

Table 7. Timing of juvenile winter-run passage past Sherwood Harbor (Sacramento Trawl) for Brood Years 1994 – 2017.

Brood Year	First Passage Date	5% Passage Date	10% Passage Date	25% Passage Date	50% Passage Date	75% Passage Date	90% Passage Date	95% Passage Date	Last Passage Date
Average (1994 - 2017)	5-Dec	17-Dec	24-Dec	9-Jan	1-Feb	20-Feb	12-Mar	17-Mar	31-Mar
Median (1994 - 2017)	25-Nov	11-Dec	15-Dec	29-Dec	13-Feb	4-Mar	19-Mar	25-Mar	9-Apr
2017	1/13/2018	1/13/2018	1/15/2018	2/11/2018	3/15/2018	3/18/2018	3/24/2018	3/24/2018	3/25/2018
2016	3/3/2017	3/13/2017	3/16/2017	3/22/2017	3/30/2017	4/4/2017	4/8/2017	4/10/2017	4/21/2017
2015	11/6/2015	11/6/2015	12/24/2015	12/24/2015	3/16/2016	3/25/2016	4/1/2016	4/22/2016	4/22/2016
2014	11/5/2014	11/5/2014	11/28/2014	12/8/2014	12/8/2014	12/22/2014	3/20/2015	4/6/2015	4/17/2015
2013	2/9/2014	2/12/2014	2/12/2014	2/13/2014	2/15/2014	3/5/2014	3/10/2014	3/14/2014	4/4/2014
2012	11/23/2012	11/23/2012	11/23/2012	11/26/2012	11/26/2012	12/3/2012	12/3/2012	12/3/2012	12/7/2012
2011	1/25/2012	1/27/2012	2/1/2012	3/16/2012	3/19/2012	3/30/2012	3/30/2012	3/30/2012	4/13/2012
2010	10/29/2010	10/29/2010	10/29/2010	12/13/2010	2/22/2011	3/18/2011	4/13/2011	4/13/2011	4/15/2011
2009	10/23/2009	10/23/2009	10/23/2009	11/6/2009	2/5/2010	2/17/2010	2/26/2010	2/26/2010	2/26/2010
2008	12/22/2008	12/22/2008	1/28/2009	2/17/2009	2/18/2009	2/18/2009	2/27/2009	2/27/2009	2/27/2009
2007	1/7/2008	1/7/2008	1/7/2008	1/9/2008	1/28/2008	2/6/2008	2/27/2008	2/27/2008	3/3/2008
2006	11/20/2006	12/11/2006	12/15/2006	12/18/2006	2/12/2007	2/12/2007	2/16/2007	2/28/2007	2/28/2007
2005	11/2/2005	11/14/2005	11/14/2005	12/5/2005	12/23/2005	3/8/2006	3/20/2006	3/29/2006	4/24/2006
2004	11/1/2004	11/10/2004	12/10/2004	12/13/2004	1/3/2005	2/22/2005	2/25/2005	3/4/2005	4/4/2005
2003	12/6/2003	12/10/2003	12/10/2003	12/10/2003	12/10/2003	1/5/2004	2/18/2004	3/12/2004	3/22/2004
2002	11/8/2002	12/16/2002	12/16/2002	12/16/2002	1/15/2003	3/3/2003	3/19/2003	3/26/2003	4/28/2003
2001	9/10/2001	11/19/2001	11/23/2001	11/26/2001	11/30/2001	12/21/2001	2/23/2002	2/23/2002	4/5/2002
2000	1/15/2001	1/26/2001	1/31/2001	2/16/2001	2/23/2001	2/23/2001	3/12/2001	3/19/2001	4/13/2001
1999	1/18/2000	1/18/2000	1/20/2000	1/31/2000	2/11/2000	3/22/2000	3/22/2000	3/27/2000	3/29/2000
1998	10/19/1998	11/23/1998	11/23/1998	11/24/1998	11/27/1998	12/7/1998	3/18/1999	3/19/1999	4/15/1999
1997	11/24/1997	11/26/1997	11/29/1997	2/23/1998	3/17/1998	3/19/1998	3/23/1998	4/3/1998	4/17/1998
1996	11/25/1996	12/11/1996	12/12/1996	2/18/1997	2/27/1997	3/18/1997	3/26/1997	3/27/1997	4/22/1997
1995	12/15/1995	12/16/1995	12/16/1995	1/2/1996	3/1/1996	3/19/1996	3/26/1996	3/27/1996	4/2/1996
1994	12/27/1994	2/21/1995	2/24/1995	2/27/1995	3/7/1995	4/7/1995	4/13/1995	4/14/1995	4/27/1995

