Testimony of Richard Nawa before the Oregon Senate Environment and Natural Resources Committee in support of Senate Bill 830 relating to motorized in-stream and upland placer mining.

April 16, 2015

Senator Edwards, members of the Senate Environment and Natural Resources Committee,

My name is Richard Nawa and I am here to speak as a citizen of Oregon. I support Senate Bill 830 with amendments proposed by Senator Bates that prohibits motorized in-stream mining in essential indigenous anadromous salmonid habitat and habitat that is essential to the recovery and conservation of pacific lamprey, bull trout and freshwater mollusks.

I am highly qualified to give testimony because I have research experience with salmon in Oregon. I did in-stream field investigations of how salmon spawning responds to destabilizing activities. I co-authored several research reports as a research assistant at OSU and co-authored three publications as a result of salmon and stream research activities. Since 1993, I have observed and documented hundreds of instances of salmon habitat damage from suction dredging activities in southwest Oregon. I have compiled my observations in two reports and have given several presentations about mining impacts at conferences.

I am concerned because the damaging activities associated with suction dredging have increased in intensity and the extent of stream areas affected. I am concerned because the public's salmon producing streams are being damaged and salmon production is being reduced. Oregon needs to act because the salmon habitat damage occurs every year and is likely to have adverse cumulative effects into the future. Stream habitat cannot recover to full productivity when it is annually damaged by dredging.

Reproduction is the most critical function for any species. Female salmon rely on stable streambeds to bury eggs to assure successful incubation and high reproductive success. Myself and other scientists have observed that suction dredging creates unnatural pits and tailing piles in these spawning areas. Salmon then unwittingly bury their eggs in these disturbed areas. Published research finding of Brett Harvey and Tom Lisle found that high water from winter storms cause higher mortality of incubating salmon eggs in areas disturbed by suction dredging (publication attached). This means fewer salmon emerging from the gravel and fewer smolts migrating to the ocean to mature. Oregon does not have any surplus salmon eggs to be wasted on recreational suction dredging.

Prohibiting dredging in essential salmon habitat is the only option to ensure optimum reproduction and rearing success of salmon. Agencies have sometimes required dredgers to level tailings as mitigation for digging holes in spawning beds. This mitigation is impractical to implement and has not been demonstrated to be effective. I have observed hundreds of suction dredge pits and tailings. None have been leveled. In most streams it is impractical to fill dredge

holes due to downstream movement of sediments dredged. Once a streambed has been dredged, the damage to salmon spawning habitat is done and cannot be undone with mechanical methods.

No industry in Oregon is allowed to routinely excavate deep holes in salmon spawning habitat. Gravel mining, industrial mineral mining, and logging activities are generally prohibited within and adjacent salmon spawning streams. Homebuilders have riparian setbacks and livestock are often fenced from salmon streams. On federal lands, where most suction dredging occurs, loggers are not allowed to cut large trees within 300 ft of salmon streams, yet suction dredgers are allowed to suction dredge holes in the spawning beds of those very same streams. There is no biological justification for allowing suction dredging in Oregon's salmon streams where millions of dollars are being spent to restore salmon habitat and all potentially harmful activities are tightly regulated.

I support the protection of essential salmon habitat in SB 830 and urge members of the committee to vote in favor of this bill with amendments proposed by Senator Bates to require the implementation of the new regulatory framework.

Thank you.

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Attachment: B.C. Harvey and T. E. Lisle. 1999. Scour of Chinook Salmon Redds on Suction Dredge Tailings. North American Journal of Fisheries Management 19:613-617. Available at http://www.fs.fed.us/psw/rsl/projects/water/Harvey99.PDF