PWS averaged approximately 6 million fish for the years 1952–1976. Hatchery pink salmon production began in 1975 in PWS, with adult returns commencing in 1977. Since 1977, wild pink salmon returns in PWS have increased to an annual average of over 13.2 million fish, with record returns of 25.9 million, 33.1 million, and 63.5 million fish occurring in 2005, 2013, and 2015, respectively (Haught et al. 2017; Knudsen et al. 2016; Ruggerone and Irvine 2018).

Wild pink and chum salmon have experienced record production throughout the North Pacific Ocean in recent years, with Ruggerone and Irvine (2018) reporting total natural-origin pink salmon returns to Asia and North America as having increased from an annual average of 261 million fish for the years 1952–2005, to 406 million fish annually during the years 2006–2015. Finally, Ruggerone and Irvine (2018) report a total average annual abundance of natural-origin chum salmon in Asia and North America of 47.6 million fish for the years 1952–2005, increasing to 63.1 million fish annually in 2006–2015. Thus, it could easily be argued that regional wild pink and chum salmon have been increasing in abundance since the development of PWS's contemporary hatchery program.

The author(s) are correct in stating that not all hatchery fish are caught or return to hatchery facilities, leading to some concerns that the presence of hatchery strays in wild systems could affect population structure and productivity of wild populations. In response to such concerns, a consortium of representatives from ADF&G, Alaskan private nonprofit hatchery operators (PNPs), and industry, with oversight from a science panel, have implemented a large-scale hatchery-wild interaction study, known as the Alaska Hatchery Research Project (AHRP) to (1) examine genetic population structure for pink salmon in PWS, (2) determine hatchery proportions (straying rates) of pink and chum salmon in PWS, and (3) conduct an assessment of the relative fitness of hatchery strays and wild spawners of pink salmon in PWS (Evenson et al. 2018). The AHRP is a ground-breaking collaborative endeavor that is co-co-funded by the State of Alaska, fishermen through hatchery operators, and salmon processors. The AHRP's science panel—benefitting from its broad expertise in salmon management, enhancement, and hatchery-wild interactions research—designed the project's research plan and provides guidance and oversight on the project's operations. Project results to date include harvest rate estimations for hatchery pink salmon in PWS to have been 99%, 98% and 95% for the years 2013–2015 (Knudsen et al. 2016). Thus, the vast majority of these fish are indeed harvested or return to their intended location. Further, these harvest rates for hatchery pink salmon in PWS are approximately double that of wild pink salmon for the years 2013 and 2015, and nearly four times the harvest rates for wild PWS pink salmon in 2014 (Evenson et al. 2018). Evenson et al. (2018) assert that these results demonstrate that the PWS pink salmon fishery is effectively managed to target hatchery fish while maintaining sustainable harvest rates on wild-origin stocks. The AHRP may be found further described at:

http://www.adfg.alaska.gov/index.cfm?adfg=fishingHatcheriesResearch.current_research

Although the draft Plan correctly represents a concern that stray hatchery fish *may* be harmful to the productivity and fitness of wild salmon in PWS, it is important to point out that no research to date has found evidence of such impacts. In fact, the AHRP is the first project involving Alaskan pink and chum salmon to attempt to identify potential fitness differences between hatchery- and wild-origin fish. Thus, the assertion on **page 494** (and elsewhere) of the draft Plan that “indirect effects of hatchery fish” have “impacted the condition of fish populations” in PWS

is not a factual statement and should be clarified and corroborated with credible and relevant citations or removed from the document altogether.

Further, the authors represent trends for other wild salmon abundances in the vicinity of the Chugach National Forest that are not verified in credible peer-reviewed literature. For example, Ruggerone and Irvine (2018) report that total abundance (harvest plus escapement) of natural-origin sockeye salmon returning to the South Peninsula, Kodiak, Cook Inlet, PWS, and Southeast Alaska regions has increased in recent years from an average of 2.2 million fish per year for the years 1952–2005, to an annual average of 3 million fish for the years 2006–2015. This increasing trend is consistent for the entirety of natural-origin sockeye salmon stocks returning to Asia and North America, with total abundance averaging 85.2 million fish annually for the years 2006–2015, versus an average annual abundance of 65.4 million fish for the years 1952–2015 (Ruggerone and Irvine 2018). Closer to home in the Chugach National Forest, this trend holds true for Kenai River sockeye salmon runs as well, where eight of the river’s top ten spawning escapements have been achieved since 2004 (Shields and Frothingham 2018). Likewise for the Copper River, Botz and Somerville (2014) report that the inriver runs of sockeye salmon in 2012–2014 were the three largest on record. Finally, Sheridan et al. (2013) report that the two largest sockeye salmon escapements at Coghill Lake in PWS on record since the 1980s have occurred as recently as 2011 and 2012, thereby calling into question the draft Plan’s many assertions that sockeye salmon populations within the Chugach National Forest are trending downwards since the Plan’s last iteration in 2002.

Finally, recent downturns in Chinook salmon abundance throughout Alaska have been well documented, although the cause for these declines is unknown. Total abundance estimates for Kenai River Chinook salmon do not have as long of a time series available as previously reported in Ruggerone and Irvine (2018), with Kenai River Chinook salmon abundance estimates available since the mid-1980s. However, it should be noted that Fleishman and Reimer (2017) report total Kenai River Chinook salmon abundance estimates in 2004 and 2005 which serve as the highwater marks for this stock for the years 1986–2015 – some 28 and 29 years following the first releases of hatchery pink salmon fry in PWS. Further, preliminary estimates from the 2018 season indicate upticks in productivity and escapements for Copper River Chinook, thereby calling into question any insinuation that hatchery production alone could be to blame for downturns in abundance for the Chugach National Forest’s Chinook salmon populations.

We regret the late timing of these comments but hope that you will give these and other similarly critical comments from local stakeholders some consideration when finalizing the USFS Draft Land Management Plan and Draft Environmental Impact Statement for the Chugach National Forest. Such an important public document should reflect an objective and credible review of the relevant natural resources under consideration, and those stakeholders who stand to be most impacted by its contents.

Sincerely,



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