Table derived from data available on SacPas. Available at: http://www.cbr.washington.edu/sacramento/tmp/hrt_1552451186_673.html

Table 8. Timing of juvenile spring-run Chinook salmon passage past Sherwood Harbor (Sacramento Trawl) for Brood Years 1994 – 2017.

Brood Year	First Passage Date	5% Passage Date	10% Passage Date	25% Passage Date	50% Passage Date	75% Passage Date	90% Passage Date	95% Passage Date	Last Passage Date
Average (1994 - 2017)	29-Dec	10-Feb	25-Feb	19-Mar	11-Apr	19-Apr	25-Apr	27-Apr	15-May
Median (1994 - 2017)	13-Dec	18-Feb	9-Mar	28-Mar	11-Apr	19-Apr	25-Apr	27-Apr	11-May
2017	2/15/2018	3/3/2018	3/15/2018	3/24/2018	4/11/2018	4/16/2018	4/20/2018	4/27/2018	5/11/2018
2016	11/23/2016	3/28/2017	4/1/2017	4/5/2017	4/12/2017	5/1/2017	5/5/2017	5/7/2017	6/21/2017
2015	1/11/2016	3/21/2016	3/28/2016	4/1/2016	4/11/2016	4/15/2016	4/15/2016	4/18/2016	5/6/2016
2014	12/5/2014	12/8/2014	12/15/2014	12/24/2014	4/10/2015	4/17/2015	4/27/2015	4/29/2015	4/29/2015
2013	2/11/2014	2/15/2014	2/22/2014	3/7/2014	4/7/2014	4/11/2014	4/14/2014	4/18/2014	5/13/2014
2012	12/3/2012	4/1/2013	4/1/2013	4/10/2013	4/17/2013	4/19/2013	4/19/2013	4/22/2013	5/7/2013
2011	1/25/2012	3/16/2012	3/19/2012	3/30/2012	3/30/2012	4/18/2012	4/25/2012	4/25/2012	5/3/2012
2010	12/8/2010	12/20/2010	1/3/2011	4/13/2011	4/20/2011	4/22/2011	4/27/2011	4/27/2011	5/10/2011
2009	2/3/2010	3/1/2010	4/9/2010	4/16/2010	4/16/2010	4/23/2010	4/30/2010	4/30/2010	5/11/2010
2008	2/23/2009	4/2/2009	4/10/2009	4/15/2009	4/16/2009	4/24/2009	5/2/2009	5/7/2009	5/7/2009
2007	1/7/2008	1/7/2008	1/11/2008	2/27/2008	4/14/2008	4/25/2008	5/2/2008	5/2/2008	5/2/2008
2006	2/7/2007	2/14/2007	2/14/2007	4/9/2007	4/17/2007	4/17/2007	4/30/2007	5/1/2007	5/14/2007
2005	12/5/2005	1/6/2006	1/20/2006	2/8/2006	4/7/2006	4/28/2006	5/1/2006	5/3/2006	5/12/2006
2004	12/10/2004	2/22/2005	3/4/2005	4/1/2005	4/20/2005	4/22/2005	4/22/2005	4/27/2005	5/19/2005
2003	12/10/2003	12/17/2003	12/26/2003	2/17/2004	4/21/2004	4/23/2004	4/23/2004	4/28/2004	5/13/2004
2002	12/16/2002	1/6/2003	2/19/2003	3/19/2003	4/11/2003	4/23/2003	4/25/2003	4/25/2003	5/15/2003
2001	11/26/2001	12/17/2001	1/10/2002	3/7/2002	4/5/2002	4/22/2002	4/26/2002	4/26/2002	5/2/2002
2000	2/16/2001	2/16/2001	2/16/2001	2/16/2001	4/9/2001	4/18/2001	4/23/2001	4/25/2001	5/4/2001
1999	1/18/2000	2/11/2000	3/13/2000	3/27/2000	4/3/2000	4/14/2000	4/19/2000	4/19/2000	5/31/2000
1998	11/30/1998	1/22/1999	3/23/1999	4/3/1999	4/10/1999	4/20/1999	4/24/1999	4/27/1999	5/5/1999
1997	11/25/1997	3/9/1998	3/18/1998	3/25/1998	4/3/1998	4/15/1998	4/22/1998	4/27/1998	6/5/1998
1996	11/27/1996	2/21/1997	3/20/1997	4/8/1997	4/17/1997	4/22/1997	4/24/1997	4/25/1997	6/9/1997
1995	12/15/1995	3/5/1996	3/22/1996	3/27/1996	4/2/1996	4/7/1996	4/26/1996	4/29/1996	6/1/1996
1994	12/5/1994	2/24/1995	2/28/1995	3/16/1995	4/10/1995	4/18/1995	4/27/1995	4/29/1995	5/19/1995

