



## Rogue Valley Audubon Society

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## Overview of Challenges Facing the Klamath Basin National Wildlife Refuges

### Providing for Wetlands and Wildlife

A century ago, approximately 350,000 acres of wetlands, shallow lakes and marshes were distributed throughout the upper Klamath Basin, sustaining an incredible diversity of wildlife. However, the development of the Bureau of Reclamation's massive Klamath Irrigation Project radically altered the natural flow of water that sustained these valuable wetlands. To provide for irrigation in the high desert of Southern Oregon and Northern California, this irrigation project diked and drained hundreds of thousands of acres of wetlands in the Klamath Basin.

Today, approximately 80% of the region's historic wetlands are gone, ultimately eliminating what refuge managers documented as late as the mid-1950s that it was "the greatest concentration of waterfowl in North America and probably the world."

The loss of these wetlands continues to result in not only in the loss of critically important habitat for wildlife, but also severe water quality and water quantity problems for salmon and other fish in the Klamath River. Wetlands serve as a natural filter for nutrients and pollution. Historically, the wetlands of the Klamath Basin provided an important buffer against floods and droughts, absorbing spring run-off and providing clean, cool water to the Klamath River. Today, they have been replaced with a complex irrigation system that diverts water during the months when it is the most scarce, and releases polluted return-flows into the Klamath River that are heavily laden with chemicals, fertilizers, and livestock wastes. The restoration of these marshes, as is being most successfully accomplished at the Bureau of Land Management's approximately 3,000 acre Wood River Wetlands, needs to be further expanded at key geographically specific locations--as on the formerly Agency-Barnes BOR managed wetlands, that have now been transferred to the Upper Klamath NWR (in Oregon on the upper end of Agency Lake).

### **Lower Refuges in Peril**

In 2010, and again in the fall of 2011, and during the summer of 2012, the Bureau of Reclamation provided almost no water to refuge wetlands at Lower Klamath NWR and surrounding wetlands on Tule Lake NWR. Because of their unique geographic location, these two refuges have long been regarded as two of the most significant waterfowl stopping- over locations in the entire Pacific Flyway. Yet, once again, in 2012, lack of water deliveries from mid-May until the very last day of August, reduced Lower Klamath's potential 30,000 acres of wetlands to no more than a couple of thousand acres, before very modest fall water deliveries were finally provided by BOR. Because most of these marshes were left totally dry on into late summer, when water was first received in early September, initially this water, at the beginning of the fall migrations season, simply went just went into the parched, dry ground. While it was touted in the local Klamath Falls press that "refuges were receiving water" in fact, early fall migrating waterfowl initially found little available habitat.

After an entire summer without water deliveries, the first water sent to Lower Klamath NWR in the early 2012 fall wildlife migration was just 10,000 acre feet, delivered primarily in September, and with another 10,000 feet then following in October. Timing of water deliveries is just as critical as the amount of water ultimately delivered. By drying up the refuge's marshes all summer long, wetland food plants are not able to grow and produce seed, thus resulting in significantly poorer quality habitat, even after (far less than optimum amounts of) water begins to be received.

In March of 2012, after witnessing a disastrous water year in 2010, and with Lower Klamath left largely dry in the winter of 2011-12, a coalition of national, regional, and local conservation groups petitioned Secretary of Interior Ken Salazar to ensure that Tule Lake and Lower Klamath National Wildlife Refuges (NWRs) received overdue water deliveries. This resulted in the delivery of 19,000 acre feet of much needed water deliveries. Unfortunately these deliveries did not occur in time to head off the death of an estimated 20,000 ducks, geese, and swans that

were confined to diminished wetland habitats where fowl cholera easily spread. (See *San Francisco Chronicle* article of April 21, 2012: “Migrating waterfowl die from lack of water,” at <http://www.sfgate.com/science/article/Migrating-waterfowl-die-from-lack-of-water-3498382.php> and previous *Oregonian* article of April 6, 2011 “Water cutoff contributes to Klamath Basin bird deaths, highlights challenge facing crucial wildlife refuges” [http://www.oregonlive.com/environment/index.ssf/2012/04/water\\_cutoff\\_contributes\\_to\\_kl.html](http://www.oregonlive.com/environment/index.ssf/2012/04/water_cutoff_contributes_to_kl.html))

Given the overall likelihood of additional “refuge insufficient” water years in 2013 and in future years, the Bureau’s current water management regime will likely continue to be devastating to the Klamath refuges’ fish and wildlife with ultimate impacts thus felt throughout the entire Pacific Flyway.

