Appendix 1-A

Monthly Discrete Water Quality Monitoring in Artesian Sough during the Initial Release Period, February 17 to March 30, 2005

Stations 1-2

Monitoring Event - Artesian Slough at A-A18-1

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Upstream of A18 So Discharge	Predischarge	Flood	5	4	2/14/2005	12:36	20.78	1.211	0.787	0.60	100.2	8.94	7.45	0.80	158.2
Upstream of A18 So Discharge		(I hr past low)		1	2/14/2005	12:35	20.75	1.212	0.788	0.60	99.7	8.90	7.47	1.1	156.2
	Air Temp = 18.0^{o}C, Humidity = 55%, Barometer = 30.21 in Hg, Overcast/rainy														
Upstream of A18 So Discharge	No	Ebb	10	9	2/18/2005	9:51	18.69	2.724	1.771	1.42	78.0	6.99	7.2	0.8	140.0
		(1.5 hrs past high)		1	2/18/2005	9:48	20.28	18.34	11.92	10.90	66.5	5.82	7.28	4.6	161.7
	Air Temp = 16.5^{o}C, Humidity = 70%, Barometer = 29.94 in Hg, Scattered clouds/sunny														
Upstream of A18 So Discharge	Yes	Ebb	7	6	2/18/2005	13:14	20.53	1.60	1.04	0.81	97.5	8.73	7.62		26.7
		(2 hrs before low)		5	2/18/2005					0.78		8.70			
				4	2/18/2005					2.54		8.60			
				3	2/18/2005					46.30		6.90			
				2	2/18/2005					58.50		3.90			
				1	2/18/2005	13:08	17.04	90.91	59.09	64.83	87	5.68	8.17		75.0
Upstream of A18 So Discharge	Yes	Slack	4	3	2/18/2005	15:45	20.37	3.149	2.047	1.65	98.8	8.84	7.34	2.4	76.3
		(low tide)		2	2/18/2005	15:42	20.40	3.143	2.043	1.65	98.3	8.78	7.35		70.6
				1	2/18/2005	15:40	20.37	3.330	2.167	1.75	97.8	8.74	7.37	2.6	65.8
Upstream of A18 So Discharge	No	Slack	13	12	2/21/2005	11:29	20.26	1.696	1.102	0.86	70.4	6.33	7.27	0.9	116
		(high tide)		11	2/21/2005					2.50		6.28			
				10	2/21/2005					4.60		5.95			
				9	2/21/2005					7.50		5.81			
				8	2/21/2005					8.00		5.58			
				7	2/21/2005	11:25	16.32	15.39	10	9.01	59.8	5.55	7.51		142
				6	2/21/2005					9.70		5.53			
				5	2/21/2005					10.30		5.38			
				4	2/21/2005					11.95		5.05			
				3	2/21/2005					13.50		4.82			
				2	2/21/2005					34.80		4.31			
				1	2/21/2005	11:20	16.13	96.47	62.7	69.45	44.3	2.86	8.14	11	175.4
	Air Temp = 19.5^{o}C, Humidity = 48%, Barometer = 30.00 in Hg, Overcast/rainy														
Upstream of A18 So Discharge	Yes	Ebb	6	5	2/21/2005	16:19	20.03	1.53	1.00	0.77	81.6	7.39	7.72	1.5	-10.0
		(1 hr before low)		4	2/21/2005	16:18	18.99	35.28	22.93	22.28	81.5	6.62	7.99		25.6
				3	2/21/2005					42.00		6.10			
				2	2/21/2005					70.00		5.10			
				1	2/21/2005	16:13	16.32	102.90	66.86	74.94	79.4	4.94	8.25	18	41.4

Monitoring Event - Artesian Slough at A-A18-1 Cont'd

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Upstream of A18 So Discharge	Yes	Flood	6	5	2/25/2005	9:16	20.12	1.65	1.073	0.84	90.9	8.20	7.58	0.8	6.2
		(1.5 hrs past low)		4	2/25/2005					35.00		7.10			
				3	2/25/2005	9:14	16.08	97.32	63.26	70.17	89.6	5.76	8.33		59.2
				2	2/25/2005					75.30		5.45			
				1	2/25/2005	9:10	15.55	107.4	69.84	78.86	85.7	5.28	8.32	12	81.3
	Air Temp = 14.5^{o}C, Humidity = 62%, Barometer = 29.94 in Hg, Overcast														
Upstream of A18 So Discharge	No	Slack	12	11	2/25/2005	13:31	20.29	1.76	1.15	0.89	81.4	7.32	7.44	1.0	77.9
		(high tide)		10	2/25/2005					4.00		7.11			
				9	2/25/2005					7.80		7.00			
				8	2/25/2005					12.00		6.10			
				7	2/25/2005					12.81		5.96			
				6	2/25/2005	13:26	17.13	21.56	14.02	13.00	68.1	6.07	7.61		113.9
				5	2/25/2005					13.70		6.08			
				4	2/25/2005					13.70		6.18			
				3	2/25/2005					14.70		6.32			
				2	2/25/2005					16.60		6.26			
				1	2/25/2005	13:22	16.36	89.01	57.86	63.21	73.5	4.91	8.27	10	148.2
	Air Temp = 26.5^{o}C, Humidity = 37%, Barometer = 30.27 in Hg, Sunny/clear														
Upstream of A18 So Discharge	Yes	Ebb	7	6	3/2/2005	8:47	20.10	1.53	1.00	0.77	90.0	8.13	7.48	0.80	31.2
		(2 hrs before low)		5	3/2/2005					3.50		8.10			
				4	3/2/2005	8:45	18.74	35.50	23.07	22.43	89.8	7.33	7.92		64.2
				3	3/2/2005					44.70		6.67			
				2	3/2/2005					51.90		6.32			
				1	3/2/2005	8:42	16.80	77.03	50.07	53.49	86.0	6.04	8.28	13	121.4
	Air Temp = 17.5^{o}C, Humidity = 42%, Barometer = 29.91 in Hg, Sunny/clear														
Upstream of A18 So Discharge	No	Slack	9	8	3/2/2005	16:28	20.60	4.62	3.00	2.47	95.8	8.49	7.40	1.0	59.6
		(high tide)		7	3/2/2005					2.67		8.52			
				6	3/2/2005					3.35		8.82			
				5	3/2/2005					7.00		8.88			
				4	3/2/2005	16:26	20.23	25.06	16.29	15.30	116.2	9.61	7.83		79.2
				3	3/2/2005					32.00		8.78			
				2	3/2/2005					47.00		8.74			
				1	3/2/2005	16:23	18.89	74.15	48.20	51.25	125.1	8.58	8.31	11	109.3

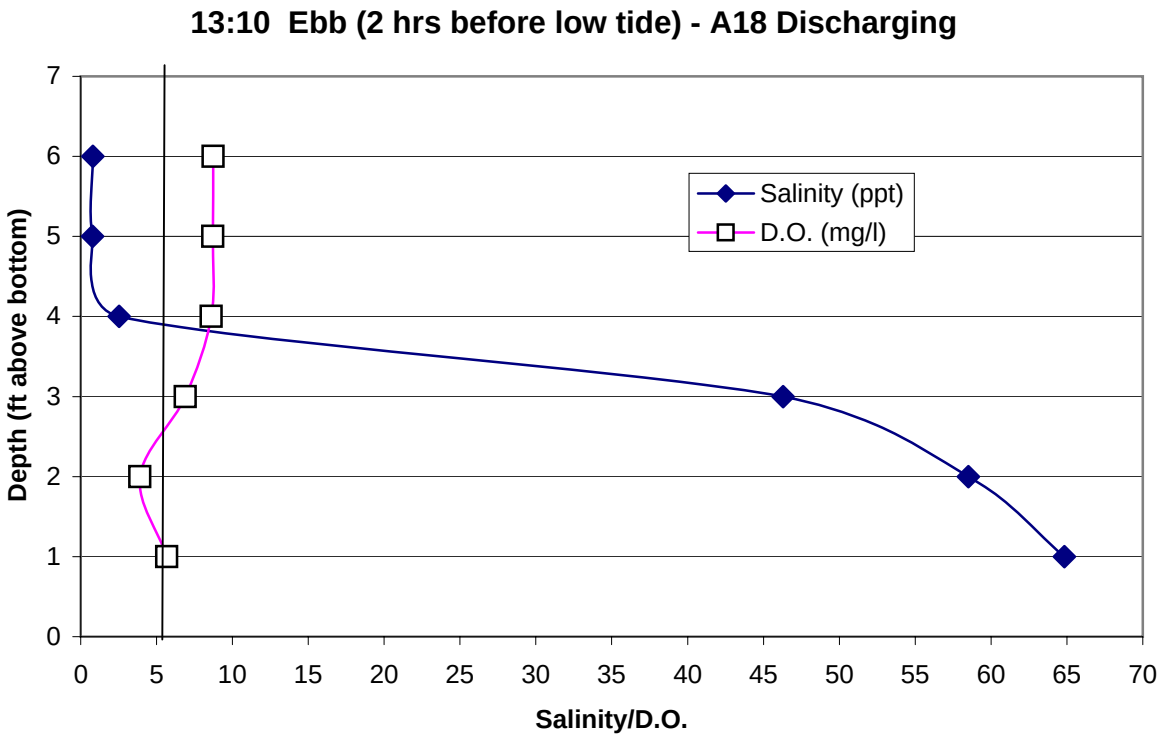
Monitoring Event - Artesian Slough at A-A18-1 Cont'd

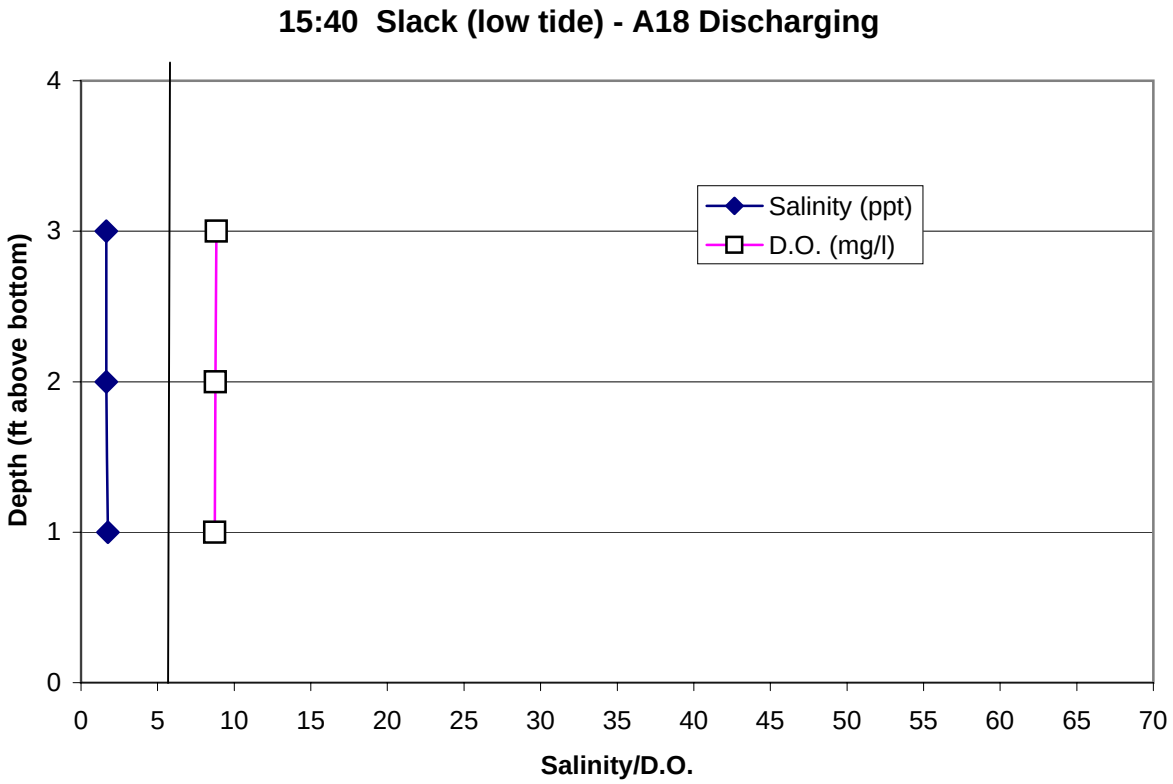
Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Upstream of A18 So Discharge	Yes	Flood	5	4	3/12/2005	10:23	21.48	1.63	1.06	0.82	94.5	8.31	7.66		14.3
		(1 hrs past low)		3	3/12/2005	10:22	21.09	24.81	16.13	15.12	94.1	7.67	7.98		43.7
				2	3/12/2005					34.60		6.91			
				1	3/12/2005	10:24	20.13	73.55	47.81	50.78	93.4	6.28	8.4		62.8
	Air Temp = 16.5^{o}C, Humidity = 77%, Barometer = 29.91 in Hg, Foggy														
Upstream of A18 So Discharge	No	Ebb	10	9	3/12/2005	15:55	21.62	3.33	2.17	1.75	81.5	7.11	7.19	1.2	78.3
		(3 hrs past high)		8	3/12/2005					2.20		7.11			
				7	3/12/2005					3.00		7.03			
				6	3/12/2005					4.50		6.93			
				5	3/12/2005	15:53	20.95	9.96	6.48	5.63	80.9	6.99	7.43		88.7
				4	3/12/2005					11.70		6.81			
				3	3/12/2005					13.40		6.71			
				2	3/12/2005					14.50		6.49			
				1	3/12/2005	15:50	20.41	54.13	35.18	35.86	74.3	5.42	8.26	9.5	110.4
Upstream of A18 So Discharge	No	Ebb	8	7	3/18/2005	8:34	21.10	1.77	1.15	0.90	82.2	7.28	7.29	0.72	162.1
		(1.5 hrs past high)		6	3/18/2005					0.96		7.22			
				5	3/18/2005					1.06		7.12			
				4	3/18/2005	8:33	20.83	5.94	3.86	3.23	78.5	6.89	7.37		172.1
				3	3/18/2005					4.53		6.54			
				2	3/18/2005					10.30		6.35			
				1	3/18/2005	8:31	18.77	47.88	31.12	31.26	86.4	6.68	8.34	6.5	197.6
	Air Temp = 18.0^{o}C, Humidity = 49%, Barometer = 30.06 in Hg, Light Rain														
Upstream of A18 So Discharge	Yes	Ebb	4	3	3/18/2005	14:42	21.21	1.43	0.93	0.72	97.0	8.58	7.35	1.1	75.5
		(1 hr before low)		2	3/18/2005	14:41	21.20	1.44	0.93	0.72	96.4	8.52	7.37		73.5
				1	3/18/2005	14:41	21.18	1.50	0.98	0.76	96.6	8.54	7.39	3.0	71.1
Upstream of A18 So Discharge	Yes	Flood	7	6	3/24/2005	8:54	15.49	1.27	0.82	0.63	76.0	6.81	7.40	0.60	118.1
		(1.5 hrs past low)		5	3/24/2005					1.00		6.95			
				4	3/24/2005	8:53	18.75	21.50	13.98	12.95	81.7	7.07			
				3	3/24/2005					27.90		7.05	7.84		148.0
				2	3/24/2005					34.10		6.71			
				1	3/24/2005	8:51	15.49	55.60	36.14	36.91	83.5	6.65	8.39	9.5	186.3
	Air Temp = 23.0^{o}C, Humidity = 39%, Barometer = 29.88 in Hg, Sunny														
Upstream of A18 So Discharge	No	Flood	10	9	3/24/2005	12:47	21.04	1.90	1.24	0.97		6.66	7.26	0.80	149.1
		(0.5 hrs before high)		8	3/24/2005					1.03		6.72			
				7	3/24/2005					1.12		6.81			
				6	3/24/2005					4.10		6.95			
				5	3/24/2005					4.85		7.26			
				4	3/24/2005	12:45	18.72	12.48	8.11	7.19	82.5	7.38	7.46		186.5
				3	3/24/2005					7.94		7.40			
				2	3/24/2005					8.52		7.36			
				1	3/24/2005	12:43	18.27	17.49	11.37	10.35	81.7	7.23	7.62	12	227.3

Monitoring Event - Artesian Slough at A-A18-1 Cont'd

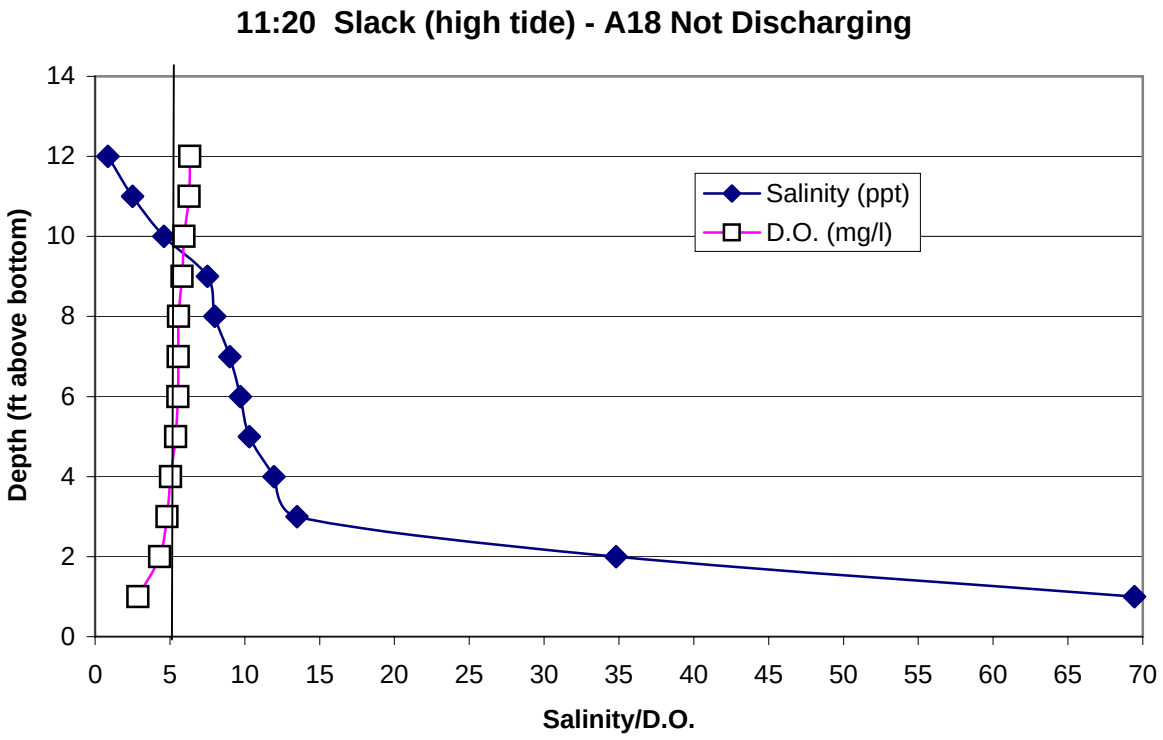
Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Upstream of A18 So Discharge	Yes	Ebb	4	3	3/30/2005	9:26	20.75	1.735	1.128	0.88	102.9	9.17	7.25	1.2	163.4
		(1 hr before low)		2	3/30/2005	9:25	20.76	1.647	1.071	0.83	102.3	9.12	7.23		191.5
				1	3/30/2005	9:24	20.73	1.644	1.069	0.83	102.2	9.11	7.23	1.2	231.5
	Air Temp = 26.5^{o}C, Humidity = 34%, Barometer = 30.12 in Hg, Sunny														
Upstream of A18 So Discharge	No	Flood	7	6	3/30/2005	14:08	21.41	1.28	0.83	0.64	101.1	8.91	7.30	0.75	27.2
		(2.5 hrs past low)		5	3/30/2005					0.66		9.10			
				4	3/30/2005	14:07	21.32	1.57	1.02	0.79	108.5	9.57	7.54		7.3
				3	3/30/2005					3.40		10.60			
				2	3/30/2005					8.50		11.20			
				1	3/30/2005	14:05	19.12	25.66	16.68	15.71	139	11.72	8.24	7.0	21.6

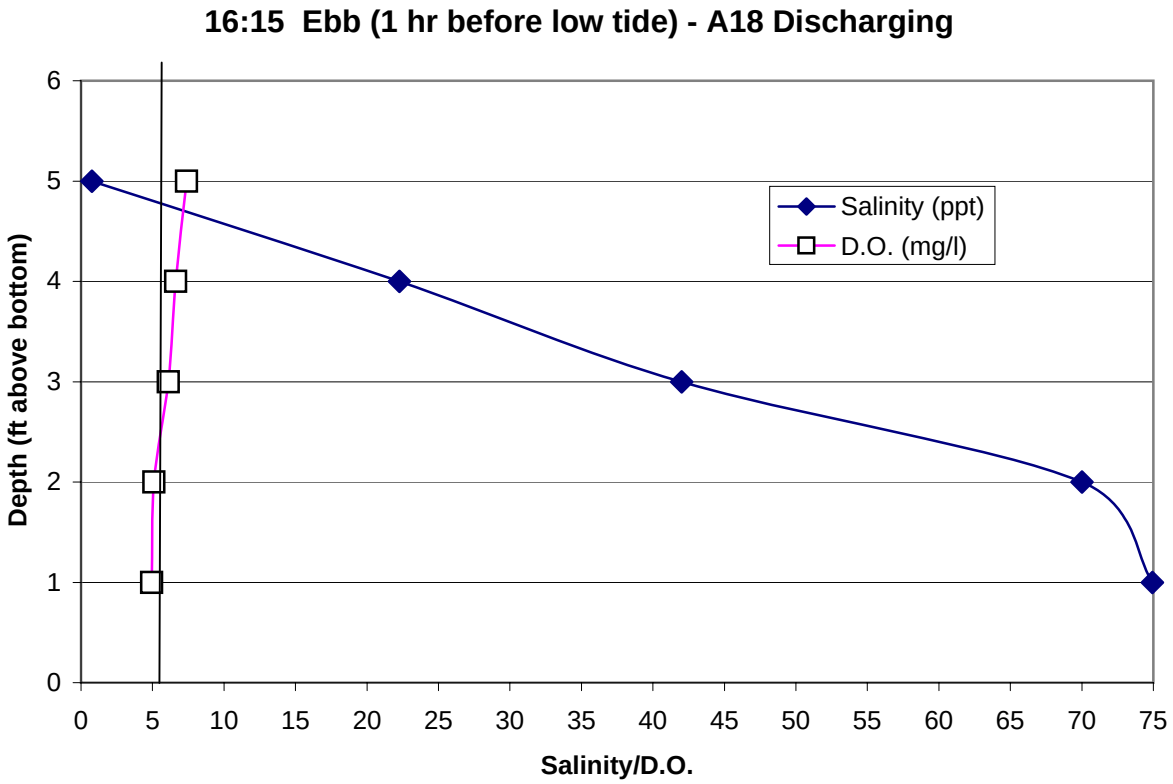
Station A18-1 Friday, February 18, 2005





Station A18-1 Monday, February 21, 2005





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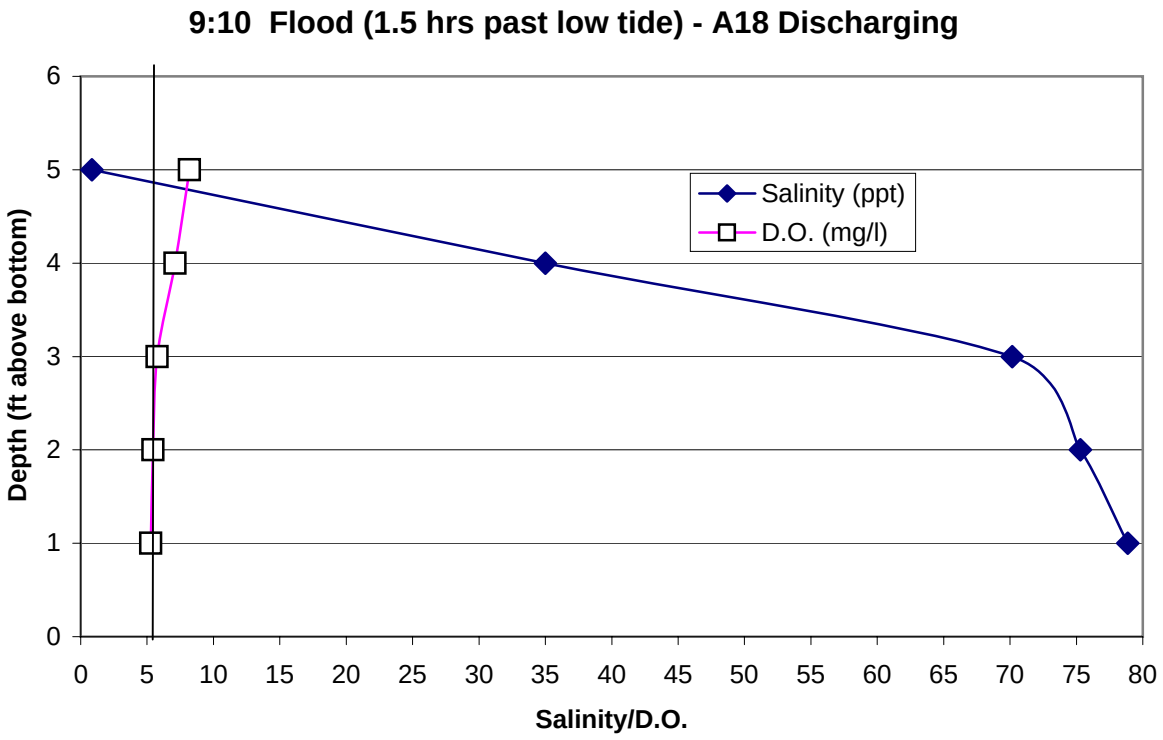
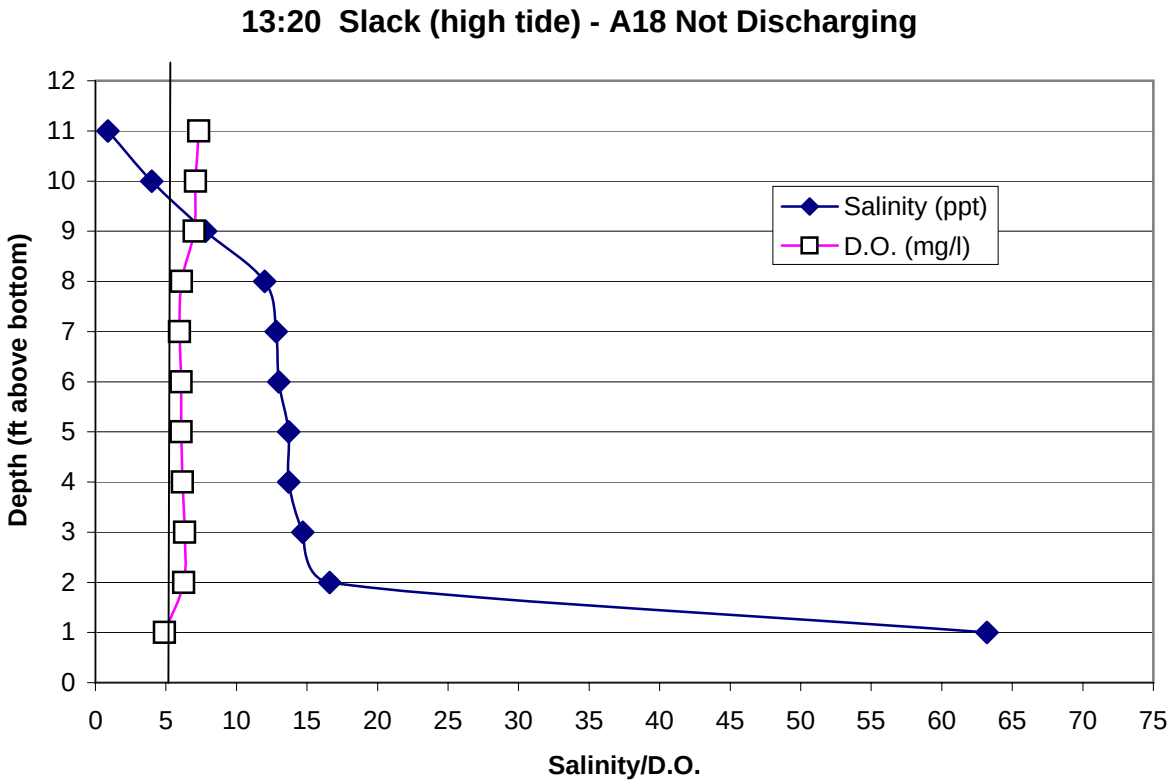
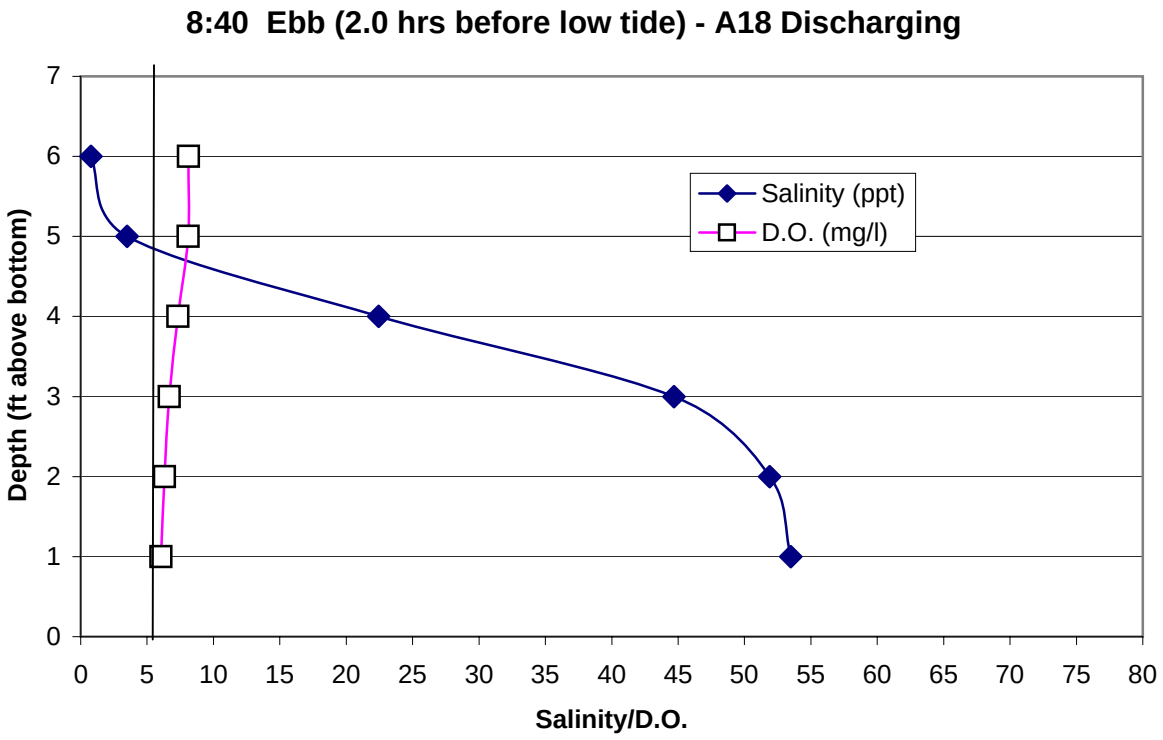
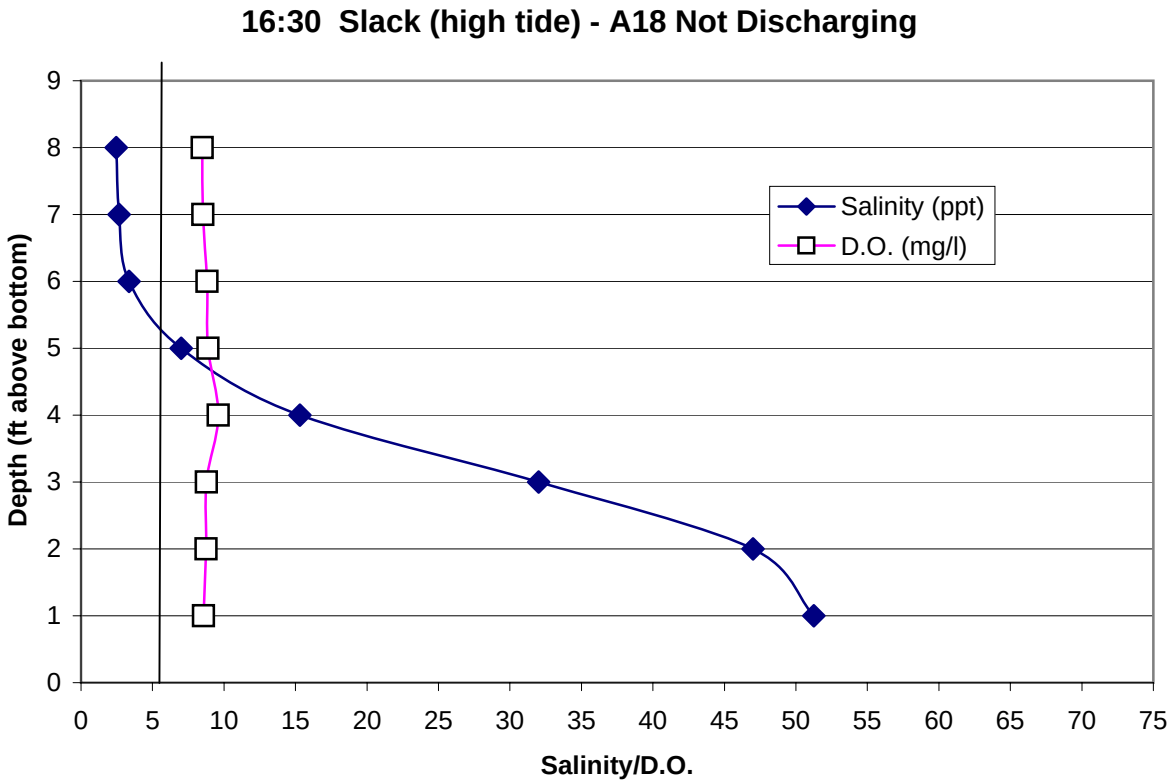




