

Delta Water Quality Conditions

for the Sacramento - San Joaquin Delta and Suisun Marsh
Sunday, April 19, 2020

Flow/Operational	Standard	Current Status
% of inflow diverted	35 %	9 %
Vernalis Base Flow : Monthly average *	>= 1140 cfs	1,907 cfs
7 Day average *	>= 912 cfs	1,901 cfs
Habitat Protection, X2 / Flow	31 days at Collinsville	19 days
5 Chipps day as carryover from March	5 days at Chipps Island	14 days

Water Quality	Standard	Current Status
Days @ CCWD PP#1 w/ chlorides <= 150 mg/l	165 days	110 days
Export Areas for SWP, CVP, CCWD, et al	<= 250 mg/l Cl	38 mg/l
14dm EC at Emmaton	<= 0.45 mS/cm	0.21 mS/cm
14dm EC at Jersey Point	<=0.45 mS/cm	0.28 mS/cm
14dm EC at San Andreas Landing	<= 0.45 mS/cm	0.19 mS/cm
14dm EC at Terminous	<= 0.45 mS/cm	0.15 mS/cm
30dm EC at Vernalis(VNS)	<=0.7 mS/cm	0.7 mS/cm
30dm EC at Brandt Bridge(BDT)	<=0.7 mS/cm	0.8 mS/cm
30dm E at Old River Near Tracy(OLD)	<=0.7 mS/cm	0.9 mS/cm
30dm EC at Old River Near Middle River(UNI)	<=0.7 mS/cm	0.8 mS/cm
Suisun Marsh Western maximum monthly average* mhtEC	<=11.0 mS/cm	3.8 mS/cm
Eastern maximum monthly average* mhtEC	<=11.0 mS/cm	1.8 mS/cm

Suisun Marsh:

Suisun Marsh Salinity Control Gates : 0 Open / 0 Closed / 3 Tidally Operating
Flashboard Status : In Boat Lock Status : Open

California Hydrologic Conditions: (California Cooperative Snow Surveys Forecast, Apr 1, 2020)

Previous Month's Index (8RI for Mar): 1170 TAF

Sacramento valley water year type index (40/30/30) @ 50%: 6.0 MAF (Dry)

San Joaquin valley water year type index (60/20/20) @ 75%: 2.1 MAF (Critical)

Electrical Conductivity (EC) in milliSiemens per Centimeter.

Chlorides (Cl) in milligrams per liter

mht - mean high tides

md - mean daily

14 dm - fourteen day running mean

30 dm -thirty day running mean

Montezuma Slough Gate Operation:

Number of gates operating at either
Open, Closed, or Full Tide Open

Flashboard Status : In, Out, or Modified In

Boat Lock Status : Open or Closed

* NDOI, Rio Vista & Vernalis Flows and Suisun Marsh mhtEC:

- 7 day average is progressive daily mean for the first six days of the month.

