



December 7, 2010

William W. Stelle, Jr.  
Regional Administrator  
Northwest Region Office  
National Marine Fisheries Service  
7600 Sand Point Way NE, Bldg 1  
Seattle, WA 98115



Dear Mr. Stelle:

This letter summarizes activities conducted under the Marine Mammal Protection Act Section 120 lethal removal authority granted to the States of Oregon and Washington by National Marine Fisheries Service (NMFS) to reduce California sea lion predation on threatened and endangered Columbia River salmonids. The following information comprises our annual report to NMFS documenting the various activities conducted in the area below Bonneville Dam, demonstrating the States' compliance with the terms and conditions of the Letter of Authority (LOA) in 2010, and outlining our plans for work in 2011 (LOA Condition 13).

As required under the LOA (Condition 4), our Animal Care Committee (ACC; Appendix A) was consulted on activities conducted during the 2010 field season and for activities proposed for 2011. The committee monitored our activities throughout the season and individual members of the committee participated in the capture, transfer, medical screening, and post-mortem examinations of sea lions taken under the LOA.

U. S. Army Corps of Engineers (USACE) Fisheries Field Unit staff began regular observations of pinniped predation on salmonids at the face of Bonneville Dam on January 8 and continued through May 28, 2010. USACE deployed sea lion barriers in fish passage entrances, as well as underwater acoustic deterrent devices as they have in previous years. Under contract with USACE, Wildlife Services staff (USDA) used non-lethal hazing tools deployed from various project locations to deter predatory sea lions feeding near the fish passage entrances. The States worked directly with USACE to conduct the overall observation program, carry out non-lethal boat-based hazing of pinnipeds below Bonneville Dam, and conduct California sea lion capture, marking and removal operations. This work included efforts to document pinniped presence, abundance, foraging behaviors, salmonid consumption, identify individual animals, employ non-lethal hazing tools and remove predatory California sea lions. These efforts were directed at

evaluating the impact of predation on salmonid passage at Bonneville Dam, determining the effectiveness of non-lethal hazing, identifying predatory sea lions, and ultimately evaluating the results achieved by removing predatory sea lions from the Bonneville Dam area (LOA Condition 12).

The results of the 2010 observation program have been presented in an USACE 2008-2010 field report ( [http://www.mediate.com/DSConsulting/docs/PINNIPED%202008-2010%20USACE%20REPORT%20revised\(1\).pdf](http://www.mediate.com/DSConsulting/docs/PINNIPED%202008-2010%20USACE%20REPORT%20revised(1).pdf) ). The results of the States' 2010 hazing and sea lion removal efforts have also been presented in an annual field report ( [http://www.mediate.com/DSConsulting/docs/Bonneville%202010%20Field%20Report\(1\).pdf](http://www.mediate.com/DSConsulting/docs/Bonneville%202010%20Field%20Report(1).pdf) ). In summary, non-lethal hazing was unsuccessful at controlling sea lion predation. An expanded estimate of 6,081 adult salmonids (2.2% of the run) were consumed by pinnipeds at Bonneville Dam in 2010. The majority of this predation was from California sea lions (5,095 salmonids), with Steller sea lions responsible for an additional 986 salmonids killed. These estimates are considered minimum salmonid losses as predation estimates are only for kills in the observation area (within ½ mile) of the dam face and do not include kills outside of this area.

In 2010 no permanent holding facilities were available to accept the transfer of live sea lions captured during our removal efforts (LOA Condition 5). A total of 22 individual California sea lions were captured in 2010, fourteen of which met the criteria for removal and were euthanized because no facility was available to receive candidate seas lions. The remainder were branded when necessary and released; five received acoustic transmitters with depth sensors. Animals were captured at the dam from March 3rd to May 26th; two of the euthanized animals were captured in Astoria in early fall 2010.

As was the case in 2009, no unintended trapping or mortality events occurred in 2010. Use of the modified trapping and monitoring protocols developed in consultation with ACC members in 2008 (locking traps open when not in use, changing trap release system to wireless remote operation, increasing trap monitoring, increased hazing of Steller sea lions near the traps) had the desired effect of preventing an accidental trapping event, such as the one that occurred in May 2008.

