

Klamath Settlement



EIS/EIR PROCESS

Klamath Regional Economics Fact Sheet

Implementation of Alternative 2 Full Facilities Removal of Four Dams impacts spending associated with a wide variety of activities (dam removal, mitigation, facility operation and maintenance (O&M), KBRA programs, irrigated agriculture, commercial fishing, ocean sport fishing, in river sport fishing, whitewater recreation, and reservoir recreation). Local economies will be positively or negatively impacted as a result of increases or decreases in spending in local regions associated with these activities.

The employment impacts estimated to be associated with Alternative 2 include full time, part time, and temporary positions. The estimated jobs may be short term, 15 year or less, or long term, 16 or more years. Changes in spending are modeled in 10 regions consisting of two or more counties based on the location of the activity. A total of 15 (six in Oregon, nine in California) counties are represented in these 10 regions.

The duration of the jobs associated with the change in spending depends on the duration of the spending change. For instance, jobs associated with dam removal will occur in the year of dam removal (2020), jobs associated with KBRA funding will end in 2026 (when that funding ends), job losses for activities that will decline/disappear as a result of dam removal (O&M, reservoir and whitewater recreation) will commence in the year after dam removal (2021), fishery-related jobs are affected over the entire 2012-61 period (though at a much lower level prior to dam removal than after). Estimated jobs include full time, part time, and temporary positions. Full realization of employment changes may not occur to the extent that businesses deal with changes in spending by adjusting the workload of existing employees or increasing their use of capital relative to labor. It is not appropriate to add jobs across years, as the job estimates provided here represent *average* annual changes rather than annual changes that accumulate in each year of the study period.

Table 1 summarizes the change in average annual jobs for each activity, region, and timeframe (with color-coding used to differentiate the regions). Average annual jobs were estimated using IMPLAN, which estimates regional impacts based on the makeup of the economy at the time of the underlying IMPLAN data (2009). Thus the precision of estimated future employment impacts will be affected by future structural changes in the economy which cannot be reliably predicted. Figure 1 illustrates how the change in average annual jobs varies in each year of the 50 year study period relative to the No Action Alternative. Figure 1 is a simplistic characterization of changes in employment impacts over time, as it sums jobs across regions without considering the fact that job estimates are sensitive to how the affected region is defined. It is important to note that Table 1 and Figure 1 do not include changes in jobs attributable to increased harvest opportunities in tribal fisheries and the redband trout and in-river steelhead sport fisheries, which could not be quantified with available data.

Table 1. Incremental Change In Average annual Full Time, Part Time, or Temporary Jobs From No Action Alternative by Region, Activity, and Timeframe

Economic Region	KHSA Activities with KBRA in place	Average Annual Full Time, Part Time or Temporary Jobs Full Facilities Removal (Incremental Change from No Action Alternative)	Timeframe ¹
Klamath County OR; Siskiyou County CA	Dam Decommissioning	1,400	2020
Klamath County OR; Siskiyou County CA	O&M	-49	2021 – 2061
Klamath County OR; Siskiyou County CA	Mitigation	30	2018 – 2025
San Francisco Management Area (San Mateo, San Francisco, Marin and Sonoma Counties CA)	Commercial Fishing	218	2012 – 2061
Fort Bragg Management Area (Mendocino County CA)	Commercial Fishing	69	2012 – 2061
KMZ-CA (Humboldt and Del Norte Counties CA)	Commercial Fishing	19	2012 – 2061
KMZ-OR (Curry County OR)	Commercial Fishing	11	2012 – 2061
Central Oregon Management Area (Coos, Douglas and Lane Counties OR)	Commercial Fishing	136	2012 – 2061
Klamath County OR; Siskiyou County CA	Reservoir Recreation	-4	2021 – 2061
Klamath County OR; Del Norte, Humboldt, and Siskiyou Counties CA	In River Sport Fishing	3	2012 – 2061
KMZ-CA (Humboldt and Del Norte Counties CA)	Ocean Sport Fishing	5	2012 – 2061
KMZ-OR (Curry County OR)	Ocean Sport Fishing	1	2012 – 2061
Klamath and Jackson counties OR; Humboldt and Siskiyou counties CA	Whitewater Boating	-14	2021 – 2061
Economic Region	Direct KBRA Activities	Average Annual Full Time, Part Time or Temporary Jobs Full Facilities Removal (Incremental Change from No Action Alternative)	Timeframe ¹
Klamath County OR; Siskiyou and Modoc Counties CA	Irrigated Agriculture	modeled drought years	2027, 2043, 2045, 2051, 2059
Klamath County OR; Siskiyou County CA	Refuge Recreation	5	2012 – 2061
Klamath County OR; Siskiyou, Modoc, Humboldt, and Del Norte Counties CA	Fisheries Program	260	2012 – 2026
Klamath County OR; Siskiyou, Modoc, Humboldt, and Del Norte Counties CA	Water Program	16	2012 – 2026
Klamath County OR; Siskiyou, Modoc, Humboldt, and Del Norte Counties CA	Reg Assurances	10	2012 – 2026
Klamath County OR; Siskiyou, Modoc, Humboldt, and Del Norte Counties CA	Tribal Programs	25	2012 – 2026

