

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
2018			
05/25/18	0945	open	Memorial Day weekend opening
05/29/18	1050	closed	-
06/01/18	0935	open	Weekend opening
06/04/18	1050	closed	-
06/08/18	1015	open	Weekend opening
06/11/18	1100	closed	-
06/15/18	1000	open	Summer operations
11/05/18	1049	closed	Increase flows on Sac River at Rio Vista
11/09/18	0955	open	Weekend opening
11/13/18	1050	closed	Increase flows on Sac River at Rio Vista
11/16/18	1011	open	Weekend opening
11/19/18	1051	closed	Increase flows on Sac River at Rio Vista
11/21/18	1102	open	Weekend opening
11/30/18	1002	closed	NMFS BO Action IV.1.2 (Dec 1)

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
2017			
06/23/17	1005	open	Summer operations
09/18/17	1050	closed	CDFW request to help reduce fall-run salmon straying
09/22/17	1105	open	Weekend operations
09/25/17	1107	closed	CDFW request to help reduce fall-run salmon straying
09/29/17	1035	open	Weekend operations
10/02/17	1050	closed	CDFW request to help reduce fall-run salmon straying
10/06/17	1035	open	Weekend operations
10/09/17	1050	closed	CDFW request to help reduce fall-run salmon straying
10/13/17	1050	open	Weekend operations
10/16/17	1054	closed	CDFW request to help reduce fall-run salmon straying
10/20/17	1045	open	Weekend operations
10/23/17	1047	closed	CDFW request to help reduce fall-run salmon straying
10/27/17	1040	open	Weekend operations
10/30/17	1048	closed	CDFW request to help reduce fall-run salmon straying
11/03/17	1005	open	Weekend operations
11/06/17	1010	closed	CDFW request to help reduce fall-run salmon straying
11/10/17	0950	open	Weekend operations

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
2017 Continued			
11/13/17	1030	closed	CDFW request to help reduce fall-run salmon straying
11/17/17	1000	open	
11/24/17	1059	closed	NMFS BO Action IV.1.2 KLCI and SCI triggered.

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
2016			
05/27/16	1010	open	Weekend operations for the Memorial Day Holiday
05/31/16	1315	closed	-
06/03/16	0936	open	Weekend operations
06/06/16	1320	closed	-
06/10/16	0908	open	Weekend operations
06/13/16	1300	closed	-
06/18/16	0815	open	Summer operations
11/06/16	1010	closed	Knight's Landing Catch Index Triggered
11/09/16	1046	open	RPA Action IV.1.2 has been satisfied
11/12/16	0950	closed	NMFS RPA triggered
11/15/16	1003	open	RPA Action IV.1.2 has been satisfied
11/25/16	0951	closed	RPA Action IV.1.2 Sacramento Catch Index (SCI) triggered
11/29/16	1350	open	RPA actions have been satisfied
12/01/16	0920	closed	RPA action IV.1.2 (Dec 1)

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
2015			
05/14/15	1015	open	Delta Salinity
05/18/15	0952	closed	-
05/22/15	0948	open	Memorial Day weekend operations
05/26/15	0950	closed	-
05/29/15	0915	open	Weekend Operations
06/01/15	1004	closed	-
06/05/15	1000	open	Weekend Operations
06/08/15	1000	closed	-
06/13/15	0900	open	Weekend Operations
06/15/15	0954	closed	-
06/16/15	0958	open	-
06/23/15	1005	closed	Delta Salinity
06/26/15	1215	open	-
07/20/15	1051	closed	Delta Salinity
07/24/15	1232	open	Delta Salinity
08/04/15	0940	closed	Delta Salinity
08/07/15	1300	open	-
08/11/15	0950	closed	Delta Salinity
08/14/15	1220	open	-
10/29/15	1245	closed	Delta Salinity

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
2015 Continued			
10/30/15	1145	open	-
11/12/15	1000	closed	Rio Vista Flow standard
11/13/15	0950	open	-
11/18/15	1013	closed	Rio Vista Flow standard
11/20/15	1001	open	-
12/01/15	1300	closed	NMFS Biological Opinion section IV.1.2, December 1-14 criteria
12/04/15	1505	open	Delta Salinity
12/15/15	1025	closed	NMFS Biological Opinion Sec IV.1.2

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
2014			
02/01/14	1019	open	Delta Salinity
02/10/14	0958	closed	Fishery concerns
05/23/14	1017	open	Open for Memorial Day Weekend recreational activities.
05/27/14	1055	closed	-
06/06/14	1020	open	Weekend recreational activities.
06/09/14	1055	closed	-
06/13/14	0958	open	-
10/28/14	0956	closed	Rio Vista flow standard.
10/30/14	1000	open	-
11/02/14	1001	closed	Fishery protection
11/07/14	0955	open	-
12/01/14	0955	closed	Fish protection per National Marine Fisheries Service Biological Opinion (Action IV..1.2).