Data available at: http://www.cbr.washington.edu/sacramento/tmp/hrt_1552495104_288.html

Table 9. Timing of juvenile CCV steelhead passage past Sherwood Harbor (Sacramento Trawl) for Brood Years 1998 – 2017.

Brood Year	First Passage Date	5% Passage Date	10% Passage Date	25% Passage Date	50% Passage Date	75% Passage Date	90% Passage Date	95% Passage Date	Last Passage Date
Average (1998 - 2017)	16-Jan	24-Jan	28-Jan	7-Feb	18-Feb	3-Mar	31-Mar	18-Apr	1-Jul
Median (1998 - 2017)	15-Jan	22-Jan	28-Jan	5-Feb	16-Feb	2-Mar	20-Mar	3-Apr	2-Jun
2017	1/12/2018	1/16/2018	1/22/2018	1/26/2018	2/24/2018	3/3/2018	3/17/2018	3/21/2018	5/14/2018
2016	1/30/2017	2/2/2017	2/4/2017	2/24/2017	3/4/2017	3/14/2017	4/2/2017	5/25/2017	6/2/2017
2015	1/11/2016	1/11/2016	1/29/2016	2/5/2016	2/8/2016	2/8/2016	2/18/2016	3/18/2016	4/4/2016
2014	1/23/2015	1/23/2015	2/9/2015	2/9/2015	2/11/2015	2/18/2015	4/1/2015	4/20/2015	4/20/2015
2013	1/31/2014	2/7/2014	2/8/2014	2/11/2014	2/12/2014	2/15/2014	2/16/2014	3/5/2014	4/18/2014
2012	1/18/2013	1/18/2013	1/30/2013	1/30/2013	2/8/2013	4/12/2013	4/30/2013	5/31/2013	5/31/2013
2011	1/17/2012	1/23/2012	1/23/2012	1/30/2012	2/13/2012	2/24/2012	3/9/2012	3/30/2012	5/1/2012
2010	1/12/2011	1/19/2011	2/4/2011	2/16/2011	2/18/2011	3/2/2011	3/7/2011	4/25/2011	6/21/2011
2009	1/27/2010	2/1/2010	2/3/2010	2/10/2010	2/17/2010	2/24/2010	4/16/2010	4/19/2010	6/10/2010
2008	1/28/2009	1/28/2009	1/28/2009	2/6/2009	2/17/2009	2/17/2009	2/23/2009	3/30/2009	5/7/2009
2007	1/11/2008	1/16/2008	1/18/2008	2/8/2008	2/11/2008	2/15/2008	2/15/2008	2/19/2008	3/3/2008
2006	1/17/2007	2/5/2007	2/9/2007	2/12/2007	2/16/2007	2/28/2007	4/17/2007	5/15/2007	6/12/2007
2005	1/20/2006	1/27/2006	2/1/2006	2/13/2006	2/17/2006	3/3/2006	3/13/2006	3/27/2006	6/14/2006
2004	1/12/2005	1/19/2005	1/19/2005	2/2/2005	2/22/2005	3/2/2005	4/15/2005	5/10/2005	5/24/2005
2003	1/2/2004	1/2/2004	1/16/2004	1/30/2004	2/4/2004	2/20/2004	3/8/2004	3/15/2004	12/6/2004
2002	1/15/2003	1/22/2003	1/22/2003	1/24/2003	2/5/2003	2/19/2003	4/14/2003	4/28/2003	4/28/2003
2001	1/15/2002	1/22/2002	1/24/2002	1/26/2002	2/23/2002	3/9/2002	12/16/2002	12/16/2002	12/16/2002
2000	1/13/2001	1/15/2001	1/15/2001	1/31/2001	2/2/2001	2/12/2001	2/16/2001	3/14/2001	9/19/2001
1999	1/3/2000	1/17/2000	1/17/2000	1/20/2000	1/27/2000	2/11/2000	3/13/2000	3/22/2000	4/21/2000
1998	1/12/1999	1/21/1999	1/21/1999	1/25/1999	2/11/1999	3/5/1999	3/23/1999	4/23/1999	12/13/1999