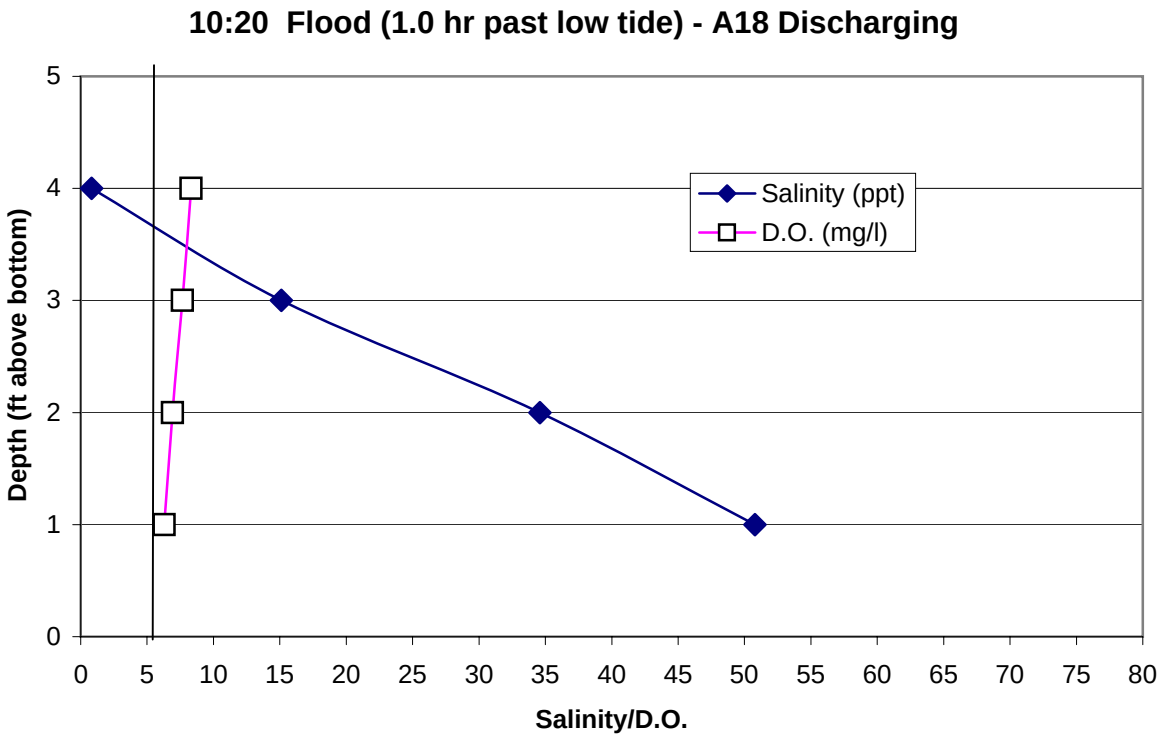
Station A18-1 Wednesday, March 02, 2005

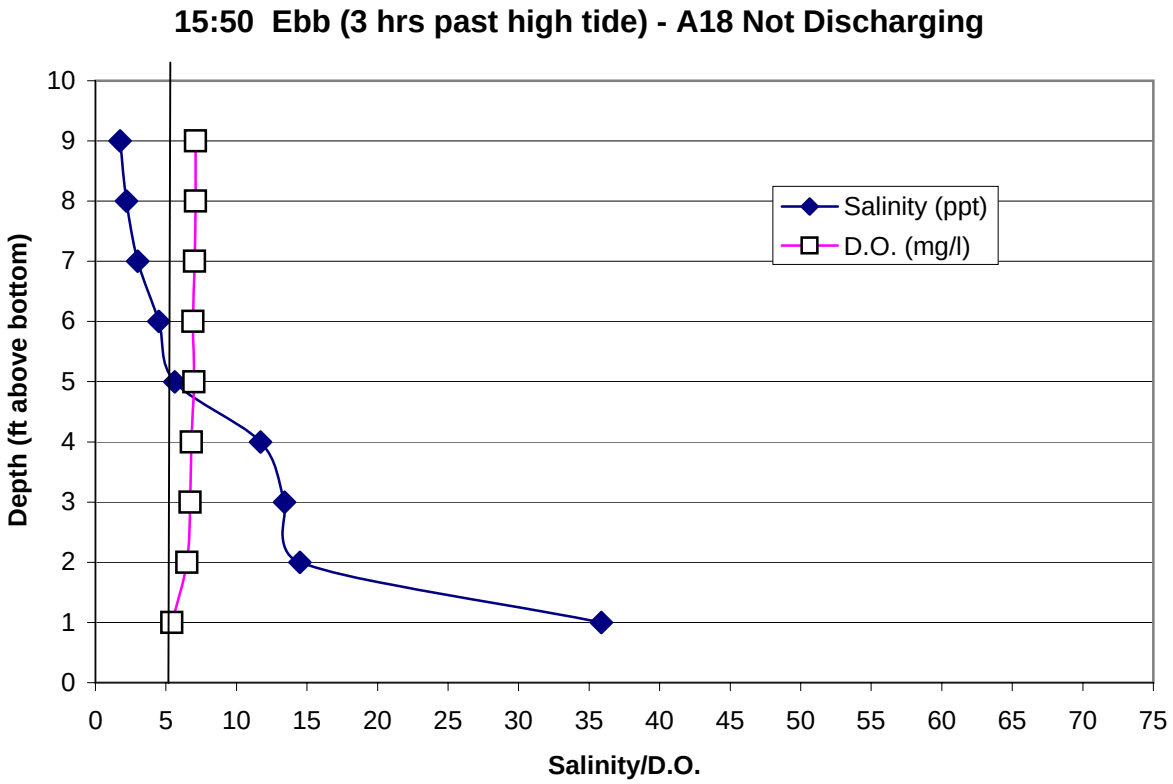




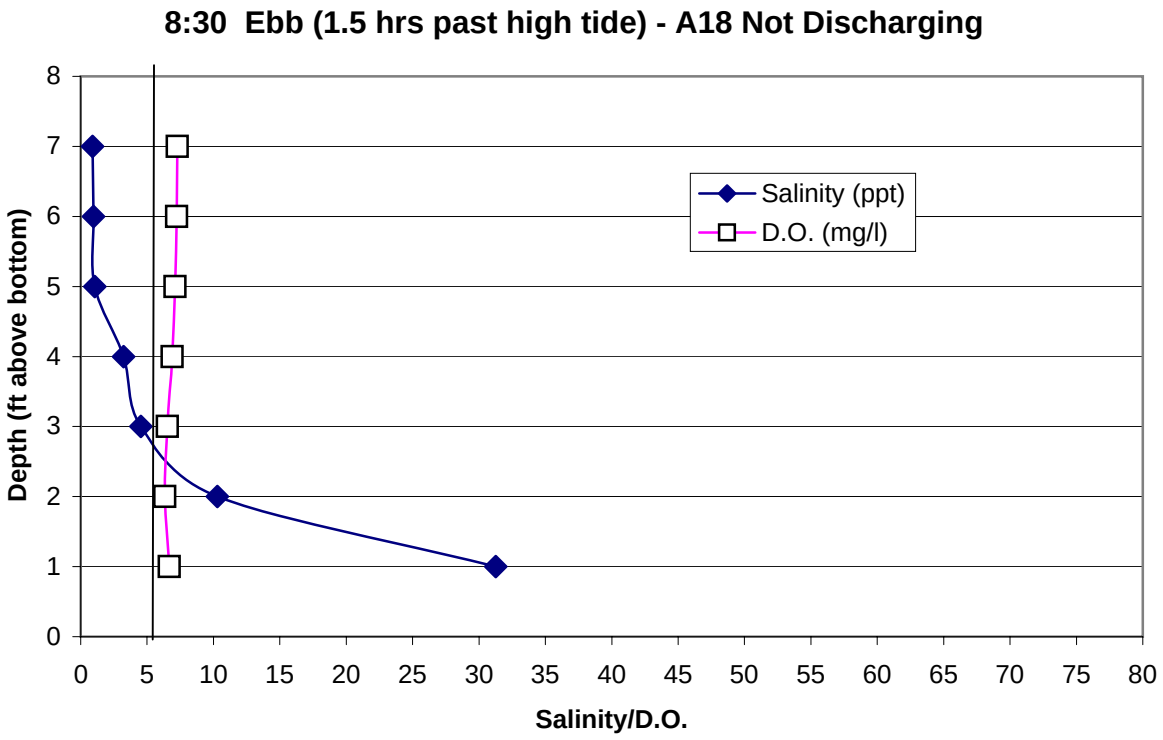
Station A18-1

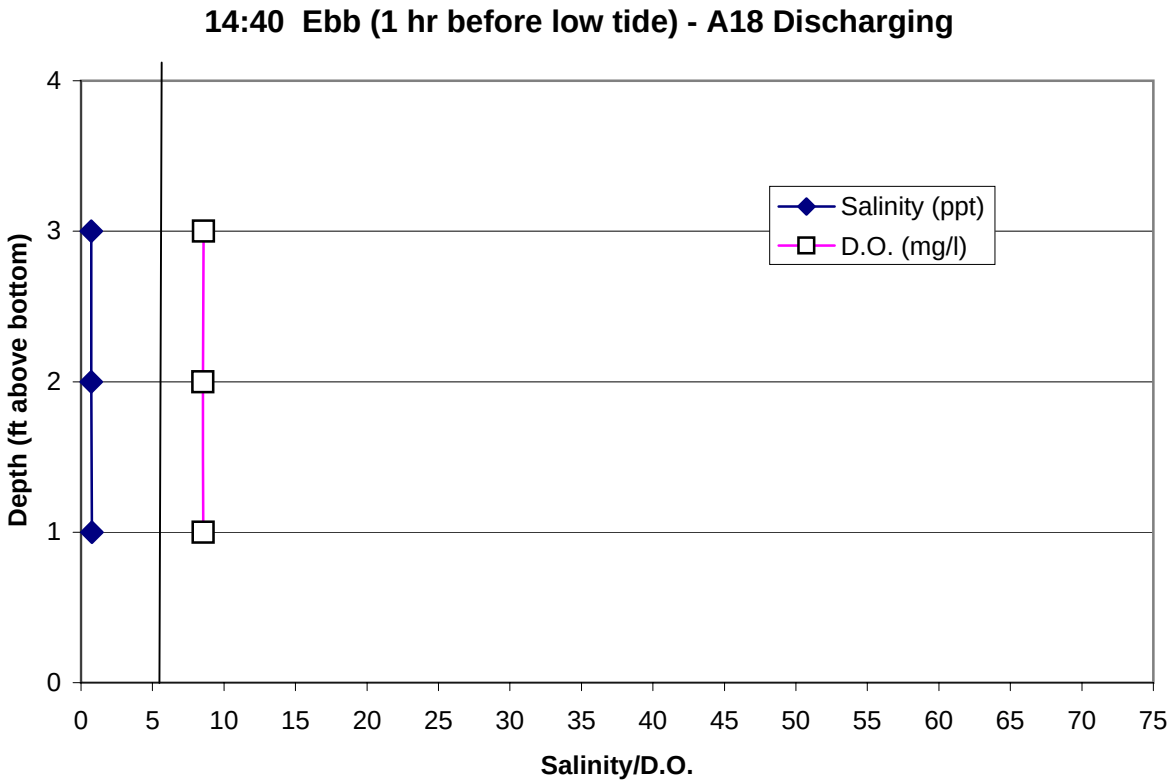
Saturday, March 12, 2005





Station A18-1 Friday, March 18, 2005





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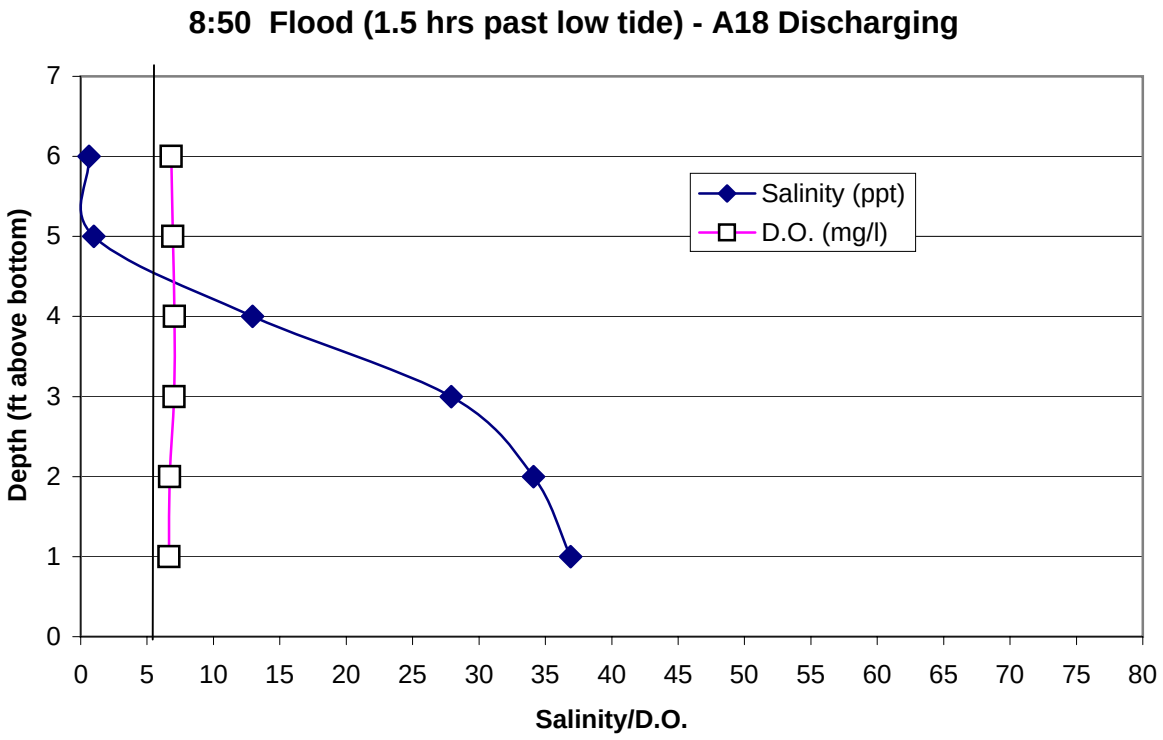
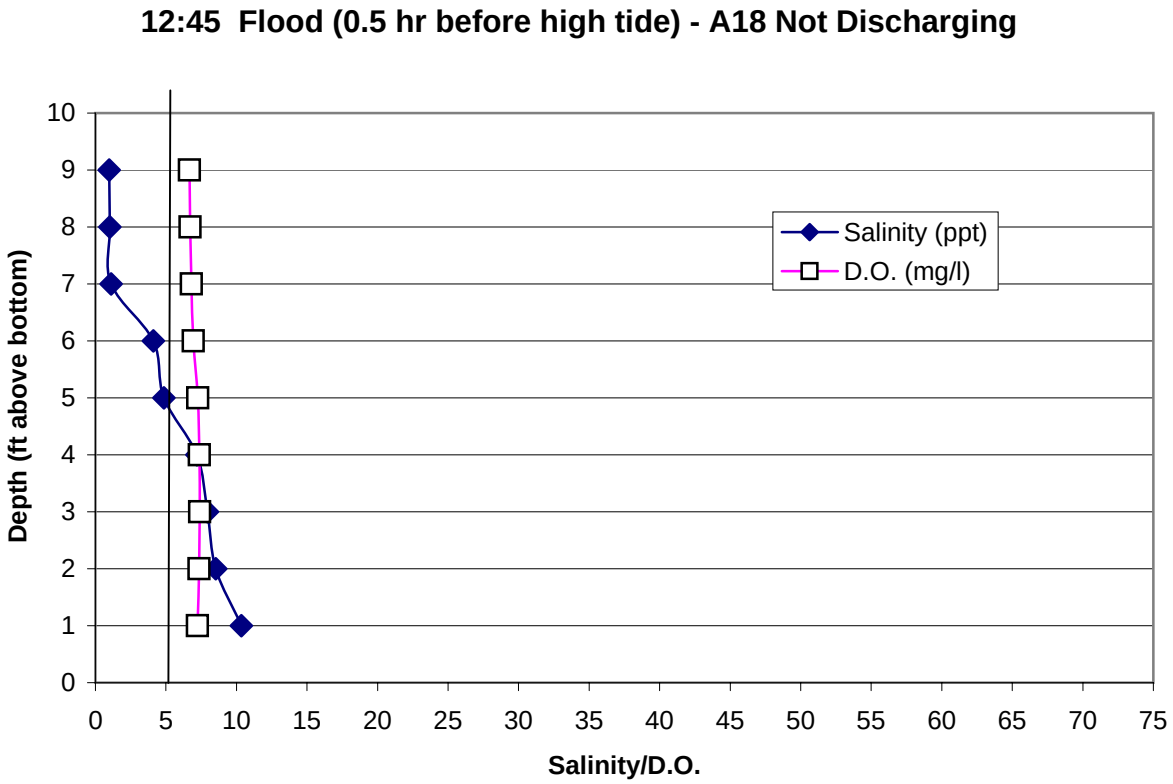
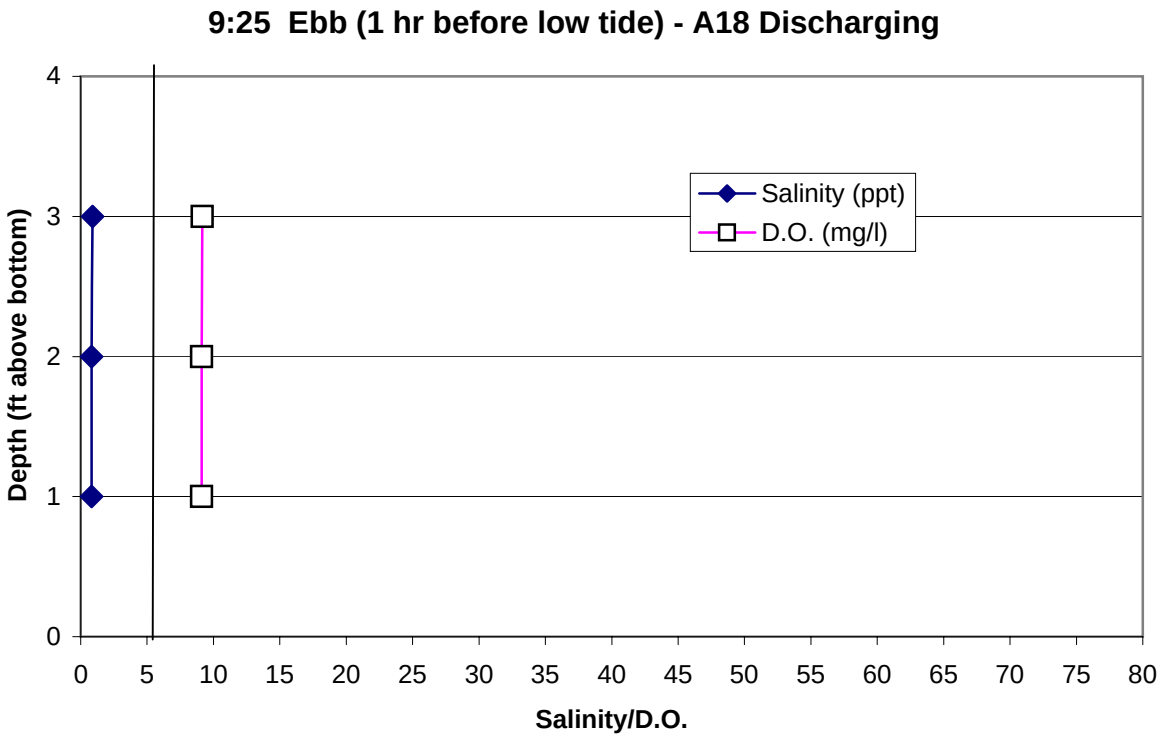
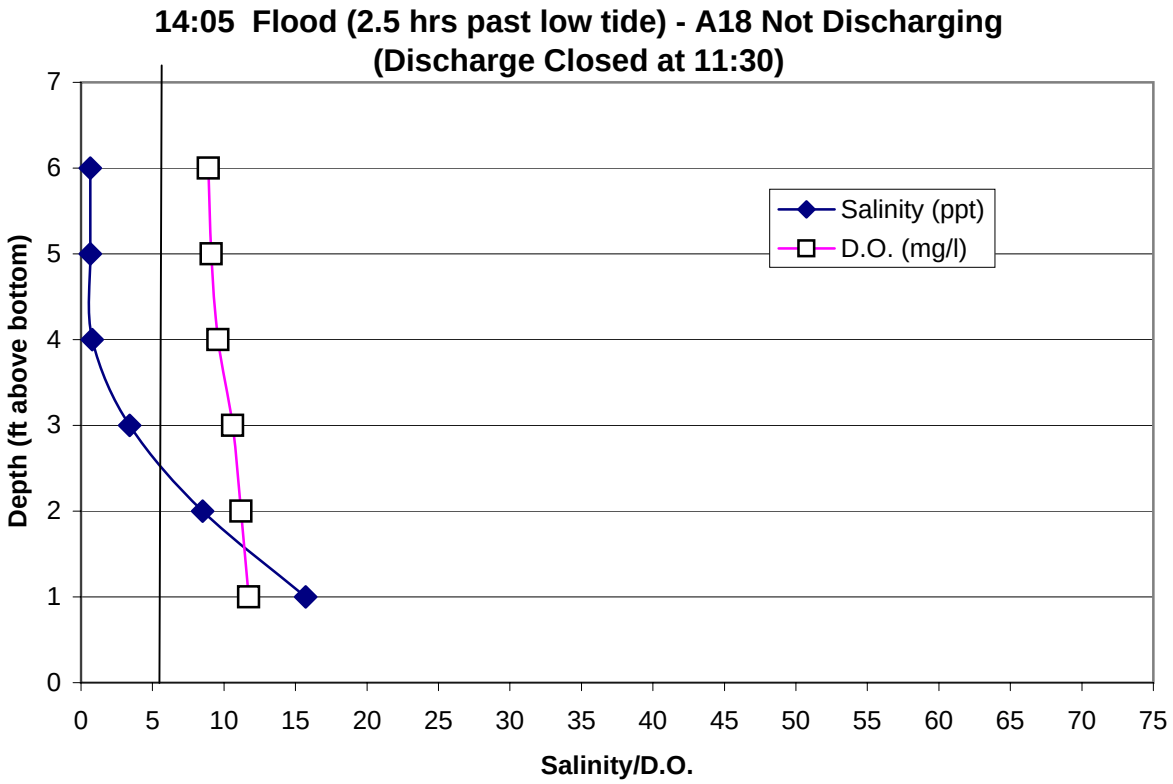




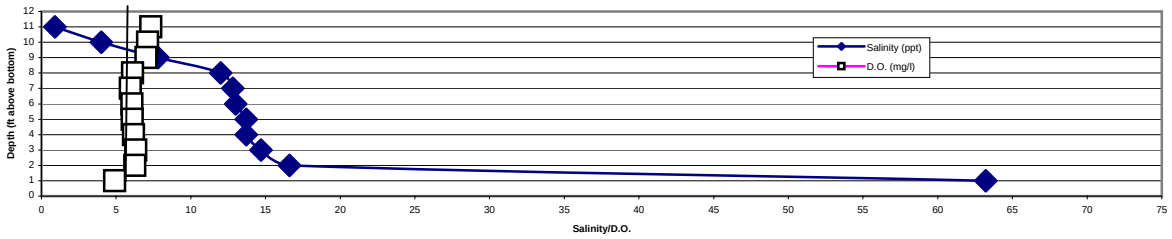
Station A18-1 Wednesday, March 30, 2005



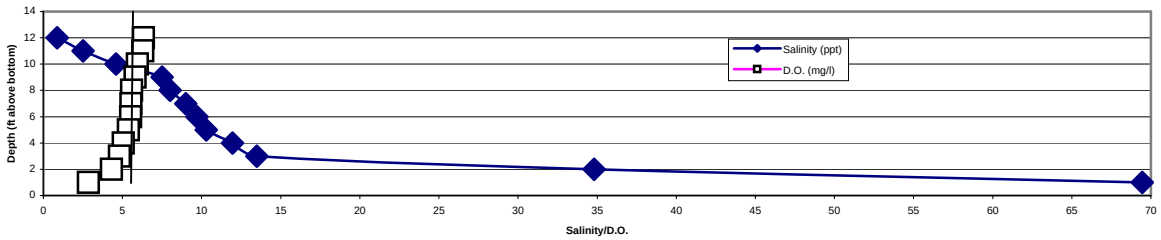


Station A-A18-1

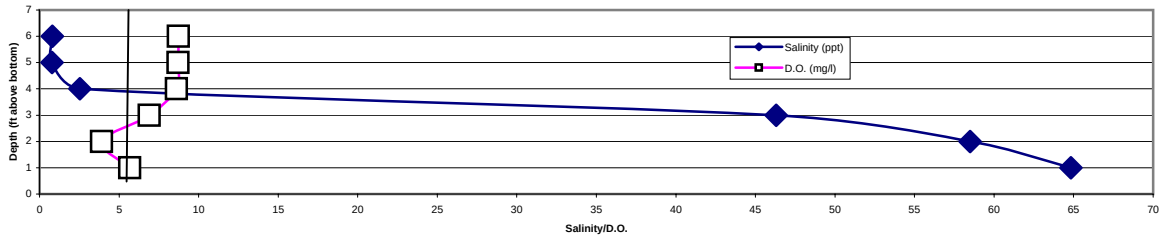
Slack - high tide



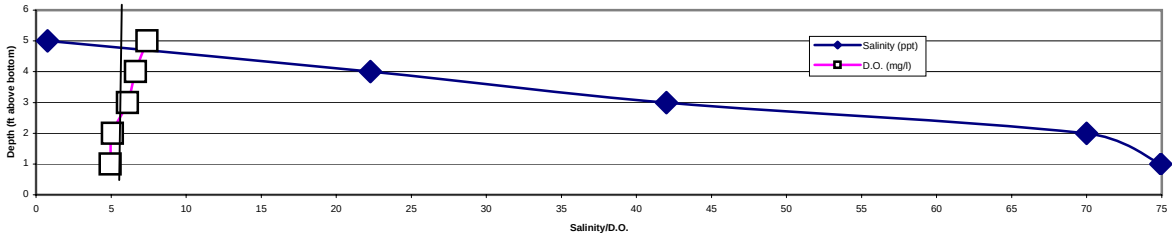
Slack - high tide



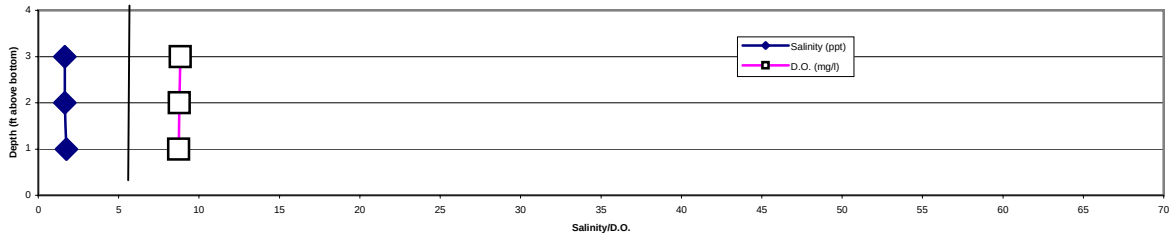
Ebb - 2 hrs before low tide



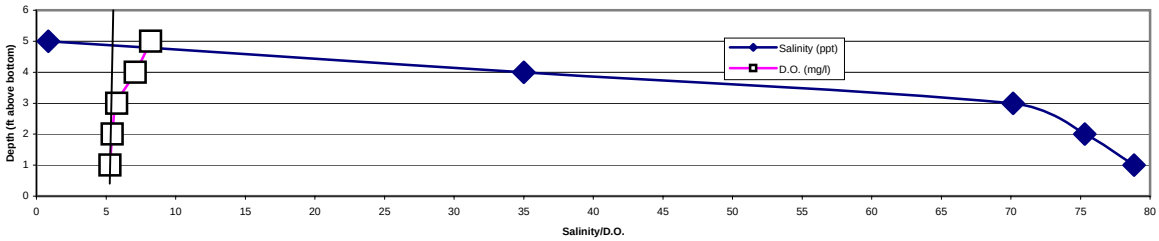
Ebb - 1 hr before low tide



Slack - low tide



Flood - 1.5 hrs past low tide



Monitoring Event - Artesian Slough at A-A18-1.5 (midway between A18-1 and A18-2)