- Monthly average is progressive daily mean from the beginning of the month

Delta Water Quality Conditions

Date	ANT High	ANT Half	PCT@64km mdEC	PCT@64km 14dm	PCT@66km mdEC	MAL mdEC	CHP mdEC	CHP 14dm	CLL mdEC	CLL 14dm
03/21/2020	5.62	3.93	12.19	13.23	10.13	5.23	4.69	5.88	2.20	3.18
03/22/2020	5.52	3.88	12.06	13.11	9.99	5.09	4.55	5.79	2.00	3.11
03/23/2020	5.63	4.07	13.10	13.11	11.12	6.01	5.47	5.79	2.38	3.07
03/24/2020	5.39	3.91	12.34	13.04	10.28	5.43	4.89	5.73	1.94	2.99
03/25/2020	5.34	3.90	12.22	12.94	10.16	5.04	4.51	5.61	2.04	2.91
03/26/2020	5.44	3.84	11.68	12.78	9.59	4.93	4.39	5.45	1.97	2.79
03/27/2020	5.38	3.73	11.56	12.56	9.46	4.82	4.28	5.20	1.84	2.59
03/28/2020	5.38	3.68	10.76	12.32	8.62	4.25	3.73	4.96	1.65	2.41
03/29/2020	5.43	3.68	10.65	12.09	8.51	4.28	3.76	4.75	1.78	2.27
03/30/2020	5.48	3.71	10.89	11.98	8.75	4.53	4.00	4.66	1.89	2.18
03/31/2020	5.36	3.82	11.24	11.88	9.13	4.59	4.06	4.56	1.97	2.12
04/01/2020	5.56	4.00	12.02	11.83	9.95	5.04	4.50	4.48	2.21	2.07
04/02/2020	5.22	3.74	10.82	11.70	8.69	3.87	3.36	4.34	1.81	2.00
04/03/2020	5.28	3.65	11.12	11.62	8.99	4.29	3.77	4.28	1.69	1.95
04/04/2020	5.70	3.89	12.48	11.64	10.44	5.12	4.58	4.28	1.82	1.93
04/05/2020	6.13	4.20	13.09	11.71	11.10	5.71	5.17	4.32	2.32	1.95
04/06/2020	5.77	4.03	12.16	11.64	10.09	5.05	4.52	4.25	1.99	1.92
04/07/2020	5.58	3.89	11.14	11.56	9.02	4.09	3.57	4.16	1.51	1.89
04/08/2020	5.84	4.12	10.85	11.46	8.72	3.84	3.33	4.07	1.35	1.84
04/09/2020	6.26	4.06	9.57	11.31	7.42	3.26	2.78	3.96	1.05	1.78
04/10/2020	6.19	4.14	9.53	11.17	7.38	3.08	2.61	3.84	0.99	1.72
04/11/2020	6.40	4.34	9.52	11.08	7.37	3.17	2.70	3.76	1.05	1.67
04/12/2020	6.37	4.26	9.06	10.96	6.92	2.95	2.49	3.67	1.01	1.62
04/13/2020	6.20	4.25	8.60	10.80	6.48	2.58	2.15	3.54	0.91	1.55
04/14/2020	5.64	4.05	7.31	10.52	5.26	1.98	1.61	3.37	0.70	1.46
04/15/2020	5.44	4.11	7.43	10.19	5.37	1.97	1.60	3.16	0.63	1.34
04/16/2020	5.47	4.21	8.66	10.04	6.53	2.55	2.12	3.07	0.70	1.26
04/17/2020	5.62	4.30	9.92	9.95	7.77	3.32	2.84	3.00	0.84	1.20
04/18/2020	5.56	4.08	8.97	9.70	6.83	2.82	2.37	2.85	0.72	1.12
04/19/2020	5.39	3.93	8.68	9.39	6.55	2.49	2.06	2.62	0.63	1.00

Chippis Island EC and Port Chicago at 64km calculated from measurements recorded at Mallard Slough and Port Chicago at 66km respectively.

Electrical Conductivity (EC) units: milliSiemens per Centimeter

md : mean daily

14dm : fourteen day running mean

NR : No Record

NC : Not Computed due to insufficient data

BR : Below Rating

e - estimated value

ANT:Antioch Tides (ft)

