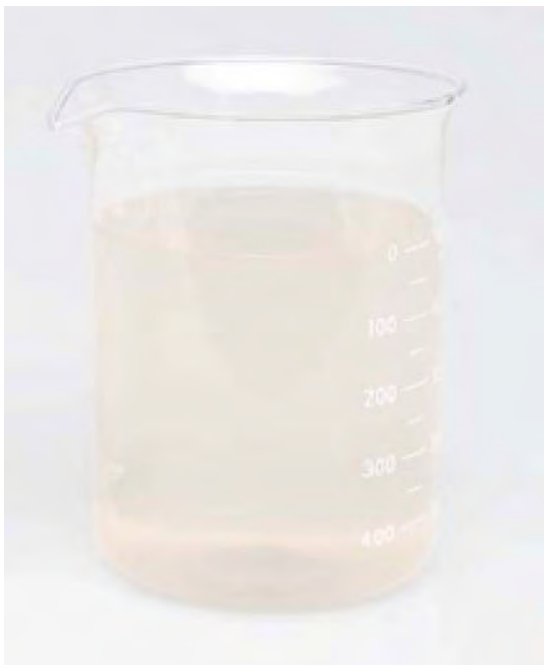
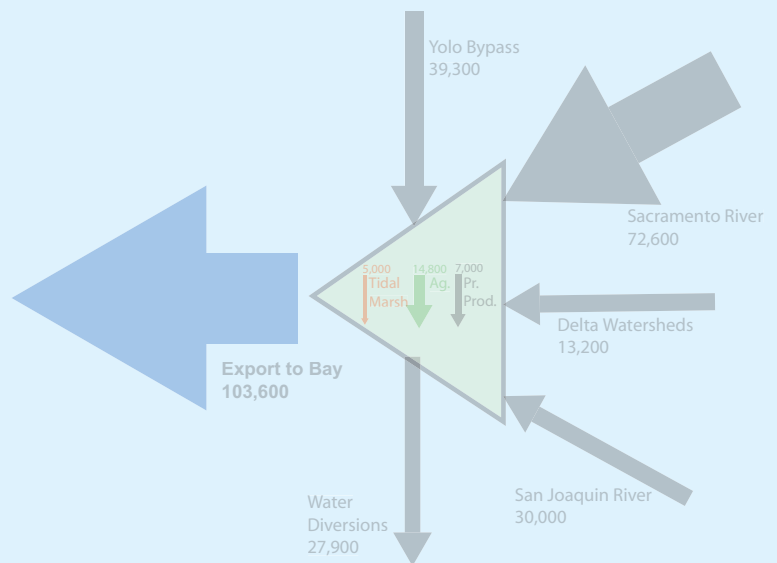


APPENDIX A

SUMMARY OF ORGANIC CARBON DATA



Wet Years
ORGANIC CARBON LOADS (Tons)



Appendix A: Organic Carbon Data

StationName	DOC Data Points	TOC Data Points	UVA254 Data Points	First Sample Date	Last Sample Date	Location Information?
2514 Ponderosa Lane	0	1	0	2/24/1988	2/24/1988	No
A0-5975	1	1	0	4/24/2002	4/24/2002	No
Ag Drain on Bacon Island, PP. No. 1	92	21	90	1/23/1990	6/7/2000	No
Ag Drain on Bacon Island, PP. No. 2	26	0	24	1/23/1990	7/19/1994	No
Ag Drain on Bouldin Tract, PP. No. 1	54	5	26	3/26/1987	7/18/1994	No
Ag Drain on Bouldin Tract, PP. No. 2	54	6	26	3/26/1987	7/18/1994	No
Ag Drain on Brannan Island, PP. No. 1	31	6	24	8/6/1987	7/18/1994	No
Ag Drain on Brannan Island, PP. No. 2	29	6	21	8/6/1987	7/18/1994	No
Ag Drain on Brannan Island, PP. No. 3	30	4	22	8/6/1987	7/18/1994	No
Ag Drain on Brannan Island, PP. No. 4	32	5	24	8/6/1987	7/18/1994	No
Ag Drain on Clifton Court	31	3	25	3/7/1988	7/19/1994	No
Ag Drain on Colusa Basin Main Drain	16	16	12	10/21/1987	3/22/1995	No
Ag Drain on Egbert Tract, PP. No. 1	5	5	0	3/30/1987	6/30/1989	No
Ag Drain on Egbert Tract, PP. No. 2	4	6	0	3/30/1987	6/30/1989	No
Ag Drain on Grand Island	30	26	0	1/13/1987	12/12/1989	No
Ag Drain on Holland Tract, PP. No. 1	28	0	26	1/23/1990	7/18/1994	No
Ag Drain on Holland Tract, PP. No. 2	28	0	26	1/23/1990	7/18/1994	No
Ag Drain on Holland Tract, PP. No. 3	28	0	26	1/23/1990	7/18/1994	No
Ag Drain on Jersey Island	34	0	34	6/20/1994	9/2/1997	No
Ag Drain on King Island, PP. No. 1	31	6	23	3/26/1987	7/18/1994	No
Ag Drain on King Island, PP. No. 2	21	6	12	3/26/1987	4/20/1992	No
Ag Drain on King Island, PP. No. 3	34	7	26	3/26/1987	7/18/1994	No
Ag Drain on Lower Jones Tr., PP. No. 1	20	0	19	7/19/1989	7/19/1994	No
Ag Drain on Lower Jones Tr., PP. No. 2	16	0	15	7/19/1989	7/19/1994	No
Ag Drain on Mandeville Island PP. No. 01	17	0	17	7/31/1991	7/19/1994	No
Ag Drain on Mandeville Island PP. No. 02	18	0	18	7/31/1991	7/19/1994	No
Ag Drain on McCormack/Williams Tr. No.1	5	4	0	3/25/1987	6/29/1989	No
Ag Drain on McCormack/Williams Tr. No.2	5	5	0	3/25/1987	6/29/1989	No
Ag Drain on Moss Tract, PP. No. 1	0	1	0	3/30/1987	3/30/1987	No
Ag Drain on Moss Tract, PP. No. 2	3	5	0	3/30/1987	1/4/1989	No
Ag Drain on Moss Tract, PP. No. 3	2	6	0	3/30/1987	1/4/1989	No
Ag Drain on Mossdale Tract, PP. No. 1	6	2	0	3/31/1987	6/27/1989	No
Ag Drain on Mossdale Tract, PP. No. 10	4	5	0	3/31/1987	1/4/1989	No
Ag Drain on Mossdale Tract, PP. No. 11	6	3	0	8/14/1987	6/27/1989	No
Ag Drain on Mossdale Tract, PP. No. 2	5	5	0	3/31/1987	6/27/1989	No
Ag Drain on Mossdale Tract, PP. No. 3	1	1	0	3/31/1987	8/14/1987	No
Ag Drain on Mossdale Tract, PP. No. 4	4	5	0	3/31/1987	1/4/1989	No
Ag Drain on Mossdale Tract, PP. No. 5	1	1	0	3/31/1987	8/14/1987	No
Ag Drain on Mossdale Tract, PP. No. 6	1	1	0	3/31/1987	8/5/1987	No
Ag Drain on Mossdale Tract, PP. No. 7	0	1	0	3/31/1987	3/31/1987	No
Ag Drain on Mossdale Tract, PP. No. 8	1	2	0	8/5/1987	4/19/1988	No
Ag Drain on Mossdale Tract, PP. No. 9	1	3	0	3/31/1987	4/19/1988	No
Ag Drain on Netherland Tr., PP. No. 1	6	5	0	3/25/1987	6/30/1989	No
Ag Drain on Netherland Tr., PP. No. 2	6	5	0	3/25/1987	6/30/1989	No
Ag Drain on Orwood Tract	16	0	16	7/31/1991	7/18/1994	No
Ag Drain on Palm Tract	16	0	16	7/31/1991	6/20/1994	No
Ag Drain on Pescadero Tr., PP. No. 1	57	4	51	4/1/1987	9/2/1997	No
Ag Drain on Pescadero Tr., PP. No. 2	29	3	22	4/1/1987	7/19/1994	No
Ag Drain on Pescadero Tr., PP. No. 3	29	4	22	4/1/1987	7/19/1994	No
Ag Drain on Pescadero Tract, PP. No. 4	11	1	6	4/19/1988	4/21/1992	No
Ag Drain on Pierson Tr., PP. No. 1	6	5	0	3/25/1987	6/30/1989	No
Ag Drain on Prospect Island, PP. No. 1	3	5	0	3/25/1987	7/22/1988	No
Ag Drain on Prospect Island, PP. No. 2	0	1	0	3/25/1987	3/25/1987	No
Ag Drain on Rindge Tract, PP. No. 1	14	7	6	3/26/1987	4/18/1991	No
Ag Drain on Rindge Tract, PP. NO. 2	31	6	22	3/26/1987	7/18/1994	No
Ag Drain on Rio Blanco Tr., PP. No. 1	7	6	0	3/26/1987	6/28/1989	No
Ag Drain on Rio Blanco Tr., PP. No. 2	6	6	0	3/26/1987	6/28/1989	No
Ag Drain on Shima Tract	6	6	0	3/26/1987	6/26/1989	No
Ag Drain on Staten Island PP. No. 1	19	0	19	7/31/1991	7/18/1994	No