### **Federally Listed Tule Lake Suckers in Peril**

In 2004 the National Research Council commented on the significance and importance of Tule Lake for the recovery of federally listed endangered Lost River and shortnose suckers. Citing the USFWS’s 2002 Biological/Conference Opinion Regarding the Effect of Operation of the US Bureau of Reclamation’s Proposed 10-Year Operation Plan for the Klamath Project, the NRC wrote in their 2004 publication “*Endangered and Threatened Fishes in the Klamath River Basin—causes of decline and strategies for recovery*,” National Academies—page 211: [http://www.nap.edu/openbook.php?record\\_id=10838&page=211](http://www.nap.edu/openbook.php?record_id=10838&page=211)

*“Suckers in Tule Lake typically have higher conditions factors and lower incidence of external parasites that suckers in other parts of the basin (USFWS (2002).”*

Continuing on pages 211-212:

*“The Tule Lake (sucker) populations historically were maintained by spawning runs up the Lost River...Conditions within Tule Lake are deteriorating because of accumulation of sediment from agricultural sources. Alterations in water-management practices, however, could attest deterioration. Some changes might even restore spawning runs...The relatively good conditions of suckers in Tule Lake makes these populations valuable for the long-term survival of both species of suckers, especially given the continuation of fish kills in Upper Klamath Lake.”*

NRC, continuing on the bottom p. 213 of their 2004 recommendations maintained:

[http://www.nap.edu/openbook.php?record\\_id=10838&page=213](http://www.nap.edu/openbook.php?record_id=10838&page=213):

*“Spawning occurs in the Lost River but does not sustain a population of juveniles in Tule Lake, as once was the case. Dewatering of Tule Lake and Lower Klamath Lake and large physical and chemical changes in the Lost River almost certainly are the cause for failure of endangered suckers in the Lost River below Clear Lake and Gerber Reservoir to show recruitment or increase in abundance.”*

In 2010, with no prior public discussion or legally required NEPA disclosure, the US Bureau of Reclamation requested and was later granted by the Klamath Falls US Fish and Wildlife Service’s Field Supervisor (April 22, 2010), an exemption from their Endangered Species Act

requirements to maintain the flow of water into Tule Lake to sustain endangered fish populations. The basis for this decision was that agricultural return flows would no longer be sufficient to maintain the ESA established minimum water levels in Tule Lake necessary to sustain the sucker population. At the same time, the Klamath Falls office of the US Fish and Wildlife Service, also excused BOR (as previously required by the 2008 Biological Opinion) from having to provide flows in the Lost River to enable the spawning of the lake's remaining populations of endangered fish.

This little disclosed agency decision necessitated that Tule Lake's two species of endangered fish be captured and relocated from habitat they have occupied for millennia. Despite an effort to remove them all, only 20% of the lake's estimated 2000 endangered fish were able to be netted and captured. Some 413 fish (of which 14 later died) were transported to Upper Klamath Lake, a location where the USFWS has recently stated that endangered fish populations there "are declining between 10 to 20 percent a year". The remaining endangered fish that were not evicted from the lake were simply expected to die. In our opinion these actions were most likely illegal.

Fortunately, agricultural return flows in 2010 ended up providing more water to Tule Lake than BOR had originally anticipated. Thus, in the summer of 2010 Tule Lake did not go dry and Tule Lake Suckers have managed to survive. However, they remain at high risk from future implementation of similar decisions. BOR's recent 2012 Draft and Final Biological Assessments reveals the agency still intends to take advantage of a future dry water year, to seek to allow Tule Lake to go dry resulting in another attempt to capture and relocate Tule Lakes sucker populations and the local extinction (extirpation) of endangered Lost River and shortnose suckers from Tule Lake. Doing so would directly contradict the prior recommendations of the NRC and numerous scientific studies demonstrating that maintaining and enhancing habitat in Tule Lake is among the best recovery strategies for these species. (See Oregon Wild's and WaterWatch of Oregon's February 12, 2013 comments on the US Fish and Wildlife Service's proposed critical habitat for the Lost River sucker (*Deltistes luxatus*) and shortnose sucker (*Chasmistes brevirostris*), as published in the Federal Register / Vol. 76, No. 235 on December 7, 2011.)

