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8F.1 Boron Methodology

Boron was modeled quantitatively for the Delta. A quantitative assessment utilizing a mass-balance approach (DSM2 fingerprinting data combined with historical source water quality data) was employed. Section 8.3.1.3 and the boron discussion under section 8.3.1.7 provide more detailed information regarding the assessment methodology for boron and the details of the quantitative approach. Figures and tables to support the assessment are provided below.

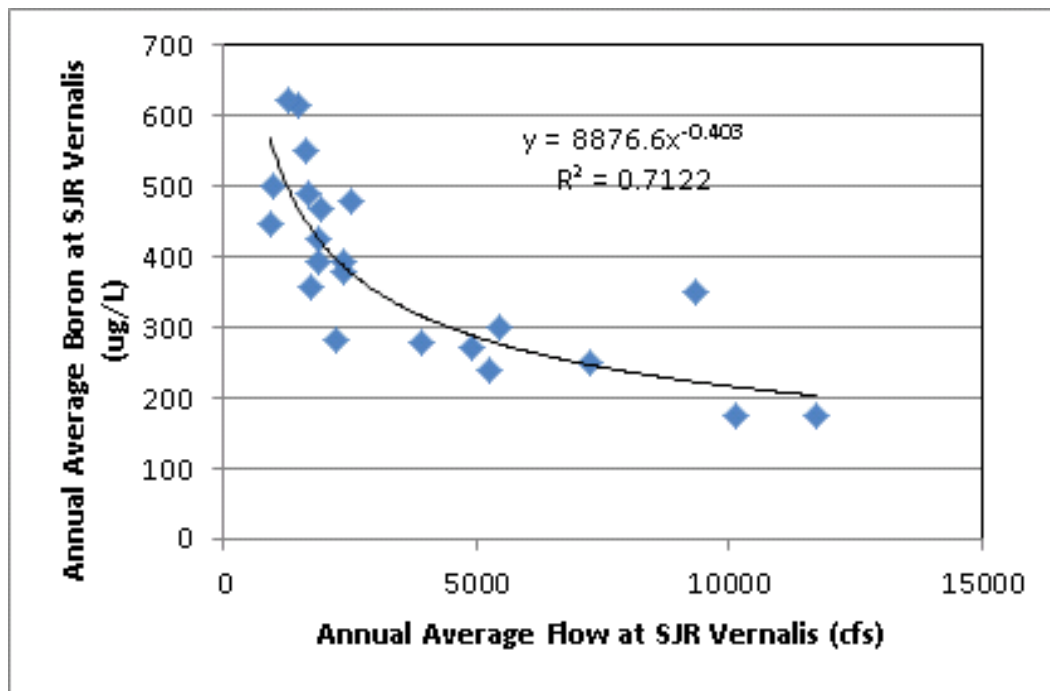


Figure Bo-1: Annual average flow to boron ratio for the San Joaquin River at Vernalis.

Figure Bo-2. Long term average estimated boron concentrations at Franks Tract, Old River at Rock Slough, Jones Pumping Plant, and Old River at Tracy Road for existing conditions, No Action LLT, and Alternatives 1-3 (µg/L).

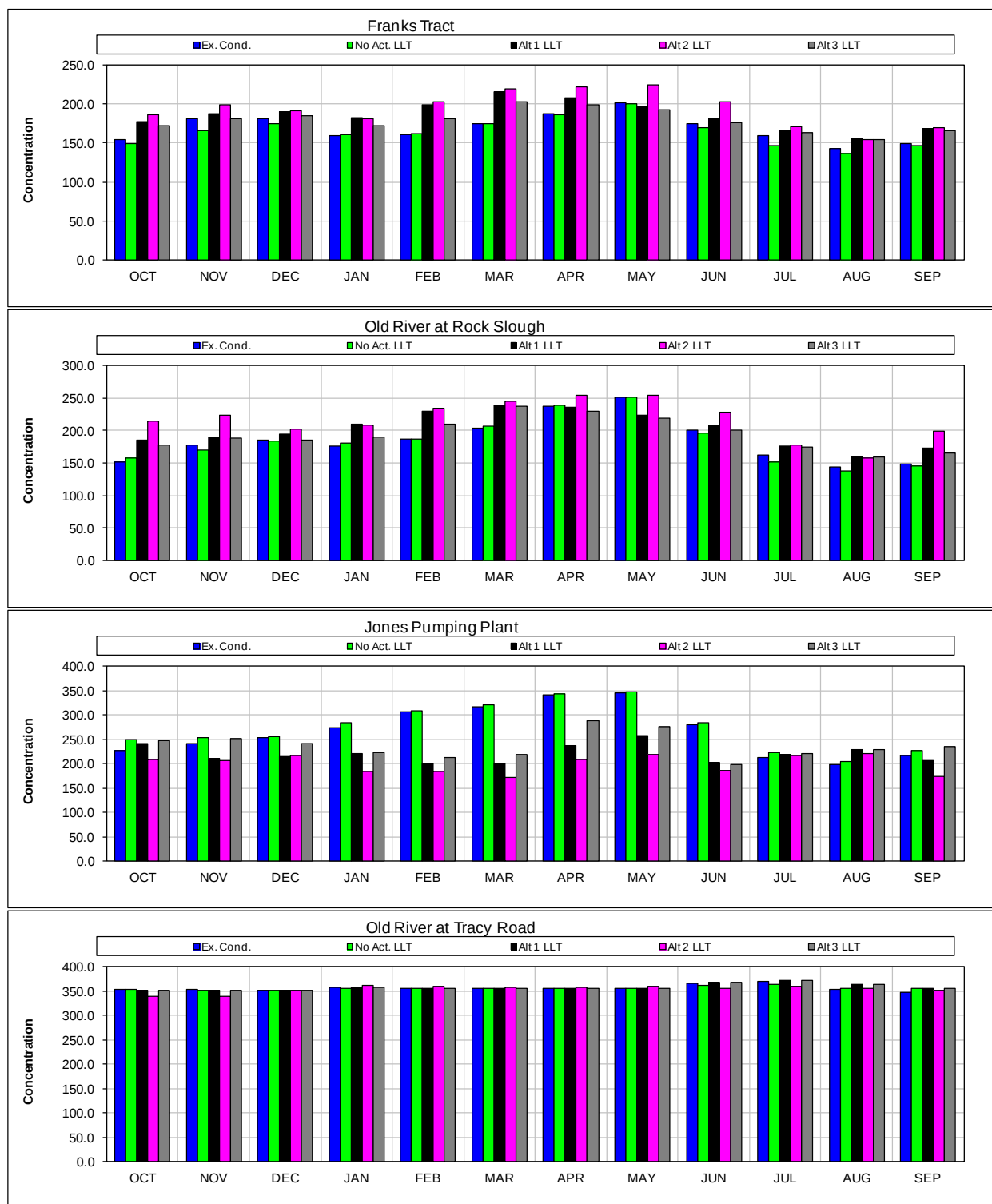


Figure Bo-3. Long term average estimated boron concentrations at Franks Tract, Old River at Rock Slough, Jones Pumping Plant, and Old River at Tracy Road for existing conditions, No Action LLT, and Alternative 4 Scenarios H1–H4 (µg/L).

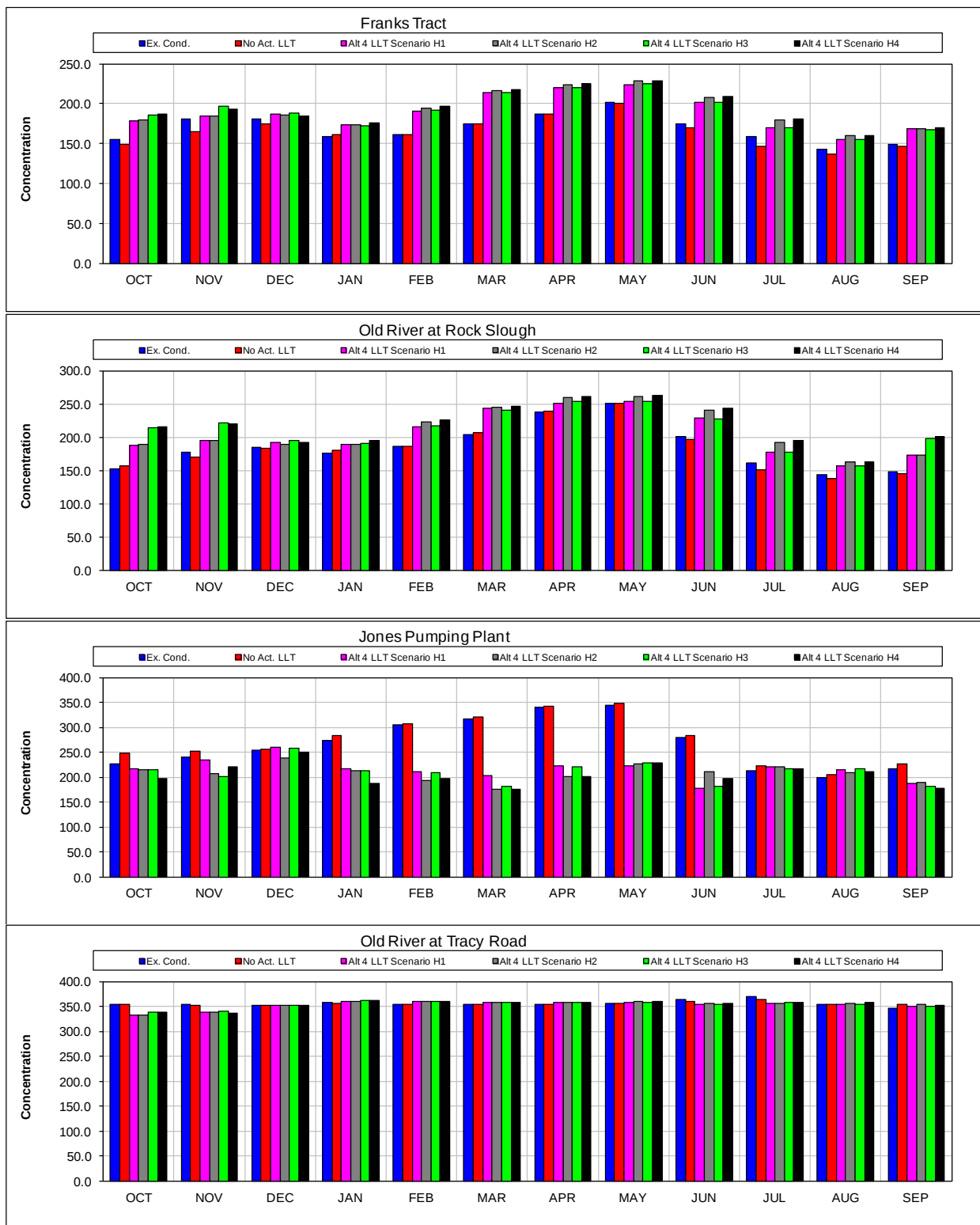


Figure Bo-4. Long term average estimated boron concentrations at Franks Tract, Old River at Rock Slough, Jones Pumping Plant, and Old River at Tracy Road for existing conditions, No Action LLT, and Alternatives 5 and 6 (µg/L).

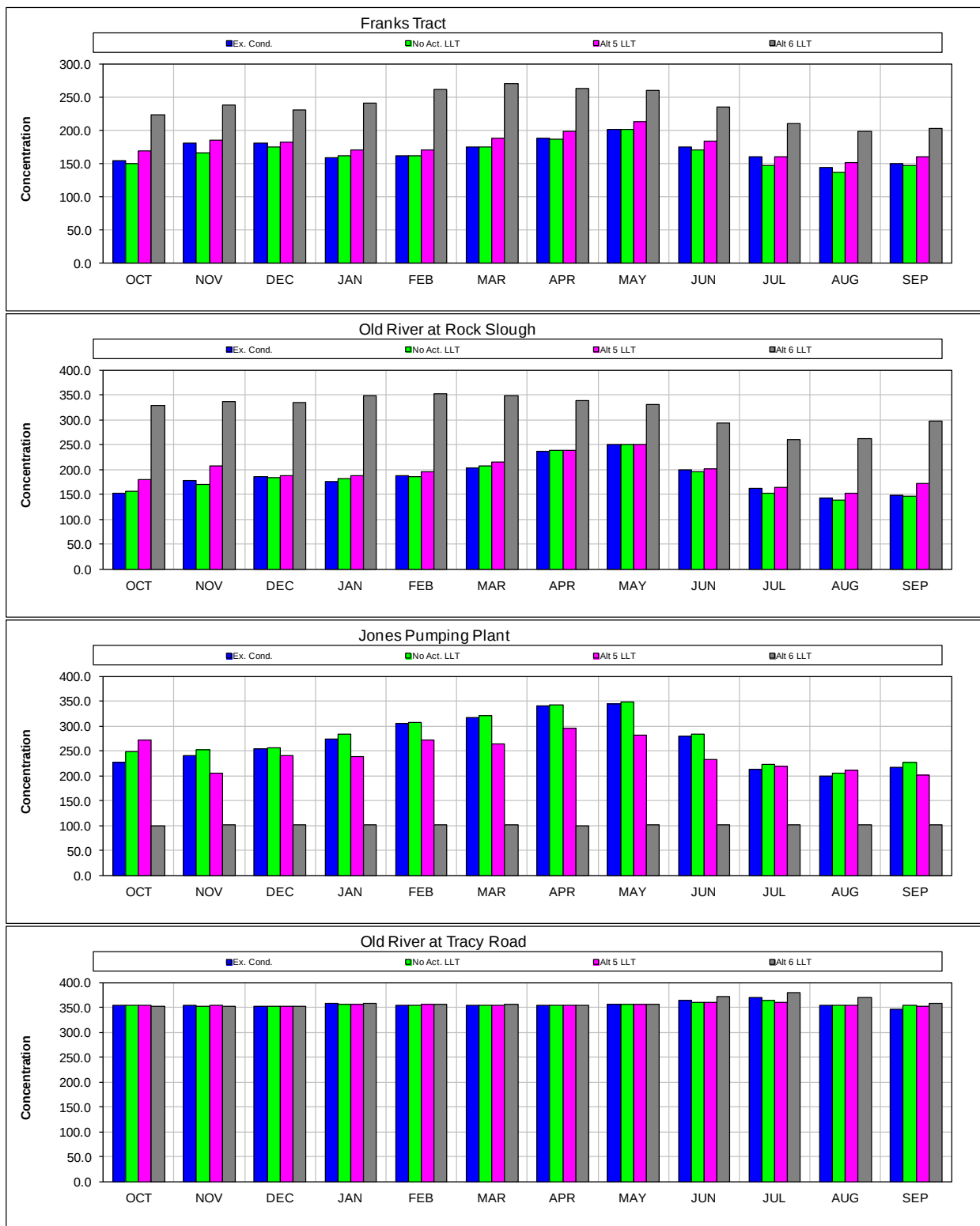


Figure Bo-5. Long term average estimated boron concentrations at Franks Tract, Old River at Rock Slough, Jones Pumping Plant, and Old River at Tracy Road for existing conditions, No Action LLT, and Alternatives 7-9 (µg/L).

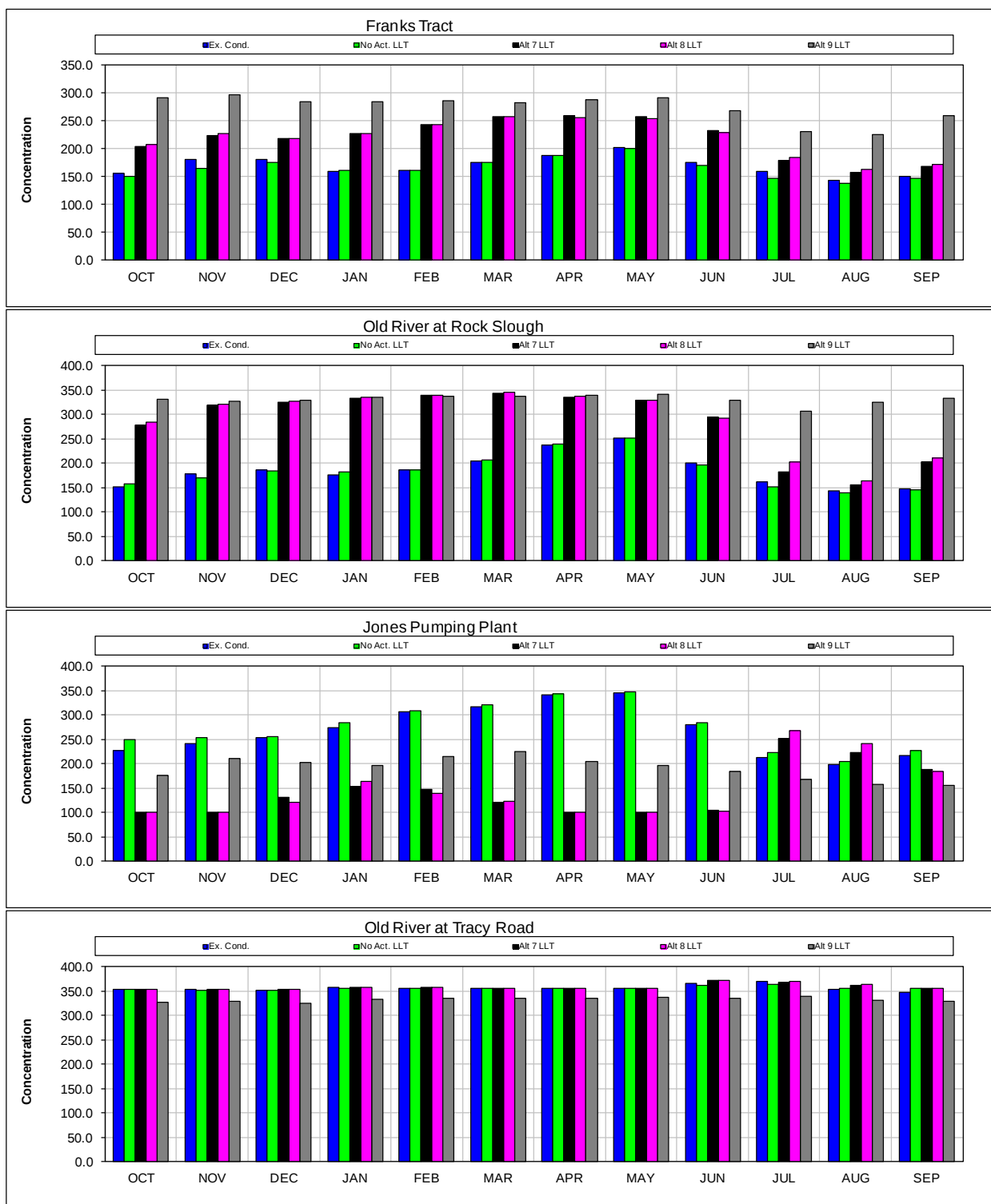
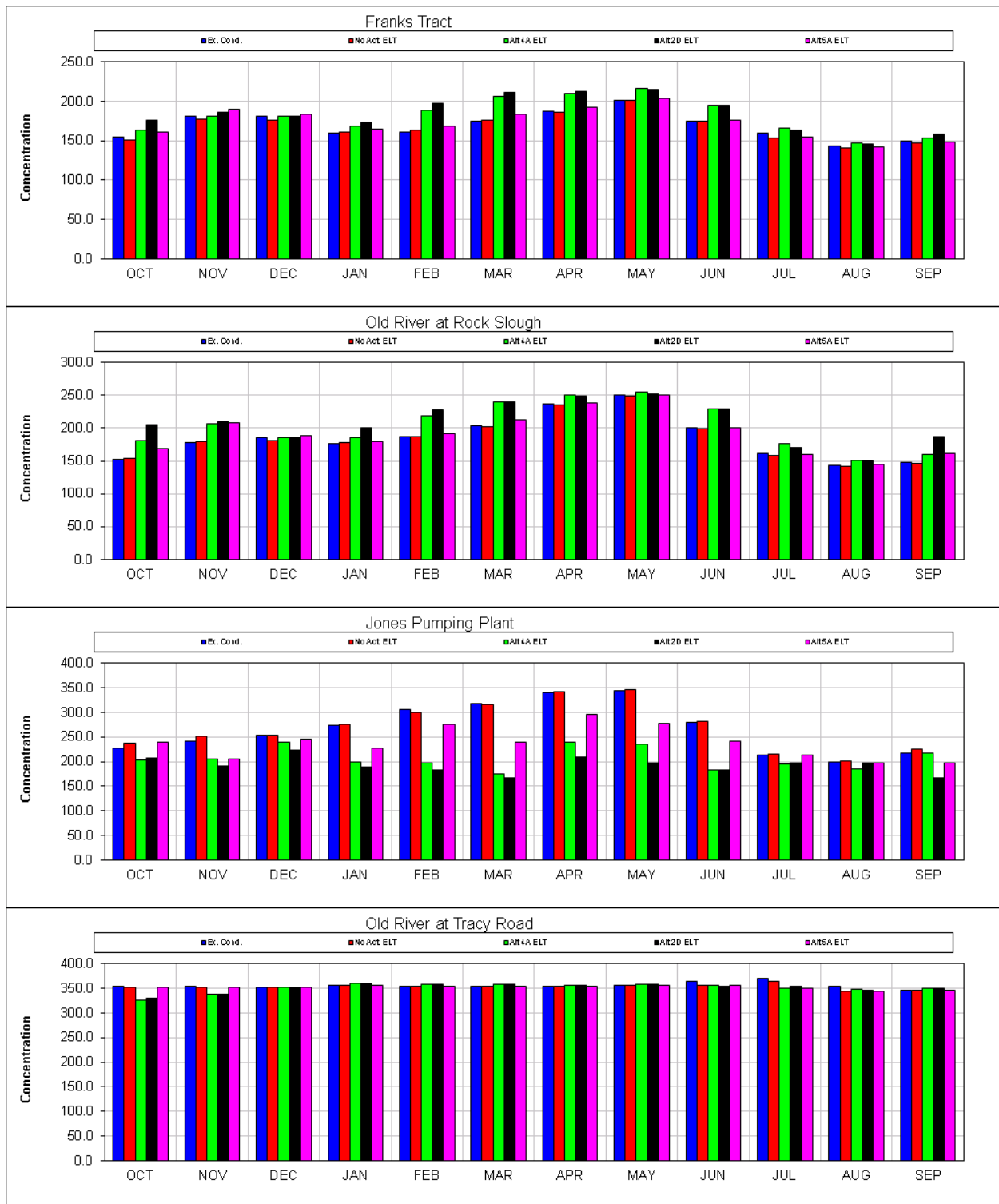


Figure Bo-6. Long term average estimated boron concentrations at Franks Tract, Old River at Rock Slough, Jones Pumping Plant, and Old River at Tracy Road for existing conditions, No Action ELT, and Alternatives 4A, 2D, and 5A (µg/L).



1 **Table Bo-1. Calculated seasonal source water boron concentrations used for mass-balance analysis.**

Month	Mean Monthly Boron Concentration at Mallard Island (measured, µg/L)	Ratio of Paulsen and List (1997) Average Boron Concentration at Martinez to Long Term Mean Boron Concentration at Mallard Island ^a	Mean Monthly Boron Concentration at Martinez (calculated, µg/L) ^b
JAN	543	1.7	924
FEB	383	1.7	652
MAR	200	1.7	340
APR	205	1.7	348
MAY	387	1.7	658
JUN	364	1.7	618
JUL	448	1.7	761
AUG	455	1.7	773
SEP	581	1.7	987
OCT	767	1.7	1,303
NOV	964	1.7	1,638
DEC	917	1.7	1,559

2 ^a Paulsen and List (1997) average boron concentration = 880 µg/L; Long Term mean Boron
 3 Concentration at Mallard Island = 518 µg/L.

4 ^b Values used in the modeling to estimate boron concentrations in the Delta.

1 **Table Bo-2. Period average change in boron concentrations (µg/L) for No Action Alternative LLT relative to existing conditions.**

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Annual Avg. Change
Location	Period ^a	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.
Moke. R. (SF) at Staten Island	ALL	-1	1	-1	-3	-3	-2	-1	-2	-3	-2	1	1	-1
		(-0%)	(0%)	(-1%)	(-2%)	(-2%)	(-1%)	(-1%)	(-1%)	(-2%)	(-1%)	(1%)	(1%)	(-1%)
	DROUGHT	0	0	-1	-3	-3	-4	-3	-3	-2	0	1	-1	-1
		(-0%)	(0%)	(-1%)	(-2%)	(-2%)	(-3%)	(-2%)	(-2%)	(-2%)	(-0%)	(1%)	(-1%)	(-1%)
SJR at Buckley Cove	ALL	-8	-2	-21	-16	-14	-12	-16	-17	-35	-50	-61	-22	-23
		(-2%)	(-0%)	(-6%)	(-5%)	(-4%)	(-4%)	(-5%)	(-5%)	(-10%)	(-14%)	(-17%)	(-6%)	(-7%)
	DROUGHT	-12	-12	-32	-33	-20	-21	-33	-33	-65	-79	-117	-43	-42
		(-3%)	(-3%)	(-9%)	(-9%)	(-6%)	(-6%)	(-9%)	(-9%)	(-18%)	(-24%)	(-34%)	(-12%)	(-12%)
Franks Tract	ALL	-5	-16	-7	2	1	-1	0	0	-5	-12	-6	-2	-4
		(-3%)	(-9%)	(-4%)	(1%)	(0%)	(-0%)	(-0%)	(-0%)	(-3%)	(-8%)	(-4%)	(-1%)	(-3%)
	DROUGHT	3	-8	-2	1	2	-1	-1	1	4	-5	-5	6	0
		(2%)	(-4%)	(-1%)	(1%)	(2%)	(-1%)	(-1%)	(1%)	(3%)	(-3%)	(-3%)	(4%)	(-0%)
Old R. at Rock Slough	ALL	5	-8	-2	5	0	3	2	1	-4	-10	-5	-2	-1
		(3%)	(-4%)	(-1%)	(3%)	(-0%)	(2%)	(1%)	(0%)	(-2%)	(-6%)	(-4%)	(-1%)	(-1%)
	DROUGHT	16	1	10	2	2	1	1	5	6	-2	-2	5	4
		(10%)	(1%)	(6%)	(2%)	(1%)	(1%)	(0%)	(3%)	(4%)	(-1%)	(-1%)	(3%)	(2%)
Sac. R. at Emmaton	ALL	-28	-20	10	5	3	2	3	10	6	0	8	3	0
		(-12%)	(-8%)	(6%)	(4%)	(3%)	(2%)	(3%)	(7%)	(4%)	(0%)	(5%)	(2%)	(0%)
	DROUGHT	-32	-15	19	12	8	1	1	8	11	7	14	29	5
		(-12%)	(-5%)	(8%)	(9%)	(6%)	(1%)	(1%)	(6%)	(7%)	(4%)	(8%)	(12%)	(3%)
SJR at Antioch	ALL	-92	-87	-11	5	5	2	2	7	5	-20	-2	-24	-18
		(-22%)	(-17%)	(-3%)	(3%)	(3%)	(1%)	(1%)	(4%)	(2%)	(-8%)	(-1%)	(-7%)	(-7%)
	DROUGHT	-96	-83	-17	17	16	2	2	10	13	-9	1	24	-10
		(-20%)	(-14%)	(-4%)	(8%)	(10%)	(1%)	(1%)	(6%)	(7%)	(-3%)	(1%)	(6%)	(-3%)
Sac. R. at Mallard Island	ALL	-114	-100	-11	1	9	5	5	15	12	-25	-1	-49	-21
		(-15%)	(-11%)	(-2%)	(0%)	(4%)	(4%)	(3%)	(5%)	(4%)	(-6%)	(-0%)	(-9%)	(-5%)
	DROUGHT	-130	-121	-23	17	24	4	4	5	8	-18	-1	12	-18
		(-15%)	(-11%)	(-2%)	(4%)	(8%)	(3%)	(2%)	(1%)	(2%)	(-4%)	(-0%)	(2%)	(-4%)
NBA at Barker Slough PP	ALL	-5	-2	0	0	6	2	-3	0	-4	-7	-4	-2	-2
		(-3%)	(-2%)	(-0%)	(-0%)	(4%)	(2%)	(-2%)	(-0%)	(-3%)	(-5%)	(-3%)	(-1%)	(-1%)
	DROUGHT	-7	-5	1	0	2	2	3	9	-4	-6	0	0	0
		(-5%)	(-4%)	(1%)	(0%)	(1%)	(2%)	(2%)	(7%)	(-2%)	(-4%)	(-0%)	(0%)	(-0%)
Contra Costa PP #1	ALL	-6	0	-9	-4	15	9	0	0	-4	-11	-14	-7	-2
		(-4%)	(-0%)	(-5%)	(-2%)	(8%)	(4%)	(-0%)	(0%)	(-2%)	(-6%)	(-8%)	(-4%)	(-1%)
	DROUGHT	4	13	-11	10	0	3	2	4	2	-1	-10	-3	1
		(2%)	(7%)	(-6%)	(6%)	(0%)	(2%)	(1%)	(2%)	(1%)	(-1%)	(-5%)	(-2%)	(1%)
Banks PP	ALL	4	4	2	5	0	0	-2	0	2	-1	-6	-4	0
		(2%)	(2%)	(1%)	(3%)	(0%)	(-0%)	(-1%)	(0%)	(1%)	(-0%)	(-3%)	(-2%)	(0%)
	DROUGHT	8	14	6	10	0	-6	-6	-3	8	7	2	-1	3
		(4%)	(7%)	(3%)	(6%)	(-0%)	(-2%)	(-2%)	(-1%)	(4%)	(4%)	(1%)	(-1%)	(2%)
Jones PP	ALL	21	11	2	10	2	3	2	2	4	10	6	11	7
		(9%)	(5%)	(1%)	(4%)	(1%)	(1%)	(1%)	(1%)	(1%)	(5%)	(3%)	(5%)	(3%)
	DROUGHT	36	23	3	6	5	1	-1	4	11	22	9	4	10
		(17%)	(10%)	(1%)	(2%)	(2%)	(0%)	(-0%)	(1%)	(5%)	(13%)	(5%)	(2%)	(4%)

2 ^a ALL: Water years 1976-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991)
3 drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index)
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1 **Table Bo-3A. Period average boron concentrations (µg/L) and frequency of exceedance of objectives for existing conditions, No Action LLT, and Alternatives 1-3 and 5-9.**

Boron	Location	Period ^a	Period Average Concentration		Other Relevant Threshold (500 µg/L) ^b									
			Frequency of Criterion/Objective Exceedance (%)											
			Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Alt 1 LLT	Alt 2 LLT	Alt 3 LLT	Alt 5 LLT	Alt 6 LLT	Alt 7 LLT	Alt 8 LLT	Alt 9 LLT
Delta Interior	Moke. R. (SF) at Staten Island	ALL	124.4	123.3	0	0	0	0	0	0	0	0	0	0
		DROUGHT	129.9	128.4	0	0	0	0	0	0	0	0	0	0
	SJR at Buckley Cove	ALL	348.8	325.9	0	0	0	0	0	0	0	0	0	0
		DROUGHT	355.7	313.9	0	0	0	0	0	0	0	0	0	0
	Franks Tract	ALL	169.0	164.6	0	0	0	0	0	0	0	0	0	0
		DROUGHT	149.2	148.8	0	0	0	0	0	0	0	0	0	0
	Old R. at Rock Slough	ALL	185.3	184.0	0	0	0	0	0	0	0	0	0	0
		DROUGHT	156.8	160.5	0	0	0	0	0	0	0	0	0	0
Western Delta	Sac. R. at Emmaton	ALL	161.9	162.1	0	0	0	0	0	0	0	0	0	0
		DROUGHT	180.4	185.6	0	0	0	0	0	0	0	0	0	0
	SJR at Antioch	ALL	269.5	251.9	12	7	5	3	5	4	0	1	0	7
		DROUGHT	296.3	286.3	18	13	8	7	10	8	0	0	0	15
	Sac. R. at Mallard Island	ALL	438.5	417.5	31	26	34	29	33	30	27	24	26	27
		DROUGHT	517.7	499.4	38	35	45	43	42	42	43	40	43	38
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	132.3	130.7	0	0	0	0	0	0	0	0	0	0
		DROUGHT	134.0	133.7	0	0	0	0	0	0	0	0	0	0
	Contra Costa PP #1	ALL	197.3	194.9	0	0	0	0	0	0	0	0	0	0
		DROUGHT	175.4	176.4	0	0	0	0	0	0	0	0	0	0
	Banks PP	ALL	228.7	229.2	0	0	0	0	0	0	0	0	0	0
		DROUGHT	201.3	204.5	0	0	0	0	0	0	0	0	0	0
	Jones PP	ALL	267.8	274.8	0	0	0	0	0	0	0	0	0	0
		DROUGHT	248.4	258.6	0	0	0	0	0	0	0	0	0	0
^a ALL: Water years 1975-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index).														
^b Ayers and Westcot (1994) threshold for crop sensitivity to boron. (Ayers, R., and D. Westcot. 1994. <i>Water Quality for Agriculture</i> . FOA Irrigation and Drainage Paper.)														

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1 **Table Bo-3B. Period average boron concentrations (µg/L) and frequency of exceedance of objectives for existing conditions, No Action LLT, and Alternative 4 Scenarios H1 H4.**

Boron Alt 4 LLT	Location	Period ^a	Period Average Concentration ug/L						Lowest Applicable Human Health Criterion/Objective (2000 ug/L) ^b						Other Relevant Threshold (500 ug/L) ^c					
									Frequency of Criterion/Objective Exceedance (%)						Frequency of Criterion/Objective Exceedance (%)					
			Ex. Cond.	No Act. LLT	H1	H2	H3	H4	Ex. Cond.	No Act. LLT	H1	H2	H3	H4	Ex. Cond.	No Act. LLT	H1	H2	H3	H4
Delta Interior	Moke. R. (SF) at Staten Island	ALL	124.4	123.3	134.1	134.9	134.2	134.8	0	0	0	0	0	0	0	0	0	0	0	0
		DROUGHT	129.9	128.4	139.2	139.6	139.4	139.6	0	0	0	0	0	0	0	0	0	0	0	0
	SJR at Buckley Cove	ALL	348.8	325.9	337.0	337.6	337.2	337.7	0	0	0	0	0	0	0	0	0	0	0	0
		DROUGHT	355.7	313.9	337.3	337.6	337.2	337.7	0	0	0	0	0	0	0	0	0	0	0	0
	Franks Tract	ALL	169.0	164.6	188.9	191.8	190.7	194.1	0	0	0	0	0	0	0	0	0	0	0	0
		DROUGHT	149.2	148.8	158.2	160.5	160.2	162.2	0	0	0	0	0	0	0	0	0	0	0	0
	Old R. at Rock Slough	ALL	185.3	184.0	205.3	209.9	212.2	218.4	0	0	0	0	0	0	0	0	0	0	0	0
		DROUGHT	156.8	160.5	170.2	174.0	175.3	178.8	0	0	0	0	0	0	0	0	0	0	0	0
Western Delta	Sac. R. at Emmaton	ALL	161.9	162.1	170.5	172.1	163.7	164.5	0	0	0	0	0	0	0	0	0	0	0	0
		DROUGHT	180.4	185.6	185.2	186.1	181.1	182.3	0	0	0	0	0	0	0	0	0	0	0	0
	SJR at Antioch	ALL	269.5	251.9	268.8	270.9	253.1	255.1	0	0	0	0	0	0	12	7	3	5	3	3
		DROUGHT	296.3	286.3	280.9	282.2	271.8	273.8	0	0	0	0	0	0	18	13	5	8	5	5
	Sac. R. at Mallard Island	ALL	438.5	417.5	440.8	441.3	418.3	419.1	0	0	0	0	0	0	31	26	35	34	29	29
		DROUGHT	517.7	499.4	500.7	501.0	487.6	489.5	0	0	0	0	0	0	38	35	47	42	43	42
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	132.3	130.7	113.2	113.5	112.9	113.1	0	0	0	0	0	0	0	0	0	0	0	0
		DROUGHT	134.0	133.7	114.9	115.3	114.6	114.8	0	0	0	0	0	0	0	0	0	0	0	0
	Contra Costa PP #1	ALL	197.3	194.9	217.0	220.9	222.5	228.4	0	0	0	0	0	0	0	0	0	0	0	0
		DROUGHT	175.4	176.4	182.9	187.1	188.4	192.0	0	0	0	0	0	0	0	0	0	0	0	0
	Banks PP	ALL	228.7	229.2	181.7	186.0	182.8	182.7	0	0	0	0	0	0	0	0	0	0	0	0
		DROUGHT	201.3	204.5	193.4	185.1	192.5	183.8	0	0	0	0	0	0	0	0	0	0	0	0
	Jones PP	ALL	267.8	274.8	216.1	208.9	210.7	205.7	0	0	0	0	0	0	0	0	0	0	0	0
		DROUGHT	248.4	258.6	231.3	220.2	225.8	217.1	0	0	0	0	0	0	0	0	0	0	0	0
^a ALL: Water years 1975-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index).																				
^b USEPA-recommended human health advisory levels for long-term exposure of children through drinking water supplies (USEPA 2008b).																				
^c Ayers and Westcot (1994) threshold for crop sensitivity to boron. (Ayers, R., and D. Westcot. 1994. Water Quality for Agriculture. FOA Irrigation and Drainage Paper.)																				