Appendix A: Organic Carbon Data

StationName	DOC Data Points	TOC Data Points	UVA254 Data Points	First Sample Date	Last Sample Date	Location Information?
Ag Drain on Staten Island PP. No. 2	52	0	52	7/31/1991	9/3/1997	No
Ag Drain on Terminous Tract, PP. No. 1	6	5	0	8/6/1987	6/29/1989	No
Ag Drain on Terminous Tract, PP. No. 2	6	6	0	3/26/1987	6/29/1989	No
Ag Drain on Twitchell Isl., PP. No. 1	49	25	48	7/19/1989	10/3/2000	No
Ag Drain on Tyler Island	1	5	0	1/13/1987	6/24/1987	No
Ag Drain on Tyler Island, PP. No. 1	0	1	0	3/30/1987	3/30/1987	No
Ag Drain on Tyler Island, PP. No. 2	0	1	0	3/30/1987	3/30/1987	No
Ag Drain on Upper Egbert Tr., PP. No. 1	5	4	0	8/13/1987	6/30/1989	No
Ag Drain on Upper Egbert Tr., PP. No. 2	6	3	0	8/13/1987	6/30/1989	No
Ag Drain on Upper Egbert Tr., PP. No. 3	5	3	0	8/13/1987	6/30/1989	No
Ag Drain on Upper Jones Tr., PP. No. 1	1	1	0	3/30/1987	1/23/1990	No
Ag Drain on Upper Jones Tr., PP. No. 2	51	5	25	3/30/1987	7/19/1994	No
Ag Drain on Venice Island	40	0	40	7/31/1991	9/3/1997	No
Ag Drain on Webb Tract, PP. No. 1	17	0	16	2/27/1990	4/19/1993	No
Ag Drain on Webb Tract, PP. No. 2	16	0	15	2/27/1990	4/19/1993	No
Ag Drain on Woodward Island	15	0	15	7/31/1991	6/22/1994	No
AG-DR W-ED EMPIRE T S-SI ATHERTON	63	33	28	1/13/1987	7/18/1994	No
AMERICAN R A SACTO WT PLT	129	70	121	1/8/1987	9/5/2000	Yes
American River at Discovery Park	191	88	20	12/15/1992	6/8/2004	Yes
American River at Hwy Business 80	2	3	2	12/14/2003	4/13/2004	No
American River below Nimbus Dam	88	86	16	1/7/1993	6/9/2004	Yes
Arcade Creek near Del Paso Heights	37	0	0	2/6/1996	4/23/1998	Yes
Arcade Creek at Norwood Ave.	9	0	0	9/21/1999	5/17/2000	No
Barker Sl @ North Bay PP	137	182	122	12/17/1997	9/15/2004	Yes
Barker Slough @ Cook Road	54	3	53	7/1/1996	1/29/1998	No
Barker Slough at Cook Road.	1	1	1	2/2/1998	2/2/1998	No
Barker Slough at Dally Road	5	2	5	10/22/1997	1/29/1998	No
Barker Slough at Hay Road	7	4	7	10/22/1997	2/2/1998	No
BARKER SLU AT PUMP HOUSE	0	12	0	9/3/1987	8/2/1988	Yes
Battle Creek at Grover Road	25	0	0	10/22/2002	9/16/2003	Yes
Bear Creek	0	3	0	2/1/2000	12/5/2001	No
Bear Creek at Lower Sacramento Road	0	6	0	9/24/2002	11/22/2004	No
Bear Creek at Thornton Road	0	15	0	10/24/2000	8/27/2002	Yes
Bear Creek near Bert Crane Road	0	22	0	10/26/2000	11/23/2004	Yes
Bear R NR Mouth	1	1	0	4/24/2002	4/24/2002	Yes
Bear River at Forty Mile Road	102	0	0	10/13/1999	9/16/2003	Yes
Between Navy and RR bridges	22	22	0	7/27/2000	10/3/2001	No
Bouldin Siphon @ S. Mokelumne River	18	0	0	8/10/1988	7/21/1989	No
Byron Tract AG Drain	1	0	0	5/29/1996	5/29/1996	No
Byron Tract AG Drain 2	1	0	0	5/29/1996	5/29/1996	No
Byron Tract AG Drain3	1	0	0	5/29/1996	5/29/1996	No
CA Aqueduct, Ck 12, O'Neill Inlet	0	1	0	7/12/1988	7/12/1988	No
CA Aqueduct, Ck 13, O'Neill Outlet	12	1	12	7/12/1988	8/20/1991	No
Cache Creek at Hwy 113	102	0	0	10/13/1999	9/15/2003	Yes
Cache Sl @ Mouth of Miner Sl	1	0	0	7/21/1988	7/21/1988	No
Cache Slough near Ryer Island Ferry	3	0	0	10/20/1999	2/16/2000	Yes
CACHE SLU A VALLEJO PUPL	2	0	2	12/17/1991	1/22/1992	No
Calaveras River	0	2	0	2/1/2000	11/6/2000	No
Calaveras River at 4250 North West Lane	0	18	0	2/6/1999	6/13/2004	No
Calaveras River at Ashley Lane	5	0	0	10/12/1999	3/3/2000	Yes
Calaveras River at CR45	0	12	0	2/6/1999	3/6/2002	No
Calaveras River at El Dorado Street	0	6	0	4/12/2003	6/13/2004	No
Calaveras River at Hwy 26	86	0	0	4/29/2000	9/17/2003	Yes
Calaveras River at Hwy 88	0	3	0	5/20/2002	6/24/2002	Yes
Calaveras River at Monte Vista Trailhead	0	5	0	5/20/2002	12/12/2002	Yes
Calaveritas Creek at Hwy 49	0	5	0	5/15/2002	12/12/2002	Yes
CALHOUN CUT AT HWY 113	55	9	54	7/1/1996	3/29/2000	Yes
Campbell Ranch lake diversion culvert	1	23	0	11/12/1998	3/29/2000	No
CCID Main Canal at JT Crow Road	0	1	0	11/17/2004	11/17/2004	No

