

Klamath Basin water history  
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Compiled from Bureau of Reclamation and Herald & News archives:

1826: Peter Skene Ogden, fur trapper, enters the Klamath Basin.

1840s: Settlers begin to move west to Oregon and California.

1882: Farmers begin irrigating in the Klamath Basin.

The Linkville Water Ditch Company is incorporated and a shallow canal is dug connecting Linkville town lots to Link River above present day Klamath Falls. The Van Brimmer brothers also start a small canal to irrigate 4,000 acres near the California border. During the early days of settling, homesteaders in Bonanza begin using native suckers for fertilizer and oil. They attempt to get laws passed to prevent Native Americans, who have fished for suckers for centuries, from catching them.

1886: J. Frank Adams completes a six-mile canal from the Lost River to Adam's Point. Originally his canal received water from White Lake, but after a dry winter, he tapped Lower Klamath Lake as a more secure supply.

1887: Charles and Rufus Moore excavate a canal on the west side of the Link River to furnish power to a sawmill and float logs down from Upper Klamath Lake. The brothers build a second canal to water gardens and orchards in west Klamath Falls.

1888: The Linkville ditch is taken over by the Klamath Falls Irrigation Company and turned into a high-capacity canal known as the Ankeny-Henley Canal.

1902: Congress passes the Reclamation Act.

The U.S. Reclamation Service becomes the Bureau of Reclamation.

1903: John T. Whistler, Oregon District engineer of the U.S. Reclamation Service, recommends a dam at the mouth of Upper Klamath Lake to retain enough water to irrigate 200,000 acres. Others recommend Clear Lake, 66 miles southeast in California, as an alternative reservoir.

1904: Reclamation Service Director Fredrick H. Newell visits the Klamath Basin and says the Interior Secretary is likely to approve a federal irrigation project. Three men named Hawkins, Brown and Gold incorporate the Klamath Canal Company and file a water rights claim for an amount of water equal to the entire flow of the Link River.

1904-05: Residents petition the government for a project.

1905: Approval of the Klamath Project requires Oregon and California, as well as private water rights holders, to relinquish those rights to the federal government, but not all are willing to sell. On April 7, the Reclamation Service buys rights to land and water from owners of the Little Klamath Ditch, the Ankeny-Henley Canal and the Jesse D. Carr Land & Livestock Co. for \$337,500, but owners of the Klamath Canal Co. hold out for \$200,000 for their rights. Reclamation officials doubt the value and legality of their claim and order them not to divert any water, but the company does so anyway. Reclamation obtains a temporary restraining order. The dispute between the company and the Reclamation Service marks the first legal battle over who gets water and who doesn't in the Klamath Basin.

March 4, 1905: The Klamath Water Users Association is organized.

April 25, 1905: Reclamation agrees to pay Hawkins, Brown and Gold \$150,000 for their rights and interest in the Klamath Canal Company. The Project begins.

May 15, 1905: After Oregon, California and the U.S. complete the necessary legislation, Secretary of Interior Ethan Hitchcock authorizes \$4.4 million to build the Klamath Project. The government immediately allocates \$1 million to begin construction.

1906: Construction begins on the A Canal using horse teams.

Heavy snows and wet weather delay construction.

1907: Construction on the A Canal headworks is completed by June. Work begins on the East Branch (B) Canal and Keno Power Canal. A levee is constructed by an agreement between Reclamation and the California and Northeastern Railway, paralleling the present Highway 97 south of Klamath Falls.

1908: President Teddy Roosevelt establishes the Lower Klamath National Wildlife Refuge, the nation's first waterfowl refuge. Construction begins on the South Branch (C) Canal. The canal requires a 4,300-foot flume across the Lost River slough. In September excavation begins on Clear Lake Dam. Originally water was to cost farmers \$20 a month, but in 1908 Reclamation raises the fee to \$30. Farmers refuse to pay the extra charge. In 1909 the government halts work. The water users association gives in and work resumes.

1909: Austrians, Montenegrins and Serbians continue construction on Clear Lake Dam. Dikes are built to the south of the dam to retain floodwaters.

1911: Clear Lake National Wildlife Refuge established. Construction begins on the Lost River Diversion Dam and Lost River Diversion Channel.

1912: Reclamation begins experimental farms in drained Tule Lake marshes, but plowing and growing prove difficult.

1917: 175 homesteaders file for 42 tracts of land. Klamath Falls begins to grow rapidly; other towns, including Merrill, Malin and Midland grow more slowly or lose residents. Reclamation signs an agreement with the California-Oregon Power Company (COPCO) to build and operate the Link River Dam.

1920: Construction begins on the Link River Dam July 29 at the mouth of Upper Klamath Lake.

1921: Construction begins on the Lower Lost River Diversion Dam (Anderson-Rose Dam) and the J Canal to serve the Tulelake area.

1922: Homestead entries are opened to World War I veterans. Work begins on the Malone Dam.

1924: Construction begins on the Miller Diversion Dam, Gerber Dam and North Canal in Langell Valley.

1925: Potatoes and alfalfa become important Basin crops.

1926: Horsefly, Langell Valley, Sunnyside, Malin and Shasta irrigation districts are formed about this time. Klamath Falls grows to 10,000 people. Water is being delivered to about 21,000 acres. Depression and war.

1928: Tule Lake and Upper Klamath National Wildlife Refuges are established.

1935: Two Civilian Conservation Corps work camps are established on the Klamath Project. In the 1920s and 30s, Reclamation widens and lines existing canals, replaces the C Canal wooden flume with a concrete one, and expands and modifies Clear Lake Dam.

