

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
1985			
03/15/85	1425	OPEN	
05/07/85	1035	CLOSED	DELTA WATER QUALITY
05/09/85	1043	OPEN	FISH TESTING
05/29/85	1002	CLOSED	EMMATON WATER QUALITY
05/31/85	1355	OPEN	JERSEY WATER QUALITY
06/03/85	0925	CLOSED	EMMATON WATER QUALITY
06/06/85	1040	OPEN	JERSEY WATER QUALITY - EMMATON O.K.
06/12/85	0923	CLOSED	EMMATON WATER QUALITY
06/14/85	1324	OPEN	EMMATON O.K.
10/17/85	0909	CLOSED	EMMATON WATER QUALITY
10/19/85	1135	OPEN	EMMATON WATER QUALITY O.K.
10/23/85	1425	CLOSED	EMMATON WATER QUALITY INSURANCE
10/25/85	1400	OPEN	48 HOURS DURATION OF CLOSURE
11/07/85	1425	CLOSED	EMMATON WATER QUALITY (REQUEST OF DWR)
11/08/85	1425	OPEN	24-HOUR CLOSURE - OPEN FOR WEEKEND
11/12/85	1220	CLOSED	EMMATON WATER QUALITY (REQUEST OF DWR)
11/15/85	1423	OPEN	OPEN FOR WEEKEND
11/30/85	1130	CLOSED	HIGH WATER
12/06/85	1230	OPEN	CONTRA COSTA WATER QUALITY - RIVER STILL F BUT FALLING
1986			
01/17/86	1300	CLOSED	D-1485 - DELTA OUTFLOW > 12,000 EXPECTED
05/22/86	1300	OPEN	OPEN FOR WEEKEND

09/23/86	1425	CLOSED	HIGH WATER
10/09/86	1355	OPEN	OPEN FOR BOATERS CONVENIENCE
12/05/86	1435	CLOSED	EMMATON WATER QUALITY (REQUEST OF DWR)
12/10/86	1025	OPEN	
12/30/86	1425	CLOSED	OUTFLOW 12,000 CFS
1987			
02/27/87	0725	OPEN	OUTFLOW BELOW 12,000 CFS
03/06/87	0940	CLOSED	OUTFLOW OVER 12,000 CFS
04/01/87	0825	OPEN	OUTFLOW BELOW 12,000 AND TO EQUALIZE WAT QUALITY BETWEEN EMMATON AND JERSEY POIN
04/28/87	0755	CLOSED	FISH TESTING
05/01/87	0755	OPEN	
05/17/87	0725	CLOSED	FISH FLUSH
05/23/87	0725	OPEN	
10/01/87	1535	CLOSED	EMMATON WATER QUALITY (DWR REQUEST)
10/04/87	0925	OPEN	EMMATON O.K.
10/08/87	1122	CLOSED	EMMATON WATER QUALITY (DWR REQUEST)
10/10/87	0630	OPEN	EMMATON O.K.
10/27/87	1115	CLOSED	EMMATON WATER QUALITY (DWR REQUEST)
10/30/87	0735	OPEN	EMMATON WATER QUALITY O.K.
11/02/87	1455	CLOSED	EMMATON WATER QUALITY (DWR REQUEST)
11/05/87	1525	OPEN	EMMATON O.K.
1988			
01/05/88	0825	CLOSED	OUTFLOW REQUIREMENT
01/27/88	1340	OPEN	OUTFLOW BELOW 12,000
05/03/88	0732	CLOSED	FISH TEST
05/06/88	0746	OPEN	FISH TEST

05/13/88	1325	CLOSED	FISH FLUSH
05/20/88	1525	OPEN	
05/31/88	0754	CLOSED	FISH TEST
05/31/88	1435	OPEN	TEST POSTPONED UNTIL 6/13/88
06/21/88	0740	CLOSED	FISH TEST
06/24/88	0725	OPEN	FISH TEST
11/25/88	1254	CLOSED	HIGH OUTFLOW
11/27/88	0743	OPEN	