PCT @64km: Port Chicago at 64 kilometer

PCT @66km: Port Chicago at 66 kilometer

MAL:Mallard

CHP: Chippis Island

CLL: Collinsville

Delta Water Quality Conditions

Date	ANH mdEC	ANH 14dm	JER mdEC	JER 14dm	EMM mdEC	EMM 14dm	TMS mdEC	TMS 14dm	SAL mdEC	SAL14dm	TER mdEC	TER 14dm
03/21/2020	0.93	1.32	0.34	0.36	0.27	0.37	0.25	0.27	0.22	0.24	0.15	0.18
03/22/2020	0.90	1.31	0.33	0.36	0.25	0.37	0.25	0.27	0.23	0.24	0.15	0.18
03/23/2020	1.06	1.31	0.34	0.36	0.27	0.36	0.24	0.27	0.23	0.24	0.16	0.18
03/24/2020	0.99	1.31	0.33	0.36	0.25	0.36	0.25	0.27	0.23	0.24	0.16	0.18
03/25/2020	0.96	1.29	0.33	0.36	0.24	0.36	0.24	0.27	0.23	0.23	0.16	0.17
03/26/2020	0.93	1.26	0.34	0.36	0.23	0.34	0.24	0.27	0.22	0.23	0.16	0.17
03/27/2020	0.91	1.20	0.34	0.36	0.24	0.32	0.24	0.27	0.22	0.23	0.16	0.17
03/28/2020	0.85	1.13	0.33	0.35	0.23	0.30	0.24	0.26	0.21	0.23	0.16	0.17
03/29/2020	0.88	1.07	0.34	0.35	0.23	0.28	0.23	0.25	0.21	0.22	0.16	0.17
03/30/2020	0.92	1.03	0.35	0.34	0.25	0.27	0.24	0.25	0.21	0.22	0.16	0.17
03/31/2020	0.94	0.99	0.35	0.34	0.25	0.26	0.24	0.25	0.22	0.22	0.16	0.16
04/01/2020	0.99	0.96	0.38	0.34	0.29	0.26	0.25	0.25	0.22	0.22	0.17	0.16
04/02/2020	0.79	0.93	0.34	0.34	0.26	0.25	0.25	0.24	0.21	0.22	0.17	0.16
04/03/2020	0.75	0.91	0.33	0.34	0.27	0.25	0.24	0.24	0.21	0.22	0.17	0.16
04/04/2020	0.89	0.91	0.33	0.34	0.30	0.26	0.24	0.24	0.21	0.22	0.16	0.16
04/05/2020	1.06	0.92	0.35	0.34	0.31	0.26	0.25	0.24	0.21	0.22	0.16	0.16
04/06/2020	0.95	0.92	0.33	0.34	0.24	0.26	0.25	0.24	0.21	0.22	0.17	0.16
04/07/2020	0.75	0.90	0.31	0.34	0.22	0.26	0.24	0.24	0.20	0.21	0.17	0.16
04/08/2020	0.70	0.88	0.31	0.34	0.21	0.25	0.23	0.24	0.19	0.21	0.16	0.16
04/09/2020	0.63	0.86	0.30	0.33	0.21	0.25	0.23	0.24	0.19	0.21	0.15	0.16
04/10/2020	0.59	0.84	0.29	0.33	0.22	0.25	0.22	0.24	0.18	0.21	0.14	0.16
04/11/2020	0.57	0.82	0.28	0.33	0.22	0.25	0.22	0.24	0.19	0.20	0.14	0.16
04/12/2020	0.53	0.79	0.28	0.32	0.22	0.25	0.22	0.24	0.19	0.20	0.15	0.16
04/13/2020	0.49	0.76	0.27	0.32	0.22	0.25	0.21	0.24	0.19	0.20	0.15	0.16
04/14/2020	0.44	0.72	0.26	0.31	0.21	0.24	0.21	0.23	0.19	0.20	0.15	0.16
04/15/2020	0.44	0.68	0.25	0.30	0.21	0.24	0.20	0.23	0.19	0.20	0.16	0.16
04/16/2020	0.45	0.66	0.25	0.30	0.21	0.23	0.20	0.23	0.20	0.20	0.16	0.16
04/17/2020	0.46	0.64	0.25	0.29	0.21	0.23	0.20	0.22	0.20	0.20	0.16	0.16
04/18/2020	0.44	0.61	0.25	0.28	0.19	0.22	0.20	0.22	0.20	0.19	0.16	0.15
04/19/2020	0.42	0.56	0.24	0.28	0.19	0.21	0.20	0.22	0.20	0.19	0.16	0.15

