



COLUMBIA RIVER INTER-TRIBAL FISH COMMISSION

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July 17, 2007

Patty O'Toole
Program Implementation Manager
Northwest Power & Conservation Council
851 SW 6th Avenue, Suite 1100
Portland, OR 97204-1348

Re: Comments on Innovative Proposal Project Proposal 200752400 *Integrated Non-Lethal Electric Barrier and Sonar System to Deter Marine Mammal Predation on Fish in the Columbia River System: A Demonstration Project*

Dear Patty:

Innovative solutions to the sea lion predation issue is worthy of NPCC support and BPA funding. However, we feel that this proposal is very expensive, and moves too quickly to field testing instead of additional rigorous controlled environment testing. Unintended deleterious affects on non-target species must be investigated prior to a field test in the Willamette River. It would be very unfortunate to discovery that the cure is worse than the ailment after millions of dollars have been spent.

First, the project sponsor has tested electronic barriers on seals however no controlled tests have been performed and therefore need to be performed to investigate the reaction of California sea lions *Zalophus californianus* to electrical fields. These tests should also include reaction to the electrical field when rewards (food) are presented. Additionally the reactions of harbor seals, California sea lions, and Stellar sea lions to hazing activities at Bonneville Dam were all different. The California sea lions were the least responsive to conventional hazing, so the limited testing performed by the sponsor with harbor seals is insufficient to demonstrate a general response by pinnipeds. Approximately ½ of the sea lion population feeding at Bonneville Dam have returned from previous years indicating that they are very motivated and tenacious predators. The reaction of these individuals to low level electrical fields near a feeding station with a vulnerable concentration of adult salmon may likely be different than in a 20 m exercise pool with no reward.

Second, the potential impacts to non target species must be thoroughly investigated. These impacts may be subtle and therefore, undetectable in a large scale field test. Thus we recommend that extensive laboratory testing be performed prior to field tests. We are particularly concerned with potential behavioral effects on Pacific lamprey and our concern is reinforced by comments arising from the ISRP review. The Willamette River is the Columbia River Basin's major production area for Pacific lamprey and Willamette Falls offers one of the few remaining sites were abundant lamprey

congregate to support a tribal harvest. Unknowingly disrupting the lamprey population for this field test would be unacceptable. The sponsor cited state and federal standards for **fish collection** using electrofishing to support their contention that the low level electrical field would not harm fish. Currently, there are no standards for fish *reaction* to low level electrical fields and generating these data should be a precursor to large scale field tests.

Third, even if the system were to perform flawlessly and with no adverse impacts the cost of scaling up to a system the size of the Columbia River may still make the system technically impractical. We feel that an objective should be added that would scope out the potential costs of expanded development, implementation and annual use of the device in the Columbia River.

Sincerely,



Olney Patt, Jr.
Executive Director