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Between Stations 1 and 2	Yes	Ebb	8	7	2/18/2005					4.18		8.50			
		(2 hrs before low)		6	2/18/2005					3.90		8.44			
				5	2/18/2005					4.45		8.35			
				4	2/18/2005					5.84		8.15			
				3	2/18/2005					27.00		7.60			
				2	2/18/2005					61.60		5.86			
				1	2/18/2005	13:20				63.00		5.85			
		Air Temp = 16.5^{o}C, Humidity = 70%, Barometer = 29.94 in Hg, Scattered clouds/sunny													
Between Stations 1 and 2	Yes	Slack	5	4	2/18/2005					11.30		8.40			
		(low tide)		3	2/18/2005					12.30		8.33			
				2	2/18/2005					38.00		7.00			
				1	2/18/2005	15:31				58.20		6.05			
Between Stations 1 and 2	No	Ebb	13	12	2/21/2005	11:48	19.78	3.486	2.266	1.84	69	6.23	7.25		122.1
		(1 hr past high)		11	2/21/2005					2.60		6.17			
				10	2/21/2005					3.80		6.07			
				9	2/21/2005					5.20		5.79			
				8	2/21/2005					6.00		5.60			
				7	2/21/2005	11:45	15.94	13.41	8.717	7.77	61.3	5.78	7.53		137
				6	2/21/2005					8.90		5.72			
				5	2/21/2005					10.40		5.34			
				4	2/21/2005					12.09		5.10			
				3	2/21/2005					12.80		4.95			
				2	2/21/2005					23.50		4.53			
				1	2/21/2005	11:40	16.43	85.37	55.49	60.21	56.3	3.82	8.07		171.7
	Air Temp = 19.5^{o}C, Humidity = 48%, Barometer = 30.00 in Hg, Overcast/rainy														
Between Stations 1 and 2	Yes	Ebb	6	5	2/21/2005	16:34	19.56	15.32	9.96	8.96	76.9	6.69	7.38		57.8
		(1 hr before low)		4	2/21/2005					10.70		6.60			
				3	2/21/2005	16:33	19.09	30.15	19.60	18.74	78.1	6.47	7.64		64.3
				2	2/21/2005					28.00		6.30			
				1	2/21/2005	16:32	16.55	97.65	63.47	70.48	77.3	4.92	8.17		89.7

Monitoring Event - Artesian Slough at A-A18-1.5 Cont'd

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Between Stations 1 and 2	Yes	Flood	7	6	2/25/2005	9:31	19.59	13.95	9.067	8.10	91.4	7.99	7.55		48.1
		(2 hrs past low)		5	2/25/2005					16.40		7.78			
				4	2/25/2005	9:30	18.39	41.95	27.27	26.99	90.7	7.25	7.99		58.8
				3	2/25/2005					66.40		5.71			
				2	2/25/2005					72.90		5.38			
				1	2/25/2005	9:27	15.69	105.3	68.43	76.98	86.9	5.40	8.3		85.1
	Air Temp = 14.5^{o}C, Humidity = 62%, Barometer = 29.94 in Hg, Overcast														
Between Stations 1 and 2	No	Slack	12	11	2/25/2005	13:50	20.05	5.18	3.37	2.80	81.7	7.30	7.36		69.7
		(high tide)		10	2/25/2005					4.80		7.17			
				9	2/25/2005					8.00		6.95			
				8	2/25/2005					10.98		7.14			
				7	2/25/2005					11.40		6.01			
				6	2/25/2005	13:45	16.92	19.83	12.89	11.86	64.3	5.80	7.59		86.7
				5	2/25/2005					12.69		6.09			
				4	2/25/2005					13.40		5.78			
				3	2/25/2005					14.00		5.99			
				2	2/25/2005					15.80		6.12			
				1	2/25/2005	13:39	16.78	83.32	54.16	58.55	73.7	5.02	8.24		112.9
	Air Temp = 26.5^{o}C, Humidity = 37%, Barometer = 30.27 in Hg, Sunny/clear														
Between Stations 1 and 2	Yes	Ebb	7	6	3/2/2005	9:05	19.94	7.009	4.556	3.86	86.8	7.72	7.36		17.9
		(2 hrs before low)		5	3/2/2005					5.20		7.32			
				4	3/2/2005	9:03	19.13	9.893	6.43	5.59	78.2	7.00	7.53		10.6
				3	3/2/2005					12.70		6.92			
				2	3/2/2005					34.40		6.99			
				1	3/2/2005	9:01	16.82	75.91	49.34	52.59	89.9	6.34	8.27		44.1
	Air Temp = 17.5^{o}C, Humidity = 42%, Barometer = 29.91 in Hg, Sunny/clear														
Between Stations 1 and 2	No	Slack	10	9	3/2/2005	16:39	20.59	6.51	4.23	3.57	98.5	8.67	7.33		57.6
		(high tide)		8	3/2/2005					3.80		8.75			
				7	3/2/2005					5.60		9.02			
				6	3/2/2005					8.50		9.28			
				5	3/2/2005	16:37	20.91	17.40	11.31	10.28	113.1	9.51	7.72		62.5
				4	3/2/2005					18.40		10.05			
				3	3/2/2005					32.90		9.13			
				2	3/2/2005					48.30		8.96			
				1	3/2/2005	16:34	18.81	76.20	49.53	52.87	123.6	8.40	8.28		95.9

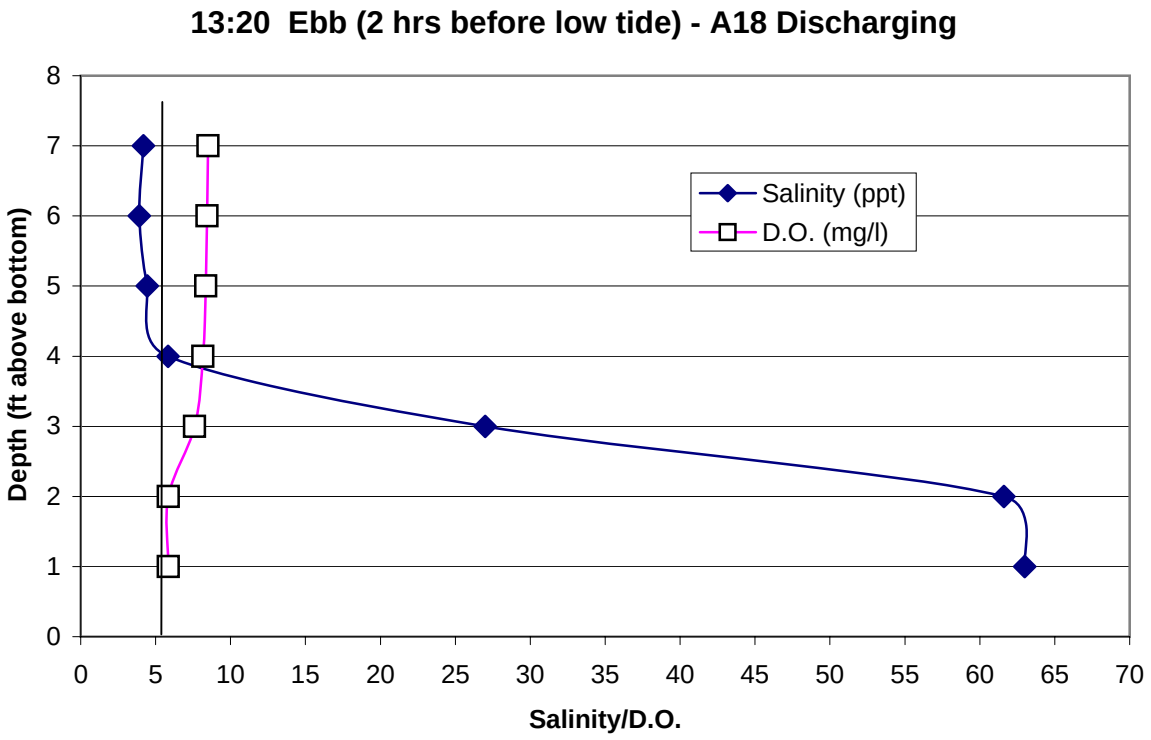
Monitoring Event - Artesian Slough at A-A18-1.5 Cont'd

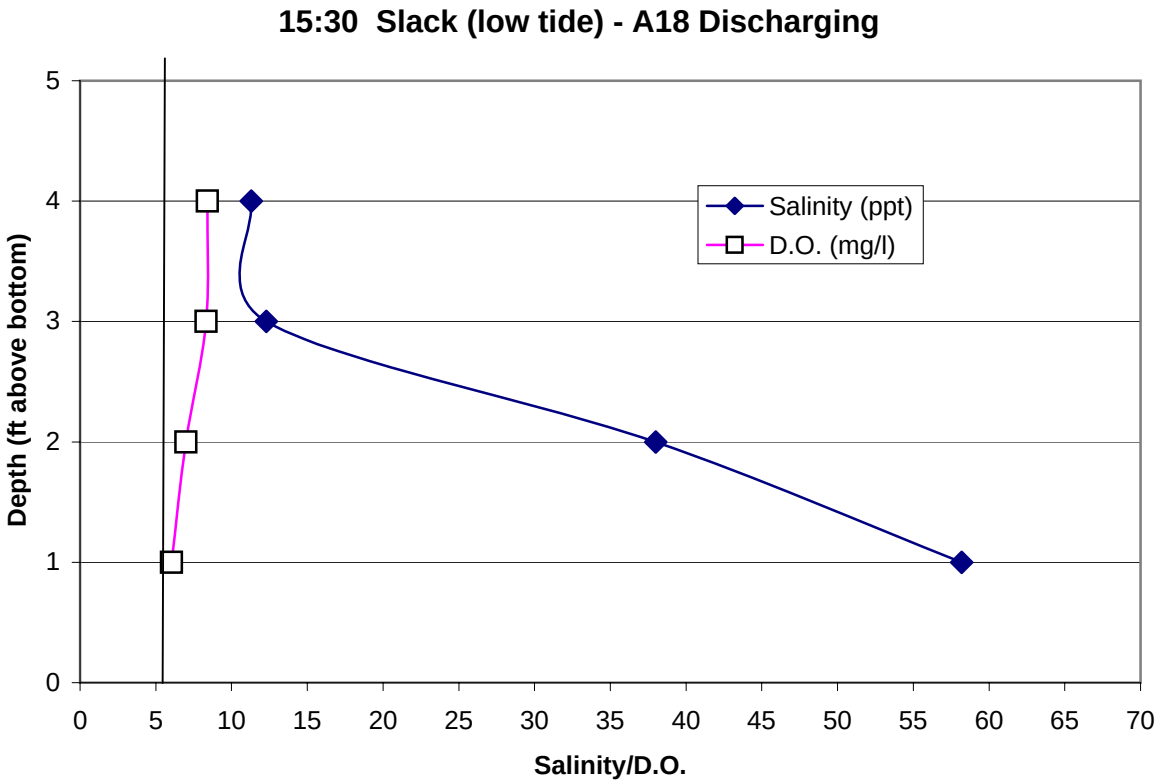
Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Between Stations 1 and 2	Yes	Flood	7	6	3/12/2005	10:42	21.35	10.81	7.026	6.14	93	7.94	7.37		52.4
		(1.5 hrs past low)		5	3/12/2005					12.10		7.71			
				4	3/12/2005	10:39	20.94	28.65	18.62	17.71	91.9	7.39	7.92		53.4
				3	3/12/2005					36.70		6.56			
				2	3/12/2005					47.00		6.01			
				1	3/12/2005	10:44	19.94	74.13	48.19	51.24	89.7	6.03	8.45		68.7
	Air Temp = 16.5^{o}C, Humidity = 77%, Barometer = 29.91 in Hg, Foggy														
Between Stations 1 and 2	No	Ebb	12	11	3/12/2005	15:38	21.52	4.59	2.99	2.46	84.1	7.32	7.20		86.7
		(1 hr past high)		10	3/12/2005					3.30		7.33			
				9	3/12/2005					4.97		7.49			
				8	3/12/2005					5.89		7.54			
				7	3/12/2005					8.80		7.69			
				6	3/12/2005					9.78		7.64			
				5	3/12/2005	15:24	20.80	17.64	11.47	10.44	89.1	7.50	7.55		99.1
				4	3/12/2005					12.20		7.36			
				3	3/12/2005					13.60		7.26			
				2	3/12/2005					15.60		7.11			
				1	3/12/2005	15:32	20.58	34.65	22.52	21.83	84.5	6.69	7.98		111.6
Between Stations 1 and 2	No	Ebb	9	8	3/18/2005	8:47	20.86	3.477	2.26	1.83	79.9	7.06	7.29		156.6
		(1.5 hrs past high)		7	3/18/2005					2.40		7.02			
				6	3/18/2005					2.80		6.93			
				5	3/18/2005	8:45	20.40	5.561	3.615	3.02	76.3	6.76	7.34		161.1
				4	3/18/2005					3.61		6.49			
				3	3/18/2005					4.70		6.17			
				2	3/18/2005					10.20		5.88			
				1	3/18/2005	8:42	18.68	50.91	33.09	33.48	87.9	6.73	8.37		190.2
	Air Temp = 18.0^{o}C, Humidity = 49%, Barometer = 30.06 in Hg, Light Rain														
Between Stations 1 and 2	Yes	Ebb	5	4	3/18/2005	14:34	20.61	11.77	7.65	6.73	102.9	8.88	7.60		84.2
		(1 hr before low)		3	3/18/2005	14:33	20.13	18.74	12.18	11.15	105.7	8.98	7.88		89.0
				2	3/18/2005					24.40		8.75			
				1	3/18/2005	14:31	17.54	60.58	39.38	40.69	108.2	8.10	8.51		108.9

Monitoring Event - Artesian Slough at A-A18-1.5 Cont'd

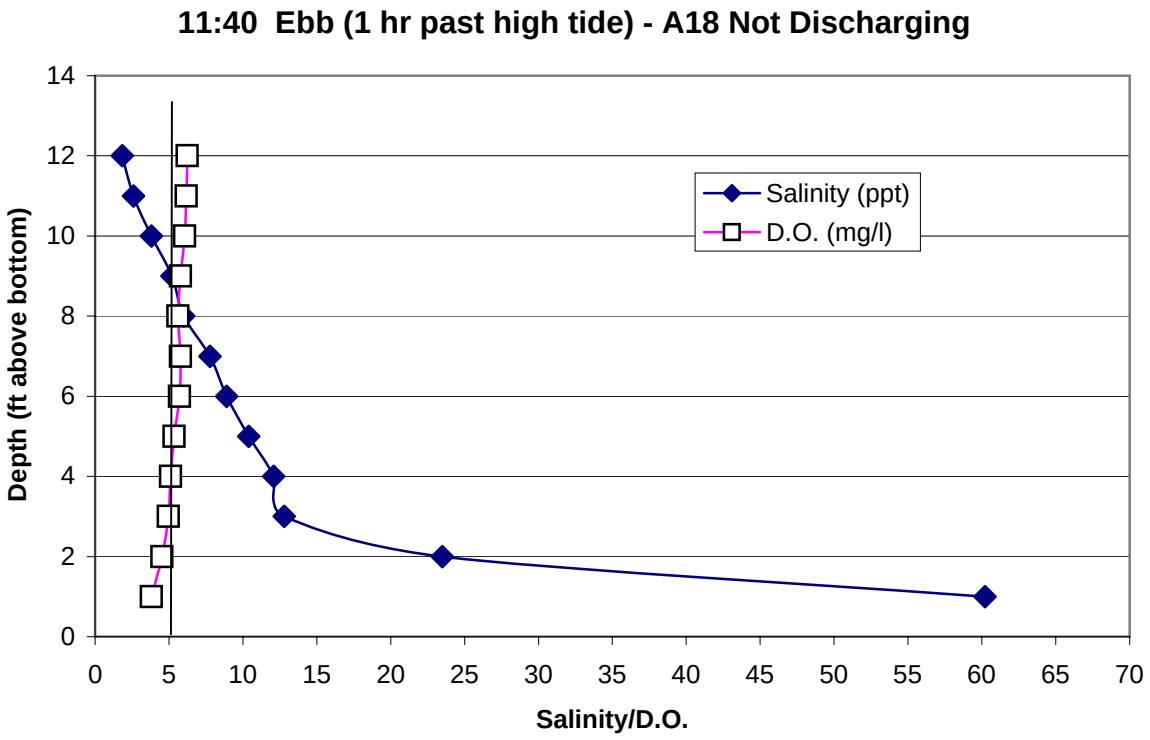
Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Between Stations 1 and 2	Yes	Flood	9	8	3/24/2005	9:10	20.21	6.776	4.405	3.73	78.7	6.97	7.31		107.4
		(2.0 hrs past low)		7	3/24/2005					6.30		7.17			
				6	3/24/2005					8.52		7.57			
				5	3/24/2005					10.60		7.46			
				4	3/24/2005	9:07	17.91	26.65	17.32	16.37	80.8	6.95	8.00		128.8
				3	3/24/2005					27.70		7.03			
				2	3/24/2005					36.60		6.78			
				1	3/24/2005	9:03	15.33	57.71	37.51	38.48	83.6	6.61	8.40		164.9
	Air Temp = 23.0^{o}C, Humidity = 39%, Barometer = 29.88 in Hg, Sunny														
Between Stations 1 and 2	No	Slack	11	10	3/24/2005	13:04	20.91	3.05	1.99	1.60	76.3	6.75	7.23		138.2
		(high tide)		9	3/24/2005					2.05		6.89			
				8	3/24/2005					2.74		7.08			
				7	3/24/2005					3.88		7.29			
				6	3/24/2005					4.30		7.40			
				5	3/24/2005	13:01	19.69	9.67	6.28	5.45	85.3	7.56	7.37		167.0
				4	3/24/2005					5.95		7.60			
				3	3/24/2005					7.16		7.84			
				2	3/24/2005					8.27		7.68			
				1	3/24/2005	12:56	18.74	18.41	11.96	10.94	84.9	7.42	7.58		237.5
Between Stations 1 and 2	Yes	Ebb	4	3	3/30/2005	9:44	19.78	11.75	7.635	6.73	110	9.66	7.65		58.2
		(1 hr before low)		2	3/30/2005	9:43	19.27	18.04	11.73	10.70	110	9.52	7.89		64.9
				1	3/30/2005	9:42	17.14	40.83	26.54	26.18	112	9.22	8.42		86
	Air Temp = 26.5^{o}C, Humidity = 34%, Barometer = 30.12 in Hg, Sunny														
Between Stations 1 and 2	No	Flood	8	7	3/30/2005	14:23	21.68	2.37	1.54	1.22	108.6	9.44	7.31		69.5
		(2.5 hrs after low)		6	3/30/2005					1.78		9.72			
				5	3/30/2005					2.72		10.00			
				4	3/30/2005	14:21	20.92	9.59	6.23	5.40	122.6	10.61	7.63		93.3
				3	3/30/2005					9.30		11.45			
				2	3/30/2005					14.20		10.50			
				1	3/30/2005	14:18	18.4	29.92	19.45	18.59	123.5	10.38	8.29		189.7

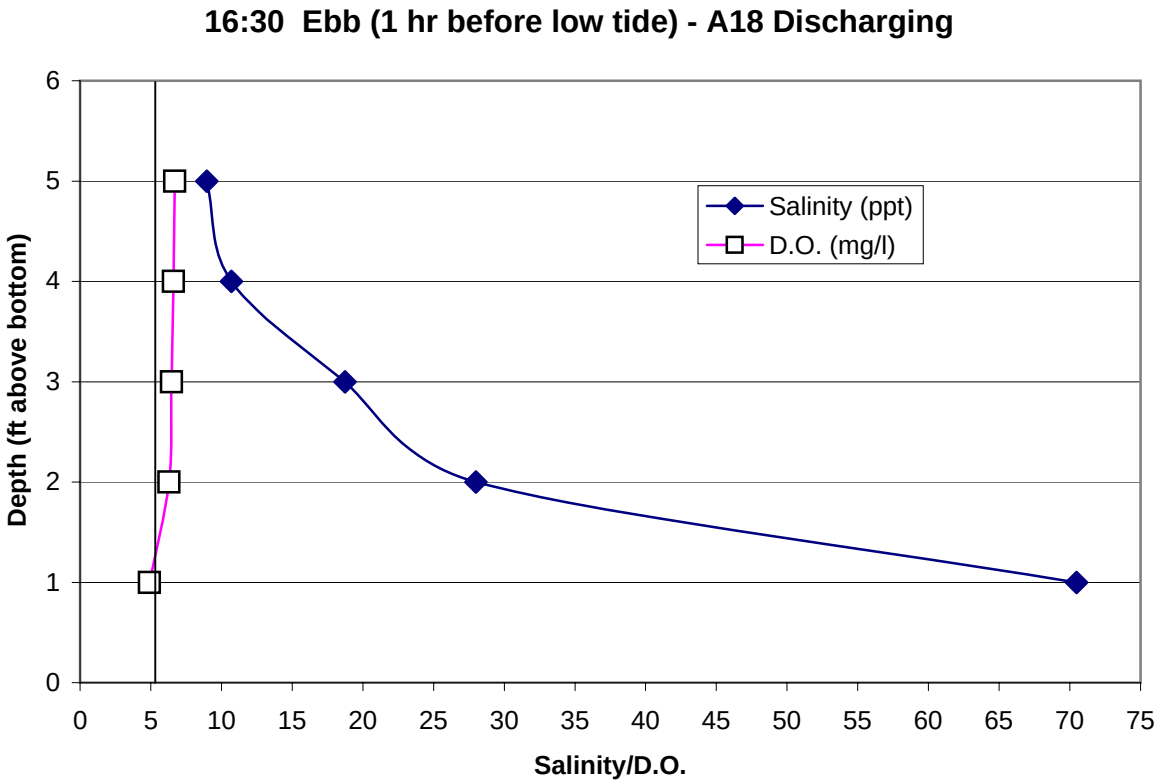
Station A18-1.5 Friday, February 18, 2005



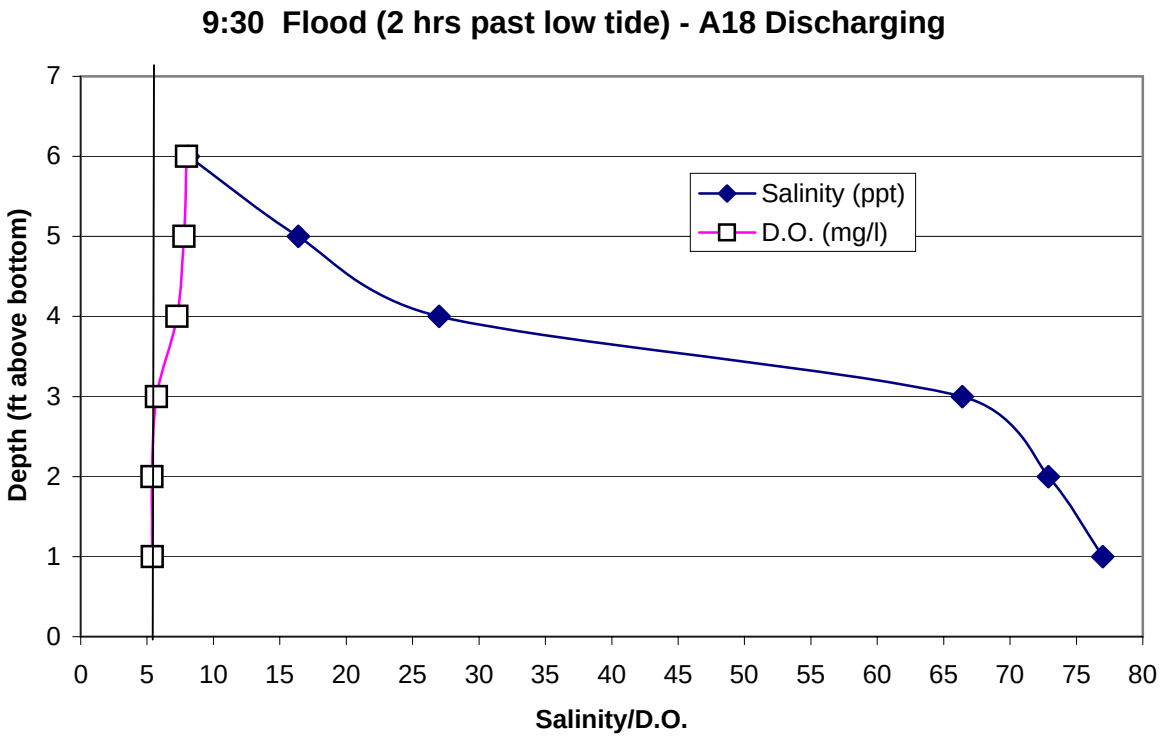


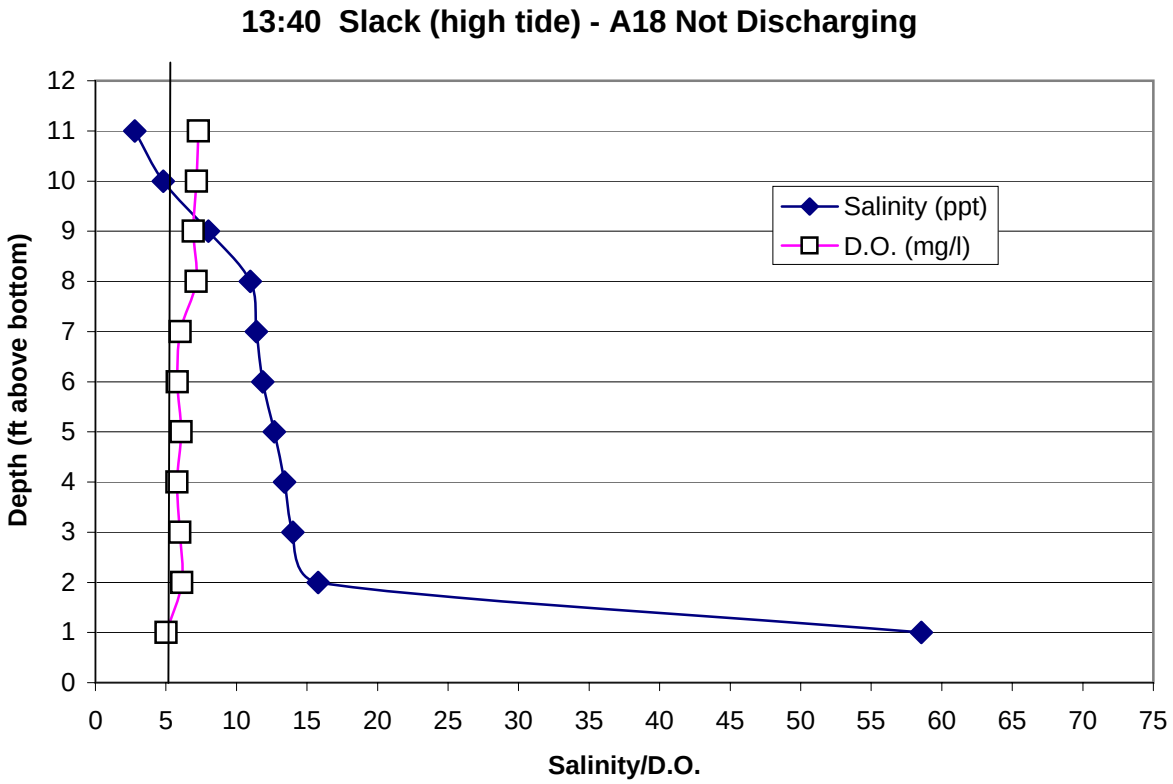
Station A18-1.5 Monday, February 21, 2005