Appendix A: Organic Carbon Data

StationName	DOC Data Points	TOC Data Points	UVA254 Data Points	First Sample Date	Last Sample Date	Location Information?
City of Davis-Effluent	12	12	0	1/28/2002	12/3/2002	Yes
City of Davis-R1	12	12	0	1/28/2002	12/3/2002	Yes
City Of Stockton Treatment Plant	16	24	0	6/20/2000	8/28/2001	No
Clifton Court Intake	52	27	47	1/22/1987	10/20/1994	No
Colusa Basin Drain	73	32	5	1/26/1993	5/15/2002	Yes
Colusa Basin Drainage at Knights Landing	102	0	0	10/13/1999	9/15/2003	Yes
Concow C A Jordan Hill RD	2	2	0	4/23/2002	5/15/2002	Yes
Connection Sl. at Mandeville Isl Bridge	10	0	9	1/24/1990	1/23/1992	No
CONNECTION SLU ,L, VENICE FY	30	26	22	1/13/1987	7/20/1994	No
Contra Costa PP Number 01	206	95	198	10/2/1990	9/8/2004	Yes
Cosumnes River at Gold Beach Park	0	5	0	6/11/2002	12/10/2002	Yes
Cosumnes River at Hwy 49	0	5	0	6/11/2002	12/10/2002	Yes
Cosumnes River at Michigan Bar Road	0	2	0	6/11/2002	11/5/2002	Yes
Cosumnes River at Twin Cities Road1	65	0	0	12/21/1999	6/25/2003	Yes
Cosumnes River at Twin Cities Road2	0	17	0	10/24/2000	11/22/2004	Yes
Cottonwood Creek at Cottonwood	25	0	0	10/22/2002	9/16/2003	Yes
Cow Creek at Dersch Road	25	0	0	10/22/2002	9/16/2003	Yes
Culvert draining the fish pond near Campbell Lake	0	4	0	3/8/2000	3/29/2000	No
Curtis Creek at Algerine Road	0	3	0	5/20/2003	6/18/2003	No
Deep Slough at Green House Road	0	21	0	10/26/2000	6/26/2003	Yes
Deer Creek at Leiniger Road	25	0	0	10/22/2002	9/16/2003	Yes
Del Puerto Creek at Vineyard Ave	0	15	0	10/24/2000	6/26/2003	Yes
Delta Cross Channel Gate nr Walnut Grove	20	0	19	1/24/1990	4/20/1994	No
DELTA MENDOTA CA A LINDEMAN RD	156	27	152	1/22/1987	3/24/1999	Yes
DELTA PUMPING PLANT HEADWORKS	222	100	185	1/22/1987	9/30/2004	Yes
Disappointment Sl @ Honker Cut	1	0	0	7/20/1988	7/20/1988	No
Diversion Pool US Dam	1	1	0	4/22/2002	4/22/2002	Yes
Diversion Pool US Power Plant	1	1	0	4/22/2002	4/22/2002	Yes
Drain next to San Joaquin River at Maze	0	1	0	11/17/2004	11/17/2004	No
DRY CREEK AT GALLO BRIDGE BELOW HWY	4	0	4	6/15/2001	9/5/2001	Yes
Dry Creek at La Loma Road	0	7	0	4/2/2003	6/30/2003	No
Duck Creek at 555 Zephyr Drive	0	20	0	11/8/1998	6/13/2004	No
Duck Creek at Hwy 4	0	5	0	5/6/2003	6/30/2003	No
Duck Creek at O'Dell Ave over-crossing	0	8	0	4/12/2003	6/13/2004	No
F21174	0	2	0	1/23/2002	2/25/2002	No
F21181	0	2	0	1/23/2002	2/26/2002	No
Fall R US Feather Falls	2	2	0	4/22/2002	5/16/2002	Yes
False River at Southerly Tip of Webb Tr.	57	0	57	7/10/1990	7/20/1994	No
Feather R A Archer Ave	1	1	0	4/24/2002	4/24/2002	Yes
Feather R A Robinson Riffle	1	0	0	4/24/2002	4/24/2002	Yes
Feather R A Shanghai Bend	1	1	0	4/24/2002	4/24/2002	Yes
Feather R A Singh AB Riviera Rd.	1	1	0	4/24/2002	4/24/2002	Yes
Feather R ab Verona	4	4	4	2/20/1996	2/29/1996	Yes
Feather R at Oroville	1	1	0	4/24/2002	4/24/2002	Yes
Feather R DS from Afterbay Outlet	1	1	0	4/24/2002	4/24/2002	Yes
Feather R DS from Hatchery	1	1	0	4/24/2002	4/24/2002	Yes
Feather R DS from Hwy 162	1	1	0	4/24/2002	4/24/2002	Yes
Feather R DS from Project Bounda	1	1	0	4/24/2002	4/24/2002	Yes
Feather R DS from SCOR Outlet	1	1	0	4/24/2002	4/24/2002	Yes
Feather R NF DS Poe PH	1	1	0	5/15/2002	5/15/2002	Yes
Feather R NR Mile Long Pond	1	1	0	4/24/2002	4/24/2002	Yes
Feather R NR Verona	1	1	0	4/24/2002	4/24/2002	Yes
Feather R SF AB Ponderosa RES	2	2	0	4/23/2002	5/16/2002	Yes
Feather R US from Afterbay Outlet	1	1	0	4/24/2002	4/24/2002	Yes
Feather R US from Hatchery	1	1	0	4/24/2002	4/24/2002	Yes
Feather R US from Yuba R	1	1	0	4/24/2002	4/24/2002	Yes
Feather River at Yuba City-Marysville Railroad	102	0	0	10/13/1999	9/16/2003	Yes
Feather River near Nicolaus	56	25	5	12/21/1979	5/16/2002	Yes
Folsom Dam	49	49	0	12/16/1992	7/19/1995	No