Electrical Conductivity (EC) units: milliSiemens per Centimeter

Chloride (Cl) units: milligrams per liter

md : mean daily

14dm : fourteen day running mean

NR : No Record

NC : Not Computed due to insufficient data

BR : Below Rating

e : estimated value

ANH:Antioch

JER:Jersey Point

EMM: Emmaton

TMS: Three Mile Slough

SAL :San Andreas Landing

TER: Terminus

Delta Water Quality Conditions

Date	BET mdEC	FRP mdEC	HLL mdEC	BAC mdEC	CNT mdEC	CLC mdEC	DMC mdEC	ANH mdCl	BAC mdCl	CNT mdCl
03/21/2020	0.31	0.34	0.32	0.33	0.37	0.49	0.44	227	48	43 e
03/22/2020	0.31	0.34 e	0.31	0.33	0.37	0.50	0.43	216	47	43 e
03/23/2020	0.31	0.34	0.31	0.33	0.36	0.43	0.41	267	47	43 e
03/24/2020	0.31	0.34	0.31	0.33	0.37	0.54	0.41	246	47	43
03/25/2020	0.31	0.34	0.31	0.33	0.38	0.59	0.42	235	47	44
03/26/2020	0.31	0.34	0.31	0.32	0.38	0.59	0.43	225	46	44
03/27/2020	0.31	0.34	0.30	0.32	0.38	0.60	0.44	221	45	44
03/28/2020	0.31	0.34	0.30	0.32	0.37	0.62	0.52	201	44	44 e
03/29/2020	0.31	0.34	0.31	0.32	0.37	0.56	0.55	209	44	44 e
03/30/2020	0.30	0.34	0.30	0.31	0.36	0.57	0.54	224	43	44 e
03/31/2020	0.30	0.34	0.30	0.31	0.35	0.45	0.59	230	42	44 e
04/01/2020	0.31	0.34	0.29	0.31	0.35	0.62	0.50	244	42	42 e
04/02/2020	0.30	0.34	0.29	0.30	0.34	0.57	0.54	182	41	42 e
04/03/2020	0.30	0.34	0.29	0.30	0.34	0.57	0.52	169	41	37
04/04/2020	0.30	0.33	0.29	0.31	0.33	0.51	0.49	215	41	37 e
04/05/2020	0.29	0.33	0.29	0.31	0.33	0.49	0.45	268	42	37 e
04/06/2020	0.29	0.33	0.29	0.30	0.32	0.55	0.45	233	41	37 e
04/07/2020	0.29	0.33	0.29	0.31	0.32	0.62	0.45	168	42	37 e
04/08/2020	0.29	0.33	0.29	0.30	0.32	0.58	0.42	154	40	37 e
04/09/2020	0.29	0.32	0.28	0.30	0.32	0.62	0.41	131	39	37 e
04/10/2020	0.29	0.32	0.29	0.30	0.32	0.48	0.38	117	39	36
04/11/2020	0.28	0.32	0.28	0.30	0.33	0.46	0.39	112	39	36 e
04/12/2020	0.28	0.32	0.28	0.30	0.33	0.49	0.40	98	41	36 e
04/13/2020	0.27	0.31	0.29	0.31	0.34	0.45	0.43	87	42	36 e
04/14/2020	0.27	0.31	0.29	0.32	0.34	0.43	0.46	69	45	36 e
04/15/2020	0.26	0.31	0.29	0.31	0.33	0.48	0.50	70	42	36 e
04/16/2020	0.26	0.30	0.29	0.31	0.33	0.52	0.52	73	42	36 e
04/17/2020	0.26	0.29	0.28	0.31	0.33	0.52	0.60	78	41	38
04/18/2020	0.26	0.29	0.28	0.31	0.33	0.55	0.59	69	42	38 e
04/19/2020	0.25	0.29	0.28	0.31	0.33	0.56	0.59	62	43	38 e

Electrical Conductivity (EC) units: milliSiemens per Centimeter (mS/cm)
 Chloride (Cl) units: milligrams per liter (mg/l)
 md : mean daily
 NR : No Record
 NC : Not Computed due to insufficient data
 BR : Below Rating
 e : estimated value
 Antioch and Bacon Island mdCl are calculated from the respective mdEC values.
 BET: Bethel Island
 FRP: Farrar Park
 HLL: Holland Tract
 BAC: Bacon Island
 CNT: Contra Costa
 CLC: Clifton Court
 DMC: Tracy Pumping Plant
 ANH: Antioch

Delta Water Quality Conditions

South Delta Stations

Date	VNS mdEC	VNS 30dm	BDT mdEC	BDT 30dm	OLD mdEC	OLD 30dm	UNI mdEC	UNI 30dm
03/21/2020	0.72	0.51	0.65	0.51	0.71	0.61	0.70	0.51
03/22/2020	0.78	0.52	0.70	0.51	0.74	0.60	0.75	0.51
03/23/2020	0.92	0.53	0.73	0.51	0.78	0.60	0.79	0.52
03/24/2020	0.94	0.55	0.79	0.52	0.81	0.60	0.92	0.54
03/25/2020	0.94	0.57	0.90	0.54	0.85	0.61	0.95	0.55
03/26/2020	0.96	0.59	0.92	0.55	0.93	0.62	0.95	0.57
03/27/2020	0.99	0.61	0.93	0.57	0.97	0.63	0.96	0.59
03/28/2020	0.99	0.63	0.94	0.59	0.98	0.64	0.99	0.61
03/29/2020	0.94	0.64	0.97	0.61	1.03	0.66	1.00	0.63
03/30/2020	0.90	0.66	0.98	0.63	1.07	0.68	0.97	0.65
03/31/2020	0.88	0.68	0.97	0.65	1.10	0.70	0.92	0.67
04/01/2020	0.89	0.69	0.93	0.66	1.09	0.72	0.91	0.68
04/02/2020	0.89	0.71	0.90	0.68	1.03	0.74	0.90	0.70
04/03/2020	0.85	0.72	0.89	0.69	1.04	0.76	0.92	0.72
04/04/2020	0.84	0.74	0.90	0.71	1.04	0.77	0.89	0.73
04/05/2020	0.86	0.75	0.90	0.73	1.05	0.79	0.87	0.75
04/06/2020	0.83	0.76	0.87	0.74	1.01	0.81	0.86	0.76
04/07/2020	0.63	0.77	0.84	0.76	0.98	0.83	0.86	0.78
04/08/2020	0.56	0.77	0.82	0.77	0.98	0.84	0.67	0.78
04/09/2020	0.57	0.78	0.63	0.77	0.93	0.86	0.57	0.79
04/10/2020	0.42	0.77	0.57	0.78	0.79	0.86	0.59	0.79
04/11/2020	0.43	0.77	0.53	0.78	0.76	0.87	0.44	0.79
04/12/2020	0.55	0.77	0.40	0.77	0.70	0.88	0.43	0.78
04/13/2020	0.66	0.76	0.48	0.77	0.64	0.88	0.54	0.78
04/14/2020	0.69	0.76	0.57	0.77	0.64	0.88	0.62	0.78
04/15/2020	0.57	0.76	0.66	0.77	0.72	0.88	0.71	0.78
04/16/2020	0.62	0.76	0.68	0.77	0.78	0.88	0.59	0.77
04/17/2020	0.67	0.76	0.60	0.76	0.84	0.88	0.60	0.77
04/18/2020	0.63	0.76	0.61	0.76	0.82	0.88	0.66	0.77
04/19/2020	0.39	0.75	0.67	0.76	0.77	0.89	0.67	0.77