1989

02/19/89	1228	CLOSED	REQUESTED BY SHERIFF'S OFFICE SO THEY COU SEARCH FOR A BODY -- NONE FOUND
02/19/89	1357	OPEN	
03/06/89	0925	CLOSED	OUTFLOW EXCEEDS 12,000 CFS
04/13/89	1507	OPEN	OUTFLOW BELOW 12,000 CFS
05/08/89	1226	CLOSED	EMMATON QUALITY NOT GOOD
05/10/89	0825	OPEN	EMMATON QUALITY IMPROVING
05/12/89	1425	CLOSED	FISH FLUSH - FISH HAVE REACHED DELTA
05/17/89	1022	OPEN	COLEMAN FISH FLUSH CONCLUDED
06/05/89	1325	CLOSED	EMMATON WATER QUALITY
06/07/89	0825	OPEN	EMMATON QUALITY IMPROVING
06/08/89	1454	CLOSED	EMMATON WATER QUALITY
06/10/89	0655	OPEN	EMMATON QUALITY IMPROVING
06/19/89	1025	CLOSED	EMMATON WATER QUALITY
06/21/89	1425	OPEN	EMMATON QUALITY IMPROVING

1990

01/11/90	0945	CLOSED	OUTFLOW ABOVE 12,000 CFS
01/22/90	1425	OPEN	OUTFLOW BELOW 12,000
04/25/90	1424	GATE 2 CLOSED	FLOW STUDY BY DWR

04/26/90	1540	OPEN	FLOW STUDY COMPLETE
05/15/90	0924	CLOSED	EMMATON WATER QUALITY
05/16/90	1325	OPEN	EMMATON IMPROVED

1991

03/05/91	1425	CLOSED	OUTFLOW ABOVE 12,000
03/11/91	1025	OPEN	OUTFLOW BELOW 12,000
03/14/91	1600	CLOSED	OUTFLOW ABOVE 12,000
04/04/91	1055	OPEN	OUTFLOW BELOW 12,000
05/02/91	1245	CLOSED	FISH FLUSH
05/03/91	1435	OPEN	
05/16/91	1440	CLOSED	EMMATON WATER QUALITY
05/18/91	0625	OPEN	EMMATON IMPROVED
05/20/91	1424	CLOSED	EMMATON WATER QUALITY
05/25/91	0625	OPEN	EMMATON IMPROVED
05/30/91	1125	CLOSED	EMMATON WATER QUALITY
06/01/91	0625	OPEN	EMMATON IMPROVED
06/03/91	1337	CLOSED	EMMATON WATER QUALITY
06/07/91	0845	OPEN	EMMATON IMPROVED
06/10/91	1024	CLOSED	EMMATON WATER QUALITY
06/13/91	0825	OPEN	EMMATON IMPROVED
06/27/91	1455	CLOSED	EMMATON WATER QUALITY
06/29/91	0625	OPEN	EMMATON IMPROVED

1992

02/03/92	1025	CLOSED	OUT-MIGRATION OF JUVENILE WINTER-RUN SALI
05/01/92	0932	OPEN	OUT-MIGRATION COMPLETE
05/15/92	0900	CLOSED	TO HELP MEET D-1485 RIO VISTA FLOW REQUIREMENTS
05/22/92	1000	OPEN	RIO VISTA FLOWS O.K.

