

**Task Force member Tim Ragen wrote the following meeting summary.**

In 1972 Congress passed the Marine Mammal Protection Act (MMPA) based, in part, on its findings that —

- (1) certain species and population stocks of marine mammals are, or may be, in danger of extinction or depletion as a result of man's activities;
- (2) such species and population stocks should not be permitted to diminish beyond the point at which they cease to be a significant functioning element in the ecosystem of which they are a part, and, consistent with this major objective, they should not be permitted to diminish below their optimum sustainable population.

The California sea lion (*Zalophus californianus*) population along the U.S. West Coast was among the numerous marine mammal populations depleted at that time.

In 1973 Congress passed the Endangered Species Act (ESA), finding and declaring that —

- (1) various species of fish, wildlife, and plants in the United States have been rendered extinct as a consequence of economic growth and development untempered by adequate concern and conservation; [and]
- (2) other species of fish, wildlife, and plants have been so depleted in numbers that they are in danger of or threatened with extinction....

The winter steelhead (*Onchorynchus mykiss*) and spring Chinook salmon (*O. tshawytscha*) stock of the Upper Willamette River are now recognized as such threatened stocks under the ESA.

In the ESA, Congress recognized multiple factors that may cause a species to be threatened with, or in danger of, extinction, including —

- (A) the present or threatened destruction, modification, or curtailment of its habitat or range;
- (B) overutilization for commercial, recreational, scientific, or educational purposes;
- (C) disease or predation;
- (D) the inadequacy of existing regulatory mechanisms; or
- (E) other natural or manmade factors affecting its continued existence.

Congress used the ESA to —

provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, [and] to provide a program for the conservation of such endangered species and threatened species....

Both the MMPA and the ESA were passed to conserve, or maintain the health and stability of, natural ecosystems. However, on occasion wildlife management actions proposed or conducted under the authority of those two Acts can conflict. To address one such problem, Congress amended the MMPA in 1994 to include section 120, which allows States to seek authority for —

intentional lethal taking of individually identifiable pinnipeds which are having a significant negative impact on the decline or recovery of salmonid fishery stocks which —

(A) have been listed as threatened species or endangered species under the Endangered Species Act of 1973...;

(B) the Secretary finds are approaching threatened species or endangered species status (as those terms are defined in that Act); or

(C) migrate through the Ballard Locks at Seattle, Washington.

On 6 October 2017 the Oregon Department of Fish and Wildlife applied to the National Marine Fisheries Service for authority to remove, through nonlethal and lethal means, California sea lions that are preying on the winter steelhead and spring Chinook salmon stocks of the Upper Willamette River. The application provides a compelling case that these stocks are at risk of extinction for a variety of historical and current reasons, including loss and adverse modification of essential habitat, disruption of migratory pathways by hydropower and related facilities, harvesting by fisheries, and potential conflicts with hatchery-reared fish. It also provides a compelling case that predation by California sea lions at or in the vicinity of Willamette Falls is now contributing substantially to the extinction risk of these salmonid stocks.

Predation on those stocks by California sea lions presents a potential conflict between the otherwise congruent conservation and humanitarian values expressed in the ESA and MMPA. However, the West Coast California sea lion population has recovered from depletion and is now well within its optimum sustainable population range (Laake et al. 2017). From a conservation perspective, the nonlethal or lethal removal of individual males from this population — as proposed by the State of Oregon — almost certainly would have no discernible effect on the status of the sea lion population.

Many might argue that the lethal taking of sea lions in such situations would be inconsistent with the MMPA's zero mortality rate goal, which is largely an expression of humanitarian value. Indeed, no task member advocated lightly the lethal taking of sea lions. At the same time, Task Force members recognized that this dilemma is one that pits the persistence of two threatened salmonid stocks against the survival of a relatively small number of individuals from an otherwise healthy stock.

The question, then, before the Willamette River Task Force was whether it should recommend that the National Marine Fisheries Service approve the application by the State of Oregon to remove individually identifiable sea lions that are having a significant negative impact on the decline or recovery of the two salmonid stocks of concern. Based on population viability analyses of the salmonid stocks, the number and predation behavior of sea lions present at the Willamette Falls, and the number of salmonids taken there, the majority of Task Force members concurred that reducing sea lion predation is necessary to reduce the risk of extinction of the salmonid stocks and can be done without placing the sea lion population at risk.

In their deliberations, Task Force members were informed by observations of a similar problem of sea lion predation at the Bonneville Dam. The Bonneville Dam and Willamette Falls situations are not identical, but lessons learned from management efforts

at Bonneville were informative and helpful during the Task Force's deliberations. The Task Force therefore also recommended that management of the Willamette Falls situation should be carefully documented to ensure that lessons that should be learned about such situations are not otherwise lost. Most of those recommendations pertain to careful monitoring, analysis, and reporting of the sea lions that occur at the Willamette Falls, the number of salmonids taken by those sea lions, the efficacy of nonlethal and lethal removal methods, and the overall impact of predation and remedial actions on the salmonid stocks.

Finally, Task Force members emphasized that the removal of California sea lions should not be viewed as a way to alleviate the State and Federal responsibility for reducing the adverse effects of other factors affecting the status, conservation, and recovery of these salmonid stocks.