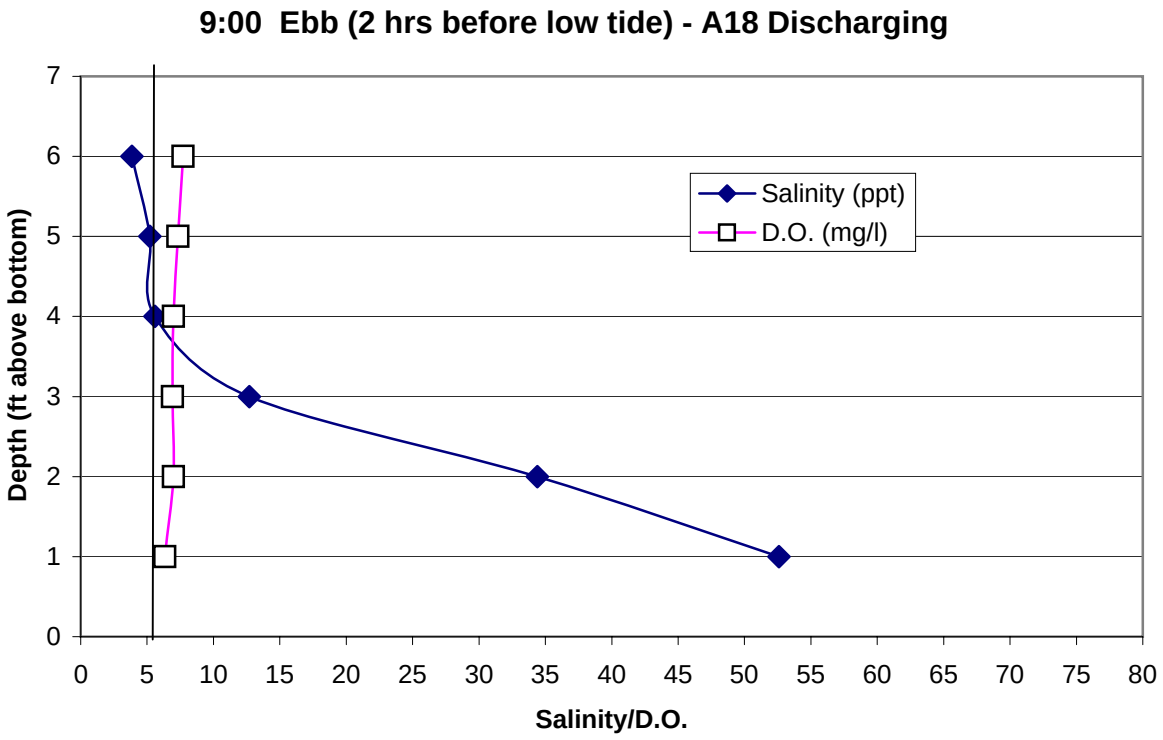


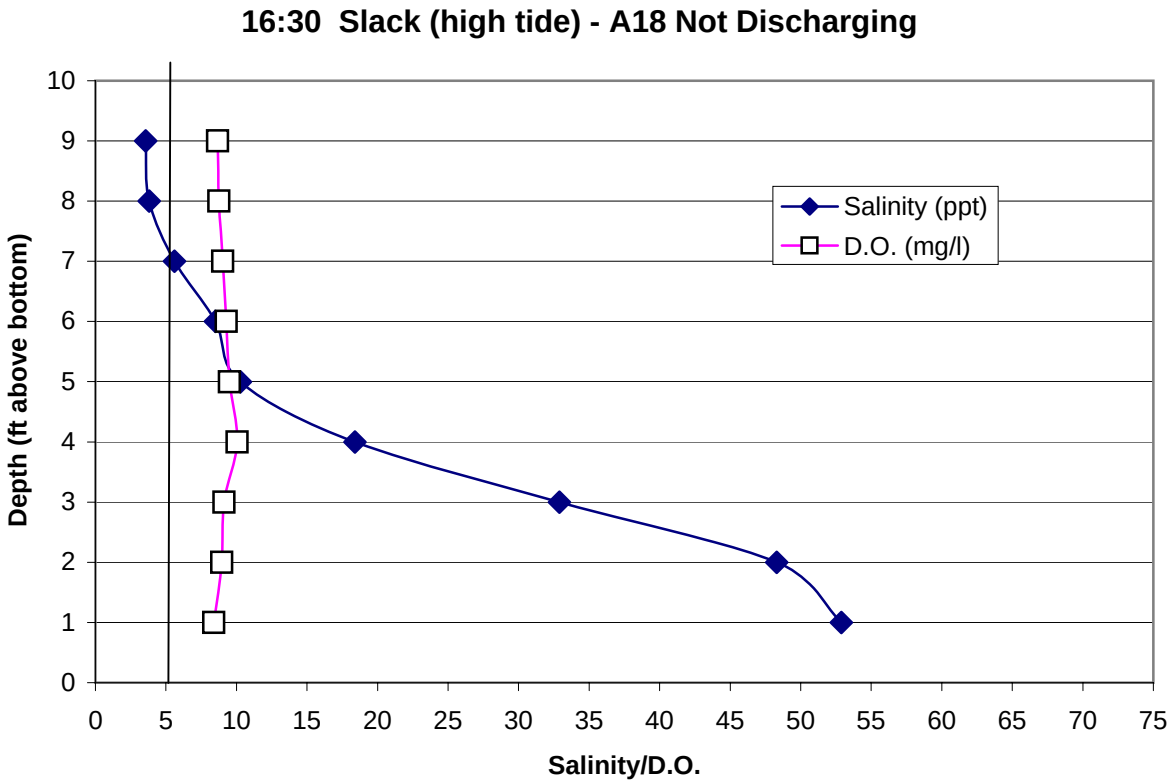
Station A18-1.5 Friday, February 25, 2005



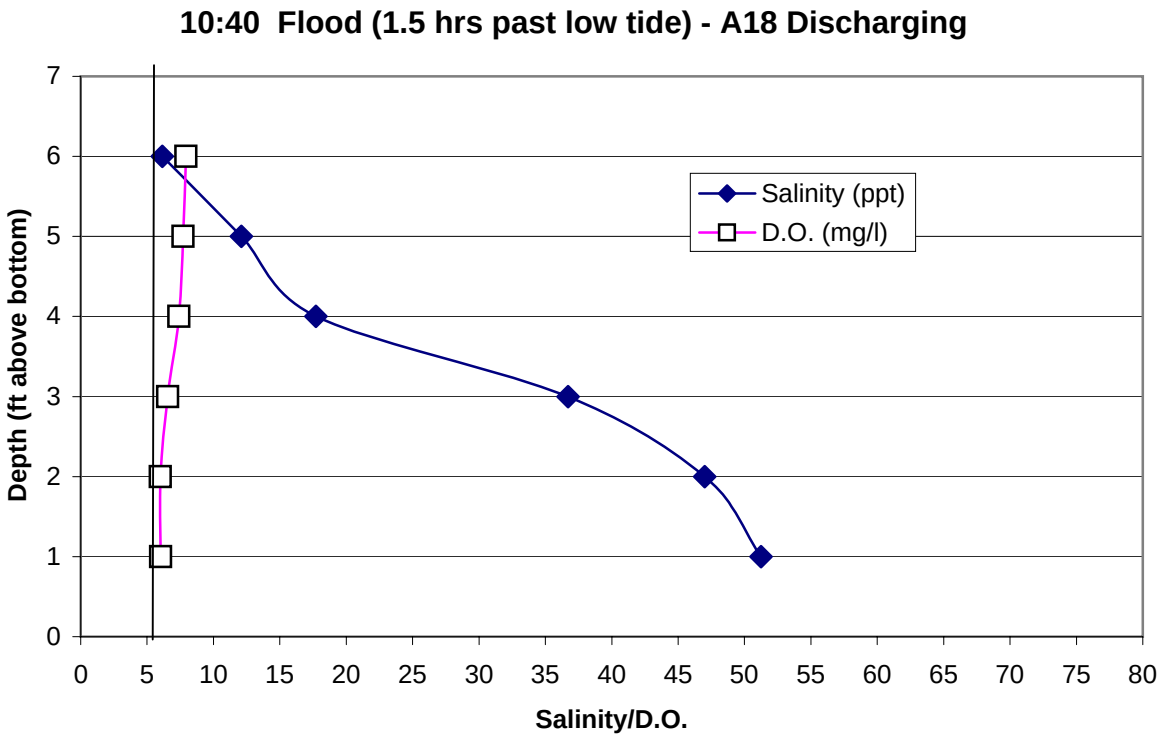


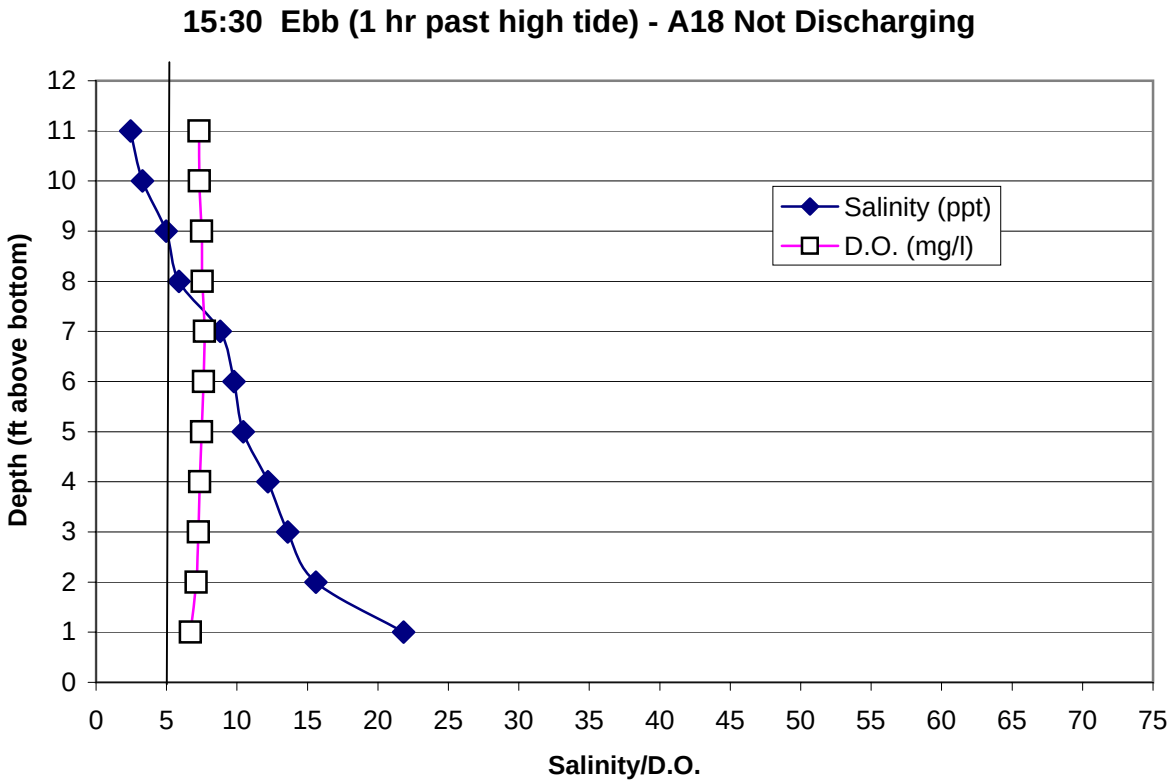
Station A18-1.5 Wednesday, March 02, 2005



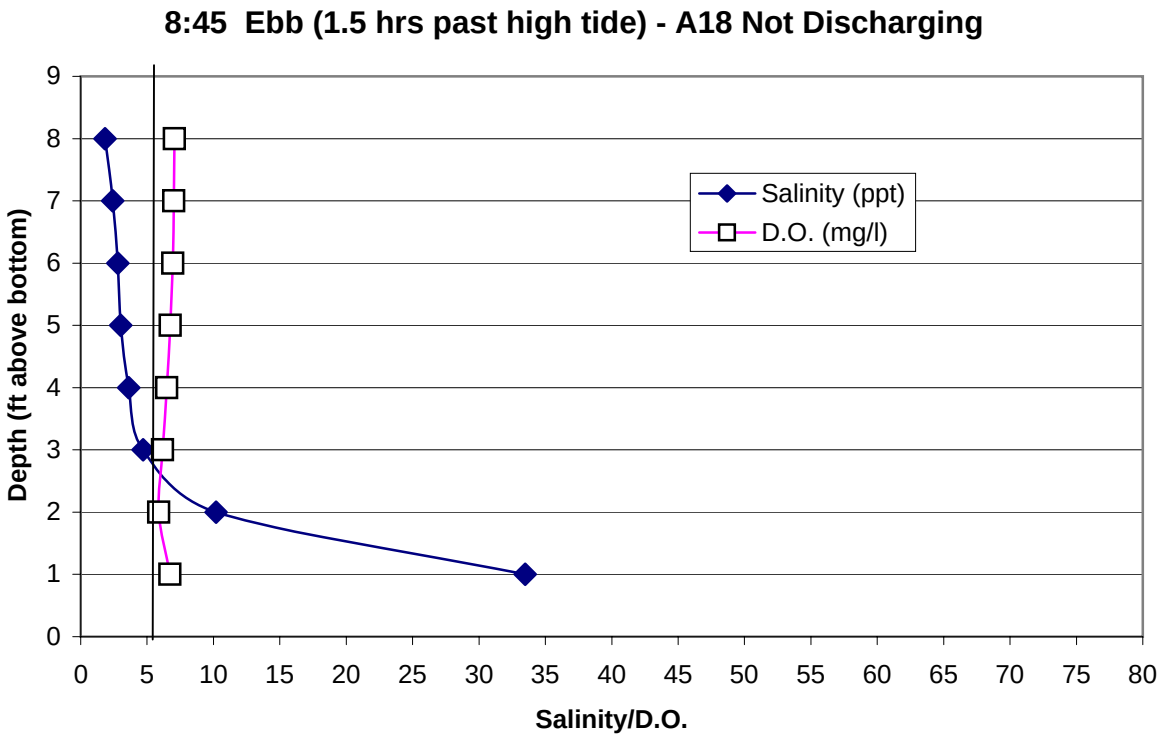


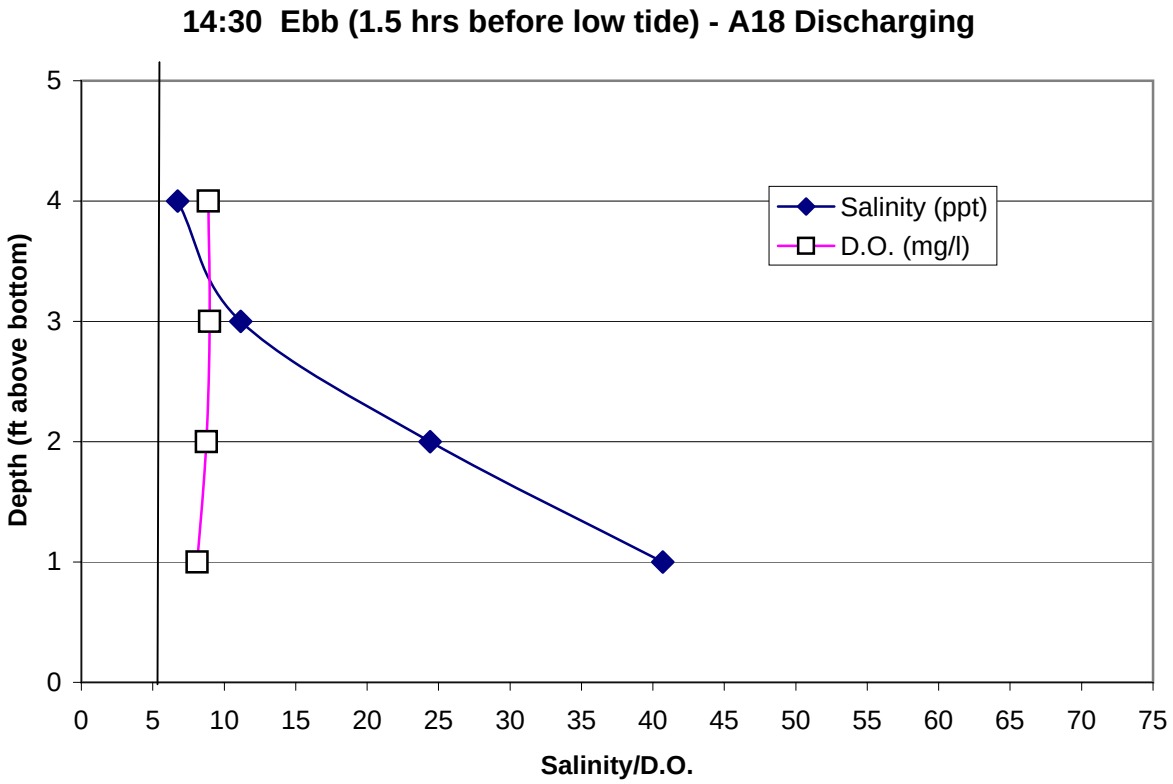
Station A18-1.5 Saturday, March 12, 2005



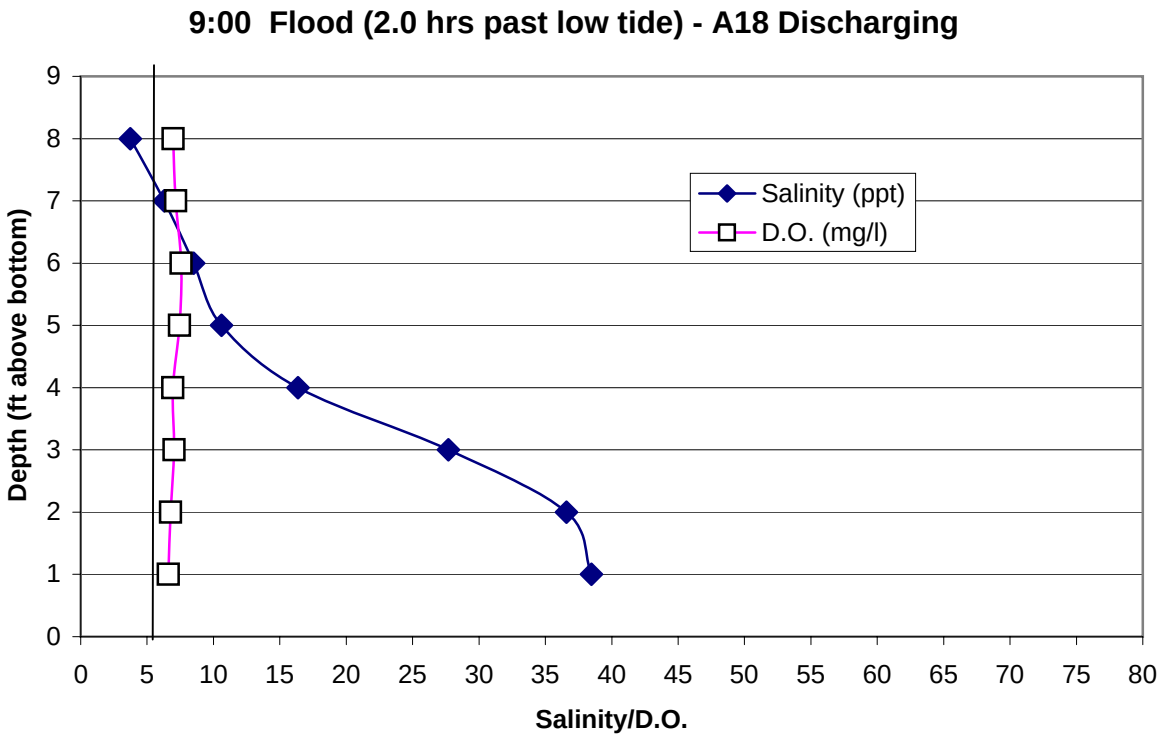


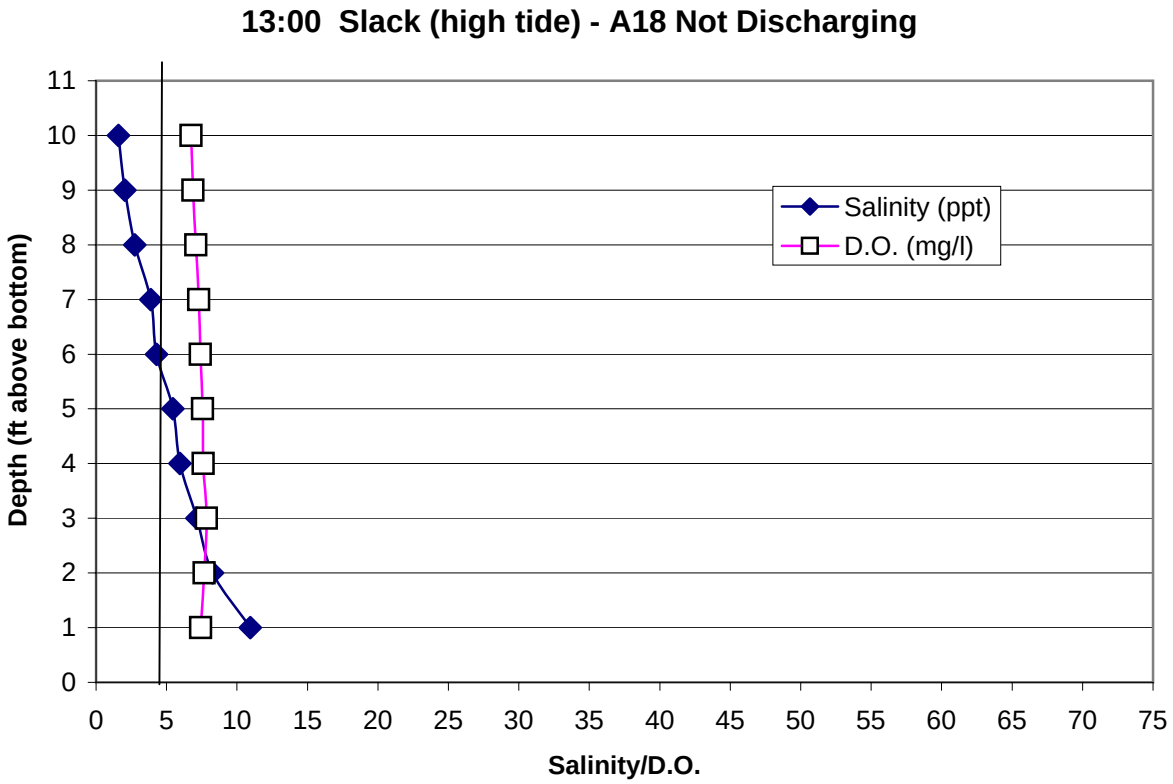
Station A18-1.5 Friday, March 18, 2005



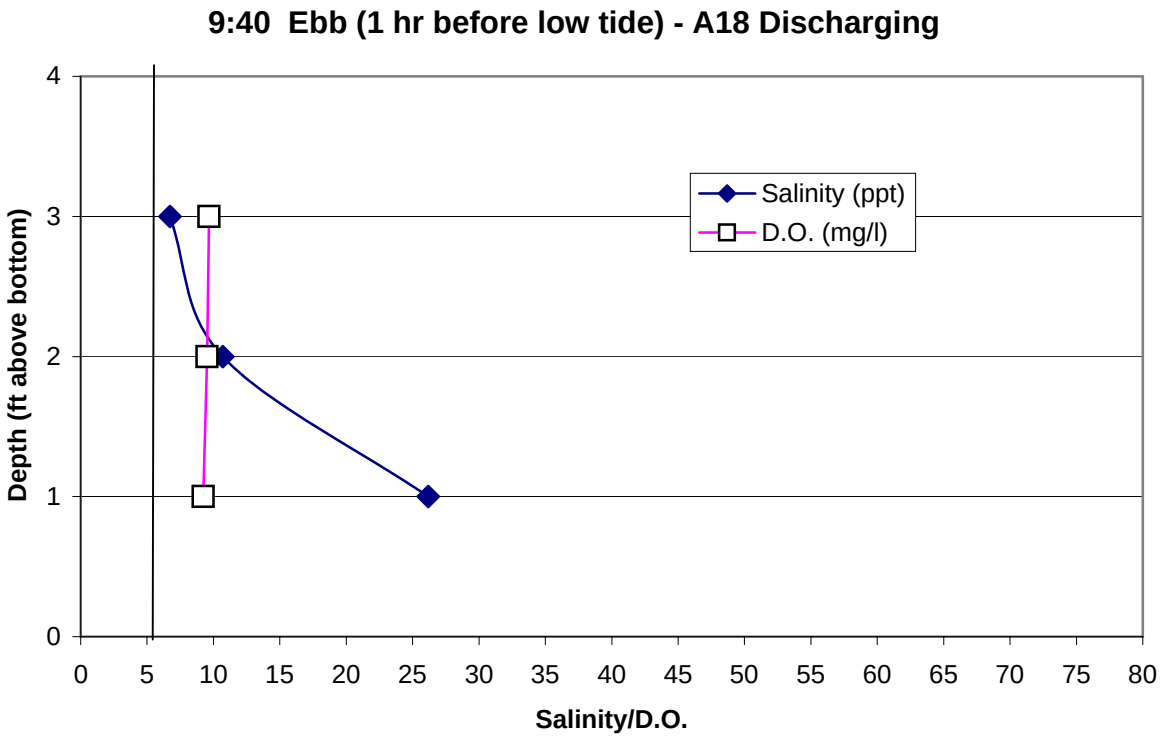


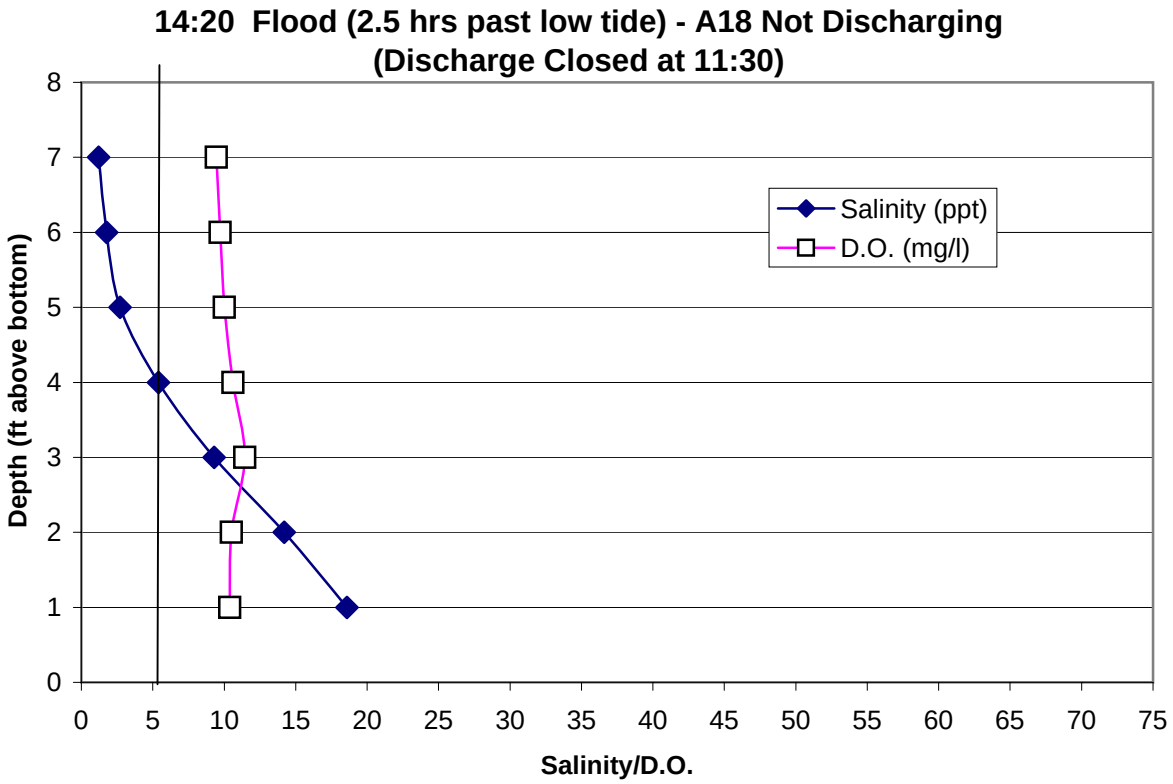
Station A18-1.5 Thursday, March 24, 2005





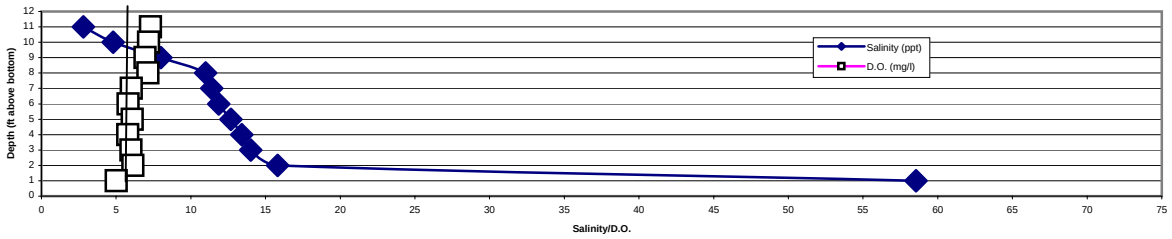
Station A18-1.5 Wednesday, March 30, 2005



