

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.

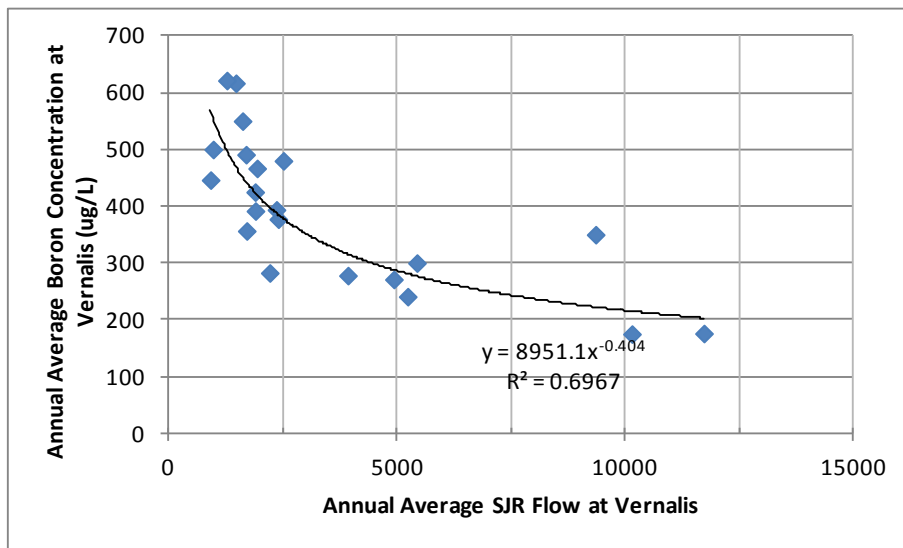