Data available at: http://www.cbr.washington.edu/sacramento/tmp/hrt_1552496507_849.html

Table 10. Monthly diverted volumes in acre feet (af) from the Barker Slough Pumping Plant for the water years 2008-2018.

Total Barker Slough Pumping in acre feet (af) for the water years 2008-2018												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2008	2491	1395	937	4142	5739	7023	7068	7039	6355	5776	4797	2915
2009	3235	1909	95	1390	5504	5560	5264	5140	4368	3914	4305	1611
2010	921	1172	539	1467	4369	5856	6555	6434	6104	5131	4204	1382
2011	323	742	239	580	3426	4674	6151	6029	6255	4532	4315	3064
2012	2430	306	332	412	2033	5311	5792	5592	6490	5225	4607	1501
2013	952	1137	659	2314	6275	6573	6322	6452	5588	5932	3871	3468
2014	3728	1165	1133	3579	6615	4789	3928	4095	2568	3006	1218	833
2015	1121	1544	1629	3358	3561	3377	3313	4447	4186	4196	3285	1167
2016	977	948	19	519	3083	4735	5385	4753	4180	3670	2847	2050
2017	1014	944	222	411	2944	3265	3357	5895	5789	5513	4695	4182
2018	2735	3502	1562	325	4665	6013	5971	5975	5589	5011	5312	3431

Table 11. Average monthly diverted flows in cubic feet per second (cfs) from the Barker Slough Pumping Plant for the water years 2008-2018.

Average Monthly Barker Slough Pumping in cubic feet per sec (cfs) For water years 2008-2018												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2008	40.5	25.1	15.2	69.6	93.3	118.0	114.9	114.5	106.8	93.9	80.6	47.4
2009	52.6	34.4	1.5	23.4	89.5	93.4	85.6	83.6	73.4	63.7	72.3	26.2
2010	15.0	21.1	8.8	24.7	71.1	98.4	106.6	104.6	102.6	83.4	70.7	22.5
2011	5.3	13.4	3.9	9.8	55.7	78.5	100.0	98.1	105.1	73.7	72.5	49.8
2012	39.5	5.5	5.4	6.9	33.1	89.3	94.2	90.9	109.1	85.0	77.4	24.4
2013	15.5	20.5	10.7	38.9	102.1	110.5	102.8	104.9	93.9	96.5	65.1	56.4
2014	60.6	21.0	18.4	60.1	107.6	80.5	63.9	66.6	43.2	48.9	20.5	13.6
2015	18.2	27.8	26.5	56.4	57.9	56.8	53.9	72.3	70.3	68.2	55.2	19.0
2016	15.9	17.1	0.3	8.7	50.1	79.6	87.6	77.3	70.2	59.7	47.8	33.3
2017	16.5	17.0	3.6	6.9	47.9	54.9	54.6	95.9	97.3	89.7	78.9	68.0
2018	44.5	63.1	25.4	5.5	75.9	101.1	97.1	97.2	93.9	81.5	89.3	55.8
Mean	29.5	24.2	10.9	28.3	71.3	87.4	87.4	91.4	87.8	76.7	66.4	37.9
Median	18.2	21.0	8.8	23.4	71.1	89.3	94.2	95.9	93.9	81.5	72.3	33.3
Minimum	5.3	5.5	0.3	5.5	33.1	54.9	53.9	66.6	43.2	48.9	20.5	13.6
Maximum	60.6	63.1	26.5	69.6	107.6	118.0	114.9	114.5	109.1	96.5	89.3	68.0

Table 12. Catches of Chinook salmon in the North Bay Aqueduct Larval Fish Survey (1994-2004)

Date	Species	Number Caught	Site Location
2/27/2004	Chinook salmon	1	724
2/28/2001	Chinook salmon	2	724, 726
3/8/2001	Chinook salmon	1	724
2/15/2000	Chinook salmon	5	723(1), 724 (3), 726 (1)
3/18/1999	Chinook salmon	1	718
3/7/1998	Chinook salmon	1	721
2/23/1997	Chinook salmon	1	726

Table 13. Timing of unclipped juvenile winter-run salvage (Length at Date) at the CVP and SWP facilities for Brood Years 1994 – 2017.