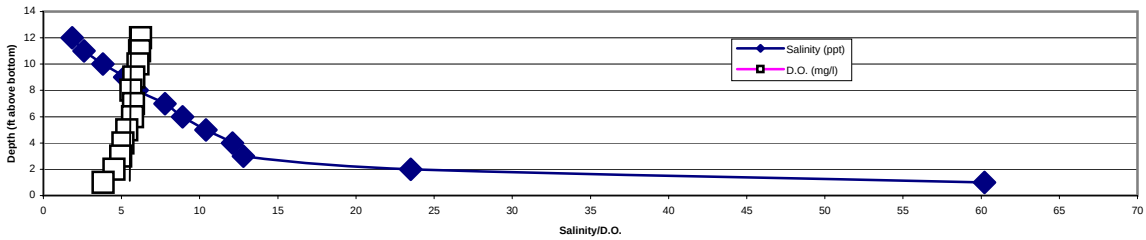


Station A18-1.5

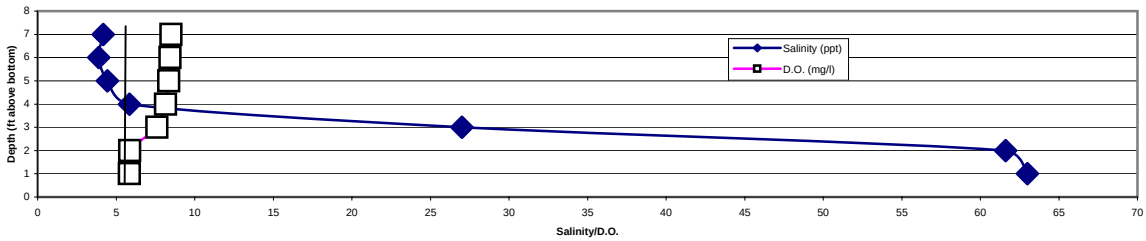
Slack - high tide



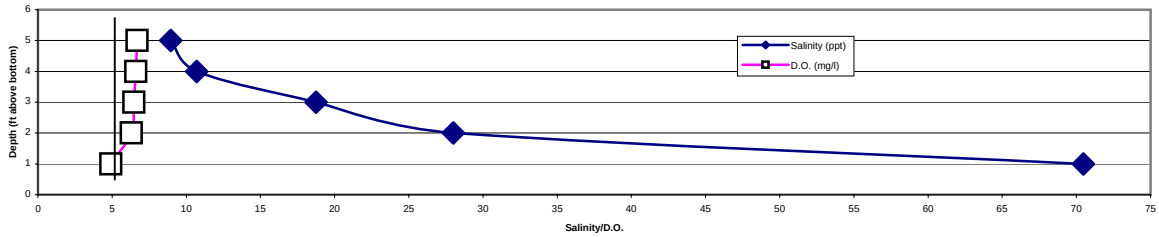
Ebb - 1 hr past high tide



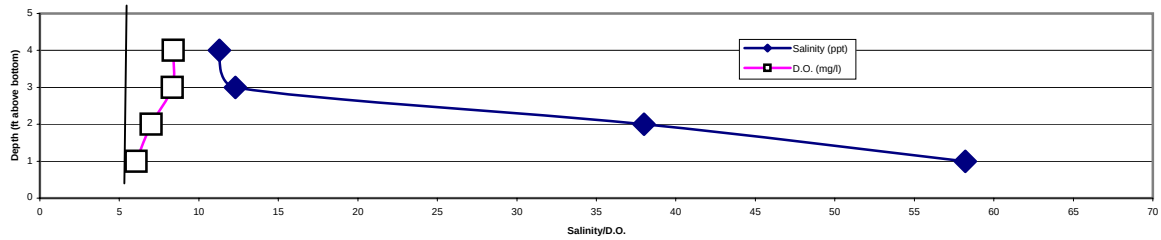
Ebb - 2 hrs before low tide



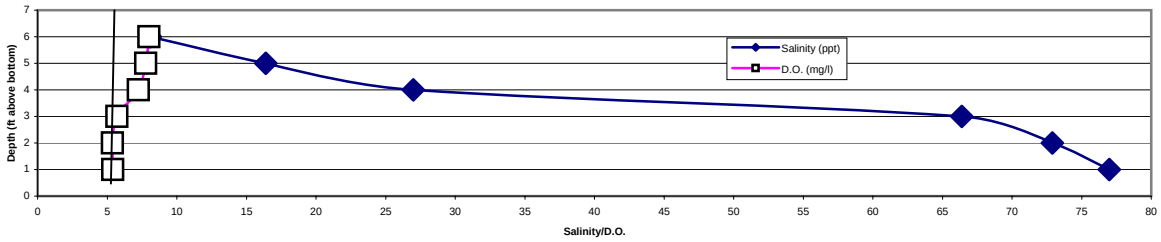
Ebb - 1 hr before low tide



Slack - low tide



Flood - 2 hrs past low tide



Monitoring Event - Artesian Slough at A-A18-2

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Downstream of A18 So Discharge	Predischarge	Flood	6	5	2/14/2005	12:22	20.70	1.719	1.117	0.87	101.1	9.02	7.46	1.3	152.5
Downstream of A18 So Discharge		(I hr past low)		1	2/14/2005	12:21	20.67	1.793	1.165	0.91	100.4	8.96	7.47	1.6	152.9
	Air Temp = 18.0^{o}C, Humidity = 55%, Barometer = 30.21 in Hg, Overcast/rainy														
Downstream of A18 So Discharge	No	Ebb	12	11	2/18/2005	10:16	20.01	4.058	2.638	2.16	76.7	6.89	7.28	1.5	112.1
		(1.5 hrs past high)		10	2/18/2005					2.30		6.80			
				9	2/18/2005					2.30		6.80			
				8	2/18/2005					2.40		6.80			
				7	2/18/2005					2.80		6.60			
				6	2/18/2005	10:15	19.71	6.200	4.03	3.39	73.8	6.62	7.3		114.5
				5	2/18/2005					3.90		6.30			
				4	2/18/2005					5.40		6.20			
				3	2/18/2005					8.20		5.90			
				2	2/18/2005					58.00		4.50			
				1	2/18/2005	10:14	17.26	61.39	39.9	41.31	61.1	4.58	8.1	12	145
	Air Temp = 16.5^{o}C, Humidity = 70%, Barometer = 29.94 in Hg, Scattered clouds/sunny														
Downstream of A18 So Discharge	Yes	Ebb	7	6	2/18/2005	13:39	20.44	8.70	5.66	4.87	93.6	8.20	7.34		31.6
		(2 hrs before low)		5	2/18/2005					6.60		7.69			
				4	2/18/2005					8.40		6.95			
				3	2/18/2005	13:36	18.98	45.70	29.70	29.68	94.1	7.32	7.96		39.6
				2	2/18/2005					47.10		6.41			
				1	2/18/2005	13:33	17.08	90.30	58.70	64.32	87.9	5.75	8.21		56.0
Downstream of A18 So Discharge	Yes	Slack	6	5	2/18/2005	15:15	19.90	19.81	12.88	11.84	100.0	8.50	7.57	8.7	70.7
		(low tide)		4	2/18/2005	15:14	19.75	25.47	16.55	15.58	98.9	8.24	7.64		72.9
				3	2/18/2005					25.30		7.93			
				2	2/18/2005					28.70		7.66			
				1	2/18/2005	15:12	17.51	71.60	46.54	49.20	98.2	6.99	8.20	35	94.1
Downstream of A18 So Discharge	No	Ebb	14	13	2/21/2005	12:02	19.69	3.856	2.506	2.05	70.2	6.34	7.26	3.6	121.2
		(1.5 hrs past high)		12	2/21/2005					2.06		6.02			
				11	2/21/2005					3.00		6.10			
				10	2/21/2005					3.50		6.08			
				9	2/21/2005					4.50		5.95			
				8	2/21/2005	11:59	17.89	11.35	7.376	6.49	64.2	5.86	7.32		130.1
				7	2/21/2005					9.20		5.55			
				6	2/21/2005					9.80		5.39			
				5	2/21/2005					11.40		5.33			
				4	2/21/2005					13.30		4.65			
				3	2/21/2005					17.20		4.07			
				2	2/21/2005					60.30		3.68			
				1	2/21/2005	11:53	15.97	98.03	63.72	70.76	53.8	3.45	8.11	16	168.9
	Air Temp = 19.5^{o}C, Humidity = 48%, Barometer = 30.00 in Hg, Overcast/rainy														

Monitoring Event - Artesian Slough at A-A18-2 Cont'd

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Downstream of A18 So Discharge	Yes	Ebb	6	5	2/21/2005	16:43	19.48	15.63	10.16	9.16	78.5	6.83	7.41	7.4	52.4
		(1 hr before low)		4	2/21/2005					10.10		6.77			
				3	2/21/2005	16:42	19.17	29.22	18.99	18.10	80.1	6.65	7.63		58.3
				2	2/21/2005					30.00		6.28			
				1	2/21/2005	16:40	16.55	97.12	63.13	70.02	78.6	5.02	8.17	17	84.6
Downstream of A18 So Discharge	Yes	Flood	9	8	2/25/2005	9:44	19.41	17.09	11.11	10.09	90.4	7.83	7.54	2.4	47.3
		(2 hrs past low)		7	2/25/2005					14.70		7.96			
				6	2/25/2005					19.80		7.55			
				5	2/25/2005	9:41	17.60	63.52	41.29	42.93	89.4	6.59	8.2		58.5
				4	2/25/2005					70.80		5.50			
				3	2/25/2005					71.60		5.43			
				2	2/25/2005					77.60		5.41			
				1	2/25/2005	9:36	15.76	105.6	68.62	77.24	88	5.45	8.33	14	78.5
	Air Temp = 14.5^{o}C, Humidity = 62%, Barometer = 29.94 in Hg, Overcast														
Downstream of A18 So Discharge	No	Slack	13	12	2/25/2005	14:10	20.08	4.73	3.08	2.54	80.6	7.21	7.38	1.2	62.2
		(high tide)		11	2/25/2005					4.42		7.02			
				10	2/25/2005					7.00		6.62			
				9	2/25/2005					8.30		6.43			
				8	2/25/2005					11.50		6.06			
				7	2/25/2005	14:06	17.19	19.93	12.95	11.93	66.9	5.99	7.61		76.4
				6	2/25/2005					12.60		6.35			
				5	2/25/2005					13.50		6.13			
				4	2/25/2005					13.70		6.14			
				3	2/25/2005					16.00		6.04			
				2	2/25/2005					35.00		5.85			
				1	2/25/2005	14:02	16.27	94.98	61.74	68.20	69.7	4.52	8.30	21	98.8
	Air Temp = 26.5^{o}C, Humidity = 37%, Barometer = 30.27 in Hg, Sunny/clear														
Downstream of A18 So Discharge	Yes	Ebb	8	7	3/2/2005	9:19	19.91	7.974	5.183	4.44	88.4	7.84	7.32	1.4	13.5
		(2 hrs before low)		6	3/2/2005					4.60		7.58			
				5	3/2/2005					7.00		7.34			
				4	3/2/2005	9:15	18.88	20.01	13	11.97	85.4	7.39	7.61		-0.1
				3	3/2/2005					31.50		7.17			
				2	3/2/2005					51.80		6.36			
				1	3/2/2005	9:12	16.82	76.65	49.82	53.18	88.8	6.25	8.28	17	28.6
	Air Temp = 17.5^{o}C, Humidity = 42%, Barometer = 29.91 in Hg, Sunny/clear														
Downstream of A18 So Discharge	No	Slack	11	10	3/2/2005	16:50	20.47	6.41	4.17	3.51	97.6	8.62	7.37	1.2	50.7
		(high tide)		9	3/2/2005					3.90		8.70			
				8	3/2/2005					5.80		8.85			
				7	3/2/2005					8.20		8.96			
				6	3/2/2005	16:48	20.26	16.09	10.46	9.45	106.7	9.13	7.75		54.6
				5	3/2/2005					19.20		9.85			
				4	3/2/2005					31.70		9.32			
				3	3/2/2005					44.80		9.05			

				2	3/2/2005					51.30		8.75				
				1	3/2/2005	16:44	18.72	77.34	50.27	53.78	119.8	8.11	8.30	69	84.6

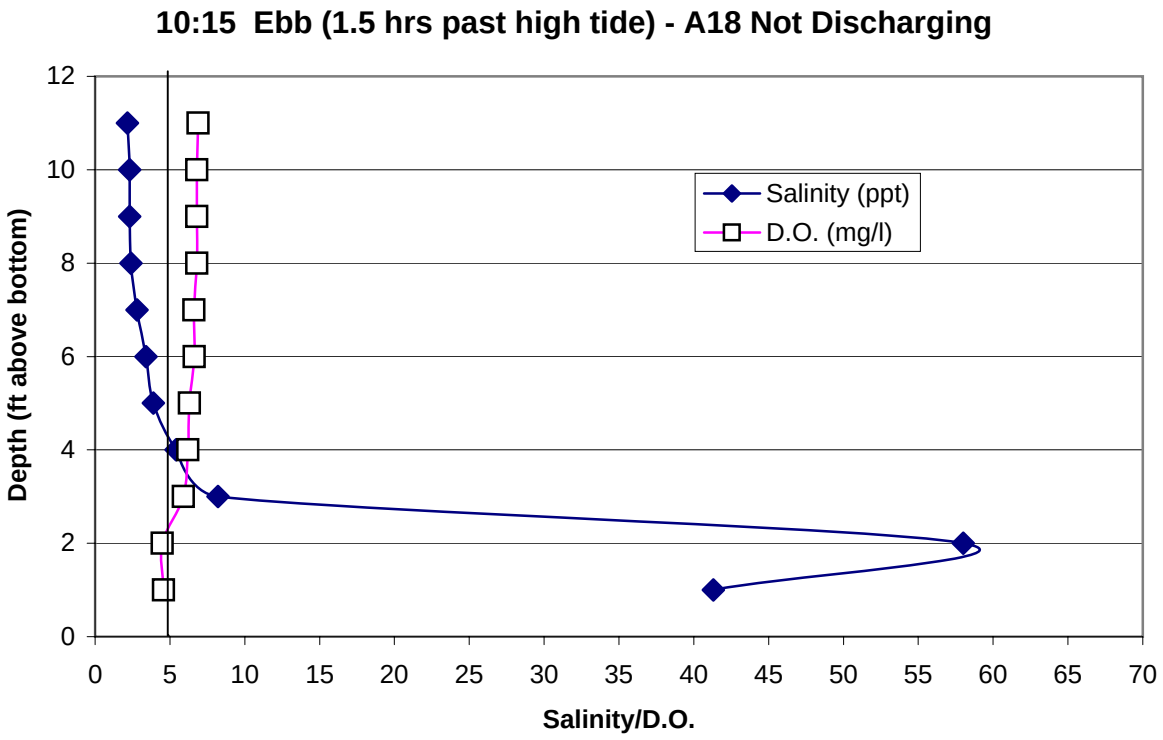
Monitoring Event - Artesian Slough at A-A18-2 Cont'd

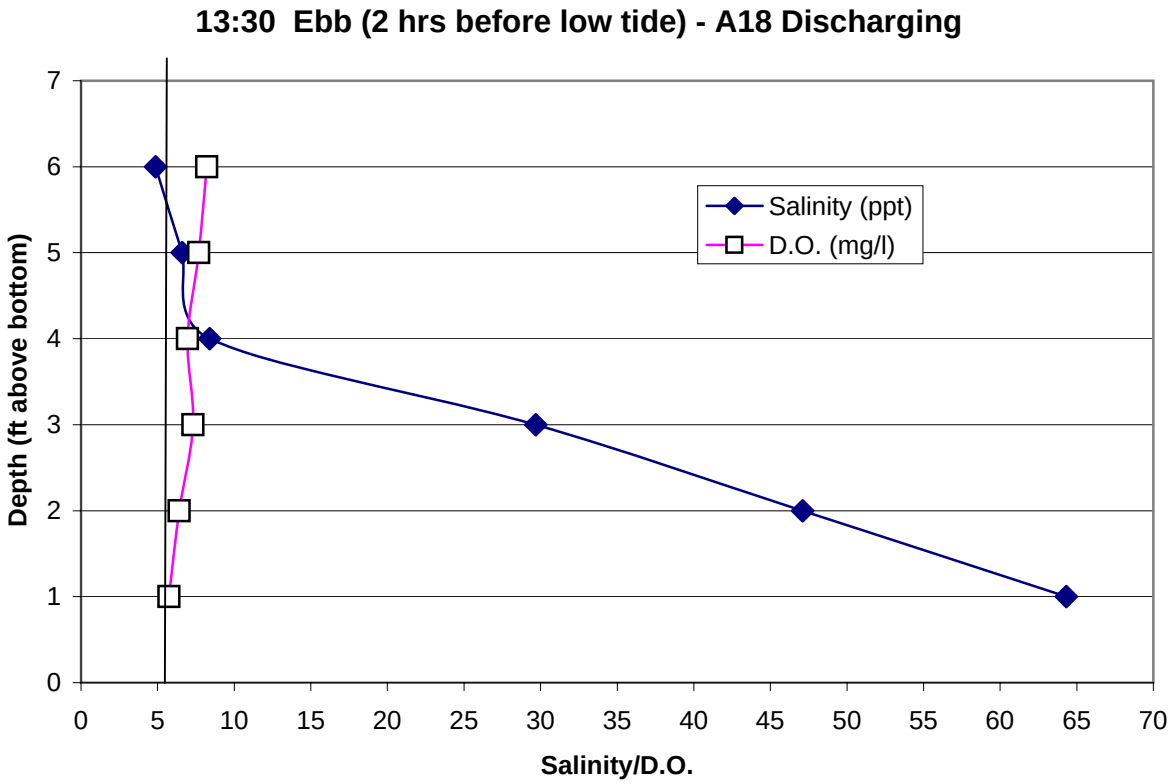
Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Downstream of A18 So Discharge	Yes	Flood	8	7	3/12/2005	11:00	21.17	11.65	7.57	6.66	94.1	8.04	7.47	1.6	48.2
		(2 hrs past low)		6	3/12/2005					11.30		7.74			
				5	3/12/2005					12.80		7.61			
				4	3/12/2005	10:58	20.48	42.13	27.38	27.10	89.1	6.84	8.21		58.4
				3	3/12/2005					40.90		5.98			
				2	3/12/2005					46.80		6.20			
				1	3/12/2005	10:54	19.94	73.86	48.01	51.03	90.1	6.07	8.41	9.0	69.5
	Air Temp = 16.5^{o}C, Humidity = 77%, Barometer = 29.91 in Hg, Foggy														
Downstream of A18 So Discharge	No	Ebb	13	12	3/12/2005	15:20	21.49	4.58	3.00	2.45	84.6	7.36	7.22	1.1	95.8
		(2 hrs past high)		11	3/12/2005					3.55		7.27			
				10	3/12/2005					5.58		7.12			
				9	3/12/2005					6.22		7.37			
				8	3/12/2005					7.85		8.02			
				7	3/12/2005					9.96		7.70			
				6	3/12/2005					11.40		6.78			
				5	3/12/2005	15:16	20.41	19.94	12.96	11.92	79.7	6.70	7.67		114.5
				4	3/12/2005					12.60		6.82			
				3	3/12/2005					15.00		6.74			
				2	3/12/2005					17.60		6.62			
				1	3/12/2005	15:13	20.21	65.19	42.37	44.25	80.4	5.61	8.34	9.5	138.6
Downstream of A18 So Discharge	No	Ebb	9	8	3/18/2005	8:57	20.69	3.728	2.423	1.97	79.5	7.05	7.29	1.0	145.6
		(1.5 hrs past high)		7	3/18/2005					2.20		6.91			
				6	3/18/2005					2.90		6.83			
				5	3/18/2005					3.20		6.81			
				4	3/18/2005	8:55	20.21	7.049	4.582	3.89	75.1	6.65	7.41		149.3
				3	3/18/2005					5.10		6.57			
				2	3/18/2005					10.50		7.12			
				1	3/18/2005	8:53	18.61	53.47	34.75	35.37	86.5	6.55	8.39	9.6	176.5
	Air Temp = 18.0^{o}C, Humidity = 49%, Barometer = 30.06 in Hg, Light Rain														
Downstream of A18 So Discharge	Yes	Ebb	5	4	3/18/2005	14:22	20.31	13.03	8.47	7.52	104.4	9.03	7.82	2.2	85.3
		(1 hr before low)		3	3/18/2005					15.10		8.77			
				2	3/18/2005	14:21	18.99	37.86	24.61	24.09	105.9	8.52	8.32		100.1
				1	3/18/2005	14:20	17.58	60.41	39.26	40.56	105.7	7.91	8.52	10	110.2

Monitoring Event - Artesian Slough at A-A18-2 Cont'd

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Downstream of A18 So Discharge	Yes	Flood	10	9	3/24/2005	9:22	20.1	8.78	5.71	4.92	80.9	7.14	7.44	2.0	64.9
		(2 hrs past low)		8	3/24/2005					6.13		7.64			
				7	3/24/2005					8.22		7.71			
				6	3/24/2005					10.40		7.30			
				5	3/24/2005	9:20	18.19	19.90	12.94	11.91	77.4	6.80	7.77		73.8
				4	3/24/2005					21.90		6.73			
				3	3/24/2005					33.10		6.63			
				2	3/24/2005					37.80		6.37			
				1	3/24/2005	9:17	15.22	58.33	37.91	38.94	78.2	6.18	8.44	30	98.5
	Air Temp = 23.0^{o}C, Humidity = 39%, Barometer = 29.88 in Hg, Sunny														
Downstream of A18 So Discharge	No	Slack	12	11	3/24/2005	13:19	20.93	3.31	2.15	1.73	77.1	6.81	7.25	1.7	101.4
		(high tide)		10	3/24/2005					2.19		6.92			
				9	3/24/2005					2.30		6.97			
				8	3/24/2005					2.78		7.19			
				7	3/24/2005					4.48		7.59			
				6	3/24/2005					4.85		7.65			
				5	3/24/2005					5.75		7.62			
				4	3/24/2005	13:15	19.56	10.89	7.08	6.20	86.7	7.66	7.43		121.5
				3	3/24/2005					6.84		7.67			
				2	3/24/2005					12.10		7.41			
				1	3/24/2005	13:13	16.68	39.01	25.35	24.89	79.7	6.67	8.31	8.5	150.8
Downstream of A18 So Discharge	Yes	Ebb	5	4	3/30/2005	9:56	19.93	11.66	7.58	6.67	110.2	9.64	7.57	2.7	32.8
		(0.5 hrs before low)		3	3/30/2005	9:55	19.23	16.37	10.64	9.63	112.5	9.82	7.90		27.6
				2	3/30/2005					22.80		9.43			
				1	3/30/2005	9:53	17.2	40.24	26.15	25.76	111.6	9.20	8.38	11	38.9
	Air Temp = 26.5^{o}C, Humidity = 34%, Barometer = 30.12 in Hg, Sunny														
Downstream of A18 So Discharge	No	Flood	10	9	3/30/2005	14:44	21.41	2.46	1.60	1.27	104.3	9.16	7.26	1.6	86.4
		(3 hrs past low)		8	3/30/2005					1.50		9.80			
				7	3/30/2005					2.50		10.40			
				6	3/30/2005					4.90		11.10			
				5	3/30/2005	14:38	21.15	13.80	8.97	8.00	138.1	11.72	7.81		108.7
				4	3/30/2005					12.10		10.72			
				3	3/30/2005					13.20		10.27			
				2	3/30/2005					13.90		10.04			
				1	3/30/2005	14:35	18.71	27.13	17.64	16.70	117.6	9.94	8.11	18	224.2