The States notified NMFS of all sea lion capture and removal operations within the required three day period (LOA Condition 11). Captured sea lions were handled and remains disposed of according to applicable state and federal laws (LOA Condition 10). The carcasses of those animals that were euthanized were disposed of according to state and local ordinances. A maximum effort was made to collect and retain multiple biological samples from euthanized animals for scientific and educational purposes (LOA Condition 10). The States did not remove more than 1% of the annual CA sea lion PBR (as specified in LOA Condition 3).

Firearms were not used to remove predatory sea lions in 2010 and carcass removal from the water was not required (LOA Conditions 6 and 7).

The States (WDFW Enforcement and Oregon State Police) coordinated safety and security during removal activities among all agencies involved with the process in cooperation with the Columbia Basin Law Enforcement Council (LOA Condition 8). This action included the establishment of an Incident Command Center (ICC) that coordinated security and safety with USACE, US Coast Guard, Columbia River Intertribal Fish Commission, Idaho Department of Fish and Game, and local law enforcement in Oregon and Washington during capture, removal and transportation operations.

The States worked directly with USACE, Portland District and the Bonneville Lock and Dam Project Manager prior to and during capture and removal operations (LOA Condition 9). The assistance provided by Bonneville Project staff was critical to our work and was very much appreciated. The ICC also worked directly with the Bonneville Project on safety, security and access issues during our removal operations.

The LOA provided by NMFS to the States included an initial list of predatory California sea lions that met the criteria for removal as defined by NMFS (LOA Condition 1). The States worked directly with USACE observation program staff to identify additional sea lions that met the criteria for removal as they were observed consuming salmonids in the area and were exposed to non-lethal hazing efforts. The most recent addition of removal candidates was approved in a letter from the NMFS Northwest Region Administrator to the Oregon and Washington Fish and Wildlife Department Directors on September 7, 2010. No additional animals have met the criteria for addition to the removal list at this time.

In previous reports we mentioned that a small number of California sea lions were observed preying on salmonids attempting to pass Bonneville Dam during the fall of 2008 and 2009. This is a new phenomenon that we are very concerned about. Fortunately, at this point the numbers of California sea lions seen near the dam in the fall has not significantly increased. We will continue to monitor this situation and will be prepared to use traps to remove any of these individuals that meet the criteria defined in the LOA. As you know, the problem at Bonneville Dam in the spring months began less than 10 years ago with just a handful of sea lions preying on salmonids. The time to limit this newly observed fall predation is now, while we are dealing with only a small number of individual animals and before others sea lions begin to mimic this foraging pattern.

In the past we also brought to your attention the obvious increase in Steller sea lion predation on salmonids near the dam over previous years (see USACE 2008-2010 field report [http://www.mediate.com/DSCConsulting/docs/PINNIPED%202008-2010%20USACE%20REPORT%20revised\(1\).pdf](http://www.mediate.com/DSCConsulting/docs/PINNIPED%202008-2010%20USACE%20REPORT%20revised(1).pdf)). Steller sea lion consumption of salmonids in 2010 was higher than in any previous year. Currently the States have limited resources to deal with this emerging problem. Since these Steller sea lions are currently listed as threatened under the ESA, the only tool available to address this situation is to use the same non-lethal hazing tools which have proven to be largely ineffective at limiting predation by California sea lions. Over time the Steller sea lions have also shown a diminishing response to non-lethal hazing efforts. In 2010, under a joint research permit held with the NMFS National Marine Laboratory, we began capture, marking and tracking efforts for Steller sea lions captured at Bonneville Dam. We hope that by continuing this work we will better understand Steller sea lion foraging behaviors in this area and how they may also be impacting salmonids and other important fish resources (e.g., white sturgeon). Oregon and Washington have petitioned NMFS to delist the Steller sea lion eastern distinct population segment. A successful delisting may provide additional tools for reducing their predation on salmonids at Bonneville Dam.