Appendix A: Organic Carbon Data

StationName	DOC Data Points	TOC Data Points	UVA254 Data Points	First Sample Date	Last Sample Date	Location Information?
Fremont Weir@West End	1	0	1	12/17/1996	12/17/1996	No
French Camp Slough at Airport Way	0	27	0	10/24/2000	11/22/2004	Yes
From end of dock at Mossdale county park	15	15	0	9/6/2000	10/3/2001	No
Georgiana Slough at Walnut Grove Bridge	22	0	21	1/24/1990	4/20/1994	No
Glen C US GLEN PD	1	1	0	4/22/2002	4/22/2002	Yes
GRANT LINE CA A TRACY RD BR	23	0	22	1/24/1990	7/20/1994	No
Grant Line/Fabian/Bell Canals nr Old R.	57	0	56	1/24/1990	7/20/1994	No
Grayson Road Drain at Grayson	0	15	0	10/24/2000	6/26/2003	Yes
HOLLAND POND	1	0	0	4/23/1990	4/23/1990	No
Honcut C A Pacific Ranch NR Pale	1	1	0	4/24/2002	4/24/2002	Yes
Honker Cut @ White Sl	1	0	0	7/20/1988	7/20/1988	No
HONKER CUT A AHERTON RD BR	23	0	22	1/24/1990	7/20/1994	No
Hospital Creek at River Road	0	11	0	10/24/2000	4/22/2003	Yes
HOSPITAL CREEK BELOW CONFLUENCE OF	4	0	4	6/14/2001	10/5/2001	Yes
Ingram Creek at River Road	0	16	0	10/24/2000	4/22/2003	Yes
Jameson WTP Intake	0	3	0	3/8/1989	5/11/1989	No
Jenkinson Lake at Mormon Emigrant Trail	0	3	0	6/11/2002	11/5/2002	Yes
Jenkinson Lake at Pinecone Campsites 1-30	0	3	0	6/11/2002	11/5/2002	Yes
Johnson Slough at Robinson Road	4	4	4	7/3/2000	10/3/2000	No
Junction site along train tracks over cement culve	0	24	0	11/3/1999	3/29/2000	No
KARNAK	0	1	0	4/22/1988	4/22/1988	No
Kings Island Inflow for Kings Is. PP	0	1	0	12/10/1987	12/10/1987	No
L. Potato Sl @ White Sl	19	0	0	7/20/1988	7/27/1989	No
Lake Amador at Lake Amador Boat Launch	0	4	0	5/20/2002	11/5/2002	Yes
Lake Oroville A Dam	1	1	0	5/2/2002	5/2/2002	Yes
Lake Oroville M F	1	1	0	4/29/2002	4/29/2002	Yes
Lake Oroville Main Body	1	1	0	4/30/2002	4/30/2002	Yes
Lake Oroville N F	1	1	0	4/23/2002	4/23/2002	Yes
Lake Oroville S F	1	1	0	4/25/2002	4/25/2002	Yes
Leisure Town Lane	0	24	0	11/3/1999	3/29/2000	No
LINDSAY SLU A HASTINGS CUT	8	28	0	1/8/1987	7/1/1996	Yes
Lindsey Slough at Hastings Island Bridge.	54	4	53	7/15/1996	2/2/1998	No
LITTLE POTATO SLU A TERMINOUS	44	0	22	7/20/1988	7/20/1994	No
Little Slough@ French Cut	16	16	16	6/26/2000	10/10/2000	No
Littlejohns Creek at Austin Road	0	3	0	6/4/2003	6/30/2003	No
Littlejohns Creek at Sonora Road	0	8	0	3/19/2003	6/30/2003	No
Lone Tree Creek at Austin Road	0	22	0	10/24/2000	11/22/2004	Yes
LONE TREE CREEK AT AUSTIN ROAD NEAR	5	0	5	6/15/2001	10/5/2001	Yes
Lone Willow Slough at Road No. 9	0	4	0	1/25/2001	7/26/2001	Yes
Los Banos Creek at Hwy 140	101	0	0	10/12/1999	9/17/2003	Yes
Main Drainage at El Camino	89	0	0	4/28/2000	9/15/2003	Yes
McCloud River above Shasta	4	0	0	11/15/1999	5/16/2000	Yes
Merced River at Bagby Recreation Area	0	6	0	4/15/2003	6/30/2003	No
Merced River at Briceburg	0	2	0	3/19/2003	4/1/2003	No
Merced River at Hwy 99	0	7	0	4/2/2003	6/30/2003	No
Merced River at Merced Falls Gauging Street	0	8	0	3/19/2003	6/30/2003	No
Merced River at River Road1	101	0	0	10/12/1999	9/17/2003	Yes
Merced River at River Road2	0	25	0	10/26/2000	11/23/2004	Yes
MID Lateral 4 at Paradise Road	0	6	0	4/2/2003	6/30/2003	No
MID Lateral 6/8 at Dunn Road	0	7	0	4/2/2003	6/30/2003	No
MID Main Drain Inlet at Shoemake Road	0	7	0	4/2/2003	6/30/2003	No
MIDDLE R A BACON ISLAND BR	91	0	90	1/24/1990	10/20/1994	No
MIDDLE R A BORDEN HWY	123	27	96	1/13/1987	9/3/1997	Yes
MIDDLE R A TRACY RD BR	1	0	1	7/24/1991	7/24/1991	No
Middle River @ Woodward Canal	18	3	0	8/11/1988	7/27/1989	No
Middle River at Mowry Bridge (Undine Rd)	22	0	21	1/24/1990	7/20/1994	No
Middle River nr Latham Sl (Ferry Site)	10	0	9	1/24/1990	1/23/1992	No
Mitchell	0	1	0	2/24/1988	2/24/1988	No
MOKELUMNE R A LOWER SACTO RD	1	0	1	10/2/1990	10/2/1990	No