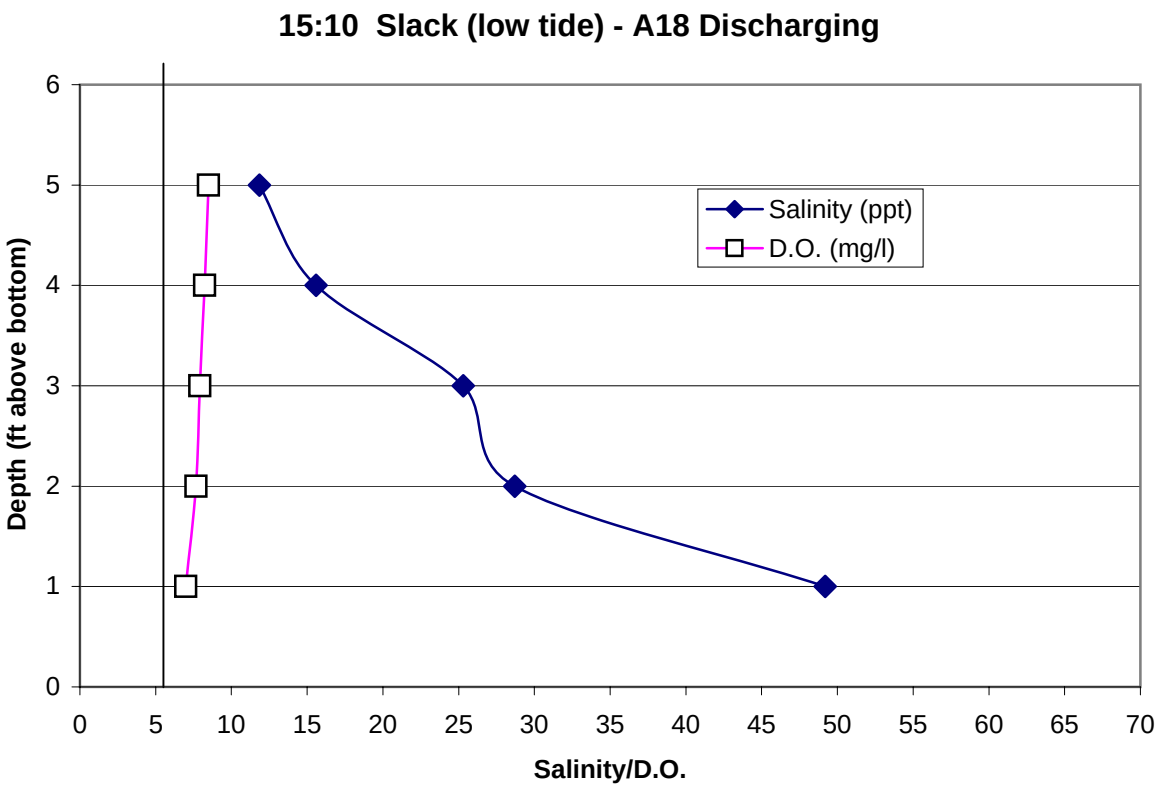
Station A18-2 Friday, February 18, 2005



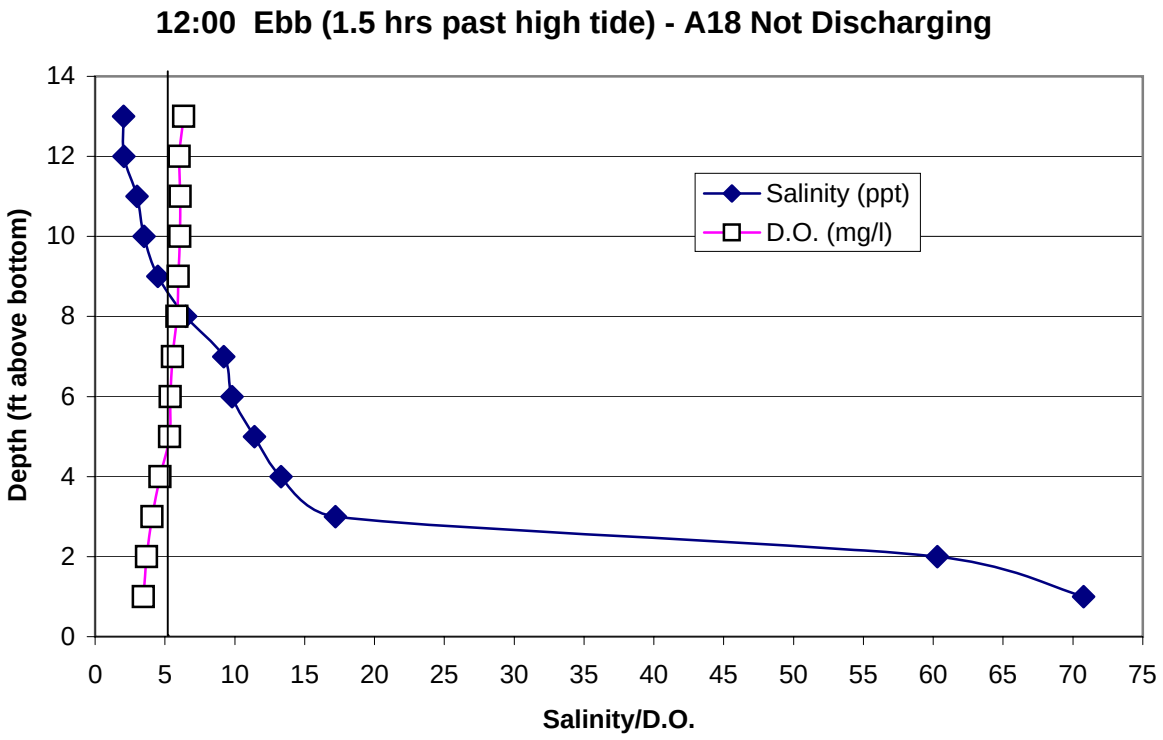


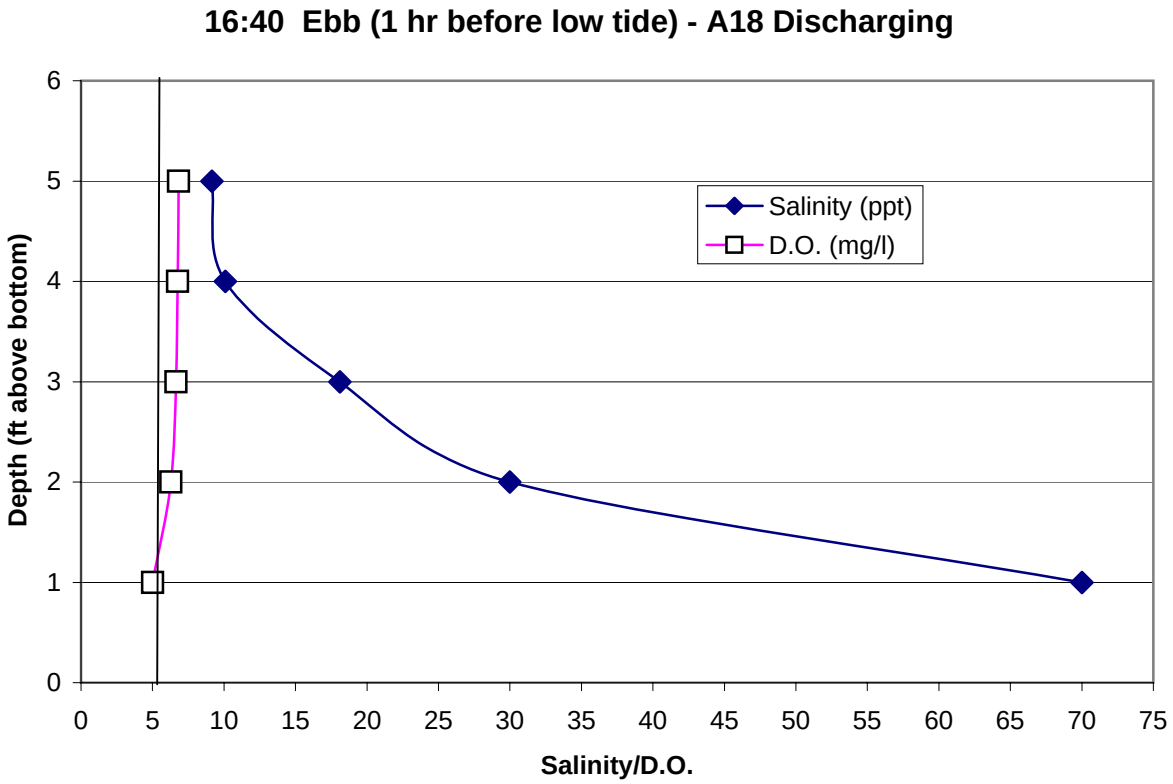
Station A18-2

Friday, February 18, 2005

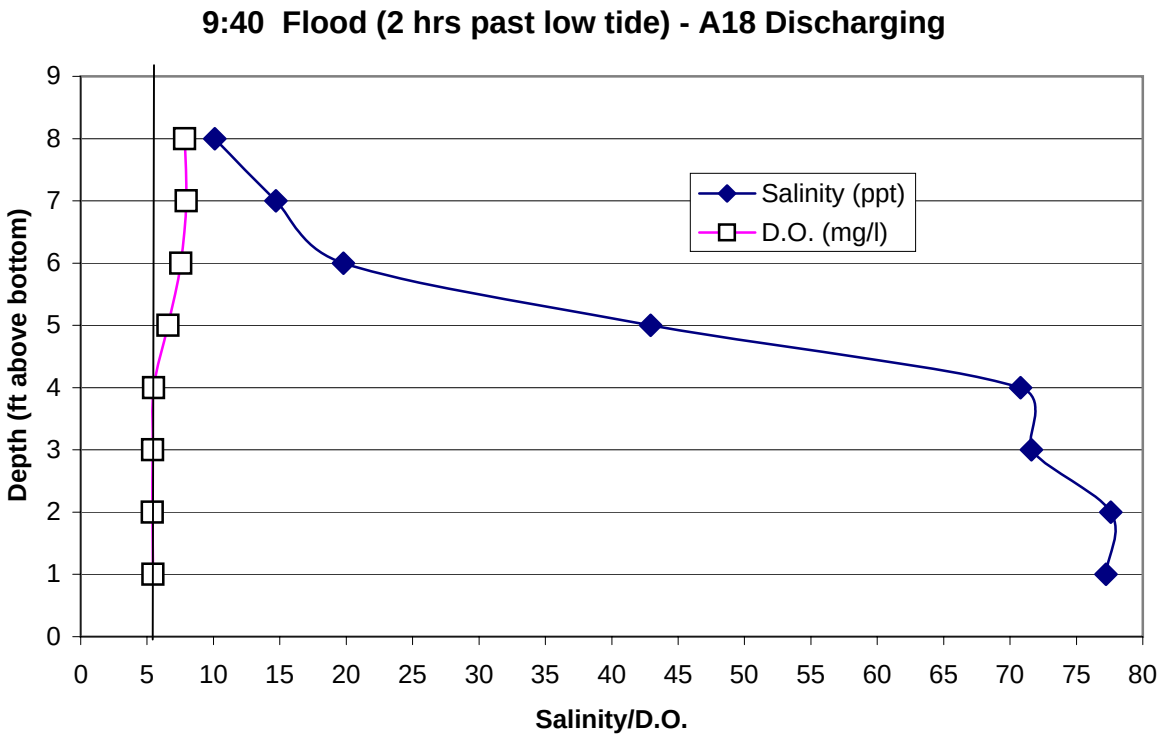


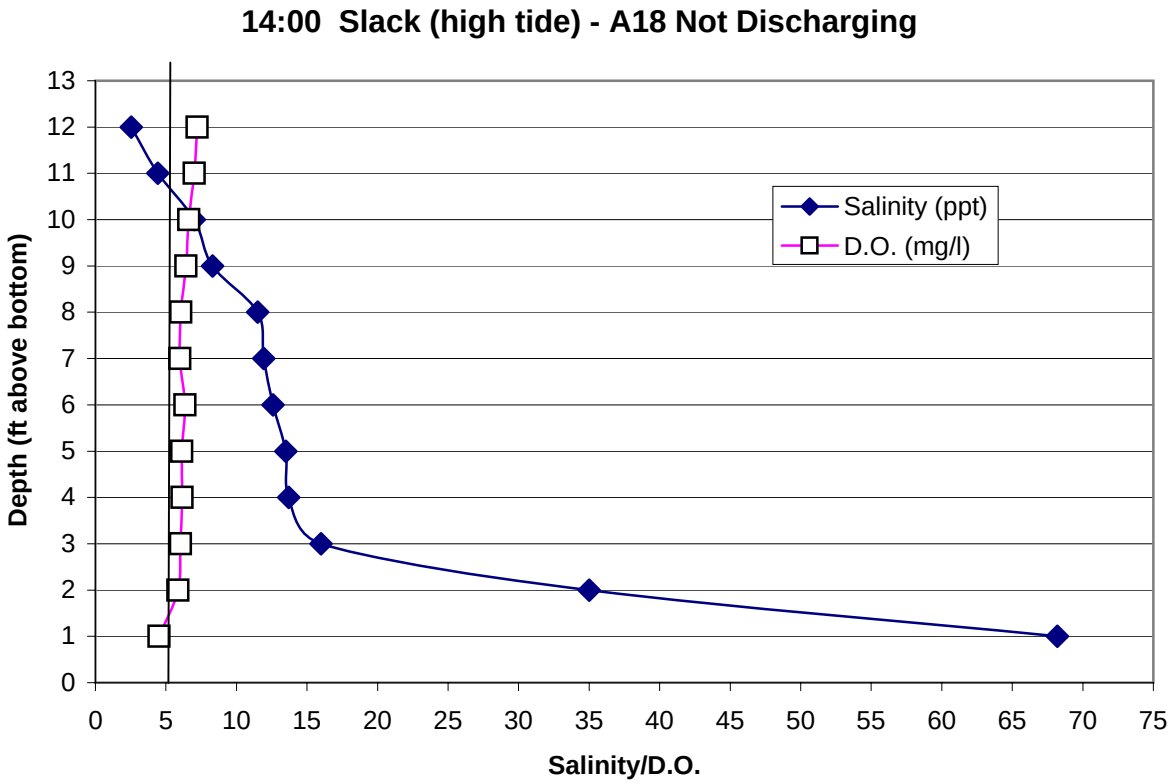
Station A18-2 Monday, February 21, 2005



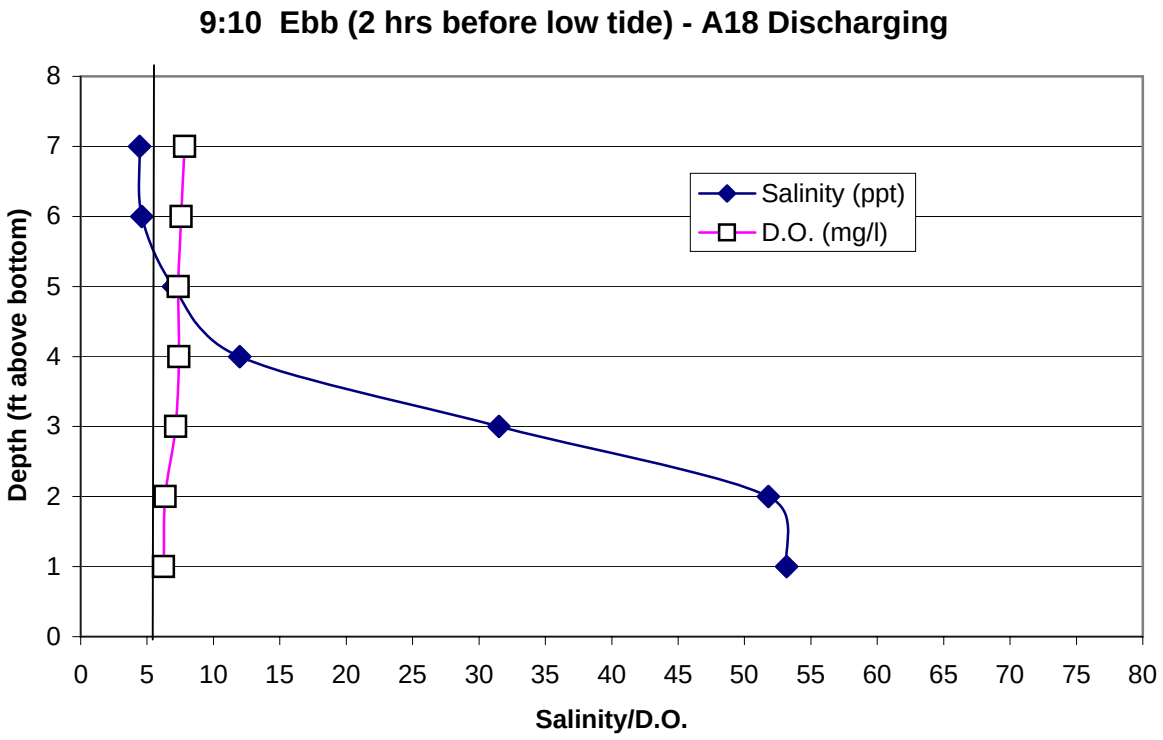


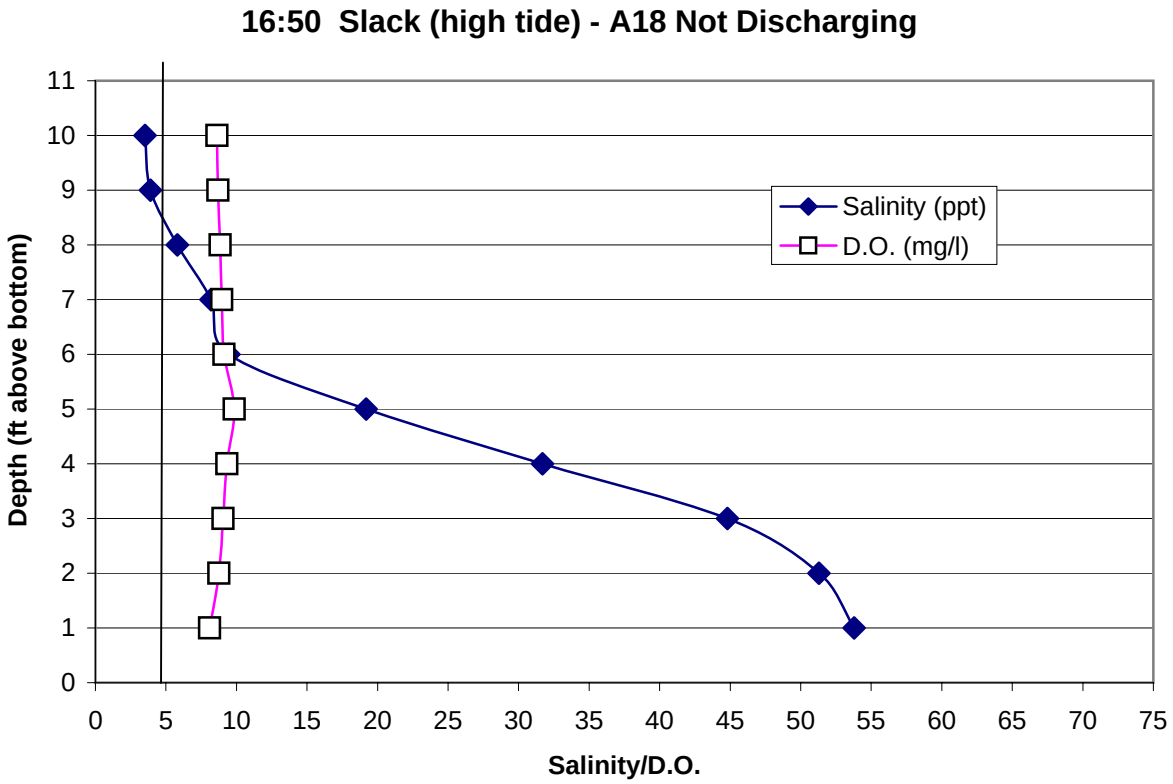
Station A18-2 Friday, February 25, 2005



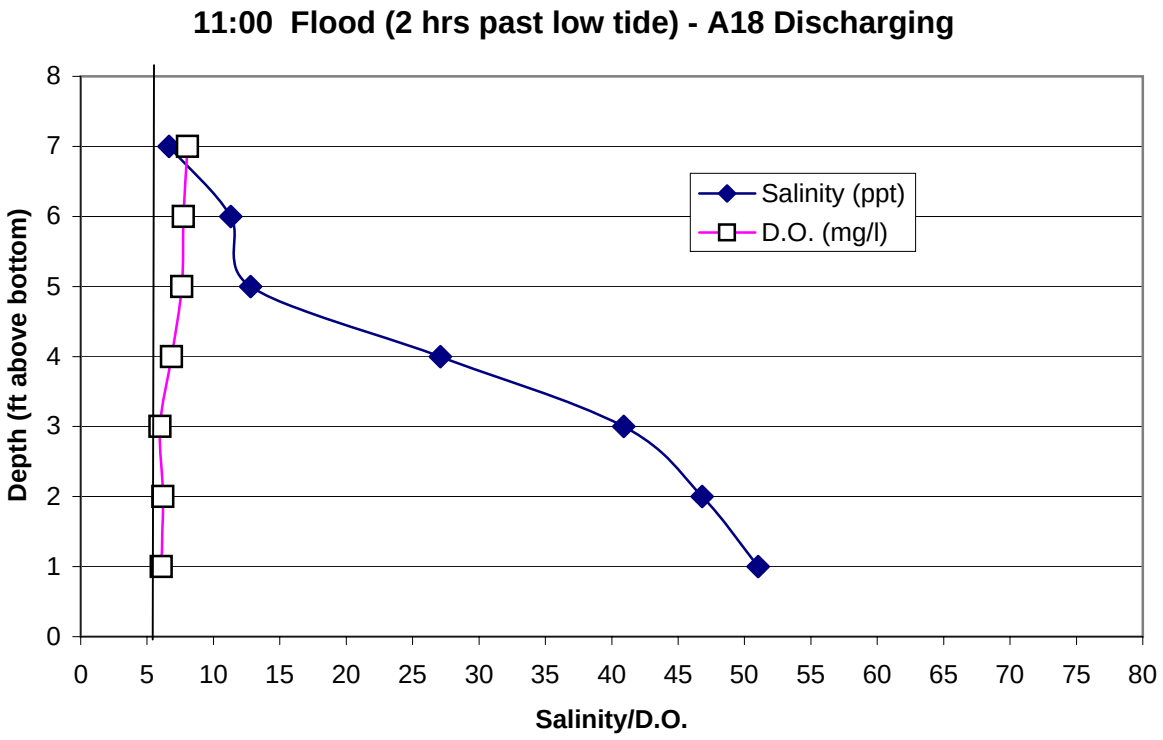


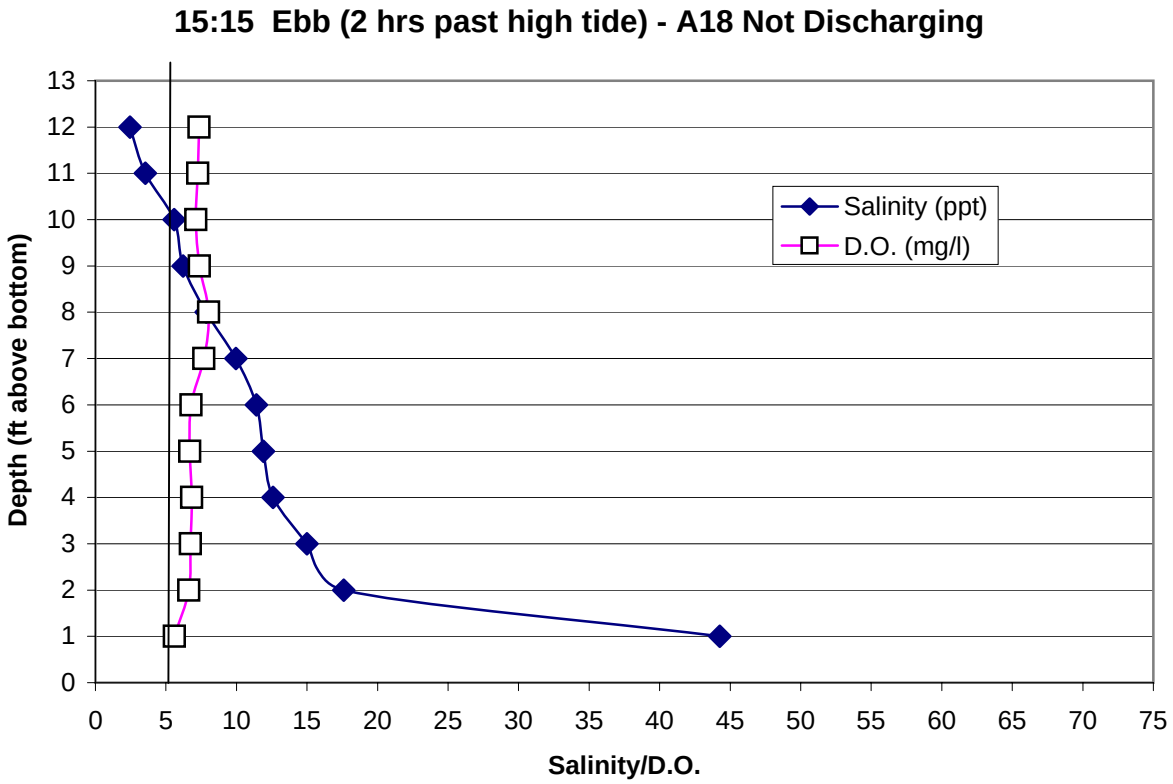
Station A18-2 Wednesday, March 02, 2005



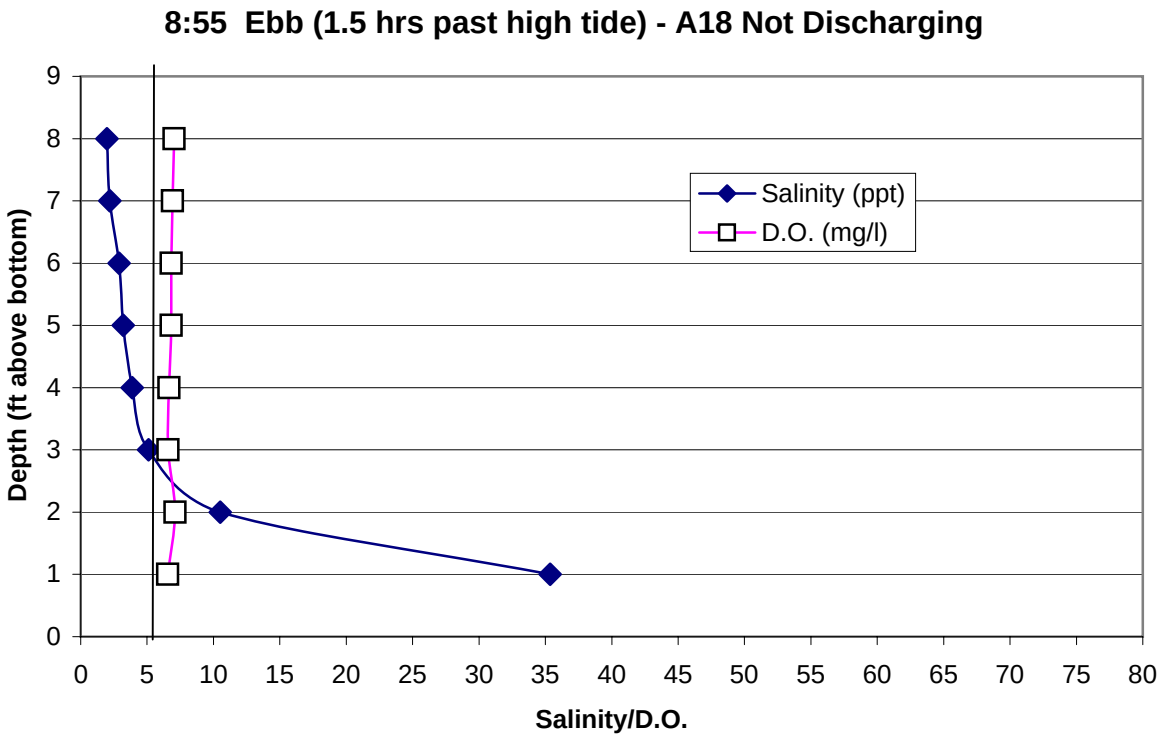


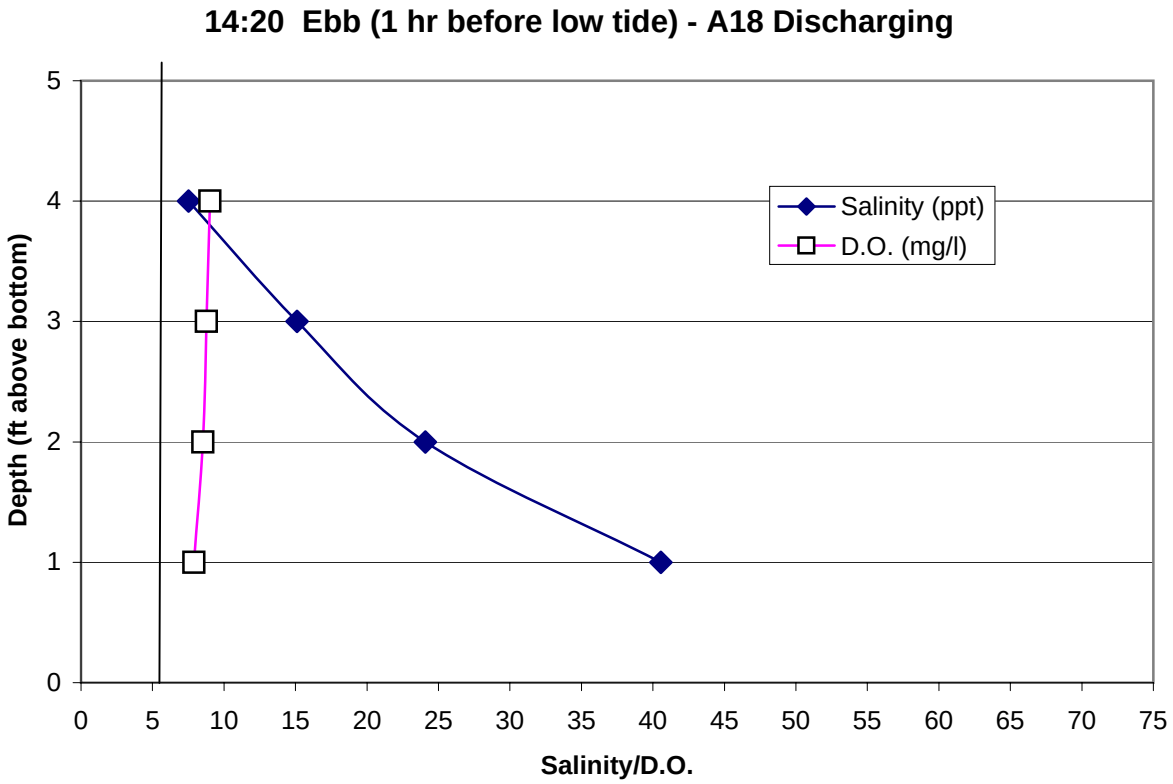
Station A18-2 Saturday, March 12, 2005



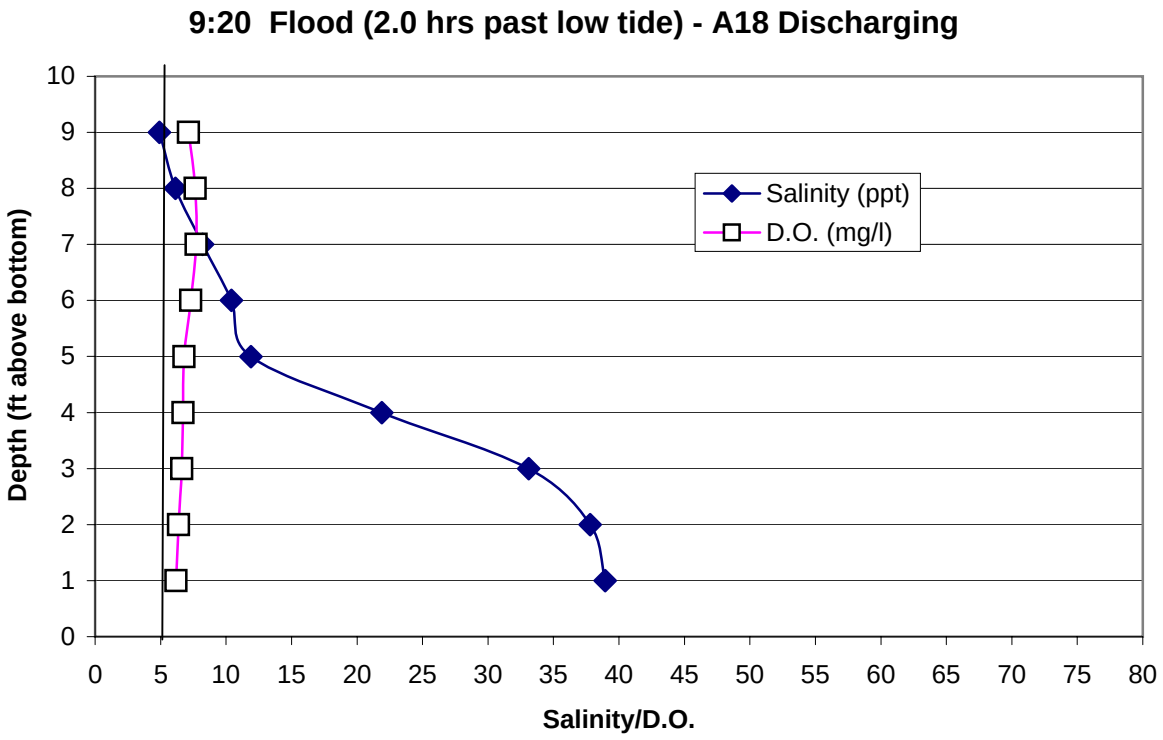


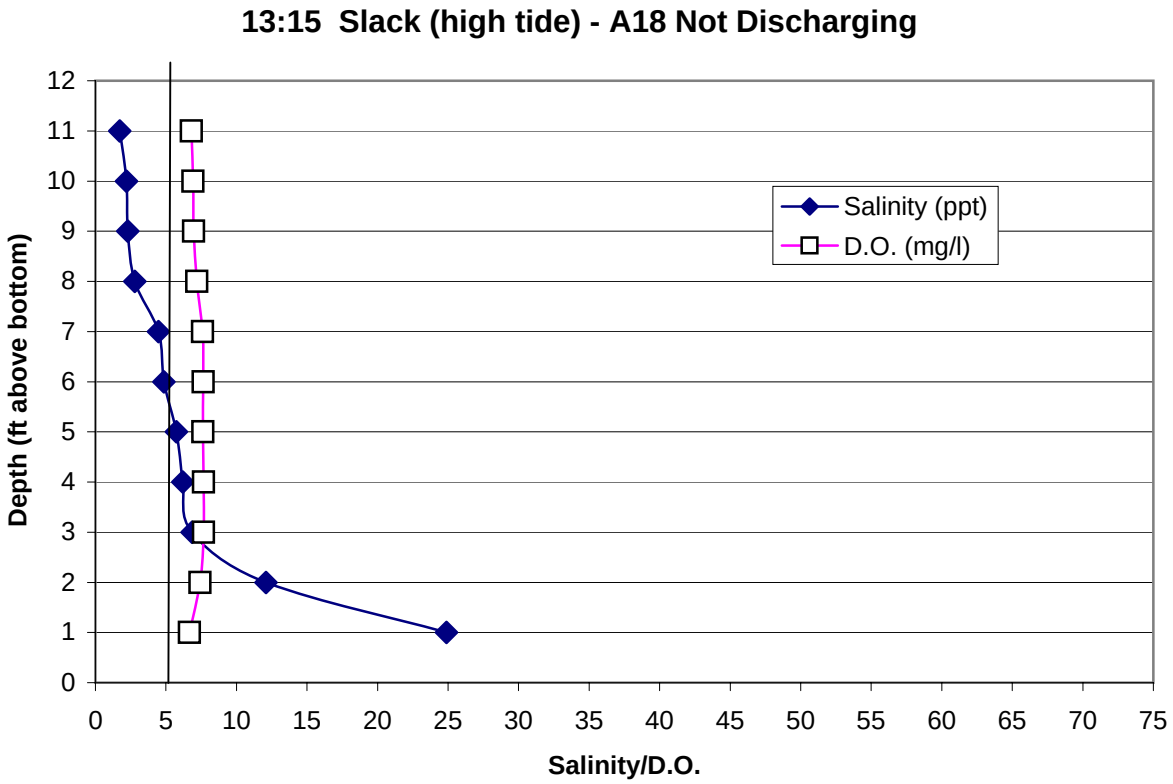
Station A18-2 Friday, March 18, 2005



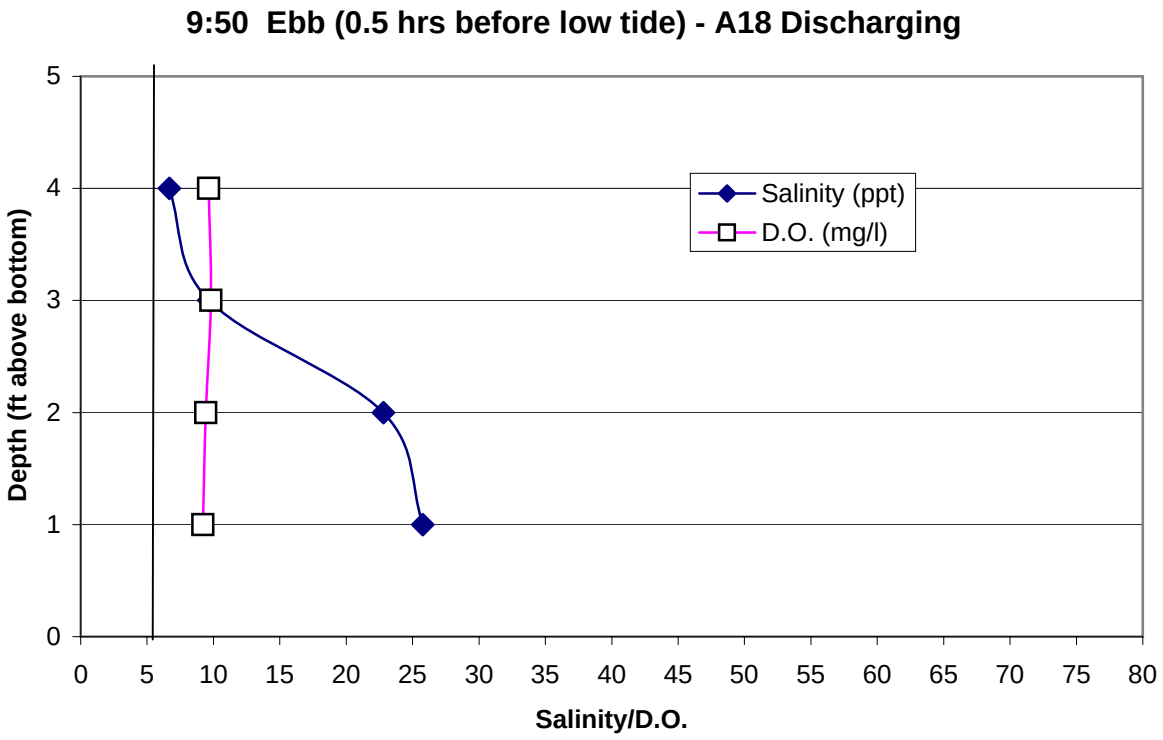


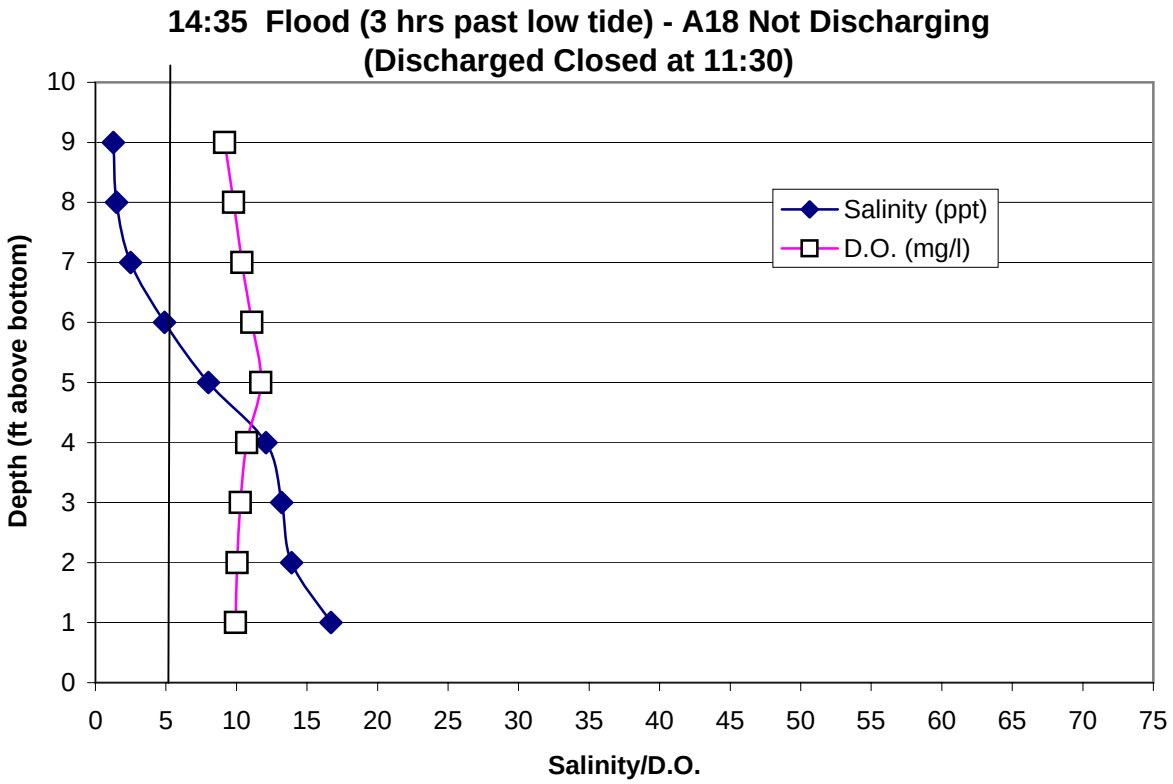
Station A18-2 Thursday, March 24, 2005





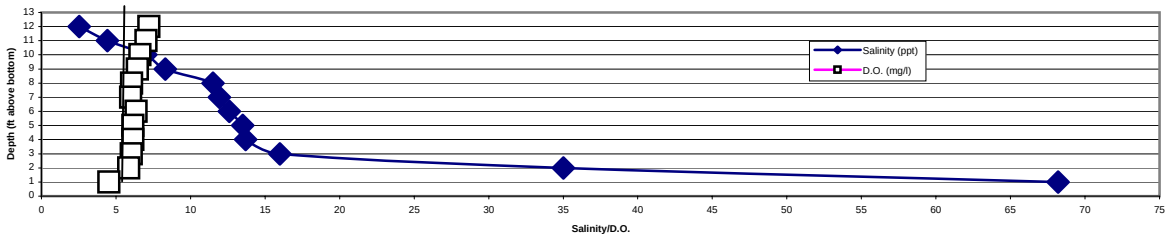
Station A18-2 Wednesday, March 30, 2005



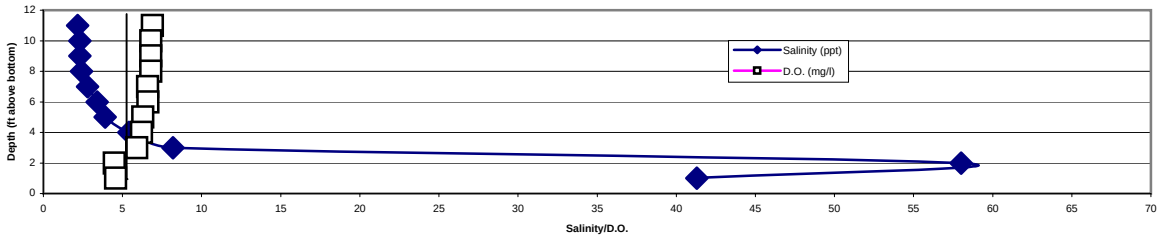


Station A-A18-2

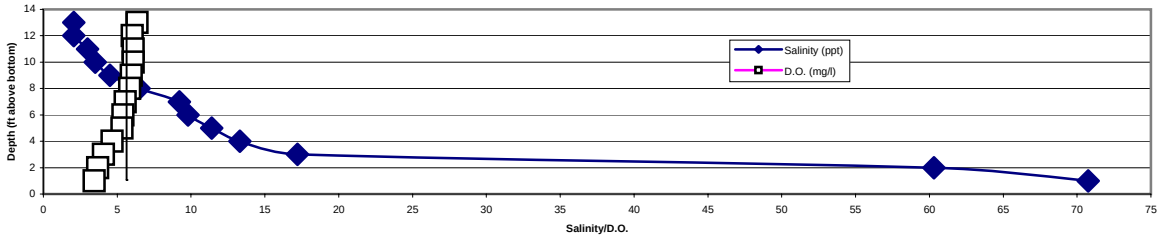
Slack high tide



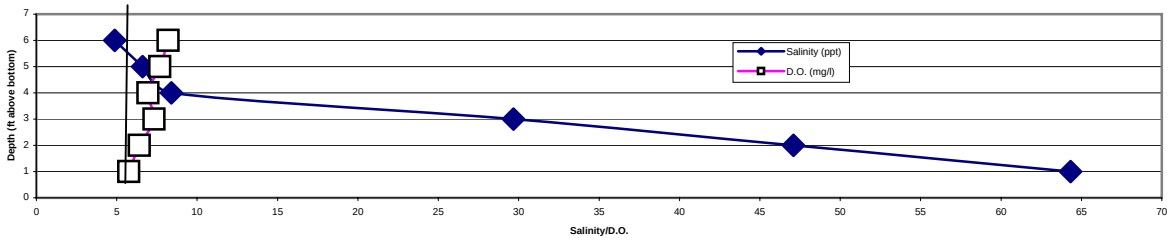
Ebb - 1.5 hrs past high tide



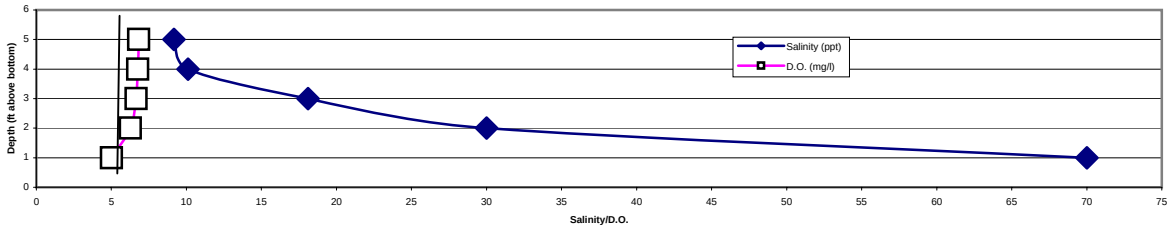
Ebb - 1.5 hrs past high tide



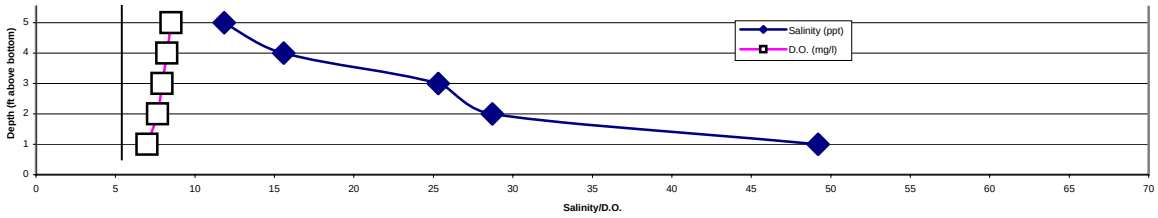
Ebb - 2 hrs before low tide



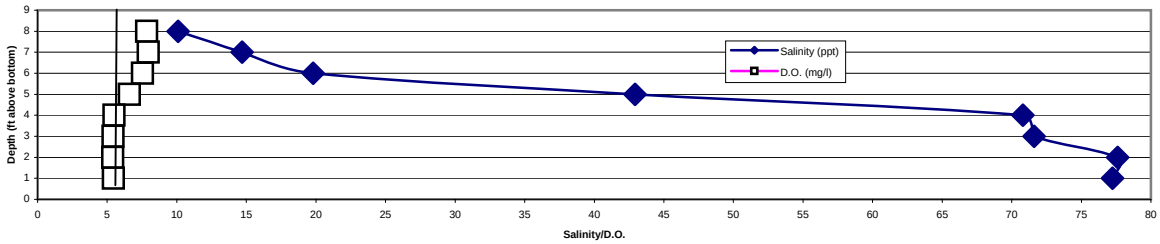
Ebb - 1 hr before low tide



Slack low tide



Flood - 2 hrs past low tide



Appendix 1-B

Monthly Discrete Water Quality Monitoring in Artesian Sough during the Initial Release Period, February 17 to March 30, 2005

Stations 3-5

Monitoring Event - Artesian Slough at A-A18-3

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Mid Artesian Slough	Predischarge	Flood	6	5	2/14/2005	12:07	20.46	2.079	1.351	1.06	90.0	8.06	7.40	6.3	160.3
Mid Artesian Slough		(I hr past low)		1	2/14/2005	12:05	20.44	2.068	1.344	1.06	92.1	8.25	7.39	15	162.4
	Air Temp = 18.0^{o}C, Humidity = 55%, Barometer = 30.21 in Hg, Overcast/rainy														
Mid Artesian Slough	No	Ebb	12	11	2/18/2005	10:43	19.24	6.201	4.031	3.39	69.8	6.31	7.25	4.7	108.8
		(2 hrs past high)		10	2/18/2005					3.43		6.28			
				9	2/18/2005					3.51		6.26			
				8	2/18/2005					3.64		6.21			
				7	2/18/2005	10:41	18.98	6.925	4.504	3.82	67.9	6.16	7.28		108.4
				6	2/18/2005					3.87		6.15			
				5	2/18/2005					4.15		6.08			
				4	2/18/2005					5.25		5.75			
				3	2/18/2005					16.80		5.00			
				2	2/18/2005					58.00		3.84			
				1	2/18/2005	10:36	16.50	93.36	60.69	66.85	54.5	3.55	8.16	10	140.8
	Air Temp = 16.5^{o}C, Humidity = 70%, Barometer = 29.94 in Hg, Scattered clouds/sunny														
Mid Artesian Slough	Yes	Ebb	8	7	2/18/2005	13:53	20.26	11.3	7.343	6.45	84.9	7.40	7.32		48.1
		(1.5 hr before low)		6	2/18/2005					6.75		7.39			
				5	2/18/2005					8.72		7.35			
				4	2/18/2005	13:51	18.37	59.60	38.74	39.96	91.4	6.77	8.06		61.7
				3	2/18/2005					54.90		5.70			
				2	2/18/2005					57.30		5.35			
				1	2/18/2005	13:48	17.41	81.83	53.19	57.37	79.3	5.38	8.15		73.8
Mid Artesian Slough	Yes	Ebb	6	5	2/18/2005	14:54	20.16	19.7	12.8	11.77	94.4	7.98	7.43	5.8	109.8
		(0.5 hrs before low)		4	2/18/2005					11.90		8.00			
				3	2/18/2005	14:53	19.57	35.45	23.04	22.40	94.8	7.61	7.71		109.8
				2	2/18/2005					47.70		6.60			
				1	2/18/2005	14:52	17.82	78.26	50.87	54.50	92	6.31	8.12	18	124.8
Mid Artesian Slough	No	Ebb	14	13	2/21/2005	12:44	17.84	9.471	6.156	5.34	62.8	5.77	7.28	8.4	123.7
		(2 hrs past high)		12	2/21/2005					5.50		5.77			
				11	2/21/2005					5.70		5.77			
				10	2/21/2005					5.90		5.74			
				9	2/21/2005					6.60		5.71			
				8	2/21/2005					6.80		5.70			
				7	2/21/2005	12:42	16.81	12.15	7.9	6.99	60.8	5.66	7.36		125.3
				6	2/21/2005					7.30		5.62			
				5	2/21/2005					9.90		5.01			
				4	2/21/2005					15.00		5.03			
				3	2/21/2005					36.00		4.21			
				2	2/21/2005					55.30		3.73			
				1	2/21/2005	12:37	16.21	91.99	59.8	65.68	56.3	3.71	8.07	20	159.3
	Air Temp = 19.5^{o}C, Humidity = 48%, Barometer = 30.00 in Hg, Overcast/rainy														

Monitoring Event - Artesian Slough at A-A18-3 Cont'd

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Mid Artesian Slough	Yes	Ebb	6	5	2/21/2005	17:03	19.08	19.90	12.93	11.90	75.8	6.54	7.43	5.9	64.8
		(0.5 hrs before low)		4	2/21/2005					13.10		6.48			
				3	2/21/2005	17:01	18.95	27.67	17.99	17.06	75.4	6.33	7.59		66.7
				2	2/21/2005					34.40		5.75			
				1	2/21/2005	16:59	17.66	69.71	45.31	47.72	73.8	5.28	8.07	16	81.1
Downstream of A18 So Discharge	Yes	Flood	10	9	2/25/2005	10:06	17.12	18.47	12.01	10.99	74.4	6.71	7.53	12	57.9
		(2.5 hrs past low)		8	2/25/2005					11.40		6.72			
				7	2/25/2005					11.60		6.72			
				6	2/25/2005					12.50		6.66			
				5	2/25/2005	10:02	18.18	23.59	15.34	14.34	72.4	6.27	7.54		54.8
				4	2/25/2005					44.70		5.02			
				3	2/25/2005					53.00		4.84			
				2	2/25/2005					55.30		4.85			
				1	2/25/2005	9:59	16.64	83.93	54.55	59.04	71.1	4.84	8.21	17	73.1
	Air Temp = 14.5^{o}C, Humidity = 62%, Barometer = 29.94 in Hg, Overcast														
Downstream of A18 So Discharge	No	Slack	13	12	2/25/2005	14:25	16.04	17.30	11.25	10.24	65.7	6.09	7.68	14	66.5