¹ These employment impacts are anticipated to occur on the first day of the Timeframe identified and persist over the period. For example, Dam Decommissioning is estimated to have an employment impact of 1,400 jobs. These jobs would start on January 1, 2020 and persist until December 31, 2020. Similarly, the loss of 49 O&M jobs would be anticipated to start on January 1, 2021 and persist until 2061.

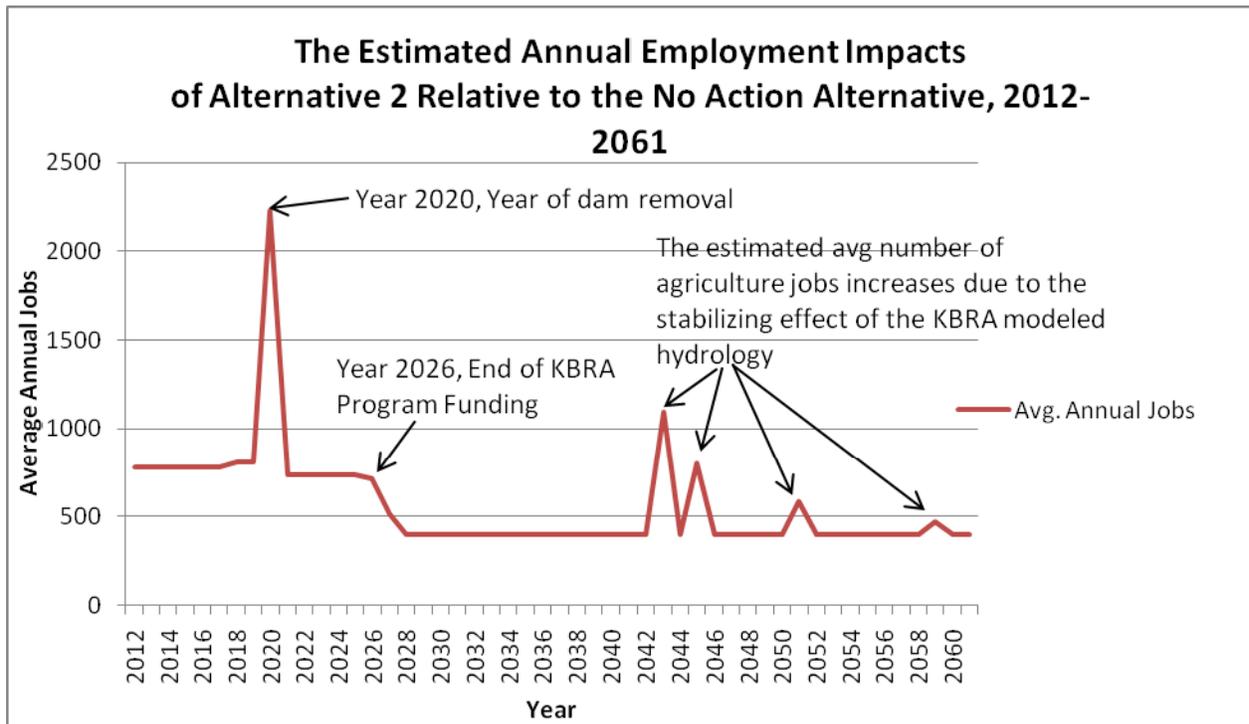


Figure 1. Estimated Annula Employment Impacts of Alternative 2 Relative to the No Action Alternative, 2012-2061