1 **Table Bo-3C. Period average boron concentrations (µg/L) and frequency of exceedance of objectives for existing conditions, No Action ELT, and Alternatives 4A, 2D, and 5A ELT.**

Boron Alt 4A/2D/5A	Location	Period ^a						Lowest Applicable Human Health Criterion/Objective (2000 ug/L) ^b					Other Relevant Threshold (500 ug/L) ^d				
								Frequency of Criterion/Objective Exceedance (%)					Frequency of Criterion/Objective Exceedance (%)				
			Period Average Concentration ug/L	Ex. Cond.	No Act. ELT	Alt 4A ELT	Alt 2D ELT	Alt 5A ELT	Ex. Cond.	No Act. ELT	Alt 4A ELT	Alt 2D ELT	Alt 5A ELT	Ex. Cond.	No Act. ELT	Alt 4A ELT	Alt 2D ELT
Delta Interior	Moke. R. (SF) at Staten Island	ALL	124	125	127	128	126	0	0	0	0	0	0	0	0	0	0
		DROUGHT	130	130	132	133	132	0	0	0	0	0	0	0	0	0	0
	SJR at Buckley Cove	ALL	349	330	335	335	332	0	0	0	0	0	0	0	0	0	0
		DROUGHT	356	322	334	334	327	0	0	0	0	0	0	0	0	0	0
	Franks Tract	ALL	169	167	181	185	172	0	0	0	0	0	0	0	0	0	0
		DROUGHT	149	150	152	150	150	0	0	0	0	0	0	0	0	0	0
	Old R. at Rock Slough	ALL	185	184	203	209	192	0	0	0	0	0	0	0	0	0	0
		DROUGHT	157	158	166	163	160	0	0	0	0	0	0	0	0	0	0
Western Delta	Sac. R. at Emmaton	ALL	162	162	167	164	165	0	0	0	0	0	0	0	0	0	0
		DROUGHT	180	186	187	181	187	0	0	0	0	0	0	0	0	0	0
	SJR at Antioch	ALL	269	258	259	254	259	0	0	0	0	0	12	11	7	5	11
		DROUGHT	296	294	287	278	291	0	0	0	0	0	18	17	12	8	15
	Sac. R. at Mallard Island	ALL	439	423	424	414	422	0	0	0	0	0	31	27	28	27	29
		DROUGHT	518	509	503	493	504	0	0	0	0	0	38	37	40	40	42
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	132	130	131	131	130	0	0	0	0	0	0	0	0	0	0
		DROUGHT	134	133	134	133	132	0	0	0	0	0	0	0	0	0	0
	Contra Costa PP #1	ALL	197	197	214	219	204	0	0	0	0	0	0	0	0	0	0
		DROUGHT	175	175	180	180	177	0	0	0	0	0	0	0	0	0	0
	Banks PP	ALL	229	228	184	174	200	0	0	0	0	0	0	0	0	0	0
		DROUGHT	201	201	191	183	189	0	0	0	0	0	0	0	0	0	0
	Jones PP	ALL	268	270	206	192	238	0	0	0	0	0	0	0	0	0	0
		DROUGHT	248	252	214	212	230	0	0	0	0	0	0	0	0	0	0
^a ALL: Water years 1975-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index).																	
^b USEPA-recommended human health advisory levels for long-term exposure of children through drinking water supplies (USEPA 2008b).																	
^c Ayers and Westcot (1994) threshold for crop sensitivity to boron. (Ayers, R., and D. Westcot. 1994. <i>Water Quality for Agriculture</i> . FOA Irrigation and Drainage Paper.)																	

1 **Table Bo-4. Period average percentage changes in available assimilative capacity under the No Action Alternative LLT, relative to existing conditions, based on the 2,000 µg/L recommended human health criteria.**

Boron No Act. LLT	Location	Period ^a	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Annual Avg. Change
			Ex. Cond.												
Delta Interior	Moke. R. (SF) at Staten Island	ALL	0	0	0	0	0	0	0	0	0	0	0	0	0
		DROUGHT	0	0	0	0	0	0	0	0	0	0	0	0	0
	SJR at Buckley Cove	ALL	1	0	1	1	1	1	1	1	2	3	4	1	1
		DROUGHT	1	1	2	2	1	1	2	2	4	5	7	3	3
	Franks Tract	ALL	0	1	0	0	0	0	0	0	0	1	0	0	0
		DROUGHT	0	0	0	0	0	0	0	0	0	0	0	0	0
	Old R. at Rock Slough	ALL	0	0	0	0	0	0	0	0	0	1	0	0	0
		DROUGHT	-1	0	-1	0	0	0	0	0	0	0	0	0	0
Western Delta	Sac. R. at Emmaton	ALL	2	1	-1	0	0	0	0	-1	0	0	0	0	0
		DROUGHT	2	1	-1	-1	0	0	0	0	-1	0	-1	-2	0
	SJR at Antioch	ALL	6	6	1	0	0	0	0	0	0	1	0	1	1
		DROUGHT	6	6	1	-1	-1	0	0	-1	-1	1	0	-2	1
	Sac. R. at Mallard Island	ALL	9	9	1	0	0	0	0	-1	-1	2	0	3	1
		DROUGHT	11	13	2	-1	-1	0	0	0	0	1	0	-1	1
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	0	0	0	0	0	0	0	0	0	0	0	0	0
		DROUGHT	0	0	0	0	0	0	0	0	0	0	0	0	0
	Contra Costa PP #1	ALL	0	0	0	0	-1	0	0	0	0	1	1	0	0
		DROUGHT	0	-1	1	-1	0	0	0	0	0	0	1	0	0
	Banks PP	ALL	0	0	0	0	0	0	0	0	0	0	0	0	0
		DROUGHT	0	-1	0	-1	0	0	0	0	0	0	0	0	0
	Jones PP	ALL	-1	-1	0	-1	0	0	0	0	0	-1	0	-1	0
		DROUGHT	-2	-1	0	0	0	0	0	0	0	-1	-1	0	0
^a ALL: Water years 1975-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index). NOTES: -- Positive values indicate that implementation of the Alternative increases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality improves under the Alternative, relative to Existing Conditions or the No Action Alternative). Negative values indicate that implementation of the Alternative decreases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality degradation occurs under the Alternative, relative to Existing Conditions or the No Action Alternative). Values of -100% represent instances where all available assimilative capacity is used under the Alternative, and therefore concentrations are at or above the criteria. -- USEPA-recommended human health advisory levels for long-term exposure of children through drinking water supplies (USEPA 2008b).															

2

1 **Table Bo-5. Period average percentage changes in available assimilative capacity under the No Action Alternative LLT, relative to existing conditions, based on the 500 µg/L agricultural objective.**

Boron No Act. LLT	Location	Period ^a	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Annual Avg. Change
			Ex. Cond.												
Delta Interior	Moke. R. (SF) at Staten Island	ALL	0	0	0	1	1	0	0	0	1	1	0	0	0
		DROUGHT	0	0	0	1	1	1	1	1	1	0	0	0	0
	SJR at Buckley Cove	ALL	6	1	13	10	9	7	11	12	25	35	43	16	15
		DROUGHT	8	8	22	24	14	14	24	24	51	47	77	32	29
	Franks Tract	ALL	1	5	2	-1	0	0	0	0	2	4	2	1	1
		DROUGHT	-1	3	0	0	-1	0	0	0	0	-1	1	1	-2
	Old R. at Rock Slough	ALL	-1	2	1	-2	0	-1	-1	0	1	3	1	1	0
		DROUGHT	-5	0	-3	-1	0	0	0	-1	-2	0	1	-1	-1
Western Delta	Sac. R. at Emmaton	ALL	10	8	-3	-1	-1	0	-1	-3	-2	0	-2	-1	0
		DROUGHT	14	8	-7	-3	-2	0	0	-2	-3	-2	-4	-11	-2
	SJR at Antioch	ALL	-	-	10	-2	-2	-1	-1	-2	-2	8	1	16	8
		DROUGHT	-	-	97	-6	-5	-1	0	-3	-5	4	-1	-23	5
	Sac. R. at Mallard Island	ALL	-	-	-	-1	-3	-2	-2	-7	-7	31	2	-	34
		DROUGHT	-	-	-	-19	-11	-1	-1	-3	-6	79	3	-	-
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	1	1	0	0	-2	-1	1	0	1	2	1	1	0
		DROUGHT	2	1	0	0	0	-1	-1	-2	1	2	0	0	0
	Contra Costa PP #1	ALL	2	0	3	1	-5	-3	0	0	2	3	4	2	1
		DROUGHT	-1	-4	4	-3	0	-1	-1	-1	-1	0	3	1	0
	Banks PP	ALL	-1	-1	-1	-2	0	0	1	0	-1	0	2	1	0
		DROUGHT	-3	-5	-2	-3	0	2	2	1	-3	-2	-1	0	-1
	Jones PP	ALL	-8	-4	-1	-4	-1	-2	-1	-1	-2	-4	-2	-4	-3
		DROUGHT	-13	-8	-1	-3	-2	-1	0	-2	-4	-7	-3	-1	-4
^a ALL: Water years 1975-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index). NOTES: -- Positive values indicate that implementation of the Alternative increases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality improves under the Alternative, relative to Existing Conditions or the No Action Alternative). Negative values indicate that implementation of the Alternative decreases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality degradation occurs under the Alternative, relative to Existing Conditions or the No Action Alternative). Values of -100% represent instances where all available assimilative capacity is used under the Alternative, and therefore concentrations are at or above the criteria. -- Water Quality Objective is the 500 ug/L agricultural criterion.															

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1 **Table Bo-6. Period average change in boron concentrations (µg/L) for Alternative 1A LLT, relative to the existing conditions and No Action Alternative LLT.**

Boron			OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change		
	Location	Period ^a	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	
Alt 1 LLT																													
Delta Interior	Moke. R. (SF) at Staten Island	ALL	7 (6%)	7 (6%)	9 (8%)	8 (7%)	3 (3%)	4 (3%)	4 (3%)	7 (5%)	4 (3%)	7 (5%)	7 (6%)	9 (7%)	6 (5%)	7 (6%)	4 (3%)	6 (5%)	15 (11%)	17 (13%)	19 (14%)	21 (16%)	20 (17%)	19 (16%)	15 (13%)	14 (12%)	9 (7%)	10 (8%)	
		DROUGHT	6 (5%)	6 (5%)	7 (6%)	7 (6%)	3 (2%)	4 (3%)	0 (-0%)	2 (2%)	-2 (-2%)	1 (1%)	5 (4%)	9 (6%)	2 (1%)	4 (3%)	4 (3%)	7 (5%)	20 (15%)	22 (17%)	28 (22%)	29 (22%)	19 (16%)	18 (14%)	13 (10%)	13 (11%)	9 (7%)	10 (8%)	
	SJR at Buckley Cove	ALL	-14 (-4%)	-6 (-2%)	-7 (-2%)	-5 (-2%)	-12 (-4%)	9 (3%)	-10 (-3%)	6 (2%)	-12 (-3%)	3 (1%)	-9 (-3%)	3 (1%)	-13 (-4%)	3 (1%)	-14 (-4%)	3 (1%)	-27 (-7%)	7 (2%)	-45 (-13%)	6 (2%)	-51 (-14%)	10 (3%)	-27 (-8%)	-5 (-1%)	-20 (-6%)	3 (1%)	
		DROUGHT	-19 (-5%)	-8 (-2%)	-15 (-4%)	-3 (-1%)	-23 (-6%)	9 (3%)	-24 (-7%)	9 (3%)	-16 (-4%)	5 (1%)	-15 (-4%)	7 (2%)	-25 (-7%)	8 (3%)	-26 (-7%)	8 (2%)	-48 (-13%)	18 (6%)	-50 (-15%)	29 (11%)	-65 (-19%)	52 (23%)	-44 (-12%)	-2 (-0%)	-31 (-9%)	11 (3%)	
	Franks Tract	ALL	23 (15%)	28 (19%)	7 (4%)	23 (14%)	9 (5%)	16 (9%)	24 (15%)	21 (13%)	38 (24%)	38 (23%)	41 (23%)	41 (24%)	20 (11%)	21 (11%)	-5 (-2%)	-4 (-2%)	6 (4%)	12 (7%)	6 (4%)	19 (13%)	12 (8%)	18 (13%)	19 (13%)	21 (14%)	17 (10%)	21 (13%)	
		DROUGHT	6 (4%)	3 (2%)	-12 (-7%)	-4 (-2%)	-5 (-3%)	-3 (-2%)	4 (3%)	2 (2%)	7 (6%)	5 (4%)	5 (4%)	6 (5%)	5 (4%)	6 (5%)	4 (3%)	3 (2%)	11 (8%)	7 (5%)	3 (2%)	8 (5%)	10 (7%)	15 (11%)	12 (8%)	6 (4%)	4 (3%)	5 (3%)	
	Old R. at Rock Slough	ALL	33 (22%)	28 (18%)	12 (7%)	20 (12%)	8 (5%)	11 (6%)	34 (19%)	28 (16%)	42 (23%)	43 (23%)	35 (17%)	32 (15%)	-2 (-1%)	-4 (-2%)	-28 (-11%)	-28 (-11%)	9 (4%)	13 (7%)	14 (8%)	24 (16%)	15 (11%)	20 (15%)	26 (17%)	28 (19%)	16 (9%)	18 (10%)	
		DROUGHT	9 (6%)	-7 (-4%)	-7 (-4%)	-8 (-4%)	0 (-0%)	-10 (-5%)	9 (6%)	7 (5%)	8 (5%)	6 (4%)	5 (3%)	4 (2%)	4 (2%)	3 (2%)	4 (3%)	0 (-0%)	14 (10%)	8 (5%)	13 (9%)	15 (10%)	15 (10%)	17 (12%)	16 (11%)	11 (7%)	8 (5%)	4 (2%)	
	Western Delta	Sac. R. at Emmaton	ALL	-20 (-9%)	8 (4%)	-3 (-1%)	17 (7%)	15 (8%)	5 (3%)	4 (3%)	-1 (-1%)	3 (2%)	0 (-0%)	4 (3%)	2 (2%)	3 (3%)	0 (0%)	9 (6%)	-1 (-1%)	6 (4%)	1 (0%)	18 (12%)	18 (12%)	29 (18%)	22 (13%)	33 (16%)	29 (14%)	8 (5%)	8 (5%)
			DROUGHT	-37 (-14%)	-5 (-2%)	-15 (-5%)	0 (0%)	15 (7%)	-4 (-2%)	5 (3%)	-7 (-5%)	4 (4%)	-4 (-3%)	1 (1%)	0 (0%)	0 (0%)	-1 (-1%)	14 (10%)	6 (4%)	16 (11%)	5 (3%)	37 (23%)	30 (18%)	30 (18%)	16 (9%)	2 (1%)	-27 (-10%)	6 (3%)	1 (0%)
		SJR at Antioch	ALL	-60 (-14%)	31 (9%)	-70 (-14%)	17 (4%)	-1 (-0%)	11 (3%)	8 (4%)	2 (1%)	20 (13%)	15 (9%)	28 (19%)	27 (18%)	21 (14%)	20 (13%)	14 (7%)	7 (4%)	10 (5%)	5 (3%)	5 (2%)	26 (11%)	30 (12%)	32 (13%)	35 (10%)	59 (18%)	3 (1%)	21 (8%)
			DROUGHT	-81 (-17%)	14 (4%)	-107 (-18%)	-24 (-5%)	-37 (-8%)	-20 (-4%)	-11 (-5%)	-28 (-12%)	6 (4%)	-10 (-6%)	4 (3%)	3 (2%)	5 (4%)	3 (2%)	17 (10%)	7 (4%)	19 (9%)	6 (3%)	17 (6%)	26 (9%)	34 (12%)	32 (12%)	-7 (-2%)	-31 (-7%)	-12 (-4%)	-2 (-1%)
Sac. R. at Mallard Island		ALL	-94 (-12%)	20 (3%)	-61 (-7%)	39 (5%)	1 (0%)	12 (2%)	5 (1%)	3 (1%)	17 (8%)	8 (4%)	21 (14%)	16 (10%)	22 (14%)	17 (10%)	41 (15%)	26 (9%)	25 (8%)	13 (4%)	24 (6%)	50 (13%)	44 (10%)	45 (10%)	49 (8%)	99 (19%)	8 (2%)	29 (7%)	
		DROUGHT	-116 (-13%)	14 (2%)	-119 (-11%)	2 (0%)	-43 (-5%)	-20 (-2%)	-12 (-3%)	-29 (-7%)	18 (6%)	-6 (-2%)	12 (8%)	8 (5%)	12 (7%)	8 (5%)	23 (7%)	19 (5%)	22 (6%)	14 (4%)	27 (6%)	44 (10%)	40 (9%)	41 (9%)	-11 (-2%)	-23 (-3%)	-12 (-2%)	6 (1%)	
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	-16 (-12%)	-12 (-9%)	-9 (-8%)	-7 (-6%)	-5 (-4%)	-5 (-4%)	-13 (-10%)	-13 (-10%)	-18 (-14%)	-23 (-17%)	-17 (-13%)	-19 (-15%)	-19 (-15%)	-16 (-13%)	-21 (-16%)	-20 (-15%)	-29 (-21%)	-25 (-18%)	-33 (-23%)	-26 (-19%)	-29 (-20%)	-25 (-18%)	-20 (-15%)	-19 (-14%)	-19 (-14%)	-18 (-13%)	
		DROUGHT	-27 (-18%)	-20 (-15%)	-11 (-8%)	-6 (-5%)	0 (0%)	-1 (-1%)	-4 (-4%)	-4 (-4%)	-10 (-8%)	-12 (-9%)	-13 (-10%)	-16 (-12%)	-16 (-13%)	-19 (-14%)	-21 (-16%)	-30 (-21%)	-31 (-21%)	-27 (-19%)	-35 (-23%)	-29 (-20%)	-34 (-23%)	-34 (-22%)	-29 (-20%)	-29 (-20%)	-19 (-14%)	-19 (-14%)	
	Contra Costa PP #1	ALL	28 (16%)	34 (20%)	21 (11%)	21 (12%)	15 (8%)	24 (13%)	17 (9%)	21 (11%)	44 (24%)	28 (14%)	37 (18%)	28 (13%)	26 (11%)	26 (11%)	-25 (-9%)	-25 (-9%)	2 (1%)	6 (3%)	16 (9%)	27 (16%)	7 (4%)	20 (13%)	12 (7%)	19 (11%)	17 (8%)	19 (10%)	
		DROUGHT	8 (4%)	3 (2%)	-8 (-4%)	-21 (-10%)	-14 (-7%)	-3 (-2%)	-2 (-1%)	-11 (-6%)	8 (5%)	8 (5%)	2 (1%)	-2 (-1%)	3 (2%)	1 (0%)	-4 (-2%)	-8 (-4%)	12 (7%)	11 (6%)	16 (10%)	17 (11%)	6 (4%)	16 (10%)	10 (6%)	14 (8%)	3 (2%)	2 (1%)	
	Banks PP	ALL	14 (7%)	9 (5%)	-29 (-14%)	-33 (-15%)	-39 (-18%)	-40 (-19%)	-67 (-32%)	-72 (-33%)	-83 (-34%)	-83 (-34%)	-134 (-51%)	-134 (-51%)	-111 (-39%)	-110 (-38%)	-74 (-25%)	-75 (-25%)	-89 (-32%)	-91 (-32%)	9 (4%)	9 (5%)	-9 (-5%)	-3 (-2%)	10 (6%)	15 (8%)	-50 (-22%)	-51 (-22%)	
		DROUGHT	17 (9%)	9 (4%)	4 (2%)	-9 (-4%)	-7 (-3%)	-12 (-6%)	-5 (-3%)	-16 (-8%)	18 (9%)	18 (9%)	-83 (-36%)	-77 (-35%)	-74 (-30%)	-68 (-28%)	-43 (-17%)	-41 (-16%)	-2 (-1%)	-10 (-5%)	33 (20%)	26 (16%)	37 (23%)	35 (22%)	16 (9%)	17 (10%)	-8 (-4%)	-11 (-5%)	
	Jones PP	ALL	14 (6%)	-7 (-3%)	-31 (-13%)	-42 (-17%)	-40 (-16%)	-42 (-16%)	-54 (-20%)	-64 (-22%)	-105 (-34%)	-107 (-35%)	-117 (-37%)	-120 (-37%)	-103 (-30%)	-105 (-31%)	-88 (-26%)	-91 (-26%)	-78 (-28%)	-81 (-29%)	7 (3%)	-4 (-2%)	31 (15%)	25 (12%)	-10 (-5%)	-21 (-9%)	-48 (-18%)	-55 (-20%)	
		DROUGHT	32 (15%)	-4 (-1%)	18 (8%)	-4 (-2%)	15 (6%)	12 (5%)	20 (8%)	14 (5%)	-64 (-22%)	-69 (-23%)	-41 (-13%)	-42 (-13%)	-96 (-29%)	-95 (-29%)	-100 (-31%)	-104 (-31%)	-23 (-11%)	-34 (-15%)	37 (23%)	15 (8%)	56 (32%)	47 (26%)	42 (21%)	38 (19%)	-9 (-3%)	-19 (-7%)	

^a ALL: Water years 1976-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index).

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1 **Table Bo-7. Period average percentage changes in available assimilative capacity under Alternative 1A LLT, relative to existing conditions and No Action Alternative LLT, based on the 500 µg/L agricultural objective.**

Boron	Location	Period ^a	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change	
			Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT
Alt 1 LLT																												
Delta Interior	Moke. R. (SF) at Staten Island	ALL	-2	-2	-2	-2	-1	-1	-1	-2	-1	-2	-2	-2	-2	-2	-1	-1	-4	-5	-5	-6	-5	-5	-4	-4	-2	-3
		DROUGHT	-1	-2	-2	-2	-1	-1	0	-1	1	0	-1	-2	0	-1	-1	-2	-6	-6	-8	-8	-5	-5	-3	-4	-2	-3
	SJR at Buckley Cove	ALL	9	4	4	3	8	-5	7	-3	7	-2	6	-2	9	-2	10	-2	20	-4	31	-3	36	-5	19	3	13	-2
		DROUGHT	13	5	10	2	16	-5	17	-5	11	-3	10	-4	18	-5	19	-5	38	-9	30	-12	43	-19	33	1	21	-6
	Franks Tract	ALL	-7	-8	-2	-7	-3	-5	-7	-6	-11	-11	-12	-13	-6	-7	2	1	-2	-4	-2	-5	-3	-5	-5	-6	-5	-6
		DROUGHT	-2	-1	4	1	2	1	-1	-1	-2	-1	-1	-2	-1	-2	-1	-1	-3	-2	-1	-2	-3	-4	-3	-2	-1	-1
	Old R. at Rock Slough	ALL	-9	-8	-4	-6	-3	-3	-10	-9	-14	-14	-12	-11	1	2	11	11	-3	-4	-4	-7	-4	-6	-7	-8	-5	-6
		DROUGHT	-3	2	2	2	0	3	-3	-2	-2	-2	-2	-1	-1	-1	-1	0	-4	-2	-4	-4	-4	-5	-5	-3	-2	-1
Western Delta	Sac. R. at Emmaton	ALL	7	-3	1	-6	-5	-2	-1	0	-1	0	-1	-1	-1	0	-2	0	-2	0	-5	-5	-9	-7	-11	-10	-3	-2
		DROUGHT	17	2	8	0	-6	2	-1	2	-1	1	0	0	0	0	-4	-2	-4	-1	-11	-9	-9	-5	-1	12	-2	0
	SJR at Antioch	ALL	77	-18	-	-22	1	-8	-3	-1	-6	-4	-8	-8	-6	-6	-5	-2	-3	-2	-2	-10	-12	-13	-23	-33	-1	-8
		DROUGHT	-	-14	-	-	-	56	4	11	-2	3	-1	-1	-1	-1	-5	-2	-6	-2	-8	-12	-15	-14	6	39	6	1
	Sac. R. at Mallard Island	ALL	-	-	-	-	-	-	-3	-2	-6	-3	-6	-4	-7	-5	-19	-13	-14	-7	-29	-46	-74	-74	-	-	-13	-35
		DROUGHT	-	-	-	-	-	-	14	42	-8	3	-3	-2	-4	-3	-14	-11	-16	-11	-100	-100	-100	-100	-	-	-	-100
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	4	3	3	2	1	1	3	3	5	6	5	5	5	4	6	5	8	7	9	7	8	7	6	5	5	5
		DROUGHT	7	6	3	2	0	0	1	1	3	3	4	4	4	5	6	8	9	7	10	8	10	10	8	8	5	5
	Contra Costa PP #1	ALL	-9	-10	-6	-7	-5	-8	-6	-7	-14	-9	-12	-10	-10	-10	11	11	-1	-2	-5	-8	-2	-6	-4	-6	-5	-6
		DROUGHT	-2	-1	3	7	5	1	1	3	-2	-2	0	1	-1	0	1	3	-4	-3	-5	-5	-2	-5	-3	-4	-1	-1
	Banks PP	ALL	-4	-3	10	12	13	14	23	25	32	32	56	56	52	51	38	38	40	42	-3	-3	3	1	-3	-4	19	19
		DROUGHT	-5	-3	-1	3	2	4	2	5	-6	-6	30	28	30	27	17	16	1	4	-10	-8	-11	-10	-5	-5	3	4
	Jones PP	ALL	-5	3	12	17	16	17	24	29	54	56	64	67	65	67	57	59	35	37	-2	1	-10	-8	4	8	21	24
		DROUGHT	-11	1	-7	2	-6	-5	-8	-6	32	35	22	23	56	56	58	62	8	13	-11	-5	-17	-15	-14	-13	3	8
^a ALL: Water years 1975-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index).																												
NOTES:																												
-- Positive values indicate that implementation of the Alternative increases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality improves under the Alternative, relative to Existing Conditions or the No Action Alternative). Negative values indicate that implementation of the Alternative decreases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality degradation occurs under the Alternative, relative to Existing Conditions or the No Action Alternative). Values of -100% represent instances where all available assimilative capacity is used under the Alternative, and therefore concentrations are at or above the criteria.																												
-- Water Quality Objective is the 500 ug/L agricultural criterion.																												

1 **Table Bo-8. Period average change in boron concentrations (µg/L) for Alternative 2A LLT, relative to the existing conditions and No Action Alternative LLT.**

Boron			OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change	
			Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT
Alt 2 LLT																												
Delta Interior	Moke. R. (SF) at Staten Island	ALL	10	11	10	9	4	5	5	8	5	8	9	10	8	9	7	8	16	19	17	19	19	18	13	12	10	11
			(9%)	(9%)	(8%)	(8%)	(3%)	(4%)	(3%)	(6%)	(4%)	(6%)	(7%)	(8%)	(7%)	(8%)	(6%)	(7%)	(12%)	(14%)	(13%)	(15%)	(16%)	(15%)	(11%)	(10%)	(8%)	(9%)
		DROUGHT	10	10	8	8	3	3	1	3	0	4	7	10	3	6	5	8	20	22	29	29	20	18	13	14	10	11
			(8%)	(8%)	(7%)	(6%)	(2%)	(3%)	(1%)	(3%)	(0%)	(2%)	(5%)	(8%)	(2%)	(5%)	(4%)	(6%)	(15%)	(16%)	(22%)	(22%)	(16%)	(14%)	(11%)	(11%)	(8%)	(9%)
	SJR at Buckley Cove	ALL	-7	2	0	2	-9	12	-5	11	-6	8	-4	8	-10	7	-10	6	-21	14	-28	23	-26	35	-15	7	-12	11
			(-2%)	(1%)	(-0%)	(0%)	(-3%)	(4%)	(-1%)	(4%)	(-2%)	(3%)	(-1%)	(2%)	(-3%)	(2%)	(-3%)	(2%)	(-6%)	(4%)	(-8%)	(7%)	(-7%)	(12%)	(-4%)	(2%)	(-3%)	(3%)
		DROUGHT	-8	4	-9	3	-21	10	-18	15	-9	11	-8	14	-18	15	-19	14	-35	30	-23	56	-30	87	-25	18	-19	23
			(-2%)	(1%)	(-3%)	(1%)	(-6%)	(3%)	(-5%)	(5%)	(-3%)	(3%)	(-2%)	(4%)	(-5%)	(5%)	(-5%)	(4%)	(-9%)	(10%)	(-7%)	(22%)	(-9%)	(38%)	(-7%)	(6%)	(-5%)	(7%)
	Franks Tract	ALL	32	37	18	34	10	17	22	20	42	42	45	46	35	35	24	24	27	33	11	23	12	18	20	22	25	29
			(21%)	(25%)	(10%)	(21%)	(6%)	(10%)	(14%)	(12%)	(26%)	(26%)	(26%)	(26%)	(19%)	(19%)	(12%)	(12%)	(16%)	(19%)	(7%)	(16%)	(8%)	(13%)	(13%)	(15%)	(15%)	(18%)
		DROUGHT	14	11	3	12	5	6	8	7	15	13	18	19	19	20	16	15	19	15	6	11	11	16	13	7	12	13
			(8%)	(7%)	(2%)	(7%)	(3%)	(4%)	(6%)	(5%)	(11%)	(10%)	(14%)	(14%)	(14%)	(15%)	(12%)	(11%)	(14%)	(11%)	(4%)	(7%)	(8%)	(11%)	(8%)	(4%)	(8%)	(8%)
	Old R. at Rock Slough	ALL	62	57	46	54	16	18	33	28	48	48	42	38	16	14	4	3	27	32	16	26	14	19	51	53	31	32
			(41%)	(36%)	(26%)	(32%)	(9%)	(10%)	(19%)	(15%)	(26%)	(26%)	(20%)	(18%)	(7%)	(6%)	(2%)	(1%)	(14%)	(16%)	(10%)	(17%)	(10%)	(14%)	(34%)	(36%)	(17%)	(18%)
		DROUGHT	36	20	27	26	13	3	18	15	18	16	20	19	19	18	16	11	22	16	16	18	15	17	18	13	20	16
			(22%)	(11%)	(16%)	(15%)	(8%)	(2%)	(12%)	(10%)	(12%)	(11%)	(13%)	(12%)	(11%)	(11%)	(10%)	(7%)	(15%)	(11%)	(11%)	(12%)	(11%)	(12%)	(12%)	(8%)	(13%)	(10%)
Western Delta	Sac. R. at Ermaton	ALL	-40	-13	-22	-3	0	-10	-2	-6	4	0	5	3	7	4	16	6	13	8	19	18	29	21	-3	-6	2	2
			(-18%)	(-6%)	(-9%)	(-1%)	(0%)	(-5%)	(-1%)	(-5%)	(3%)	(0%)	(4%)	(2%)	(6%)	(4%)	(12%)	(4%)	(9%)	(5%)	(12%)	(12%)	(18%)	(13%)	(-2%)	(-3%)	(1%)	(1%)
		DROUGHT	-50	-18	-38	-22	-3	-22	-2	-14	6	-2	2	1	2	1	15	8	17	7	39	31	31	18	3	-26	2	-3
			(-18%)	(-7%)	(-12%)	(-7%)	(-1%)	(-9%)	(-2%)	(-9%)	(5%)	(-2%)	(2%)	(1%)	(2%)	(1%)	(11%)	(6%)	(12%)	(4%)	(24%)	(19%)	(18%)	(10%)	(1%)	(-10%)	(1%)	(-2%)
	SJR at Antioch	ALL	-128	-36	-129	-41	-42	-31	-8	-13	18	13	30	28	28	26	25	18	23	18	9	30	31	33	-32	-8	-15	3
			(-30%)	(-11%)	(-25%)	(-10%)	(-11%)	(-8%)	(-4%)	(-6%)	(11%)	(8%)	(20%)	(19%)	(18%)	(16%)	(13%)	(9%)	(11%)	(9%)	(4%)	(13%)	(12%)	(13%)	(-9%)	(-3%)	(-5%)	(1%)
		DROUGHT	-136	-40	-156	-73	-64	-46	-23	-40	4	-11	9	7	9	8	20	10	23	10	18	28	35	33	-5	-29	-22	-12
			(-28%)	(-10%)	(-25%)	(-14%)	(-13%)	(-10%)	(-11%)	(-17%)	(3%)	(-7%)	(7%)	(5%)	(7%)	(6%)	(11%)	(5%)	(11%)	(4%)	(6%)	(10%)	(13%)	(12%)	(-1%)	(-7%)	(-7%)	(-4%)
	Sac. R. at Mallard Island	ALL	-172	-58	-139	-39	-47	-36	-19	-20	13	5	22	17	24	19	37	22	31	19	26	52	44	46	-50	0	-19	2
			(-23%)	(-9%)	(-15%)	(-5%)	(-7%)	(-5%)	(-6%)	(-6%)	(6%)	(2%)	(15%)	(11%)	(14%)	(11%)	(13%)	(7%)	(10%)	(6%)	(6%)	(13%)	(10%)	(10%)	(-9%)	(-0%)	(-4%)	(0%)
		DROUGHT	-186	-56	-194	-73	-79	-57	-31	-48	12	-11	14	10	13	10	24	19	24	16	28	45	41	42	-9	-21	-29	-10
			(-21%)	(-8%)	(-18%)	(-7%)	(-9%)	(-6%)	(-8%)	(-11%)	(4%)	(-4%)	(9%)	(6%)	(8%)	(6%)	(7%)	(6%)	(7%)	(4%)	(6%)	(10%)	(9%)	(9%)	(-1%)	(-3%)	(-6%)	(-2%)
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	-18	-13	-11	-8	-6	-6	-13	-13	-18	-23	-17	-19	-19	-16	-20	-20	-28	-24	-33	-26	-29	-25	-21	-19	-19	-18
			(-14%)	(-10%)	(-8%)	(-7%)	(-5%)	(-5%)	(-10%)	(-10%)	(-14%)	(-17%)	(-13%)	(-15%)	(-15%)	(-13%)	(-15%)	(-15%)	(-20%)	(-18%)	(-22%)	(-19%)	(-20%)	(-18%)	(-15%)	(-14%)	(-15%)	(-14%)
		DROUGHT	-28	-22	-12	-7	0	-2	-4	-5	-10	-12	-13	-15	-16	-18	-21	-30	-30	-27	-35	-29	-34	-34	-30	-30	-19	-19
			(-19%)	(-16%)	(-9%)	(-5%)	(-0%)	(-1%)	(-4%)	(-4%)	(-8%)	(-9%)	(-10%)	(-12%)	(-12%)	(-14%)	(-16%)	(-21%)	(-21%)	(-19%)	(-23%)	(-20%)	(-23%)	(-22%)	(-20%)	(-20%)	(-14%)	(-14%)
	Contra Costa PP #1	ALL	53	59	46	47	25	33	17	21	60	45	47	38	30	30	-2	-2	20	24	21	32	5	18	20	27	29	31
			(30%)	(35%)	(26%)	(26%)	(13%)	(19%)	(9%)	(11%)	(33%)	(23%)	(23%)	(18%)	(13%)	(13%)	(-1%)	(-1%)	(9%)	(11%)	(12%)	(19%)	(3%)	(12%)	(12%)	(16%)	(14%)	(16%)
		DROUGHT	29	25	24	11	0	12	-1	-10	19	19	14	11	15	13	5	1	19	17	20	20	7	17	11	15	13	13
			(16%)	(14%)	(13%)	(6%)	(0%)	(6%)	(-0%)	(-6%)	(12%)	(12%)	(8%)	(6%)	(8%)	(7%)	(3%)	(1%)	(11%)	(10%)	(12%)	(13%)	(4%)	(10%)	(7%)	(9%)	(8%)	(7%)
	Banks PP	ALL	-8	-13	-44	-48	-25	-27	-64	-69	-85	-85	-111	-111	-128	-126	-68	-68	-80	-82	4	5	-8	-2	-26	-22	-53	-54
			(-4%)	(-6%)	(-21%)	(-22%)	(-12%)	(-13%)	(-30%)	(-32%)	(-35%)	(-35%)	(-42%)	(-42%)	(-45%)	(-44%)	(-22%)	(-22%)	(-29%)	(-29%)	(2%)	(2%)	(-5%)	(-1%)	(-15%)	(-13%)	(-23%)	(-23%)
		DROUGHT	22	14	-12	-26	-1	-6	-52	-62	-24	-24	-70	-64	-71	-65	-30	-28	-37	-45	42	35	36	34	26	27	-8	-11
			(12%)	(7%)	(-6%)	(-12%)	(-0%)	(-3%)	(-29%)	(-32%)	(-12%)	(-12%)	(-31%)	(-29%)	(-28%)	(-27%)	(-12%)	(-11%)	(-17%)	(-20%)	(26%)	(21%)	(23%)	(21%)	(15%)	(16%)	(-4%)	(-5%)
	Jones PP	ALL	-19	-40	-36	-47	-38	-40	-90	-100	-123	-125	-146	-149	-132	-134	-127	-129	-93	-96	3	-8	20	15	-42	-53	-68	-75
			(-8%)	(-16%)	(-15%)	(-19%)	(-15%)	(-16%)	(-33%)	(-35%)	(-40%)	(-41%)	(-46%)	(-46%)	(-39%)	(-39%)	(-37%)	(-37%)	(-33%)	(-34%)	(1%)	(-3%)	(10%)	(7%)	(-19%)	(-23%)	(-25%)	(-27%)
		DROUGHT	-10	-46	0	-23	0	-3	-96	-102	-45	-50	-104	-105	-94	-94	-129	-132	-14	-25	19	-3	45	36	40	36	-28	-38
			(-5%)	(-18%)	(0%)	(-9%)	(-0%)	(-1%)	(-37%)	(-38%)	(-15%)	(-16%)	(-33%)	(-33%)	(-29%)	(-29%)	(-39%)	(-40%)	(-6%)	(-11%)	(12%)	(-2%)	(26%)	(20%)	(20%)	(18%)	(-11%)	(-15%)

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3
4 ^a ALL: Water years 1976-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index).

1 Table Bo-9. Period average percentage changes in available assimilative capacity under Alternative 2A LLT, relative to existing conditions and No Action Alternative LLT, based on the 500 µg/L agricultural objective.