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
2013			
05/24/13	0957	open	Open for Memorial Day Weekend recreational activities.
05/28/13	1050	closed	-
05/31/13	1530	open	Weekend recreational activities.
06/03/13	1105	closed	-
06/07/13	0932	open	Weekend recreational activities.
06/10/13	1045	closed	-
06/14/13	1018	open	-
10/08/13	1608	closed	Rio Vista flow standard
10/10/13	1505	open	-
10/17/13	0926	closed	Rio Vista flow standard
10/18/13	1500	open	-
10/21/13	0945	closed	Rio Vista flow standard
10/31/13	1015	open	-
11/04/13	1000	closed	Rio Vista flow standard
11/08/13	1000	open	-
11/12/13	1015	closed	Rio Vista flow standard
11/15/13	0845	open	-
11/18/13	0953	closed	Rio Vista flow standard
11/22/13	1246	open	-
11/25/13	1005	closed	Rio Vista flow standard

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
2013 Continued			
11/27/13	1021	open	-
12/01/13	1120	closed	Fish Protection (NMFS BO Action IV.1.2)

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
2012			
05/25/12	1115	open	Open for weekend recreational activities.
05/29/12	1000	close	Cancelled - Unable to close gate #1 due to mechanical problem, Gate #2 was closed and then reopened for safety reasons.
06/01/12	1700	close	-
06/21/12	1300	open	-
11/27/12	1015	closed	Fish Protection per NMFS BO (Action IV.1.2)

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
2011			
07/15/11	0955	open	-
10/04/11	1024	closed	Mokelumne River Salmon fish attraction experiment
10/14/11	1116	open	-
12/01/11	0919	closed	Fish Protection (NMFS BO Action IV.1.2)

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
2010			
05/28/10	1005	open	Open for weekend recreation activities
06/01/10	1001	closed	-
06/04/10	0955	open	Open for weekend recreation activities
06/07/10	1004	closed	High flows at Freeport
06/18/10	1104	open	Remain open until further notice
10/13/10	1154	closed	-
10/15/10	1205	open	-
11/01/10	1024	closed	-
11/04/10	1000	open	Fish Protection
12/01/10	1020	closed	-

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
2009			
05/22/09	1000	open	Open for Memorial weekend recreation activities.
05/26/09	1130	closed	-
05/29/09	1024	open	Open for weekend recreation activities.
06/01/09	0957	close	-
06/05/09	1025	open	Open for weekend recreation activities.
06/08/09	1024	close	-
06/12/09	1004	open	Open for weekend recreation activities.
06/15/09	0946	close	-
06/16/09	1037	open	-
10/23/09	1026	close	Required by NOAA Fisheries.
10/27/09	1000	open	Opening permitted by NOAA Biological Opinion.
11/06/09	0954	closed	Rio Vista Standard
11/07/09	0947	open	-
11/12/09	0959	closed	Rio Vista Standard
11/13/09	0956	open	-
11/19/09	1000	closed	D-1641 Rio Vista Standard
11/25/09	1016	open	-
11/30/09	1015	closed	D-1641 Rio Vista Standard
12/01/09	0954	open	-
12/06/09	0955	closed	D-1641 Rio Vista Standard
12/07/09	1002	open	-

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
2009 Continued			
12/15/09	0958	closed	Fish Protection

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
2008			
05/23/08	1058	open	Opening on Memorial Day weekend recreation activities.
05/27/08	1054	closed	-
05/30/08	1024	open	Opening for weekend recreation activities.
06/02/08	1024	closed	-
06/06/08	1025	open	Opening for weekend recreation activities.
06/09/08	1024	closed	-
06/13/08	1024	open	-
11/10/08	0820	closed	Begin fish, hydrodynamics and water quality experiment requested by DWR and USGS.
11/12/08	0800 1634	open closed	-
11/13/08	0800 1555	open closed	-
11/14/08	0811 1555	open closed	-
11/15/08	0800 1554	open closed	-
11/16/08	0818 1554	open closed	-
11/17/08	0815 1633	open closed	-
11/18/08	0817 1551	open closed	-
11/19/08	0825 1550	open closed	Continued fish, hydrodynamics and water quality experiment requested by DWR and USGS.