05/26/92	0924	CLOSED	EMMATON WATER QUALITY
05/29/92	1649	OPEN	EMMATON IMPROVED
06/01/92	0920	CLOSED	EMMATON WATER QUALITY
06/03/92	0908	PARTIALLY OPENED	OPENED TO WATER SURFACE FOR GATE INSPECTION
06/03/92	1427	CLOSED	INSPECTION COMPLETED
06/08/92	1520	OPEN	EMMATON IMPROVED
12/12/92	1125	CLOSED	HIGH FLOW IN SACRAMENTO RIVER
12/14/92	1755	OPEN	FLOWS LOWER
1993			
01/03/93	1125	CLOSED	HIGH FLOWS IN SAC RIVER/ESA REQUIREMENTS
05/29/93	1755	OPEN	LOWER FLOWS
06/01/93	1436	CLOSED	HIGH FLOW IN SACRAMENTO RIVER
06/18/93	1001	OPEN	HIGH FLOWS RECEDING
10/29/93	0938	CLOSED	STATE EMMATON STANDARD
11/01/93	0930	OPEN	STATE EMMATON STANDARD IMPROVED
11/02/93	1101	CLOSED	STATE EMMATON STANDARD
11/07/93	0940	OPEN	STATE EMMATON STANDARD IMPROVED
1994			
01/08/94	1041	CLOSED	ESA REQUIREMENT
05/27/94	1326	OPEN	WINTER RUN SALMON ASSUMED TO BE OUT OF SYSTEM
06/22/94	1420	CLOSED	EMMATON WATER QUALITY
06/24/94	1338	OPEN	
06/29/94	1335	CLOSED	TO IMPROVE STATE EMMATON STANDARD
07/01/94	1502	OPEN	FOR 3-DAY WEEKEND
07/05/94	1424	CLOSED	TO IMPROVE STATE EMMATON STANDARD
07/08/94	1335	OPEN	EMMATON STANDARD IMPROVED

07/26/94	1428	CLOSED	TO IMPROVE STATE EMMATON STANDARD
07/29/94	1325	OPEN	
11/11/94	1240	CLOSED	WINTER RUN OUT MIGRATION
11/14/94	1805	OPEN	
12/08/94	1029	CLOSED	WINTER RUN MOVEMENT - NMFS REQUEST TO CI
12/14/94	1625	OPEN	
12/16/94	0835	CLOSED	
12/19/94	1354	OPEN	

1995

01/04/95	1034	CLOSED	REQUEST FROM FISHERY AGENCIES FOR EXPERIMENT ON MOVEMENT OF SALMON SMOLTS.
07/28/95	0700	OPEN	
09/19/95	1400	CLOSED	FLows IN SACRAMENTO RIVER OVER 25,000 CFS
09/22/95	1100	OPEN	
12/11/95	0900	CLOSED	FORECASTED WEATHER NEXT WEEK WITH RESULTANT INCREASED FLOWS AND FISH MOVEMENT.

1996

06/12/96	0900	OPEN	
11/12/96	1300	CLOSED	TO AVOID DIVERSION OF FISH
11/15/96	1300	OPEN	
11/20/96	1200	CLOSED	FISH MOVEMENT

1997

05/16/97	1900	OPEN	
05/21/97	1120	CLOSED	

05/23/97	1325	OPEN	
05/28/97	0925	CLOSED	
05/30/97	1325	OPEN	
06/12/97	0925	CLOSED	
06/16/97	0955	OPEN	
07/01/97	0725	CLOSED	
07/03/97	1225	OPEN	
10/06/97	1555	CLOSED	EXPERIMENT TO CLOSE THE GATES FOR A 2 WEEK PERIOD TO MEASURE THE RATE OF INCREASE OF SALINITY.
10/15/97	0855	OPEN	
11/25/97	0624	CLOSED	
1998			
07/17/98	0925	OPEN	
09/08/98	1225	CLOSED	Flows in Sacramento River above 25,000 cfs.
1999			
05/28/99	0852	OPEN	
11/26/99	0824	CLOSED	Fishery protection
12/14/99	0924	Open	Delta Water Quality
12/14/99	1425	Closed	
12/15/99	0922	Open	
2000			
01/16/00	1041	Closed	Monitoring of Spring Run sized Chinook salmon at lower Sacramento River sites.