Appendix A: Organic Carbon Data

StationName	DOC Data Points	TOC Data Points	UVA254 Data Points	First Sample Date	Last Sample Date	Location Information?
MOKELUMNE R,NORTH BL SNODGRASS SL	1	0	1	4/18/1991	4/18/1991	No
Mokelumne R. above Georgiana Slough	20	0	0	7/20/1988	7/27/1989	No
Mokelumne R. below Georgiana Sl	23	0	22	1/24/1990	7/20/1994	No
Mokelumne River at Camanche Rec South Shore	0	4	0	5/20/2002	11/5/2002	Yes
Mokelumne River at Hwy 49	0	5	0	5/15/2002	12/10/2002	Yes
Mokelumne River at New Hope Road	101	25	0	10/12/1999	9/17/2003	Yes
Mokelumne River at Van Assen County Park	0	5	0	5/20/2002	12/12/2002	Yes
Mormon Slough	0	3	0	11/16/1999	12/5/2001	No
Morrison Creek No 01 at Sunrise Blvd.	0	1	0	3/10/1989	3/10/1989	No
Morrison Creek No 02 at Florin-Perkins Rd.	0	1	0	3/10/1989	3/10/1989	No
Morrison Creek No 03 at Power Inn Rd.	0	1	0	3/10/1989	3/10/1989	No
Morrison Creek No 04 at Brookfield Dr.	0	1	0	3/10/1989	3/10/1989	No
Mosher Slough at 9211 Kelly Drive	0	18	0	2/6/1999	6/13/2004	No
Mosher Slough at Mariners Drive	0	7	0	4/12/2003	6/13/2004	No
Mosher Slough at MS18	0	12	0	2/6/1999	3/6/2002	No
MSDLE11IRDCH	1	0	0	7/18/1988	7/18/1988	No
MSSDLE02IRRD	1	0	0	7/18/1988	7/18/1988	No
Mt House Creek	0	1	0	11/28/2000	11/28/2000	Yes
Mt House Creek at Mt House Parkway	0	14	0	12/27/2000	3/25/2003	Yes
Mud Slough at Gun Club Road	7	7	0	7/11/2001	10/4/2001	Yes
Mud Slough at Kesterson	100	0	0	10/26/1999	9/17/2003	Yes
Mud Slough at San Luis Drain	0	30	0	10/26/2000	11/23/2004	Yes
Mud Slough near Gustine	5	0	5	6/12/2001	10/4/2001	Yes
Mud Slough Upstream of SLD Terminus	0	28	0	10/26/2000	6/26/2003	Yes
N Fork Calaveras River at Gold Strike Road	0	3	0	5/15/2002	12/12/2002	Yes
N Fork Mokelumne River at Hwy 26	0	5	0	5/15/2002	12/10/2002	Yes
NATOMAS EMDC A EL CAMINO RD	188	182	39	11/13/1997	9/13/2004	Yes
NATOMAS MAIN DR A WEST EL CAMINO	89	20	62	9/24/1987	10/13/1994	No
New Hogan Reservoir at Acorn East Campground	0	4	0	5/20/2002	11/5/2002	Yes
New Hogan Reservoir at Wrinkle Cove	0	4	0	5/20/2002	11/5/2002	Yes
New Jerusalem Tile Drain	0	22	0	10/24/2000	11/22/2004	Yes
North Afterbay	1	1	0	4/24/2002	4/24/2002	Yes
North Bay Interim PP Intake	0	13	0	1/8/1987	3/17/1988	No
North Canal nr Old River	57	0	57	1/24/1990	7/20/1994	No
North Forebay	1	1	0	4/29/2002	4/29/2002	Yes
Not Provided	2	5	0	11/12/1998	5/15/2000	No
OLD R (STA-12)	64	0	63	1/24/1990	7/20/1994	No
OLD R A CLIFTON COURT FERRY	53	0	54	7/10/1990	7/20/1994	No
OLD R A CLIFTON CT FOBY IT	64	0	62	1/24/1990	7/20/1994	No
OLD R NR BYRON	138	34	131	1/24/1990	10/3/2000	Yes
OLD R NR TRACY	23	0	22	1/24/1990	7/20/1994	No
Old R. N/O Rock Sl (St 4b)	64	0	63	1/24/1990	7/20/1994	No
Old River at Bacon Island	99	27	99	11/17/1994	10/4/2000	Yes
Old River at Tracy Blvd	0	23	0	10/24/2000	11/22/2004	Yes
Old River PP on Hwy 4	6	6	6	2/3/1998	7/7/1998	No
Old River U/S from DMC Intake	58	0	57	1/24/1990	7/20/1994	No
ONEIL-FB@152	0	1	0	7/12/1988	7/12/1988	No
Oregon Slough nr Shasta R	0	2	0	1/23/2002	2/25/2002	No
Orestimba Creek at Bell Road	0	1	0	11/17/2004	11/17/2004	No
Orestimba Creek at Hwy 33	0	1	0	11/17/2004	11/17/2004	No
Orestimba Creek at Kilburn	0	1	0	11/17/2004	11/17/2004	No
ORESTIMBA CREEK AT RIVER ROAD NEAR	5	0	5	6/13/2001	10/4/2001	Yes
Orestimba Creek at River Road1	99	0	0	10/12/1999	9/17/2003	Yes
Orestimba Creek at River Road2	0	25	0	10/26/2000	11/17/2004	Yes
Pit River above Shasta	4	0	0	11/15/1999	5/16/2000	Yes
Pixley Slough at Davis Road	0	17	0	10/24/2000	11/22/2004	Yes
Potato Slough @ Node 252	19	3	0	8/10/1988	7/27/1989	No
Prospect Slough @ S. Tip of Little Holland Tract	1	0	0	10/2/1991	10/2/1991	No
RD 1000 pump station near Northgate and N.	4	4	4	1/15/1999	11/9/1999	No

Appendix A: Organic Carbon Data

StationName	DOC Data Points	TOC Data Points	UVA254 Data Points	First Sample Date	Last Sample Date	Location Information?
ROCK SL A OLD RIVER	79	27	73	1/22/1987	10/20/1994	No
Rough and Ready Island	55	55	0	7/27/2000	10/11/2001	No
S. Mokelumne R. Node 269	1	0	0	7/19/1988	7/19/1988	No
Sac R. above Colusa Basin Drain, near Knights	6	6	6	2/13/1996	2/29/1996	Yes
Sacramento City Drain Pump	0	1	0	3/10/1989	3/10/1989	No
SACRAMENTO R A HOOD	623	619	416	8/11/1997	9/27/2004	Yes
SACRAMENTO R A MALLARD ISL	254	101	242	1/8/1987	9/8/2004	Yes
SACRAMENTO R A RIO VISTA BR	101	10	93	9/15/1988	10/13/1994	No
SACRAMENTO R US OF FEATHER R	1	1	0	4/24/2002	4/24/2002	Yes
Sacramento Regional WWTP Outfall	0	185	0	11/14/2000	10/10/2004	No
Sacramento River above Bend Bridge	22	13	4	9/22/1999	5/14/2002	Yes
Sacramento River above Shasta	4	0	0	11/15/1999	5/16/2000	Yes
Sacramento River at A9	23	0	0	11/13/2002	9/16/2003	Yes
Sacramento River at Bend Ferry Road	25	0	0	10/22/2002	9/16/2003	Yes
Sacramento River at Butte City	25	0	0	10/22/2002	9/16/2003	Yes
Sacramento River at Colusa	25	25	16	2/9/1995	5/15/2002	Yes
Sacramento River at Court Road	25	0	0	10/22/2002	9/16/2003	Yes
Sacramento River at Freeport	0	0	5	9/27/2001	5/16/2002	Yes
Sacramento River at Freeport1	94	86	16	12/15/1992	6/9/2004	Yes
Sacramento River at Freeport2	101	0	0	10/12/1999	9/17/2003	Yes
Sacramento River at Greene's Ldg.	211	62	205	1/13/1987	5/26/1998	Yes
Sacramento River at Knights Landing	102	0	0	10/13/1999	9/15/2003	Yes
Sacramento River at River Mile 44	106	93	21	12/15/1992	6/9/2004	Yes
Sacramento River at Veterans Bridge	99	93	18	12/15/1992	6/8/2004	Yes
Sacramento River at W. Sac Intake Structure	97	44	97	4/19/1994	10/2/2000	Yes
Sacramento River below Keswick	8	0	0	10/20/1999	5/16/2000	Yes
Sacramento River near Hamilton City	21	13	4	9/22/1999	5/14/2002	Yes
Sacramento Slough	22	14	5	9/21/1999	5/16/2002	Yes
Sacramento Slough at Karnack	25	0	0	10/22/2002	9/15/2003	Yes
Sacramento Slough at Sacramento River near	12	12	12	2/9/1995	3/22/1995	No
Sacto R. @ Ida Isl (Node 348)	1	0	0	7/19/1988	7/19/1988	No
Sacto R. @ Isleton Br	1	0	0	7/19/1988	7/19/1988	No
Sacto R. @ Light 28 (Node 351)	1	0	0	7/19/1988	7/19/1988	No
Salt Slough at Highway 165_1	100	0	0	10/12/1999	9/17/2003	Yes
Salt Slough at Highway 165_2	0	29	0	10/26/2000	11/23/2004	Yes
Salt Slough at State Road 165	6	7	0	7/11/2001	10/4/2001	Yes
Salt Slough near Stevinson	35	66	0	10/11/1985	9/28/1994	Yes
Salt Slough at Wolfsen Road	7	6	0	7/11/2001	10/4/2001	Yes
San Antonio Creek at Sheep Ranch Road	0	5	0	5/15/2002	12/12/2002	Yes
SAN JOAQUIN R A JERSEY PT	61	0	64	7/10/1990	6/14/1995	No
San Joaquin R. @ Hwy 4	36	26	36	11/4/1997	10/4/2000	Yes
San Joaquin R. @ Maze Rd. Bridge	73	14	62	5/3/1988	10/20/1994	No
San Joaquin R. @ Mossdale Bridge	56	0	56	1/24/1990	9/2/1997	No
San Joaquin R. nr. Vernalis	741	616	518	1/22/1987	9/27/2004	Yes
San Joaquin River @ Bowman Road	0	11	0	6/12/2001	8/28/2001	No
San Joaquin River @ Highway 4 Bridge	0	11	0	6/12/2001	8/28/2001	No
San Joaquin River @ Mossdale	0	11	0	6/12/2001	8/28/2001	No
San Joaquin River @ Vernalis	0	11	0	6/12/2001	8/28/2001	No
San Joaquin River at Crows Landing	0	121	0	10/12/2000	11/23/2004	Yes
San Joaquin River at Freemont Ford	0	120	0	10/12/2000	11/18/2004	Yes
San Joaquin River at Hills Ferry	0	22	0	10/26/2000	11/18/2004	Yes
San Joaquin River at Hwy 120	89	0	0	4/16/2000	9/17/2003	Yes
San Joaquin River at Hwy 132 (Maze)1	101	0	0	10/12/1999	9/17/2003	Yes
San Joaquin River at Hwy 132 (Maze)2	0	117	0	10/12/2000	11/23/2004	Yes
San Joaquin River at Hwy 165	101	0	0	10/12/1999	9/17/2003	Yes
San Joaquin River at Hwy 4	12	0	0	10/12/1999	3/31/2000	Yes
San Joaquin River at Lander Avenue	0	121	0	10/12/2000	11/23/2004	Yes
San Joaquin River at Patterson1	89	0	0	4/16/2000	9/17/2003	Yes
San Joaquin River at Patterson2	0	120	0	10/12/2000	11/23/2004	Yes

