

Orcas "Water Year" Analysis

Water Condition Category #

- 1- dry/no data
- 2-pooled
- 3- trickle
- 4-slow run
- 5- running
- 6- rushing

Orcas Site HC1

Red= Geomean

Date	Average Air Temp	Average Water Temp	Average Dissolved Oxyg	Average pH	Average Turbidity	Average Fecal Coliform	Water Year Geomean	Water Condition	Water Condition Category #	Ave Nitrates	Ave Phosphates
3/1/06	13.40	5.57	10.95	7.13	4.53	8		running	5	0.4	0.04
4/14/06	9.90	8.50	10.16	7.13	9.96	9		running	5	0.6	0.05
5/24/06	19.20	12.73	7.20	7.29	8.25	47		running	5	0.2	0.05
7/11/06	19.60	13.20	9.92	6.88	4.54	1509		running/low volur	4	0.2	0.12
8/10/06								dry	1		
9/20/06								dry	1		
AVERAGES/GEOMEAN	15.53	10.00	9.56	7.11	6.82		48			0.35	0.07
11/6/06	15.70	11.47	9.52	7.16	18.10	370		rushing/ high flo	6	0	0.17
2/8/07	10.50	6.10	12.46	7.80	7.96	22		running	5	0.11	0.04
3/27/07	13.20	7.60	11.72	7.99	5.52	5		rushing	6	0.32	n/a
5/7/07	17.50	11.10	11.33	8.06	6.02	29		running	5	0.04	0.06
7/4/07								dry	1		
8/21/07								dry	1		
AVERAGES/GEOMEAN	14.23	9.07	11.26	7.75	9.40		32			0.12	0.09
10/17/07	11.50	9.10	9.23	7.72	1.47	36		pooled	2	0.05	0.09
12/4/07	12.70	8.60	10.63	7.70	18.67	155		running, w/ sedim	5	0.16	0.12
1/23/08	5.3	1.5	13.64	8.04	2.33	19		running	5	0.2	0.03
3/27/08	7	7.5	13.52	7.61	3.07	4		running	5	0.09	0.02
5/7/08	14.6	9.3	12.22	8.00	4.15	352		slow run	4	n/a	n/a
6/19/08	19	11.5	12.16	7.90	5.50	377		slow run	4	0.18	0.07
8/6/08								dry	1		
9/30/08								dry	1		
AVERAGES/GEOMEAN	11.68	7.9	11.9	7.83	5.86		62			0.14	0.07
11/20/08	12.1	6.9	10.5	7.91	1.48	28		running	5	0.02	0.02

Orcas Site WS3

Date	Average Air Temp	Average Water Temp	Average Dissolved Oxyg	Average pH	Average Turbidity	Average Fecal Coliform	Water Year Geomean	Water Condition	Water Condition Category #	Ave Nitrates	Ave Phosphates
3/1/06	13.4	5.4	11.46	7.03	6.82	8		running	5	0.4	0.14
4/14/06	10.6	8.9	10.33	7.21	12.33	47		running	5	0.4	0.07
5/24/06	19.0	13.0	9.08	7.21	1.32	155		running	5	0.2	0.2
7/11/06	20.0	15.4	6.81	6.84	3.69	2327		running	5	0	0.25
8/10/06	20.7	15.0	2.00	7.31	5.28	3590		pooled	2	error	0.36
9/20/06	14.1	12.0	4.22	7.61	5.21	247		pooled	2	0	0.56
AVERAGES/GEOMEAN	16.3	11.6	7.32	7.20	5.77		222			0.2	0.26
11/6/06	17.7	11.2	7.81	6.86	21.03	701		rushing	6	0.08	0.34
12/19/06	9.6	4.8	13.66	7.61	5.98	19		rushing	6	0.2	0.16
2/8/07	12.0	6.2	13.70	7.89	24.03	167		running/hi vol	5	0.02	0.06
3/27/07	11.4	6.9	13.00	7.99	7.68	14		rushing	6	0.08	n/a
5/7/07	19.0	11.5	11.31	8.21	6.59	24		running	5	0.05	0.09
7/4/07	24.5	16.8	7.81	7.51	4.41	5000		slow run	4	0	0.21
8/21/07	17.3	15.0	5.84	7.62	4.15	150		slow run	4	0.02	0.28
AVERAGES/GEOMEAN	15.9	10.3	10.45	7.67	10.55		128			0.06	0.19

