

General approach

Method A -- Use value from Harvey and Stroble 2013

Estimate of wild spring-run as percent of spring-run-sized fish

2 | Based on Harvey and Stroble 2013, Table 5c, which shows that 98% of spring

Method A -- Original plan; probably also reasonable but requires a lot more assumptions. In looking for it

Value	Item
18,280,000	Add up production goals for fall-run hatchery fish released in river
0.5	rough estimate of survival to Delta (estimate used by John in his SRKW prey
9,140,000	Production goals x estimated survival = Estimate of ALL hatchery fall-run rea
0.75	Assumed unmarked fraction
6,855,000	Unmarked fraction x estimate of hatchery fall-run reaching the Delta = estim
0.47	Assumed fraction of unmarked hatchery fall-run that are spring-run sized (Fr
3,221,850	Estimate of unmarked hatchery fall-run reaching the Delta x fraction that ar
	Estimate of wild juvenile spring-run reaching the Delta (based on Joe's estim
100,000	Low estimate
2,500,000	High estimate

	Estimate of spring-run-sized (both wild spring-run and spring-run-sized hatch
3,321,850	Based on wild spring-run low estimate
5,721,850	Based on wild spring-run high estimate

	Estimate of wild spring-run as percent of spring-run-sized fish
3	Based on wild spring-run low estimate
44	Based on wild spring-run high estimate

Summary of production goals for fall-run hatchery fish released in river

Table 7 from John's SRKW prey analysis, includes all hatchery releases

Hatchery annual Chinook releases	General goal	Proportion bay	Proportion in-river	Number in-river
Coleman fall	12,000,000	0	1	12,000,000
Coleman late fall	1,000,000	0	1	1,000,000
LSNFH Winter	200,000	0	1	200,000
Feather Fall	6,000,000	0.7	0.3	1,800,000
Feather Spring	2,000,000	0.5	0.5	1,000,000
Feather enhancement	2,000,000	1	0	0
Nimbus	4,000,000	0.33	0.67	2,680,000
Mokelumne	5,000,000	0.7	0.3	1,500,000
Mokelumne enhancement	2,000,000	1	0	0
Merced	300,000	0	1	300,000
Total release	34,500,000			
In-river release	20,480,000			
Proportion released in-river	0.59			

Total

g-run-sized fish were not genetic spring-run (95% genetic fall-run, 1% genetic winter-run, and 2% ge

em in cell A 14, discovered simpler method A.

analysis; number based on RBDD-to-Delta survival of 0.5028 in BY 2018 JPE letter)
reaching the Delta (from both Sac and SJ basins)

rate of unmarked hatchery fall-run reaching the Delta
(from Harvey and Stroble 2013, Table 5b.)

estimate of unmarked spring-run-sized hatchery fall-run reaching the Delta

estimate linking WR escapement to JPE and SR escapement to a "SR JPE")

hatchery fall-run) fish reaching the Delta

Fall-run In-river releases only
12,000,000
1,800,000
2,680,000
1,500,000
300,000
18,280,000

netic late-fall-run).



Spring-run table

Water Yeartype	Predicted loss under COS	Predicted loss under PA	PA-COS	% change
Wet	125,972	270,759	144,788	115
Above Normal	75,124	199,562	124,438	166
Below Normal	20,859	43,781	22,922	110
Dry	48,347	88,278	39,931	83
Critical	23,917	42,325	18,408	77

Above table multiplied by 0.02 to adjusted to remove unmarked hatchery fish and other wild fish from o
Spring-run table -- adjusted

Water Yeartype	Predicted loss under COS	Predicted loss under PA	PA-COS	% change
Wet	2,519	5,415	2,896	115
Above Normal	1,502	3,991	2,489	166
Below Normal	417	876	458	110
Dry	967	1,766	799	83
Critical	478	847	368	77

ther runs

CV spring-run Chinook salmon				
Month	Predicted loss under COS	Predicted loss under PA	PA-COS	% change
October	31	45	15	48
November	0	0	0	--
December	0	0	0	--
January	0	0	0	--
February	879	919	39	4
March	27,504	25,787	-1,717	-6
April	64,198	168,313	104,115	162
May	31,710	74,038	42,328	133
June	1,650	1,657	7	0
July	0	0	0	--
August	0	0	0	--
September	0	0	0	--

Adjusted to reflect wild

CV spring-	
Month	Predicted loss under COS
October	1
November	0
December	0
January	0
February	18
March	550
April	1,284
May	634
June	33
July	0
August	0
September	0

Total	2,519
% of 100,000	3
% of 660,000	0

SR (table at left multiplied by 0.02 to adjusted to remove unmarked hatchery fish and other wild fish fr

-run Chinook salmon		
Predicted loss under PA	PA-COS	% change
1	0	48
0	0	--
0	0	--
0	0	--
18	1	4
516	-34	-6
3,366	2,082	162
1,481	847	133
33	0	0
0	0	--
0	0	--
0	0	--

5,415

5

1

from other runs)