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

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2008 Continued			
11/20/08	0805 1540	open closed	Continued fish, hydrodynamics and water quality experiment requested by DWR and USGS.
11/21/08	0820 1541	open closed	-
11/22/08	0821 1619	open closed	-
11/23/08	0824 1548	open closed	-
11/24/08	0825 1547	open closed	-
11/25/08	0824 1547	open closed	-
11/26/08	0825	open	Suspend experiment due to Water Quality
12/13/08	1540	closed	Begin fish, hydrodynamics and water quality experiment requested by DWR and USGS.
12/14/08	0825 1546	open closed	-
12/15/08	0825 1544	open closed	-
12/16/08	0840 1544	open closed	-
12/17/08	0842 1547	open closed	-
12/18/08	0850 1549	open closed	-
12/19/08	0843 1550	open closed	Continued fish, hydrodynamics and water quality experiment requested by DWR and USGS.

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DELTA CROSS CHANNEL OPERATIONS**

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2008 Continued			
12/20/08	0844 1548	open closed	Continued fish, hydrodynamics and water quality experiment requested by DWR and USGS.
12/21/08	0844 1548	open closed	-
12/22/08	0844 1549	open closed	Suspend experiment due to fishery concerns.

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

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2007			
05/25/07	0949	open	-
05/30/07	1240	closed	Decreasing water quality at Emmaton.
06/02/07	0825	open	-
06/05/07	1045	closed	To improve water quality at Emmaton.
06/09/07	0830	open	-
06/11/07	0830	closed	To comply with SWRCB Standards.
06/16/07	0855	open	-
12/14/07	1138	closed	Requested by Fishery Agencies.

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
2006			
06/30/06	1003	open	-
10/30/06	1030 1230	closed open	Testing and adjustment after contract work completed
12/15/06	0952	closed	Flows forcasted to get above 25,000 cfs.

**BUREAU OF RECLAMATION
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DATE	TIME	ACTION	REMARKS
2005			
06/25/05	0914	open	-
11/16/05	0825	closed	DAT recommendation for Winter Run Protection
11/20/05	0830	open	-
12/03/05	0823	closed	Fishery Protection

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
2004			
05/28/04	1032	open	-
06/01/04	1032	closed	Gate 2 fully closed at 1229 due to operational problems.
06/03/04	1141	open	Gate 2 fully opened at 1250 due to operational problems.
12/05/04	1215	closed	Fishery Experiment
12/28/04	1127	open	Water Quality, before substantial increase flows at Freeport.
12/29/04	1723	closed	-

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
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 25,000 cfs
06/09/03	0908	closed	High flows
06/12/03	0925	open	-
12/01/03	1024	closed	Fishery Protection

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
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 CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
06/03/02	2017	close	-
06/04/02	0529 2026	open close	-
06/05/02	0526 2024	open close	-
06/06/02	0525 2027	open close	-
06/07/02	0528	open	-
06/09/02	2324	close	-
06/10/02	0727 2325	open close	-
06/11/02	0729 2325	open close	-
06/12/02	0727 2325	open close	-
06/13/02	0728 2325	open close	-
06/14/02	0724	open	End Gate study to determine how best to operate CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
2002 Continued			
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 repairs complete.
11/12/02	0815 1730	closed open	To complete maintenance and repairs. 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.

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
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 2352	closed open	Begin Gate study to determine how best to operate CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
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	-
08/17/01	0354	open	-
08/19/01	0009 0539	closed open	-
08/21/01	0224 0725	closed open	-
08/23/01	0522 0925	closed open	Continue Gate study to determine how best to operate CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
2001 Continued			
08/25/01	1721	closed	Continue Gate study to determine how best to operate CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
08/26/01	0009 1902	open closed	-
08/27/01	0055	open	End Gate study to determine how best to operate CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
10/08/01	0645 1225	closed open	Begin Gate study to determine how best to operate CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
10/09/01	0739 1325	closed open	-
10/10/01	0824 1410	closed open	-
10/11/01	2024	closed	-
10/12/01	0125 2119	open closed	-
10/13/01	0235 2204	open closed	-
10/14/01	0335 2304	open closed	-
10/15/01	0425	open	-
10/16/01	0038 0514	closed open	-
10/17/01	0154 0615	closed open	Continue Gate study to determine how best to operate CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
2001 Continued			
10/18/01	0249 0820	closed open	Continue Gate study to determine how best to operate CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
10/19/01	0404 0920	closed open	-
10/20/01	0459 1030 1518 2035	closed open closed open	-
10/21/01	1605 2134	closed open	-
10/22/01	1700 2206	closed open	-
10/23/01	1735	-	Gate was to close but operator missed the closure.
10/24/01	1852 2359	closed open	-
10/25/01	2004	close	-
10/26/01	0054 2030	open close	-
10/27/01	0139	open	End Gate study to determine how best to operate CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
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 kept closed for fishery concerns.

