

Release Schedule

10/3/2008

North Central Delta Regional Salmon Outmigration Study Plan

(48 days of closure between Nov 1 and Jan 31)

SCHEDULE (A)

Study day	Date	Day of Week	Time Block	Gate Operation	(a)		GS Rel	Ryde Rel	Natural constraints		
					Sac Rel Surv	Sac Rel 3D					
1	10-Nov	mon	Pilot	DCC 1/2 Open					Smolted?		
2	11-Nov	tues	Pilot			100 AM + 100 PM			Smolted?		
3	12-Nov	wed							Smolted?		
4	13-Nov	thur	1	DCC Open	DCC hydro transients settling time				Smolted?		
5	14-Nov	fri	1	DCC Open	173	113			Smolted?		
6	15-Nov	sat	1	DCC Open					Smolted?		
7	16-Nov	sun	1	DCC Open			104	70	Smolted?		
8	17-Nov	mon	1	DCC Open	173	113			Smolted?		
9	18-Nov	tues	1	DCC Open			1		Smolted?		
10	19-Nov	wed	1	DCC Open			2	104	69		
11	20-Nov	thur	1	DCC Open			3		1		
12	21-Nov	fri	1	DCC Open			4		2		
13	22-Nov	sat	1	DCC Open			5		3		
14	23-Nov	sun	1	DCC Open			6		4		
15	24-Nov	mon	1	DCC Open			7		5		
16	25-Nov	tues	1	DCC Open			8		6		
17	26-Nov	wed	1	DCC Open	Thanksgiving Break			9		7	
18	27-Nov	thur	1	DCC Open	Thanksgiving Break			10		8	
19	28-Nov	fri	1	DCC Open	Thanksgiving Break			11		9	
20	29-Nov	sat	1	Night Closure	DCC hydro transients settling time					Sweet Spot	
21	30-Nov	sun	1	Night Closure	173	113				Sweet Spot	
22	1-Dec	mon	1	Night Closure						Sweet Spot	
23	2-Dec	tues	1	Night Closure			104	69		Sweet Spot	
24	3-Dec	wed	1	Night Closure	173	113				Sweet Spot	
25	4-Dec	thur	1	Night Closure			1			Sweet Spot	
26	5-Dec	fri	1	Night Closure			2	104	69	Sweet Spot	
27	6-Dec	sat	1	Night Closure			3		1	Sweet Spot	
28	7-Dec	sun	1	Night Closure			4		2	Sweet Spot	
29	8-Dec	mon	1	Night Closure			5		3	Sweet Spot	
30	9-Dec	tues	1	Night Closure			6		4	Sweet Spot	
31	10-Dec	wed	1	Night Closure			7		5	Sweet Spot	
32	11-Dec	thur	1	Night Closure			8		6	Sweet Spot	
33	12-Dec	fri	1	Night Closure			9		7	Sweet Spot	
34	13-Dec	sat	2	DCC Open	DCC hydro transients settling time					Sweet Spot	
35	14-Dec	sun	2	DCC Open	173	113				Sweet Spot	
36	15-Dec	mon	2	DCC Open						Sweet Spot	
37	16-Dec	tues	2	DCC Open			104	69		Sweet Spot	
38	17-Dec	wed	2	DCC Open	173	113				Sweet Spot	
39	18-Dec	thur	2	DCC Open			1			Sweet Spot	
40	19-Dec	fri	2	DCC Open			2	104	69	Sweet Spot	
41	20-Dec	sat	2	DCC Open			3		1	Sweet Spot	
42	21-Dec	sun	2	DCC Open			4		2	Sweet Spot	
43	22-Dec	mon	2	DCC Open			5		3	Sweet Spot	
44	23-Dec	tues	2	DCC Open	Christmas Break			6		4	Sweet Spot
45	24-Dec	wed	2	DCC Open	Christmas Break			7		5	Sweet Spot
46	25-Dec	thur	2	DCC Open	Christmas Break			8		6	Sweet Spot
47	26-Dec	fri	2	DCC Open	Christmas Break			9		7	Sweet Spot
48	27-Dec	sat	2	DCC Open	Christmas Break			10		8	Sweet Spot
49	28-Dec	sun	2	DCC Open	Christmas Break			11		9	Sweet Spot
50	29-Dec	mon	2	Night Closure	DCC hydro transients settling time					Hydrology?	
51	30-Dec	tues	2	Night Closure	173	113				Hydrology?	
52	31-Dec	wed	2	Night Closure						Hydrology?	
53	1-Jan	thur	2	Night Closure			104	69		Hydrology?	
54	2-Jan	fri	2	Night Closure	173	113				Hydrology?	
55	3-Jan	sat	2	Night Closure			1			Hydrology?	
56	4-Jan	sun	2	Night Closure			2	104	69	Hydrology?	
57	5-Jan	mon	2	Night Closure			3		1	Hydrology?	
58	6-Jan	tues	2	Night Closure			4		2	Hydrology?	
59	7-Jan	wed	2	Night Closure			5		3	Hydrology?	
60	8-Jan	thur	2	Night Closure			6		4	Hydrology?	
61	9-Jan	fri	2	Night Closure			7		5	Hydrology?	
62	10-Jan	sat	2	Night Closure			8		6	Hydrology?	
63	11-Jan	sun	2	Night Closure			9		7	Hydrology?	

