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## To whom it may concern:

The federal Oregon Coast Coho Recovery Plan was published on December 1, 2016. This plan, building on earlier efforts, calls in particular for "continued actions to repair the ecosystem processes that influence the health and stability of the rearing habitats for juvenile coho salmon". One of the emphasis areas in the plan is actively managing beavers and beaver dam building to create and maintain such habitat.

One of the four limiting factors noted in the Recovery Plan is the reduced quantity and quality of stream habitat for juvenile rearing and overwintering. Good habitat for coho includes large wood debris structures, pools, connections to side channels and off-channel alcoves, beaver ponds, lakes, and connections to wetlands, backwater areas and complex floodplains. Many of these habitat conditions are generated and maintained by connecting streams and rivers to their surrounding landscape. The Recovery Plan notes: "Beaver provide considerable help in providing this connection and in maintaining proper watershed functioning in Oregon coast streams".

Beavers were once ubiquitous in Oregon's watersheds. The historic removal of beavers is thought to have had a significant population impact on coho salmon. For example, colleagues from the Northwest Fisheries Science Center and the University of Washington document these impacts in the Stillaguamish basin in western Washington (<a href="https://doi.org/10.1577/M03-156.1">https://doi.org/10.1577/M03-156.1</a>). They show that the greatest reduction in coho salmon smolt capacity originated from the extensive loss of beaver ponds in this watershed. The current summer smolt production potential (SPP) for the Stillaguamish River basin was calculated to be 965,000 smolts, as compared with a historic summer SPP of 2.5 million smolts. The 61% deficit in capacity results mostly from the loss of beaver ponds. An even more dramatic reduction (86%) in winter habitat capacity was estimated - again most of the overall reduction resulted from the loss of beaver ponds.

Beaver recovery on a coast-wide scale will have significant benefits to coho salmon populations. I urge you to consider the management of beavers in Oregon as a robust, viable tactic that underlies the rebuilding of healthy salmon populations state-wide. Fostering opportunities for beaver-based stream restoration methods (e.g., Beaver Dam Analogs and Post Assisted Log Structures), techniques to mitigate human-beaver conflicts (e.g., pond-levelers, culvert protectors, translocation), and active population management (e.g., harvest and removal controls) are all viable approaches to increase the beneficial stream habitat impacts that beavers can have in Oregon watersheds.

Singerely,

Dr. Chris Jordan, Program Manager

Mathematical Biology and System Monitoring Program