Start Year	First Salvage Date	5% Salvage Date	10% Salvage Date	25% Salvage Date	50% Salvage Date	75% Salvage Date	90% Salvage Date	95% Salvage Date	Last Salvage Date	Number Salvaged
Average (1994 - 2017)	26-Dec	9-Jan	22-Jan	4-Feb	24-Feb	11-Mar	24-Mar	29-Mar	22-Apr	1210
Median (1994 - 2017)	18-Dec	4-Jan	25-Jan	14-Feb	2-Mar	14-Mar	24-Mar	31-Mar	21-Apr	811
2017	2/5/2018	3/1/2018	3/6/2018	3/22/2018	3/25/2018	3/29/2018	4/3/2018	4/5/2018	5/15/2018	237
2016	12/20/2016	12/20/2016	12/20/2016	12/27/2016	2/14/2017	3/29/2017	4/5/2017	4/24/2017	4/24/2017	40
2015	12/28/2015	12/28/2015	1/5/2016	1/14/2016	1/28/2016	2/22/2016	3/22/2016	3/22/2016	3/22/2016	36
2014	12/24/2014	12/24/2014	12/24/2014	12/26/2014	1/4/2015	1/21/2015	1/21/2015	2/3/2015	3/31/2015	53
2013	3/3/2014	3/5/2014	3/6/2014	3/9/2014	3/15/2014	3/20/2014	4/4/2014	4/10/2014	4/14/2014	192
2012	12/4/2012	12/15/2012	12/16/2012	12/19/2012	3/9/2013	3/21/2013	3/25/2013	3/28/2013	4/6/2013	271
2011	1/25/2012	2/16/2012	2/27/2012	3/7/2012	3/17/2012	3/23/2012	3/31/2012	4/1/2012	5/29/2012	841
2010	12/3/2010	12/7/2010	12/29/2010	1/29/2011	3/1/2011	3/14/2011	3/20/2011	3/23/2011	4/13/2011	1703
2009	12/8/2009	1/30/2010	2/6/2010	2/24/2010	3/5/2010	3/18/2010	3/22/2010	3/26/2010	4/20/2010	1064
2008	12/30/2008	1/9/2009	2/26/2009	3/3/2009	3/8/2009	3/13/2009	3/16/2009	3/18/2009	4/17/2009	582
2007	1/11/2008	1/18/2008	1/28/2008	2/17/2008	3/1/2008	3/13/2008	3/22/2008	3/26/2008	4/29/2008	660
2006	12/18/2006	1/22/2007	2/8/2007	2/25/2007	3/2/2007	3/9/2007	3/24/2007	4/3/2007	4/22/2007	2764
2005	12/12/2005	12/23/2005	1/24/2006	2/21/2006	3/1/2006	3/14/2006	3/26/2006	4/1/2006	5/3/2006	1008
2004	1/2/2005	1/6/2005	1/11/2005	2/5/2005	3/1/2005	3/16/2005	3/26/2005	4/4/2005	4/20/2005	469
2003	12/15/2003	1/6/2004	1/27/2004	2/24/2004	3/1/2004	3/10/2004	3/16/2004	3/19/2004	5/19/2004	2728
2002	12/18/2002	12/24/2002	12/26/2002	1/7/2003	2/24/2003	3/5/2003	3/19/2003	3/26/2003	5/7/2003	2265
2001	12/5/2001	12/13/2001	12/18/2001	12/31/2001	3/5/2002	3/25/2002	3/31/2002	4/6/2002	4/27/2002	1442
2000	12/12/2000	2/2/2001	2/14/2001	2/23/2001	3/6/2001	3/13/2001	3/19/2001	3/23/2001	4/23/2001	5932
1999	1/2/2000	1/26/2000	1/28/2000	2/12/2000	2/19/2000	3/17/2000	3/30/2000	4/3/2000	4/14/2000	1924
1998	1/24/1999	2/23/1999	3/5/1999	3/13/1999	3/21/1999	4/1/1999	4/8/1999	4/11/1999	4/26/1999	1510
1997	12/4/1997	12/6/1997	12/8/1997	12/11/1997	1/4/1998	3/9/1998	3/21/1998	3/23/1998	3/27/1998	726
1996	12/10/1996	12/12/1996	3/8/1997	3/20/1997	3/26/1997	3/27/1997	3/30/1997	3/31/1997	4/6/1997	388
1995	12/18/1995	1/2/1996	1/7/1996	1/16/1996	1/25/1996	2/7/1996	3/16/1996	4/2/1996	4/18/1996	781
1994	12/16/1994	12/24/1994	12/28/1994	1/13/1995	1/20/1995	1/29/1995	4/21/1995	4/26/1995	5/6/1995	1416