SCHEDULE (A)					(a)			(b)	
Study day	Date	Day of Week	Time Block	Gate Operation	Sac Rel Surv	Sac Rel 3D	GS Rel	Ryde Rel	Natural constraints
64	12-Jan	mon	3	Gate Closed	DCC hydro transients settling time				
65	13-Jan	tues	3	Gate Closed	173	113			
66	14-Jan	wed	3	Gate Closed			1		
67	15-Jan	thur	3	Gate Closed			2	103	69
68	16-Jan	fri	3	Gate Closed			3		1
70	17-Jan	sat	3	Gate Closed	173	113			2
71	18-Jan	sun	3	Gate Closed			1		3
72	19-Jan	mon	3	Gate Closed			2	103	69
73	20-Jan	tues	3	Gate Closed			3		1
75	21-Jan	wed	3	Gate Closed			4		2
76	22-Jan	thur	3	Gate Closed			5		3
77	23-Jan	fri	3	Gate Closed			6		4
78	24-Jan	sat	3	Gate Closed	172	113			5
80	25-Jan	sun	3	Gate Closed			1		6
81	26-Jan	mon	3	Gate Closed			2	103	69
82	27-Jan	tues	3	Gate Closed			3		1
83	28-Jan	wed	3	Gate Closed	172	113			2
84	29-Jan	thur	3	Gate Closed			1		3
85	30-Jan	fri	3	Gate Closed			2	103	69
86	31-Jan	sat	3	Gate Closed			3		1
87	1-Feb	sun	3	Gate Closed			4		2
88	2-Feb	mon	3	Gate Closed			5		3
89	3-Feb	tues	3	Gate Closed			6		4
90	4-Feb	wed	3	Gate Closed			7		5
91	5-Feb	thur	3	Gate Closed			8		6
92	6-Feb	fri	3	Gate Closed			9		7
93	7-Feb	sat	3	Gate Closed			10		8
94	8-Feb	sun	3	Gate Closed			11		9
95	9-Feb	mon	3	Gate Closed			12		10
96	10-Feb	tues	3	Gate Closed			13		11
97	11-Feb	wed	3	Gate Closed			14		12
98	12-Feb	thur	3	Gate Closed			15		13
99	13-Feb	fri	3	Gate Closed			16		14
100	14-Feb	sat	3	Gate Closed			17		15

Notes:

- From November 1 through January 31. Gates will be closed for a total of **up to 45 days** for fisheries protection.
 - From February 1 through May 20. Gates will be closed.
 - Fisheries folks (White, Oppenhimer, Green) agreed to "count" nighttime closure as full day closure at 9/22 meeting.
 - The majority of the winter run juveniles typically migrate past the vicinity of the DCC gates in late December (Alice Low)
 - Minimum elapsed time for a given DCC operation - 9 days.
This is the Est. time for Sac released fish to "clear" north delta (into Cache Sl.) and the Mokelumne system (e.g. San Joaquin) at low Sacramento River flow rates
 - A day after each change in DCC gate position is needed for regional scale hydrodynamic transients to settle. (e.g. the system takes some time to reach steady state after the gates are moved.)
 - Ryde and Georgiana releases are offset by one day so that these fish are placed in the "same" water as the Sac release (e.g. assume ~1 day travel time from Sac to Walnut Grove)
- (a) SAC rel 3D - Study fish are programmed at a higher ping rate for greater spatial resolution in junction experiments (drawback - reduced tag life). 3D (2-5 sec) standard (5-10 sec)
- (b) Natural constraints:
- Smolted? - Early in the year fish may not be fully smolted. Furthermore low turbidities, high water temperatures, very low flows may also confound results
 - Hydrology? - High flows may force closed operations.
 - "Sweet" spot - Refers to a operations with the highest probability of favorable conditions (e.g. fish fully smolted, favorable hydrology, turbidities and water temps. AND sac river < 25,000 cfs)