As mentioned in our 2009 report we encountered the problem of a California sea lion that had locked above the dam and was killing salmonids that were exiting the fish passage system. This animal had met all the criteria for removal, but had not been observed killing fish in the observation area "below the dam" as specified in the LOA. At the recent three year review of this project by the NMFS Pinniped Fishery Interaction Task Force, the States requested that the forebay area above the dam be added to the "observation area" so that animals otherwise

qualified for removal could be taken for killing salmonids that had already passed the dam. We hope this correction will be made in a modified LOA to be issued along with other recommendations from the Task Force.

The States and our cooperating agencies are moving forward with plans to continue the use of shore and more limited boat-based non-lethal hazing of sea lions below Bonneville Dam beginning in March of 2011. Early in February we are planning to deploy sea lion traps in several areas around the dam. In 2011, trapping is expected to take place from late February through May. Efforts to trap and mark Steller sea lions will likely be focused early in the season prior to the arrival of California sea lions. Once California sea lions arrive in number (early to mid-March) we expect to deter Steller sea lions from the trapping area and focus our efforts on California sea lion trapping, marking, and removal. As was the case in previous years, our first priority will be to fill requests from facilities identified by NMFS that would like to permanently house any of these predatory California sea lions. If no facilities are available, we plan use drugs to euthanize any captured animals that have been identified for removal. Use of firearms as a removal tool will continue to be an option and may be used according to the conditions of the LOA in situations where trapping is ineffective.

We also intend to mark any unknown California sea lions that may be captured on the traps and release them in the same area. We may deploy telemetry instruments to some of these animals to further document their movements and foraging patterns in the Bonneville Dam area (e.g. night activities, proportion of time spent in and out of the BRZ and observation areas). We will continue to collect fecal samples from all haul-out sites in the area to identify the variety of prey taken pinnipeds while in this area including genetic identification of salmonid stocks consumed.

Finally, this 2010 annual report to you was delayed due in part to the work load required to prepare for and participate in the recent Pinniped Task Force meetings in late October and early November. Between the end of those meetings and the preparation of this report, we of course became aware of the 9<sup>th</sup> Circuit Court of Appeals ruling that apparently has invalidated the NMFS LOA issued to the States. Our staff and legal counsels have been in contact with your staff and counsel to identify a way to move forward with this effort. Now more than ever we feel that the issue of pinniped predation on adult salmonids attempting to pass Bonneville Dam is highly significant. Left unchecked it will pose a growing risk to the recovery of listed salmonid stocks. All forms of mortality to these economically and culturally important salmonid resources must be addressed to achieve a true cumulative positive affect on fish survival. No one source of mortality, regardless of its numerical significance relative to other losses, can be ignored if all of the overall effort being made to recover these stocks is to be successful.

We urge NMFS to do everything possible to reinstate the LOA that will allow us to minimize sea lion predation on salmonids in the Columbia River. While we have found that Section 120 under the MMPA has not proven to be as effective at allowing predator removal as we might have hoped, it is currently the only tool we have. We need to have the ability to use it if we hope to have any success at reducing pinniped predation in the short term. In addition to the predation problem below Bonneville Dam, we documented a large increase in the number of California sea lions foraging at Willamette Falls in winter-spring 2010 and a significant increase in the number of salmonids taken by sea lions here. The Willamette River in Oregon is a major tributary to the Columbia River. This observation strongly suggests that sea lion numbers in the lower Columbia are continuing to increase and we must be aware of the possibility that losses of threatened and endangered salmonids may become a real concern at locations other than just Bonneville Dam. As stated by ODFW and WDFW leaders at the Pinniped Task Force meeting,

in addition to our intent to continue using the Section 120 option, we are considering pursuit of the other options available under the MMPA in order to achieve a sound conservation management outcome that allows us to manage in favor of the resources at greatest risk in this conflict.

We thank you for your assistance and support of our work to reduce sea lion predation on threatened and endangered salmonids below Bonneville Dam and look forward to working with you on this project in the years to come. Please let us know if we can provide further information related to our annual reporting obligations.

Sincerely,



Roy Elicker, Director  
Oregon Department of Fish and Wildlife



Phil Anderson, Director  
Washington Fish and Wildlife Department

APPENDIX A

**Columbia River Sea Lion Project**  
Animal Care Committee Membership

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