Table 14. Timing of unclipped juvenile spring-run sized (Length at Date) salvage at the CVP and SWP facilities for Brood Years 1994 – 2017.

Start Year	First Salvage Date	5% Salvage Date	10% Salvage Date	25% Salvage Date	50% Salvage Date	75% Salvage Date	90% Salvage Date	95% Salvage Date	Last Salvage Date	Number Salvaged
Average (1994 - 2017)	12-Feb	26-Mar	31-Mar	7-Apr	19-Apr	28-Apr	8-May	14-May	4-Jun	14762
Median (1994 - 2017)	19-Feb	27-Mar	30-Mar	6-Apr	18-Apr	27-Apr	7-May	13-May	4-Jun	8832
2017	3/14/2018	3/27/2018	3/28/2018	3/30/2018	4/7/2018	4/16/2018	5/2/2018	5/9/2018	5/23/2018	9487
2016	2/16/2017	4/10/2017	4/18/2017	4/27/2017	5/7/2017	5/14/2017	5/22/2017	6/1/2017	6/29/2017	26713
2015	2/11/2016	2/12/2016	2/28/2016	3/18/2016	4/17/2016	5/2/2016	5/13/2016	5/14/2016	5/19/2016	158
2014	3/30/2015	3/30/2015	3/30/2015	4/5/2015	4/22/2015	4/24/2015	5/4/2015	5/18/2015	5/18/2015	50
2013	3/13/2014	3/19/2014	3/21/2014	4/5/2014	4/9/2014	4/19/2014	4/23/2014	4/29/2014	5/10/2014	484
2012	3/17/2013	3/24/2013	3/27/2013	4/8/2013	4/24/2013	5/2/2013	5/8/2013	5/13/2013	5/25/2013	909
2011	3/10/2012	3/25/2012	3/28/2012	4/2/2012	4/15/2012	4/21/2012	5/2/2012	5/7/2012	6/8/2012	1063
2010	1/3/2011	4/13/2011	4/22/2011	4/30/2011	5/7/2011	5/16/2011	5/29/2011	6/3/2011	6/24/2011	17654
2009	3/9/2010	3/31/2010	4/6/2010	4/16/2010	5/2/2010	5/16/2010	5/26/2010	5/29/2010	6/5/2010	4068
2008	3/15/2009	3/30/2009	4/2/2009	4/11/2009	4/23/2009	5/1/2009	5/10/2009	5/13/2009	6/15/2009	4730
2007	3/11/2008	4/3/2008	4/7/2008	4/18/2008	4/27/2008	5/4/2008	5/10/2008	5/14/2008	6/5/2008	5100
2006	3/2/2007	4/1/2007	4/4/2007	4/10/2007	4/15/2007	4/18/2007	4/21/2007	4/24/2007	5/30/2007	3378
2005	2/9/2006	3/23/2006	4/4/2006	4/12/2006	5/2/2006	5/25/2006	5/29/2006	6/5/2006	6/19/2006	5822
2004	2/25/2005	3/25/2005	3/27/2005	4/4/2005	4/21/2005	4/29/2005	5/12/2005	5/22/2005	6/11/2005	14694
2003	1/18/2004	3/9/2004	3/14/2004	3/21/2004	4/4/2004	4/13/2004	4/27/2004	5/4/2004	5/26/2004	4534
2002	1/7/2003	3/21/2003	3/25/2003	3/29/2003	4/6/2003	4/14/2003	4/26/2003	4/30/2003	5/29/2003	15706
2001	1/1/2002	3/28/2002	3/30/2002	4/3/2002	4/8/2002	4/14/2002	4/21/2002	4/30/2002	6/3/2002	8177
2000	9/26/2000	3/25/2001	3/30/2001	4/3/2001	4/12/2001	4/18/2001	4/28/2001	5/2/2001	5/14/2001	17940
1999	2/13/2000	3/29/2000	4/2/2000	4/6/2000	4/10/2000	4/14/2000	4/24/2000	4/28/2000	6/1/2000	42468
1998	2/2/1999	3/28/1999	4/4/1999	4/10/1999	4/18/1999	4/26/1999	5/7/1999	5/13/1999	6/4/1999	46655
1997	2/22/1998	3/25/1998	3/26/1998	4/1/1998	4/29/1998	5/9/1998	5/18/1998	5/22/1998	6/25/1998	30589
1996	2/8/1997	3/24/1997	3/25/1997	3/28/1997	4/3/1997	4/9/1997	4/17/1997	4/24/1997	6/5/1997	42906
1995	2/7/1996	4/5/1996	4/7/1996	4/10/1996	4/13/1996	5/2/1996	5/23/1996	5/27/1996	6/12/1996	26785
1994	2/22/1995	4/13/1995	4/19/1995	4/29/1995	5/11/1995	5/26/1995	6/8/1995	6/11/1995	6/30/1995	24224

