SCOTT RIVER WATERSHED CONDITIONS Water Year 2023 (10/1/22 to 9/30/23) WEEK OF MARCH 31, 2023

SCOTT RIVER FLOW: 513 cubic feet per second (cfs) as of 3/31/23



TODAY'S STATISTICAL DATA for Scott River USGS Gage – 3/31/23

Daily discharge, cubic feet per second statistics for Mar 31 based on 81 water years of record more										
Min (1977)	25th percen- tile	Most Recent Instantaneous Value Mar 31	Median	Mean	75th percen- tile	Max (1974)				
66.0	511	513	794	1080	1290	6050				

Median is a measurement indicating that ½ of the flows recorded for that date were above this level, while ½ were below. In comparison, **mean** flow indicates the average figure for the date, which can be skewed by historic extreme high and low discharge events.



SCOTT RIVER FLOW CONNECTIONS: CDFW survey of 3-26-23

Scott River Mainstem: Connected Tributaries: Connected Northeast Tribs: Mostly connected

PRECIPITATION: California Data Exchange Center (CDEC)

Oct. 1, 2022 through Feb. 28, 2023 Period - By Month

Note that the south end of the valley (Callahan) has been above average for precipitation up through February while the north end (Fort Jones) has been below average for this period.

KLAMATH RIVER		ОСТ	NOV	DEC	JAN	FEB	OCT-FEB
CALLAHAN	Precip	0.00	1.41	9.03	7.91	2.87	21.22
	Average	1.36	2.32	3.95	3.46	2.78	13.87
	%-avg	0%	61%	229%	229%	103%	153%
FORT JONES RS	Precip	0.04	1.21	4.85	4.33	1.38	11.81
	Average	1.22	2.43	4.16	3.79	2.59	14.19
	%-avg	3%	50%	117%	114%	53%	83%

https://cdec.water.ca.gov/reportapp/javareports?name=PRECIPOUT



https://cww.water.ca.gov/info?address=96032

MARCH 2023 Precipitation by Week: Drought.gov Fort Jones - Total 7-day precipitation: 0.95 in. Increase of 64% since last week. Data Valid: 03/31/2023 https://www.drought.gov/location/96032

Scott Mountain: 92.17" precipitation to date (since Oct. 1); Snow Depth = <u>https://cdec.water.ca.gov/reportapp/javareports?name=DLYPCP</u>

SNOW WATER CONTENT:

US FOREST SERVICE – KLAMATH NATIONAL FOREST – April 1st Snow Survey

California Cooperative Snow Survey http://cdec.water.ca.gov/snow/current/snow/index.html

		Snow Water Equivalent									
Snow		Feb 1	Feb. 1	Feb 1	Mar 1	Mar 1	Mar 1	Apr 1	Apr 1	Apr 1	
Course	Elev.	2023	Ave.	%	2023	Ave.	% ave	2023	Ave.	%	
Middle Boulder 1	6600'	33.1"	19.0"	174%	nd		nd	tbd			
Middle Boulder 3	6200'	27.0"	17.4"	155%	nd		nd	tbd			
Dynamite Meadow	5700'	17.0"	12.1"	140%	nd		nd	tbd			
Swampy John	5500'	14.2"	18.8"	76%	17.2"	24.1"	71%	32"	24.2	132%	
Scott Mountain	5900'	13.5″	13.7"	99%	nd		nd	35″	20.5	171%	
Total Average			129%			nd			151% *		

nd = no data, due to inability to access the sites; tbd = to be done soon; * incomplete

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"Surveyors at Swampy John below Etna Pass found much new snow, albeit readily compressed, which made for a lower-than-expected Snow Water Equivalent (SWE, a measure of water content) despite the excellent snow height (snow depth). Historically, snowpack reaches its annual maximum by late-March / early-April." - US Forest Service News Release, Mar. 6, 2023



SCOTT MOUNTAIN Snow Water Content – https://cdec.water.ca.gov/webgis/?appid=cdecstation

DROUGHT CONDITION



National Integrated Drought Information System Drought.gov

Scott Valley continued in **Moderate Drought (D1)** category as of 4/1/23. Etna & Fort Jones have been in drought for the past 160 weeks, since March 03, 2020 – 3 years - and drought removal is likely over the next month.