Boron	Location	Period ^a	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change			
			Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT		
Alt 2 LLT	Delta Interior	Moke. R. (SF) at Staten Island	ALL	-3	-3	-3	-2	-1	-1	-1	-2	-1	-2	-2	-3	-2	-2	-2	-2	-4	-5	-5	-5	-5	-5	-3	-3	-3	-3	
			DROUGHT	-3	-3	-2	-2	-1	-1	0	-1	0	-1	-2	-3	-1	-2	-1	-2	-5	-6	-8	-8	-5	-5	-3	-4	-3	-3	
		SJR at Buckley Cove	ALL	4	-1	0	-1	6	-6	3	-6	4	-5	2	-5	7	-4	7	-4	15	-8	19	-12	18	-17	11	-4	8	-6	
			DROUGHT	5	-2	6	-2	15	-6	13	-9	6	-7	5	-8	13	-9	14	-9	28	-16	14	-23	20	-32	18	-10	13	-12	
		Franks Tract	ALL	-9	-11	-6	-10	-3	-5	-6	-6	-13	-12	-14	-14	-11	-11	-8	-8	-8	-10	-3	-7	-3	-5	-6	-6	-8	-9	
			DROUGHT	-4	-3	-1	-4	-1	-2	-2	-2	-4	-3	-5	-5	-5	-5	-4	-4	-5	-4	-2	-3	-3	-4	-4	-2	-3	-4	
		Old R. at Rock Slough	ALL	-18	-17	-14	-16	-5	-6	-10	-9	-15	-15	-14	-13	-6	-5	-2	-1	-9	-10	-5	-7	-4	-5	-14	-15	-10	-10	
			DROUGHT	-10	-6	-8	-8	-4	-1	-5	-4	-5	-5	-6	-5	-6	-5	-5	-3	-6	-5	-5	-5	-4	-5	-5	-4	-6	-5	
		Western Delta	Sac. R. at Emmaton	ALL	15	4	9	1	0	3	0	2	-1	0	-1	-1	-2	-1	-4	-2	-4	-2	-5	-5	-8	-6	1	2	-1	-1
				DROUGHT	22	7	20	11	1	9	1	4	-1	1	-1	0	-1	0	-4	-2	-5	-2	-11	-9	-9	-6	-1	11	-1	1
			SJR at Antioch	ALL	-	21	-	54	35	24	3	4	-5	-4	-9	-8	-8	-7	-8	-6	-8	-6	-4	-11	-13	-14	21	5	6	-1
				DROUGHT	-	38	-	-	-	-	8	15	-1	4	-2	-2	-2	-2	-6	-3	-8	-3	-9	-12	-15	-15	5	37	11	6
			Sac. R. at Mallard Island	ALL	-	-	-	-	-	-	11	12	-5	-2	-6	-5	-7	-6	-17	-11	-17	-11	-32	-48	-75	-75	-	-	31	-2
				DROUGHT	-	-	-	-	-	-	36	70	-6	6	-4	-3	-4	-3	-14	-12	-17	-12	-100	-100	-100	-100	-	-	-	-
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	5	4	3	2	2	1	3	3	5	6	5	5	5	4	5	5	8	7	9	7	8	7	6	5	5	5		
		DROUGHT	8	6	3	2	0	0	1	1	3	3	3	4	4	5	6	8	9	7	10	8	10	10	8	8	5	5		
	Contra Costa PP #1	ALL	-16	-18	-14	-15	-8	-10	-6	-7	-19	-15	-16	-13	-11	-11	1	1	-7	-9	-7	-10	-1	-5	-6	-8	-9	-10		
		DROUGHT	-9	-8	-8	-4	0	-4	0	3	-5	-5	-4	-3	-5	-4	-2	0	-6	-5	-6	-6	-2	-5	-3	-4	-4	-4		
	Banks PP	ALL	3	4	15	17	9	9	22	24	33	33	47	47	60	59	34	35	36	38	-1	-2	2	1	8	7	20	20		
		DROUGHT	-7	-5	4	9	0	2	16	20	8	8	26	23	29	25	12	11	13	17	-12	-11	-10	-10	-8	-8	3	4		
	Jones PP	ALL	7	16	14	19	15	16	40	46	63	65	80	83	83	86	82	85	42	44	-1	3	-7	-5	15	19	29	33		
		DROUGHT	3	18	0	9	0	1	40	43	22	25	57	58	55	54	75	79	5	9	-6	1	-14	-11	-13	-12	11	16		

^a ALL: Water years 1975-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index).

NOTES:

-- Positive values indicate that implementation of the Alternative increases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality improves under the Alternative, relative to Existing Conditions or the No Action Alternative). Negative values indicate that implementation of the Alternative decreases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality degradation occurs under the Alternative, relative to Existing Conditions or the No Action Alternative). Values of -100% represent instances where all available assimilative capacity is used under the Alternative, and therefore concentrations are at or above the criteria.

-- Water Quality Objective is the 500 ug/L agricultural criterion.

1 **Table Bo-10. Period average change in boron concentrations (µg/L) for Alternative 3 LLT, relative to the existing conditions and No Action Alternative LLT.**

Boron			OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change	
	Location	Period ^a	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT
Alt 3 LLT																												
Delta Interior	Moke. R. (SF) at Staten Island	ALL	7	7	8	8	2	3	2	5	2	5	6	7	5	5	4	5	15	17	18	20	20	19	14	13	9	10
			(6%)	(6%)	(7%)	(7%)	(2%)	(3%)	(1%)	(4%)	(1%)	(4%)	(5%)	(6%)	(4%)	(5%)	(3%)	(4%)	(11%)	(13%)	(14%)	(15%)	(17%)	(16%)	(12%)	(12%)	(7%)	(8%)
		DROUGHT	6	6	9	9	3	3	-1	1	-2	1	5	8	2	4	3	6	20	22	28	28	19	17	12	13	8	10
			(5%)	(5%)	(8%)	(7%)	(2%)	(3%)	(-1%)	(1%)	(-1%)	(1%)	(4%)	(6%)	(1%)	(3%)	(2%)	(5%)	(14%)	(16%)	(21%)	(21%)	(15%)	(14%)	(10%)	(10%)	(7%)	(8%)
	SJR at Buckley Cove	ALL	-14	-6	-7	-6	-14	8	-12	4	-12	2	-9	3	-13	3	-14	2	-29	5	-46	5	-50	12	-27	-5	-21	2
			(-4%)	(-2%)	(-2%)	(-2%)	(-4%)	(2%)	(-4%)	(1%)	(-4%)	(1%)	(-3%)	(1%)	(-4%)	(1%)	(-4%)	(1%)	(-8%)	(2%)	(-13%)	(2%)	(-14%)	(4%)	(-8%)	(-2%)	(-6%)	(1%)
		DROUGHT	-20	-9	-15	-3	-24	8	-24	9	-15	5	-15	7	-25	8	-27	6	-55	11	-54	25	-68	50	-48	-5	-32	9
			(-6%)	(-3%)	(-4%)	(-1%)	(-7%)	(2%)	(-7%)	(3%)	(-4%)	(1%)	(-4%)	(2%)	(-7%)	(2%)	(-7%)	(2%)	(-15%)	(4%)	(-16%)	(10%)	(-19%)	(22%)	(-13%)	(-2%)	(-9%)	(3%)
	Franks Tract	ALL	18	23	0	16	4	11	13	11	20	19	28	29	12	13	-8	-7	1	6	4	17	12	18	16	18	10	14
			(12%)	(15%)	(0%)	(10%)	(2%)	(6%)	(8%)	(7%)	(12%)	(12%)	(16%)	(16%)	(7%)	(7%)	(-4%)	(-4%)	(1%)	(4%)	(3%)	(11%)	(8%)	(13%)	(11%)	(12%)	(6%)	(9%)
		DROUGHT	7	4	-12	-4	-6	-5	5	4	9	7	7	8	4	5	1	0	9	5	2	7	10	15	11	5	4	4
			(4%)	(2%)	(-7%)	(-2%)	(-4%)	(-3%)	(3%)	(2%)	(7%)	(5%)	(6%)	(6%)	(3%)	(4%)	(1%)	(0%)	(7%)	(4%)	(1%)	(5%)	(7%)	(10%)	(7%)	(3%)	(3%)	(3%)
	Old R. at Rock Slough	ALL	25	20	10	18	0	2	14	8	23	24	33	30	-7	-10	-32	-32	1	5	12	22	15	20	18	20	9	11
			(17%)	(13%)	(6%)	(11%)	(-0%)	(1%)	(8%)	(5%)	(13%)	(13%)	(16%)	(15%)	(-3%)	(-4%)	(-13%)	(-13%)	(0%)	(3%)	(8%)	(15%)	(10%)	(15%)	(12%)	(14%)	(5%)	(6%)
		DROUGHT	10	-6	-4	-5	-6	-15	16	14	22	20	9	8	-5	-6	-6	-10	11	5	12	13	14	16	14	9	7	4
			(6%)	(-4%)	(-2%)	(-3%)	(-3%)	(-8%)	(11%)	(9%)	(15%)	(13%)	(6%)	(5%)	(-3%)	(-3%)	(-4%)	(-6%)	(8%)	(3%)	(8%)	(9%)	(10%)	(11%)	(10%)	(6%)	(5%)	(2%)
Western Delta	Sac. R. at Emmaton	ALL	-25	3	-10	10	16	6	0	-4	1	-2	3	1	1	-2	7	-3	3	-2	17	17	29	21	30	27	6	6
			(-11%)	(1%)	(-4%)	(4%)	(9%)	(3%)	(0%)	(-3%)	(1%)	(-2%)	(2%)	(1%)	(1%)	(-1%)	(5%)	(-2%)	(2%)	(-2%)	(11%)	(11%)	(18%)	(13%)	(15%)	(13%)	(4%)	(4%)
		DROUGHT	-44	-12	-30	-15	26	7	-4	-15	2	-6	1	0	1	-1	15	7	14	3	36	29	28	14	-2	-31	4	-2
			(-16%)	(-5%)	(-10%)	(-5%)	(11%)	(3%)	(-3%)	(-10%)	(2%)	(-4%)	(1%)	(0%)	(1%)	(-1%)	(11%)	(5%)	(9%)	(2%)	(22%)	(17%)	(17%)	(8%)	(-1%)	(-12%)	(2%)	(-1%)
	SJR at Antioch	ALL	-68	23	-79	8	0	12	-3	-8	8	3	18	16	14	12	11	4	6	1	4	24	29	31	35	58	-2	15
			(-16%)	(7%)	(-16%)	(2%)	(0%)	(3%)	(-2%)	(-4%)	(5%)	(2%)	(12%)	(11%)	(9%)	(7%)	(6%)	(2%)	(3%)	(1%)	(1%)	(10%)	(11%)	(12%)	(10%)	(18%)	(-1%)	(6%)
		DROUGHT	-91	5	-136	-53	-16	1	-21	-39	-1	-17	5	3	5	3	19	9	17	4	16	25	32	31	-10	-34	-15	-5
			(-19%)	(1%)	(-22%)	(-10%)	(-3%)	(0%)	(-10%)	(-17%)	(-1%)	(-10%)	(4%)	(2%)	(4%)	(2%)	(11%)	(5%)	(8%)	(2%)	(6%)	(9%)	(12%)	(11%)	(-2%)	(-8%)	(-5%)	(-2%)
	Sac. R. at Mallard Island	ALL	-107	7	-70	30	5	16	-6	-8	11	2	15	10	18	13	39	24	22	9	23	48	43	44	48	98	3	24
			(-14%)	(1%)	(-8%)	(4%)	(1%)	(2%)	(-2%)	(-2%)	(5%)	(1%)	(10%)	(6%)	(11%)	(7%)	(14%)	(8%)	(7%)	(3%)	(5%)	(12%)	(10%)	(10%)	(8%)	(18%)	(1%)	(6%)
		DROUGHT	-139	-10	-149	-28	-26	-3	-31	-48	9	-14	11	7	13	9	26	21	20	13	26	43	38	40	-15	-26	-18	0
			(-16%)	(-1%)	(-14%)	(-3%)	(-3%)	(-0%)	(-7%)	(-11%)	(3%)	(-5%)	(7%)	(4%)	(7%)	(5%)	(8%)	(6%)	(6%)	(3%)	(5%)	(9%)	(8%)	(9%)	(-2%)	(-4%)	(-3%)	(0%)
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	-16	-12	-10	-8	-6	-6	-13	-13	-18	-24	-17	-20	-19	-16	-21	-20	-29	-25	-33	-26	-29	-25	-21	-19	-19	-18
			(-12%)	(-9%)	(-8%)	(-6%)	(-5%)	(-5%)	(-10%)	(-10%)	(-14%)	(-17%)	(-14%)	(-15%)	(-15%)	(-13%)	(-16%)	(-16%)	(-21%)	(-18%)	(-23%)	(-19%)	(-20%)	(-18%)	(-15%)	(-14%)	(-15%)	(-14%)
		DROUGHT	-27	-20	-11	-6	0	-2	-4	-5	-11	-12	-13	-16	-16	-19	-21	-30	-31	-27	-35	-29	-34	-34	-30	-30	-19	-19
			(-19%)	(-15%)	(-9%)	(-5%)	(-0%)	(-1%)	(-4%)	(-4%)	(-9%)	(-10%)	(-11%)	(-12%)	(-13%)	(-14%)	(-16%)	(-21%)	(-21%)	(-19%)	(-23%)	(-20%)	(-23%)	(-20%)	(-20%)	(-14%)	(-14%)	
	Contra Costa PP #1	ALL	16	22	15	15	-1	8	-3	0	27	11	33	25	19	19	-29	-29	-7	-3	14	25	5	19	8	15	8	11
			(9%)	(13%)	(8%)	(8%)	(-0%)	(5%)	(-2%)	(0%)	(15%)	(6%)	(16%)	(12%)	(8%)	(8%)	(-11%)	(-11%)	(-3%)	(-1%)	(8%)	(15%)	(3%)	(12%)	(5%)	(9%)	(4%)	(5%)
		DROUGHT	6	2	2	-11	-11	1	-7	-17	22	22	8	5	-5	-7	-12	-16	7	5	16	17	5	15	9	13	3	2
			(3%)	(1%)	(1%)	(-6%)	(-6%)	(0%)	(-4%)	(-9%)	(14%)	(14%)	(5%)	(3%)	(-3%)	(-4%)	(-7%)	(-8%)	(4%)	(3%)	(10%)	(10%)	(3%)	(9%)	(5%)	(8%)	(2%)	(1%)
	Banks PP	ALL	8	4	-24	-28	-18	-20	-36	-41	-40	-41	-84	-84	-86	-84	-59	-59	-57	-60	2	3	-10	-4	-3	1	-34	-34
			(4%)	(2%)	(-11%)	(-13%)	(-9%)	(-9%)	(-17%)	(-19%)	(-17%)	(-17%)	(-32%)	(-32%)	(-30%)	(-30%)	(-19%)	(-19%)	(-21%)	(-21%)	(1%)	(1%)	(-6%)	(-2%)	(-2%)	(1%)	(-15%)	(-15%)
		DROUGHT	15	7	-11	-25	-6	-12	-47	-57	18	18	-44	-38	-63	-57	-37	-34	-7	-15	0	-6	33	31	20	21	-7	-11
			(8%)	(3%)	(-5%)	(-11%)	(-3%)	(-6%)	(-26%)	(-30%)	(9%)	(9%)	(-19%)	(-17%)	(-25%)	(-23%)	(-15%)	(-14%)	(-3%)	(-7%)	(0%)	(-4%)	(21%)	(20%)	(12%)	(13%)	(-4%)	(-5%)
	Jones PP	ALL	20	-1	9	-2	-13	-15	-51	-60	-94	-96	-99	-102	-53	-55	-70	-72	-81	-84	8	-2	31	25	19	8	-31	-38
			(9%)	(-0%)	(4%)	(-1%)	(-5%)	(-6%)	(-18%)	(-21%)	(-31%)	(-31%)	(-31%)	(-32%)	(-15%)	(-16%)	(-20%)	(-21%)	(-29%)	(-30%)	(4%)	(-1%)	(15%)	(12%)	(9%)	(4%)	(-12%)	(-14%)
		DROUGHT	24	-12	64	41	-7	-10	-82	-88	-85	-90	-85	-86	-55	-54	-85	-89	-38	-49	43	21	54	45	33	29	-14	-24
			(11%)	(-5%)	(28%)	(16%)	(-3%)	(-4%)	(-31%)	(-33%)	(-29%)	(-30%)	(-27%)	(-27%)	(-17%)	(-17%)	(-26%)	(-27%)	(-18%)	(-22%)	(26%)	(11%)	(31%)	(25%)	(16%)	(14%)	(-6%)	(-9%)

2
3
4

^a ALL: Water years 1976-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index)

1 **Table Bo-11. Period average percentage changes in available assimilative capacity under Alternative 3 LLT, relative to existing conditions and No Action Alternative LLT, based on the 500 µg/L agricultural objective.**

Boron	Location	Period ^a	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change	
			Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT
Alt 3 LLT																												
Delta Interior	Moke. R. (SF) at Staten Island	ALL	-2	-2	-2	-2	-1	-1	-1	-1	0	-1	-2	-2	-1	-1	-1	-1	-4	-5	-5	-5	-5	-5	-4	-3	-2	-3
		DROUGHT	-1	-2	-2	-2	-1	-1	0	0	1	0	-1	-2	0	-1	-1	-2	-5	-6	-8	-8	-5	-5	-3	-3	-2	-3
	SJR at Buckley Cove	ALL	10	4	4	3	8	-4	7	-2	8	-1	6	-2	9	-2	10	-1	21	-3	31	-2	35	-6	19	3	14	-1
		DROUGHT	14	5	10	2	16	-4	17	-5	10	-3	10	-4	18	-5	20	-4	43	-6	32	-10	45	-18	35	3	22	-5
	Franks Tract	ALL	-5	-7	0	-5	-1	-3	-4	-3	-6	-6	-9	-9	-4	-4	3	2	0	-2	-1	-5	-3	-5	-5	-5	-3	-4
		DROUGHT	-2	-1	4	1	2	1	-1	-1	-2	-2	-2	-2	-1	-1	0	0	-2	-1	-1	-2	-3	-4	-3	-1	-1	-1
	Old R. at Rock Slough	ALL	-7	-6	-3	-6	0	-1	-4	-3	-7	-8	-11	-10	3	4	13	13	0	-2	-4	-6	-4	-6	-5	-6	-3	-3
		DROUGHT	-3	2	1	2	2	5	-5	-4	-6	-6	-3	-2	2	2	2	3	-3	-2	-3	-4	-4	-5	-4	-3	-2	-1
Western Delta	Sac. R. at Emmaton	ALL	9	-1	4	-4	-5	-2	0	1	0	1	-1	0	0	0	-2	1	-1	1	-5	-5	-8	-6	-10	-9	-2	-2
		DROUGHT	20	5	16	7	-10	-3	1	4	-1	2	0	0	0	0	-4	-2	-4	-1	-11	-9	-8	-5	1	13	-1	1
	SJR at Antioch	ALL	88	-14	-	-11	0	-9	1	3	-2	-1	-5	-5	-4	-3	-4	-1	-2	0	-1	-9	-12	-13	-23	-33	1	-6
		DROUGHT	-	-5	-	-	91	-3	8	14	0	5	-1	-1	-1	-1	-6	-3	-6	-1	-8	-11	-14	-14	9	42	7	2
	Sac. R. at Mallard Island	ALL	-	-	-	-	-	-	4	4	-4	-1	-4	-3	-5	-4	-18	-12	-12	-6	-28	-45	-72	-73	-	-	-5	-30
		DROUGHT	-	-	-	-	-	-	36	69	-4	7	-3	-2	-4	-3	-15	-13	-15	-10	-100	-100	-100	-100	-	-	-	-40
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	4	3	3	2	2	2	3	3	5	6	5	5	5	4	6	5	8	7	9	7	8	7	6	5	5	5
		DROUGHT	8	6	3	2	0	0	1	1	3	3	4	4	4	5	6	8	9	8	10	8	10	10	8	8	5	5
	Contra Costa PP #1	ALL	-5	-7	-5	-5	0	-3	1	0	-8	-4	-11	-9	-7	-7	12	12	2	1	-4	-8	-2	-5	-2	-4	-3	-3
		DROUGHT	-2	-1	0	4	4	0	2	5	-7	-7	-3	-2	2	2	4	5	-2	-2	-5	-5	-2	-4	-3	-4	-1	-1
	Banks PP	ALL	-3	-1	8	10	6	7	12	15	16	16	35	35	40	39	30	30	26	27	-1	-1	3	1	1	0	12	13
		DROUGHT	-5	-2	4	9	2	4	15	19	-6	-6	16	14	25	22	15	13	3	6	0	2	-10	-9	-6	-6	2	4
	Jones PP	ALL	-7	0	-3	1	5	6	22	28	49	50	54	57	33	35	45	47	37	39	-3	1	-10	-8	-7	-3	13	17
		DROUGHT	-8	5	-23	-16	3	4	34	37	42	46	47	48	32	32	50	53	13	18	-13	-7	-17	-14	-11	-10	6	10

^a ALL: Water years 1975-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index).

NOTES:
-- Positive values indicate that implementation of the Alternative increases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality improves under the Alternative, relative to Existing Conditions or the No Action Alternative). Negative values indicate that implementation of the Alternative decreases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality degradation occurs under the Alternative, relative to Existing Conditions or the No Action Alternative). Values of -100% represent instances where all available assimilative capacity is used under the Alternative, and therefore concentrations are at or above the criteria.
-- Water Quality Objective is the 500 ug/L agricultural criterion.

1 **Table Bo-12A. Period average change in boron concentrations (µg/L) for Alternative 4 LLT Scenario H1, relative to the existing conditions and No Action Alternative LLT.**

Boron			OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change	
	Location	Period ^a	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT
Alt 4 LLT Scenario H1																												
Delta Interior	Moke. R. (SF) at Staten Island	ALL	10	10	9	9	3	4	3	6	3	6	8	9	8	9	7	8	16	18	17	19	18	17	13	13	10	11
			(8%)	(9%)	(8%)	(8%)	(3%)	(4%)	(2%)	(5%)	(2%)	(5%)	(6%)	(7%)	(6%)	(7%)	(5%)	(7%)	(12%)	(14%)	(13%)	(14%)	(15%)	(14%)	(12%)	(11%)	(8%)	(9%)
		DROUGHT	9	9	8	8	3	4	0	3	0	3	5	9	3	5	5	7	20	22	29	29	18	17	12	12	9	11
			(8%)	(8%)	(7%)	(7%)	(2%)	(3%)	(0%)	(2%)	(-0%)	(2%)	(4%)	(7%)	(2%)	(4%)	(4%)	(6%)	(14%)	(16%)	(22%)	(22%)	(15%)	(14%)	(10%)	(10%)	(7%)	(8%)
	SJR at Buckley Cove	ALL	-7	2	0	1	-10	11	-5	11	-6	8	-4	8	-10	7	-10	6	-21	14	-27	24	-27	35	-16	7	-12	11
			(-2%)	(1%)	(-0%)	(0%)	(-3%)	(4%)	(-2%)	(3%)	(-2%)	(3%)	(-1%)	(2%)	(-3%)	(2%)	(-3%)	(2%)	(-6%)	(4%)	(-8%)	(8%)	(-7%)	(12%)	(-4%)	(2%)	(-3%)	(3%)
		DROUGHT	-8	4	-9	3	-21	11	-18	15	-9	11	-8	14	-18	15	-19	14	-35	30	-21	58	-30	87	-25	18	-18	23
			(-2%)	(1%)	(-3%)	(1%)	(-6%)	(3%)	(-5%)	(5%)	(-3%)	(3%)	(-2%)	(4%)	(-5%)	(5%)	(-5%)	(4%)	(-9%)	(10%)	(-6%)	(23%)	(-9%)	(38%)	(-7%)	(6%)	(-5%)	(7%)
	Franks Tract	ALL	23	28	4	20	6	12	14	12	30	29	39	40	32	33	23	23	27	32	11	23	12	18	19	21	20	24
			(15%)	(19%)	(2%)	(12%)	(3%)	(7%)	(9%)	(8%)	(18%)	(18%)	(22%)	(23%)	(17%)	(18%)	(11%)	(12%)	(15%)	(19%)	(7%)	(16%)	(8%)	(13%)	(13%)	(14%)	(12%)	(15%)
		DROUGHT	8	5	-9	-1	2	4	7	6	13	11	16	17	14	15	13	12	17	13	5	10	11	16	12	6	9	9
			(5%)	(3%)	(-5%)	(-1%)	(1%)	(2%)	(5%)	(4%)	(10%)	(8%)	(12%)	(13%)	(10%)	(11%)	(10%)	(9%)	(13%)	(9%)	(3%)	(7%)	(8%)	(11%)	(8%)	(3%)	(6%)	(6%)
	Old R. at Rock Slough	ALL	36	31	17	25	7	9	13	8	29	30	39	36	14	12	2	2	28	33	16	26	13	19	25	27	20	21
			(24%)	(19%)	(9%)	(15%)	(4%)	(5%)	(8%)	(4%)	(16%)	(16%)	(19%)	(17%)	(6%)	(5%)	(1%)	(1%)	(14%)	(17%)	(10%)	(17%)	(9%)	(14%)	(17%)	(19%)	(11%)	(12%)
		DROUGHT	17	1	0	-1	16	6	12	9	13	12	17	15	9	8	11	6	20	14	15	17	15	17	16	11	13	10
			(11%)	(1%)	(-0%)	(-1%)	(9%)	(4%)	(8%)	(6%)	(9%)	(8%)	(11%)	(10%)	(5%)	(5%)	(7%)	(4%)	(14%)	(9%)	(10%)	(12%)	(10%)	(12%)	(10%)	(7%)	(9%)	(6%)
Western Delta	Sac. R. at Emmaton	ALL	-19	9	-1	19	9	-1	-2	-6	3	0	4	2	7	4	16	6	14	8	19	18	27	19	27	24	9	8
			(-8%)	(4%)	(-0%)	(8%)	(5%)	(-1%)	(-1%)	(-5%)	(2%)	(-0%)	(3%)	(2%)	(6%)	(3%)	(11%)	(4%)	(9%)	(5%)	(12%)	(12%)	(17%)	(12%)	(14%)	(12%)	(5%)	(5%)
		DROUGHT	-45	-14	-12	4	0	-19	6	-5	8	0	1	1	2	0	14	7	16	6	40	33	29	15	-2	-31	5	0
			(-17%)	(-6%)	(-4%)	(1%)	(-0%)	(-8%)	(5%)	(-4%)	(6%)	(-0%)	(1%)	(1%)	(1%)	(0%)	(11%)	(5%)	(11%)	(4%)	(25%)	(20%)	(17%)	(8%)	(-1%)	(-12%)	(3%)	(-0%)
	SJR at Antioch	ALL	-76	15	-76	12	-24	-12	-12	-17	12	7	25	23	25	24	25	18	23	18	9	29	30	32	31	54	-1	17
			(-18%)	(5%)	(-15%)	(3%)	(-6%)	(-3%)	(-6%)	(-8%)	(8%)	(4%)	(17%)	(15%)	(16%)	(15%)	(13%)	(9%)	(11%)	(9%)	(4%)	(13%)	(12%)	(12%)	(9%)	(17%)	(-0%)	(7%)
		DROUGHT	-113	-18	-102	-19	-66	-49	-11	-28	10	-6	7	5	7	6	18	8	21	8	20	29	33	32	-9	-33	-15	-5
			(-23%)	(-4%)	(-17%)	(-4%)	(-14%)	(-11%)	(-5%)	(-12%)	(6%)	(-3%)	(6%)	(4%)	(6%)	(4%)	(10%)	(4%)	(11%)	(4%)	(7%)	(11%)	(12%)	(12%)	(-2%)	(-8%)	(-5%)	(-2%)
	Sac. R. at Mallard Island	ALL	-88	26	-60	40	-30	-19	-27	-28	10	1	19	14	23	18	37	22	31	19	26	51	43	44	44	93	2	23
			(-12%)	(4%)	(-7%)	(5%)	(-4%)	(-3%)	(-8%)	(-9%)	(4%)	(0%)	(13%)	(9%)	(14%)	(10%)	(13%)	(7%)	(10%)	(6%)	(6%)	(13%)	(10%)	(10%)	(8%)	(18%)	(1%)	(6%)
		DROUGHT	-142	-13	-111	10	-85	-63	-10	-26	19	-5	12	8	13	9	22	17	23	15	29	47	39	40	-13	-24	-17	1
			(-16%)	(-2%)	(-10%)	(1%)	(-9%)	(-7%)	(-2%)	(-6%)	(7%)	(-1%)	(7%)	(5%)	(7%)	(5%)	(7%)	(5%)	(6%)	(4%)	(6%)	(10%)	(8%)	(9%)	(-2%)	(-4%)	(-3%)	(0%)
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	-17	-12	-10	-7	-5	-5	-13	-13	-18	-23	-17	-19	-16	-20	-20	-28	-24	-33	-26	-29	-25	-21	-19	-19	-17	
			(-13%)	(-9%)	(-8%)	(-6%)	(-4%)	(-4%)	(-10%)	(-10%)	(-14%)	(-17%)	(-13%)	(-15%)	(-15%)	(-13%)	(-15%)	(-15%)	(-20%)	(-18%)	(-22%)	(-19%)	(-20%)	(-18%)	(-15%)	(-14%)	(-14%)	(-13%)
		DROUGHT	-27	-21	-11	-6	1	-1	-4	-4	-10	-11	-13	-15	-16	-18	-20	-30	-30	-27	-35	-29	-34	-34	-30	-30	-19	-19
			(-19%)	(-15%)	(-9%)	(-5%)	(1%)	(-1%)	(-3%)	(-4%)	(-8%)	(-9%)	(-10%)	(-12%)	(-12%)	(-14%)	(-15%)	(-21%)	(-21%)	(-19%)	(-23%)	(-20%)	(-23%)	(-22%)	(-20%)	(-20%)	(-14%)	(-14%)
	Contra Costa PP #1	ALL	25	31	27	27	13	21	5	9	40	24	42	33	29	29	-3	-3	21	25	22	33	5	18	12	19	20	22
			(14%)	(18%)	(15%)	(15%)	(7%)	(12%)	(3%)	(5%)	(22%)	(12%)	(21%)	(16%)	(12%)	(12%)	(-1%)	(-1%)	(9%)	(11%)	(12%)	(19%)	(3%)	(12%)	(7%)	(11%)	(10%)	(11%)
		DROUGHT	10	6	3	-9	-8	4	5	-4	11	11	12	9	5	2	0	-3	15	13	19	19	7	17	10	14	7	6
			(5%)	(3%)	(2%)	(-5%)	(-4%)	(2%)	(3%)	(-2%)	(7%)	(7%)	(7%)	(5%)	(2%)	(1%)	(0%)	(-2%)	(9%)	(8%)	(11%)	(12%)	(4%)	(10%)	(6%)	(8%)	(4%)	(4%)
	Banks PP	ALL	-8	-12	-16	-20	-29	-31	-57	-63	-75	-75	-110	-110	-118	-116	-65	-65	-81	-84	-3	-2	-5	1	4	8	-47	-48
			(-4%)	(-6%)	(-7%)	(-9%)	(-14%)	(-15%)	(-27%)	(-29%)	(-31%)	(-31%)	(-42%)	(-42%)	(-41%)	(-41%)	(-22%)	(-22%)	(-29%)	(-30%)	(-2%)	(-1%)	(-3%)	(0%)	(2%)	(4%)	(-21%)	(-21%)
		DROUGHT	2	-5	18	4	0	-6	-18	-28	-29	-29	-68	-63	-67	-61	-35	-32	6	-2	26	19	42	40	27	28	-8	-11
			(1%)	(-3%)	(9%)	(2%)	(-0%)	(-3%)	(-10%)	(-14%)	(-15%)	(-15%)	(-30%)	(-28%)	(-27%)	(-25%)	(-14%)	(-13%)	(3%)	(-1%)	(16%)	(12%)	(27%)	(25%)	(16%)	(17%)	(-4%)	(-5%)
Jones PP	ALL	-9	-30	-8	-19	6	4	-56	-66	-94	-96	-113	-116	-118	-120	-122	-125	-101	-104	8	-3	16	10	-28	-39	-52	-59	
		(-4%)	(-12%)	(-3%)	(-7%)	(2%)	(1%)	(-21%)	(-23%)	(-31%)	(-31%)	(-36%)	(-36%)	(-35%)	(-35%)	(-35%)	(-36%)	(-36%)	(-37%)	(4%)	(-1%)	(8%)	(5%)	(-13%)	(-17%)	(-19%)	(-21%)	
	DROUGHT	9	-27	19	-4	33	30	-24	-30	-46	-51	-62	-63	-84	-84	-118	-122	-37	-48	30	8	42	33	33	29	-17	-27	
		(4%)	(-11%)	(8%)	(-2%)	(13%)	(12%)	(-9%)	(-11%)	(-15%)	(-17%)	(-19%)	(-20%)	(-26%)	(-26%)	(-36%)	(-37%)	(-17%)	(-21%)	(18%)	(4%)	(24%)	(18%)	(16%)	(14%)	(-7%)	(-11%)	

2 ^a ALL: Water years 1976-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types
3 (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index).
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1 **Table Bo-12B. Period average change in boron concentrations (µg/L) for Alternative 4 LLT Scenario H2, relative to the existing conditions and No Action Alternative LLT.**

Boron			OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change			
	Location	Period ^a	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT		
Alt 4 LLT Scenario H2																														
Delta Interior	Moke. R. (SF) at Staten Island	ALL	10 (9%)	10 (9%)	9 (8%)	9 (8%)	4 (4%)	5 (4%)	3 (2%)	6 (5%)	4 (3%)	7 (5%)	8 (6%)	9 (8%)	8 (7%)	9 (7%)	7 (5%)	8 (7%)	18 (14%)	21 (16%)	22 (17%)	24 (18%)	19 (15%)	18 (14%)	14 (12%)	13 (11%)	10 (8%)	12 (9%)		
		DROUGHT	8 (7%)	8 (7%)	8 (7%)	8 (7%)	5 (4%)	5 (5%)	0 (0%)	3 (2%)	0 (-0%)	3 (2%)	6 (4%)	10 (7%)	4 (3%)	7 (5%)	6 (4%)	8 (6%)	21 (16%)	24 (18%)	28 (21%)	28 (22%)	19 (15%)	18 (14%)	11 (9%)	12 (10%)	10 (8%)	11 (9%)		
			ALL	-6 (-2%)	2 (1%)	0 (-0%)	1 (0%)	-9 (-3%)	13 (4%)	-4 (-1%)	12 (4%)	-6 (-2%)	8 (3%)	-4 (-1%)	8 (2%)	-10 (-3%)	7 (2%)	-10 (-3%)	6 (2%)	-21 (-6%)	14 (4%)	-24 (-7%)	26 (9%)	-24 (-7%)	37 (12%)	-16 (-4%)	7 (2%)	-11 (-3%)	12 (4%)	
	SJR at Buckley Cove	DROUGHT	-8 (-2%)	4 (1%)	-9 (-3%)	3 (1%)	-18 (-5%)	13 (4%)	-18 (-5%)	16 (5%)	-9 (-3%)	11 (3%)	-8 (-2%)	14 (4%)	-18 (-5%)	15 (5%)	-19 (-5%)	15 (4%)	-34 (-9%)	31 (10%)	-23 (-7%)	55 (22%)	-28 (-8%)	89 (39%)	-26 (-7%)	17 (5%)	-18 (-5%)	24 (8%)		
		ALL	25 (16%)	30 (20%)	4 (2%)	20 (12%)	5 (3%)	12 (7%)	14 (9%)	12 (7%)	34 (21%)	33 (20%)	41 (24%)	42 (24%)	36 (19%)	37 (20%)	27 (13%)	27 (14%)	32 (19%)	38 (22%)	20 (13%)	32 (22%)	17 (12%)	23 (17%)	19 (13%)	21 (15%)	23 (14%)	27 (17%)		
	Franks Tract	DROUGHT	5 (3%)	3 (2%)	-13 (-7%)	-5 (-3%)	0 (0%)	2 (1%)	8 (5%)	6 (5%)	13 (10%)	11 (8%)	18 (14%)	19 (15%)	24 (18%)	26 (19%)	24 (18%)	23 (17%)	24 (18%)	19 (14%)	8 (6%)	13 (9%)	13 (9%)	18 (13%)	11 (7%)	5 (3%)	11 (8%)	12 (8%)		
		ALL	37 (24%)	32 (20%)	17 (9%)	25 (14%)	4 (2%)	7 (4%)	14 (8%)	8 (5%)	36 (19%)	36 (20%)	41 (20%)	37 (18%)	23 (10%)	21 (9%)	11 (4%)	10 (4%)	40 (20%)	44 (22%)	31 (19%)	41 (27%)	19 (13%)	24 (18%)	25 (17%)	27 (18%)	25 (13%)	26 (14%)		
	Old R. at Rock Slough	DROUGHT	16 (10%)	0 (-0%)	-5 (-3%)	-6 (-3%)	7 (4%)	-3 (-2%)	13 (9%)	10 (7%)	14 (10%)	12 (8%)	23 (14%)	21 (13%)	32 (19%)	31 (19%)	27 (17%)	23 (14%)	30 (21%)	24 (16%)	19 (13%)	20 (14%)	17 (12%)	19 (13%)	14 (10%)	9 (6%)	17 (11%)	14 (8%)		
		ALL	-20 (-9%)	7 (4%)	-1 (-0%)	19 (8%)	19 (10%)	9 (4%)	-3 (-2%)	-7 (-5%)	3 (2%)	-1 (-1%)	4 (3%)	2 (2%)	3 (3%)	0 (0%)	13 (9%)	3 (2%)	16 (10%)	10 (6%)	28 (18%)	27 (18%)	31 (19%)	23 (14%)	30 (15%)	27 (13%)	10 (6%)	10 (6%)		
	Western Delta	Sac. R. at Emmaton	DROUGHT	-63 (-23%)	-31 (-13%)	-21 (-7%)	-6 (-2%)	35 (15%)	16 (6%)	2 (1%)	-10 (-7%)	6 (5%)	-2 (-1%)	2 (2%)	1 (1%)	4 (3%)	2 (2%)	16 (12%)	9 (6%)	19 (13%)	8 (5%)	42 (26%)	35 (21%)	31 (18%)	17 (9%)	-4 (-2%)	-33 (-12%)	6 (3%)	1 (0%)	
			ALL	-77 (-18%)	14 (4%)	-76 (-15%)	11 (3%)	-15 (-4%)	-4 (-1%)	-12 (-6%)	-17 (-8%)	13 (8%)	8 (5%)	26 (17%)	24 (16%)	25 (16%)	23 (15%)	23 (12%)	16 (8%)	24 (11%)	19 (9%)	18 (7%)	38 (16%)	36 (14%)	38 (15%)	33 (10%)	57 (18%)	1 (1%)	19 (8%)	
			DROUGHT	-137 (-28%)	-42 (-11%)	-114 (-19%)	-31 (-6%)	-21 (-4%)	-4 (-1%)	-14 (-6%)	-31 (-13%)	6 (4%)	-9 (-5%)	8 (6%)	6 (5%)	10 (8%)	9 (7%)	21 (12%)	11 (6%)	24 (12%)	10 (5%)	24 (8%)	33 (12%)	35 (13%)	34 (12%)	-10 (-3%)	-35 (-8%)	-14 (-5%)	-4 (-1%)	
		Sac. R. at Mallard Island	ALL	-93 (-12%)	21 (3%)	-63 (-7%)	37 (5%)	-19 (-3%)	-8 (-1%)	-21 (-7%)	-23 (-7%)	10 (4%)	1 (0%)	18 (12%)	13 (8%)	17 (10%)	12 (7%)	27 (9%)	12 (4%)	30 (9%)	18 (5%)	34 (8%)	59 (15%)	48 (11%)	49 (11%)	48 (8%)	97 (18%)	3 (1%)	24 (6%)	
			DROUGHT	-178 (-21%)	-49 (-7%)	-126 (-11%)	-5 (-1%)	-31 (-3%)	-8 (-1%)	-9 (-2%)	-26 (-6%)	17 (6%)	-7 (-2%)	11 (7%)	7 (4%)	13 (8%)	10 (6%)	23 (7%)	18 (5%)	24 (7%)	16 (4%)	32 (7%)	49 (11%)	41 (9%)	42 (9%)	-16 (-2%)	-28 (-4%)	-17 (-3%)	2 (0%)	
		Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	-16 (-12%)	-11 (-9%)	-9 (-7%)	-7 (-6%)	-5 (-4%)	-5 (-4%)	-12 (-10%)	-12 (-10%)	-17 (-13%)	-23 (-17%)	-17 (-13%)	-19 (-15%)	-16 (-15%)	-19 (-13%)	-21 (-16%)	-20 (-15%)	-29 (-20%)	-25 (-18%)	-33 (-22%)	-26 (-18%)	-28 (-20%)	-24 (-17%)	-20 (-15%)	-18 (-14%)	-19 (-14%)	-17 (-13%)
				DROUGHT	-26 (-18%)	-20 (-14%)	-11 (-8%)	-6 (-5%)	1 (1%)	0 (-0%)	-3 (-3%)	-4 (-3%)	-10 (-8%)	-11 (-9%)	-13 (-10%)	-15 (-12%)	-16 (-12%)	-18 (-14%)	-20 (-15%)	-29 (-21%)	-30 (-19%)	-27 (-23%)	-34 (-20%)	-29 (-22%)	-34 (-22%)	-33 (-20%)	-29 (-20%)	-29 (-14%)	-19 (-14%)	-18 (-14%)
Contra Costa PP #1			ALL	26 (15%)	32 (19%)	22 (12%)	23 (12%)	10 (5%)	19 (10%)	5 (2%)	8 (4%)	43 (23%)	27 (14%)	41 (20%)	32 (15%)	35 (15%)	35 (15%)	7 (3%)	7 (3%)	34 (15%)	39 (18%)	37 (21%)	48 (28%)	11 (6%)	24 (15%)	13 (8%)	19 (12%)	24 (12%)	26 (13%)	
			DROUGHT	8 (4%)	4 (2%)	5 (2%)	-8 (-4%)	-15 (-8%)	-3 (-2%)	-2 (-1%)	-12 (-7%)	12 (8%)	12 (8%)	17 (10%)	14 (8%)	28 (15%)	25 (13%)	19 (11%)	16 (8%)	27 (16%)	25 (15%)	21 (13%)	22 (13%)	9 (5%)	18 (11%)	12 (7%)	15 (9%)	12 (7%)	11 (6%)	
Banks PP			ALL	-2 (-1%)	-6 (-3%)	-2 (-1%)	-7 (-3%)	-26 (-13%)	-28 (-13%)	-51 (-24%)	-56 (-26%)	-77 (-32%)	-77 (-32%)	-100 (-38%)	-100 (-38%)	-125 (-44%)	-123 (-43%)	-75 (-25%)	-75 (-25%)	-99 (-35%)	-101 (-36%)	15 (8%)	16 (8%)	16 (9%)	22 (13%)	13 (7%)	17 (10%)	-43 (-19%)	-43 (-19%)	
			DROUGHT	5 (3%)	-3 (-2%)	15 (7%)	2 (1%)	-9 (-5%)	-15 (-7%)	-4 (-2%)	-15 (-8%)	-19 (-10%)	-19 (-10%)	-53 (-23%)	-48 (-21%)	-97 (-39%)	-91 (-37%)	-90 (-36%)	-88 (-35%)	-36 (-16%)	-45 (-20%)	24 (15%)	17 (10%)	50 (32%)	48 (30%)	21 (12%)	22 (13%)	-16 (-8%)	-19 (-9%)	
Jones PP			ALL	-13 (-6%)	-34 (-14%)	-33 (-14%)	-44 (-18%)	-15 (-6%)	-17 (-7%)	-60 (-22%)	-70 (-25%)	-112 (-37%)	-114 (-37%)	-141 (-45%)	-144 (-45%)	-139 (-41%)	-141 (-41%)	-118 (-34%)	-121 (-35%)	-68 (-24%)	-72 (-25%)	8 (4%)	-2 (-1%)	11 (5%)	5 (2%)	-26 (-12%)	-37 (-16%)	-59 (-22%)	-66 (-24%)	
	DROUGHT		-4 (-2%)	-40 (-16%)	5 (2%)	-18 (-7%)	22 (9%)	19 (7%)	-41 (-16%)	-47 (-18%)	-83 (-28%)	-88 (-29%)	-103 (-32%)	-104 (-33%)	-123 (-37%)	-122 (-37%)	-87 (-27%)	-91 (-27%)	-5 (-2%)	-16 (-7%)	24 (14%)	2 (1%)	38 (22%)	30 (16%)	18 (9%)	14 (7%)	-28 (-11%)	-38 (-15%)		