Table 15. Timing of juvenile unclipped steelhead salvage at the CVP and SWP facilities for Brood Years 1998 – 2017.

Start Year	First Salvage Date	5% Salvage Date	10% Salvage Date	25% Salvage Date	50% Salvage Date	75% Salvage Date	90% Salvage Date	95% Salvage Date	Last Salvage Date	Number Salvaged
Average (1994 - 2017)	4-Dec	23-Jan	8-Feb	24-Feb	19-Mar	10-Apr	1-May	13-May	17-Jun	1395
Median (1998 - 2017)	19-Dec	26-Jan	10-Feb	24-Feb	20-Mar	6-Apr	25-Apr	9-May	22-Jun	1074
2017	2/1/2018	3/14/2018	3/17/2018	3/24/2018	4/3/2018	4/15/2018	5/15/2018	5/23/2018	6/11/2018	1119
2016	11/27/2016	11/27/2016	12/31/2016	1/25/2017	5/8/2017	5/24/2017	6/6/2017	6/16/2017	6/16/2017	65
2015	1/20/2016	2/1/2016	2/2/2016	2/16/2016	3/15/2016	3/25/2016	4/3/2016	5/2/2016	5/23/2016	119
2014	11/16/2014	11/16/2014	2/16/2015	2/17/2015	2/27/2015	4/17/2015	4/28/2015	5/8/2015	5/8/2015	43
2013	1/23/2014	2/19/2014	2/20/2014	3/7/2014	3/25/2014	4/7/2014	4/10/2014	4/23/2014	5/6/2014	185
2012	11/23/2012	1/22/2013	2/12/2013	3/22/2013	3/31/2013	4/26/2013	5/13/2013	5/27/2013	7/2/2013	797
2011	9/12/2011	1/5/2012	3/9/2012	3/24/2012	3/30/2012	4/4/2012	4/18/2012	4/21/2012	6/3/2012	342
2010	10/28/2010	2/12/2011	2/17/2011	3/2/2011	4/13/2011	5/28/2011	6/12/2011	6/20/2011	6/27/2011	738
2009	12/20/2009	2/3/2010	2/6/2010	2/10/2010	2/23/2010	4/2/2010	5/31/2010	6/19/2010	6/21/2010	1030
2008	1/25/2009	2/11/2009	2/20/2009	3/2/2009	3/16/2009	3/30/2009	4/28/2009	5/11/2009	7/7/2009	372
2007	1/18/2008	1/30/2008	2/2/2008	2/12/2008	2/23/2008	3/14/2008	4/22/2008	5/4/2008	7/6/2008	984
2006	12/31/2006	2/12/2007	2/15/2007	3/5/2007	3/24/2007	4/9/2007	4/17/2007	4/20/2007	6/7/2007	2774
2005	1/4/2006	2/10/2006	2/24/2006	3/4/2006	3/30/2006	5/31/2006	6/14/2006	6/24/2006	7/5/2006	1601
2004	11/3/2004	1/11/2005	1/28/2005	2/25/2005	3/25/2005	4/14/2005	5/21/2005	6/3/2005	7/3/2005	1351
2003	12/18/2003	1/12/2004	1/28/2004	2/15/2004	3/1/2004	3/12/2004	3/30/2004	4/5/2004	5/27/2004	1785
2002	12/20/2002	1/8/2003	1/12/2003	1/21/2003	3/3/2003	3/22/2003	4/14/2003	5/11/2003	6/24/2003	2189
2001	12/20/2001	1/18/2002	1/25/2002	2/22/2002	3/12/2002	3/29/2002	4/14/2002	4/29/2002	7/4/2002	1632
2000	10/31/2000	1/22/2001	2/9/2001	2/23/2001	3/10/2001	3/25/2001	4/5/2001	4/13/2001	6/1/2001	4610
1999	8/25/1999	1/22/2000	1/30/2000	2/10/2000	2/20/2000	3/7/2000	4/5/2000	4/17/2000	7/29/2000	3866
1998	10/23/1998	2/6/1999	2/11/1999	3/15/1999	4/8/1999	4/19/1999	5/18/1999	5/26/1999	7/2/1999	2292