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
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 1325 1851	closed open closed	Begin Gate study to determine how best to operate
09/29/00	0206 0755 1410 1941	open closed open closed	-
09/30/00	0308 0902 1449 2009	open closed open closed	-
10/01/00	0416 0950 1545 2054	open closed open closed	-
10/02/00	0511 1025 1540 2140	open closed open closed	Continue Gate study to determine how best to operate CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
2000 Continued			
10/03/00	0616	open	Continue Gate study to determine how best to operate 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	Continue Gate study to determine how best to operate CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
	1110	open	
	1640	closed	
	2310	open	

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

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2000 Continued			
10/11/00	0440	closed	Continue Gate study to determine how best to operate CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
	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	
	1854	closed	
10/15/00	0304	open	-
	0902	closed	
	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	Continue Gate study to determine how best to operate CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
	1125	closed	
	1640	open	
	2212	closed	

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DELTA CROSS CHANNEL OPERATIONS**

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2000 Continued			
10/19/00	0638	open	Continue Gate study to determine how best to operate CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
	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	
10/29/00	1310	open	-
	1840	closed	
10/30/00	1355	open	-
	1925	closed	
10/31/00	1440	open	-
	1955	closed	
11/01/00	1525	open	Continue Gate study to determine how best to operate CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
	2040	closed	

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
2000 Continued			
11/02/00	1625 2125	open closed	Continue Gate study to determine how best to operate CC Gates to protect both fish & water quality in the Sacramento-San Joaquin River Delta
11/03/00	0610 1155	open closed	-
11/04/00	0655 1239	open closed	-
11/05/00	0724 1510	open closed	-
11/06/00	0810 1340	open closed	-
11/07/00	0840 1410	open closed	-
11/08/00	0925	open	Opened until further notice. End of study.
12/22/00	1025	closed	-
12/26/00	1425	open	-

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
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	-

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
1998			
07/17/98	0925	open	-
09/08/98	1225	closed	Flows in Sacramento River above 25,000 cfs.

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
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	-

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
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

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
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.

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
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 close
12/14/94	1625	open	-
12/16/94	0835	closed	-
12/19/94	1354	open	-

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
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

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
1992			
02/03/92	1025	closed	Out-migration of juvenile winter-run salmon
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

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
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

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
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

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
1989			
02/19/89	1228 1357	closed open	Requested by Sheriff's office so they could search for a body -- none found
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

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
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	Fest 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	-

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
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 water Quality between emmaton and jersey point
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.

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
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

**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 high but falling

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
1984			
04/20/84	1005	open	-
05/08/84	1149	closed	Closure for fish testing.
05/11/84	1057	open	-
05/14/84	1022	closed	-
05/17/84	1025	open	-
05/21/84	0940	closed	-
05/24/84	1015	open	-
11/13/84	0954	closed	-

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
1983			
07/22/83	0936	open	-
11/13/83	1435	closed	-

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
1982			
06/11/82	1225	open	Problems with gate #2. Gate #2 opened at 1610 hours.
06/14/82	1005	closed	-
06/18/82	1226	open	-
06/21/82	0945	closed	-
06/25/82	1221	open	-
11/16/82	1025	closed	-

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
1981			
01/23/81	1050	closed	-
04/15/81	1032	open	-
05/05/81	1446	closed	-
05/12/81	1130	open	-
11/14/81	1119	closed	-

**BUREAU OF RECLAMATION
DELTA CROSS CHANNEL OPERATIONS**

DATE	TIME	ACTION	REMARKS
1980			
10/21/80	1000	closed	Only the south gate was closed.
10/23/80	1125	open	-
10/28/80	1025	closed	-
11/20/80	1000	open	-