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Maps of the Klamath Basin and Key Water-Related Events in the Upper Klamath Basin

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Background

Ron Hathaway and Teresa Welch

In 2001, water allocation decisions intended to benefit fish protected under the Endangered Species Act, along with a severe drought, resulted in curtailment of irrigation deliveries on the Klamath Reclamation Project. The events that followed made headlines across the country.

The situation did not develop overnight, however. Like most areas in the United States, various parts of the Klamath Basin have been affected over the past 150 years by crop production, grazing, timber harvest, mining, wildlife management, fishing, industry, hydroelectric power production, introduction of nonnative species, and urbanization. It is against this historical backdrop that we must consider the events of 2001.

The controversy brought to the stage a bewildering cast of characters—federal and state agencies, farmers, environmental groups, Native American tribes, farmworkers, power companies, lawyers, scientists, three species of fish, bald eagles, waterfowl, and other wildlife. Discussions revolved around acronyms such as BiOps, BAs, KPOPs, and RPAs. To those not directly involved, it can be difficult to make sense of the debate.

This chapter is intended to help you sort it all out. Here we set the stage by introducing many of the key players and factors that led up to the situation in 2001. We hope this background will help you understand the discussions in the chapters that follow.

Overview of the Klamath Basin

The Klamath River watershed begins in the mountains of Oregon and California east of the Cascade Range. Crater Lake National Park sits at the top of the watershed. From Upper Klamath Lake, the river flows generally southwesterly, entering the Pacific Ocean south of Crescent City, California (Figure 1).

For practical purposes, the Basin can be described as consisting of an upper and a lower section separated by a river reach with a series of hydroelectric dams. Except for Chapter 6 (“Coho Salmon”) and Chapter 18 (“Policy”), most of this report deals with the Upper Basin.