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4 ^a ALL: Water years 1976-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index)

1 **Table Bo-12C. Period average change in boron concentrations (µg/L) for Alternative 4 LLT Scenario H3, relative to the existing conditions and No Action Alternative LLT.**

Boron			OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change	
			Ex. Cond.	No Act. LL T	Ex. Cond.	No Act. LL T	Ex. Cond.	No Act. LL T	Ex. Cond.	No Act. LL T	Ex. Cond.	No Act. LL T	Ex. Cond.	No Act. LL T	Ex. Cond.	No Act. LL T	Ex. Cond.	No Act. LL T	Ex. Cond.	No Act. LL T	Ex. Cond.	No Act. LL T	Ex. Cond.	No Act. LL T	Ex. Cond.	No Act. LL T	Ex. Cond.	No Act. LL T
Alt 4 LLT Scenario H3			11	11	10	9	4	4	3	6	3	6	8	9	8	9	7	8	16	18	18	20	19	18	12	11	10	11
			(9%)	(10%)	(8%)	(8%)	(3%)	(4%)	(2%)	(5%)	(2%)	(5%)	(6%)	(8%)	(7%)	(8%)	(5%)	(7%)	(12%)	(14%)	(13%)	(15%)	(16%)	(15%)	(10%)	(10%)	(8%)	(9%)
Delta Interior	Moke. R. (SF) at Staten Island	ALL	9	9	7	7	2	3	0	3	0	3	6	10	3	6	5	8	20	22	29	30	20	18	12	13	10	11
		DROUGHT	(8%)	(8%)	(6%)	(6%)	(2%)	(3%)	(0%)	(2%)	(-0%)	(2%)	(4%)	(7%)	(3%)	(5%)	(4%)	(6%)	(15%)	(17%)	(22%)	(22%)	(16%)	(15%)	(10%)	(10%)	(7%)	(9%)
	SJR at Buckley Cove	ALL	-6	2	0	2	-9	12	-5	11	-6	8	-4	8	-10	7	-10	6	-21	14	-26	24	-25	36	-15	7	-12	11
		DROUGHT	(-2%)	(1%)	(-0%)	(0%)	(-3%)	(4%)	(-1%)	(3%)	(-2%)	(3%)	(-1%)	(2%)	(-3%)	(2%)	(-3%)	(2%)	(-6%)	(4%)	(-7%)	(8%)	(-7%)	(12%)	(-4%)	(2%)	(-3%)	(3%)
	Franks Tract	ALL	31	36	16	32	7	13	14	12	30	30	39	40	33	34	24	24	26	32	11	23	12	18	18	21	22	26
		DROUGHT	(20%)	(24%)	(9%)	(19%)	(4%)	(8%)	(9%)	(7%)	(19%)	(18%)	(22%)	(23%)	(18%)	(18%)	(12%)	(12%)	(15%)	(19%)	(7%)	(16%)	(8%)	(13%)	(12%)	(14%)	(13%)	(16%)
	Old R. at Rock Slough	ALL	62	57	44	52	10	12	15	9	31	31	37	34	16	14	3	3	26	31	15	25	14	19	50	52	27	28
		DROUGHT	(41%)	(36%)	(25%)	(31%)	(5%)	(7%)	(8%)	(5%)	(16%)	(17%)	(18%)	(16%)	(7%)	(6%)	(1%)	(1%)	(13%)	(16%)	(10%)	(17%)	(10%)	(14%)	(34%)	(36%)	(15%)	(15%)
Western Delta	Sac. R. at Ermaton	ALL	-37	-9	-22	-2	-2	-12	-2	-7	3	0	4	2	7	4	16	6	14	8	20	19	29	21	-6	-10	2	2
		DROUGHT	(-16%)	(-5%)	(-9%)	(-1%)	(-1%)	(-6%)	(-2%)	(-5%)	(3%)	(0%)	(3%)	(2%)	(6%)	(3%)	(11%)	(4%)	(9%)	(5%)	(13%)	(13%)	(18%)	(13%)	(-3%)	(-5%)	(1%)	(1%)
	SJR at Antioch	ALL	-123	-31	-126	-39	-52	-41	-13	-18	13	8	26	24	26	24	25	18	23	18	9	30	31	33	-36	-12	-16	1
		DROUGHT	(-29%)	(-9%)	(-25%)	(-9%)	(-14%)	(-11%)	(-6%)	(-9%)	(8%)	(5%)	(17%)	(16%)	(17%)	(15%)	(13%)	(9%)	(11%)	(9%)	(4%)	(13%)	(12%)	(13%)	(-10%)	(-4%)	(-6%)	(0%)
	Sac. R. at Mallard Island	ALL	-163	-49	-138	-38	-60	-49	-22	-23	12	3	20	14	23	18	36	21	31	19	27	52	45	46	-53	-4	-20	1
		DROUGHT	(-21%)	(-8%)	(-15%)	(-5%)	(-8%)	(-7%)	(-7%)	(-7%)	(5%)	(1%)	(13%)	(9%)	(14%)	(10%)	(13%)	(7%)	(10%)	(6%)	(6%)	(13%)	(10%)	(10%)	(-9%)	(-1%)	(-5%)	(0%)
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	-18	-13	-11	-8	-6	-6	-13	-13	-18	-23	-17	-19	-19	-16	-20	-20	-28	-24	-33	-26	-29	-25	-21	-19	-19	-18
		DROUGHT	(-14%)	(-11%)	(-9%)	(-7%)	(-5%)	(-5%)	(-10%)	(-10%)	(-14%)	(-17%)	(-13%)	(-15%)	(-15%)	(-13%)	(-15%)	(-15%)	(-20%)	(-18%)	(-22%)	(-19%)	(-20%)	(-18%)	(-15%)	(-14%)	(-15%)	(-14%)
	Contra Costa PP #1	ALL	53	59	47	48	19	27	6	9	43	27	45	36	29	30	-2	-2	19	23	20	31	5	18	19	25	25	28
		DROUGHT	(30%)	(35%)	(26%)	(26%)	(10%)	(15%)	(3%)	(5%)	(23%)	(14%)	(22%)	(17%)	(13%)	(13%)	(-1%)	(-1%)	(8%)	(10%)	(11%)	(18%)	(3%)	(12%)	(11%)	(15%)	(13%)	(14%)
	Banks PP	ALL	31	27	25	12	-5	7	-1	-11	15	15	13	10	14	12	6	2	18	16	20	21	8	17	12	15	13	12
		DROUGHT	(17%)	(14%)	(13%)	(6%)	(-2%)	(4%)	(-1%)	(-6%)	(10%)	(10%)	(8%)	(6%)	(8%)	(6%)	(3%)	(1%)	(11%)	(10%)	(12%)	(13%)	(4%)	(11%)	(7%)	(9%)	(7%)	(7%)
	Jones PP	ALL	-13	-17	-31	-35	-15	-17	-55	-61	-67	-67	-102	-102	-124	-122	-70	-70	-74	-76	10	11	-1	5	-14	-10	-46	-46
		DROUGHT	(-7%)	(-9%)	(-15%)	(-16%)	(-7%)	(-8%)	(-26%)	(-28%)	(-28%)	(-28%)	(-39%)	(-39%)	(-43%)	(-43%)	(-23%)	(-23%)	(-27%)	(-27%)	(5%)	(6%)	(-1%)	(3%)	(-8%)	(-6%)	(-20%)	(-20%)
		ALL	-5	-13	-13	-27	-6	-12	-50	-61	-13	-13	-73	-67	-86	-80	-31	-28	11	2	50	44	37	35	31	32	-9	-12
		DROUGHT	(-3%)	(-7%)	(-7%)	(-12%)	(-3%)	(-6%)	(-28%)	(-31%)	(-7%)	(-7%)	(-32%)	(-30%)	(-34%)	(-33%)	(-12%)	(-11%)	(5%)	(1%)	(31%)	(26%)	(23%)	(22%)	(18%)	(19%)	(-4%)	(-6%)
		ALL	-11	-32	-41	-52	3	1	-60	-70	-97	-99	-136	-139	-119	-121	-116	-118	-98	-102	4	-6	19	13	-34	-45	-57	-64
		DROUGHT	(-5%)	(-13%)	(-17%)	(-20%)	(1%)	(0%)	(-22%)	(-25%)	(-32%)	(-32%)	(-43%)	(-43%)	(-35%)	(-35%)	(-34%)	(-34%)	(-35%)	(-36%)	(2%)	(-3%)	(9%)	(6%)	(-16%)	(-20%)	(-21%)	(-23%)
		ALL	25	-10	-8	-30	40	37	-86	-92	-73	-78	-77	-78	-93	-93	-112	-116	-32	-43	22	0	45	37	32	28	-23	-33
		DROUGHT	(12%)	(-4%)	(-3%)	(-12%)	(16%)	(15%)	(-33%)	(-35%)	(-25%)	(-26%)	(-24%)	(-24%)	(-28%)	(-28%)	(-34%)	(-35%)	(-15%)	(-19%)	(13%)	(-0%)	(26%)	(20%)	(16%)	(14%)	(-9%)	(-13%)

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4 ^a ALL: Water years 1976-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index).

1 **Table Bo-12D. Period average change in boron concentrations (µg/L) for Alternative 4 LLT Scenario H4, relative to the existing conditions and No Action Alternative LLT.**

Boron			OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change		
	Location	Period ^a	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	
Alt 4 LLT Scenario H4																													
Delta Interior	Moke. R. (SF) at Staten Island	ALL	10	10	9	9	4	5	4	8	4	7	8	9	8	9	7	8	18	21	23	25	18	17	11	11	10	11	
			(8%)	(9%)	(8%)	(8%)	(3%)	(4%)	(3%)	(6%)	(3%)	(5%)	(6%)	(8%)	(7%)	(7%)	(5%)	(7%)	(14%)	(16%)	(17%)	(19%)	(15%)	(14%)	(10%)	(9%)	(8%)	(9%)	
		DROUGHT	8	9	8	8	4	5	1	4	0	3	6	10	4	7	6	8	21	24	29	30	18	16	11	11	10	11	
			(7%)	(7%)	(7%)	(7%)	(3%)	(4%)	(1%)	(3%)	(-0%)	(2%)	(4%)	(7%)	(3%)	(5%)	(4%)	(7%)	(16%)	(18%)	(22%)	(23%)	(14%)	(13%)	(9%)	(9%)	(7%)	(9%)	
	SJR at Buckley Cove	ALL	-6	2	0	2	-9	13	-4	12	-6	8	-4	8	-10	7	-10	6	-21	14	-23	27	-25	37	-15	7	-11	12	
			(-2%)	(1%)	(0%)	(1%)	(-3%)	(4%)	(-1%)	(4%)	(-2%)	(3%)	(-1%)	(2%)	(-3%)	(2%)	(-3%)	(2%)	(-6%)	(4%)	(-7%)	(9%)	(-7%)	(12%)	(-4%)	(2%)	(-3%)	(4%)	
		DROUGHT	-8	4	-9	3	-19	13	-18	16	-9	11	-8	14	-18	15	-19	15	-35	31	-20	59	-29	88	-25	17	-18	24	
			(-2%)	(1%)	(-2%)	(1%)	(-5%)	(4%)	(-5%)	(5%)	(-3%)	(3%)	(-2%)	(4%)	(-5%)	(5%)	(-5%)	(4%)	(-9%)	(10%)	(-6%)	(23%)	(-8%)	(38%)	(-7%)	(5%)	(-5%)	(8%)	
	Franks Tract	ALL	32	37	13	28	4	10	17	15	36	36	43	43	37	38	28	28	34	39	21	34	17	23	21	23	25	30	
			(21%)	(25%)	(7%)	(17%)	(2%)	(6%)	(11%)	(9%)	(23%)	(22%)	(24%)	(25%)	(20%)	(20%)	(14%)	(14%)	(19%)	(23%)	(13%)	(23%)	(12%)	(17%)	(14%)	(16%)	(15%)	(18%)	
		DROUGHT	12	9	-2	6	-2	-1	8	7	14	12	20	21	25	26	25	24	24	20	9	14	12	17	12	5	13	13	
			(7%)	(6%)	(-1%)	(4%)	(-1%)	(-0%)	(6%)	(5%)	(11%)	(9%)	(15%)	(16%)	(18%)	(20%)	(18%)	(17%)	(18%)	(15%)	(6%)	(9%)	(8%)	(12%)	(7%)	(3%)	(9%)	(9%)	
	Old R. at Rock Slough	ALL	63	58	42	50	7	10	19	14	39	40	42	39	24	22	12	11	43	47	33	43	19	24	53	55	33	34	
			(41%)	(37%)	(24%)	(29%)	(4%)	(5%)	(11%)	(8%)	(21%)	(21%)	(21%)	(19%)	(10%)	(9%)	(5%)	(4%)	(21%)	(24%)	(20%)	(28%)	(13%)	(18%)	(36%)	(38%)	(18%)	(19%)	
		DROUGHT	35	19	24	23	7	-3	15	13	16	14	24	22	33	32	28	24	31	25	20	21	16	18	15	10	22	18	
			(22%)	(11%)	(14%)	(13%)	(4%)	(-1%)	(10%)	(9%)	(11%)	(10%)	(15%)	(14%)	(20%)	(19%)	(18%)	(15%)	(21%)	(17%)	(13%)	(14%)	(11%)	(12%)	(10%)	(6%)	(14%)	(11%)	
Western Delta	Sac. R. at Emmaton	ALL	-41	-14	-29	-9	5	-5	3	-2	4	1	4	2	4	1	13	3	16	10	28	28	30	22	-6	-9	3	2	
			(-18%)	(-7%)	(-11%)	(-4%)	(3%)	(-3%)	(2%)	(-1%)	(4%)	(1%)	(4%)	(2%)	(3%)	(1%)	(9%)	(2%)	(11%)	(7%)	(19%)	(19%)	(19%)	(13%)	(-3%)	(-5%)	(2%)	(1%)	
		DROUGHT	-61	-30	-50	-34	13	-6	8	-4	8	0	2	1	4	2	17	9	19	9	42	35	28	15	-7	-36	2	-3	
			(-22%)	(-12%)	(-16%)	(-11%)	(5%)	(-3%)	(6%)	(-3%)	(6%)	(0%)	(2%)	(1%)	(3%)	(2%)	(12%)	(6%)	(13%)	(5%)	(26%)	(21%)	(17%)	(8%)	(-3%)	(-13%)	(1%)	(-2%)	
	SJR at Antioch	ALL	-127	-35	-141	-53	-42	-30	-1	-7	17	11	27	25	25	23	24	17	24	20	18	38	36	38	-33	-9	-14	3	
			(-30%)	(-11%)	(-28%)	(-13%)	(-11%)	(-8%)	(-1%)	(-3%)	(10%)	(7%)	(18%)	(17%)	(16%)	(15%)	(12%)	(8%)	(12%)	(9%)	(7%)	(16%)	(14%)	(15%)	(-9%)	(-3%)	(-5%)	(1%)	
		DROUGHT	-150	-54	-178	-95	-54	-37	-5	-22	10	-6	8	7	10	8	21	11	24	11	23	32	35	33	-13	-37	-22	-12	
			(-31%)	(-14%)	(-29%)	(-18%)	(-11%)	(-8%)	(-2%)	(-10%)	(6%)	(-3%)	(7%)	(5%)	(8%)	(7%)	(12%)	(6%)	(12%)	(5%)	(8%)	(12%)	(13%)	(12%)	(-3%)	(-9%)	(-8%)	(-4%)	
	Sac. R. at Mallard Island	ALL	-175	-61	-149	-50	-45	-34	-2	-4	14	6	19	14	17	12	27	12	30	18	34	59	48	49	-51	-2	-19	2	
			(-23%)	(-9%)	(-17%)	(-6%)	(-6%)	(-5%)	(-1%)	(-1%)	(7%)	(2%)	(13%)	(9%)	(10%)	(7%)	(10%)	(4%)	(9%)	(5%)	(8%)	(15%)	(11%)	(11%)	(-9%)	(-0%)	(-4%)	(0%)	
		DROUGHT	-208	-79	-216	-95	-62	-39	2	-15	21	-3	11	7	13	9	23	18	24	17	31	49	40	41	-18	-30	-28	-10	
			(-24%)	(-11%)	(-20%)	(-10%)	(-7%)	(-4%)	(0%)	(-4%)	(7%)	(-1%)	(7%)	(5%)	(8%)	(5%)	(7%)	(5%)	(7%)	(5%)	(6%)	(11%)	(9%)	(9%)	(-3%)	(-4%)	(-5%)	(-2%)	
	Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	-18	-13	-11	-8	-6	-6	-13	-12	-17	-23	-17	-19	-16	-20	-20	-29	-24	-33	-26	-28	-24	-21	-19	-19	-18	
				(-13%)	(-10%)	(-8%)	(-7%)	(-5%)	(-5%)	(-10%)	(-10%)	(-13%)	(-17%)	(-13%)	(-15%)	(-15%)	(-13%)	(-16%)	(-15%)	(-20%)	(-18%)	(-22%)	(-18%)	(-20%)	(-17%)	(-15%)	(-14%)	(-15%)	(-13%)
			DROUGHT	-28	-22	-12	-7	0	-2	-4	-4	-10	-11	-13	-15	-16	-18	-20	-29	-30	-27	-34	-29	-34	-33	-30	-30	-19	-19
				(-19%)	(-16%)	(-9%)	(-5%)	(-0%)	(-1%)	(-3%)	(-4%)	(-8%)	(-9%)	(-10%)	(-12%)	(-12%)	(-14%)	(-15%)	(-21%)	(-21%)	(-19%)	(-23%)	(-20%)	(-22%)	(-22%)	(-20%)	(-20%)	(-14%)	(-14%)
Contra Costa PP #1		ALL	56	62	45	45	18	26	6	10	50	34	44	35	35	35	9	8	38	42	40	51	11	24	22	29	31	34	
			(32%)	(37%)	(25%)	(25%)	(9%)	(15%)	(3%)	(5%)	(27%)	(17%)	(22%)	(17%)	(15%)	(15%)	(3%)	(3%)	(17%)	(19%)	(22%)	(30%)	(6%)	(16%)	(13%)	(18%)	(16%)	(17%)	
		DROUGHT	30	26	21	8	-3	9	-2	-12	19	19	19	15	27	25	21	17	28	26	22	22	8	18	10	14	17	16	
			(16%)	(14%)	(11%)	(4%)	(-1%)	(5%)	(-1%)	(-7%)	(12%)	(12%)	(11%)	(9%)	(14%)	(13%)	(11%)	(9%)	(17%)	(16%)	(13%)	(14%)	(5%)	(11%)	(6%)	(8%)	(9%)	(9%)	
Banks PP		ALL	4	0	-42	-46	-10	-12	-48	-53	-71	-71	-100	-100	-113	-111	-69	-69	-101	-104	12	13	19	25	-34	-30	-46	-47	
			(2%)	(-0%)	(-20%)	(-21%)	(-5%)	(-6%)	(-23%)	(-25%)	(-29%)	(-29%)	(-38%)	(-38%)	(-39%)	(-39%)	(-23%)	(-23%)	(-36%)	(-37%)	(6%)	(6%)	(11%)	(15%)	(-19%)	(-17%)	(-20%)	(-20%)	
		DROUGHT	13	6	-17	-30	-1	-6	-23	-33	-4	-4	-57	-51	-85	-79	-92	-89	-35	-43	26	20	47	45	15	17	-18	-21	
			(7%)	(3%)	(-8%)	(-14%)	(-0%)	(-3%)	(-12%)	(-17%)	(-2%)	(-2%)	(-25%)	(-23%)	(-34%)	(-32%)	(-37%)	(-36%)	(-16%)	(-19%)	(16%)	(12%)	(30%)	(28%)	(9%)	(10%)	(-9%)	(-10%)	
Jones PP		ALL	-30	-51	-20	-32	-4	-6	-86	-96	-109	-111	-141	-144	-139	-141	-117	-119	-82	-85	4	-6	13	7	-37	-48	-62	-69	
			(-13%)	(-21%)	(-8%)	(-12%)	(-2%)	(-3%)	(-31%)	(-34%)	(-36%)	(-36%)	(-44%)	(-45%)	(-41%)	(-41%)	(-34%)	(-34%)	(-29%)	(-30%)	(2%)	(-3%)	(6%)	(3%)	(-17%)	(-21%)	(-23%)	(-25%)	
		DROUGHT	-26	-62	-6	-29	18	15	-99	-105	-103	-108	-96	-97	-118	-118	-85	-89	-14	-26	38	16	39	30	30	26	-31	-41	
			(-12%)	(-25%)	(-3%)	(-11%)	(7%)	(6%)	(-38%)	(-40%)	(-35%)	(-36%)	(-30%)	(-30%)	(-36%)	(-36%)	(-26%)	(-27%)	(-7%)	(-11%)	(23%)	(9%)	(22%)	(17%)	(15%)	(13%)	(-13%)	(-16%)	

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3
4

^a ALL: Water years 1976-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index).

1 **Table Bo-13A. Period average percentage changes in available assimilative capacity under Alternative 4 LLT Scenario H1, relative to existing conditions and No Action Alternative LLT, based on the 500 µg/L agricultural objective.**

Boron	Location	Period ^a	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change		
			Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	
Alt 4 LLT Scenario H1	Delta Interior	Moke. R. (SF) at Staten Island	ALL	-3	-3	-2	-2	-1	-1	-1	-2	-1	-2	-2	-2	-2	-2	-2	-4	-5	-5	-5	-5	-5	-3	-3	-3	-3	
			DROUGHT	-2	-2	-2	-2	-1	-1	0	-1	0	-1	-1	-2	-1	-1	-1	-2	-5	-6	-8	-8	-5	-5	-3	-3	-3	-
		SJR at Buckley Cove	ALL	4	-1	0	-1	6	-6	3	-6	4	-5	2	-5	7	-4	7	-4	15	-8	18	-12	19	-17	11	-4	8	-6
			DROUGHT	5	-2	6	-2	14	-6	13	-9	6	-7	5	-8	13	-9	14	-9	28	-16	13	-23	20	-32	18	-10	13	-
		Franks Tract	ALL	-7	-8	-1	-6	-2	-4	-4	-4	-9	-9	-12	-12	-10	-10	-8	-8	-8	-10	-3	-7	-3	-5	-5	-6	-6	-7
			DROUGHT	-2	-2	3	0	-1	-1	-2	-2	-3	-3	-4	-5	-4	-4	-4	-3	-5	-4	-1	-3	-3	-4	-3	-2	-3	-
		Old R. at Rock Slough	ALL	-10	-9	-5	-7	-2	-3	-4	-3	-9	-9	-13	-12	-5	-5	-1	-1	-9	-11	-5	-7	-4	-5	-7	-8	-6	-7
			DROUGHT	-5	0	0	0	-5	-2	-3	-3	-4	-3	-5	-4	-3	-3	-3	-2	-6	-4	-4	-5	-4	-5	-5	-3	-4	-
	Western Delta	Sac. R. at Emmaton	ALL	7	-3	0	-7	-3	0	0	2	-1	0	-1	0	-2	-1	-4	-2	-4	-2	-5	-5	-8	-6	-9	-8	-3	-2
			DROUGHT	20	5	6	-2	0	8	-2	2	-2	0	0	0	0	0	-4	-2	-5	-2	-12	-10	-9	-5	1	13	-1	-
		SJR at Antioch	ALL	98	-9	-	-15	20	10	4	6	-4	-2	-7	-7	-7	-7	-8	-6	-8	-6	-4	-11	-12	-13	-20	-31	0	-7
			DROUGHT	-	17	-	-	-	-	4	11	-3	2	-2	-1	-2	-2	-6	-2	-7	-3	-9	-13	-15	-14	8	41	8	-
		Sac. R. at Mallard Island	ALL	-	-	-	-	-	-	15	16	-3	0	-5	-4	-7	-5	-17	-11	-17	-11	-31	-48	-72	-73	-	-	-4	-28
			DROUGHT	-	-	-	-	-	-	11	38	-9	2	-3	-2	-4	-3	-13	-11	-16	-11	-100	-100	-100	-100	-	-	-	-
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	5	3	3	2	1	1	3	3	5	6	5	5	5	4	5	5	8	7	9	7	8	7	6	5	5	5	
		DROUGHT	8	6	3	2	0	0	1	1	3	3	3	4	4	5	6	8	9	7	10	8	10	10	8	8	5	-	
	Contra Costa PP #1	ALL	-8	-9	-8	-8	-4	-7	-2	-3	-13	-8	-14	-12	-11	-11	1	1	-8	-9	-7	-10	-1	-5	-4	-6	-7	-7	
		DROUGHT	-3	-2	-1	3	2	-1	-2	1	-3	-3	-4	-3	-1	-1	0	1	-4	-4	-5	-6	-2	-5	-3	-4	-2	-	
	Banks PP	ALL	2	4	6	7	10	11	20	22	29	29	46	46	55	54	33	33	37	38	1	1	2	0	-1	-2	17	18	
		DROUGHT	-1	2	-6	-2	0	2	6	9	10	10	25	23	27	24	14	13	-2	1	-8	-6	-12	-12	-8	-8	3	-	
	Jones PP	ALL	3	12	3	8	-2	-2	25	31	48	50	62	65	74	77	79	82	46	48	-3	1	-5	-3	10	14	22	26	
		DROUGHT	-3	11	-7	2	-13	-12	10	13	23	26	34	35	49	49	69	73	13	18	-9	-3	-13	-10	-11	-10	7	-	
^a ALL: Water years 1975-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index). NOTES: -- Positive values indicate that implementation of the Alternative increases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality improves under the Alternative, relative to Existing Conditions or the No Action Alternative). Negative values indicate that implementation of the Alternative decreases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality degradation occurs under the Alternative, relative to Existing Conditions or the No Action Alternative). Values of -100% represent instances where all available assimilative capacity is used under the Alternative, and therefore concentrations are at or above the criteria. -- Water Quality Objective is the 500 ug/L agricultural criterion.																													

1 **Table Bo-13B. Period average percentage changes in available assimilative capacity under Alternative 4 LLT Scenario H2, relative to existing conditions and No Action Alternative LLT, based on the 500 µg/L agricultural objective.**

Boron	Location	Period ^a	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change			
			Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT		
Alt 4 LLT Scenario H2	Delta Interior	Moke. R. (SF) at Staten Island	ALL	-3	-3	-2	-2	-1	-1	-1	-2	-1	-2	-2	-2	-2	-2	-2	-5	-6	-6	-7	-5	-5	-4	-3	-3	-3	-3	
			DROUGHT	-2	-2	-2	-2	-1	-1	0	-1	0	-1	-2	-3	-1	-2	-2	-2	-6	-6	-8	-8	-5	-5	-3	-3	-3	-	
		SJR at Buckley Cove	ALL	4	-1	0	-1	5	-7	3	-7	4	-5	2	-5	7	-4	7	-4	15	-8	17	-13	17	-18	11	-4	7	-7	
			DROUGHT	5	-2	6	-2	13	-7	13	-9	6	-7	5	-8	13	-9	14	-9	27	-16	14	-23	18	-33	19	-10	13	-	
		Franks Tract	ALL	-7	-8	-1	-6	-2	-4	-4	-4	-10	-10	-13	-13	-12	-12	-9	-9	-10	-11	-6	-9	-5	-6	-5	-6	-7	-8	
			DROUGHT	-2	-1	4	2	0	-1	-2	-2	-3	-3	-5	-5	-7	-7	-7	-6	-6	-5	-2	-4	-4	-5	-3	-2	-3	-	
		Old R. at Rock Slough	ALL	-11	-9	-5	-7	-1	-2	-4	-3	-12	-12	-14	-13	-9	-8	-4	-4	-13	-14	-9	-12	-5	-7	-7	-8	-8	-8	
			DROUGHT	-5	0	1	2	-2	1	-4	-3	-4	-4	-7	-6	-10	-10	-8	-7	-9	-7	-5	-6	-5	-5	-4	-3	-5	-	
		Western Delta	Sac. R. at Emmaton	ALL	7	-2	0	-7	-6	-3	1	2	-1	0	-1	0	-1	0	-4	-1	-4	-3	-8	-8	-9	-7	-10	-9	-3	-3
				DROUGHT	28	12	11	3	-13	-6	0	3	-2	0	0	0	-1	-1	-5	-2	-5	-2	-12	-10	-9	-5	2	14	-2	-
			SJR at Antioch	ALL	99	-9	-	-15	13	3	4	6	-4	-2	-7	-7	-7	-7	-8	-5	-8	-7	-7	-14	-15	-16	-22	-33	-1	-8
				DROUGHT	-	39	-	-	-	11	5	12	-2	3	-2	-2	-3	-2	-7	-3	-8	-4	-11	-15	-16	-15	10	44	7	-
	Sac. R. at Mallard Island		ALL	-	-	-	-	-	-	12	13	-3	0	-5	-4	-5	-3	-12	-6	-16	-10	-41	-55	-80	-80	-	-	-4	-29	
			DROUGHT	-	-	-	-	-	-	11	38	-8	3	-3	-2	-4	-3	-14	-11	-17	-12	-100	-100	-100	-100	-	-	-	-	
	Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	4	3	2	2	1	1	3	3	5	6	5	5	5	4	6	5	8	7	9	7	8	7	6	5	5	5	
			DROUGHT	7	5	3	2	0	0	1	1	3	3	3	4	4	5	5	8	8	7	10	8	10	9	8	8	5	-	
Contra Costa PP #1		ALL	-8	-10	-7	-7	-3	-6	-2	-3	-13	-9	-14	-11	-13	-13	-3	-3	-13	-14	-12	-14	-3	-7	-4	-6	-8	-9		
		DROUGHT	-2	-1	-1	3	5	1	1	4	-4	-4	-5	-4	-9	-8	-6	-5	-8	-8	-6	-6	-3	-6	-4	-5	-4	-		
Banks PP		ALL	1	2	1	2	9	10	17	20	30	30	42	42	58	57	38	38	45	46	-5	-5	-5	-7	-4	-5	16	16		
		DROUGHT	-2	1	-5	-1	3	5	1	5	6	6	20	17	39	35	36	35	13	16	-7	-5	-15	-14	-6	-7	5	-		
Jones PP		ALL	5	14	13	18	6	7	26	32	58	59	77	80	87	90	76	79	31	33	-3	1	-4	-2	9	13	25	29		
		DROUGHT	1	16	-2	7	-9	-8	17	20	41	45	57	58	72	71	51	54	2	6	-7	-1	-12	-9	-6	-5	11	-		
^a ALL: Water years 1975-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index).																														
NOTES:																														
-- Positive values indicate that implementation of the Alternative increases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality improves under the Alternative, relative to Existing Conditions or the No Action Alternative). Negative values indicate that implementation of the Alternative decreases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality degradation occurs under the Alternative, relative to Existing Conditions or the No Action Alternative). Values of -100% represent instances where all available assimilative capacity is used under the Alternative, and therefore concentrations are at or above the criteria.																														
-- Water Quality Objective is the 500 ug/L agricultural criterion.																														

1 Table Bo-13C. Period average percentage changes in available assimilative capacity under Alternative 4 LLT Scenario H3, relative to existing conditions and No Action Alternative LLT, based on the 500 µg/L agricultural objective.

Boron	Location	Period ^a	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change			
			Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT		
Alt 4 LLT Scenario H3	Delta Interior	Moke. R. (SF) at Staten Island	ALL	-3	-3	-3	-2	-1	-1	-1	-2	-1	-2	-2	-2	-2	-2	-2	-4	-5	-5	-5	-5	-5	-3	-3	-3	-3		
			DROUGHT	-2	-2	-2	-2	-1	-1	0	-1	0	-1	-2	-3	-1	-2	-1	-2	-6	-6	-8	-8	-5	-5	-3	-3	-3	-	
		SJR at Buckley Cove	ALL	4	-1	0	-1	6	-6	3	-6	4	-5	2	-5	7	-4	7	-4	15	-8	18	-12	18	-18	11	-4	8	-7	
			DROUGHT	5	-2	6	-2	15	-6	13	-9	6	-7	5	-8	13	-9	14	-9	28	-16	13	-23	20	-33	18	-10	13	-	
		Franks Tract	ALL	-9	-10	-5	-10	-2	-4	-4	-3	-9	-9	-12	-12	-11	-11	-8	-8	-8	-10	-3	-6	-3	-5	-5	-6	-7	-8	
			DROUGHT	-4	-3	0	-3	0	0	-1	-1	-4	-3	-5	-5	-5	-5	-4	-4	-5	-4	-2	-3	-3	-5	-4	-2	-3	-	
		Old R. at Rock Slough	ALL	-18	-17	-14	-16	-3	-4	-4	-3	-10	-10	-13	-12	-6	-5	-1	-1	-9	-10	-5	-7	-4	-5	-14	-15	-9	-9	
			DROUGHT	-11	-7	-7	-7	-3	0	-4	-3	-4	-4	-5	-5	-5	-5	-4	-3	-6	-5	-5	-5	-5	-5	-5	-3	-5	-	
		Western Delta	Sac. R. at Emmaton	ALL	14	3	9	1	1	4	1	2	-1	0	-1	-1	-2	-1	-4	-2	-4	-2	-6	-5	-8	-6	2	3	-1	0
				DROUGHT	27	11	19	10	4	12	0	4	-2	0	0	0	-1	0	-4	-2	-5	-2	-12	-10	-9	-6	0	13	0	-
	SJR at Antioch		ALL	-	18	-	50	44	32	4	6	-4	-2	-7	-7	-7	-7	-8	-6	-8	-6	-4	-11	-13	-14	23	7	7	0	
			DROUGHT	-	52	-	-	-	-	8	15	-2	3	-2	-2	-2	-2	-6	-3	-8	-4	-9	-13	-15	-15	5	37	12	-	
	Sac. R. at Mallard Island		ALL	-	-	-	-	-	-	13	13	-4	-1	-6	-4	-7	-5	-16	-10	-17	-11	-32	-48	-75	-76	-	-	33	-1	
			DROUGHT	-	-	-	-	-	-	25	56	-8	3	-4	-2	-4	-3	-14	-12	-18	-13	-100	-100	-100	-100	-	-	-	-	
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	5	4	3	2	2	2	3	3	5	6	5	5	5	4	5	5	8	7	9	7	8	7	6	5	5	5		
		DROUGHT	8	6	3	2	0	1	1	1	3	3	3	4	4	5	6	8	9	7	10	8	10	10	8	8	5	-		
	Contra Costa PP #1	ALL	-16	-18	-15	-15	-6	-9	-2	-3	-13	-9	-15	-12	-11	-11	1	1	-7	-8	-6	-9	-1	-5	-6	-8	-8	-9		
		DROUGHT	-10	-9	-8	-4	2	-2	0	3	-4	-4	-4	-3	-5	-4	-2	-1	-5	-5	-6	-6	-2	-5	-4	-5	-4	-		
	Banks PP	ALL	4	6	11	13	5	6	19	21	26	26	43	43	58	57	36	36	33	35	-3	-4	0	-1	4	3	17	17		
		DROUGHT	2	4	5	10	2	4	16	20	4	4	27	24	34	31	12	11	-4	-1	-15	-13	-11	-10	-9	-10	3	-		
	Jones PP	ALL	4	13	16	21	-1	0	26	32	50	52	75	77	75	77	75	77	44	47	-1	2	-6	-4	12	17	25	28		
		DROUGHT	-9	4	3	12	-16	-15	36	39	36	40	42	43	55	54	65	69	11	16	-6	0	-14	-12	-11	-10	9	-		
^a ALL: Water years 1975-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index). NOTES: -- Positive values indicate that implementation of the Alternative increases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality improves under the Alternative, relative to Existing Conditions or the No Action Alternative). Negative values indicate that implementation of the Alternative decreases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality degradation occurs under the Alternative, relative to Existing Conditions or the No Action Alternative). Values of -100% represent instances where all available assimilative capacity is used under the Alternative, and therefore concentrations are at or above the criteria. -- Water Quality Objective is the 500 ug/L agricultural criterion.																														