Electrical Conductivity (EC) units: milliSiemens per Centimeter (mS/cm)

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30dm : thirty day running mean

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BR : Below Rating

e : estimated value

VNS:Vernalis

BDT:Brandt Bridge

OLD: Old River near Tracy

UNI: Old River near Middle River

Delta Water Quality Conditions

Suisun Marsh Stations

Date	CLL mhtEC	NSL mhtEC	BDL mhtEC	SNC mhtEC	VOL mhtEC	GYS mhtEC
03/21/2020	2.77	1.75	3.47	5.71	5.12	9.28
03/22/2020	2.81	1.59	3.28	5.40	4.96	8.96
03/23/2020	3.14	1.43	2.85	5.06	4.81	8.65
03/24/2020	2.79	1.78	2.49	4.61	4.67	9.30
03/25/2020	2.71	1.44	2.40	4.29	4.39	9.83
03/26/2020	2.57	1.53	2.52	4.00	4.34	10.48
03/27/2020	2.62	1.61	2.42	4.26	4.29	12.21
03/28/2020	2.10	1.62	2.42	4.22	4.21	12.29
03/29/2020	2.16	1.60 e	2.42	5.00	4.14	11.47
03/30/2020	2.86	2.13	2.27	5.34	4.11	11.16
03/31/2020	3.21	2.45	2.17	4.99	4.13	11.45
04/01/2020	3.05	2.38	2.16	5.16	4.24	11.34
04/02/2020	2.79	1.87	2.29	4.84	4.31	10.44
04/03/2020	2.06	1.92	2.33	4.84	4.21	9.60
04/04/2020	2.82	1.75	2.46	4.87	4.17	8.84
04/05/2020	3.90	1.57	2.59	4.99	4.09	7.94
04/06/2020	2.89	1.79	2.23	4.61	3.99	7.49
04/07/2020	2.55	1.18	2.05	4.48	3.77	7.43
04/08/2020	1.86	0.76	2.23	4.15	3.61	7.07
04/09/2020	1.63	1.04	2.11	4.31	3.65	6.82
04/10/2020	1.48	0.77	1.72	4.37	3.58	6.29
04/11/2020	1.56	1.10	1.51	4.08	3.42	6.02
04/12/2020	1.46	1.17	1.35	3.66	3.31	6.09
04/13/2020	1.06	1.09	1.23	3.22	3.31	6.09
04/14/2020	0.94	0.90	1.22	2.82	3.23	6.26
04/15/2020	0.73	0.80	1.20	2.65	2.91	5.40
04/16/2020	1.04	0.66	1.13	2.41	2.87	5.07
04/17/2020	1.35	0.63	1.06	2.37	2.73	5.04
04/18/2020	0.89	0.67	0.92	2.22	2.84	5.17
04/19/2020	1.02	0.47	0.97	2.11	2.82	5.41

Electrical Conductivity (EC) units: milliSiemens per Centimeter

mht : mean high tides

NR : No Record

NC : Not Computed due to insufficient data

BR : Below Rating

e : estimated value

CLL: Collinsville

NSL: National Steel

BDL: Beldon Landing

SNC: Sunrise Club

VOL: Volanti Slough

GYS: Goodyear Slough