		(high tide)		11	2/25/2005					10.30		6.08			
				10	2/25/2005					10.30		6.04			
				9	2/25/2005					10.40		5.94			
				8	2/25/2005					10.50		5.80			
				7	2/25/2005	14:22	15.83	17.95	11.67	10.65	63.1	5.86	7.67		70.4
				6	2/25/2005					10.70		5.85			
				5	2/25/2005					11.50		5.83			
				4	2/25/2005					11.80		5.89			
				3	2/25/2005					17.80		5.77			
				2	2/25/2005					29.20		5.66			
				1	2/25/2005	14:18	16.45	91.54	59.50	65.32	72.8	4.79	8.28	21	100.0
	Air Temp = 26.5^{o}C, Humidity = 37%, Barometer = 30.27 in Hg, Sunny/clear														

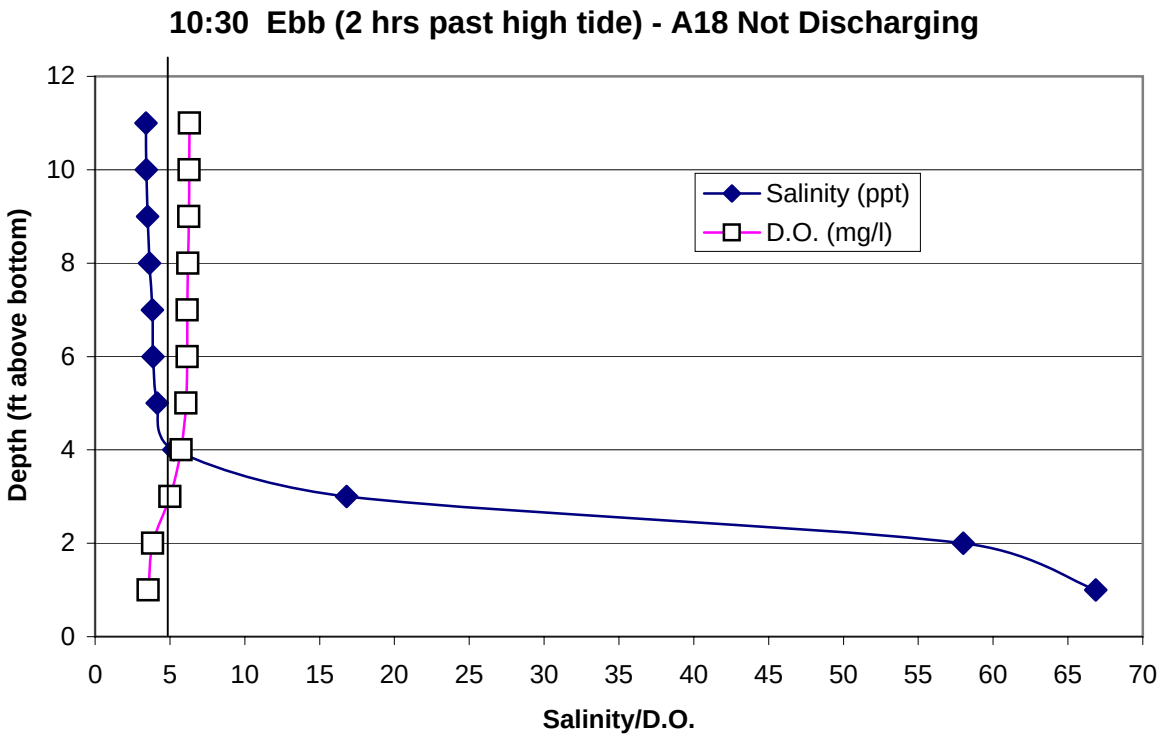
Monitoring Event - Artesian Slough at A-A18-3 Cont'd

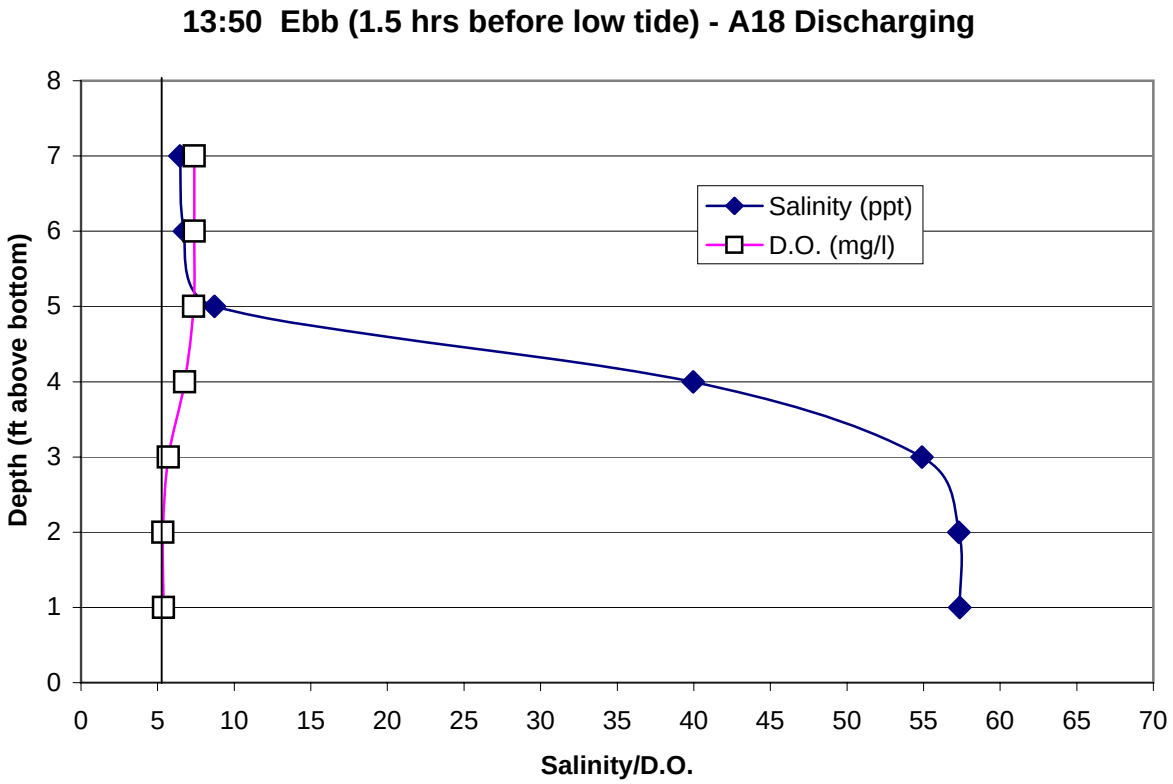
Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Downstream of A18 So Discharge	Yes	Ebb	7	6	3/2/2005	9:34	19.38	9.574	6.223	5.40	81.3	7.25	7.3	2.3	20.5
		1.5 hrs before low)		5	3/2/2005					5.80		7.14			
				4	3/2/2005					9.00		7.22			
				3	3/2/2005	9:32	18.11	40.27	26.18	25.79	83.6	6.77	7.94		29.6
				2	3/2/2005					43.70		6.15			
				1	3/2/2005	9:30	17.32	66.03	42.92	44.86	81.3	5.96	8.17	14	38.7
	Air Temp = 17.5^{o}C, Humidity = 42%, Barometer = 29.91 in Hg, Sunny/clear														
Downstream of A18 So Discharge	No	Slack	12	11	3/2/2005	17:17	17.74	12.51	8.13	7.21	87.1	7.94	7.69	19	53.2
		(high tide)		10	3/2/2005					7.26		7.92			
				9	3/2/2005					7.30		7.94			
				8	3/2/2005					7.50		8.27			
				7	3/2/2005					11.30		8.71			
				6	3/2/2005	17:15	20.53	21.57	14.02	12.99	108.9	9.08	7.76		55.1
				5	3/2/2005					14.80		9.51			
				4	3/2/2005					45.90		8.82			
				3	3/2/2005					52.90		8.29			
				2	3/2/2005					56.00		7.77			
				1	3/2/2005	17:11	18.11	81.37	52.89	57.02	112.5	7.56	8.32	14	75.0
Mid Artesian Slough	Yes	Flood	9	8	3/12/2005	11:50	19.73	16.94	11.01	9.99	72	6.20	7.65	11	68.7
		(3 hrs after low)		7	3/12/2005					10.30		6.20			
				6	3/12/2005					10.70		6.17			
				5	3/12/2005					10.90		6.27			
				4	3/12/2005	11:47	20.22	21.46	13.95	12.92	79.8	6.69	7.73		70.4
				3	3/12/2005					15.90		6.88			
				2	3/12/2005					18.20		6.72			
				1	3/12/2005	11:45	20.70	41.22	26.79	26.45	81.9	6.29	8.10	12	78.5
	Air Temp = 16.5^{o}C, Humidity = 77%, Barometer = 29.91 in Hg, Foggy														
Downstream of A18 So Discharge	No	Ebb	10	9	3/18/2005	9:09	20.31	5.635	3.663	3.06	77.3	6.87	7.29	1.6	140.3
		(2 hrs past high)		8	3/18/2005					3.40		6.77			
				7	3/18/2005					3.64		6.70			
				6	3/18/2005					3.88		6.69			
				5	3/18/2005	9:08	20.17	7.561	4.914	4.19	75.1	6.64	7.41		140
				4	3/18/2005					8.07		6.51			
				3	3/18/2005					19.80		6.40			
				2	3/18/2005					40.20		6.33			
				1	3/18/2005	9:06	18.42	61.02	39.66	41.04	85.7	6.29	8.46	21	167.1
	Air Temp = 18.0^{o}C, Humidity = 49%, Barometer = 30.06 in Hg, Light Rain														
Downstream of A18 So Discharge	Yes	Ebb	5	4	3/18/2005	14:08	20.17	19.81	12.88	11.84	108.5	9.17	7.85	3.4	102.5
		(1 hr before low)		3	3/18/2005	14:07	20.03	20.90	13.59	12.55	108.4	9.15	7.93		91.8
				2	3/18/2005					17.40		8.93			
				1	3/18/2005	14:06	19.23	38.27	24.87	24.37	107.1	8.56	8.25	60	102.5

Monitoring Event - Artesian Slough at A-A18-3 Cont'd

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Downstream of A18 So Discharge	Yes	Flood	12	11	3/24/2005	9:43	15.21	6.141	3.992	3.36	67.1	6.60	7.51	47	47.6
		(2 hrs past low)		10	3/24/2005					3.59		6.57			
				9	3/24/2005					3.71		6.54			
				8	3/24/2005					3.80		6.58			
				7	3/24/2005					4.02		6.55			
				6	3/24/2005					5.41		6.32			
				5	3/24/2005	9:39	17.92	20.28	13.18	12.16	65.5	5.78	7.68		58.4
				4	3/24/2005					24.10		5.61			
				3	3/24/2005					28.50		5.64			
				2	3/24/2005					30.60		5.71			
				1	3/24/2005	9:35	16.52	47.37	30.79	30.88	70.6	5.72	8.28	18	84.6
	Air Temp = 23.0^{o}C, Humidity = 39%, Barometer = 29.88 in Hg, Sunny														
Downstream of A18 So Discharge	No	Ebb	11	10	3/24/2005	13:36	18.88	6.95	4.52	3.83	75.8	6.89	7.32	9.4	107.0
		(0.5 hrs after high)		9	3/24/2005					4.13		6.82			
				8	3/24/2005					4.28		6.83			
				7	3/24/2005					4.33		6.78			
				6	3/24/2005					4.29		6.79			
				5	3/24/2005	13:32	17.79	8.18	5.32	4.56	73.7	6.81	7.43		121.3
				4	3/24/2005					4.88		6.95			
				3	3/24/2005					10.00		6.93			
				2	3/24/2005					13.80		6.66			
				1	3/24/2005	13:28	17.03	36.47	23.70	23.11	78.5	6.60	8.16	29	163.6
Downstream of A18 So Discharge	Yes	Ebb	5	4	3/30/2005	10:40	19.59	19.31	12.55	11.52	119.1	10.2	7.95	13	58.7
		(0.5 hrs before low)		3	3/30/2005					11.90		10.07			
				2	3/30/2005	10:39	19.40	20.32	13.21	12.18	117	10.01	7.99		67.9
				1	3/30/2005	10:37	19.15	22.31	14.5	13.48	116.2	9.92	8.05	23	88.7
	Air Temp = 26.5^{o}C, Humidity = 34%, Barometer = 30.12 in Hg, Sunny														
Downstream of A18 So Discharge	No	Flood	10	9	3/30/2005	14:57	17.62	7.94	5.16	4.42	102.6	9.53	7.81	25	86.8
		(3.5 hrs past low)		8	3/30/2005					4.54		9.54			
				7	3/30/2005					4.58		9.60			
				6	3/30/2005					5.20		9.78			
				5	3/30/2005	14:55	18.84	14.40	9.36	8.38	113.7	10.07	7.88		121.0
				4	3/30/2005					11.40		10.50			
				3	3/30/2005					11.70		10.30			
				2	3/30/2005					12.00		10.20			
				1	3/30/2005	14:53	20.09	20.34	13.22	12.19	115.4	9.75	7.93	14	197.3