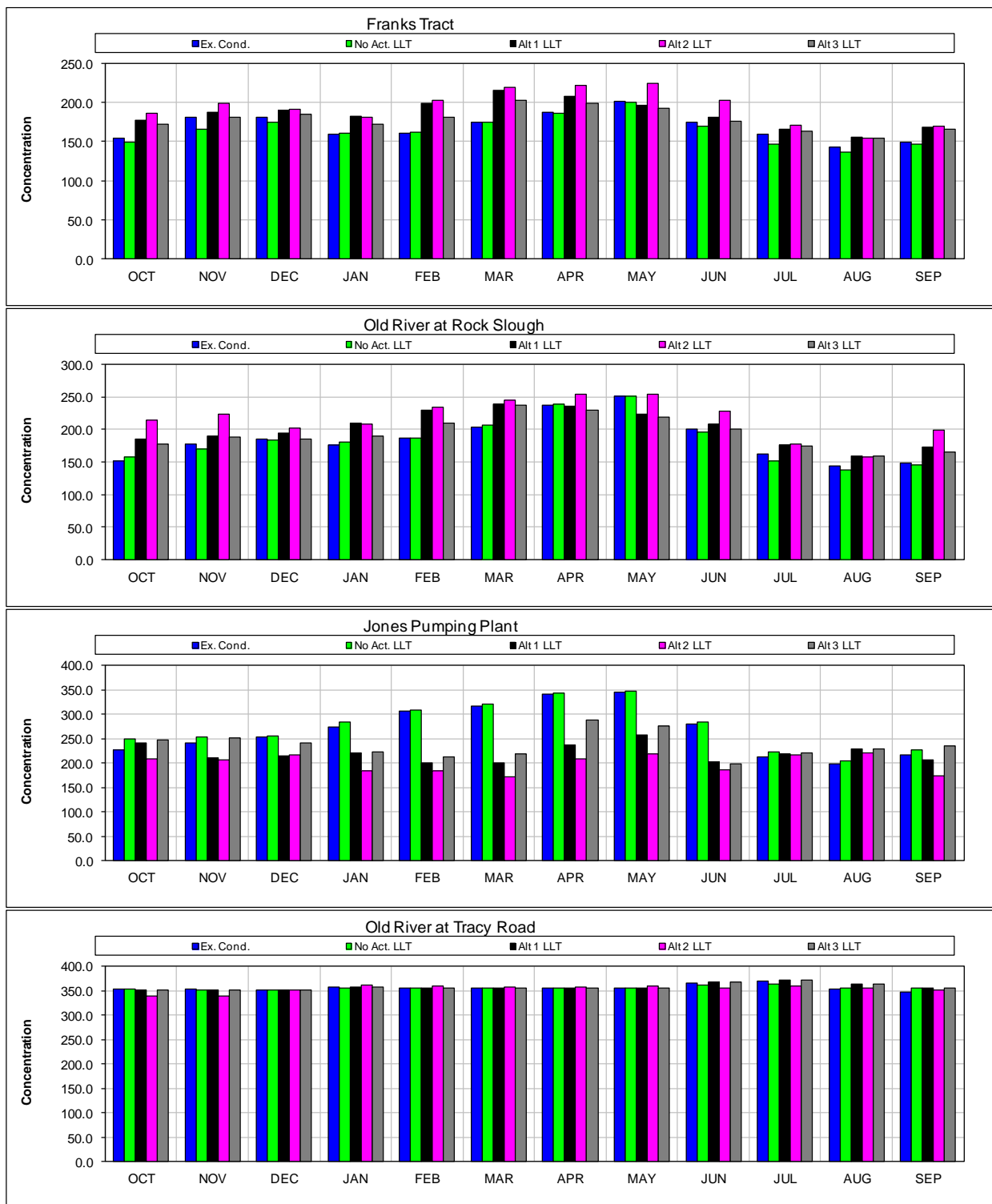
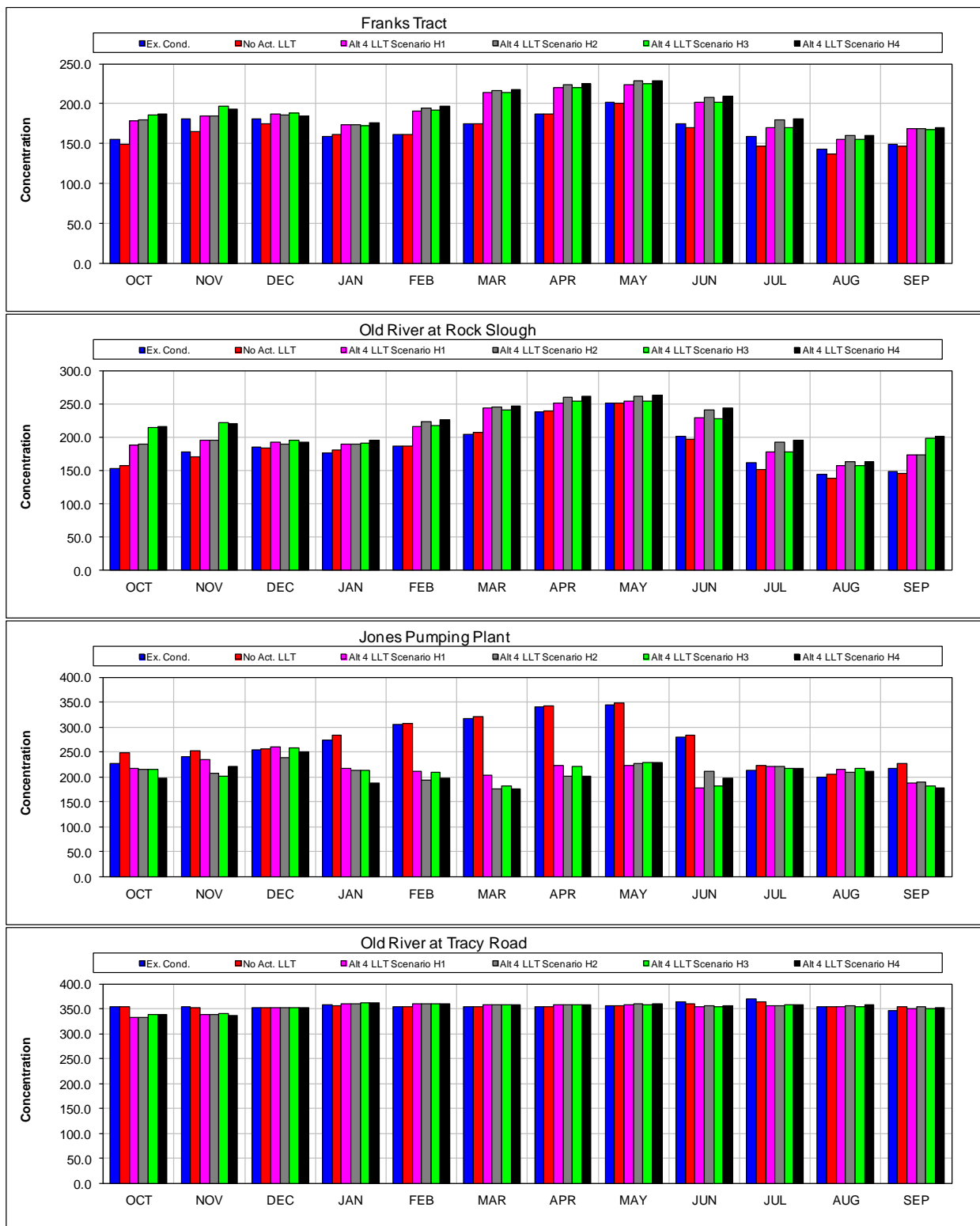