10/17/07	12.3	9.1	3.10	7.50	3.41	3		slow trickle/gre	3	0.01	0.55
12/4/07	13.5	7.1	10.93	7.34	16.50	342		rushing	6	0.65	0.07
1/23/08	11	1.3	14.20	7.99	6.56	14		rushing	6	0.23	0.06
3/27/08	7.5	5.9	15.35	8.28	4.32	11		running	5	0.08	0.12
5/7/08	14.2	9.2	12.10	8.10	3.84	17		running	5	n/a	n/a
6/19/08	16.7	10.8	10.49	7.65	10.26	251		slow run	4	0.14	0
8/6/08	23.6	16.9	10.37	7.75	8.16	1520		trickle/no flow	2	0	0.68
9/30/08	13.8	11.9	7.42	7.67	8.65	10		trickle/see mo	2	0	0.51
AVERAGES/GEOMEAN	14.1	9.0	10.50	7.78	7.71		43			0.16	0.28
11/20/08	10.8	6.7	9.27	7.92	1.68	1		running	5	0.06	0.07

Orcas Site ES5

Date	Average Air Temp	Average Water Temp	Average Dissolved Oxyg	Average pH	Average Turbidity	Average Fecal Coliform	Water Year Geomean	Water Condition	Water Condition Category #	Ave Nitrates	Ave Phosphates
3/1/06	12.3	5.9	11.3	7.3	2.8	2		running	5	0.6	0.05
4/14/06	10	8.4	10.10	7.2	9.2	87		running	5	0.6	0.05
5/24/06	22.3	16.3	9.67	8.0	1.4	15		running	5	0.8	0.1
7/11/06								dry/drip	2		
8/10/06	21.6	19.0	8.15	7.5	38.7	286		low flow/volum	3	error	0.23
9/20/06	13.5	14.2	9.14	7.9	207.7	2008		running/dark g	5	error	0.5
AVERAGES/GEOMEAN	15.94	12.8	9.68	7.6	52.0		68			0.67	0.19
11/6/06	14.5	12.5	9.48	6.8	51.8	1452		rushing	6	0.13	0.15
12/19/06	9.3	5.6	12.72	7.5	3.0	9		running	5	2	0.04
2/8/07	11.5	7.3	11.51	7.7	15.4	128		running	5	0.25	0.04
3/27/07	16.8	7.6	11.47	7.93	4.14	23		running	5	0.32	n/a
5/7/07	22.1	12.6	12.27	8.34	2.81	66		running	5	0.07	0.05
7/5/07	26	17.1	11.25	8.25	0.92	202		small trickle	3	0.05	0.17
8/21/07	18.3	18.5	8.85	7.86	25.30	6380		road run off-bl	5	0.18	0.07
AVERAGES/GEOMEAN	16.93	11.6	11.08	7.76	14.77		164			0.43	0.09
10/27/07								dry	1		
12/4/07	11.6	8.7	9.80	7.52	10.33			rushing	6	0.55	0.05
1/23/08	5.7	2.6	13.1	8.0	2.7	7		running	5	0.55	0.15
3/27/08	5	5.1	14.1	8.0	3.2	8		running	5	0.32	0.1
5/7/08	14.5	11.5	11.9	8.2	1.7	3		slow run	4	n/a	n/a
6/19/08	17	14.1	10.5	8.2	7.3	8		trickle	3	0.18	0.07
8/6/08								dry	1		
9/30/08								dry	1		
AVERAGES/GEOMEAN	10.76	8.4	11.9	8.0	5.0		6			0.4	0.09
11/20/08	10.3	8.9	10.4	7.5	2.9	343		running / cloud	5	0.09	0.19

Orcas Site BB7a

Date	Average Air Temp	Average Water Temp	Average Dissolved Oxyg	Average pH	Average Turbidity	Average Fecal Coliform	Water Year Geomean	Water Condition	Water Condition Category #	Ave Nitrates	Ave Phosphates
3/1/06	12.3	5.7	11.1	7.0	4.0	8		running	5	0.8	no reading
4/14/06	7.9	8.2	8.7	6.7	4.3	14		running	5	0.8	0.03
5/24/06	20.9	15.4	6.6	6.8	3.3	61		running/pooled	5	0	0.07
7/11/06	23	16.6	2.7	6.4	15.8	90		trickle/pooled	3	0	0.25
8/10/06	22	15.0	0.6	6.5	20.2	390		pooled	2	0	0.83
9/20/06	15.2	12.8	0.4	7.0	68.0	99		pooled	2	0	1.26

