

# California Chinook Salmon Population Data



## Historical Background:

By 1852, sediment from California gold mines had nearly destroyed Chinook Salmon spawning grounds and resting pools on the Sacramento, Yuba, Mokelumne, Feather, and American Rivers. In 1878 public concern over the decline in fish species, especially salmon, led to the creation of the State Board of Fish Commissioners. The board established salmon hatcheries as a means to stabilize fish populations. The focus of commercial fishing in California was placed on ocean fisheries by 1920. Construction of the California network of dams began in 1923 with the O'Shaughnessy Dam built on the Toulumne River, followed by Shasta Dam in 1945 (historic salmon spawning grounds were eliminated). In 1951 the Friant Dam eliminated the spring-run salmon in the San Joaquin River. From 1940 to 1960 all Central Valley rivers of any size (except the Cosumnes River) were dammed in the foothills. See the attached map.

## Estimates of Returning Central Valley Fall-run Chinook Salmon

### Historical Through 2011

Year	Number of Salmon	Year	Number of Salmon
Historic	1,000,000	1984	280,000
1954	500,000	1987	300,000
1957	120,000	1990	100,000
1960	480,000	1993	225,000
1963	290,000	1996	350,000
1966	200,000	1999	400,000
1969	305,000	2002	880,000
1972	175,000	2005	450,000
1975	200,000	2008	66,000
1978	190,000	2011	122,000
1981	280,000		

Source: California Department of Fish and Wildlife

The dams of the Central Valley present a major challenge for sustaining Chinook populations. They prevent Chinook from swimming to higher elevation streams where colder water temperatures provide the necessary conditions for spawning. Between 1942 and 1980, a total of eight hatcheries were established to help mitigate the impact to salmon populations in California's Central Valley caused by water development projects. These hatcheries release more than 40

million juvenile salmon annually. California, from 1950 to the present, has been the national leader in agricultural production; farming and ranching use 30% of the state's land, and most crops require irrigation and use 85% of the state's developed water. The California Central Valley grows approximately one third of U.S. food.



O'Shaughnessy Dam

Visit [www.projectwild.org/aquatic](http://www.projectwild.org/aquatic) for links to additional information on the San Francisco Bay-Delta Watershed, as well as an electronic color version of the map titled *California's Central Valley: A Transformed Watershed* included in this activity.