1940: Construction begins on the Tule Lake division with the P and P-1 Canals. Workers begin the Sheepy Ridge tunnel, a 6,600-foot east-west culvert that drains Tule Lake into lower Klamath Lake.

1941: Pumping plant D is built to lift water from Tule Lake into the tunnel. With World War II, armed guards are

stationed at project facilities and the Army selects the area for an internment camp. Housing for up to 16,000 Japanese-American citizens is constructed. Some German prisoners of war are also located at a site northwest of Tule Lake. They are put to work clearing moss from canals.

1946: Lands for relocation camps are returned to the Project. A second wave of homestead entries attracts World War II veterans.

1956: The Federal Energy Regulatory licenses a series of dams on the Klamath River.

1957: The Klamath River Compact between Oregon and California and the U.S. sets goals and objectives for water management on the Klamath River.

1958: The Klamath Forest National Wildlife Refuge is established.

1962: Iron Gate Dam is built on the Klamath River.

1964: Passage of the Kuchel Act ends homesteading and dedicates the remaining Project acres to the other major purpose of waterfowl management, but with full consideration to optimum agricultural use. The law enrolls 17,000 acres on Tule Lake refuge and 5,000 acres on Lower Klamath refuge in a lease program for farming. At first, farmers oppose the Kuchel Act, because they see it as a threat. Later, as environmental issues mount, they come to embrace the law for guaranteeing their right to farm on rich refuge soils.

1970: The National Environmental Policy Act is passed, requiring federal agencies to analyze the impact of their actions on the land.

1973: The Endangered Species Act is passed.

1975: Oregon begins to adjudicate Klamath River water rights.

1977: A drought strikes the Pacific Northwest, producing a record low snowpack across a wide region.

1978: The bald eagle is declared a threatened species on Feb. 14. Bear Valley National Wildlife Refuge is established to protect bald eagle roost sites. In the 1980s, scientists for the Klamath Tribes and Oregon Department of Fish and Wildlife grow concerned about the status of suckers in the Klamath Basin.

1988: The Lost River and shortnose suckers are declared endangered species on July 18.

1990s: From 1989 to 2001, a series of biological opinions repeatedly find the Project jeopardizes the suckers. Also during the 1990s, the roles of the Bureau of Reclamation and Army Corps of Engineers are first called into question with publication of "Cadillac Desert," written by Marc Reisner. The book chronicles the history of the Bureau of Reclamation and the development of dams for reclamation, flood control and power generation throughout the West, their adverse environmental effects, and the influence of powerful California business interests in controlling water development. Droughts and fish kills.

1992: A drought focuses attention on the role of lake levels in protecting sucker habitat. The wildlife service recommends Upper Klamath Lake be kept above a minimum elevation of 4,139 feet during summer months, although it allowed that the lake could drop to as low as 4,137 feet in four out of 10 years. Other steps are recommended, including fish ladders, screens and a sucker salvage program to remove suckers each fall when canals are drained and return them to the lake. For the first time in the Klamath Reclamation Project's history, irrigation deliveries are curtailed.

April 1993: A final recovery plan for suckers is approved by the wildlife service.

1994: A second drought hits the Klamath Basin. The surface elevation of Upper Klamath Lake falls to 4,136.86 on

Sept. 27, the lowest level since records began in 1905.

With salmon stocks dwindling, commercial fishing for coho salmon is halted from Washington to California.

Dec. 1, 1994: U.S. Fish and Wildlife Service proposes a rule defining critical sucker habitat in Clear Lake Reservoir.

1995: Reclamation begins operating according to an annual plan. Klamath Province steelhead trout are proposed for ESA protection.

1995-1997: Large numbers of suckers die in a series of fish kills.

1996: Reclamation agrees to meet minimum instream flows below Iron Gate Dam to protect habitat for anadromous fish.

During the 1990s, scientists studying the lake begin to focus on the roles of algae, nutrients, temperature, ammonia and alkalinity in triggering periodic die-offs of suckers.

1996: An Interior Department solicitor published a legal opinion that water for Native American tribal trust obligations and endangered species take precedence over deliveries of irrigation water to farmers and wildlife refuges.

June 6, 1997: Coho salmon are listed as a threatened species.

1998-99: Winter storms bury Oregon with the heaviest snows since 1974. Record snowfall is recorded at Crater Lake.

1999: Critical habitat is defined for the coho. On July 12, a biological opinion from the National Marine Fisheries Service concludes project operations would affect, but not likely jeopardize, coho.

A controversial study by Thomas Hardy, a Utah State University hydrologist, is published in the fall. It calls for instream flows to protect the fish far higher than those set by FERC, or those agreed to by Reclamation in 1996.

1995 - 2001: As scientists learn more about suckers and the lake, they begin to suspect that fish die-offs entail more factors than previously known and begin to call for higher lake levels. After 1997, Reclamation operates the project to maintain the level of Upper Klamath Lake above the required minimum.

2000: At a conference of environmental groups and wildlife refuge officials, Klamath Project farmers announce they are willing to sell as much as 30,000 acres of farm land, following four years of profitless growing. Imperial Holly announces it will no longer contract to grow sugar beets, a major Basin crop, in Oregon and shuts down its northern California refineries.

In autumn, Congress approves the Klamath Basin Water Supply Initiative. It authorizes the Bureau of Reclamation to study ways to improve water storage and quality in the Basin. Potato farmers, hit by another profitless season, seek to have the federal government buy a portion of their crop for dumping.