

Sacramento River 2022 Operations Recommendations

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Good morning. Chris Shutes with the California Sportfishing Protection Alliance. In 2014 and 2015, my colleagues at CSPA and I came before this board with a series of legal and factual arguments and recommendations about managing drought. We were ignored. We sued. Eventually, we settled with the Board, hoping that the Board in the next critically dry year would at least provide minimal public trust analyses and seriously consider using its public trust and reasonable use authorities to limit deliveries to CVP and SWP settlement contractors. We focused on settlement contractors for the simple reason that they were the entities getting almost all the available CVP and SWP water.

In 2021, CSPA and allied groups felt like Sherman had set the wayback machine for 2015. CSPA began its 2021 advocacy in March. But, as in 2015, this Board last year delayed a decision till June, and then sacrificed fish and other public trust resources in the Sacramento River and the Delta to Settlement Contractor deliveries. In May 2021, CSPA produced an alternative Sacramento River Temperature Management Plan on how to save fish in 2021 and how to save water for 2022. The Board did neither. Once again, CSPA and allies sued, and that case will now play out in court.

2022 Will Be Bad for Water and Fish

- CVP/SWP storage is way worse than last year:

STORAGE IN MAJOR RESERVOIRS IN THOUSANDS OF ACRE-FEET

RESERVOIR	CAPACITY	15 YR AVG	WY 2021	WY 2022	% OF 15 YR AVG
TRINITY	2,448	1,514	1,276	793	52
SHASTA	4,552	3,045	2,288	1,703	56
FOLSOM	977	504	350	522	104
NEW MELONES	2,420	1,437	1,549	970	67
FED. SAN LUIS	966	638	461	310	49
TOTAL NORTH CVP	11,363	7,138	5,924	4,298	60
MILLERTON	520	298	168	278	93
OROVILLE (SWP)	3,538	2,032	1,365	1,634	80

Source: BOR Day Report 3/8/22

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So here we are today in 2022 with very little water to manage.

Runoff Has Crashed Statewide

B-120 WATER SUPPLY FORECAST SUMMARY (CONTINUED)

UNIMPAIRED FLOW FOR - MARCH 1, 2022
(Provisional data, subject to change)

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WATER YEAR FORECAST SUMMARY AND MONTHLY DISTRIBUTION (IN THOUSANDS OF ACRE-FEET)

WATERSHED	OCT THRU JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	WATER YEAR TOTAL	80% PROBABILITY RANGE		WY % AVERAGE
											90%	10%	
Trinity, Lewiston	215	51	90	115	105	40	10	3	1	630	390	1,145	48
Inflow to Shasta	1,372	232	420	370	290	210	180	166	160	3,400	2,865	5,145	60
Sacramento, Bend	2,087	318	600	540	425	295	240	205	210	4,920	4,095	7,705	59
Feather, Oroville	1,331	256	390	360	290	145	95	75	63	3,005	2,390	4,950	69
Yuba, Smartville	654	105	215	260	275	90	25	14	13	1,650	1,235	2,570	73
American, Folsom	783	140	238	320	315	115	20	5	5	1,940	1,400	2,910	72
Cosumnes, Michigan Bar	129	20	34	29	17	5	1	0	0	235	170	450	60
Mokelumne, Pardee	159	34	61	105	140	40	5	1	1	545	340	830	71
Stanislaus, Goodwin	217	52	92	154	184	85	17	6	3	810	535	1,280	69
Tuolumne, La Grange	332	61	130	220	330	153	27	8	4	1,265	905	1,960	65
Merced, McClure	139	32	59	114	157	64	15	4	1	585	385	980	58
San Joaquin, Millerton	296	71	111	200	340	230	80	25	12	1,365	915	1,980	77
Kings, Pine Flat	147	43	85	172	320	204	54	19	11	1,055	660	1,705	63
Kaweah, Terminus	33	11	22	42	62	29	7	2	2	210	120	425	49
Tule, Success	16	4	9	9	6	2	0	0	0	46	30	120	35
Kern, Isabella	54	16	30	46	66	41	17	11	8	288	210	625	43

Runoff has crashed. The ground, once again, is very dry.

The Time to Act Is Now

- There is time for the Board to act
- One choice, one chance: a front-end decision to limit deliveries
- Two month's delay will irretrievably commit resources
- Bell can't be un-rung; water released can't be returned to reservoirs
- The law requires the Board to:
 - Protect the public trust
 - Require reasonable use of water

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There is time to act. But the Board must act decisively now. It has one chance. The outcome will not be perfect. The Board cannot get it right if it delays or hedges so that it can deliver as much water as possible. That ship sailed last year. The Board needs to drastically reduce deliveries to Settlement Contractors in 2022.

And in terms of information, Reclamation needs to make its deliveries publicly available as soon as possible.