Figure Bo-1: Annual average flow to boron ratio for the San Joaquin River at Vernalis.

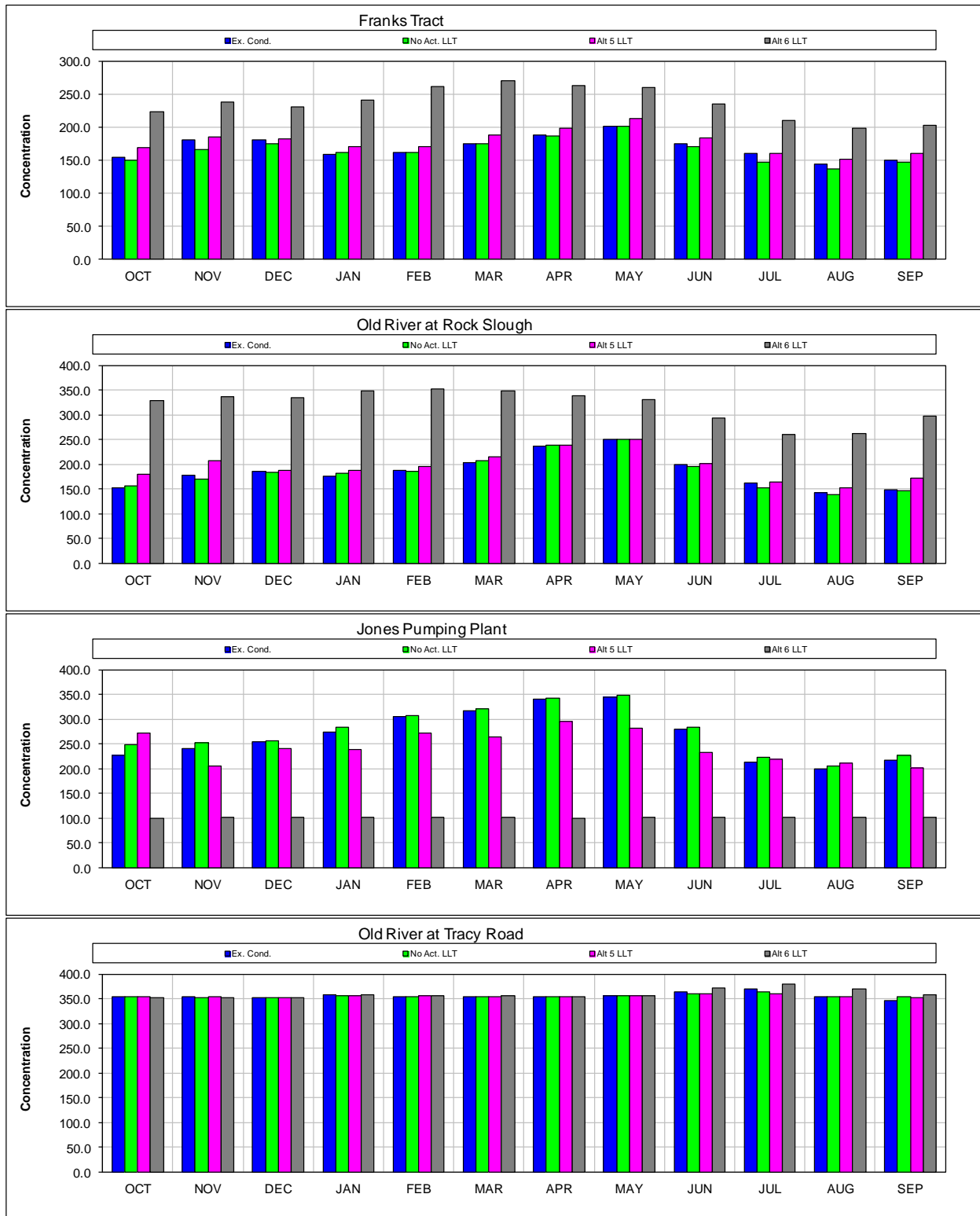
1 **Figure Bo-2. Long term average estimated boron concentrations at Franks Tract, Old River at Rock**
 2 **Slough, Jones Pumping Plant, and Old River at Tracy Road for existing conditions, No Action LLT, and**
 3 **Alternatives 1-3 (µg/L).**