Table 16: Total number of listed fish collected at the Rock Slough Intake for years 1999-2011, prior to the operation of the Rock Slough Fish Screen.

Species	Total Number Collected 1999-2011	Number Collected by Year	
		Headworks 1999-2011	Pumping Plant #1 2004-2011
Winter-run Chinook salmon	0	All years - 0	All years - 0
Spring-run Chinook salmon	15 juveniles	2004 - 3 2005 - 4 2006 - 3 2008 - 1	2004 - 3 2006 - 1
Fall-run Chinook salmon	23 juveniles	2000 - 3 2004 - 5 2005 - 10 2006 - 1 2008 - 2	2004 - 2
Central Valley steelhead	15 juveniles	2005 - 4 2006 - 2 2007 - 1 2008 - 8	All years - 0
Green sturgeon	0	All years - 0	All years - 0
Delta smelt	1 adult	2005 - 1 (66 mm)	All years - 0
Longfin smelt	1 larva	2008 - 1 (<8mm)	All years - 0

Note: No monitoring was conducted at the Headworks in 2010 and 2011 due to the construction of the Rock Slough Fish Screen. Monitoring continued at Pumping Plant #1 until the Rock Slough Fish Screen became operational in October 2011.

Table 17.



b(5)

Table 18.

b(5)

b(5)

Table 19. Intervals of wild steelhead loss density values for water years 2010 – 2018; (fish loss/ thousand acre feet [TAF]). Intervals are described as the fish loss per TAF values from the preceding bin up to, but not including the next highest bin value.

Fish Loss/ TAF	Water Year								
	2010	2011	2012	2013	2014	2015	2016	2017	2018
0 to <2	67	61	19	32	23	5	20	14	30
2 to <4	17	21	11	16	2	3	6	1	22
4 to <6	10	6	7	13	2	3	0	0	10
6 to <8	1	2	3	7	1	0	1	0	10
8 to <10	1	3	2	5	0	0	0	0	5
10 to <12	2	2	0	8	0	0	0	0	1
12 to <14	0	0	2	0	0	0	0	0	1
14 to <16	1	0	0	0	0	0	0	0	1
16 to <18	0	0	1	1	0	0	0	0	0
18 to <20	0	0	0	2	0	0	0	0	0
20 to <22				0					
22 to <24				0					
24 to <26				1					
26 to <28				0					
28 to <30				0					
30 to <32				1					
# > 8 fish/TAF	5	5	5	18	0	0	0	0	8
# > 10 fish/TAF	3	2	3	13	0	0	0	0	3
Difference	2	3	2	5	0	0	0	0	5
% change	40%	60%	40%	28%	0%	0%	0%	0%	63%
Average % Change	26% reduction in the number of trigger exceedances (all water years 2010-2018) 46% reduction of trigger exceedances in water years with any exceedances								