1 **Table Bo-13D. Period average percentage changes in available assimilative capacity under Alternative 4 LLT Scenario H4, relative to existing conditions and No Action Alternative LLT, based on the 500 µg/L agricultural objective.**

Boron	Location	Period ^a	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change		
			Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	
Alt 4 LLT Scenario H4	Delta Interior	Moke. R. (SF) at Staten Island	ALL	-2	-3	-2	-2	-1	-1	-1	-2	-1	-2	-2	-2	-2	-2	-2	-2	-5	-6	-6	-7	-5	-4	-3	-3	-3	-3
			DROUGHT	-2	-2	-2	-2	-1	-1	0	-1	0	-1	-2	-3	-1	-2	-2	-2	-6	-6	-8	-8	-5	-4	-3	-3	-3	-
		SJR at Buckley Cove	ALL	4	-1	0	-1	5	-7	3	-7	4	-5	2	-5	7	-4	7	-4	15	-8	16	-14	18	-18	11	-4	7	-7
			DROUGHT	5	-2	6	-2	13	-7	13	-9	6	-7	5	-8	13	-9	14	-9	27	-16	12	-24	19	-33	19	-10	12	-
		Franks Tract	ALL	-9	-10	-4	-8	-1	-3	-5	-4	-11	-11	-13	-13	-12	-12	-9	-9	-10	-12	-6	-10	-5	-6	-6	-6	-8	-9
			DROUGHT	-4	-3	1	-2	1	0	-2	-2	-4	-3	-5	-6	-7	-7	-7	-7	-7	-6	-2	-4	-3	-5	-3	-2	-4	-
		Old R. at Rock Slough	ALL	-18	-17	-13	-15	-2	-3	-6	-4	-13	-13	-14	-13	-9	-8	-5	-5	-14	-15	-10	-12	-5	-7	-15	-16	-11	-11
			DROUGHT	-10	-6	-7	-7	-2	1	-4	-4	-5	-4	-7	-6	-10	-10	-8	-7	-9	-7	-6	-6	-4	-5	-4	-3	-6	-
Western Delta	Sac. R. at Emmaton	ALL	15	5	12	3	-2	2	-1	0	-1	0	-1	-1	-1	0	-4	-1	-5	-3	-8	-8	-9	-7	2	3	-1	-1	
		DROUGHT	27	11	27	17	-5	3	-2	1	-2	0	-1	0	-1	-1	-5	-3	-6	-3	-12	-11	-8	-5	3	16	-1	-	
	SJR at Antioch	ALL	-	21	-	69	35	23	0	2	-5	-3	-8	-7	-7	-7	-8	-6	-8	-7	-7	-14	-15	-16	22	5	6	-1	
		DROUGHT	-	51	-	-	-	-	2	8	-3	2	-2	-2	-3	-2	-7	-4	-8	-4	-11	-14	-15	-15	12	47	11	-	
	Sac. R. at Mallard Island	ALL	-	-	-	-	-	-	1	2	-5	-2	-5	-4	-5	-4	-12	-6	-16	-10	-41	-55	-80	-80	-	-	32	-2	
		DROUGHT	-	-	-	-	-	-	-2	22	-10	1	-3	-2	-4	-3	-14	-11	-18	-13	-100	-100	-100	-100	-	-	-	-	
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	5	4	3	2	2	1	3	3	5	6	5	5	5	4	6	5	8	7	9	7	8	7	6	5	5	5	
		DROUGHT	8	6	3	2	0	0	1	1	3	3	3	4	4	5	6	8	8	7	10	8	10	9	8	8	5	-	
	Contra Costa PP #1	ALL	-17	-19	-14	-14	-6	-8	-2	-3	-16	-11	-15	-12	-13	-13	-4	-4	-14	-15	-13	-15	-3	-7	-7	-9	-10	-11	
		DROUGHT	-9	-8	-7	-3	1	-3	1	4	-5	-5	-6	-5	-9	-8	-7	-5	-8	-8	-6	-7	-2	-5	-3	-4	-5	-	
	Banks PP	ALL	-1	0	15	16	4	4	16	19	27	27	42	42	53	52	35	35	46	47	-4	-4	-6	-8	11	9	17	17	
		DROUGHT	-4	-2	6	11	0	2	7	11	1	1	21	18	34	31	37	35	12	16	-8	-6	-14	-13	-5	-5	6	-	
	Jones PP	ALL	11	20	8	13	2	3	38	44	56	58	77	80	87	90	76	78	37	39	-2	2	-4	-2	13	18	27	31	
		DROUGHT	9	25	2	12	-7	-6	41	45	51	55	53	54	69	68	50	53	5	9	-11	-5	-12	-10	-10	-9	12	-	
^a ALL: Water years 1975-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index). NOTES: -- Positive values indicate that implementation of the Alternative increases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality improves under the Alternative, relative to Existing Conditions or the No Action Alternative). Negative values indicate that implementation of the Alternative decreases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality degradation occurs under the Alternative, relative to Existing Conditions or the No Action Alternative). Values of -100% represent instances where all available assimilative capacity is used under the Alternative, and therefore concentrations are at or above the criteria. -- Water Quality Objective is the 500 ug/L agricultural criterion.																													

1 **Table Bo-14. Period average change in boron concentrations (µg/L) for Alternative 5 LLT, relative to the existing conditions and No Action Alternative LLT.**

Boron			OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change	
	Location	Period ^a	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT
Alt 5 LLT																												
Delta Interior	Moke. R. (SF) at Staten Island	ALL	8	8	8	7	2	3	0	3	0	4	5	6	5	6	6	7	13	16	13	15	17	16	13	12	7	9
			(7%)	(7%)	(6%)	(6%)	(2%)	(3%)	(0%)	(3%)	(0%)	(3%)	(4%)	(5%)	(4%)	(5%)	(5%)	(6%)	(10%)	(12%)	(10%)	(11%)	(14%)	(13%)	(11%)	(10%)	(6%)	(7%)
		DROUGHT	8	8	8	8	2	3	-1	1	-3	0	4	7	2	5	4	7	19	21	26	27	20	19	14	14	9	10
			(7%)	(7%)	(7%)	(7%)	(2%)	(3%)	(-1%)	(1%)	(-2%)	(0%)	(3%)	(5%)	(1%)	(4%)	(3%)	(5%)	(14%)	(16%)	(20%)	(20%)	(16%)	(15%)	(11%)	(12%)	(7%)	(8%)
	SJR at Buckley Cove	ALL	-7	2	1	2	-11	10	-11	5	-12	2	-9	3	-13	3	-14	3	-24	10	-34	16	-30	31	-15	8	-15	8
			(-2%)	(0%)	(0%)	(1%)	(-3%)	(3%)	(-3%)	(2%)	(-4%)	(1%)	(-3%)	(1%)	(-4%)	(1%)	(-4%)	(1%)	(-7%)	(3%)	(-10%)	(5%)	(-8%)	(11%)	(-4%)	(2%)	(-4%)	(2%)
		DROUGHT	-9	3	-8	3	-21	10	-24	10	-15	5	-14	7	-24	9	-25	8	-42	23	-35	44	-39	78	-25	18	-24	18
			(-2%)	(1%)	(-2%)	(1%)	(-6%)	(3%)	(-7%)	(3%)	(-4%)	(2%)	(-4%)	(2%)	(-7%)	(3%)	(-7%)	(2%)	(-11%)	(7%)	(-11%)	(17%)	(-11%)	(34%)	(-7%)	(6%)	(-7%)	(6%)
	Franks Tract	ALL	13	18	4	20	1	8	11	9	10	9	12	13	12	12	12	12	8	13	0	13	9	15	11	13	9	13
			(9%)	(12%)	(2%)	(12%)	(1%)	(4%)	(7%)	(5%)	(6%)	(6%)	(7%)	(7%)	(6%)	(6%)	(6%)	(6%)	(4%)	(8%)	(0%)	(9%)	(6%)	(11%)	(7%)	(9%)	(5%)	(8%)
		DROUGHT	9	6	-3	5	-1	0	9	8	8	6	4	4	2	4	3	2	9	5	3	8	10	15	13	7	5	6
			(5%)	(4%)	(-2%)	(3%)	(-1%)	(0%)	(7%)	(6%)	(6%)	(4%)	(3%)	(3%)	(2%)	(3%)	(2%)	(1%)	(7%)	(4%)	(2%)	(5%)	(7%)	(11%)	(8%)	(4%)	(4%)	(4%)
	Old R. at Rock Slough	ALL	28	23	30	38	2	4	11	6	8	8	11	8	2	0	0	0	1	5	3	13	10	15	24	26	11	12
			(18%)	(14%)	(17%)	(22%)	(1%)	(2%)	(6%)	(3%)	(4%)	(5%)	(5%)	(4%)	(1%)	(0%)	(0%)	(-0%)	(0%)	(2%)	(2%)	(9%)	(7%)	(11%)	(16%)	(18%)	(6%)	(7%)
		DROUGHT	22	6	21	20	1	-8	19	17	9	7	0	-2	-7	-7	-1	-5	10	4	12	13	15	17	18	13	10	6
			(14%)	(3%)	(12%)	(11%)	(1%)	(-5%)	(13%)	(11%)	(6%)	(5%)	(-0%)	(-1%)	(-4%)	(-4%)	(-0%)	(-3%)	(7%)	(2%)	(8%)	(9%)	(10%)	(12%)	(12%)	(8%)	(6%)	(4%)
Western Delta	Sac. R. at Emmaton	ALL	-31	-4	-33	-13	8	-2	1	-3	1	-2	1	-1	1	-2	10	1	6	0	12	11	23	16	-4	-7	0	-1
			(-14%)	(-2%)	(-13%)	(-6%)	(4%)	(-1%)	(1%)	(-2%)	(1%)	(-2%)	(1%)	(-1%)	(1%)	(-1%)	(8%)	(0%)	(4%)	(-0%)	(8%)	(7%)	(15%)	(9%)	(-2%)	(-4%)	(-0%)	(-0%)
		DROUGHT	-53	-22	-50	-35	24	4	2	-10	3	-4	0	-1	0	-1	12	5	15	4	33	26	31	18	6	-23	2	-3
			(-20%)	(-9%)	(-16%)	(-12%)	(10%)	(2%)	(1%)	(-7%)	(3%)	(-3%)	(0%)	(-1%)	(0%)	(-1%)	(9%)	(3%)	(10%)	(2%)	(21%)	(16%)	(19%)	(10%)	(3%)	(-9%)	(1%)	(-2%)
	SJR at Antioch	ALL	-103	-12	-134	-47	-26	-15	2	-3	5	-1	9	7	10	8	16	9	14	9	2	23	25	27	-36	-12	-18	0
			(-25%)	(-4%)	(-26%)	(-11%)	(-7%)	(-4%)	(1%)	(-1%)	(3%)	(-0%)	(6%)	(5%)	(6%)	(5%)	(8%)	(5%)	(7%)	(4%)	(1%)	(10%)	(9%)	(10%)	(-10%)	(-4%)	(-7%)	(-0%)
		DROUGHT	-129	-34	-179	-96	-20	-2	-9	-26	3	-13	4	2	3	1	14	4	19	5	16	25	31	30	-2	-27	-21	-11
			(-26%)	(-9%)	(-29%)	(-18%)	(-4%)	(-1%)	(-4%)	(-11%)	(2%)	(-7%)	(3%)	(1%)	(2%)	(1%)	(8%)	(2%)	(9%)	(2%)	(5%)	(9%)	(11%)	(11%)	(-1%)	(-6%)	(-7%)	(-4%)
	Sac. R. at Mallard Island	ALL	-136	-22	-146	-46	-21	-10	-1	-2	11	2	11	6	12	7	32	17	27	15	20	45	38	39	-53	-3	-17	4
			(-18%)	(-3%)	(-16%)	(-6%)	(-3%)	(-1%)	(-0%)	(-1%)	(5%)	(1%)	(8%)	(4%)	(7%)	(4%)	(11%)	(6%)	(8%)	(4%)	(5%)	(12%)	(9%)	(9%)	(-9%)	(-1%)	(-4%)	(1%)
		DROUGHT	-184	-55	-213	-92	-25	-2	-13	-30	14	-10	9	5	10	7	21	17	22	14	25	42	38	39	-6	-18	-25	-7
			(-21%)	(-7%)	(-19%)	(-9%)	(-3%)	(-0%)	(-3%)	(-7%)	(5%)	(-3%)	(6%)	(3%)	(6%)	(4%)	(6%)	(5%)	(6%)	(4%)	(5%)	(9%)	(8%)	(8%)	(-1%)	(-3%)	(-5%)	(-1%)
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	-18	-14	-11	-8	-7	-6	-13	-13	-18	-24	-17	-20	-19	-17	-21	-20	-29	-25	-34	-27	-30	-26	-22	-20	-20	-18
			(-14%)	(-11%)	(-9%)	(-7%)	(-6%)	(-5%)	(-11%)	(-11%)	(-14%)	(-18%)	(-14%)	(-15%)	(-15%)	(-13%)	(-16%)	(-16%)	(-21%)	(-18%)	(-23%)	(-19%)	(-21%)	(-18%)	(-16%)	(-15%)	(-15%)	(-14%)
		DROUGHT	-27	-21	-11	-6	0	-2	-4	-4	-10	-12	-13	-16	-16	-19	-21	-30	-31	-27	-35	-29	-34	-34	-29	-29	-19	-19
			(-19%)	(-15%)	(-9%)	(-5%)	(-0%)	(-1%)	(-4%)	(-4%)	(-8%)	(-9%)	(-11%)	(-12%)	(-13%)	(-14%)	(-16%)	(-21%)	(-21%)	(-19%)	(-23%)	(-20%)	(-23%)	(-23%)	(-20%)	(-20%)	(-14%)	(-14%)
	Contra Costa PP #1	ALL	19	25	27	28	4	13	-4	-1	15	-1	17	8	3	3	-5	-5	-6	-2	1	12	2	15	9	16	7	9
			(11%)	(15%)	(15%)	(15%)	(2%)	(7%)	(-2%)	(-0%)	(8%)	(-0%)	(8%)	(4%)	(1%)	(1%)	(-2%)	(-2%)	(-3%)	(-1%)	(1%)	(7%)	(1%)	(10%)	(5%)	(10%)	(3%)	(5%)
		DROUGHT	14	10	19	7	-6	6	-4	-13	13	13	-4	-7	-10	-12	-10	-14	2	0	11	12	6	16	12	15	4	3
			(8%)	(5%)	(10%)	(3%)	(-3%)	(3%)	(-2%)	(-7%)	(8%)	(8%)	(-2%)	(-4%)	(-5%)	(-7%)	(-6%)	(-7%)	(1%)	(0%)	(7%)	(8%)	(3%)	(9%)	(7%)	(9%)	(2%)	(2%)
	Banks PP	ALL	-9	-13	-21	-25	5	4	-18	-24	-27	-27	-45	-45	-73	-72	-38	-38	-41	-44	-29	-28	-10	-4	5	9	-25	-26
			(-5%)	(-7%)	(-10%)	(-12%)	(3%)	(2%)	(-9%)	(-11%)	(-11%)	(-11%)	(-17%)	(-17%)	(-26%)	(-25%)	(-13%)	(-13%)	(-15%)	(-16%)	(-15%)	(-14%)	(-6%)	(-3%)	(3%)	(5%)	(-11%)	(-11%)
		DROUGHT	-2	-10	-25	-38	7	1	-29	-39	20	20	-29	-24	-49	-43	-26	-24	-1	-9	-10	-17	17	15	24	25	-5	-8
			(-1%)	(-5%)	(-12%)	(-18%)	(3%)	(0%)	(-16%)	(-20%)	(10%)	(10%)	(-13%)	(-11%)	(-20%)	(-18%)	(-10%)	(-9%)	(-0%)	(-4%)	(-6%)	(-10%)	(11%)	(10%)	(14%)	(15%)	(-3%)	(-4%)
	Jones PP	ALL	44	23	-36	-47	-14	-17	-34	-44	-34	-36	-53	-56	-46	-48	-63	-65	-46	-49	6	-4	12	6	-14	-25	-23	-30
			(19%)	(9%)	(-15%)	(-19%)	(-6%)	(-6%)	(-13%)	(-16%)	(-11%)	(-12%)	(-17%)	(-17%)	(-13%)	(-14%)	(-18%)	(-19%)	(-16%)	(-17%)	(3%)	(-2%)	(6%)	(3%)	(-7%)	(-11%)	(-9%)	(-11%)
		DROUGHT	48	12	-4	-27	4	1	-99	-105	-26	-31	-53	-55	-39	-38	-70	-74	-15	-26	37	15	38	29	20	16	-9	-19
			(22%)	(5%)	(-2%)	(-11%)	(2%)	(1%)	(-38%)	(-40%)	(-9%)	(-10%)	(-17%)	(-17%)	(-12%)	(-12%)	(-21%)	(-22%)	(-7%)	(-11%)	(22%)	(8%)	(22%)	(16%)	(10%)	(8%)	(-4%)	(-7%)

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^a ALL: Water years 1976-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index).

1 **Table Bo-15. Period average percentage changes in available assimilative capacity under Alternative 5 LLT, relative to existing conditions and No Action Alternative LLT, based on the 500 µg/L agricultural objective.**

Boron	Location	Period ^a	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change	
			Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT
Alt 5 LLT																												
Delta Interior	Moke. R. (SF) at Staten Island	ALL	-2	-2	-2	-2	-1	-1	0	-1	0	-1	-1	-2	-1	-2	-2	-2	-4	-4	-4	-4	-4	-4	-3	-3	-2	-2
		DROUGHT	-2	-2	-2	-2	-1	-1	0	0	1	0	-1	-2	-1	-1	-1	-2	-5	-6	-7	-7	-5	-5	-4	-4	-2	-3
	SJR at Buckley Cove	ALL	5	-1	0	-1	7	-5	7	-3	8	-1	6	-2	9	-2	9	-2	18	-6	23	-8	21	-15	10	-5	10	-5
		DROUGHT	6	-2	6	-2	15	-6	17	-6	10	-3	10	-4	18	-5	18	-5	34	-12	21	-18	26	-29	18	-10	16	-10
	Franks Tract	ALL	-4	-5	-1	-6	0	-2	-3	-3	-3	-3	-4	-4	-4	-4	-4	-4	-2	-4	0	-4	-2	-4	-3	-4	-3	-4
		DROUGHT	-3	-2	1	-2	0	0	-3	-2	-2	-2	-1	-1	-1	-1	-1	-1	-3	-1	-1	-2	-3	-4	-4	-2	-2	-2
	Old R. at Rock Slough	ALL	-8	-7	-9	-11	-1	-1	-3	-2	-3	-3	-4	-3	-1	0	0	0	0	-2	-1	-4	-3	-4	-7	-7	-3	-4
		DROUGHT	-6	-2	-6	-6	0	3	-5	-5	-3	-2	0	1	2	2	0	2	-3	-1	-3	-4	-4	-5	-5	-4	-3	-2
Western Delta	Sac. R. at Emmaton	ALL	12	1	13	5	-3	1	0	1	0	1	0	0	0	0	-3	0	-2	0	-3	-3	-7	-5	1	3	0	0
		DROUGHT	24	8	27	17	-9	-2	0	3	-1	1	0	0	0	0	-3	-1	-4	-1	-10	-8	-10	-6	-2	10	-1	1
	SJR at Antioch	ALL	-	7	-	61	22	11	-1	1	-1	0	-3	-2	-3	-2	-5	-3	-5	-3	-1	-9	-10	-11	23	7	8	0
		DROUGHT	-	32	-	-	-	7	3	10	-1	4	-1	0	-1	0	-4	-1	-6	-2	-7	-11	-14	-13	2	33	10	5
	Sac. R. at Mallard Island	ALL	-	-	-	-	-	-	0	1	-4	-1	-3	-2	-4	-2	-14	-8	-15	-9	-24	-42	-64	-65	-	-	28	-5
		DROUGHT	-	-	-	-	-	-	16	44	-6	5	-3	-2	-3	-2	-13	-10	-16	-11	-100	-100	-100	-100	-	-	-	-
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	5	4	3	2	2	2	4	4	5	7	5	5	5	4	6	5	8	7	10	7	8	7	6	5	5	5
		DROUGHT	8	6	3	2	0	0	1	1	3	3	4	4	4	5	6	8	9	8	10	8	10	10	8	8	5	5
	Contra Costa PP #1	ALL	-6	-8	-9	-9	-1	-4	1	0	-5	0	-6	-3	-1	-1	2	2	2	1	0	-4	0	-4	-3	-5	-2	-3
		DROUGHT	-4	-3	-6	-2	2	-2	1	4	-4	-4	1	2	3	4	3	4	-1	0	-3	-4	-2	-5	-4	-5	-1	-1
	Banks PP	ALL	3	4	7	9	-2	-1	6	8	10	10	19	19	34	33	19	20	19	20	10	9	3	1	-1	-3	9	9
		DROUGHT	1	3	8	14	-2	0	9	13	-7	-7	11	9	20	17	11	9	0	3	3	5	-5	-5	-7	-8	2	3
	Jones PP	ALL	-16	-9	14	19	6	7	15	20	18	19	29	31	29	31	40	43	21	23	-2	2	-4	-2	5	9	10	13
		DROUGHT	-17	-5	1	11	-2	-1	41	45	13	16	29	30	23	22	41	44	5	9	-11	-5	-11	-9	-7	-6	4	8
^a ALL: Water years 1975-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index). NOTES: -- Positive values indicate that implementation of the Alternative increases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality improves under the Alternative, relative to Existing Conditions or the No Action Alternative). Negative values indicate that implementation of the Alternative decreases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality degradation occurs under the Alternative, relative to Existing Conditions or the No Action Alternative). Values of -100% represent instances where all available assimilative capacity is used under the Alternative, and therefore concentrations are at or above the criteria. -- Water Quality Objective is the 500 ug/L agricultural criterion.																												

1 **Table Bo-16. Period average change in boron concentrations (µg/L) for Alternative 6A LLT, relative to the existing conditions and No Action Alternative LLT.**

Boron			OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change	
	Location	Period ^a	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT
Alt 6 LLT																												
Delta Interior	Moke. R. (SF) at Staten Island	ALL	15	16	15	15	9	9	8	11	7	10	10	12	10	11	9	10	22	24	40	42	34	33	20	19	17	18
			(13%)	(14%)	(13%)	(13%)	(7%)	(8%)	(6%)	(8%)	(5%)	(8%)	(8%)	(10%)	(8%)	(9%)	(7%)	(9%)	(16%)	(18%)	(30%)	(32%)	(28%)	(27%)	(17%)	(17%)	(13%)	(14%)
		DROUGHT	15	15	14	14	10	10	6	9	3	6	9	13	5	8	8	11	26	28	44	44	32	31	22	23	16	18
			(13%)	(13%)	(12%)	(12%)	(8%)	(9%)	(4%)	(6%)	(2%)	(4%)	(7%)	(10%)	(4%)	(6%)	(6%)	(8%)	(19%)	(21%)	(33%)	(34%)	(26%)	(25%)	(18%)	(19%)	(12%)	(14%)
	SJR at Buckley Cove	ALL	-9	0	-2	0	-3	18	-8	9	-9	5	-7	5	-12	4	-13	4	-23	12	-16	34	-19	42	-15	7	-11	12
			(-2%)	(-0%)	(-1%)	(-0%)	(-1%)	(6%)	(-2%)	(3%)	(-3%)	(2%)	(-2%)	(2%)	(-3%)	(1%)	(-4%)	(1%)	(-6%)	(4%)	(-5%)	(11%)	(-5%)	(14%)	(-4%)	(2%)	(-3%)	(4%)
		DROUGHT	-10	2	-10	2	-15	17	-19	15	-12	9	-11	10	-22	11	-23	10	-37	28	-7	72	-16	101	-24	19	-17	25
			(-3%)	(1%)	(-3%)	(1%)	(-4%)	(5%)	(-5%)	(4%)	(-3%)	(3%)	(-3%)	(3%)	(-6%)	(3%)	(-6%)	(3%)	(-10%)	(9%)	(-2%)	(28%)	(-5%)	(44%)	(-7%)	(6%)	(-5%)	(8%)
	Franks Tract	ALL	68	73	56	72	49	56	82	79	101	100	95	96	76	77	58	59	60	65	50	62	55	61	53	55	67	71
			(44%)	(49%)	(31%)	(44%)	(27%)	(32%)	(51%)	(49%)	(63%)	(62%)	(54%)	(55%)	(41%)	(41%)	(29%)	(29%)	(34%)	(38%)	(31%)	(42%)	(39%)	(45%)	(35%)	(37%)	(40%)	(43%)
		DROUGHT	34	31	27	35	31	32	70	69	86	84	85	86	70	71	58	57	49	44	22	27	27	32	21	15	48	49
			(21%)	(19%)	(14%)	(20%)	(17%)	(18%)	(50%)	(49%)	(66%)	(64%)	(64%)	(66%)	(52%)	(54%)	(43%)	(42%)	(36%)	(32%)	(14%)	(18%)	(18%)	(22%)	(14%)	(9%)	(32%)	(33%)
	Old R. at Rock Slough	ALL	176	170	158	166	150	152	173	168	166	166	144	141	101	99	81	80	94	98	98	108	119	125	150	152	134	135
			(116%)	(108%)	(89%)	(98%)	(81%)	(83%)	(98%)	(93%)	(89%)	(89%)	(71%)	(68%)	(43%)	(41%)	(32%)	(32%)	(47%)	(50%)	(61%)	(71%)	(83%)	(90%)	(101%)	(104%)	(72%)	(74%)
		DROUGHT	149	133	148	147	152	142	187	185	196	194	184	182	151	150	138	134	90	83	55	57	65	67	99	94	134	131
			(93%)	(76%)	(84%)	(83%)	(88%)	(78%)	(126%)	(123%)	(133%)	(130%)	(117%)	(115%)	(90%)	(89%)	(86%)	(81%)	(61%)	(55%)	(37%)	(39%)	(45%)	(47%)	(66%)	(60%)	(86%)	(81%)
Western Delta	Sac. R. at Emmaton	ALL	-41	-14	-59	-39	-28	-39	2	-2	9	6	12	10	16	13	25	15	24	19	52	51	35	27	-16	-19	2	2
			(-18%)	(-7%)	(-23%)	(-17%)	(-15%)	(-20%)	(2%)	(-2%)	(8%)	(5%)	(10%)	(9%)	(13%)	(10%)	(18%)	(10%)	(16%)	(12%)	(34%)	(34%)	(22%)	(16%)	(-8%)	(-9%)	(1%)	(1%)
		DROUGHT	-72	-40	-94	-78	-37	-56	6	-6	11	3	11	10	11	10	21	14	24	13	61	54	40	26	-22	-51	-3	-8
			(-26%)	(-17%)	(-30%)	(-26%)	(-16%)	(-22%)	(4%)	(-4%)	(9%)	(2%)	(9%)	(9%)	(10%)	(8%)	(16%)	(10%)	(16%)	(8%)	(38%)	(32%)	(23%)	(14%)	(-9%)	(-19%)	(-2%)	(-5%)
	SJR at Antioch	ALL	-151	-59	-215	-128	-139	-127	-4	-9	37	31	52	50	47	45	38	31	34	29	33	53	14	16	-81	-57	-28	-10
			(-36%)	(-18%)	(-42%)	(-30%)	(-36%)	(-34%)	(-2%)	(-4%)	(23%)	(19%)	(35%)	(33%)	(31%)	(29%)	(20%)	(16%)	(17%)	(14%)	(13%)	(23%)	(6%)	(6%)	(-23%)	(-18%)	(-10%)	(-4%)
		DROUGHT	-197	-101	-281	-198	-187	-169	-19	-36	21	5	37	35	31	29	26	15	26	13	28	38	25	24	-82	-106	-48	-38
			(-40%)	(-26%)	(-46%)	(-37%)	(-39%)	(-36%)	(-9%)	(-15%)	(13%)	(3%)	(29%)	(27%)	(24%)	(22%)	(14%)	(8%)	(13%)	(6%)	(10%)	(14%)	(9%)	(9%)	(-21%)	(-25%)	(-16%)	(-13%)
	Sac. R. at Mallard Island	ALL	-196	-82	-250	-150	-197	-186	-45	-46	1	-7	27	21	31	26	40	25	35	23	44	69	19	20	-88	-39	-48	-27
			(-26%)	(-13%)	(-28%)	(-19%)	(-28%)	(-27%)	(-14%)	(-14%)	(1%)	(-3%)	(18%)	(14%)	(19%)	(15%)	(14%)	(8%)	(11%)	(7%)	(11%)	(18%)	(4%)	(5%)	(-15%)	(-7%)	(-11%)	(-7%)
		DROUGHT	-236	-106	-323	-202	-226	-203	-56	-73	-14	-37	20	16	20	16	21	16	23	15	39	57	35	36	-72	-84	-64	-46
			(-27%)	(-14%)	(-29%)	(-21%)	(-24%)	(-23%)	(-14%)	(-17%)	(-5%)	(-12%)	(13%)	(10%)	(12%)	(9%)	(6%)	(5%)	(6%)	(4%)	(8%)	(12%)	(8%)	(8%)	(-11%)	(-13%)	(-12%)	(-9%)
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	-13	-9	-7	-4	-3	-3	-11	-11	-16	-22	-15	-18	-18	-15	-19	-19	-27	-23	-30	-23	-25	-20	-17	-15	-17	-15
			(-10%)	(-7%)	(-5%)	(-3%)	(-3%)	(-2%)	(-9%)	(-8%)	(-12%)	(-16%)	(-12%)	(-14%)	(-14%)	(-12%)	(-15%)	(-14%)	(-19%)	(-17%)	(-21%)	(-17%)	(-17%)	(-15%)	(-12%)	(-11%)	(-13%)	(-12%)
		DROUGHT	-23	-17	-8	-3	2	1	-1	-2	-7	-9	-11	-13	-14	-17	-19	-28	-29	-25	-32	-27	-30	-30	-25	-25	-16	-16
			(-16%)	(-12%)	(-6%)	(-2%)	(2%)	(1%)	(-1%)	(-1%)	(-6%)	(-7%)	(-9%)	(-10%)	(-11%)	(-13%)	(-14%)	(-20%)	(-20%)	(-18%)	(-22%)	(-19%)	(-20%)	(-20%)	(-17%)	(-17%)	(-12%)	(-12%)
	Contra Costa PP #1	ALL	171	177	173	174	166	175	175	178	192	177	166	157	129	130	86	86	91	96	101	112	114	127	146	153	143	145
			(98%)	(105%)	(96%)	(96%)	(88%)	(97%)	(91%)	(94%)	(105%)	(89%)	(82%)	(74%)	(56%)	(56%)	(32%)	(32%)	(41%)	(43%)	(56%)	(66%)	(67%)	(82%)	(86%)	(93%)	(72%)	(74%)
		DROUGHT	148	144	157	144	154	165	187	178	206	206	194	191	162	160	150	146	97	95	59	60	52	62	96	100	138	138
			(81%)	(77%)	(84%)	(72%)	(80%)	(91%)	(112%)	(101%)	(131%)	(131%)	(114%)	(110%)	(86%)	(84%)	(82%)	(78%)	(58%)	(56%)	(36%)	(37%)	(30%)	(37%)	(56%)	(59%)	(79%)	(78%)
	Banks PP	ALL	-93	-97	-112	-116	-108	-110	-109	-114	-141	-141	-161	-161	-186	-184	-202	-202	-177	-179	-96	-95	-70	-64	-77	-73	-128	-128
			(-48%)	(-49%)	(-53%)	(-53%)	(-52%)	(-52%)	(-53%)	(-58%)	(-58%)	(-62%)	(-61%)	(-65%)	(-65%)	(-67%)	(-67%)	(-64%)	(-64%)	(-49%)	(-48%)	(-41%)	(-39%)	(-43%)	(-42%)	(-56%)	(-56%)	
		DROUGHT	-90	-98	-104	-117	-100	-106	-81	-91	-99	-99	-127	-121	-150	-144	-149	-147	-118	-127	-61	-67	-56	-58	-68	-66	-100	-103
			(-47%)	(-49%)	(-51%)	(-54%)	(-50%)	(-51%)	(-44%)	(-47%)	(-49%)	(-49%)	(-56%)	(-54%)	(-60%)	(-59%)	(-60%)	(-59%)	(-54%)	(-56%)	(-37%)	(-40%)	(-36%)	(-37%)	(-40%)	(-40%)	(-50%)	(-51%)
	Jones PP	ALL	-127	-148	-140	-152	-153	-155	-172	-181	-205	-207	-216	-219	-240	-242	-244	-246	-178	-182	-112	-122	-98	-104	-115	-126	-167	-174
			(-56%)	(-59%)	(-58%)	(-60%)	(-60%)	(-61%)	(-63%)	(-64%)	(-67%)	(-67%)	(-68%)	(-68%)	(-70%)	(-71%)	(-71%)	(-71%)	(-64%)	(-64%)	(-52%)	(-55%)	(-49%)	(-51%)	(-53%)	(-56%)	(-62%)	(-63%)
		DROUGHT	-116	-152	-127	-150	-149	-152	-157	-164	-197	-202	-217	-218	-228	-227	-227	-231	-113	-124	-63	-85	-72	-81	-100	-104	-147	-157
			(-54%)	(-60%)	(-56%)	(-60%)	(-60%)	(-60%)	(-61%)	(-62%)	(-66%)	(-67%)	(-68%)	(-68%)	(-69%)	(-69%)	(-69%)	(-69%)	(-53%)	(-55%)	(-38%)	(-46%)	(-42%)	(-44%)	(-50%)	(-51%)	(-59%)	(-61%)

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4 ^a ALL: Water years 1976-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index).

1 **Table Bo-17. Period average percentage changes in available assimilative capacity under Alternative 6A LLT, relative to existing conditions and No Action Alternative LLT, based on the 500 µg/L agricultural objective.**

Boron	Location	Period ^a	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change	
			Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT
Alt 6 LLT																												
Delta Interior	Moke. R. (SF) at Staten Island	ALL	-4	-4	-4	-4	-2	-2	-2	-3	-2	-3	-3	-3	-3	-3	-2	-3	-6	-7	-11	-11	-9	-9	-5	-5	-4	-5
		DROUGHT	-4	-4	-4	-4	-3	-3	-2	-2	-1	-2	-3	-4	-1	-2	-2	-3	-7	-8	-12	-12	-9	-8	-6	-6	-4	-5
	SJR at Buckley Cove	ALL	6	0	1	0	2	-10	5	-5	6	-3	4	-3	8	-3	9	-2	17	-7	11	-17	13	-21	11	-4	7	-7
		DROUGHT	7	-1	6	-1	10	-10	14	-8	8	-5	8	-6	16	-7	17	-6	29	-15	4	-29	11	-38	18	-11	12	-13
	Franks Tract	ALL	-20	-21	-18	-22	-15	-17	-24	-23	-30	-30	-29	-29	-24	-24	-19	-20	-18	-20	-15	-18	-15	-17	-15	-15	-20	-21
		DROUGHT	-10	-9	-8	-11	-10	-10	-20	-19	-23	-23	-23	-23	-19	-19	-16	-16	-13	-12	-6	-8	-8	-9	-6	-4	-14	-14
	Old R. at Rock Slough	ALL	-50	-50	-49	-50	-48	-48	-53	-53	-53	-53	-49	-48	-39	-38	-32	-32	-31	-32	-29	-31	-34	-34	-43	-43	-43	-43
		DROUGHT	-44	-41	-46	-46	-46	-45	-53	-53	-56	-55	-54	-54	-45	-45	-41	-40	-25	-24	-16	-16	-18	-19	-28	-27	-39	-39
Western Delta	Sac. R. at Emmaton	ALL	15	5	24	15	9	13	-1	1	-2	-1	-3	-3	-4	-3	-7	-4	-7	-5	-15	-15	-10	-8	5	6	-1	-1
		DROUGHT	32	16	51	39	14	22	-2	2	-3	-1	-3	-3	-3	-3	-6	-4	-7	-4	-18	-16	-12	-8	8	22	1	3
	SJR at Antioch	ALL	-	35	-	-	-	98	1	3	-11	-9	-15	-14	-14	-13	-12	-10	-12	-10	-13	-20	-6	-7	53	33	12	4
		DROUGHT	-	96	-	-	-	-	7	13	-6	-2	-10	-9	-8	-8	-8	-5	-9	-4	-13	-17	-11	-11	78	-	23	18
	Sac. R. at Mallard Island	ALL	-	-	-	-	-	-	25	26	0	3	-8	-6	-9	-8	-18	-12	-19	-13	-54	-65	-32	-33	-	-	78	33
		DROUGHT	-	-	-	-	-	-	65	-	6	20	-6	-5	-6	-5	-13	-10	-16	-11	-100	-100	-100	-100	-	-	-	-
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	4	2	2	1	1	1	3	3	4	6	4	5	5	4	5	5	8	6	9	6	7	6	5	4	5	4
		DROUGHT	7	5	2	1	-1	0	0	0	2	2	3	4	4	4	5	8	8	7	9	7	9	8	7	7	4	4
	Contra Costa PP #1	ALL	-52	-53	-54	-54	-53	-55	-57	-57	-61	-59	-56	-55	-48	-48	-37	-37	-33	-34	-32	-34	-34	-37	-44	-46	-47	-48
		DROUGHT	-47	-46	-50	-48	-50	-52	-56	-55	-60	-60	-59	-58	-52	-52	-47	-47	-29	-29	-18	-18	-16	-19	-29	-30	-43	-42
	Banks PP	ALL	30	32	39	41	37	38	38	40	54	55	68	68	87	86	-	-	80	82	32	31	21	19	24	22	47	47
		DROUGHT	29	33	35	42	33	36	25	29	33	33	46	43	60	56	60	58	42	47	18	20	16	17	20	20	34	35
	Jones PP	ALL	47	59	54	61	62	64	76	84	-	-	-	-	-	-	-	-	81	84	39	44	33	35	41	46	72	77
		DROUGHT	41	61	47	60	60	61	65	70	98	-	-	-	-	-	-	-	40	45	19	27	22	25	33	35	59	65
^a ALL: Water years 1975-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index). NOTES: -- Positive values indicate that implementation of the Alternative increases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality improves under the Alternative, relative to Existing Conditions or the No Action Alternative). Negative values indicate that implementation of the Alternative decreases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality degradation occurs under the Alternative, relative to Existing Conditions or the No Action Alternative). Values of -100% represent instances where all available assimilative capacity is used under the Alternative, and therefore concentrations are at or above the criteria. -- Water Quality Objective is the 500 ug/L agricultural criterion.																												