Equally of concern, the USFWS announced of December 10, 2012, the adoption of a final critical habitat rule which significantly reduces an earlier agency proposed critical sucker habitat proposal by 630,000 acres--a full 72 percent reduction in the area of previously proposed critical habitat. Specifically, this final rule has excluded critical habitat protection for both species of endangered fish that are currently found in Tule Lake, the Lost River, and Miller Creek below Gerber Reservoir (a tributary to the Lost River).

### **It is Time to Prioritize Providing Water to the Refuges**

Since the construction of the Klamath Irrigation Project, Lower Klamath Lake and Tule Lake Refuges have been forced into a situation in which rather than receiving natural water deliveries, they are instead made dependent on agricultural wastewater return flows. These flows are not designed to protect fish and wildlife, but rather are the byproduct of the need to prevent flooding on nearby commercial agriculture lands. Agricultural wastewater initially flows

into Tule Lake and then is pumped from Tule Lake, via the Sheepy Ridge Tunnel, into Lower Klamath NWR. Since 1981, this source has provided 70% of the total water supply to the Lower Klamath NWR. However in low water years, wastewater is diminished and the refuges go without.

Ironically, these commercial lands were once part of Tule Lake's marshes, and are publicly-owned and a part of Tule Lake NWR. Yet, these natural marshes have been destroyed and opened to commercial agribusiness under an environmentally destructive lease program (administered by the Bureau of Reclamation). To make matters worse, these commercially leased agricultural fields (totaling 22,000 acres on both refuges) regularly receive water, even in years when the refuge's "true" wetlands are, in stark contrast, left nearly totally dry.

In recent years, the Lower Klamath NWR has received inadequate and diminished water supplies. According to a November 2011 USFWS report titled: Historic Water Use and Modeled Water Requirements on Lower Klamath NWR "since 2006...the refuge has not received sufficient water during these (last 5) years." During the 2005-2006 season, 108,000 acre feet of water was pumped into Lower Klamath from Tule Lake. This declined to just 12,100 acre feet in the 2009-2010 season.

BOR's renewed fish removal plan, as contained in its December 2012 Biological Assessment, that again proposes to allow Tule Lake to go dry, not only jeopardizes the survival of endangered fish, but additionally puts the wetlands of Lower Klamath and Tule Lake NWRs at risk. While the refuge sometimes purposely dries up select marsh areas for specific management purposes, this massive BOR controlled draw down of most or all of Tule Lake, has little or nothing to do with maintaining wildlife refuge (waterfowl) marsh productivity.

Based on the foregoing, it is critical to insure that the water needs of the Tule Lake and Lower Klamath National Wildlife Refuges are closely monitored and met this spring as well as throughout the remainder of the year. Moreover, given the example that fish were needlessly removed in 2010, the Klamath Falls office of the US Fish and Service's upcoming, revised Biological Opinion, must be scientifically credible and ensure that it does not in effect authorize or permit the eventual local extinction of Lost River and shortnose suckers from Tule Lake, and much of the Lost River watershed. Furthermore, there should be no more short-term supplemental opinions (as occurred in April of 2010) which attempted to make legal the trapping and eviction of listed fish from their formerly proposed critical habitats, placing the future of these endangered fish in still further peril.

In the longer term, the basic problem in the Klamath Basin still remains: too much water has been promised to too many different interests, and in drought years (or even "normal" years) there simply is not enough of this precious resource to go around. Making matters worse, Bureau of Reclamation management continues to threaten the survival of wildlife and their essential wetland habitats—which are treated as an extremely low priority.

Our organizations again ask that Congress reform the current broken system of managing water for wildlife in the Klamath Basin. Legislation that does not require massive and excessively

costly special interest subsidies, is urgently needed to end the abusive practice of leasing publicly-owned land within the refuges. These were lands originally set aside for pelicans, cranes, geese, and eagles--not for the near exclusive monopoly of private commercial agriculture that annually usurps almost all available refuge water supplies. Demand for water for irrigation within the Klamath Basin clearly continues to far exceed the available supply, and with climate change this situation will only get worse.

The Department of the Interior and Congress should work together to develop a voluntary demand reduction program, where private water right holders can retire their claims to water, and receive fair market value for those rights, in order ensure the basin's National Wildlife Refuges, salmon, and other wildlife can receive the water they need to survive, and thrive once again.