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

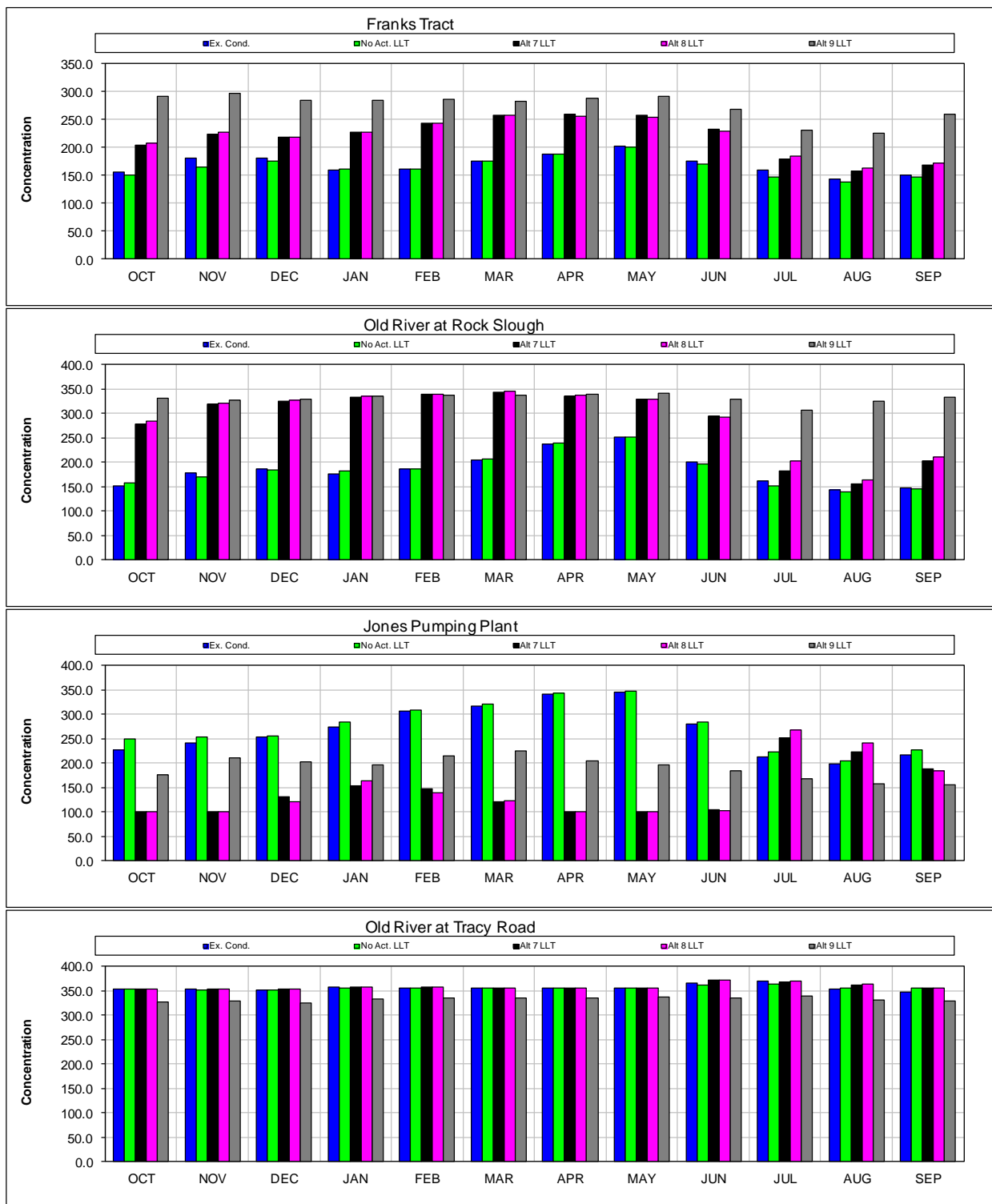


1 **Figure Bo-4. Long term average estimated boron concentrations at Franks Tract, Old River at Rock**
 2 **Slough, Jones Pumping Plant, and Old River at Tracy Road for existing conditions, No Action LLT, and**
 3 **Alternatives 5 and 6 (µg/L).**



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



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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.

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

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

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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									
			Ex. Cond.	No Act. LLT	Frequency of Criterion/Objective Exceedance (%)									
					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	
		DROUGHT	180.4	185.6	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. *Water Quality for Agriculture*. 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) ^d					
			Ex. Cond.	No Act. LLT	H1	H2	H3	H4	Frequency of Criterion/Objective Exceedance (%)											
									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 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-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	0	
	SJR at Buckley Cove	ALL	1	0	1	1	1	1	1	1	1	2	3	4	1	1	