1 **Table Bo-18. Period average change in boron concentrations (µg/L) for Alternative 7 LLT, relative to the existing conditions and No Action Alternative LLT.**

Boron			OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change	
	Location	Period ^	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT
Alt 7 LLT																												
Delta Interior	Moke. R. (SF) at Staten Island	ALL	14	15	14	14	8	9	7	10	6	9	9	11	9	9	8	10	18	20	13	15	13	12	12	11	11	12
		DROUGHT	(12%)	(13%)	(12%)	(12%)	(7%)	(8%)	(5%)	(8%)	(4%)	(7%)	(7%)	(9%)	(7%)	(8%)	(7%)	(8%)	(13%)	(16%)	(10%)	(11%)	(11%)	(10%)	(10%)	(9%)	(9%)	(10%)
	SJR at Buckley Cove	ALL	14	14	13	12	9	10	6	8	2	6	9	12	5	7	7	10	21	23	21	22	14	12	12	13	11	12
		DROUGHT	(12%)	(12%)	(11%)	(11%)	(7%)	(8%)	(4%)	(6%)	(1%)	(4%)	(6%)	(9%)	(4%)	(6%)	(5%)	(7%)	(15%)	(17%)	(16%)	(17%)	(11%)	(10%)	(10%)	(10%)	(8%)	(10%)
	Franks Tract	ALL	-12	-3	-3	-2	-4	17	-9	7	-11	4	-8	4	-13	4	-13	3	-24	11	-45	6	-59	2	-33	-11	-19	4
		DROUGHT	(-3%)	(-1%)	(-1%)	(-0%)	(-1%)	(5%)	(-3%)	(2%)	(-3%)	(1%)	(-2%)	(1%)	(-4%)	(1%)	(-4%)	(1%)	(-6%)	(3%)	(-13%)	(2%)	(-17%)	(1%)	(-9%)	(-3%)	(-6%)	(1%)
	Old R. at Rock Slough	ALL	-16	-5	-13	-1	-17	15	-21	12	-14	7	-13	8	-23	10	-25	9	-39	27	-51	27	-94	23	-62	-20	-32	9
		DROUGHT	(-5%)	(-1%)	(-4%)	(-0%)	(-5%)	(5%)	(-6%)	(4%)	(-4%)	(2%)	(-4%)	(2%)	(-6%)	(3%)	(-7%)	(3%)	(-10%)	(9%)	(-15%)	(11%)	(-27%)	(10%)	(-17%)	(-6%)	(-9%)	(3%)
	Old R. at Rock Slough	ALL	48	53	43	59	37	44	67	65	82	82	83	84	71	72	57	57	56	61	18	31	13	19	18	20	50	54
		DROUGHT	(31%)	(36%)	(24%)	(36%)	(21%)	(25%)	(42%)	(41%)	(51%)	(51%)	(47%)	(48%)	(38%)	(38%)	(28%)	(28%)	(32%)	(36%)	(12%)	(21%)	(9%)	(14%)	(12%)	(14%)	(29%)	(33%)
	Old R. at Rock Slough	ALL	23	20	13	21	20	21	62	61	80	78	80	81	66	67	56	55	44	40	12	17	15	20	12	5	40	40
		DROUGHT	(14%)	(12%)	(7%)	(12%)	(11%)	(12%)	(44%)	(43%)	(62%)	(59%)	(60%)	(62%)	(49%)	(51%)	(41%)	(40%)	(33%)	(29%)	(8%)	(11%)	(10%)	(14%)	(7%)	(3%)	(27%)	(27%)
Old R. at Rock Slough	ALL	127	121	140	148	139	141	157	152	152	152	139	136	99	96	79	78	93	98	21	31	13	18	54	56	101	102	
	DROUGHT	(83%)	(77%)	(79%)	(87%)	(75%)	(77%)	(89%)	(84%)	(81%)	(82%)	(68%)	(66%)	(42%)	(40%)	(31%)	(31%)	(47%)	(50%)	(13%)	(20%)	(9%)	(13%)	(36%)	(38%)	(54%)	(56%)	
Western Delta	Sac. R. at Emmaton	ALL	82	66	123	121	136	127	175	173	187	185	175	174	144	144	135	130	89	83	20	21	16	18	15	9	108	104
		DROUGHT	(51%)	(38%)	(69%)	(68%)	(79%)	(69%)	(118%)	(115%)	(127%)	(124%)	(111%)	(109%)	(86%)	(85%)	(84%)	(79%)	(61%)	(54%)	(13%)	(15%)	(11%)	(13%)	(10%)	(6%)	(69%)	(65%)
	SJR at Antioch	ALL	-27	1	-66	-46	-32	-42	0	-5	7	3	9	7	14	11	21	11	11	6	18	17	17	10	-2	-6	-2	-3
		DROUGHT	(-12%)	(1%)	(-26%)	(-20%)	(-17%)	(-21%)	(-0%)	(-4%)	(6%)	(3%)	(8%)	(7%)	(12%)	(9%)	(15%)	(7%)	(8%)	(4%)	(12%)	(12%)	(11%)	(6%)	(-1%)	(-3%)	(-2%)	(-2%)
	Sac. R. at Emmaton	ALL	-46	-14	-94	-78	-39	-58	2	-9	9	1	9	8	10	9	15	8	6	-5	28	21	15	2	5	-25	-7	-12
		DROUGHT	(-17%)	(-6%)	(-30%)	(-26%)	(-17%)	(-23%)	(2%)	(-6%)	(7%)	(1%)	(8%)	(7%)	(8%)	(7%)	(11%)	(5%)	(4%)	(-3%)	(18%)	(13%)	(9%)	(1%)	(2%)	(-9%)	(-4%)	(-6%)
	SJR at Antioch	ALL	-120	-29	-224	-137	-148	-137	-12	-17	26	21	42	41	43	41	34	27	18	14	16	37	27	30	-29	-5	-27	-10
		DROUGHT	(-29%)	(-9%)	(-44%)	(-32%)	(-39%)	(-37%)	(-6%)	(-8%)	(16%)	(12%)	(29%)	(27%)	(28%)	(26%)	(17%)	(13%)	(9%)	(7%)	(7%)	(16%)	(11%)	(12%)	(-8%)	(-2%)	(-10%)	(-4%)
	Sac. R. at Mallard Island	ALL	-145	-49	-281	-198	-192	-175	-25	-43	17	1	33	32	28	26	18	8	2	-12	14	24	24	23	-2	-27	-43	-33
		DROUGHT	(-30%)	(-12%)	(-46%)	(-37%)	(-40%)	(-38%)	(-12%)	(-18%)	(10%)	(1%)	(26%)	(24%)	(22%)	(20%)	(10%)	(4%)	(1%)	(-5%)	(5%)	(8%)	(9%)	(8%)	(-1%)	(-6%)	(-14%)	(-11%)
	Sac. R. at Mallard Island	ALL	-163	-50	-259	-159	-205	-194	-49	-50	-4	-13	21	16	28	23	34	19	16	3	33	59	37	39	-47	2	-47	-25
		DROUGHT	(-21%)	(-8%)	(-29%)	(-20%)	(-29%)	(-28%)	(-15%)	(-15%)	(-2%)	(-6%)	(14%)	(10%)	(17%)	(13%)	(12%)	(6%)	(5%)	(1%)	(8%)	(15%)	(8%)	(9%)	(-8%)	(0%)	(-11%)	(-6%)
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	-187	-57	-320	-200	-231	-208	-63	-80	-17	-40	17	13	17	14	12	7	-5	-13	23	41	26	27	-5	-17	-61	-43
		DROUGHT	(-22%)	(-8%)	(-29%)	(-20%)	(-25%)	(-23%)	(-15%)	(-18%)	(-6%)	(-13%)	(11%)	(8%)	(10%)	(8%)	(4%)	(2%)	(-2%)	(-4%)	(5%)	(5%)	(6%)	(-1%)	(-3%)	(-12%)	(-9%)	
	Contra Costa PP #1	ALL	-19	-14	-11	-8	-6	-6	-13	-12	-17	-23	-17	-19	-19	-16	-20	-19	-28	-24	-33	-26	-30	-25	-23	-21	-19	-18
		DROUGHT	(-14%)	(-11%)	(-9%)	(-7%)	(-5%)	(-5%)	(-10%)	(-10%)	(-13%)	(-17%)	(-13%)	(-14%)	(-14%)	(-12%)	(-15%)	(-15%)	(-20%)	(-17%)	(-23%)	(-19%)	(-21%)	(-18%)	(-17%)	(-15%)	(-15%)	(-14%)
	Banks PP	ALL	-29	-23	-12	-7	-1	-2	-4	-4	-9	-11	-12	-14	-15	-17	-20	-29	-30	-27	-36	-30	-35	-35	-32	-32	-20	-19
		DROUGHT	(-20%)	(-16%)	(-9%)	(-6%)	(-1%)	(-2%)	(-3%)	(-3%)	(-7%)	(-9%)	(-10%)	(-11%)	(-12%)	(-13%)	(-15%)	(-20%)	(-21%)	(-19%)	(-24%)	(-21%)	(-24%)	(-23%)	(-22%)	(-22%)	(-15%)	(-14%)
	Jones PP	ALL	80	86	143	143	150	159	161	165	180	165	162	154	125	126	85	85	91	95	30	41	3	17	21	27	103	105
		DROUGHT	(46%)	(51%)	(79%)	(79%)	(80%)	(88%)	(84%)	(87%)	(99%)	(83%)	(80%)	(72%)	(54%)	(54%)	(32%)	(32%)	(40%)	(43%)	(17%)	(24%)	(2%)	(11%)	(12%)	(17%)	(52%)	(54%)
	Jones PP	ALL	36	32	120	108	134	146	173	164	195	195	187	183	154	152	145	141	97	95	21	22	8	18	10	14	107	106
		DROUGHT	(20%)	(17%)	(64%)	(54%)	(70%)	(80%)	(104%)	(93%)	(124%)	(124%)	(110%)	(106%)	(82%)	(80%)	(79%)	(76%)	(58%)	(56%)	(13%)	(14%)	(5%)	(11%)	(6%)	(8%)	(61%)	(60%)
	Jones PP	ALL	-93	-98	-112	-116	-104	-106	-71	-76	-112	-112	-118	-118	-186	-184	-202	-202	-166	-169	9	10	13	19	-27	-23	-93	-94
		DROUGHT	(-48%)	(-49%)	(-52%)	(-53%)	(-50%)	(-50%)	(-34%)	(-35%)	(-46%)	(-46%)	(-45%)	(-45%)	(-65%)	(-65%)	(-67%)	(-67%)	(-60%)	(-60%)	(5%)	(5%)	(7%)	(11%)	(-15%)	(-13%)	(-41%)	(-41%)
Jones PP	ALL	-111	-119	-124	-138	-100	-106	-81	-91	-119	-119	-144	-139	-210	-204	-230	-228	-200	-208	-3	-10	37	35	17	18	-73	-76	
	DROUGHT	(-58%)	(-60%)	(-61%)	(-63%)	(-50%)	(-51%)	(-44%)	(-47%)	(-60%)	(-60%)	(-63%)	(-62%)	(-84%)	(-84%)	(-92%)	(-92%)	(-91%)	(-91%)	(-2%)	(-6%)	(23%)	(22%)	(10%)	(11%)	(-36%)	(-37%)	
Jones PP	ALL	-127	-148	-140	-152	-123	-126	-121	-131	-159	-161	-196	-199	-240	-242	-244	-246	-176	-180	39	29	24	18	-28	-39	-124	-131	
	DROUGHT	(-56%)	(-59%)	(-58%)	(-60%)	(-49%)	(-49%)	(-44%)	(-46%)	(-52%)	(-52%)	(-62%)	(-62%)	(-70%)	(-71%)	(-71%)	(-71%)	(-63%)	(-63%)	(18%)	(13%)	(12%)	(9%)	(-13%)	(-17%)	(-46%)	(-48%)	
Jones PP	ALL	-116	-152	-127	-150	-149	-152	-157	-164	-197	-202	-216	-217	-228	-227	-227	-231	-113	-124	50	28	44	36	44	40	-116	-126	
	DROUGHT	(-54%)	(-60%)	(-56%)	(-60%)	(-60%)	(-60%)	(-61%)	(-62%)	(-66%)	(-67%)	(-68%)	(-68%)	(-69%)	(-69%)	(-69%)	(-70%)	(-53%)	(-55%)	(31%)	(15%)	(26%)	(20%)	(22%)	(19%)	(-47%)	(-49%)	

2 ^a ALL: Water years 1976-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types
3 (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index)
4

1 **Table Bo-19. Period average percentage changes in available assimilative capacity under Alternative 7 LLT, relative to existing conditions and No Action Alternative LLT, based on the 500 µg/L agricultural objective.**

Boron	Location	Period ^a	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change		
			Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	
Alt 7 LLT																													
Delta Interior	Moke. R. (SF) at Staten Island	ALL	-4	-4	-4	-4	-2	-2	-2	-3	-2	-2	-2	-3	-2	-2	-2	-3	-5	-6	-4	-4	-4	-3	-3	-3	-3	-3	-3
		DROUGHT	-4	-4	-3	-3	-2	-3	-2	-2	-1	-2	-2	-3	-1	-2	-2	-3	-6	-6	-6	-6	-4	-3	-3	-3	-3	-3	-3
	SJR at Buckley Cove	ALL	8	2	2	1	3	-9	6	-4	7	-2	5	-3	9	-2	9	-2	17	-7	31	-3	42	-1	23	7	13	-2	
		DROUGHT	11	3	9	1	12	-8	15	-7	9	-4	9	-5	17	-6	18	-5	31	-14	31	-11	62	-9	46	11	22	-5	
	Franks Tract	ALL	-14	-15	-13	-18	-12	-14	-20	-19	-24	-24	-26	-26	-23	-23	-19	-19	-17	-19	-5	-9	-4	-5	-5	-6	-15	-16	
		DROUGHT	-7	-6	-4	-7	-6	-7	-17	-17	-22	-21	-22	-22	-18	-18	-15	-15	-12	-11	-3	-5	-4	-6	-3	-2	-11	-12	
	Old R. at Rock Slough	ALL	-36	-35	-43	-45	-44	-44	-48	-48	-49	-49	-47	-46	-38	-37	-32	-31	-31	-32	-6	-9	-4	-5	-15	-16	-32	-32	
		DROUGHT	-24	-20	-38	-38	-42	-40	-50	-49	-53	-53	-51	-51	-44	-43	-40	-39	-25	-24	-6	-6	-5	-5	-4	-3	-32	-31	
	Western Delta	Sac. R. at Emmaton	ALL	10	0	27	17	10	14	0	1	-2	-1	-2	-2	-4	-3	-6	-3	-3	-2	-5	-5	-5	-3	1	2	1	1
			DROUGHT	20	5	51	39	15	23	-1	3	-2	0	-2	-2	-3	-2	-4	-2	-2	1	-8	-6	-5	-1	-2	11	2	4
SJR at Antioch		ALL	-	17	-	-	-	-	4	6	-8	-6	-12	-12	-12	-12	-11	-9	-6	-5	-7	-14	-11	-12	19	3	12	4	
		DROUGHT	-	46	-	-	-	-	9	16	-5	0	-9	-9	-8	-7	-6	-2	-1	4	-7	-11	-11	-10	2	33	21	15	
Sac. R. at Mallard Island		ALL	-	-	-	-	-	-	28	28	1	5	-6	-5	-8	-7	-15	-9	-9	-2	-40	-54	-63	-64	-	-	76	31	
		DROUGHT	-	-	-	-	-	-	73	-	8	21	-5	-4	-5	-4	-7	-4	4	10	-100	-100	-73	-74	-	-	-	-	
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	5	4	3	2	2	2	3	3	5	6	4	5	5	4	5	5	8	7	9	7	8	7	6	6	5	5	
		DROUGHT	8	6	3	2	0	1	1	1	2	3	3	4	4	5	5	8	8	7	10	8	10	10	9	9	5	5	
	Contra Costa PP #1	ALL	-25	-26	-45	-45	-48	-50	-52	-53	-57	-55	-55	-53	-47	-47	-36	-36	-33	-34	-10	-12	-1	-5	-6	-8	-34	-34	
		DROUGHT	-11	-10	-38	-36	-44	-46	-52	-51	-57	-57	-57	-56	-49	-49	-46	-45	-29	-29	-6	-7	-3	-5	-3	-4	-33	-33	
	Banks PP	ALL	31	32	39	41	36	37	24	27	43	44	50	49	87	86	-	-	75	77	-3	-3	-4	-6	8	7	34	35	
		DROUGHT	36	39	42	49	33	36	25	30	40	40	53	50	84	80	92	90	71	77	1	3	-11	-10	-5	-5	24	26	
	Jones PP	ALL	47	59	54	61	50	51	53	60	82	84	-	-	-	-	-	-	80	83	-14	-10	-8	-6	10	14	54	58	
		DROUGHT	41	61	47	60	60	61	65	70	98	-	-	-	-	-	-	-	40	45	-15	-9	-14	-11	-15	-13	46	52	
^a ALL: Water years 1975-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index).																													
NOTES:																													
-- Positive values indicate that implementation of the Alternative increases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality improves under the Alternative, relative to Existing Conditions or the No Action Alternative). Negative values indicate that implementation of the Alternative decreases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality degradation occurs under the Alternative, relative to Existing Conditions or the No Action Alternative). Values of -100% represent instances where all available assimilative capacity is used under the Alternative, and therefore concentrations are at or above the criteria.																													
-- Water Quality Objective is the 500 ug/L agricultural criterion.																													

1 **Table Bo-20. Period average change in boron concentrations (µg/L) for Alternative 8 LLT, relative to the existing conditions and No Action Alternative LLT.**

Boron			OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change	
			Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT
Alt 8 LLT																												
Delta Interior	Moke. R. (SF) at Staten Island	ALL	15	15	13	12	8	8	6	9	5	8	7	9	7	8	7	8	19	21	25	27	18	17	13	13	12	13
			(13%)	(13%)	(11%)	(11%)	(6%)	(7%)	(4%)	(7%)	(3%)	(6%)	(6%)	(7%)	(6%)	(7%)	(5%)	(7%)	(14%)	(16%)	(19%)	(20%)	(15%)	(14%)	(12%)	(11%)	(9%)	(10%)
		DROUGHT	16	16	12	12	9	10	5	7	0	3	5	8	2	5	4	7	22	24	29	29	18	17	15	16	11	13
			(13%)	(13%)	(11%)	(10%)	(7%)	(8%)	(3%)	(5%)	(0%)	(2%)	(3%)	(6%)	(2%)	(4%)	(3%)	(6%)	(16%)	(18%)	(22%)	(22%)	(15%)	(13%)	(12%)	(13%)	(9%)	(10%)
		ALL	-10	-1	-2	-1	-4	18	-8	9	-10	4	-7	5	-12	4	-13	4	-23	12	-28	22	-41	21	-24	-2	-15	8
			(-3%)	(-0%)	(-1%)	(-0%)	(-1%)	(6%)	(-2%)	(3%)	(-3%)	(1%)	(-2%)	(1%)	(-3%)	(1%)	(-4%)	(1%)	(-6%)	(4%)	(-8%)	(7%)	(-11%)	(7%)	(-7%)	(-1%)	(-4%)	(2%)
	SJR at Buckley Cove	DROUGHT	-12	0	-11	1	-15	16	-19	14	-12	8	-12	9	-22	11	-23	10	-38	28	-32	46	-63	54	-42	0	-25	17
			(-3%)	(-0%)	(-3%)	(0%)	(-4%)	(5%)	(-5%)	(4%)	(-3%)	(2%)	(-3%)	(3%)	(-6%)	(3%)	(-6%)	(3%)	(-10%)	(9%)	(-10%)	(18%)	(-18%)	(24%)	(-12%)	(0%)	(-7%)	(5%)
		ALL	53	58	46	62	37	44	67	65	81	80	81	82	69	69	53	54	54	59	25	38	19	25	23	25	51	55
			(34%)	(38%)	(25%)	(37%)	(21%)	(25%)	(42%)	(40%)	(50%)	(50%)	(46%)	(47%)	(37%)	(37%)	(26%)	(27%)	(31%)	(35%)	(16%)	(26%)	(13%)	(19%)	(15%)	(17%)	(30%)	(33%)
		DROUGHT	27	24	19	27	22	24	63	62	79	77	77	78	61	62	51	50	40	36	8	13	14	19	15	9	40	40
			(16%)	(15%)	(10%)	(15%)	(12%)	(13%)	(45%)	(44%)	(61%)	(59%)	(58%)	(59%)	(46%)	(47%)	(37%)	(36%)	(30%)	(26%)	(5%)	(9%)	(10%)	(13%)	(10%)	(6%)	(27%)	(27%)
	Old R. at Rock Slough	ALL	131	126	143	151	140	142	158	153	152	152	140	137	99	96	79	78	92	97	41	51	21	26	62	64	105	106
			(86%)	(80%)	(80%)	(89%)	(76%)	(78%)	(90%)	(84%)	(81%)	(82%)	(69%)	(66%)	(42%)	(40%)	(31%)	(31%)	(46%)	(49%)	(25%)	(34%)	(14%)	(19%)	(42%)	(44%)	(57%)	(58%)
		DROUGHT	88	72	126	125	138	129	177	174	188	186	176	175	144	144	134	130	86	80	19	21	17	19	20	15	110	106
			(55%)	(41%)	(71%)	(70%)	(80%)	(70%)	(119%)	(116%)	(127%)	(125%)	(112%)	(110%)	(86%)	(85%)	(84%)	(79%)	(59%)	(53%)	(13%)	(14%)	(12%)	(13%)	(13%)	(10%)	(70%)	(66%)
		ALL	-17	11	-57	-37	-29	-40	-1	-6	5	1	6	4	8	5	10	0	8	2	31	31	31	23	6	3	0	0
			(-7%)	(5%)	(-22%)	(-16%)	(-16%)	(-20%)	(-1%)	(-4%)	(4%)	(1%)	(6%)	(4%)	(7%)	(4%)	(7%)	(-0%)	(5%)	(2%)	(21%)	(20%)	(19%)	(14%)	(3%)	(1%)	(0%)	(-0%)
Western Delta	Sac. R. at Emmaton	DROUGHT	-31	1	-80	-65	-36	-55	2	-10	6	-2	3	3	4	3	2	-5	1	-10	38	31	31	17	16	-14	-4	-9
			(-11%)	(0%)	(-25%)	(-22%)	(-15%)	(-22%)	(1%)	(-7%)	(5%)	(-2%)	(3%)	(2%)	(4%)	(2%)	(2%)	(-4%)	(1%)	(-6%)	(24%)	(19%)	(18%)	(10%)	(6%)	(-5%)	(-2%)	(-5%)
		ALL	-110	-19	-213	-125	-146	-134	-14	-19	23	18	40	38	38	37	22	15	13	9	20	40	43	46	-22	2	-25	-8
			(-26%)	(-6%)	(-42%)	(-30%)	(-38%)	(-36%)	(-7%)	(-9%)	(14%)	(11%)	(27%)	(25%)	(25%)	(23%)	(11%)	(8%)	(6%)	(4%)	(8%)	(17%)	(17%)	(18%)	(-6%)	(1%)	(-9%)	(-3%)
		DROUGHT	-130	-34	-266	-183	-188	-170	-26	-43	13	-3	28	27	21	19	-1	-11	-7	-21	16	25	42	40	6	-19	-41	-31
			(-27%)	(-9%)	(-43%)	(-34%)	(-39%)	(-37%)	(-12%)	(-18%)	(8%)	(-2%)	(22%)	(21%)	(16%)	(15%)	(-1%)	(-6%)	(-4%)	(-10%)	(6%)	(9%)	(15%)	(15%)	(1%)	(-4%)	(-14%)	(-11%)
	Sac. R. at Mallard Island	ALL	-150	-37	-245	-146	-200	-189	-56	-57	-12	-21	15	9	17	12	11	-4	9	-3	37	62	53	54	-40	9	-47	-26
			(-20%)	(-6%)	(-27%)	(-18%)	(-28%)	(-27%)	(-17%)	(-18%)	(-5%)	(-9%)	(10%)	(6%)	(11%)	(7%)	(4%)	(-1%)	(3%)	(-1%)	(9%)	(16%)	(12%)	(12%)	(-7%)	(2%)	(-11%)	(-6%)
		DROUGHT	-169	-39	-305	-184	-225	-202	-71	-88	-31	-55	4	0	4	0	-20	-25	-17	-24	26	43	45	46	2	-9	-63	-45
			(-19%)	(-5%)	(-28%)	(-19%)	(-24%)	(-22%)	(-17%)	(-20%)	(-11%)	(-18%)	(3%)	(0%)	(2%)	(0%)	(-6%)	(-7%)	(-5%)	(-7%)	(5%)	(9%)	(10%)	(10%)	(0%)	(-1%)	(-12%)	(-9%)
		ALL	-18	-13	-10	-8	-5	-5	-12	-12	-17	-23	-17	-19	-19	-16	-21	-20	-30	-25	-35	-28	-30	-26	-22	-20	-20	-18
			(-14%)	(-11%)	(-8%)	(-6%)	(-5%)	(-4%)	(-10%)	(-10%)	(-13%)	(-17%)	(-13%)	(-15%)	(-15%)	(-13%)	(-16%)	(-15%)	(-21%)	(-19%)	(-23%)	(-20%)	(-21%)	(-19%)	(-16%)	(-15%)	(-15%)	(-14%)
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	DROUGHT	-28	-21	-10	-5	1	0	-3	-3	-9	-10	-12	-15	-16	-18	-20	-30	-31	-28	-36	-31	-36	-35	-32	-32	-19	-19
			(-19%)	(-15%)	(-8%)	(-4%)	(1%)	(-0%)	(-2%)	(-2%)	(-7%)	(-8%)	(-10%)	(-12%)	(-12%)	(-14%)	(-15%)	(-21%)	(-22%)	(-20%)	(-24%)	(-21%)	(-24%)	(-24%)	(-21%)	(-21%)	(-14%)	(-14%)
		ALL	86	92	142	142	152	161	160	164	181	165	163	154	127	127	84	84	90	95	47	58	10	24	40	47	107	109
			(49%)	(55%)	(78%)	(79%)	(81%)	(90%)	(83%)	(87%)	(99%)	(83%)	(80%)	(73%)	(55%)	(55%)	(31%)	(31%)	(40%)	(43%)	(26%)	(34%)	(6%)	(15%)	(23%)	(28%)	(54%)	(56%)
		DROUGHT	48	44	124	111	136	148	175	165	196	196	188	184	155	153	143	140	95	93	21	22	7	16	12	16	108	107
			(26%)	(23%)	(66%)	(56%)	(71%)	(81%)	(104%)	(93%)	(125%)	(125%)	(111%)	(107%)	(82%)	(80%)	(78%)	(75%)	(57%)	(55%)	(13%)	(13%)	(4%)	(10%)	(7%)	(9%)	(62%)	(61%)
	Contra Costa PP #1	ALL	-93	-97	-112	-116	-93	-95	-73	-79	-103	-103	-126	-126	-186	-184	-202	-202	-166	-169	70	71	65	71	-25	-21	-83	-84
			(-48%)	(-49%)	(-53%)	(-53%)	(-44%)	(-45%)	(-35%)	(-36%)	(-43%)	(-43%)	(-48%)	(-48%)	(-65%)	(-65%)	(-67%)	(-67%)	(-60%)	(-60%)	(35%)	(36%)	(38%)	(43%)	(-14%)	(-12%)	(-36%)	(-37%)
		DROUGHT	-131	-139	-104	-117	-120	-126	-81	-91	-99	-99	-127	-121	-211	-204	-231	-228	-179	-188	108	101	73	71	19	21	-59	-62
			(-68%)	(-70%)	(-51%)	(-54%)	(-60%)	(-61%)	(-44%)	(-47%)	(-50%)	(-50%)	(-56%)	(-55%)	(-84%)	(-84%)	(-92%)	(-92%)	(-82%)	(-82%)	(66%)	(60%)	(46%)	(45%)	(12%)	(12%)	(-29%)	(-31%)
		ALL	-127	-148	-140	-152	-133	-135	-111	-121	-167	-169	-194	-197	-240	-243	-244	-246	-178	-182	54	44	41	36	-33	-44	-123	-130
			(-56%)	(-59%)	(-58%)	(-60%)	(-52%)	(-53%)	(-40%)	(-43%)	(-54%)	(-55%)	(-61%)	(-61%)	(-70%)	(-71%)	(-71%)	(-71%)	(-64%)	(-64%)	(26%)	(20%)	(21%)	(17%)	(-15%)	(-19%)	(-46%)	(-47%)
	Jones PP	DROUGHT	-116	-152	-127	-150	-149	-152	-158	-164	-197	-202	-213	-214	-228	-227	-227	-231	-113	-124	63	41	37	28	19	16	-117	-128
			(-53%)	(-60%)	(-56%)	(-60%)	(-60%)	(-60%)	(-61%)	(-62%)	(-66%)	(-67%)	(-67%)	(-67%)	(-69%)	(-69%)	(-69%)	(-70%)	(-53%)	(-55%)	(38%)	(22%)	(21%)	(16%)	(10%)	(8%)	(-47%)	(-49%)

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3
4

^a ALL: Water years 1976-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index).

1 **Table Bo-21. Period average percentage changes in available assimilative capacity under Alternative 8 LLT, relative to existing conditions and No Action Alternative LLT, based on the 500 µg/L agricultural objective.**

Boron	Location	Period ^a	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change		
			Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	
Alt 8 LLT																													
Delta Interior	Moke. R. (SF) at Staten Island	ALL	-4	-4	-3	-3	-2	-2	-2	-2	-1	-2	-2	-2	-2	-2	-2	-2	-5	-6	-7	-7	-5	-4	-3	-3	-3	-3	
		DROUGHT	-4	-4	-3	-3	-2	-3	-1	-2	0	-1	-1	-2	-1	-1	-1	-2	-6	-7	-8	-8	-5	-4	-4	-4	-3	-3	
	SJR at Buckley Cove	ALL	7	1	1	0	2	-9	5	-5	6	-2	4	-3	8	-3	9	-2	17	-7	19	-11	29	-10	17	1	10	-4	
		DROUGHT	8	0	7	-1	10	-9	14	-8	8	-5	8	-5	16	-6	17	-6	30	-14	19	-19	41	-20	31	0	17	-9	
	Franks Tract	ALL	-15	-16	-14	-18	-12	-14	-20	-19	-24	-24	-25	-25	-22	-22	-18	-18	-17	-18	-7	-11	-5	-7	-6	-7	-15	-16	
		DROUGHT	-8	-7	-6	-8	-7	-7	-18	-17	-21	-21	-21	-21	-17	-17	-14	-14	-11	-10	-2	-4	-4	-5	-4	-3	-11	-11	
	Old R. at Rock Slough	ALL	-38	-37	-44	-46	-45	-45	-49	-48	-49	-49	-47	-47	-38	-37	-32	-31	-31	-32	-12	-15	-6	-7	-17	-18	-33	-34	
		DROUGHT	-26	-22	-39	-39	-42	-41	-50	-50	-53	-53	-51	-51	-44	-43	-39	-39	-24	-23	-5	-6	-5	-5	-6	-4	-32	-31	
	Western Delta	Sac. R. at Emmaton	ALL	6	-4	23	14	9	13	0	2	-1	0	-2	-1	-2	-1	-3	0	-2	-1	-9	-9	-9	-7	-2	-1	0	0
			DROUGHT	14	0	43	32	13	22	-1	3	-2	1	-1	-1	-1	-1	-1	1	0	3	-11	-9	-9	-6	-6	6	1	3
SJR at Antioch		ALL	-	11	-	-	-	-	5	6	-7	-5	-11	-11	-11	-11	-7	-5	-5	-3	-8	-15	-18	-19	14	-1	11	3	
		DROUGHT	-	32	-	-	-	-	9	16	-4	1	-8	-7	-6	-5	0	4	3	7	-8	-11	-18	-18	-5	23	20	15	
Sac. R. at Mallard Island		ALL	-	-	-	-	-	-	32	33	4	8	-4	-3	-5	-4	-5	2	-5	2	-45	-58	-89	-90	-	-	76	31	
		DROUGHT	-	-	-	-	-	-	83	-	15	29	-1	0	-1	0	12	15	12	18	-100	-100	-100	-100	-	-	-	-	
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	5	4	3	2	1	1	3	3	5	6	5	5	5	4	6	5	8	7	10	8	8	7	6	6	5	5	
		DROUGHT	8	6	3	1	0	0	1	1	2	3	3	4	4	5	6	8	9	8	10	9	10	10	9	9	5	5	
	Contra Costa PP #1	ALL	-26	-28	-44	-44	-49	-50	-52	-53	-57	-55	-55	-54	-47	-47	-36	-36	-33	-34	-15	-18	-3	-7	-12	-14	-35	-36	
		DROUGHT	-15	-14	-40	-37	-44	-46	-52	-51	-57	-57	-57	-56	-50	-49	-45	-45	-29	-28	-6	-6	-2	-5	-4	-5	-33	-33	
	Banks PP	ALL	30	32	39	41	32	33	25	28	40	40	53	53	87	86	-	-	75	77	-23	-23	-20	-21	8	7	31	31	
		DROUGHT	42	46	35	42	40	43	25	30	33	33	47	44	84	80	92	90	64	69	-32	-30	-21	-21	-6	-6	20	21	
	Jones PP	ALL	47	59	54	61	54	55	49	56	86	88	-	-	-	-	-	-	81	84	-19	-16	-14	-12	11	16	53	58	
		DROUGHT	41	61	47	60	60	61	65	70	98	-	-	-	-	-	-	-	40	45	-19	-13	-11	-9	-7	-5	47	53	
^a ALL: Water years 1975-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index).																													
NOTES:																													
-- Positive values indicate that implementation of the Alternative increases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality improves under the Alternative, relative to Existing Conditions or the No Action Alternative). Negative values indicate that implementation of the Alternative decreases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality degradation occurs under the Alternative, relative to Existing Conditions or the No Action Alternative). Values of -100% represent instances where all available assimilative capacity is used under the Alternative, and therefore concentrations are at or above the criteria.																													
-- Water Quality Objective is the 500 ug/L agricultural criterion.																													