AVERAGES/GEOMEAN	16.88	12.3	5.0	6.7	19.3		53			0.27	0.49
11/6/06	16.6	11.0	7.3	6.8	9.0	1331		rushing	6	0.6	0.05
12/19/06	9.5	5.0	12.1	6.8	1.9	7		running (foam)	5	0	0.04
2/8/07	11.6	6.6	10.5	7.5	2.8	34		running	5	0.28	0.04
3/27/07	11.8	7.4	11.1	7.7	3.3	22		running	5	0.15	n/a
5/7/07	16.3	11.5	10.2	7.5	2.8	31		running	5	0.01	0
7/4/07	24	19.2	4.4	7.1	2.0	2		still/hear flow/r	4	0.06	0.29
8/21/07	20	16.2	3.0	7.1	16.3	2		pooled/small tr	2	0.01	0.77
AVERAGES/GEOMEAN	15.69	11.0	8.4	7.2	5.5		18			0.16	0.20
10/17/07	13.1	9.7	5.1	7.1	7.9	7		trickle/pool	2	0.01	0.66
12/4/07	12.7	7.8	11.2	7.5	11.7	140.0		running	4	1.8	0.01
1/23/08	6.5	1.6	11.5	7.6	2.0	10.0		rushing	6	1.2	0.33
3/27/08	6.8	6.1	12.9	7.5	3.1	12.3		running	5	0.98	0
5/7/08	14.1	11.5	11.8	7.7	2.6	4.7		slow run	4	n/a	n/a
6/19/08	16.5	15.9	12.4	8.1	2.1	2.0		slow run	4	0.03	0.12
8/6/08	32.4	17.5	6.9	7.2	3.9	69.0		trickle / pool	2	0	0.44
9/30/08	17.3	13.0	6.7	7.1	9.8	2.0		hear/pooled/tri	2	0	0.48
AVERAGES/GEOMEAN	14.93	10.4	9.8	7.5	5.4		10.6			0.57	0.29
11/20/08	9.3	6.6	6.5	7.4	6.6	6.0		running out of	5	0.31	0.1

Orcas Site DB8

Date	Average Air Temp	Average Water Temp	Average Dissolved Oxyg	Average pH	Average Turbidity	Average Fecal Coliform	Water Year Geomean	Water Condition	Water Condition Category #	Ave Nitrates	Ave Phosphates
3/1/06	11	5.7	11.54	6.98	2.13	103		running	5	1.6	0.14
4/14/06	8	7.8	10.67	6.96	10.15	124		running	5	1.2	0
5/24/06	15.6	11.1	9.87	7.18	6.80	330		running	5	1	0.03
7/11/06	15.2	12.2	9.48	6.52	5.98	1023		running	5	0.2	0.05
8/10/06	18.5	12.5	5.57	6.86	7.07	12900		pooled/slow flo	2	0.2	0.01
9/20/06	16.2	11.4	7.58	7.81	3.1	178		pooled/slow ru	3	0.2	0.04
AVERAGES/GEOMEAN	14.08	10.12	9.12	7.05	5.87		463			0.73	0.05
11/6/06	17	10.7	10.51	6.86	45.9	641		rushing	6	1.6	0.04
12/19/06	9	6.2	13.23	7.38	2.13	9		running	5	1.6	0.22
2/8/07	12.7	6.8	11.70	7.92	7.03	73		running	5	0.38	0
3/27/07	11.4	6.9	13.00	7.99	3.33	15		rushing	6	0.28	n/a
5/7/07	18	9.9	11.99	8.06	4.78	162		running	5		
7/4/07	23.6	12.8	11.63	7.85	4.37	597		running/small	4	0.05	0.05
8/21/07	18	13.7	8.45	7.69	5.02	1503		small slow tric	3	0.32	0.45
AVERAGES/GEOMEAN	15.67	9.57	11.50	7.68	10.37		136			0.71	0.15
10/17/07	11.2	9.2	8.91	7.61	2.8	191		slow tickle/sha	3	0.01	0.01
12/4/07	12.7	7.8	11.16	7.50	23.77	167		rushing	6	3.4	0
1/23/08	3	2.2	13.06	7.87	4.74	82		rushing	6	1.6	0.1
3/27/08	7.5	5.2	16.36	7.99	2.46	16		running	5	1	0.9
5/7/08	13.2	8.6	12.76	8.04	2.39	45		running	5	n/a	n/a
6/19/08	16.9	10.3	12.63	7.98	4.64	577		running	5	0.86	0.02
8/6/08	20.7	13.1	11.59	7.84	5.73	2436		trickle	3	0	0.06
9/30/08	12.8	10.7	10.92	7.59	26.27	170		trickle/pool	2	0.15	0.14
AVERAGES/GEOMEAN	12.25	8.39	12.17	7.80	9.1		161			1.00	0.18
11/20/08	11.1	7.6	12.73	8.00	2.2	21		running/can he	5	n/a	0.02