		DROUGHT	1	1	2	2	1	1	2	2	2	4	5	7	3	3	
	Franks Tract	ALL	0	1	0	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	0	
	Old R. at Rock Slough	ALL	0	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	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	0	-1	0	-1	-2	0	
	SJR at Antioch	ALL	6	6	1	0	0	0	0	0	0	0	1	0	1	1	
		DROUGHT	6	6	1	-1	-1	0	0	0	-1	-1	1	0	-2	1	
	Sac. R. at Mallard Island	ALL	9	9	1	0	0	0	0	0	-1	-1	2	0	3	1	
		DROUGHT	11	13	2	-1	-1	0	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	0	
		DROUGHT	0	0	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	0	1	1	0	0	
		DROUGHT	0	-1	1	-1	0	0	0	0	0	0	0	1	0	0	0
	Banks PP	ALL	0	0	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	0	0
	Jones PP	ALL	-1	-1	0	-1	0	0	0	0	0	0	-1	0	-1	0	0
		DROUGHT	-2	-1	0	0	0	0	0	0	0	-1	-1	0	0	0	-1

^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 2000 ug/L recommended human health criterion.

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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	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	24	51	47	77	32	29
	Franks Tract	ALL	1	5	2	-1	0	0	0	0	0	2	4	2	1	1
		DROUGHT	-1	3	0	0	-1	0	0	0	0	-1	1	1	-2	0
	Old R. at Rock Slough	ALL	-1	2	1	-2	0	-1	-1	-1	0	1	3	1	1	0
		DROUGHT	-5	0	-3	-1	0	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	-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.