Appendix A: Organic Carbon Data

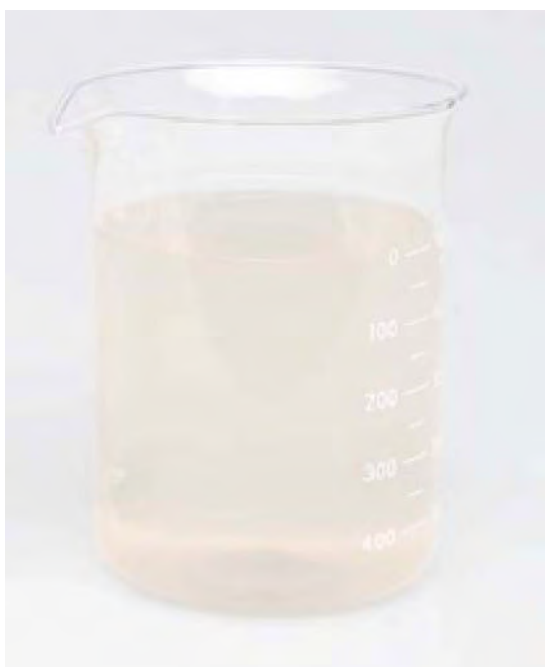
StationName	DOC Data Points	TOC Data Points	UVA254 Data Points	First Sample Date	Last Sample Date	Location Information?
San Joaquin River at Sack Dam	0	24	0	10/26/2000	11/23/2004	Yes
San Joaquin River at Vernalis1	58	0	0	7/11/2001	9/17/2003	Yes
San Joaquin River at Vernalis2	0	122	0	10/12/2000	11/23/2004	Yes
San Joaquin River Ship Channel @ Light 18	0	11	0	6/12/2001	8/28/2001	Yes
San Joaquin River Ship Channel @ Light 24	0	11	0	6/12/2001	8/28/2001	Yes
San Joaquin River Ship Channel @ Light 36	0	11	0	6/12/2001	8/28/2001	Yes
San Joaquin River Ship Channel @ Light 41	0	11	0	6/12/2001	8/28/2001	Yes
San Joaquin River Ship Channel @ Light 45	0	11	0	6/12/2001	8/28/2001	Yes
San Joaquin River Ship Channel @ Light 48	5	5	0	6/26/2001	10/3/2001	No
San Luis Drain at Terminus1	91	0	0	3/20/2000	9/17/2003	Yes
San Luis Drain at Terminus2	0	24	0	11/30/2000	11/23/2004	Yes
Santa Fe-Bacon Island Cut nr Old River	59	0	58	1/24/1990	7/20/1994	No
Santa Rita Slough at Hwy 152	0	5	0	1/25/2001	8/30/2001	No
Sash Slough at Main Drain	1	0	0	1/19/1994	1/19/1994	No
Sash Slough at Mouth	1	0	0	1/19/1994	1/19/1994	No
Shag Slough at Liberty Is. Bridge	1	0	0	10/2/1991	10/2/1991	No
Shag Slough@Liberty Island Bridge	1	0	1	12/18/1996	12/18/1996	No
Shasta R ab Oregon Slough	0	2	0	1/23/2002	2/26/2002	No
SHASTA R AB SHASTA R L	0	2	0	1/23/2002	2/25/2002	No
Shasta R ab Yreka Cr	0	2	0	1/23/2002	2/25/2002	Yes
SHASTA R BL DWINNELL RES	0	2	0	1/23/2002	2/25/2002	No
SHASTA R L NR BALL MT RD	0	2	0	1/23/2002	2/25/2002	No
SHASTA R LITTLE AT MOUTH	0	2	0	1/23/2002	2/26/2002	No
Shasta R nr Yreka	0	2	0	1/23/2002	2/26/2002	Yes
Site A on the San Luis Drain	7	7	0	7/11/2001	10/4/2001	No
Site B Gate San Luis Drain at HWay 165	5	5	0	8/8/2001	10/4/2001	Yes
Site B on the San Luis Drain	2	2	0	7/11/2001	8/22/2001	Yes
SJR @ Laird Park	18	0	16	7/12/2000	10/17/2001	Yes
SJR near Crows Landing	26	8	17	7/11/2000	10/18/2001	Yes
SJR near Vernalis	22	4	17	7/12/2000	10/18/2001	Yes
SJR upstream of Merced	15	0	13	7/26/2000	10/17/2001	Yes
Smith Canal at 840 Baker Place	0	7	0	4/12/2003	6/13/2004	No
Smith Canal at Pershing Avenue	0	7	0	4/12/2003	6/13/2004	No
Solado Creek at Hwy 33	0	18	0	10/24/2000	11/17/2004	No
South Afterbay	1	1	0	4/24/2002	4/24/2002	Yes
South Forebay	2	2	0	4/22/2002	4/29/2002	Yes
South Slough near Hanrahan Road	4	4	4	7/3/2000	10/2/2000	No
SPANISH GRANT COMBINED DRAIN NEAR	4	0	3	7/11/2001	10/2/2001	Yes
Spring Creek PP Discharge to Keswick Res.	4	0	0	10/20/1999	4/18/2000	Yes
Stanislaus River at Caswell Park1	91	0	0	3/20/2000	9/17/2003	Yes
Stanislaus River at Caswell Park2	0	23	0	10/26/2000	11/22/2004	Yes
Stanislaus River at Knight's Ferry	0	8	0	3/19/2003	6/30/2003	Yes
Stanislaus River at Road J6	10	0	0	10/12/1999	3/3/2000	Yes
Stony Creek at Orland	25	0	0	10/22/2002	9/16/2003	Yes
Strong Ranch Slough	28	31	0	3/2/1995	2/17/2004	No
Sucker Run NR Forbestown	2	2	0	4/23/2002	5/16/2002	Yes
Sullivan Creek at Algerine Road	0	8	0	3/19/2003	6/30/2003	No
Sump 104	30	31	0	12/11/1995	2/17/2004	No
Sump 111	30	29	0	3/2/1995	2/17/2004	No
Sutter Creek at Hwy 49	0	5	0	5/15/2002	12/10/2002	Yes
TID 5 Harding Drain at Carpenter Road	0	25	0	10/26/2000	11/23/2004	Yes
TID Lateral 6/7 at Central	0	2	0	3/20/2003	4/17/2003	No
TID Lateral 7 at Central	0	4	0	5/22/2003	6/30/2003	No
TID Lower Lateral 2 at Grayson	0	7	0	4/2/2003	6/30/2003	No
Tom Paine Slough at Paradise Road	0	22	0	10/24/2000	11/22/2004	Yes
Tuolumne River at 7th Street	0	1	0	4/2/2003	4/2/2003	No
Tuolumne River at 9th Street Bridge	0	1	0	4/16/2003	4/16/2003	No
Tuolumne River at Legion Park	0	4	0	5/21/2003	6/30/2003	No
Tuolumne River at Mancini Park	0	2	0	4/2/2003	5/6/2003	No