1 **Table Bo-22. Period average change in boron concentrations (µg/L) for Alternative 9 LLT, relative to the existing conditions and No Action Alternative LLT.**

Boron			OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change	
	Location	Period ^a	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT
Alt 9 LLT																												
Delta Interior	Moke. R. (SF) at Staten Island	ALL	2	3	2	2	-1	-1	-7	-4	-8	-4	-1	0	-2	-2	-1	0	1	4	1	3	5	4	4	4	0	1
			(2%)	(2%)	(2%)	(1%)	(-1%)	(-1%)	(-5%)	(-3%)	(-6%)	(-3%)	(-1%)	(0%)	(-2%)	(-1%)	(-1%)	(0%)	(1%)	(3%)	(1%)	(2%)	(4%)	(3%)	(4%)	(3%)	(-0%)	(1%)
		DROUGHT	4	4	2	2	-2	-1	-12	-9	-17	-14	-9	-6	-8	-5	-5	-3	1	4	5	6	8	7	6	6	-2	-1
			(3%)	(3%)	(2%)	(2%)	(-1%)	(-1%)	(-8%)	(-7%)	(-12%)	(-10%)	(-7%)	(-4%)	(-6%)	(-4%)	(-4%)	(-2%)	(1%)	(3%)	(4%)	(4%)	(7%)	(5%)	(5%)	(5%)	(-2%)	(-1%)
	SJR at Buckley Cove	ALL	-168	-160	-141	-139	-138	-116	-141	-125	-128	-113	-115	-103	-134	-118	-148	-132	-160	-125	-148	-97	-171	-110	-182	-160	-148	-125
			(-48%)	(-46%)	(-42%)	(-42%)	(-41%)	(-37%)	(-42%)	(-39%)	(-38%)	(-35%)	(-34%)	(-31%)	(-38%)	(-35%)	(-41%)	(-39%)	(-44%)	(-38%)	(-42%)	(-32%)	(-48%)	(-37%)	(-51%)	(-48%)	(-42%)	(-38%)
		DROUGHT	-175	-163	-160	-149	-162	-130	-175	-142	-171	-151	-168	-147	-187	-154	-204	-171	-200	-134	-142	-63	-168	-51	-189	-146	-175	-133
			(-49%)	(-48%)	(-45%)	(-44%)	(-46%)	(-40%)	(-49%)	(-43%)	(-49%)	(-45%)	(-48%)	(-45%)	(-52%)	(-47%)	(-56%)	(-52%)	(-54%)	(-44%)	(-43%)	(-25%)	(-48%)	(-22%)	(-52%)	(-45%)	(-49%)	(-42%)
	Franks Tract	ALL	137	142	115	131	104	110	124	122	125	124	107	108	101	101	90	90	92	98	72	84	82	88	110	112	105	109
			(88%)	(95%)	(64%)	(79%)	(57%)	(63%)	(78%)	(76%)	(78%)	(77%)	(61%)	(62%)	(54%)	(54%)	(45%)	(45%)	(53%)	(58%)	(45%)	(57%)	(58%)	(65%)	(74%)	(76%)	(62%)	(66%)
		DROUGHT	119	116	121	130	115	117	126	125	133	130	125	126	115	116	109	108	81	77	34	39	36	41	72	65	99	99
			(72%)	(70%)	(65%)	(73%)	(64%)	(65%)	(90%)	(88%)	(102%)	(99%)	(95%)	(96%)	(85%)	(87%)	(81%)	(79%)	(61%)	(56%)	(22%)	(26%)	(24%)	(28%)	(46%)	(41%)	(66%)	(67%)
	Old R. at Rock Slough	ALL	178	173	149	157	143	145	159	154	149	150	134	130	101	99	90	90	129	133	145	155	182	187	186	188	145	147
			(117%)	(110%)	(84%)	(93%)	(77%)	(79%)	(90%)	(85%)	(80%)	(80%)	(66%)	(63%)	(43%)	(41%)	(36%)	(36%)	(64%)	(68%)	(89%)	(102%)	(127%)	(135%)	(126%)	(129%)	(78%)	(80%)
		DROUGHT	167	151	150	149	151	142	176	174	179	177	169	168	159	159	171	167	158	152	106	108	151	153	175	170	159	156
			(104%)	(86%)	(85%)	(84%)	(88%)	(78%)	(119%)	(115%)	(121%)	(119%)	(107%)	(105%)	(95%)	(94%)	(107%)	(102%)	(108%)	(100%)	(72%)	(74%)	(104%)	(107%)	(116%)	(109%)	(102%)	(97%)
Western Delta	Sac. R. at Emmaton	ALL	13	40	23	42	40	29	19	14	12	8	6	4	7	4	12	2	3	-2	22	21	19	11	2	-1	15	15
			(6%)	(20%)	(9%)	(18%)	(21%)	(15%)	(14%)	(11%)	(10%)	(7%)	(5%)	(4%)	(6%)	(4%)	(9%)	(2%)	(2%)	(-2%)	(14%)	(14%)	(12%)	(7%)	(1%)	(-0%)	(9%)	(9%)
		DROUGHT	26	58	51	66	67	48	32	20	23	15	8	7	9	8	20	12	16	5	39	32	14	0	18	-12	27	22
			(9%)	(24%)	(16%)	(22%)	(29%)	(19%)	(23%)	(14%)	(18%)	(11%)	(7%)	(6%)	(8%)	(7%)	(15%)	(9%)	(11%)	(3%)	(24%)	(19%)	(8%)	(0%)	(7%)	(-4%)	(15%)	(12%)
	SJR at Antioch	ALL	-60	32	-71	16	-17	-5	24	19	36	30	35	33	34	32	25	18	15	11	-3	17	-12	-10	-46	-22	-3	14
			(-14%)	(10%)	(-14%)	(4%)	(-4%)	(-1%)	(12%)	(9%)	(22%)	(18%)	(23%)	(22%)	(22%)	(21%)	(13%)	(9%)	(7%)	(5%)	(-1%)	(7%)	(-5%)	(-4%)	(-13%)	(-7%)	(-1%)	(6%)
		DROUGHT	-51	44	-51	32	8	25	32	15	38	22	35	33	29	27	24	14	18	4	-3	6	-28	-30	-27	-52	2	12
			(-10%)	(11%)	(-8%)	(6%)	(2%)	(5%)	(15%)	(6%)	(24%)	(13%)	(27%)	(25%)	(23%)	(21%)	(14%)	(7%)	(9%)	(2%)	(-1%)	(2%)	(-10%)	(-11%)	(-7%)	(-12%)	(1%)	(4%)
	Sac. R. at Mallard Island	ALL	-79	35	-74	26	11	22	21	20	23	14	21	16	26	21	32	17	21	9	28	53	24	25	-41	8	1	22
			(-10%)	(5%)	(-8%)	(3%)	(2%)	(3%)	(7%)	(6%)	(10%)	(6%)	(15%)	(11%)	(16%)	(12%)	(11%)	(6%)	(6%)	(3%)	(7%)	(14%)	(6%)	(6%)	(-7%)	(2%)	(0%)	(5%)
		DROUGHT	-78	51	-84	37	19	42	34	18	39	16	24	20	23	19	21	16	20	12	29	47	7	9	-1	-12	4	23
			(-9%)	(7%)	(-8%)	(4%)	(2%)	(5%)	(8%)	(4%)	(14%)	(5%)	(15%)	(12%)	(14%)	(11%)	(6%)	(5%)	(5%)	(3%)	(6%)	(10%)	(2%)	(2%)	(-0%)	(-2%)	(1%)	(5%)
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	-20	-16	-12	-10	-7	-6	-13	-13	-18	-23	-17	-20	-19	-16	-21	-20	-30	-25	-34	-27	-31	-27	-24	-22	-20	-19
			(-15%)	(-12%)	(-10%)	(-8%)	(-5%)	(-5%)	(-10%)	(-10%)	(-14%)	(-17%)	(-13%)	(-15%)	(-15%)	(-13%)	(-16%)	(-16%)	(-21%)	(-19%)	(-23%)	(-20%)	(-21%)	(-19%)	(-17%)	(-16%)	(-15%)	(-14%)
		DROUGHT	-30	-23	-11	-6	1	0	-3	-3	-9	-11	-12	-15	-16	-18	-20	-29	-30	-27	-35	-30	-36	-35	-32	-32	-19	-19
			(-21%)	(-17%)	(-9%)	(-5%)	(1%)	(0%)	(-3%)	(-3%)	(-7%)	(-9%)	(-10%)	(-12%)	(-12%)	(-14%)	(-15%)	(-21%)	(-21%)	(-19%)	(-24%)	(-21%)	(-24%)	(-24%)	(-22%)	(-22%)	(-15%)	(-14%)
	Contra Costa PP #1	ALL	168	175	159	159	150	159	152	155	168	152	148	140	121	121	85	85	123	128	155	166	172	185	179	186	148	151
			(97%)	(104%)	(88%)	(88%)	(80%)	(88%)	(79%)	(82%)	(92%)	(77%)	(73%)	(66%)	(52%)	(52%)	(32%)	(32%)	(55%)	(58%)	(86%)	(98%)	(101%)	(119%)	(105%)	(113%)	(75%)	(77%)
		DROUGHT	155	151	148	136	141	153	165	156	179	179	169	166	156	153	163	159	168	166	138	138	132	142	171	175	157	156
			(85%)	(81%)	(79%)	(68%)	(73%)	(84%)	(99%)	(88%)	(114%)	(114%)	(99%)	(96%)	(83%)	(81%)	(89%)	(85%)	(100%)	(98%)	(85%)	(86%)	(76%)	(86%)	(99%)	(103%)	(90%)	(88%)
	Banks PP	ALL	-22	-26	-9	-13	-9	-11	-18	-23	-41	-41	-46	-46	-86	-85	-110	-110	-95	-97	-19	-18	-15	-9	-22	-18	-41	-41
			(-11%)	(-13%)	(-4%)	(-6%)	(-4%)	(-5%)	(-9%)	(-11%)	(-17%)	(-17%)	(-17%)	(-17%)	(-30%)	(-30%)	(-36%)	(-36%)	(-34%)	(-35%)	(-10%)	(-9%)	(-8%)	(-5%)	(-12%)	(-10%)	(-18%)	(-18%)
		DROUGHT	-18	-26	-5	-18	0	-6	-9	-19	-39	-39	-67	-62	-95	-89	-107	-105	-66	-74	2	-4	-3	-5	-13	-11	-35	-38
			(-9%)	(-13%)	(-2%)	(-8%)	(-0%)	(-3%)	(-5%)	(-10%)	(-20%)	(-20%)	(-30%)	(-28%)	(-38%)	(-36%)	(-43%)	(-42%)	(-30%)	(-33%)	(1%)	(-3%)	(-2%)	(-3%)	(-7%)	(-7%)	(-17%)	(-19%)
	Jones PP	ALL	-51	-72	-31	-42	-51	-53	-77	-86	-92	-94	-92	-95	-136	-138	-149	-151	-95	-99	-46	-56	-42	-48	-60	-71	-77	-84
			(-22%)	(-29%)	(-13%)	(-17%)	(-20%)	(-21%)	(-28%)	(-30%)	(-30%)	(-31%)	(-29%)	(-30%)	(-40%)	(-40%)	(-43%)	(-44%)	(-34%)	(-35%)	(-22%)	(-25%)	(-21%)	(-24%)	(-28%)	(-31%)	(-29%)	(-31%)
		DROUGHT	-43	-79	-28	-51	-49	-52	-86	-92	-137	-142	-158	-159	-173	-172	-185	-189	-60	-72	-1	-23	-19	-27	-45	-49	-82	-92
			(-20%)	(-31%)	(-12%)	(-20%)	(-20%)	(-21%)	(-33%)	(-35%)	(-46%)	(-47%)	(-50%)	(-50%)	(-53%)	(-52%)	(-56%)	(-57%)	(-28%)	(-32%)	(-0%)	(-12%)	(-11%)	(-15%)	(-22%)	(-24%)	(-33%)	(-36%)

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4 ^a ALL: Water years 1976-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index).

1 **Table Bo-23. Period average percentage changes in available assimilative capacity under Alternative 9 LLT, relative to existing conditions and No Action Alternative LLT, based on the 500 µg/L agricultural objective.**

Boron	Location	Period ^a	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change			
			Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT	Ex. Cond.	No Act. LLT		
Alt 9 LLT	Delta Interior	Moke. R. (SF) at Staten Island	ALL	-1	-1	-1	0	0	0	2	1	2	1	0	0	1	0	0	0	0	-1	0	-1	-1	-1	-1	-1	0	0	
			DROUGHT	-1	-1	-1	-1	0	0	3	3	5	4	3	2	2	1	1	1	0	-1	-1	-2	-2	-2	-1	-2	1	0	
		SJR at Buckley Cove	ALL	-	-	85	84	83	62	88	70	79	64	71	59	92	73	-	82	-	73	-	50	-	54	-	98	98	72	
			DROUGHT	-	-	-	93	-	73	-	82	-	90	-	86	-	90	-	-	-	70	85	26	-	19	-	82	-	72	
		Franks Tract	ALL	-40	-40	-36	-39	-32	-34	-36	-36	-37	-37	-33	-33	-32	-32	-30	-30	-28	-30	-21	-24	-23	-24	-31	-32	-32	-33	
			DROUGHT	-36	-35	-39	-40	-36	-36	-35	-35	-36	-35	-34	-34	-31	-32	-30	-30	-22	-21	-10	-11	-10	-11	-21	-19	-28	-28	
		Old R. at Rock Slough	ALL	-51	-50	-46	-48	-45	-46	-49	-48	-48	-48	-45	-45	-39	-38	-36	-36	-43	-44	-43	-44	-51	-52	-53	-53	-46	-46	
			DROUGHT	-49	-47	-46	-46	-46	-45	-50	-50	-51	-51	-49	-49	-48	-48	-50	-50	-45	-44	-30	-30	-43	-43	-50	-49	-46	-46	
		Western Delta	Sac. R. at Emmaton	ALL	-5	-14	-9	-16	-13	-10	-5	-4	-3	-2	-1	-1	-2	-1	-3	-1	-1	1	-6	-6	-6	-3	-1	0	-4	-4
				DROUGHT	-11	-22	-27	-33	-25	-19	-9	-6	-6	-4	-2	-2	-2	-2	-5	-3	-5	-1	-11	-9	-4	0	-7	5	-8	-7
			SJR at Antioch	ALL	76	-19	-	-21	14	4	-8	-6	-11	-9	-10	-9	-10	-9	-8	-6	-5	-4	1	-6	5	4	30	12	1	-6
				DROUGHT	-	-42	-	-	-45	-72	-11	-6	-11	-7	-9	-9	-8	-7	-8	-4	-6	-2	2	-3	12	13	26	65	-1	-6
			Sac. R. at Mallard Island	ALL	-	-	-	-	-	-	-12	-11	-8	-5	-6	-5	-8	-6	-15	-8	-11	-5	-34	-49	-41	-42	-	-	-2	-27
				DROUGHT	-	-	-	-	-	-	-40	-25	-18	-8	-7	-6	-7	-6	-12	-10	-14	-9	-100	-100	-22	-24	-	-	-	-100
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	5	4	3	3	2	2	3	3	5	6	5	5	5	4	6	6	8	7	10	8	9	7	7	6	6	5		
		DROUGHT	8	6	3	2	0	0	1	1	2	3	3	4	4	5	5	8	9	7	10	8	10	10	9	9	5	5		
	Contra Costa PP #1	ALL	-52	-53	-50	-50	-48	-50	-49	-50	-53	-50	-50	-49	-45	-45	-37	-37	-45	-46	-48	-50	-52	-54	-54	-55	-49	-49		
		DROUGHT	-49	-48	-47	-45	-46	-48	-50	-48	-52	-52	-51	-51	-50	-49	-51	-51	-50	-50	-41	-41	-41	-42	-52	-53	-48	-48		
	Banks PP	ALL	7	9	3	5	3	4	6	8	16	16	19	19	40	39	56	56	43	44	6	6	4	3	7	5	15	15		
		DROUGHT	6	8	2	6	0	2	3	6	13	13	25	22	38	35	43	42	23	27	-1	1	1	1	4	3	12	13		
	Jones PP	ALL	19	29	12	17	21	22	34	40	47	49	50	53	85	88	96	99	43	46	16	20	14	16	21	26	33	37		
		DROUGHT	15	32	10	20	20	21	36	39	68	72	87	88	-	-	-	-	21	26	0	7	6	9	15	16	33	38		
^a ALL: Water years 1975-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index). NOTES: -- Positive values indicate that implementation of the Alternative increases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality improves under the Alternative, relative to Existing Conditions or the No Action Alternative). Negative values indicate that implementation of the Alternative decreases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality degradation occurs under the Alternative, relative to Existing Conditions or the No Action Alternative). Values of -100% represent instances where all available assimilative capacity is used under the Alternative, and therefore concentrations are at or above the criteria. -- Water Quality Objective is the 500 ug/L agricultural criterion.																														

1 **Table Bo-24. Period average change in boron concentrations (µg/L) for the No Action Alternative ELT, relative to the existing conditions.**

Boron			OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Avg. Chang
No Act. ELT	Location	Period ^a	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.
Delta Interior	Moke. R. (SF) at Staten Island	ALL	1	0	-1	0	-1	0	0	-1	0	-1	2	1	0
			(1%)	(0%)	(-1%)	(0%)	(-1%)	(0%)	(0%)	(-1%)	(-0%)	(-1%)	(2%)	(1%)	(0%)
		DROUGHT	0	0	-1	0	-2	-2	-1	-1	-1	1	5	1	0
			(0%)	(0%)	(-1%)	(0%)	(-1%)	(-1%)	(-1%)	(-1%)	(-1%)	(1%)	(4%)	(1%)	(-0%)
		ALL	-8	-4	-23	-17	-12	-12	-15	-16	-30	-36	-38	-16	-19
			(-2%)	(-1%)	(-7%)	(-5%)	(-4%)	(-4%)	(-4%)	(-4%)	(-8%)	(-10%)	(-11%)	(-4%)	(-5%)
	SJR at Buckley Cove	DROUGHT	-11	-11	-33	-30	-21	-21	-31	-32	-57	-54	-72	-25	-33
			(-3%)	(-3%)	(-9%)	(-8%)	(-6%)	(-6%)	(-9%)	(-9%)	(-15%)	(-16%)	(-21%)	(-7%)	(-9%)
		ALL	-3	-4	-4	2	2	0	-1	0	-1	-6	-2	-2	-2
			(-2%)	(-2%)	(-2%)	(1%)	(1%)	(0%)	(-0%)	(0%)	(-0%)	(-4%)	(-2%)	(-2%)	(-1%)
		DROUGHT	7	10	3	3	-1	-5	-4	-1	1	-4	-1	6	1
			(4%)	(6%)	(2%)	(2%)	(-1%)	(-4%)	(-3%)	(-1%)	(0%)	(-2%)	(-1%)	(4%)	(1%)
	Old R. at Rock Slough	ALL	1	2	-5	3	0	-1	-1	-1	-1	-4	-2	-2	-1
			(1%)	(1%)	(-3%)	(2%)	(0%)	(-1%)	(-1%)	(-0%)	(-1%)	(-2%)	(-1%)	(-1%)	(-1%)
		DROUGHT	11	19	3	3	-8	-9	-6	-2	0	-2	2	6	1
			(7%)	(11%)	(2%)	(2%)	(-5%)	(-6%)	(-4%)	(-1%)	(-0%)	(-1%)	(2%)	(4%)	(1%)
		ALL	-4	-12	2	1	1	1	1	3	5	4	8	-6	0
			(-2%)	(-5%)	(1%)	(1%)	(0%)	(1%)	(1%)	(2%)	(3%)	(2%)	(5%)	(-3%)	(0%)
Western Delta	Sac. R. at Emmaton	DROUGHT	0	-4	14	4	2	0	0	3	4	6	19	22	6
			(0%)	(-1%)	(6%)	(3%)	(2%)	(-0%)	(-0%)	(2%)	(2%)	(4%)	(11%)	(9%)	(3%)
		ALL	-47	-60	-12	0	3	2	1	2	6	-3	4	-30	-11
			(-11%)	(-12%)	(-3%)	(0%)	(2%)	(2%)	(0%)	(1%)	(3%)	(-1%)	(1%)	(-9%)	(-4%)
		DROUGHT	-24	-51	4	6	7	1	-1	4	6	-2	8	19	-2
			(-5%)	(-8%)	(1%)	(3%)	(4%)	(1%)	(-1%)	(2%)	(3%)	(-1%)	(3%)	(5%)	(-1%)
	Sac. R. at Mallard Island	ALL	-66	-80	-16	-2	5	4	2	4	12	-2	8	-52	-15
			(-9%)	(-9%)	(-2%)	(-1%)	(2%)	(3%)	(1%)	(2%)	(4%)	(-0%)	(2%)	(-9%)	(-3%)
		DROUGHT	-59	-92	-5	3	14	3	1	3	4	-3	13	15	-9
			(-7%)	(-8%)	(-1%)	(1%)	(5%)	(2%)	(1%)	(1%)	(1%)	(-1%)	(3%)	(2%)	(-2%)
		ALL	-7	-1	0	1	4	0	-4	-1	-6	-8	-4	-4	-3
			(-6%)	(-1%)	(0%)	(0%)	(3%)	(-0%)	(-3%)	(-1%)	(-4%)	(-6%)	(-3%)	(-3%)	(-2%)
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	DROUGHT	-12	0	1	0	1	3	2	2	-5	-4	0	-3	-1
			(-8%)	(-0%)	(1%)	(0%)	(1%)	(2%)	(1%)	(2%)	(-3%)	(-3%)	(-0%)	(-2%)	(-1%)
		ALL	-9	-1	6	1	12	11	-3	1	-7	-5	-10	-3	-1
			(-5%)	(-1%)	(3%)	(1%)	(7%)	(5%)	(-1%)	(0%)	(-3%)	(-3%)	(-6%)	(-2%)	(-0%)
		DROUGHT	1	17	2	0	1	-10	-9	4	-4	-3	-5	3	0
			(1%)	(9%)	(1%)	(0%)	(0%)	(-6%)	(-5%)	(2%)	(-2%)	(-2%)	(-3%)	(2%)	(-0%)
	Contra Costa PP #1	ALL	3	8	-1	0	-2	-5	-3	-1	-1	-2	-4	0	-1
			(2%)	(4%)	(-0%)	(0%)	(-1%)	(-2%)	(-1%)	(-0%)	(-0%)	(-1%)	(-2%)	(-0%)	(-0%)
		DROUGHT	11	19	3	0	-8	-19	-14	-7	-5	2	4	8	-1
			(6%)	(9%)	(1%)	(-0%)	(-4%)	(-8%)	(-6%)	(-3%)	(-2%)	(1%)	(3%)	(5%)	(-0%)
		ALL	9	10	-2	1	-5	-2	0	1	1	3	1	10	2
			(4%)	(4%)	(-1%)	(1%)	(-2%)	(-1%)	(0%)	(0%)	(1%)	(2%)	(1%)	(4%)	(1%)
	Banks PP	DROUGHT	16	26	2	2	-19	-9	-3	3	0	11	11	6	4
			(7%)	(11%)	(1%)	(1%)	(-6%)	(-3%)	(-1%)	(1%)	(-0%)	(7%)	(6%)	(3%)	(1%)
		ALL	9	10	-2	1	-5	-2	0	1	1	3	1	10	2
			(4%)	(4%)	(-1%)	(1%)	(-2%)	(-1%)	(0%)	(0%)	(1%)	(2%)	(1%)	(4%)	(1%)
		DROUGHT	16	26	2	2	-19	-9	-3	3	0	11	11	6	4
			(7%)	(11%)	(1%)	(1%)	(-6%)	(-3%)	(-1%)	(1%)	(-0%)	(7%)	(6%)	(3%)	(1%)

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^a ALL: Water years 1976-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index).

1 **Table Bo-25. Period average percentage changes in available assimilative capacity under the No Action Alternative ELT, relative to existing conditions, based on the 500 µg/L agricultural objective.**

Boron			OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	Annual Avg. Change
No Act. ELT	Location	Period ^a	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.	Ex. Cond.
Delta Interior	Moke. R. (SF) at Staten Island	ALL	0	0	0	0	0	0	0	0	0	0	-1	0	0
		DROUGHT	0	0	0	0	1	0	0	0	0	0	-1	0	0
	SJR at Buckley Cove	ALL	5	3	14	10	8	7	11	11	22	25	27	11	13
		DROUGHT	7	7	23	22	14	14	22	23	45	32	47	19	23
	Franks Tract	ALL	1	1	1	-1	-1	0	0	0	0	2	1	1	0
		DROUGHT	-2	-3	-1	-1	0	1	1	0	0	1	0	-2	0
	Old R. at Rock Slough	ALL	0	-1	2	-1	0	0	1	0	0	1	1	1	0
		DROUGHT	-3	-6	-1	-1	2	3	2	0	0	1	-1	-2	0
Western Delta	Sac. R. at Emmaton	ALL	2	5	-1	0	0	0	0	-1	-1	-1	-2	2	0
		DROUGHT	0	2	-5	-1	-1	0	0	-1	-1	-2	-6	-8	-2
	SJR at Antioch	ALL	60	-	10	0	-1	-1	0	-1	-2	1	-2	20	5
		DROUGHT	-	-	-22	-2	-2	0	0	-1	-2	1	-4	-18	1
	Sac. R. at Mallard Island	ALL	-	-	-	1	-2	-1	-1	-2	-7	2	-14	-	25
		DROUGHT	-	-	-	-3	-7	-1	0	-2	-3	15	-37	-	-
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	2	0	0	0	-1	0	1	0	2	2	1	1	1
		DROUGHT	3	0	0	0	0	-1	0	-1	1	1	0	1	0
	Contra Costa PP #1	ALL	3	0	-2	0	-4	-4	1	0	3	2	3	1	0
		DROUGHT	0	-5	-1	0	0	3	3	-1	1	1	1	-1	0
	Banks PP	ALL	-1	-3	0	0	1	2	2	0	0	1	1	0	0
		DROUGHT	-4	-6	-1	0	3	7	6	3	2	-1	-1	-2	0
	Jones PP	ALL	-3	-4	1	-1	3	1	0	-1	-1	-1	0	-3	-1
		DROUGHT	-6	-9	-1	-1	10	5	2	-1	0	-3	-3	-2	-1

2

1 Table Bo-26. Period average change in boron concentrations (µg/L) for Alternative 4A ELT, relative to the existing conditions and No Action Alternative ELT.

Boron			OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change		
	Location	Period ^a	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	
Alt 4A ELT																													
Delta Interior	Moke. R. (SF) at Staten Island	ALL	4 (3%)	3 (3%)	3 (2%)	2 (2%)	0 (0%)	1 (1%)	4 (3%)	3 (2%)	2 (1%)	3 (2%)	3 (2%)	2 (2%)	2 (2%)	2 (2%)	0 (0%)	1 (1%)	1 (1%)	2 (1%)	7 (5%)	8 (6%)	5 (4%)	3 (2%)	2 (2%)	1 (1%)	3 (2%)	3 (2%)	
		DROUGHT	2 (2%)	2 (2%)	1 (1%)	1 (1%)	0 (-0%)	1 (0%)	2 (2%)	2 (2%)	1 (1%)	3 (2%)	1 (1%)	3 (2%)	0 (-0%)	1 (1%)	0 (0%)	1 (1%)	1 (0%)	2 (1%)	12 (9%)	11 (8%)	4 (3%)	-1 (-1%)	1 (1%)	0 (0%)	2 (2%)	2 (2%)	
	SJR at Buckley Cove	ALL	-8 (-2%)	0 (0%)	-7 (-2%)	-2 (-1%)	-19 (-6%)	3 (1%)	-6 (-2%)	10 (3%)	-6 (-2%)	6 (2%)	-5 (-2%)	7 (2%)	-10 (-3%)	5 (2%)	-11 (-3%)	5 (1%)	-25 (-7%)	6 (2%)	-25 (-7%)	12 (4%)	-24 (-7%)	14 (4%)	-17 (-5%)	-1 (-0%)	-13 (-4%)	5 (2%)	
		DROUGHT	-10 (-3%)	1 (0%)	-12 (-4%)	-2 (-0%)	-32 (-9%)	1 (0%)	-20 (-5%)	11 (3%)	-12 (-3%)	9 (3%)	-11 (-3%)	11 (3%)	-20 (-5%)	11 (3%)	-20 (-6%)	11 (3%)	-44 (-12%)	13 (4%)	-25 (-7%)	29 (10%)	-30 (-8%)	42 (15%)	-25 (-7%)	0 (0%)	-22 (-6%)	11 (4%)	
	Franks Tract	ALL	8 (5%)	11 (8%)	0 (0%)	4 (2%)	0 (-0%)	4 (2%)	9 (6%)	7 (4%)	28 (17%)	25 (15%)	31 (18%)	31 (18%)	23 (13%)	24 (13%)	16 (8%)	15 (8%)	20 (11%)	21 (12%)	6 (4%)	12 (8%)	3 (2%)	6 (4%)	3 (2%)	6 (4%)	12 (7%)	14 (8%)	
		DROUGHT	2 (1%)	-5 (-3%)	-6 (-3%)	-16 (-8%)	0 (-0%)	-3 (-2%)	2 (2%)	-1 (-1%)	4 (3%)	5 (4%)	6 (4%)	11 (8%)	8 (6%)	11 (9%)	9 (7%)	11 (8%)	9 (7%)	9 (6%)	-5 (-3%)	-1 (-1%)	0 (0%)	2 (1%)	9 (6%)	3 (2%)	3 (2%)	2 (1%)	
	Old R. at Rock Slough	ALL	29 (19%)	27 (18%)	29 (16%)	27 (15%)	1 (0%)	6 (3%)	10 (6%)	7 (4%)	32 (17%)	32 (17%)	36 (18%)	37 (18%)	13 (5%)	14 (6%)	5 (2%)	6 (2%)	29 (14%)	30 (15%)	15 (9%)	19 (12%)	7 (5%)	9 (6%)	12 (8%)	14 (10%)	18 (10%)	19 (10%)	
		DROUGHT	18 (11%)	7 (4%)	18 (10%)	-1 (-0%)	2 (1%)	-1 (-0%)	7 (5%)	4 (3%)	3 (2%)	11 (8%)	9 (5%)	17 (12%)	7 (4%)	13 (8%)	14 (8%)	15 (10%)	15 (10%)	15 (10%)	4 (3%)	6 (4%)	3 (2%)	1 (0%)	8 (5%)	2 (1%)	9 (6%)	7 (5%)	
	Western Delta	Sac. R. at Emmaton	ALL	-23 (-10%)	-18 (-8%)	-23 (-9%)	-11 (-5%)	5 (3%)	3 (1%)	-2 (-2%)	-3 (-2%)	3 (2%)	2 (2%)	6 (5%)	5 (4%)	7 (5%)	6 (8%)	11 (8%)	8 (5%)	13 (9%)	8 (5%)	30 (20%)	26 (17%)	29 (18%)	21 (13%)	10 (5%)	16 (8%)	6 (3%)	5 (3%)
			DROUGHT	-29 (-11%)	-29 (-11%)	-26 (-8%)	-22 (-7%)	15 (7%)	2 (1%)	-6 (-4%)	-10 (-7%)	2 (2%)	0 (-0%)	2 (2%)	2 (2%)	2 (2%)	3 (4%)	5 (2%)	2 (4%)	7 (4%)	3 (2%)	36 (22%)	30 (18%)	32 (19%)	13 (7%)	33 (14%)	11 (4%)	6 (3%)	0 (0%)
		SJR at Antioch	ALL	-104 (-25%)	-57 (-15%)	-109 (-21%)	-50 (-11%)	-13 (-3%)	-1 (-0%)	-10 (-5%)	-10 (-5%)	12 (7%)	9 (5%)	22 (15%)	19 (13%)	18 (11%)	17 (11%)	13 (7%)	12 (6%)	15 (7%)	9 (4%)	17 (7%)	20 (8%)	29 (11%)	25 (9%)	-20 (-6%)	11 (3%)	-11 (-4%)	0 (0%)
			DROUGHT	-99 (-20%)	-76 (-16%)	-100 (-16%)	-49 (-9%)	0 (-0%)	-4 (-1%)	-20 (-9%)	-25 (-11%)	1 (1%)	-6 (-3%)	5 (4%)	4 (3%)	5 (4%)	5 (4%)	6 (3%)	2 (1%)	6 (3%)	0 (0%)	14 (5%)	16 (6%)	37 (14%)	29 (10%)	34 (9%)	15 (4%)	-9 (-3%)	-7 (-3%)
Sac. R. at Mallard Island		ALL	-110 (-14%)	-44 (-6%)	-113 (-13%)	-33 (-4%)	-19 (-3%)	-3 (-0%)	-22 (-6%)	-20 (2%)	5 (0%)	1 (0%)	16 (11%)	12 (8%)	14 (8%)	12 (7%)	8 (4%)	12 (4%)	8 (0%)	26 (6%)	28 (7%)	38 (9%)	30 (7%)	-35 (-6%)	17 (3%)	-15 (-3%)	1 (0%)		
		DROUGHT	-114 (-13%)	-55 (-7%)	-125 (-11%)	-33 (-3%)	-11 (-1%)	-6 (-1%)	-38 (-9%)	-40 (-10%)	5 (2%)	-9 (-3%)	8 (5%)	4 (3%)	6 (3%)	4 (3%)	2 (1%)	-1 (-0%)	2 (1%)	-2 (-1%)	22 (5%)	25 (5%)	41 (9%)	29 (6%)	27 (4%)	12 (2%)	-15 (-3%)	-6 (-1%)	
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	-5 (-4%)	3 (2%)	2 (1%)	3 (3%)	1 (1%)	1 (1%)	1 (1%)	1 (0%)	4 (3%)	0 (0%)	1 (1%)	1 (1%)	-3 (-2%)	1 (1%)	-1 (-0%)	1 (0%)	-6 (-4%)	0 (0%)	-8 (-5%)	0 (0%)	-2 (-1%)	2 (2%)	-2 (-2%)	2 (1%)	-1 (-1%)	1 (1%)	
		DROUGHT	-7 (-5%)	4 (3%)	4 (3%)	4 (3%)	4 (3%)	3 (3%)	0 (0%)	0 (0%)	2 (1%)	0 (0%)	3 (3%)	1 (1%)	3 (2%)	1 (1%)	3 (2%)	1 (1%)	-5 (-3%)	0 (-0%)	-4 (-3%)	0 (-0%)	3 (2%)	3 (2%)	-1 (-1%)	2 (1%)	0 (0%)	2 (1%)	
	Contra Costa PP #1	ALL	19 (11%)	28 (17%)	29 (16%)	30 (17%)	9 (5%)	3 (2%)	5 (2%)	3 (2%)	29 (16%)	16 (8%)	44 (22%)	34 (16%)	30 (13%)	33 (14%)	5 (2%)	4 (2%)	24 (10%)	31 (14%)	14 (8%)	19 (11%)	-4 (-2%)	6 (4%)	2 (1%)	5 (3%)	17 (9%)	18 (9%)	
		DROUGHT	12 (6%)	11 (6%)	15 (8%)	-2 (-1%)	-6 (-3%)	-8 (-4%)	1 (1%)	1 (0%)	10 (6%)	9 (6%)	2 (1%)	12 (8%)	6 (3%)	15 (9%)	10 (6%)	6 (3%)	14 (8%)	17 (10%)	4 (2%)	7 (4%)	-9 (-5%)	-4 (-2%)	0 (0%)	-3 (-2%)	5 (3%)	5 (3%)	
	Banks PP	ALL	-29 (-15%)	-32 (-16%)	-19 (-9%)	-27 (-12%)	-32 (-15%)	-31 (-15%)	-54 (-26%)	-54 (-26%)	-58 (-24%)	-56 (-23%)	-99 (-38%)	-94 (-37%)	-75 (-26%)	-72 (-25%)	-69 (-23%)	-68 (-23%)	-45 (-16%)	-44 (-16%)	-34 (-17%)	-32 (-16%)	-5 (-3%)	-1 (-1%)	-23 (-13%)	-22 (-13%)	-45 (-20%)	-44 (-19%)	
		DROUGHT	-13 (-7%)	-24 (-12%)	-18 (-9%)	-37 (-16%)	-6 (-3%)	-8 (-4%)	-13 (-7%)	-13 (-7%)	-13 (-6%)	-4 (-2%)	-58 (-26%)	-40 (-19%)	-31 (-13%)	-18 (-7%)	-7 (-3%)	0 (0%)	6 (3%)	11 (5%)	20 (12%)	18 (11%)	9 (6%)	5 (3%)	0 (0%)	-8 (-4%)	-10 (-5%)	-10 (-5%)	
	Jones PP	ALL	-24 (-11%)	-33 (-14%)	-36 (-15%)	-46 (-18%)	-15 (-6%)	-13 (-5%)	-74 (-27%)	-75 (-27%)	-110 (-36%)	-105 (-35%)	-142 (-45%)	-140 (-44%)	-102 (-30%)	-103 (-30%)	-110 (-32%)	-112 (-32%)	-96 (-35%)	-98 (-35%)	-17 (-8%)	-20 (-9%)	-14 (-8%)	-15 (-8%)	1 (1%)	-9 (-4%)	-62 (-23%)	-64 (-24%)	
		DROUGHT	6 (3%)	-10 (-4%)	-14 (-6%)	-39 (-16%)	-5 (-2%)	-7 (-3%)	-61 (-24%)	-63 (-24%)	-71 (-24%)	-52 (-18%)	-113 (-36%)	-104 (-34%)	-64 (-20%)	-62 (-19%)	-76 (-23%)	-79 (-24%)	-40 (-19%)	-40 (-19%)	2 (1%)	-9 (-5%)	25 (15%)	14 (8%)	4 (2%)	-2 (-1%)	-34 (-14%)	-38 (-15%)	

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a ALL: Water years 1976-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index).