05/26/00	1025	Open	
06/05/00	1025	Closed	
06/09/00	1020	Open	
06/12/00	1025	Closed	
06/16/00	1030	Open	
09/28/00	0654	closed	Begin Gate study to determine how best to operate Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta.
	1325	open	
	1851	closed	
09/29/00	0206	open	
	0755	closed	
	1410	open	
	1941	closed	
09/30/00	0308	open	
	0902	closed	
	1449	open	
	2009	closed	
10/01/00	0416	open	
	0950	closed	
	1545	open	
	2054	closed	
10/02/00	0511	open	Continue Gate study to determine how best to oper CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta.
	1025	closed	
	1540	open	
	2140	closed	

2000 continued

10/03/00	0616	open	Continue Gate study to determine how best to oper CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta.
	1155	closed	
	1510	open	
	2224	closed	
10/04/00	0715	open	
	1240	closed	
	1804	open	
	2209	closed	
10/05/00	0755	open	
	1325	closed	

	1854	open
10/06/00	0011	closed
	0840	open
	1410	closed
	1937	open
10/07/00	0055	closed
	0926	open
	1454	closed
	2040	open
10/08/00	0154	closed
	0956	open
	1538	closed
	2123	open
10/09/00	0250	closed
	1025	open
	1610	closed
	2220	open
10/10/00	0351	closed
	1110	open
	1640	closed
	2310	open

Continue Gate study to determine how best to oper
CC
Gates to protect both fish & water quality in
the Sacramento-San Joaquin River Delta.

2000 continued

10/11/00	0440	closed
	1155	open
	1710	closed
10/12/00	0010	open
	0539	closed
	1225	open
	1755	closed
10/13/00	0058	open
	0640	closed
	1240	open
	1824	closed
10/14/00	0155	open
	0754	closed
	1324	open
	1054	closed
10/15/00	0304	open
	0902	closed

Continue Gate study to determine how best to oper
CC
Gates to protect both fish & water quality in
the Sacramento-San Joaquin River Delta.

	1410	open
	1939	closed
10/16/00	0354	open
	0925	closed
	1455	open
	2024	closed
10/17/00	0454	open
	1025	closed
	1540	open
	2124	closed
10/18/00	0555	open
	1125	closed
	1640	open
	2212	closed

Continue Gate study to determine how best to oper
CC
Gates to protect both fish & water quality in
the Sacramento-San Joaquin River Delta.

2000 continued

10/19/00	0638	open
	1210	closed
	1745	open
	2309	closed
10/20/00	0740	open
	1255	closed
10/21/00	0821	open
	1454	closed
10/22/00	0909	open
	1438	closed
10/23/00	0955	open
	1525	closed
10/24/00	1015	open
	1610	closed
10/25/00	1125	open
	1655	closed
10/26/00	1155	open
	1725	closed
10/27/00	1240	open
	1810	closed
10/28/00		No moves
10/29/00	1310	open
	1840	closed

Continue Gate study to determine how best to oper
CC
Gates to protect both fish & water quality in
the Sacramento-San Joaquin River Delta.

10/30/00	1355	open	
	1925	closed	
10/31/00	1440	open	
	1955	closed	
11/01/00	1525	open	
	2040	closed	
11/02/00	1625	open	Continue Gate study to determine how best to oper CC
	2125	closed	Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta.
11/03/00	0610	open	
	1155	closed	

2000 continued

11/04/00	0655	open	Continue Gate study to determine how best to oper CC
	1239	closed	Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta.
11/05/00	0724	open	
	1510	closed	
11/06/00	0810	open	
	1340	closed	
11/07/00	0840	open	
	1410	closed	
11/08/00	0925	open	Opened until further notice. End of study.
12/22/00	1025	closed	
12/26/00	1425	open	

2001

01/14/01	1025	closed	Fishery concerns
01/23/01	1025	open	
01/26/01	1025	closed	
05/25/01	1215	open	
05/29/01	0525	closed	
06/09/01	0620	open	
06/11/01	0620	closed	

06/14/01	1350	open	
08/10/01	1740	closed	Begin Gate study to determine how best to operate Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
08/10/01	2352	open	
08/12/01	1909	closed	
08/13/01	0110	open	
08/14/01	2057	closed	
08/15/01	0222	open	
08/16/01	2221	closed	Continue Gate study to determine how best to oper CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
08/17/01	0354	open	
08/19/01	0009	closed	Started to close gates on 8/18/2001 at 2345 hours.