Activities and Location of Average Annual Jobs Associated With Implementation of the Full Facilities Removal Alternative

Removal of facilities—Klamath County OR; Siskiyou County CA

- Short-term
 - Dam Removal — 1,400 full time, part time, or temporary jobs associated with dam removal in 2020 were estimated to occur in Klamath County OR and Siskiyou County CA. These jobs would be related to construction activities and include machine operators, material purchases such as fuel, inspectors, and construction management.
 - Mitigation — Approximately 220 full time, part time, or temporary jobs, or an average of 27 jobs annually between the years 2018-2025 in Klamath OR and Siskiyou CA counties were estimated to stem from total in region mitigation expenditures.
- Long-term
 - Operation and Maintenance — 49 average annual full time, part time, or temporary jobs related to O&M are lost in Klamath OR and Siskiyou CA counties because the hydroelectric facilities would not require O&M.

Commercial Fishing—Five Management Areas—Oregon and California Coast from Lane County Oregon through Santa Cruz County California

- Long-term
 - Jobs are generated as a result of improvements in Ocean Commercial fishing in 11 coastal counties in Oregon and California. Estimated employment impacts stem from salmon troll revenues spent in the management area where the landings occur. Full time, part time, or temporary job estimates stemming from improved fishing conditions are shown below.
 - 11 average annual jobs in the KMZ-OR Management Area
 - 19 average annual jobs in the KMZ-CA Management Area
 - 69 average annual jobs in the Fort Bragg Management Area
 - 136 average annual jobs in the Central Oregon Management Area
 - 218 average annual jobs in the San Francisco Management Area.

Water Related Recreation

- Long Term
 - Reservoir Recreation: Klamath County OR and Siskiyou County CA — A loss of four average annual full time, part time, or temporary jobs associated with reservoir recreation.
 - In River Sport Fishing: Klamath County OR; Del Norte, Humboldt, and Siskiyou Counties CA — Approximately three average annual full time, part time or temporary jobs are estimated to be created as a result of spending associated with In River recreational salmon fishing.
 - Ocean Sport Fishing: KMZ-CA Humboldt and Del Norte Counties CA and KMZ-OR Curry County OR— Improved ocean sport fishing are estimated to stimulate full time, part time or temporary jobs in the two management zones ranging from one to five average annual jobs.
 - Whitewater Boating: Klamath and Jackson Counties OR, Humboldt and Siskiyou Counties CA— A loss of 14 average annual full time, part time, or temporary jobs associated with whitewater boating.
 - Refuge Recreation: Klamath County OR; Siskiyou County CA— Improved conditions on the refuges are estimated to create an average of five annual full time, part time, or temporary jobs associated with refuge hunting activity.

Irrigated Agriculture—Klamath County OR; Siskiyou and Modoc Counties CA

- Short Term
 - KBRA improves conditions on Reclamation's Klamath Project during years of drought. Modeled hydrology indicates 5 drought years during the 50 year study period. Improved water supply during these drought years stimulate jobs compared to No Action. Employment stemming from increased gross farm income is estimated to range from 70 to 695 average annual full time, part time, or temporary jobs.

KBRA Implementation—Klamath County OR; Siskiyou, Modoc, Humboldt, and Del Norte Counties CA

- Short-term—Years 2012 through 2026
 - Fisheries Program expenditures are estimated to generate 3,902 full time, part time, or temporary jobs over the 15 year period, this translates to 260 average annual jobs.
 - Water Program expenditures are modeled to create 237 full time, part time, or temporary jobs over the 15 year period, which translates to 16 average annual jobs.
 - Regulatory Assurance related expenditures are estimated to stimulate 146 full time, part time, or temporary jobs over the 15 year period which translates to 10 average annual jobs.
 - Tribal Programs are estimated to generate 378 full time, part time or temporary jobs over the 15 year period which translates to 25 average annual jobs.