2

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

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

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	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%)	(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	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 Emmaton	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%)	(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%)		

^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	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	-	-	-	-	-	-	-	-	
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 3A LLT, relative to the existing conditions and No Action Alternative LLT.**

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	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%)		
		SJR at Buckley Cove	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%)		
		Franks Tract	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%)		
	Old R. at Rock Slough	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%)			
	Sac. R. at Emmaton	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%)			
	SJR at Antioch	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%)			
Sac. R. at Mallard Island	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%)				
NBA at Barker Slough PP	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%)				
Contra Costa PP#1	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%)				
Banks PP	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%)				
Jones PP	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%)				
Major Diversions (Pumping Stations)	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%)				
NBA at Barker Slough PP	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%)				
Contra Costa PP#1	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%)				
Banks 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%)				
Jones PP	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%)	(-21%)	(-19%)	(-23%)	(-20%)	(-23%)	(-20%)	(-20%)	(-20%)	(-14%)	(-14%)			
Major Diversions (Pumping Stations)	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%)				
Major Diversions (Pumping Stations)	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%)				
Major Diversions (Pumping Stations)	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%)				
Major Diversions (Pumping Stations)	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%)				
Major Diversions (Pumping Stations)	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%)				
Major Diversions (Pumping Stations)	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%)				

^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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3
4

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

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

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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	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	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%)		
		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%)		
		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%)		
	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%)			
	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%)		
		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%)		
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%)			
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%)			
	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%)			
	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%)	(-52%)	(-53%)	(-58%)	(-58%)	(-62%)	(-61%)	(-65%)	(-65%)	(-67%)	(-67%)	(-64%)	(-64%)	(-49%)	(-48%)	(-41%)	(-39%)	(-43%)	(-42%)	(-56%)	(-56%)			
	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%)			
	Major Diversions (Pumping Stations)	Jones PP	ALL	-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%)		

^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-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	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	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%)	(10%)	(9%)	(9%)	(10%)
		SJR at Buckley Cove	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%)	
		Franks Tract	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	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 Ermaton	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%)	
		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	-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	-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%)		
	Contra Costa PP #1	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%)		
	Banks 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	-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%)		
				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%)

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

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	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%)	
	SJR at Buckley Cove	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%)	
		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%)	
	Franks Tract	ALL	53	58	46	62	37	44	67	65	81	80	81	82	69	69	53	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%)	
	Western Delta	Sac. R. at Ermaton	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%)
			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%)
		SJR at Antioch	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%)	
Major Diversions (Pumping Stations)	NBA at Barker Slough PP	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%)	
		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%)	(-14%)	(-15%)	(-21%)	(-22%)	(-20%)	(-24%)	(-21%)	(-24%)	(-21%)	(-21%)	(-14%)	(-14%)			
	Contra Costa PP #1	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%)	
	Banks PP	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%)	
	Jones PP	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%)	
		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%)	

^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-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 µg/L agricultural criterion.

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

^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-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	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	-2	-1	-2	1
Delta Interior	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 µg/L agricultural criterion.

