

2011 Lower Tuolumne River Chinook Passage

PRELIMINARY RESULTS



2009-2011 Lower Tuolumne River Chinook Passage through 12/4

PRELIMINARY RESULTS



2010 Stanislaus River Chinook Passage

PRELIMINARY RESULTS



Cumulative Chinook Passage at the Stanislaws River Weir

Data grounded by HerBED is performing

2003-2011 Stanislaus River Chinook Passage through 12/4

Preli	iminar	y Data								CDEC station LGN	
Week	I	Date	# Live	# Redds	# Skeletons	# Tagged	# AdClipped	# Scale Samples	# Recovered	Average Flow (cfs)	Comments
	1	3-Oct-2011	12	2	1	7	3	7	0	343	}
	2	10-Oct-2011	16	5	1	14	. 8	14	3	1020)
	3	17-Oct-2011	92	30	0	11	4	11	9	340)
	4	24-Oct-2011	71	34	11	33	6	33	11	340)
	5	31-Oct-2011	65	27	13	27	10	27	24	340)
	6	7-Nov-2011	150	85	15	59	13	59	24	340)
	7	14-Nov-2011	162	93	12	63	27	63	34	350)
	8	21-Nov-2011	170	95	20	56	25	56	67	355	;
	9	28-Nov-2011	77	75	8	63	51	63	58	365	;
	10	5-Dec-2011									
	11	12-Dec-2011									

12-Dec-2011**12**19-Dec-2011



1 2	Date 3-Oct-2011			# Skeletolis	# lagged	# AdClipped	# Scale Samples	# Recovered	Average Flow (cfs)	Comments
	3-001-2011	2	0	0		0		0		
	10-Oct-2011	14	3	0	0	0	0	0		Section 1 (caynon) was not survey due to high f
3	17-Oct-2011	13	6	0	0	0	0	0	1915	Section 1 (caynon) was not survey due to high
4	24-Oct-2011	78	35	0		0		0		Section 1 (caynon) was not survey due to high
5	31-Oct-2011	507	202	6						
6	7-Nov-2011	555	329	18		30		2		
7	14-Nov-2011	525	416	53						
8	21-Nov-2011	326	274	42						2 Section 1 (caynon) was not survey
9	28-Nov-2011	236	224	73	106	77	106	90	308	
10	5-Dec-2011									
11	12-Dec-2011									
	19-Dec-2011 26-Dec-2011									
	500 450 350 300 250 200 150 100							`		 → # Live → # Redds → # Tagged
	50 0	1	2	3	4 :	5 6 We	7 8	9 10	11 12	

										CDEC station		
Preli	iminar	y Data								MSN		
Week		Date	# Live	# Redds	# Skeletons	# Tagged	# AdClipped	# Scale Samples	# Recovered	Average Flow (cfs)	# Females spawned @ MRFF	Comments
	1	3-Oct-2011	4	3	C) 0	0	0	0	742.5		
	2	10-Oct-2011	9	5	C) 0	0	0	0	980		
	3	17-Oct-2011	14	5	1	2	1	2	0	1137	2	
	4	24-Oct-2011	106	37	C) 0	0	0	0	1155	5	
	5	31-Oct-2011	400	160	1	7	2	7	0	382	14	
	6	7-Nov-2011	315	186	22	2 70	30	70	1	375	13	
	7	14-Nov-2011	206	134	39	83	56	83	19	357	13	
	8	21-Nov-2011	87	62	48	95	73	95	16	454	7	
	9	28-Nov-2011	111	58	79	9 57	47	57	43	353	14	
	10	5-Dec-2011										

105-Dec-20111112-Dec-2011

12 19-Dec-2011



UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

Turlock Irrigation District)
)
and)
)
Modesto Irrigation District)

Project No. 2299

DRAFT COVER

2011 LOWER TUOLUMNE RIVER ANNUAL REPORT

2011 Annual Summary Report

Exhibits: Spawning runs, harvest data, rearing/outmigration data, Delta salvage and exports

Attachment A: Water Conditions, Flows, Temperature, and Flow Schedule Correspondence

Attachment B: 2011 Tuolumne River Technical Advisory Committee Materials

Report 2011-1: 2011 Spawning Survey Report

Report 2011-2: Spawning Survey Summary Update

Report 2011-3: 2011 Seine Report and Summary Update

Report 2011-4: 2011 Rotary Screw Trap Report

Report 2011-5: 2011 Snorkel Report and Summary Update

Report 2011-6: 2011 Oncorhynchus mykiss Population Estimate Report

Report 2011-7: 2011 Oncorhynchus mykiss Acoustic Tracking Report

Report 2011-8: 2011 Counting Weir Report





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Bobcat Flat Phase II Restoration

This restoration has goals and circumstances similar to Bobcat Flat Phase I Restoration. The river channel has suffered from an under supply of coarse sediment. Water velocities were very slow due to excessive channel width and uneven gradient distribution. These conditions created poor fishery habitat.

The associated floodplain was elevated, poorly vegetated and seldom experienced inundating river flows. Due to the poor off-channel vegetation, habitat for avian, terrestrial, and fish species (during flood flows) was of low quality.

As such, the areas of Phase I and Phase II did not provide quality instream or floodplain habitats.

Since the goals and existing conditions of Phase II were similar to those of Phase I, and since Phase I was highly successful, the techniques and approach this year mimicked the 2005 methodology.

One major difference in the implementation of Phase II restoration was the high river flows. High flows at or near 3,000 cfs for three of the six weeks of construction made the project much more difficult and hazardous. Only the final two weeks provided the flows of 300 cfs required for riffle construction. Phase II restored approximately 1,500 linear feet of river channel and nine acres of floodplain.

The whole river reach was gravel poor and too wide. The downstream 800 feet was worse than the upstream section. It was characterized by a canal form; it had no gravel, square abrupt edges and a clay bottom.

Restoration objectives: Increase instream coarse sediment supply Construct useful riffles Construct point bars/recruitment bars Modify water velocities by modifying channel width and redistributing gradient Predator isolation and reduction Create functional floodplain

Methods:

The floodplain surface was excavated, and the material screened and cleaned onsite with a portable screen plant. The floodplain surfaces were lowered to provide coarse sediment for instream infusion. The excavation lowered the elevation of the floodplain surface so it will now receive regular seasonal inundation. Inundation will provide new seasonal off channel fish habitat and new habitats for avian and terrestrial species. Native plants will be planted to utilize the shallower water table.

19,000 cubic yards of coarse sediment was placed instream.

One riffle was enhanced and three new riffles were created. Site gradient was redistributed by placing gravel selectively to extend the riffles' lengths.

One point bar was enhanced and four new large alternating point bars were constructed. These are large volume bars and will function as habitat bars and provide gravel for downstream recruitment. Bar placement reduced channel width and increased water velocities where it had been too slow.

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