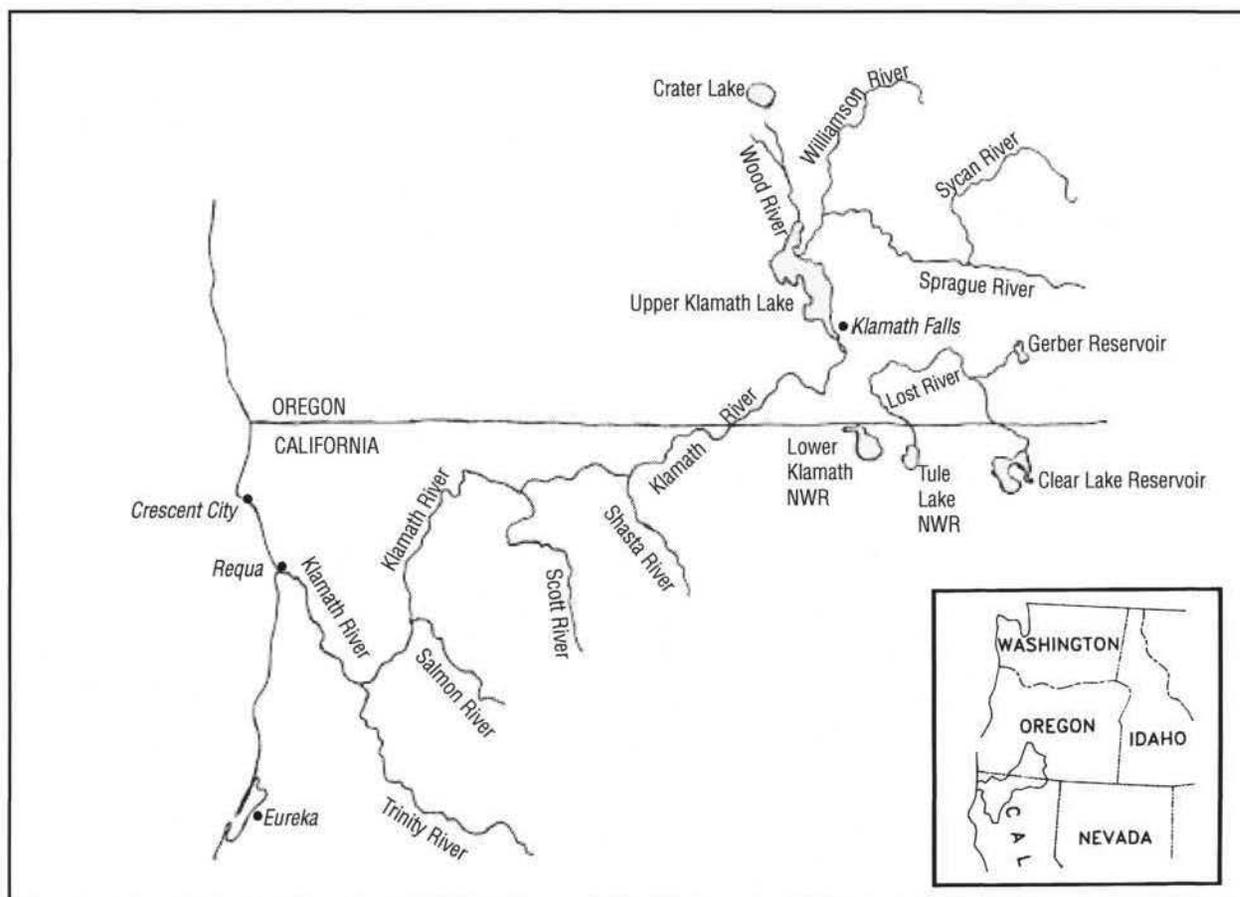


Figure 1. The Klamath Basin from its headwaters near Crater Lake, Oregon, to its mouth at Requa, California.

Upper Basin

The Upper Basin is considered to be the area upstream of Iron Gate Dam or from the Oregon-California border (the dam is only a few river miles downstream from the state line). The Upper Basin is cut roughly in half by the Oregon-California state line (Figure 2).

The primary body of water in the Upper Basin is Upper Klamath Lake, a large but very shallow natural lake on the Oregon side of the border. The lake is fed by the Williamson and Wood rivers, as well as by several springs. Water leaves the lake via the Link River, which empties into Lake Ewauna and then flows down the Klamath River to the Pacific Ocean.

There are six dams on the Klamath River from Upper Klamath Lake to Iron Gate Dam. Dam development over the past several decades

has affected river flows and the ability of fish to return to their natal stream to spawn.

The California part of the Upper Basin contains parts of the Lost River system, which includes Tule Lake and Clear Lake (now a reservoir). This system is connected to the Klamath River via human-made structures of the Klamath Reclamation Project.

The Upper Basin is a high-elevation, short-growing-season area. The Cascade Mountains to the west trap most of the coastal moisture, leaving the east side of the mountains cool and dry. Forest lands cover about two-thirds of the Basin, and most of the remaining third is arable land. The eastern and southern sides of the Basin are formed by sagebrush- and juniper-covered fault blocks and ridges.