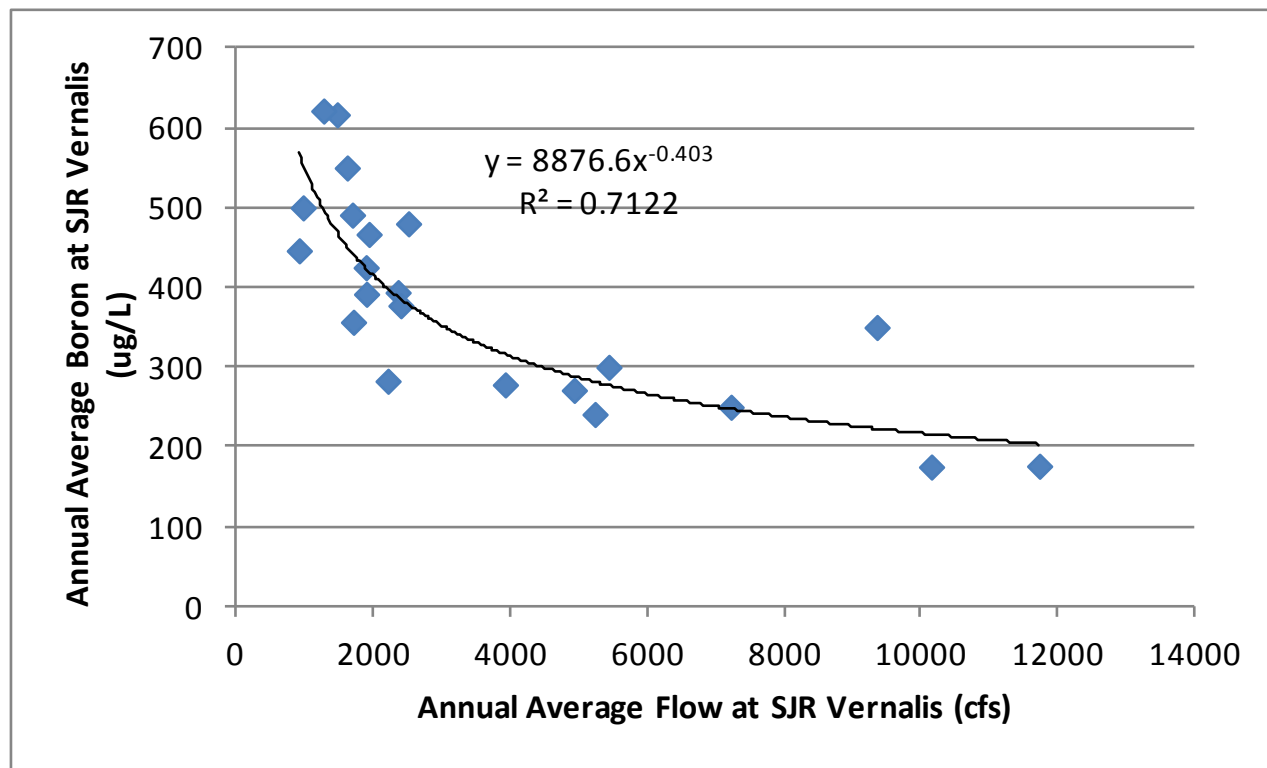
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1 **Table Bo-24. Flow-Boron Concentration Regression for San Joaquin River at Vernalis – Data Used in Assessment and Results**

Baselines Flows (cfs, Average all Years)			Bo = B ₁ (annual flow ^{B₂})					
EC	NT	LLT	B ₁	8876				
4237	4187	3987	B ₂	-0.403				
Baselines Concentrations (ug/L, Average All Years)								
EC	NT	LLT						
307	308	314						

Alternative	Flow (cfs)	Concentration (ug/L)	% Change in Flow		Change in Concentration (ug/L)		% Change in Concentration	
			Alt - EC	Alt - LLT	Alt - EC	Alt - LLT	Alt - EC	Alt - LLT
NA	3987	314	-5.9%		7.6		2.5%	
1	3994	314	-5.7%	0.2%	7.4	-0.2	2.4%	-0.1%
2	3985	314	-5.9%	-0.1%	7.7	0.1	2.5%	0.0%
3	3993	314	-5.8%	0.2%	7.4	-0.2	2.4%	-0.1%
4 H1	3988	314	-5.9%	0.0%	7.6	0.0	2.5%	0.0%
4 H2	3991	314	-5.8%	0.1%	7.5	-0.1	2.4%	0.0%
4 H3	3987	314	-5.9%	0.0%	7.6	0.0	2.5%	0.0%
4 H4	3992	314	-5.8%	0.1%	7.5	-0.2	2.4%	0.0%
5	3990	314	-5.8%	0.1%	7.5	-0.1	2.5%	0.0%
6	3989	314	-5.9%	0.1%	7.5	-0.1	2.5%	0.0%
7	3987	314	-5.9%	0.0%	7.6	0.0	2.5%	0.0%
8	3989	314	-5.9%	0.1%	7.5	-0.1	2.5%	0.0%
9	3992	314	-5.8%	0.1%	7.4	-0.2	2.4%	-0.1%

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