Appendix A: Organic Carbon Data

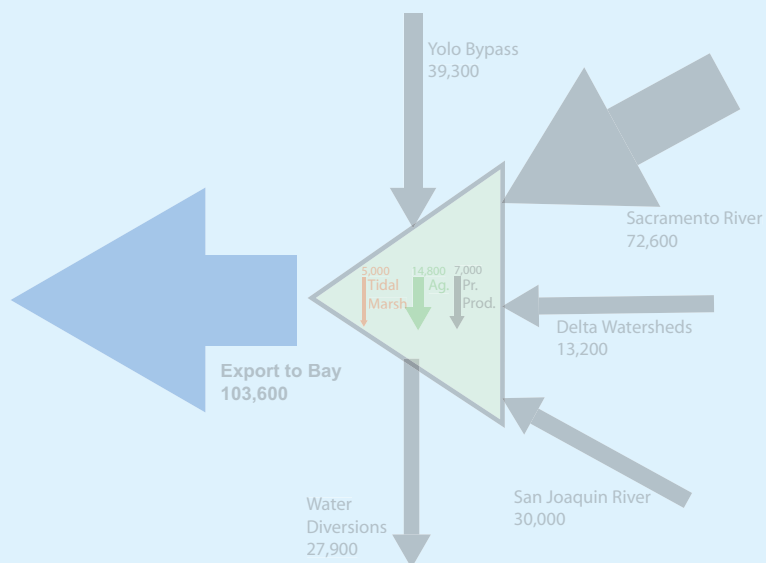
StationName	DOC Data Points	TOC Data Points	UVA254 Data Points	First Sample Date	Last Sample Date	Location Information?
Tuolumne River at Old LaGrange Bridge	0	8	0	3/19/2003	6/30/2003	No
Tuolumne River at Riverdale Fishing Access	0	4	0	5/21/2003	6/30/2003	No
Tuolumne River at Shiloh Fishing Access	0	25	0	10/26/2000	11/23/2004	Yes
Tuolumne River at Shiloh Road	101	0	0	10/12/1999	9/17/2003	Yes
TURLOCK IRRIGATION DISTRICT LATERAL NO	5	0	4	6/13/2001	10/2/2001	Yes
TURNER CUT A MCDONALD ISL FY	23	0	22	1/24/1990	7/20/1994	No
Turner Slough at Fourth Ave	0	20	0	12/28/2000	11/23/2004	Yes
Turning Basin Deep Water Ship Channel at Port	21	21	0	7/27/2000	10/3/2001	No
Turning Basin San Joaquin Ship Channel	0	11	0	6/12/2001	8/28/2001	Yes
U. Jones Siphon 01 @ Trapper Slough	4	0	0	8/10/1988	7/14/1989	No
U. Jones Siphon 02 @ Trapper Slough	3	0	0	8/24/1988	6/15/1989	No
UpCurrentReceiving Water 2	1	11	0	5/8/1996	8/28/2001	No
Vacaville-Effluent	0	62	0	1/9/2000	12/7/2004	Yes
Volta Wasteway at Ingomar Grade	7	7	0	7/11/2001	10/4/2001	Yes
WEST BRANCH US LAKE OROVILLE	1	1	0	4/23/2002	4/23/2002	No
WESTPORT DRAIN NEAR MODESTO CA	4	0	4	6/14/2001	9/5/2001	Yes
White Slough nr Bishop	1	0	0	7/20/1988	7/20/1988	No
Woods Creek at Mill Villa Drive	0	8	0	3/19/2003	6/30/2003	No
Woods Creek at Mother Load Fairgrounds	0	8	0	3/19/2003	6/30/2003	No
Woodward/N. Victoria Canal nr Old River	58	0	58	1/24/1990	7/20/1994	No
Yolo Bypass Toe Drain @ Liberty Island Bridge	3	0	3	10/18/1991	3/23/1992	No
Yolo Bypass Toe Drain d.s. of Hwy 80	18	0	17	10/2/1991	7/19/1994	No
Yolo Bypass Toe Drain near Lisbon Gaging	4	0	4	10/18/1991	1/22/1992	No
YREKA C AB SHASTA R	0	2	0	1/23/2002	2/26/2002	No
Yuba R A Mouth	1	1	0	4/24/2002	4/24/2002	Yes
Yuba River at Marysville	23	14	5	9/21/1999	5/15/2002	Yes
Yuba River at Simpson Lane	102	0	0	10/13/1999	9/16/2003	Yes

APPENDIX B

SUMMARY OF FLOW DATA



Wet Years
ORGANIC CARBON LOADS (Tons)



Summary of Flow Information in the Central Valley

This section summarizes flow information, divided into wet and dry seasons and from wet (above normal, wet) and dry years (below normal, dry, critical). This information will form the basis for evaluating the transport of key constituents as part of the development of conceptual models for major drinking water constituents of concern.

Description of Region

The Central Valley consists of two main drainage basins that combine and culminate to form the Sacramento-San Joaquin River Delta. The Sacramento and San Joaquin Rivers do not contribute equal volumes of water. The Sacramento River delivers approximately 6 times the volume of water in drier than normal years and 3.3 times the volume in wetter than normal years as the San Joaquin River. For this reason, the flow information has been divided into two hydrologically distinct areas consisting of the Sacramento River Watershed and the San Joaquin River Watershed.

Seasonal flows – all year summary

With the geographical influences on the water load, there are also seasonal influences based on month. California's Mediterranean climate is the result of wet cool winters and dry hot summers. It is not unusual for minimal rain to fall in the central valley between May and September. As such, we need to divide our analysis of flow between the wet and dry seasons.

These trends are consistent throughout the central valley with highest flows in the San Joaquin watershed between March and May, and between February and March in the Sacramento River watershed.

Temporal flows – WY index summary

Additionally, a normal water year is expressed as the 30-year average rainfall from October 1st to September 30th of the following year. It is extraordinarily rare that exactly that much rainfall would be produced in any given year, is it far more likely that the water year would fall above or below this average. To summarize the water year, categories based on the distance from average rainfall can help describe the condition of the flow over years and longer time scales. The category that each Water Year falls into is based upon the Water Year Index (also known as the Runoff Index). The index is specific for the San Joaquin and Sacramento River watersheds and is defined in Table 1 and Table 2. The variables are defined as X being the current year's April-July unimpaired runoff, Y is the current October-March unimpaired runoff, and Z is the previous year's index.