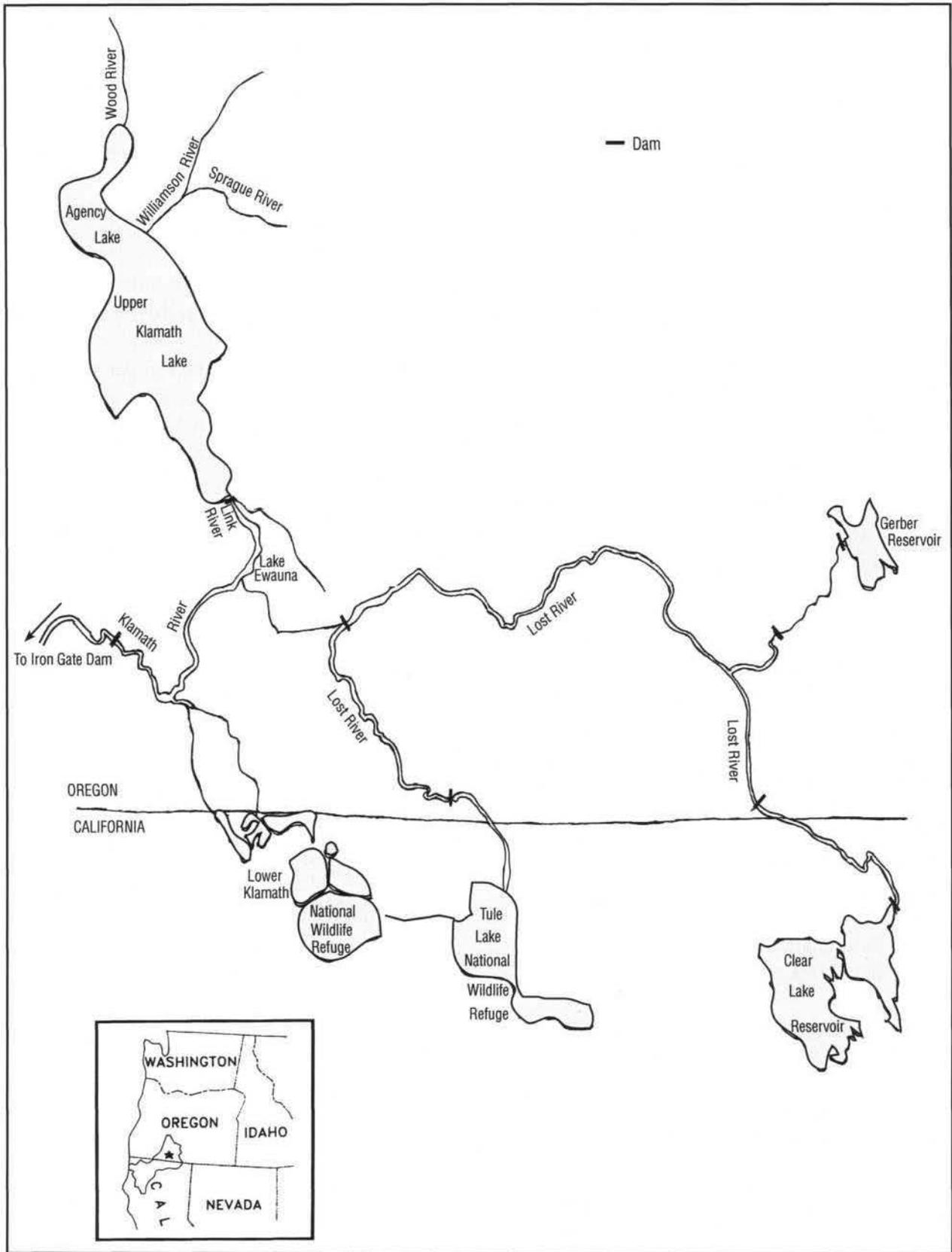


Figure 2. The Upper Klamath Basin.

The area around Upper Klamath Lake averages only about 14 inches of rain per year. Water resources in the Basin depend on annual recharge of groundwater and stream flows by melting snow, most of which falls at the higher elevations. Drought is not unprecedented in the Basin. Multiple years of low precipitation were experienced several times during the 20th century. Prior to 2000–2001, the most recent critically dry years were 1992 and 1994.

Lower Basin

The Lower Klamath Basin—the area downstream from Iron Gate Dam—is made up of the middle and lower sections of the Klamath River and the tributary subbasins of the Shasta, Scott, Salmon, and Trinity rivers. All of these tributary systems have been highly altered by irrigation dams and/or diversion of water for irrigation except the Salmon, which was extensively dredged for gold.

The lower part of the watershed near the Pacific Ocean is a temperate rainforest. Much of the lower Klamath River is included in the federal Wild and Scenic River system.

Key water-related events in the Upper Klamath Basin

- 1864—United States and Klamath and Modoc tribes enter into a treaty establishing the Klamath Reservation.
- 1902—Reclamation Act passed by Congress.
- 1905—Klamath Reclamation Project authorized and construction begins with the aim of converting much of the marshy Klamath Lake and Lost River systems to agricultural land and wildlife refuges.
- 1908—Lower Klamath National Wildlife Refuge established.
- 1917—First Project lands opened to homesteaders.
- 1928—Tule Lake and Upper Klamath Lake national wildlife refuges established.
- 1948—Final homestead lands distributed.
- 1957—Klamath River Basin Compact established by Congress to deal with water resource issues in the Basin.
- 1973—United States eliminates the Klamath Reservation, after having purchased much of the land for national forests and wildlife refuges.
- 1975—Klamath Basin Adjudication begins the process of quantifying pre-1909 water rights.
- 1986—Sport fishery on suckers closed by the State of Oregon.
- 1988—Lost River and shortnose suckers listed as endangered under the Endangered Species Act.
- 1992—U.S. Fish and Wildlife Service issues first Biological Opinion on effects of Project operation on suckers, resulting in establishment of minimum elevations for Upper Klamath Lake.
- 1997—Alternative Dispute Resolution process established to resolve claims under the Klamath Basin Adjudication process.
- Southern Oregon and California wild coho salmon listed as threatened under the Endangered Species Act.
- 1999—National Marine Fisheries Service issues first Biological Opinion on effects of Project operations on coho salmon, finding no jeopardy to the species, contingent upon specific minimum Klamath River flows.
- 2000—Low precipitation and snowpack lead to predictions of the lowest inflow on record to Upper Klamath Lake for 2001.
- 2001—U.S. Fish and Wildlife Service issues new Biological Opinion on suckers, resulting in a higher minimum lake elevation than that established by the 1992 Biological Opinion.
- National Marine Fisheries Service issues new Biological Opinion on coho salmon, resulting in minimum flow requirements in the Klamath River at Iron Gate Dam higher than the pre-1999 minimums but lower than the 1999 flows.
 - Bureau of Reclamation informs Project irrigators that no water from Upper Klamath Lake will be available for irrigation deliveries or wildlife refuges during the 2001 growing season.
 - In July, Department of the Interior releases 40,000 acre-feet of water from Upper Klamath Lake for irrigation deliveries. (Later releases of 26,000 acre-feet benefited the refuges.)