1 **Table Bo-27. Period average percentage changes in available assimilative capacity under Alternative 4A ELT, relative to existing conditions and No Action Alternative ELT, based on the 500 µg/L agricultural objective.**

Boron	Location	Period ^a	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change		
			Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	
Alt 4A ELT																													
Delta Interior	Moke. R. (SF) at Staten Island	ALL	-1	-1	-1	-1	0	0	-1	-1	0	-1	-1	-1	-1	-1	0	0	0	0	-2	-2	-1	-1	-1	0	-1	-1	
		DROUGHT	-1	-1	0	0	0	0	-1	-1	0	-1	0	-1	0	0	0	0	0	0	-3	-3	-1	0	0	0	-1	-1	
	SJR at Buckley Cove	ALL	5	0	4	1	12	-2	4	-6	4	-4	3	-4	7	-3	7	-3	18	-3	17	-6	17	-8	12	0	9	-3	
		DROUGHT	7	0	8	1	22	-1	14	-6	8	-5	7	-6	14	-7	15	-7	35	-7	15	-13	19	-19	19	0	15	-6	
	Franks Tract	ALL	-2	-3	0	-1	0	-1	-3	-2	-8	-7	-10	-10	-7	-8	-5	-5	-6	-6	-2	-3	-1	-2	-1	-2	-4	-4	
		DROUGHT	-1	1	2	5	0	1	-1	0	-1	-1	-2	-3	-2	-3	-3	-3	-3	-2	1	0	0	-1	-3	-1	-1	-1	
	Old R. at Rock Slough	ALL	-8	-8	-9	-8	0	-2	-3	-2	-10	-10	-12	-12	-5	-5	-2	-2	-10	-10	-4	-6	-2	-2	-4	-4	-6	-6	
		DROUGHT	-5	-2	-6	0	-1	0	-2	-1	-1	-3	-2	-5	-2	-4	-4	-4	-4	-4	-1	-2	-1	0	-2	-1	-3	-2	
	Western Delta	Sac. R. at Emmaton	ALL	8	7	9	4	-2	-1	1	1	-1	-1	-1	-1	-2	-2	-3	-2	-4	-2	-9	-8	-9	-6	-4	-5	-2	-2
			DROUGHT	13	13	14	11	-6	-1	2	3	-1	0	-1	-1	-1	-1	-1	-1	-2	-1	-11	-9	-10	-4	-13	-5	-2	0
SJR at Antioch		ALL	-	46	-	-	11	1	3	3	-3	-3	-6	-6	-5	-5	-4	-4	-5	-3	-7	-8	-12	-10	13	-6	5	0	
		DROUGHT	-	-	-	-	1	29	7	9	0	2	-1	-1	-1	-1	-2	-1	-2	0	-7	-7	-17	-13	-32	-17	5	4	
Sac. R. at Mallard Island		ALL	-	-	-	-	-	-	12	11	-2	0	-4	-3	-4	-4	-6	-4	-7	0	-32	-33	-64	-58	-	-	24	-1	
		DROUGHT	-	-	-	-	-	-	44	48	-2	5	-2	-1	-2	-1	-1	1	-1	2	-97	-98	-100	-100	-	-	-	-	
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	1	-1	0	-1	0	0	0	0	-1	0	0	0	1	0	0	0	2	0	2	0	0	-1	1	-1	0	0	
		DROUGHT	2	-1	-1	-1	-1	-1	0	0	0	0	-1	0	-1	0	-1	0	1	0	1	0	-1	-1	0	-1	0	0	
	Contra Costa PP #1	ALL	-6	-8	-9	-9	-3	-1	-2	-1	-9	-5	-15	-12	-11	-12	-2	-2	-9	-11	-4	-6	1	-2	-1	-1	-6	-6	
		DROUGHT	-4	-3	-5	1	2	3	0	0	-3	-3	-1	-4	-2	-5	-3	-2	-4	-5	-1	-2	3	1	0	1	-2	-2	
	Banks PP	ALL	9	11	7	10	11	11	19	19	23	22	42	39	35	33	35	34	20	20	11	10	2	0	7	7	17	16	
		DROUGHT	4	8	6	13	2	3	4	4	4	1	21	14	13	7	3	0	-2	-4	-6	-5	-3	-2	0	2	3	3	
	Jones PP	ALL	9	12	14	19	6	5	33	33	57	53	78	75	64	65	71	73	44	45	6	7	5	5	0	3	27	28	
		DROUGHT	-2	4	5	16	2	3	25	26	35	23	62	54	38	35	44	46	14	14	-1	3	-8	-5	-1	1	13	15	
^a ALL: Water years 1975-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index). NOTES: -- Positive values indicate that implementation of the Alternative increases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality improves under the Alternative, relative to Existing Conditions or the No Action Alternative). Negative values indicate that implementation of the Alternative decreases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality degradation occurs under the Alternative, relative to Existing Conditions or the No Action Alternative). Values of -100% represent instances where all available assimilative capacity is used under the Alternative, and therefore concentrations are at or above the criteria. -- Water Quality Objective is the 500 ug/L agricultural criterion.																													

1 Table Bo-28. Period average change in boron concentrations (µg/L) for Alternative 2D ELT, relative to the existing conditions and No Action Alternative ELT.

Boron			OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change			
	Location	Period ^a	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT		
Alt 2D ELT																														
Delta Interior	Moke. R. (SF) at Staten Island	ALL	5 (5%)	5 (4%)	4 (3%)	3 (3%)	0 (0%)	1 (1%)	5 (4%)	5 (4%)	3 (2%)	4 (3%)	3 (2%)	3 (2%)	2 (2%)	2 (2%)	0 (-0%)	1 (0%)	2 (2%)	3 (2%)	4 (3%)	5 (4%)	6 (5%)	4 (3%)	3 (3%)	2 (2%)	3 (3%)	3 (3%)		
		DROUGHT	3 (3%)	3 (2%)	1 (1%)	1 (1%)	0 (-0%)	1 (1%)	3 (2%)	3 (2%)	1 (1%)	3 (2%)	1 (1%)	3 (2%)	0 (-0%)	1 (1%)	0 (0%)	1 (1%)	2 (1%)	3 (2%)	12 (9%)	11 (8%)	7 (6%)	1 (1%)	2 (2%)	1 (1%)	3 (2%)	3 (2%)		
	SJR at Buckley Cove	ALL	-8 (-2%)	0 (0%)	-6 (-2%)	-2 (-1%)	-19 (-6%)	4 (1%)	-6 (-2%)	11 (3%)	-6 (-2%)	6 (2%)	-6 (-2%)	6 (2%)	-10 (-3%)	5 (1%)	-11 (-3%)	5 (1%)	-24 (-7%)	6 (2%)	-28 (-8%)	9 (3%)	-23 (-7%)	14 (4%)	-16 (-5%)	0 (-0%)	-14 (-4%)	5 (2%)		
		DROUGHT	-10 (-3%)	1 (0%)	-12 (-4%)	-2 (-0%)	-32 (-9%)	2 (1%)	-20 (-5%)	11 (3%)	-12 (-3%)	9 (3%)	-11 (-3%)	11 (3%)	-20 (-6%)	11 (3%)	-20 (-6%)	11 (3%)	-44 (-12%)	13 (4%)	-25 (-8%)	29 (10%)	-27 (-8%)	44 (16%)	-25 (-7%)	0 (0%)	-22 (-6%)	12 (4%)		
	Franks Tract	ALL	22 (14%)	25 (17%)	5 (3%)	10 (5%)	0 (-0%)	4 (2%)	14 (9%)	12 (7%)	37 (23%)	35 (21%)	36 (21%)	36 (20%)	25 (13%)	26 (14%)	14 (7%)	14 (7%)	20 (11%)	21 (12%)	4 (3%)	10 (6%)	3 (2%)	5 (4%)	10 (6%)	12 (8%)	16 (9%)	17 (10%)		
		DROUGHT	2 (1%)	-5 (-3%)	-11 (-6%)	-21 (-11%)	-6 (-3%)	-9 (-5%)	0 (-0%)	-4 (-3%)	3 (2%)	4 (3%)	5 (4%)	10 (8%)	6 (4%)	10 (7%)	6 (4%)	7 (5%)	8 (6%)	8 (6%)	-5 (-3%)	-2 (-1%)	-1 (-1%)	1 (0%)	2 (2%)	-3 (-2%)	1 (1%)	0 (-0%)		
	Old R. at Rock Slough	ALL	54 (35%)	52 (34%)	32 (18%)	30 (17%)	0 (0%)	6 (3%)	25 (14%)	22 (12%)	42 (22%)	42 (22%)	37 (18%)	38 (19%)	12 (5%)	13 (6%)	1 (0%)	2 (1%)	29 (14%)	30 (15%)	8 (5%)	12 (8%)	7 (5%)	9 (6%)	40 (27%)	42 (28%)	24 (13%)	25 (13%)		
		DROUGHT	23 (14%)	11 (7%)	15 (9%)	-3 (-2%)	-3 (-2%)	-5 (-3%)	4 (3%)	0 (0%)	1 (1%)	9 (7%)	7 (4%)	16 (11%)	-1 (-0%)	5 (3%)	6 (4%)	8 (5%)	14 (10%)	14 (10%)	4 (3%)	6 (4%)	4 (3%)	2 (1%)	4 (2%)	-2 (-1%)	7 (4%)	5 (3%)		
	Western Delta	Sac. R. at Emmaton	ALL	-22 (-10%)	-17 (-8%)	-30 (-12%)	-18 (-7%)	-3 (-2%)	-5 (-3%)	-3 (-2%)	-4 (-3%)	3 (2%)	2 (2%)	6 (5%)	5 (4%)	9 (7%)	8 (7%)	11 (8%)	8 (6%)	11 (8%)	6 (4%)	15 (10%)	12 (8%)	19 (12%)	11 (7%)	5 (2%)	11 (5%)	2 (1%)	2 (1%)	
			DROUGHT	-36 (-13%)	-37 (-13%)	-42 (-13%)	-37 (-12%)	0 (-0%)	-14 (-6%)	-7 (-5%)	-11 (-8%)	0 (0%)	-2 (-1%)	1 (1%)	1 (1%)	2 (2%)	2 (2%)	4 (3%)	1 (1%)	5 (3%)	1 (1%)	28 (18%)	23 (14%)	27 (16%)	8 (4%)	20 (8%)	-2 (-1%)	0 (0%)	-5 (-3%)	
		SJR at Antioch	ALL	-102 (-24%)	-56 (-15%)	-117 (-23%)	-57 (-13%)	-25 (-6%)	-12 (-3%)	-10 (-5%)	-10 (-5%)	17 (10%)	14 (8%)	25 (17%)	23 (15%)	20 (13%)	19 (13%)	13 (7%)	11 (6%)	12 (6%)	6 (3%)	3 (1%)	7 (3%)	12 (5%)	8 (3%)	-31 (-9%)	-1 (-0%)	-15 (-6%)	-4 (-2%)	
			DROUGHT	-107 (-22%)	-83 (-18%)	-119 (-19%)	-68 (-12%)	-24 (-5%)	-28 (-6%)	-22 (-10%)	-27 (-12%)	-2 (-1%)	-8 (-5%)	3 (3%)	3 (2%)	4 (3%)	4 (3%)	4 (2%)	0 (0%)	3 (1%)	-3 (-1%)	7 (2%)	8 (3%)	24 (9%)	16 (5%)	15 (4%)	-5 (-1%)	-18 (-6%)	-16 (-5%)	
		Sac. R. at Mallard Island	ALL	-122 (-16%)	-56 (-8%)	-132 (-15%)	-52 (-6%)	-37 (-5%)	-21 (-3%)	-26 (-8%)	-24 (-7%)	4 (2%)	0 (-0%)	16 (11%)	12 (8%)	16 (10%)	14 (8%)	9 (3%)	5 (2%)	6 (2%)	-6 (-2%)	5 (1%)	7 (2%)	19 (4%)	10 (2%)	-50 (-9%)	3 (0%)	-24 (-6%)	-9 (-3%)	
			DROUGHT	-126 (-14%)	-66 (-8%)	-147 (-13%)	-55 (-5%)	-38 (-4%)	-33 (-4%)	-38 (-9%)	-41 (-10%)	-2 (-1%)	-16 (-5%)	5 (3%)	1 (1%)	5 (3%)	4 (2%)	-4 (-1%)	-7 (-2%)	-3 (-1%)	-7 (-2%)	12 (3%)	15 (6%)	29 (3%)	16 (3%)	11 (2%)	-4 (-1%)	-25 (-5%)	-16 (-3%)	
		Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	-6 (-4%)	2 (2%)	3 (2%)	4 (3%)	3 (2%)	3 (2%)	1 (1%)	1 (1%)	5 (4%)	2 (1%)	2 (1%)	2 (1%)	-2 (-2%)	1 (1%)	-1 (-1%)	0 (0%)	-7 (-5%)	-1 (-0%)	-8 (-5%)	0 (0%)	-3 (-2%)	1 (1%)	-3 (-2%)	1 (1%)	-1 (-1%)	1 (1%)
				DROUGHT	-10 (-7%)	1 (1%)	3 (2%)	3 (3%)	4 (3%)	3 (2%)	0 (-0%)	0 (-0%)	2 (2%)	1 (1%)	3 (3%)	1 (1%)	3 (2%)	1 (1%)	2 (2%)	0 (-0%)	-8 (-5%)	-3 (-2%)	-4 (-2%)	0 (0%)	2 (1%)	2 (1%)	-6 (-4%)	-3 (-2%)	-1 (-1%)	1 (0%)
Contra Costa PP #1			ALL	47 (27%)	56 (34%)	40 (22%)	42 (23%)	10 (5%)	4 (2%)	11 (6%)	10 (5%)	37 (20%)	25 (13%)	41 (20%)	30 (14%)	29 (12%)	32 (14%)	-2 (-1%)	-3 (-1%)	22 (10%)	29 (13%)	8 (5%)	14 (8%)	-2 (-1%)	7 (5%)	17 (10%)	20 (12%)	22 (11%)	22 (11%)	
			DROUGHT	19 (10%)	18 (10%)	23 (12%)	6 (3%)	-8 (-4%)	-10 (-5%)	1 (1%)	1 (0%)	9 (6%)	9 (6%)	0 (0%)	11 (7%)	-1 (-1%)	8 (4%)	1 (0%)	-3 (-2%)	10 (6%)	13 (8%)	5 (3%)	8 (5%)	-5 (-3%)	0 (-0%)	0 (-0%)	-3 (-2%)	4 (2%)	5 (3%)	
Banks PP			ALL	-36 (-19%)	-39 (-20%)	-32 (-15%)	-41 (-18%)	-37 (-18%)	-36 (-18%)	-66 (-31%)	-66 (-32%)	-85 (-35%)	-84 (-35%)	-112 (-43%)	-107 (-42%)	-107 (-37%)	-104 (-37%)	-68 (-22%)	-68 (-22%)	-54 (-19%)	-53 (-19%)	-16 (-8%)	-14 (-7%)	-7 (-4%)	-3 (-2%)	-34 (-19%)	-33 (-19%)	-55 (-24%)	-54 (-24%)	
			DROUGHT	-17 (-9%)	-28 (-14%)	-20 (-10%)	-39 (-17%)	-10 (-5%)	-12 (-6%)	-16 (-9%)	-16 (-9%)	-12 (-6%)	-3 (-2%)	-61 (-27%)	-42 (-20%)	-55 (-22%)	-41 (-17%)	-41 (-16%)	-34 (-14%)	-3 (-1%)	2 (1%)	-14 (-9%)	-16 (-10%)	22 (14%)	18 (11%)	4 (2%)	-4 (-2%)	-19 (-9%)	-18 (-9%)	
Jones PP	ALL		-21 (-9%)	-30 (-13%)	-51 (-21%)	-62 (-24%)	-31 (-12%)	-30 (-12%)	-84 (-31%)	-86 (-31%)	-123 (-40%)	-118 (-39%)	-150 (-47%)	-148 (-47%)	-132 (-39%)	-132 (-39%)	-148 (-43%)	-150 (-43%)	-97 (-35%)	-99 (-35%)	-17 (-8%)	-20 (-9%)	-3 (-2%)	-4 (-2%)	-50 (-23%)	-60 (-27%)	-76 (-28%)	-78 (-29%)		
	DROUGHT		16 (7%)	0 (0%)	-15 (-6%)	-40 (-16%)	-6 (-2%)	-9 (-3%)	-51 (-20%)	-53 (-20%)	-76 (-26%)	-57 (-20%)	-115 (-36%)	-105 (-34%)	-88 (-27%)	-85 (-26%)	-120 (-37%)	-122 (-37%)	-30 (-14%)	-29 (-14%)	18 (11%)	7 (4%)	25 (15%)	14 (8%)	4 (2%)	-2 (-1%)	-36 (-15%)	-40 (-16%)		

^a ALL: Water years 1976-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index).

1 **Table Bo-29. Period average percentage changes in available assimilative capacity under Alternative 2D ELT, relative to existing conditions and No Action Alternative ELT, based on the 500 µg/L agricultural objective.**

Boron	Location	Period ^a	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change		
			Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	
Alt 2D ELT																													
Delta Interior	Moke. R. (SF) at Staten Island	ALL	-1	-1	-1	-1	0	0	-1	-1	-1	-1	-1	-1	-1	-1	0	0	-1	-1	-1	-1	-2	-1	-1	-1	-1	-1	
		DROUGHT	-1	-1	0	0	0	0	-1	-1	0	-1	0	-1	0	0	0	0	0	-1	-3	-3	-2	0	-1	0	-1	-1	
	SJR at Buckley Cove	ALL	5	0	4	1	11	-2	4	-6	4	-4	3	-4	7	-3	8	-3	18	-3	19	-5	17	-8	11	0	9	-3	
		DROUGHT	7	0	8	1	22	-1	14	-6	8	-5	7	-6	14	-6	15	-7	35	-7	15	-13	18	-20	18	0	15	-7	
	Franks Tract	ALL	-6	-7	-2	-3	0	-1	-4	-4	-11	-10	-11	-11	-8	-8	-5	-5	-6	-6	-1	-3	-1	-1	-3	-3	-5	-5	
		DROUGHT	-1	1	3	7	2	3	0	1	-1	-1	-1	-3	-2	-3	-2	-2	-2	-2	2	0	0	0	-1	1	0	0	
	Old R. at Rock Slough	ALL	-15	-15	-10	-9	0	-2	-8	-7	-13	-13	-12	-13	-4	-5	0	-1	-10	-10	-2	-4	-2	-3	-11	-12	-8	-8	
		DROUGHT	-7	-3	-5	1	1	2	-1	0	0	-3	-2	-5	0	-2	-2	-2	-4	-4	-1	-2	-1	-1	-1	1	-2	-1	
	Western Delta	Sac. R. at Emmaton	ALL	8	6	12	7	1	2	1	1	-1	-1	-1	-1	-2	-2	-3	-2	-3	-2	-4	-3	-6	-3	-2	-3	-1	0
			DROUGHT	16	16	23	20	0	5	2	3	0	0	0	0	0	-1	-1	0	-1	0	-8	-7	-8	-3	-8	1	0	2
SJR at Antioch		ALL	-	44	-	-	21	10	3	3	-5	-4	-7	-7	-6	-6	-4	-4	-4	-2	-1	-3	-5	-3	20	1	7	2	
		DROUGHT	-	-	-	-	-	-	8	10	1	2	-1	-1	-1	-1	-1	0	-1	1	-3	-4	-10	-7	-14	5	9	8	
Sac. R. at Mallard Island		ALL	-	-	-	-	-	-	14	13	-1	0	-5	-4	-5	-4	-4	-2	-4	3	-6	-8	-32	-20	-	-	39	12	
		DROUGHT	-	-	-	-	-	-	44	49	1	8	-1	0	-1	-1	2	4	2	5	-53	-60	-83	-73	-	-	-	-	
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	2	-1	-1	-1	-1	-1	0	0	-1	0	0	0	1	0	0	0	2	0	2	0	1	0	1	0	0	0	
		DROUGHT	3	0	-1	-1	-1	-1	0	0	-1	0	-1	0	-1	0	-1	0	2	1	1	0	-1	-1	2	1	0	0	
	Contra Costa PP #1	ALL	-14	-17	-13	-13	-3	-1	-4	-3	-12	-8	-14	-11	-11	-12	1	1	-8	-10	-3	-4	1	-2	-5	-6	-7	-7	
		DROUGHT	-6	-6	-7	-2	3	3	0	0	-3	-3	0	-3	0	-2	0	1	-3	-4	-1	-2	2	0	0	1	-1	-1	
	Banks PP	ALL	12	13	11	15	13	13	23	23	33	32	47	44	50	48	35	34	24	24	5	5	2	1	10	10	20	20	
		DROUGHT	6	10	7	14	3	4	5	5	4	1	22	14	22	16	16	13	1	-1	4	5	-7	-5	-1	1	6	6	
	Jones PP	ALL	8	11	20	25	13	12	37	38	64	59	82	80	83	83	96	97	44	45	6	7	1	1	18	22	33	34	
		DROUGHT	-6	0	5	16	2	3	21	22	38	26	63	55	51	49	70	72	10	10	-5	-2	-8	-5	-1	1	14	16	
^a ALL: Water years 1975-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index). NOTES: -- Positive values indicate that implementation of the Alternative increases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality improves under the Alternative, relative to Existing Conditions or the No Action Alternative). Negative values indicate that implementation of the Alternative decreases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality degradation occurs under the Alternative, relative to Existing Conditions or the No Action Alternative). Values of -100% represent instances where all available assimilative capacity is used under the Alternative, and therefore concentrations are at or above the criteria. -- Water Quality Objective is the 500 ug/L agricultural criterion.																													

1 Table Bo-30. Period average change in boron concentrations (µg/L) for Alternative 5A ELT, relative to the existing conditions and No Action Alternative ELT.

Boron	Location	Period ^a	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change	
			Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT
Alt 5A ELT	Delta Interior	Moke. R. (SF) at Staten Island	ALL	2 (2%)	2 (1%)	2 (2%)	2 (1%)	-1 (-0%)	0 (0%)	1 (1%)	1 (1%)	-1 (-1%)	0 (0%)	1 (1%)	1 (1%)	1 (1%)	0 (0%)	-1 (-0%)	0 (0%)	0 (0%)	1 (1%)	3 (2%)	4 (3%)	5 (4%)	3 (2%)	3 (2%)	2 (1%)	1 (1%)
			DROUGHT	1 (1%)	1 (1%)	1 (1%)	1 (1%)	-1 (-1%)	0 (0%)	1 (1%)	1 (1%)	-2 (-1%)	0 (0%)	-1 (-1%)	1 (1%)	-1 (-1%)	0 (0%)	-1 (-1%)	0 (0%)	0 (0%)	1 (1%)	11 (8%)	10 (8%)	8 (6%)	2 (2%)	3 (2%)	1 (1%)	2 (1%)
		SJR at Buckley Cove	ALL	-8 (-2%)	0 (0%)	-4 (-1%)	0 (0%)	-22 (-7%)	0 (0%)	-17 (-5%)	0 (0%)	-12 (-4%)	0 (0%)	-12 (-4%)	0 (0%)	-15 (-4%)	0 (0%)	-16 (-4%)	0 (0%)	-30 (-8%)	1 (0%)	-30 (-9%)	6 (2%)	-26 (-7%)	11 (4%)	-15 (-4%)	1 (0%)	-17 (-5%)
			DROUGHT	-11 (-3%)	0 (0%)	-11 (-3%)	0 (0%)	-33 (-9%)	1 (0%)	-30 (-8%)	1 (0%)	-21 (-6%)	0 (0%)	-22 (-6%)	0 (0%)	-32 (-9%)	-1 (-0%)	-31 (-9%)	0 (0%)	-55 (-15%)	2 (1%)	-35 (-11%)	19 (7%)	-36 (-10%)	36 (13%)	-23 (-6%)	3 (1%)	-28 (-8%)
		Franks Tract	ALL	6 (4%)	9 (6%)	9 (5%)	13 (7%)	2 (1%)	7 (4%)	6 (4%)	3 (2%)	8 (5%)	6 (3%)	9 (5%)	8 (5%)	5 (3%)	6 (3%)	2 (1%)	2 (1%)	1 (0%)	1 (1%)	-5 (-3%)	1 (1%)	-2 (-1%)	1 (0%)	-1 (-1%)	1 (1%)	3 (2%)
			DROUGHT	10 (6%)	3 (2%)	10 (5%)	0 (-0%)	1 (0%)	-2 (-1%)	1 (1%)	-2 (-1%)	-1 (-1%)	0 (0%)	-5 (-4%)	0 (0%)	-4 (-3%)	0 (0%)	-2 (-2%)	-1 (-1%)	1 (1%)	1 (0%)	-5 (-4%)	-2 (-1%)	0 (0%)	1 (1%)	2 (1%)	-4 (-2%)	1 (0%)
		Old R. at Rock Slough	ALL	17 (11%)	16 (10%)	30 (17%)	28 (15%)	3 (1%)	8 (4%)	4 (2%)	1 (1%)	5 (3%)	5 (3%)	9 (4%)	10 (5%)	2 (1%)	3 (1%)	-1 (-0%)	0 (0%)	0 (0%)	1 (1%)	-1 (-1%)	3 (2%)	1 (1%)	3 (2%)	13 (9%)	15 (10%)	7 (4%)
			DROUGHT	20 (13%)	9 (5%)	30 (17%)	12 (6%)	3 (2%)	0 (-0%)	5 (3%)	1 (1%)	-8 (-6%)	-1 (-0%)	-9 (-6%)	0 (-0%)	-11 (-7%)	-5 (-3%)	-2 (-1%)	0 (-0%)	3 (2%)	3 (2%)	3 (2%)	5 (3%)	6 (4%)	4 (2%)	4 (3%)	-2 (-1%)	4 (2%)
	Western Delta	Sac. R. at Emmaton	ALL	2 (1%)	6 (3%)	-1 (-1%)	11 (4%)	0 (0%)	-2 (-1%)	0 (0%)	0 (0%)	1 (1%)	0 (0%)	2 (1%)	1 (1%)	3 (2%)	2 (2%)	5 (3%)	1 (1%)	5 (3%)	-1 (-0%)	9 (6%)	6 (4%)	13 (8%)	5 (3%)	-1 (-0%)	5 (3%)	3 (2%)
			DROUGHT	4 (2%)	4 (1%)	2 (0%)	6 (2%)	5 (2%)	-8 (-3%)	1 (0%)	-3 (-2%)	1 (1%)	-1 (-1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (0%)	-2 (-2%)	1 (1%)	-3 (-2%)	23 (15%)	18 (11%)	25 (15%)	7 (4%)	19 (8%)	-3 (-1%)	7 (4%)
		SJR at Antioch	ALL	-45 (-11%)	2 (0%)	-55 (-11%)	5 (1%)	-14 (-4%)	-1 (-0%)	2 (1%)	2 (1%)	6 (4%)	3 (2%)	8 (5%)	5 (4%)	5 (3%)	4 (3%)	3 (1%)	1 (0%)	4 (2%)	-2 (-1%)	-3 (-1%)	1 (0%)	2 (1%)	-2 (-1%)	-38 (-11%)	-8 (-3%)	-10 (-4%)
			DROUGHT	-25 (-5%)	-1 (-0%)	-48 (-8%)	3 (1%)	-11 (-2%)	-15 (-3%)	-5 (-2%)	-11 (-5%)	4 (2%)	-3 (-2%)	0 (0%)	0 (0%)	0 (0%)	1 (0%)	0 (-0%)	-4 (-2%)	-1 (-1%)	-7 (-3%)	1 (0%)	3 (1%)	15 (5%)	7 (2%)	12 (3%)	-8 (-2%)	-5 (-2%)
		Sac. R. at Mallard Island	ALL	-71 (-9%)	-5 (-1%)	-80 (-9%)	0 (0%)	-19 (-3%)	-4 (-1%)	-5 (-1%)	-3 (-1%)	5 (2%)	0 (0%)	6 (4%)	2 (2%)	5 (3%)	3 (2%)	3 (1%)	-1 (-0%)	9 (3%)	-3 (-1%)	-1 (-0%)	1 (0%)	8 (2%)	-1 (-0%)	-57 (-10%)	-5 (-1%)	-16 (-4%)
			DROUGHT	-62 (-7%)	-2 (-0%)	-89 (-8%)	3 (0%)	-23 (-2%)	-18 (-2%)	-20 (-5%)	-23 (-5%)	7 (2%)	-7 (-2%)	2 (1%)	-1 (-1%)	2 (1%)	1 (0%)	-6 (-2%)	-9 (-3%)	-5 (-1%)	-9 (-3%)	6 (1%)	9 (2%)	20 (4%)	7 (1%)	9 (1%)	-6 (-1%)	-13 (-3%)
	Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	-6 (-5%)	1 (1%)	-1 (-0%)	1 (1%)	2 (1%)	1 (1%)	1 (1%)	0 (0%)	4 (3%)	0 (0%)	0 (0%)	0 (0%)	-3 (-3%)	0 (0%)	-2 (-1%)	-1 (-1%)	-7 (-5%)	-1 (-1%)	-9 (-6%)	-1 (-2%)	-2 (-1%)	2 (1%)	-2 (-2%)	2 (1%)	-2 (-2%)
			DROUGHT	-12 (-8%)	0 (-0%)	-2 (-2%)	-1 (-1%)	2 (1%)	1 (1%)	0 (0%)	0 (0%)	2 (2%)	1 (1%)	2 (2%)	0 (0%)	3 (2%)	1 (1%)	2 (2%)	0 (0%)	-8 (-5%)	-3 (-2%)	-8 (-5%)	-4 (-2%)	4 (2%)	4 (3%)	-4 (-3%)	-1 (-1%)	-2 (-1%)
		Contra Costa PP #1	ALL	6 (3%)	15 (9%)	27 (15%)	28 (16%)	25 (13%)	19 (10%)	4 (2%)	3 (1%)	10 (5%)	-3 (-1%)	18 (9%)	8 (4%)	8 (4%)	12 (5%)	1 (0%)	0 (0%)	-6 (-3%)	1 (1%)	-3 (-2%)	3 (1%)	-8 (-5%)	2 (1%)	1 (1%)	4 (3%)	7 (4%)
			DROUGHT	13 (7%)	12 (6%)	29 (16%)	12 (6%)	4 (2%)	2 (1%)	-1 (-1%)	-1 (-1%)	-3 (-2%)	-4 (-3%)	-14 (-8%)	-4 (-2%)	-11 (-6%)	-2 (-1%)	0 (0%)	-4 (-2%)	-2 (-1%)	2 (1%)	4 (3%)	7 (4%)	-4 (-3%)	0 (0%)	-2 (-1%)	-5 (-3%)	1 (1%)
		Banks PP	ALL	-16 (-8%)	-19 (-10%)	-30 (-14%)	-39 (-17%)	-7 (-3%)	-6 (-3%)	-17 (-8%)	-17 (-8%)	-39 (-16%)	-37 (-15%)	-41 (-16%)	-36 (-14%)	-67 (-23%)	-63 (-22%)	-44 (-14%)	-43 (-14%)	-43 (-15%)	-42 (-15%)	-17 (-9%)	-15 (-8%)	-4 (-2%)	0 (-0%)	-21 (-12%)	-20 (-11%)	-29 (-13%)
			DROUGHT	-16 (-9%)	-27 (-14%)	-18 (-9%)	-36 (-16%)	-7 (-4%)	-10 (-5%)	-11 (-6%)	-11 (-6%)	-9 (-4%)	0 (-0%)	-35 (-15%)	-16 (-8%)	-49 (-19%)	-35 (-15%)	-21 (-9%)	-14 (-6%)	-16 (-7%)	-11 (-5%)	11 (7%)	9 (5%)	18 (11%)	14 (9%)	8 (5%)	1 (0%)	-12 (-6%)
		Jones PP	ALL	11 (5%)	2 (1%)	-36 (-15%)	-47 (-19%)	-8 (-3%)	-7 (-3%)	-46 (-17%)	-47 (-17%)	-31 (-10%)	-25 (-8%)	-77 (-24%)	-75 (-24%)	-45 (-13%)	-46 (-13%)	-67 (-19%)	-68 (-20%)	-38 (-14%)	-40 (-14%)	0 (-0%)	-4 (-2%)	-3 (-1%)	-4 (-2%)	-19 (-9%)	-29 (-13%)	-30 (-11%)
			DROUGHT	24 (11%)	8 (3%)	-36 (-16%)	-61 (-24%)	-3 (-1%)	-5 (-2%)	-17 (-7%)	-19 (-7%)	-28 (-9%)	-9 (-3%)	-80 (-25%)	-70 (-23%)	-37 (-11%)	-34 (-10%)	-64 (-20%)	-67 (-20%)	-14 (-6%)	-14 (-6%)	5 (3%)	-6 (-4%)	24 (14%)	13 (7%)	3 (2%)	-3 (-2%)	-19 (-7%)

^a ALL: Water years 1976-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index).

1 **Table Bo-31. Period average percentage changes in available assimilative capacity under Alternative 5A ELT, relative to existing conditions and No Action Alternative ELT, based on the 500 µg/L agricultural objective.**

Boron	Location	Period ^a	OCT		NOV		DEC		JAN		FEB		MAR		APR		MAY		JUN		JUL		AUG		SEP		Annual Avg. Change	
			Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT	Ex. Cond.	No Act. ELT
Alt 5A ELT																												
Delta Interior	Moke. R. (SF) at Staten Island	ALL	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-1	-1	-1	-1	-1	0	0	0
		DROUGHT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-3	-3	-2	-1	-1	0	0	0
	SJR at Buckley Cove	ALL	5	0	3	0	13	0	10	0	8	0	7	0	11	0	11	0	22	0	21	-3	19	-6	10	-1	11	-1
		DROUGHT	7	0	7	0	22	0	21	0	14	0	14	0	23	0	23	0	44	-1	21	-8	24	-16	17	-2	20	-3
	Franks Tract	ALL	-2	-3	-3	-4	-1	-2	-2	-1	-2	-2	-3	-3	-2	-2	-1	-1	0	0	1	0	0	0	0	0	-1	-1
		DROUGHT	-3	-1	-3	0	0	1	0	1	0	0	1	0	1	0	1	0	0	0	2	0	0	0	-1	1	0	0
	Old R. at Rock Slough	ALL	-5	-5	-9	-9	-1	-2	-1	0	-1	-1	-3	-3	-1	-1	0	0	0	0	0	-1	0	-1	-4	-4	-2	-2
		DROUGHT	-6	-3	-9	-4	-1	0	-1	0	2	0	3	0	3	1	1	0	-1	-1	-1	-1	-2	-1	-1	1	-1	-1
	Western Delta	Sac. R. at Emmaton	ALL	-1	-2	1	-4	0	1	0	0	0	0	0	-1	-1	-1	0	-1	0	-3	-2	-4	-1	0	-2	-1	-1
			DROUGHT	-2	-2	-1	-3	-2	3	0	1	0	0	0	0	0	0	1	0	1	-7	-5	-8	-2	-7	1	-2	0
SJR at Antioch		ALL	58	-1	-	-10	11	1	-1	-1	-2	-1	-2	-2	-1	-1	-1	0	-1	1	1	0	-1	1	25	4	4	0
		DROUGHT	-	3	-	-	61	-	2	4	-1	1	0	0	0	0	1	0	2	-1	-1	-7	-3	-11	9	2	1	
Sac. R. at Mallard Island		ALL	-	-	-	-	-	-	3	2	-2	0	-2	-1	-1	-1	-1	1	-5	2	1	-2	-13	1	-	-	27	2
		DROUGHT	-	-	-	-	-	-	24	27	-3	4	-1	0	-1	0	4	5	4	7	-25	-35	-57	-31	-	-	-	-
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	ALL	2	0	0	0	0	0	0	0	-1	0	0	0	1	0	1	0	2	0	3	0	1	0	1	-1	1	0
		DROUGHT	3	0	1	0	0	0	0	0	0	0	-1	0	-1	0	-1	0	2	1	2	1	-1	-1	1	0	0	0
	Contra Costa PP #1	ALL	-2	-4	-8	-9	-8	-6	-1	-1	-3	1	-6	-3	-3	-4	0	0	2	0	1	-1	2	-1	0	-1	-2	-3
		DROUGHT	-4	-4	-9	-4	-1	-1	0	0	1	1	4	1	3	1	0	1	1	-1	-1	-2	1	0	1	2	0	0
	Banks PP	ALL	5	6	11	14	2	2	6	6	15	14	17	15	31	29	22	22	19	19	6	5	1	0	6	6	11	10
		DROUGHT	5	9	6	13	2	3	3	3	3	0	13	6	19	13	9	6	6	4	-3	-3	-5	-4	-3	0	4	4
	Jones PP	ALL	-4	-1	14	19	3	3	20	21	16	13	42	40	28	29	43	44	17	18	0	1	1	1	7	10	13	14
		DROUGHT	-8	-3	13	25	1	2	7	8	14	4	44	37	21	19	37	39	5	5	-1	2	-7	-4	-1	1	7	9
^a ALL: Water years 1975-1991 represent the 16-year period modeled using DSM2. DROUGHT: Represents a 5 consecutive year (water years 1987-1991) drought period consisting of dry and critical water year types (as defined by the Sacramento Valley 40-30-30 water year hydrologic classification index). NOTES: -- Positive values indicate that implementation of the Alternative increases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality improves under the Alternative, relative to Existing Conditions or the No Action Alternative). Negative values indicate that implementation of the Alternative decreases assimilative capacity available under Existing Conditions or the No Action Alternative (i.e., water quality degradation occurs under the Alternative, relative to Existing Conditions or the No Action Alternative). Values of -100% represent instances where all available assimilative capacity is used under the Alternative, and therefore concentrations are at or above the criteria. -- Water Quality Objective is the 500 ug/L agricultural criterion.																												

1 **Table Bo-32. Flow-Boron Concentration Regression for San Joaquin River at Vernalis – Data Used in Assessment and Results**

Alternative	Average Annual Flow (cfs)	Annual Average Concentration (ug/L)	% Change in Flow			Change in Concentration (ug/L)			% Change in Concentration		
			Alt- EC	Alt- NA ELT	Alt- NA LLT	Alt- EC	Alt- NA ELT	Alt- NA LLT	Alt- EC	Alt- NA ELT	Alt- NA LLT
Existing Conditions	4237	307	--	--	--	--	--	--	--	--	--
No Action LLT	3987	314	-5.9%	--	--	7.6	--	--	2.5%	--	--
Alternative 1 LLT	3994	314	-5.7%	--	0.2%	7.4	--	-0.2	2.4%	--	-0.1%
Alternative 2 LLT	3985	314	-5.9%	--	-0.1%	7.7	--	0.1	2.5%	--	0.0%
Alternative 3 LLT	3993	314	-5.8%	--	0.2%	7.4	--	-0.2	2.4%	--	-0.1%
Alternative 4 H1 LLT	3988	314	-5.9%	--	0.0%	7.6	--	0.0	2.5%	--	0.0%
Alternative 4 H2 LLT	3991	314	-5.8%	--	0.1%	7.5	--	-0.1	2.4%	--	0.0%
Alternative 4 H3 LLT	3987	314	-5.9%	--	0.0%	7.6	--	0.0	2.5%	--	0.0%
Alternative 4 H4 LLT	3992	314	-5.8%	--	0.1%	7.4	--	-0.2	2.4%	--	-0.1%
Alternative 5 LLT	3990	314	-5.8%	--	0.1%	7.5	--	-0.1	2.5%	--	0.0%
Alternative 6 LLT	3989	314	-5.9%	--	0.1%	7.5	--	-0.1	2.5%	--	0.0%
Alternative 7 LLT	3987	314	-5.9%	--	0.0%	7.6	--	0.0	2.5%	--	0.0%
Alternative 8 LLT	3989	314	-5.9%	--	0.1%	7.5	--	-0.1	2.5%	--	0.0%
Alternative 9 LLT	3992	314	-5.8%	--	0.1%	7.4	--	-0.2	2.4%	--	-0.1%
No Action ELT	4184	308	-1.3%	--	--	1.6	--	--	0.5%	--	--
Alternative 4A ELT	4187	308	-1.2%	0.1%	--	1.5	-0.1	--	0.5%	0.0%	--
Alternative 2D ELT	4186	308	-1.2%	0.0%	--	1.5	-0.1	--	0.5%	0.0%	--
Alternative 5A ELT	4187	308	-1.2%	0.1%	--	1.5	-0.1	--	0.5%	0.0%	--

Baselines Flows (cfs, Average all Years)		
EC	ELT	LLT
4237	4184	3987

$B_0 = B_1(\text{annual flow}^{B_2})$	
B_1	8876
B_2	-0.403

Baselines Concentrations (ug/L, Average All Years)		
EC	ELT	LLT
307	308	314

2