Table 1 Sacramento River Valley Water Year Index

Sacramento River Valley	
Water Year/Runoff Index: $0.4*X + 0.3*Y + 0.3*Z$	Unimpaired runoff: The sum of Sacramento River flow above Bend Bridge near Red Bluff, Feather River inflow to Oroville, Yuba River flow at Smartville, and American River inflow to Folsom

Table 2 San Joaquin River Valley Water Year Index

San Joaquin River Watershed	
Water Year/Runoff Index: $0.6*X + 0.2*Y + 0.2*Z$	Unimpaired runoff: The sum of inflows to New Melones Reservoir (from the Stanislaus River), Don Pedro Reservoir (from the Tuolumne River), New Exchequer Reservoir (from the Merced River), and Millerton Lake (from the San Joaquin River)

Below is a listing of these categories:

Classification	Water Year/Runoff Index (maf)
Wet Year	equal or grater than 9.2
Above Normal Year	greater than 7.8 and less than 9.2
Below Normal Year	equal or less than 7.8 and greater than 6.5
Dry Year	equal or less than 6.5 and grater than 5.1
Critical Year	equal or less than 5.4

(Source: Suisun Marsh Monitoring Program Annual Data Summary: Water Year 1998.)

Figure 1 describes the water year trends in the Sacramento and San Joaquin River watersheds respectively.

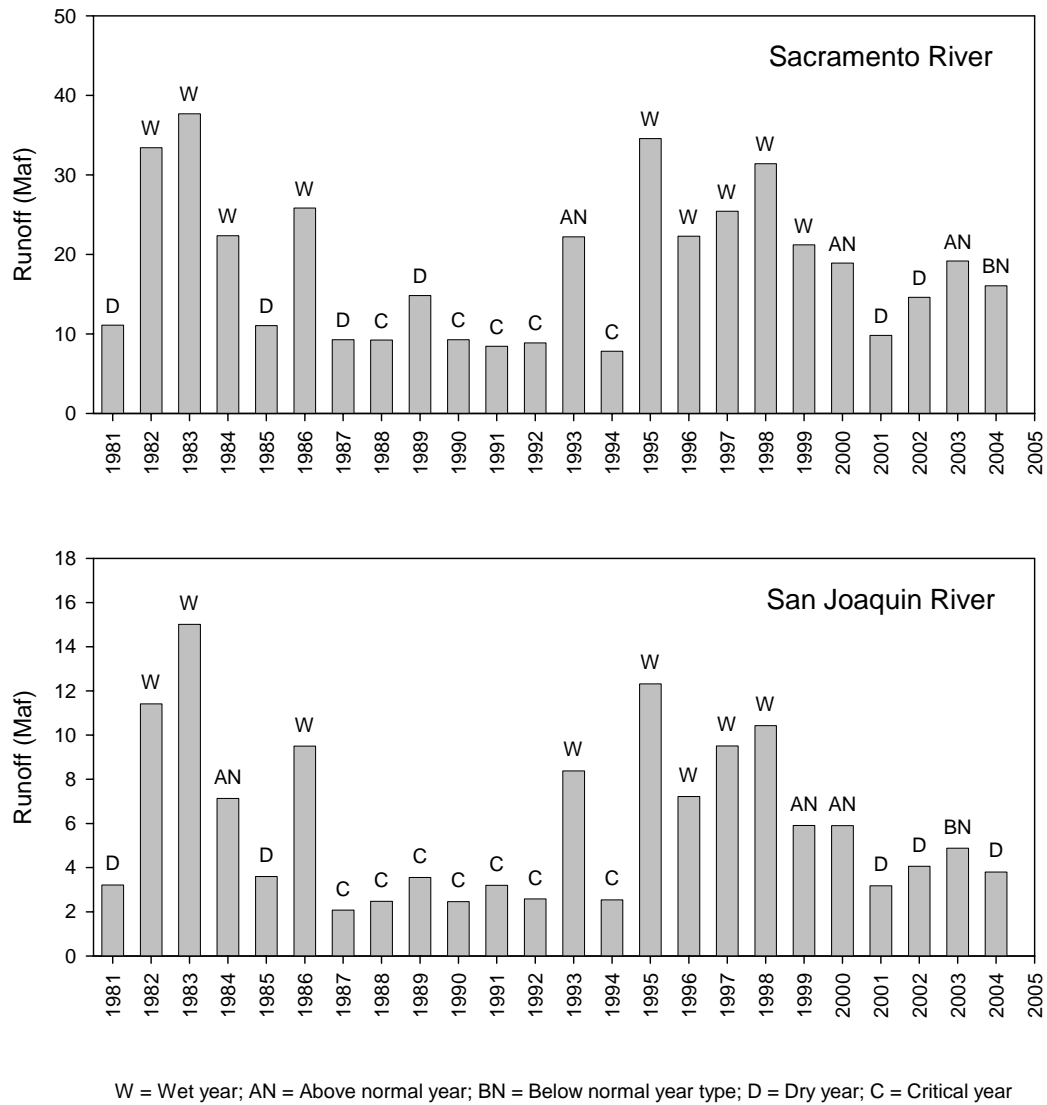


Figure 1. Water Year Indexes for the Sacramento and San Joaquin River watersheds

Sacramento Watershed

The Sacramento River watershed covers nearly 68,500 km² of land from Shasta County to the northern section of the San Francisco Bay delta. Flow for this region is generated primarily from snowmelt in the northern Sierra Nevada and Klamath Mountain ranges. Because a portion of the flows is diverted for agricultural use, the flow rates the furthest downstream are not always the largest.

Dry years

There have been twelve drier than normal years since 1981 (Figure 1). Most occurred during the drought from 1987 to 1992. Of these 12 dry years, five have been critical dry years based on previous year’s rainfall and water storage amounts.

Wet years

There have been twelve wetter than normal years since 1981 (Figure 1). Of these, nine were determined to be defined by the water year index as “wet” years; only three were merely above normal for flows.

San Joaquin Watershed

The San Joaquin River watershed covers nearly 44,000 km² of land from Kings County to the southern section of the San Francisco Bay delta. Flow for this region is generated primarily from snowmelt in the middle and southern Sierra Nevada mountain ranges. Because a portion of flows is diverted for agricultural use, the flow rates the furthest downstream are not always the largest.

Dry years

There have been thirteen drier than normal years since 1981 (Figure 1). Many of these occurred during a spate of 6 consecutive critical years from 1987 to 1992.

Wet years

There have been 11 wetter than normal years since 1981 (Figure 1). Eight of these years were classified as “wet” years based on the Water Year Index.

Wet and Dry Season Definition

Although there is a standard definition for the water year in California, there is no standard definition for the wet and dry season. For the purpose of this effort, the wet season has been defined as the period from October 1 to April 30 (7 months) and the dry season has been defined as May 1 to September 30.

Flow summary data

Using daily discharge data from USGS gauging stations in the central valley, and the division into wet and dry years and wet and dry seasons described above, flows are summarized for key stations. Fifteen stations corresponding to the subwatersheds defined in Chapter 4 of the main report have been classified in this manner. There are four categories of flow for each station: wet year wet season, wet year dry season, dry year wet season, and dry year dry season. These data will be used as the basis for calculating constituent load in each of these four categories.

