

Table 1: Whole-habitat in situ filtration and control trials across four California sites. All values are averages from the entire trial. Observations separated at the bottom are extreme values that were removed from the analysis.

Site	Date	Trial	Tide	HCR (L/hr/m ²)	Chl _{rmid} (%)	Chl _{up} (μ g/L)	Temp (°C)	Salinity (ppt)	Turb (NTU)	TPM (mg/L)	OC (ratio)	Depth (m)	Distance (m)	Velocity (m/s)
SR	2018-07-17	Fltr	Flood	-166	-4.5	4.4	24.51	29.6	30.6	76.91	0.12	0.72	21.0	0.03
SR	2018-07-18	Fltr	Flood	302	1.1	4.5	24.32	29.9	21.7	38.59	0.20	0.79	21.0	0.20
SR	2018-09-10	Fltr	Flood	112	1.9	4.9	19.02	30.3	23.1	36.19	0.10	0.89	25.3	0.05
SR	2018-11-07	Ctrl 1	Ebb	-99	-1.3	6.9	16.45	29.9	25.5	30.04	0.17	0.40	11.6	0.06
SR	2018-11-08	Fltr	Ebb	417	6.2	5.1	14.52	29.9	30.9	32.45	0.14	0.69	12.3	0.03
MB	2018-07-27	Fltr	Flood	346	17.5	4.5	17.66	35.9	7.9	17.53	0.26	0.48	26.0	0.03
MB	2018-07-28	Fltr	Flood	65	6.2	3.0	17.45	35.9	7.4	14.60	0.33	0.30	27.0	0.03
MB	2019-05-18	Fltr	Flood	-128	-3.4	3.0	16.29	37.6	17.5	NA	NA	0.42	30.5	0.08
MB	2019-05-19	Fltr	Flood	-242	-18.2	2.2	15.94	36.4	10.9	14.45	0.18	0.45	30.5	0.02
MB	2019-06-06	Ctrl 1	Flood	-19	-0.7	2.1	17.28	38.1	11.9	12.80	0.22	0.32	20.5	0.05
NPSM	2019-05-10	Fltr	Flood	-120	-1.9	3.7	19.78	37.0	4.1	5.90	0.24	0.38	13.0	0.06
NPSM	2019-05-11	Fltr	Flood	845	19.6	2.4	21.52	36.5	4.7	5.14	0.25	0.32	12.2	0.04
NPSM	2019-06-08	Fltr	Flood	-97	-2.1	2.7	20.06	36.0	4.0	3.95	0.20	0.26	8.6	0.04
NPD	2018-10-25	Fltr	Ebb	-216	-10.1	3.2	21.09	33.5	4.8	NA	NA	0.18	19.2	0.06
NPD	2018-10-26	Fltr	Ebb	467	16.4	4.0	20.96	36.4	2.4	4.39	0.36	0.19	19.2	0.08
NPD	2019-04-15	Fltr	Ebb	-22	-0.7	1.3	19.43	36.4	3.4	4.73	0.32	0.23	16.4	0.07
NPD	2019-05-09	Fltr	Ebb	242	4.6	5.4	19.44	37.0	2.3	2.67	0.21	0.32	15.0	0.07
NPD	2019-05-10	Fltr	Ebb	383	5.6	4.0	19.25	37.4	2.9	5.10	0.16	0.31	14.8	0.09
NPD	2019-05-11	Fltr	Ebb	248	2.9	3.7	18.85	36.5	2.9	4.00	0.24	0.35	15.0	0.10
NPD	2019-05-21	Fltr	Ebb	-153	-3.5	6.3	18.89	34.2	3.3	3.57	0.23	0.24	16.0	0.08
NPD	2019-05-22	Fltr	Ebb	149	4.8	7.4	18.62	33.9	2.8	3.83	0.23	0.22	15.7	0.06
NPD	2019-06-08	Fltr	Ebb	-156	-2.8	4.3	19.07	37.1	2.7	3.65	0.27	0.26	15.7	0.09
NPD	2019-06-09	Ctrl 1	Ebb	-456	-2.9	2.8	19.18	37.1	1.3	2.80	0.21	0.48	12.8	0.12
NPD	2019-06-09	Ctrl 2	Ebb	-199	-3.4	2.9	19.22	37.0	2.0	2.80	0.21	0.33	12.8	0.06
NPD	2019-06-09	Ctrl 3	Ebb	110	2.9	3.7	19.62	36.6	2.2	2.80	0.21	0.21	12.2	0.06
NPSM	2019-05-22	Fltr	Flood	-2485	-60.3	2.7	19.29	33.7	3.8	4.92	0.20	0.26	8.6	0.04
NPSM	2019-06-09	Ctrl 1	Flood	-8844	-203.8	1.1	22.40	36.0	5.9	4.02	0.18	0.30	11.2	0.04
NPD	2019-04-17	Fltr	Ebb	-4867	-108.9	0.1	19.41	37.4	4.9	4.03	0.23	0.18	16.4	0.11

San Rafael (SR); Morro Bay (MB); Shellmaker (NPSM); Deanza (NPD); habitat clearance rate (HCR); chlorophyll α removed (Chl_{rmid}); chlorophyll α upstream (Chl_{up}); temperature (Temp); turbidity (Turb); total particulate matter (TPM); seston organic content (OC).