This Is a Call from the Bottom of a Well

- DWR and BOR dug deep holes in reservoirs in 2021
- State Water Board delayed till 'nothing can be done'
 - “By the time the reduced cold water storage supply issues were identified and the Sacramento River TMP revised, options for achieving an EOS storage target sufficient to maintain temperatures protective of Chinook salmon were limited or eliminated.” (Revised Draft Order on 2021 TMP/TUCP, Feb 4, 2022, p. 53)
 - “Further, reductions in deliveries to settlement and exchange contractors after planting had occurred could have presented a significant hardship to those users and others who purchased water from those users.” (*Id.*)

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One of the few things the Board got right in Order 2022-0095 was the acknowledgment that it waited too long to act. It must confront how to allocate deliveries in April and early May 2022 when the draft TMP is due April 1 and the final TMP is due May 1 or possibly later. In April 2021, Reclamation released an average of 5900 cfs from Shasta. In May, an average of 8900 cfs. [NB: actually, just above 8000] That can't happen again. CSPA recommends the minimum in April, but the actual may be augmented by pulse flows to move salmon out of the system. Salmon will not be helped, however, by releasing water and then diverting it to Settlement Contractors.

Reclamation Is Not Helping

BOR 2/25/22 90% and 50% February exceedance, way optimistic:

90%

		Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
Monthly River Releases (TAF/cfs)													
Trinity	TAF	17	18	36	62	47	28	53	52	23	18	18	18
	cfs	300	300	600	1,498	783	450	857	876	373	300	300	300
Clear Creek	TAF	11	12	12	52	9	9	9	12	12	12	12	
	cfs	200	200	200	360	150	150	150	200	200	200	200	
Sacramento	TAF	180	220	230	373	490	630	481	207	200	193	200	200
	cfs	3250	3582	3856	6076	7737	8700	7500	5000	4071	3250	3250	3250

50%

		Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
Monthly River Releases (TAF/cfs)													
Trinity	TAF	17	18	36	180	47	23	53	52	23	18	18	18
	cfs	300	300	600	2,924	788	450	857	870	373	300	300	300
Clear Creek	TAF	11	12	12	28	22	9	9	9	12	12	12	
	cfs	200	362	200	362	368	150	150	150	200	200	200	
Sacramento	TAF	180	200	193	240	418	492	492	207	200	227	200	200
	cfs	3250	3250	3250	4000	7000	8000	8000	6000	6000	5600	5000	5000

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- When preparing this presentation, I did not have Reclamation’s projections for March of its flow releases at 90% exceedance, let alone 99% exceedance. Reclamation’s February 90% exceedance Sacramento River flows show far too much spring and summer 2022 releases from Shasta. I can only assume that the reason for this is an assumption of far too much water delivery to Sacramento River Settlement Contractors.

Projected Storage (90%) Worse than 2021 Trinity Storage Drastic even w/ No Export

- Sacramento River salmon stand no chance with projected storage levels

Storages		Federal End of the Month Storage/Elevation (TAF/Feet)												
		Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	
Trinity		763	781	870	879	810	752	693	604	519	499	464	447	446
	Elev.	2228	2240	2241	2232	2224	2216	2203	2188	2185	2178	2175	2174	
Whiskeytown		206	206	206	238	238	238	238	238	206	206	206	206	206
	Elev.	1199	1199	1209	1209	1209	1209	1209	1209	1199	1199	1199	1199	1199
Shasta		1621	1699	1980	2049	1927	1667	1306	1015	896	868	923	995	1123
	Elev.	939	956	960	953	937	911	887	875	873	878	885	896	

- No Trinity water available; very low exports projected

Trinity Diversions (TAF)		Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
Carr PP		9	3	44	31	32	35	36	35	4	30	21	15
Spring Crk. PP		10	10	15	15	25	25	25	25	25	20	12	10

The point of this slide is not whether Reclamation's projections are accurate. Rather, it is that it shows what Reclamation thinks would be **acceptable** in terms of Shasta storage. These figures are about what they were in 2021, perhaps worse. In 2021, almost all the winter-run salmon died. In 2021, Reclamation delivered too much water to Settlement Contractors. In 2021, Reclamation allowed Settlement Contractors to transfer 200,000 acre-feet of water in the fall. In 2021, Reclamation therefore left almost no carryover storage for 2022.

The Board Must Assume:

- It won't rain again in 2022; runoff will drop dead as in 2021
- Therefore, 99%(+) exceedance for 2022 inflow and runoff
- Best chance for winter-run in 2022 is keeping Shasta releases cold by keeping them low
 - Studies have shown temperature upstream of Clear Creek is driven more by temperature than volume of Keswick releases
- Risky choices in 2021 justify harsh choices in 2022
- Board is managing for a dry 2023 as well as 2022
- Board will have to manage COA, Feather diversions too

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The Solution is Simple, But Not Easy

- Limit Shasta release to 3250 cfs in April, 5000 cfs May-November
- Limit Trinity exports to Sacramento to 300 cfs April-November; increase Trinity release to Trinity River only as needed to manage for Trinity salmon
- Limit deliveries to Sacramento River Settlement Contractors and San Joaquin Exchange Contractors to water available under these constraints

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By letting Reclamation and DWR call the shots in 2021, the Board has left itself almost no knobs to turn. The certain thing the Board certainly can and must do is limit releases from Shasta and limit deliveries to Settlement Contractors.

CSPA views the job Reclamation has done in managing the lower Sacramento River as so bad that Reclamation now needs direct regulatory oversight.

Thank you.