2001 continued

08/19/01	0539	open	Continue Gate study to determine how best to oper CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
08/21/01	0224	closed	
08/21/01	0725	open	
08/23/01	0522	closed	
08/23/01	0925	open	
08/25/01	1721	closed	
08/26/01	0009	open	Started to close gates on 8/25/2001 at 2344 hours.
08/26/01	1902	closed	
08/27/01	0055	open	End Gate study to determine how best to operate C Gates to protect both fish & water quality in

the Sacramento-San Joaquin River Delta

10/08/01	0645	closed	Begin Gate study to determine how best to operate Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
10/08/01	1225	open	
10/09/01	0739	closed	
10/09/01	1325	open	
10/10/01	0824	closed	
10/10/01	1410	open	Continue Gate study to determine how best to oper CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta

2001 continued

10/11/01	2024	closed	Continue Gate study to determine how best to oper CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
10/12/01	0125	open	
10/12/01	2119	closed	
10/13/01	0235	open	
10/13/01	2204	closed	
10/14/01	0335	open	
10/14/01	2304	closed	Continue Gate study to determine how best to oper CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
10/15/01	0425	open	
10/16/01	0038	closed	
10/16/01	0514	open	
10/17/01	0154	closed	
10/17/01	0615	open	

10/18/01	0249	closed	
10/18/01	0820	open	
10/19/01	0404	closed	Continue Gate study to determine how best to oper CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
10/19/01	0920	open	

2001 continued

10/20/01	0459	closed	Continue Gate study to determine how best to oper CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
10/20/01	1030	open	
10/20/01	1518	closed	
10/20/01	2035	open	
10/21/01	1605	closed	
10/21/01	2134	open	
10/22/01	1700	closed	Continue Gate study to determine how best to oper CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
10/22/01	2206	open	
10/23/01	1735	Gate was to close but operator missed the closure.	
10/24/01	1852	closed	
10/24/01	2359	open	
10/25/01	2004	close	
10/26/01	0054	open	
10/26/01	2030	close	

10/27/01	0139	open	End Gate study to determine how best to operate C Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
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2001 continued

11/21/01	1024	closed	Fish concerns
11/29/01	1426	open	Delta water quality concern
12/04/01	0931	closed	Forcast high flow Sac River as well as fishery protection. Note: Gates could have been open on 12/11, but ke closed for fishery concerns.

2002

05/24/02	1024	open	
05/28/02	1024	close	
05/31/02	1025	open	Begin Gate study to determine how best to operate Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
06/03/02	2017	close	
06/04/02	0529	open	
06/04/02	2026	close	
06/05/02	0526	open	
06/05/02	2024	close	
06/06/02	0525	open	
06/06/02	2027	close	
06/07/02	0528	open	Continue Gate study to determine how best to oper CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
06/09/02	2324	close	
06/10/02	0727	open	

06/10/02	2325	close	
06/11/02	0729	open	
06/11/02	2325	close	
06/12/02	0727	open	Continue Gate study to determine how best to oper CC
06/12/02	2325	close	Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta

2002 continued

06/13/02	0728	open	Continue Gate study to determine how best to oper CC
06/13/02	2325	close	Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
06/14/02	0724	open	End Gate study to determine how best to operate C Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
10/16/02	0835	closed	Fish study
10/19/02	0825	open	End of fish study. Gate #2 fell closed from full open position at 0830. #2 Gate (south) remains closed until repair complete.
11/12/02	0815	closed	To complete maintenance and repairs.
11/12/02	1730	open	Maintenance and repairs complete.
12/03/02	1010	closed	Fishery Agencies Request.
12/10/02	1355	open	Fishery Agencies Request Complete.
12/16/02	1124	closed	High Flows.

2003

05/30/03	1625	open	High flows - open for weekend and closed again on Monday.
06/02/03	0824	closed	

06/06/03	1112	open	Gates open on weekends until flow drops below 25 cfs
06/09/03	0908	closed	High flows
06/12/03	0925	open	
12/01/03	1024	closed	Fishery Protection

2004

05/28/04	1032	open	
06/01/04	1032	closed	Jones Tract Levee Failure
06/03/04	1141	open	Gate 2 fully closed at 1229 due to operational probl Gate 2 fully opened at 1250 due to operational problems.