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Director Susewind,

As fisheries scientists, ecologists, statisticians, historians, and conservation organizations, we strongly encourage the Washington Department of Fish and Wildlife (WDFW) to designate the Emerging Commercial Fishery with alternative gears in the lower Columbia River, and add the fish trap to the State's suite of approved alternative gears. Giving commercial fishers sustainable alternative options to gill netting and allowing for low-impact release of wild salmon has considerable potential to benefit wild salmonid populations and commercial fisheries. For the various reasons described below, we ask that you prioritize wild salmonid conservation and respect the wishes of progressive commercial fishers that strive to fish sustainably with alternative gear to create a better future for their communities.

Fish traps and all alternative gears in Washington that competed with gill nets were banned after 1934 in the lower Columbia River. This ban was generally unsuccessful at reducing fishing effort and improving escapement to the spawning grounds. As the Oregon Fish Commission reported in 1948, Initiative 77 served "to the benefit of the large gill net fleet, but not to the fish it was intended to preserve" (Johnson et al. 1948, pg. 22).

Nearly 87 years later, this legislation continues to prevent fishers from using alternatives to the gill net that have recently been proven to enable low-impact release of wild salmon and steelhead listed under the Endangered Species Act (ESA) (WDFW 2014; Tuohy et al. 2020). As scientists who care deeply about the resource and understand the severely diminished status of wild salmonids in the Columbia River, it is clear to us that mark-selective gears such as fish traps could help advance various aspects of wild salmonid recovery while providing options to the fishers that desire to use alternatives to gill nets.

The lower Columbia River commercial gill net fishery is managed based upon negotiated allowable mortality impacts to ESA-listed fish stocks (WDFW and ODFW 2019). In recent years, summer steelhead have constrained fisheries the most; WDFW strives to meet its target for impacts to ESA-listed steelhead, but cannot protect wild Chinook and coho that are indiscriminately killed and harvested in zones 4-5 of the lower Columbia River gill net fishery. Furthermore, efforts to address the percentage of hatchery-origin spawners (pHOS) in the Columbia River Basin are futile with gill nets, which inflict a common harvest rate amongst both hatchery and wild stocks encountered in

mainstem fisheries. Hatcheries are a primary limiting factor to wild salmonid recovery, and their detrimental genetic and ecological effects should be taken seriously (Chilcote et al. 2011; Christie et al. 2013).

The emerging alternative gear fishery would similarly be managed based upon negotiated allowable impacts to ESA-listed stocks such as summer steelhead, ensuring no further harm is inflicted to these stocks of concern. However, use of low-impact, mark-selective gears such as fish traps would finally allow WDFW to make progress on improving ESA-listed Chinook and coho salmon survival and escapement in the Columbia River. Additionally, selective fishing tools would assist WDFW in reducing PHOS that remains rampant throughout the basin. Progress on these fronts can only help wild salmon survive and recover in the Columbia River, enhancing sustainable commercial fishing opportunities and marine prey for ESA-listed killer whales into the future.

If fishers are allowed to consider alternative options to the gill net, it is likely that there will be further innovation and improvement with alternative gears. Wild Fish Conservancy's recent peer-reviewed and published study of a passive trapping method has clearly demonstrated the potential for improvement (Tuohy et al. 2020). Considering the work that has already been accomplished for documenting survival of coho and sockeye salmon from the passive trapping design, it seems reasonable to hypothesize that further research will show that Chinook and steelhead have nearly 100% release survival from modified fish traps (an improvement from 99.5% and 94.4% survival for Chinook salmon and steelhead, respectively). If this is achieved, alternative gears will provide additional benefits to constrained commercial fisheries, not to mention even greater benefit to wild fish recovery if managed appropriately.

It is also important to note that gill nets cause bycatch impacts to steelhead that currently remain unknown as post-release mortality effects have not been studied and annual bycatch encounters from the industry are typically unobserved (NMFS 2018). Not only has management's assumptions about the gill net skirted scientific peer-review and publication processes, but post-release survival data for the gear simply do not exist for the primary limiting bycatch stock in the basin: ESA protected summer steelhead (NMFS 2018). We feel comfortable stating that this glaring data gap should no longer be acceptable for management of declining ESA-listed steelhead in the Columbia River; WDFW should acknowledge the truth and make efforts to gather necessary data for management of ESA-listed stocks. Use of studied alternative gear will enable calculation and estimation of bycatch impacts with a reasonable level of precision and accuracy, rather than attempting to estimate ESA-impacts for the commercial fleet based upon potentially flawed assumptions.

From a social perspective, legalizing tested and proven options shows potential to benefit commercial fishers. This emerging fishery does not appear to force any individual to change gears, but simply allows fishers to choose based upon their preferences. Any allocation disputes should be able to be addressed fairly by your professional staff at WDFW.

As scientists, it is understood that protecting wild salmonids and addressing problems associated with hatchery production will protect the genetic diversity of wild fish populations, better enabling adaptation and survival in the face of global climate change. We similarly believe that having a diverse set of tools available to fishers will better enable communities to adapt to an uncertain future and enhance economic resiliency.

In summary, we are calling on you to follow through with Fish and Wildlife Commission policy directives to “develop, promote, and implement alternative fishing gear to maximize catch of hatchery-origin fish with minimal mortality to native salmon and steelhead” (WFWC 2009). We support and urge WDFW to designate the Emerging Commercial Fishery for fish traps and other alternatives to provide commercial fishers options and opportunity to innovate, allow for low-impact release of wild salmon in commercial fisheries, and address pHOS and hatchery effects to better restore ESA-listed salmonid populations throughout the basin.

Thank you for considering this fundamental aspect of wild salmonid recovery and sustainable fisheries management.

Sincerely,

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Bill McMillan	Fisheries Field Biologist, Historian, and Author	Retired
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