TEMPERATURE

Temperature range (Fort Jones): 11°F to 61°F ; average for month = 35.9 °F (March 2023) https://www.weather.gov/wrh/Climate?wfo=mfr

Fort Jones - Avg. 7-day max temperature: 49° F. Decrease of 56% since last week. 03/31/2023

CALIFORNIA IRRIGATION MANAGEMENT INFORMATION SYSTEM https://cimis.water.ca.gov/

SCOTT RIVER WATERSHED CONDITIONS

Water Year 2023 (10/1/22 to 9/30/23)

WEEK OF MARCH 31, 2023

CIMIS -- Scott Valley - Northeast Plateau - Station 225 – Month of March 2023

Month Year	Total ETo (in)	Total Precip (in)	Avg Sol Rad (Ly/day)	Avg Vap Pres (mBars)	Avg Max Air Temp (°F)	Avg Min Air Temp (°F)	Avg Air Temp (°F)	Avg Max Rel Hum (%)	Avg Min Rel Hum (%)	Avg Rel Hum (%)	Avg Dew Point (°F)	Avg Wind Speed (mph)	Avg Soil Temp (°F)
Mar 2023	2.18 K	2.94 K	318 K	5.1 K	47.1 K	22.5 K	34.3 K	97 K	51 K	75 L	27.8 L	4.3 K	39.3 L
Tots/Avgs	2.18	2.9	318	5.1	47.1	22.5	34.3	97	51	75	27.8	4.3	39.3

WEATHER GRAPHICS

Center for Western Weather and Water Extremes – U.C. San Diego, Scripps Institute of Oceanography <u>https://cw3e.ucsd.edu/DSMaps/DS_intro.html</u> <u>https://cw3e.ucsd.edu/Projects/QPF/QPF.html</u>

FISH POPULATION ESTIMATES: all data from CA Dept. of Fish and Wildlife (CDFW)

2022 ADULT SALMON SPAWNERS: Data from CDFW Fish Counting Facility

Update on adult Chinook estimated in the Scott River, including below the weir: 994 total.

"The Scott River station was operational on September 29, 2022 and 72 adult Chinook Salmon and 236 Coho Salmon have been observed through December 26, 2022 (when video weir was removed due to high flows). The Scott River station is 18 miles upstream of the confluence with the Klamath River. During Fall 2022, a significant number of Chinook Salmon spawned downstream of the counting station and were estimated during spawning ground surveys. This in-season update doesn't report the spawning escapement that is observed downstream of the Scott River adult fish counting station. Final reports detailing the total escapement to the Scott River will be available when the data is finalized."

2023 JUVENILE SALMONID OUTMIGRANTS – CDFW reports: "The Scott 8 ft. rotary screw trap (RST) began sampling on 2/21/2023. The Scott 5 ft. RST is not operational for 2023 due to staffing shortages." <u>Raw data on catch, by species and age, will need to be extrapolated to population estimates once sufficient data on the RST efficiency is obtained</u>. This trap is located near the mouth of the Scott River.

▶ No fish collected at the RST week of March 11-18 (Julian Week 11) due to high flow threat.

MARK RECAPTURE POPULATION ESTIMATES, as of 3/28/23

1. Mark-recapture trials have not yet been conducted on age 0+ Chinook Salmon.

2. Mark-recapture trials have been conducted on age 1+ Coho Salmon. Due to low catch and no age 1+ Coho recaptures this week, the total season-to-date trap efficiency was used for age 1+ Coho with a preliminary population estimate (Carlson et al. 1998) of 35 for JW12.

• Year to date, age 1+ Coho Salmon trap efficiency is 4% with an estimated 2,805 age 1+ Coho Salmon total having outmigrated from the Scott River (Figure 4).

3. Limited mark-recapture trials have begun for age 1+ Chinook and age 2+ steelhead