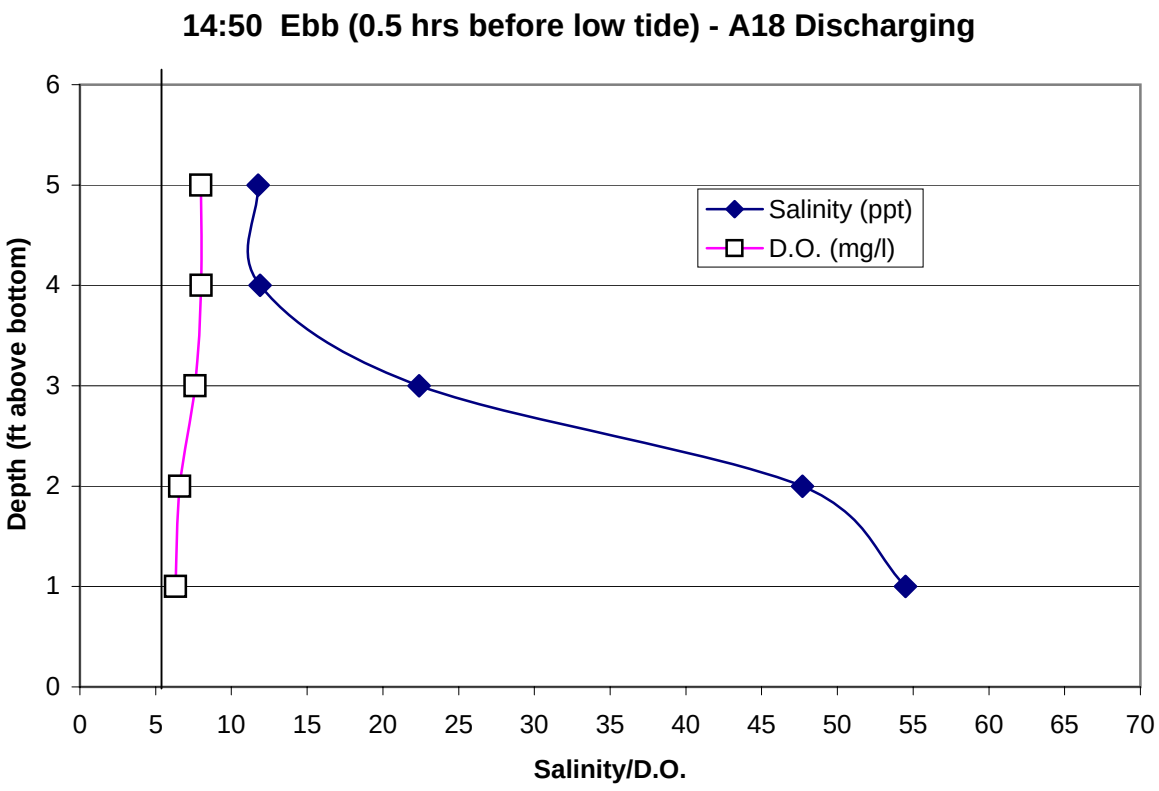
Station A18-3 Friday, February 18, 2005





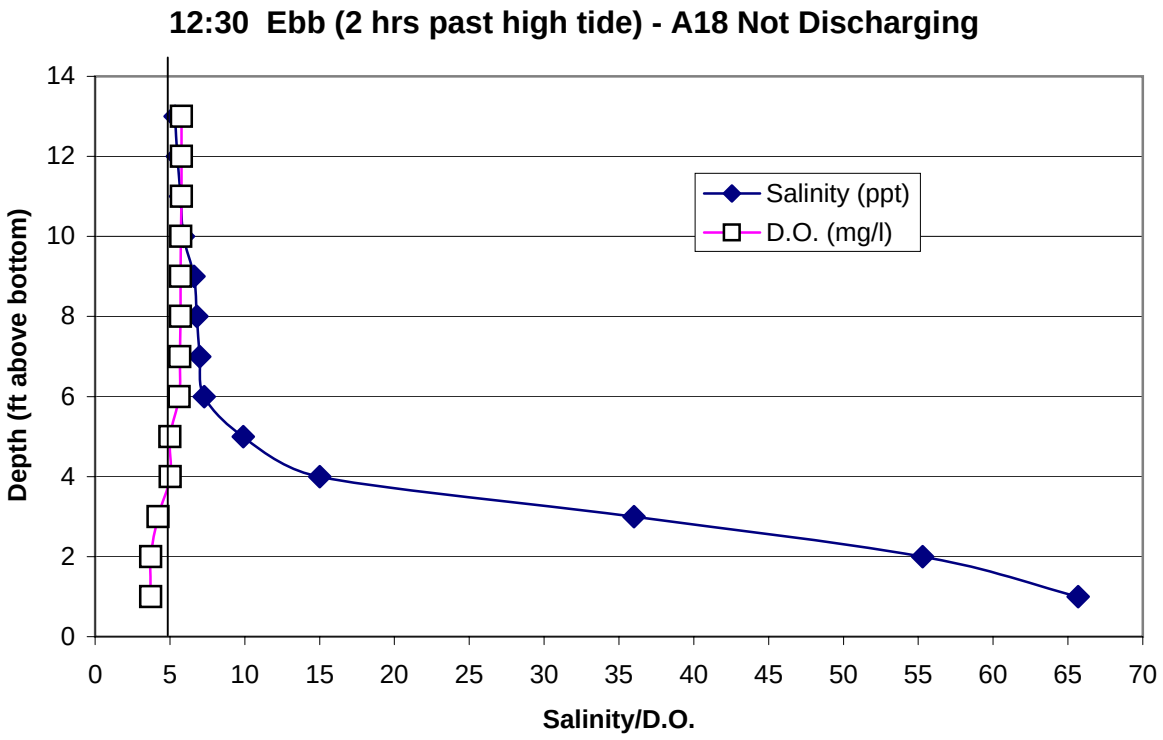
Station A18-3

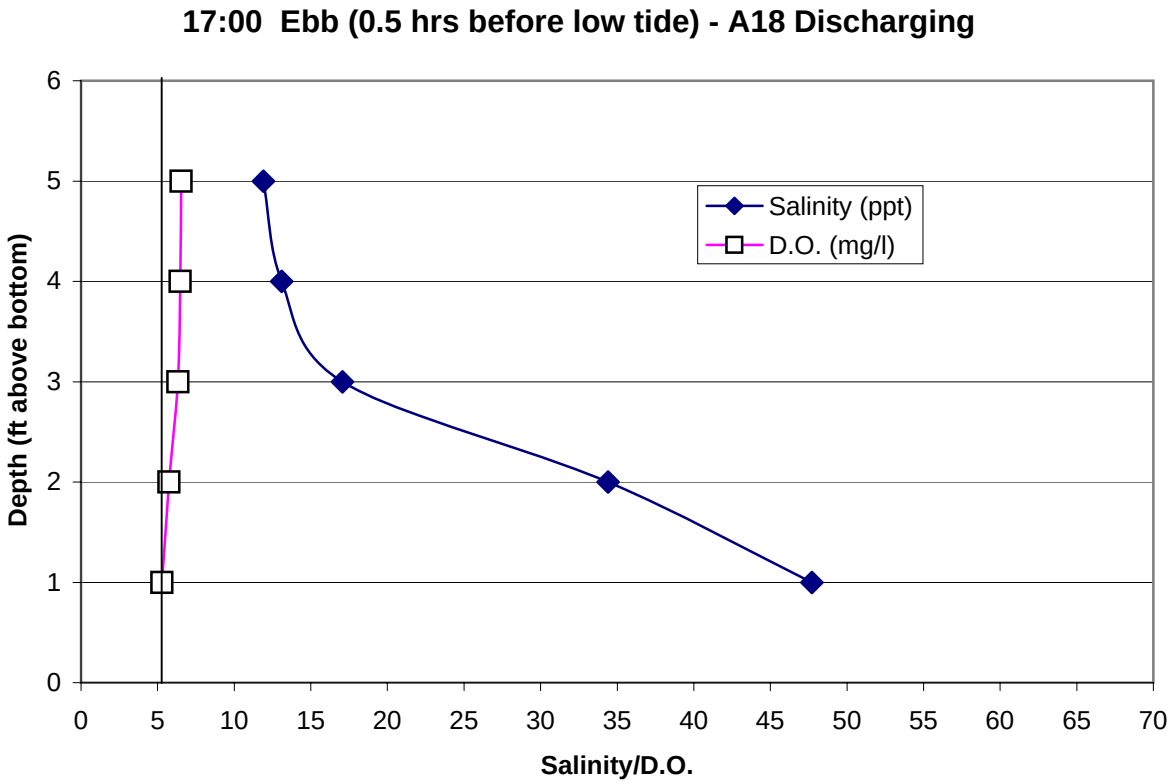
Friday, February 18, 2005



Station A18-3

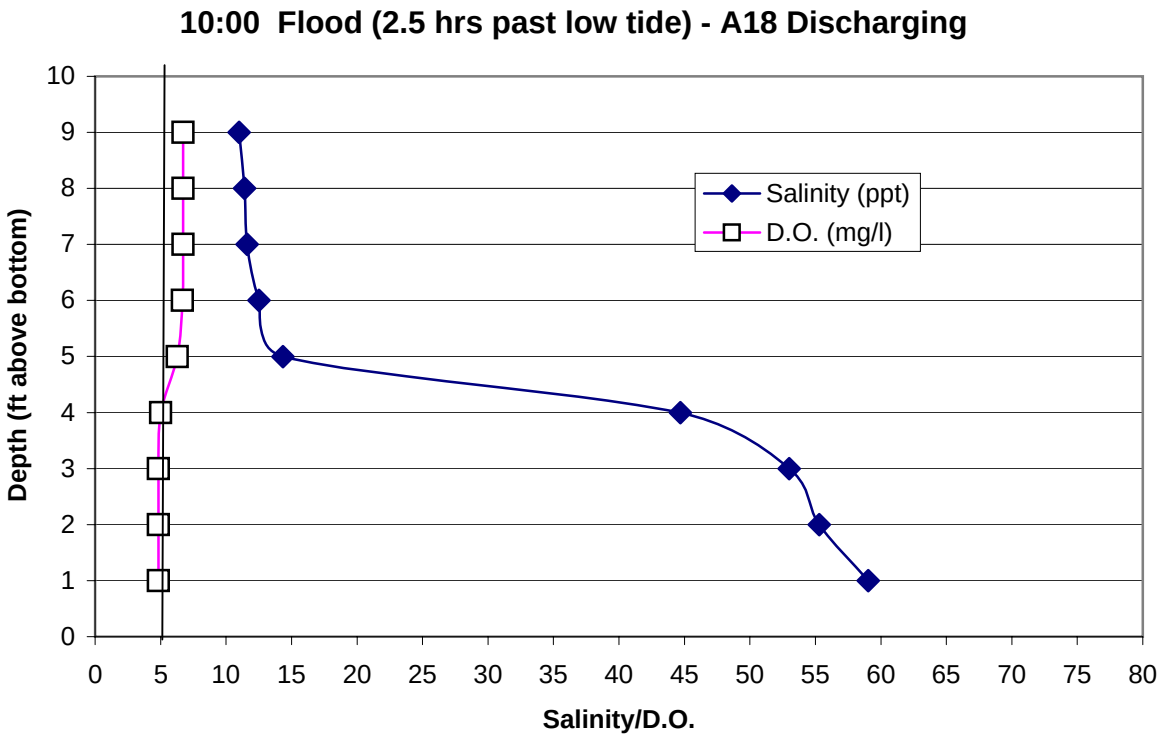
Monday, February 21, 2005

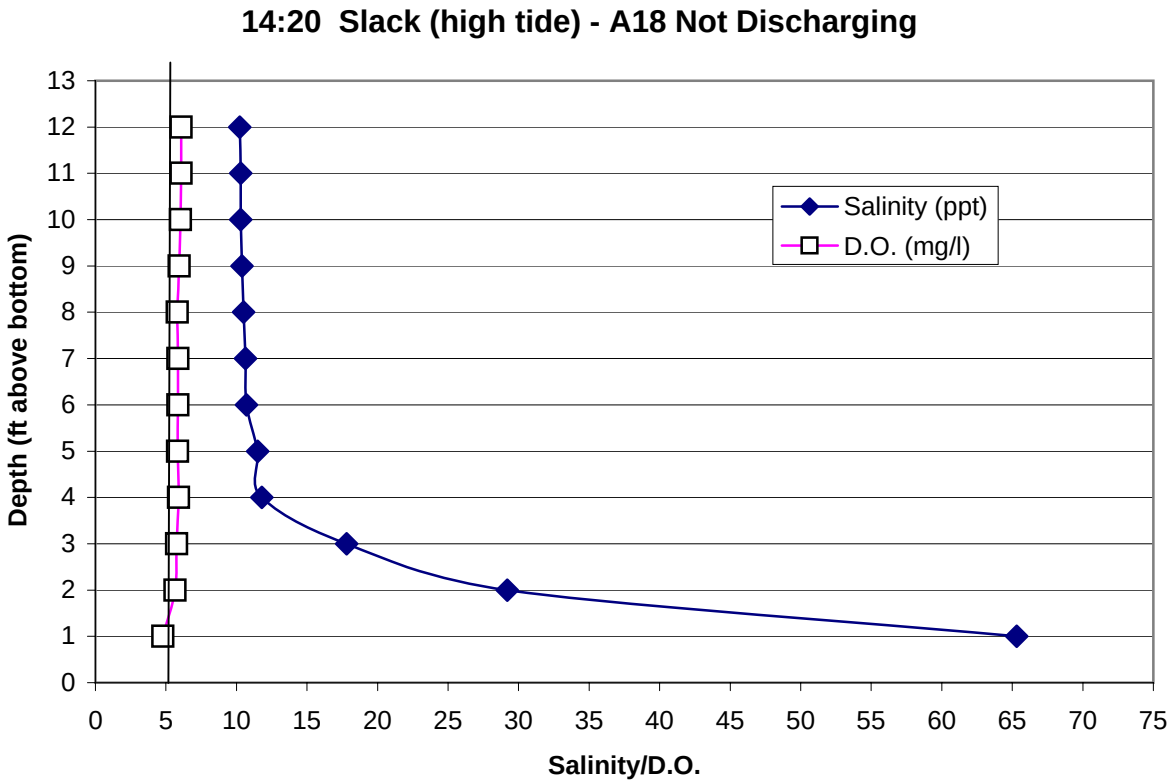




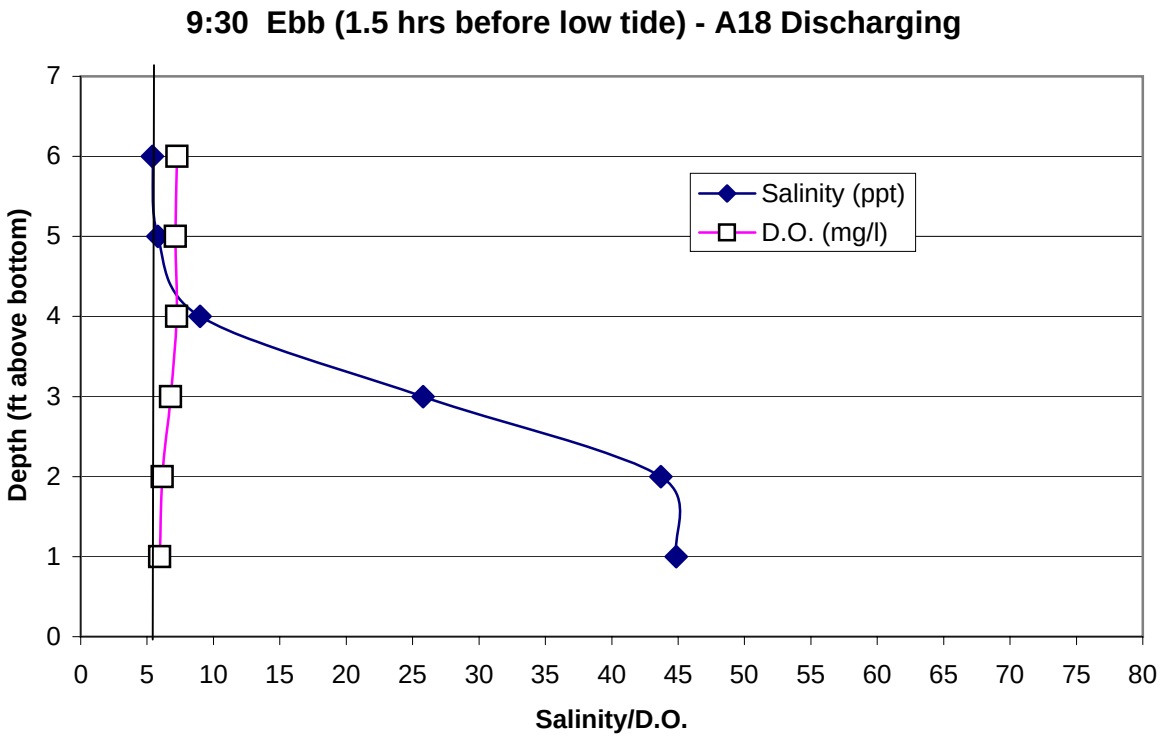
Station A18-3

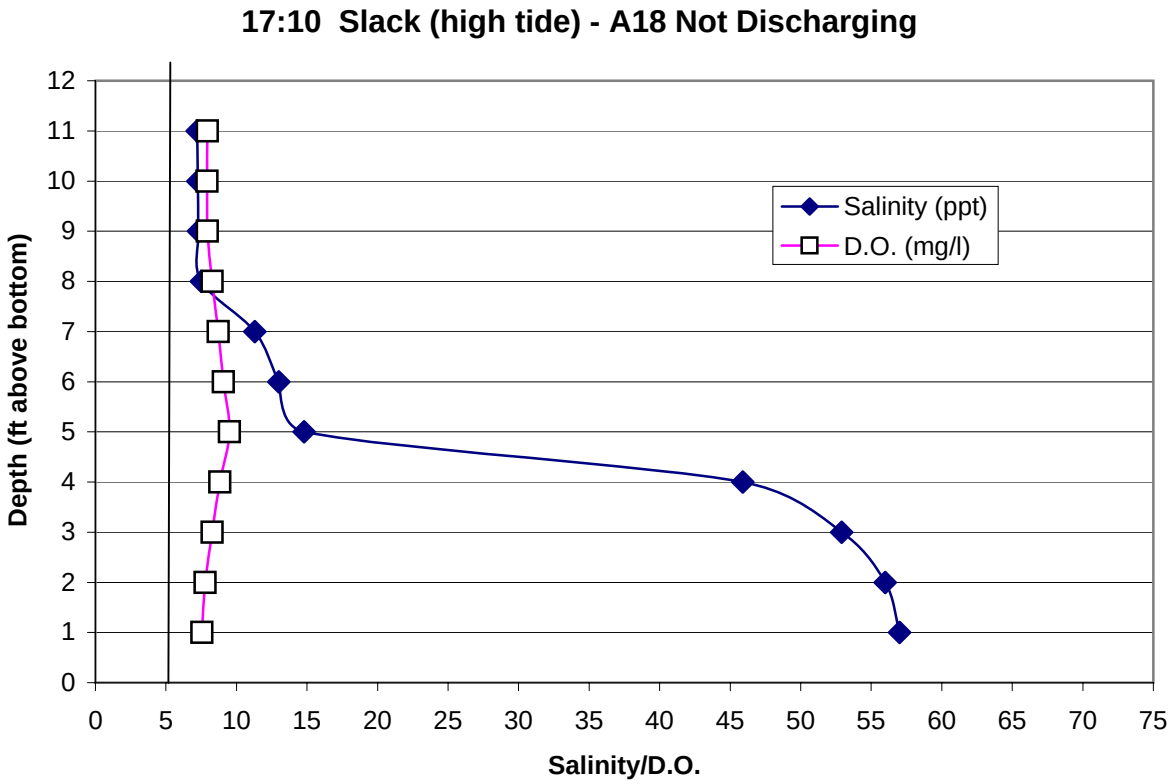
Friday, February 25, 2005





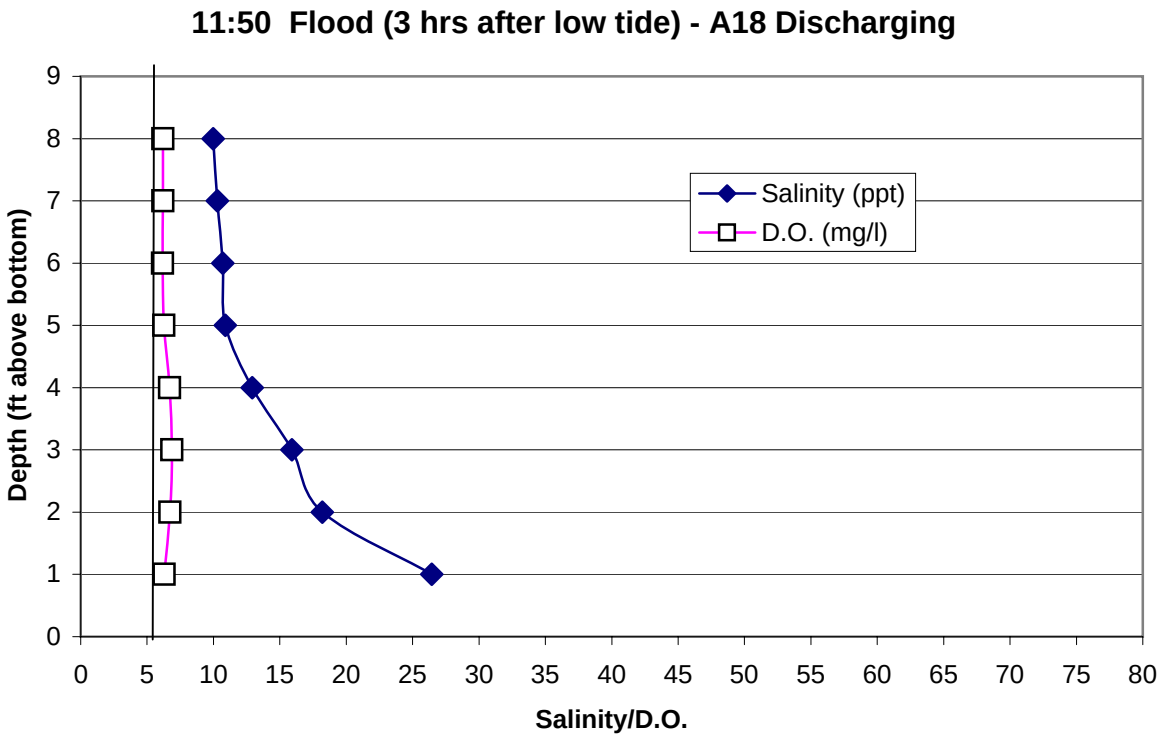
Station A18-3 Wednesday, March 02, 2005





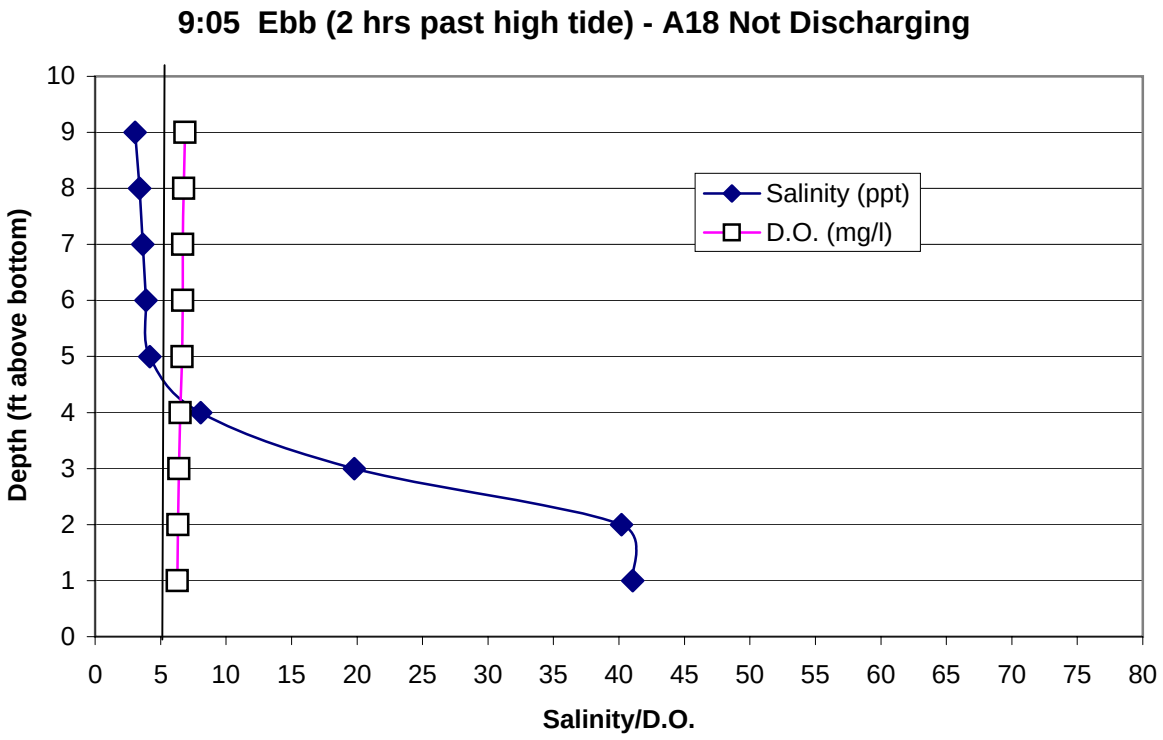
Station A18-3

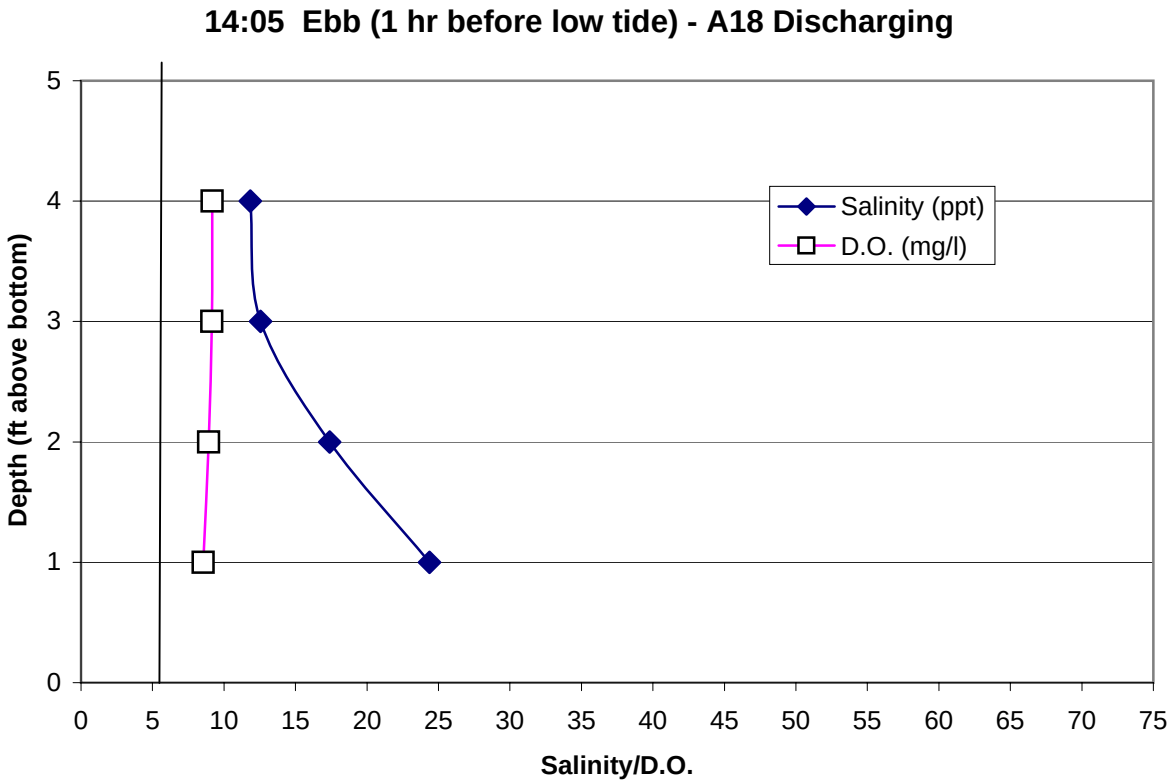
Saturday, March 12, 2005



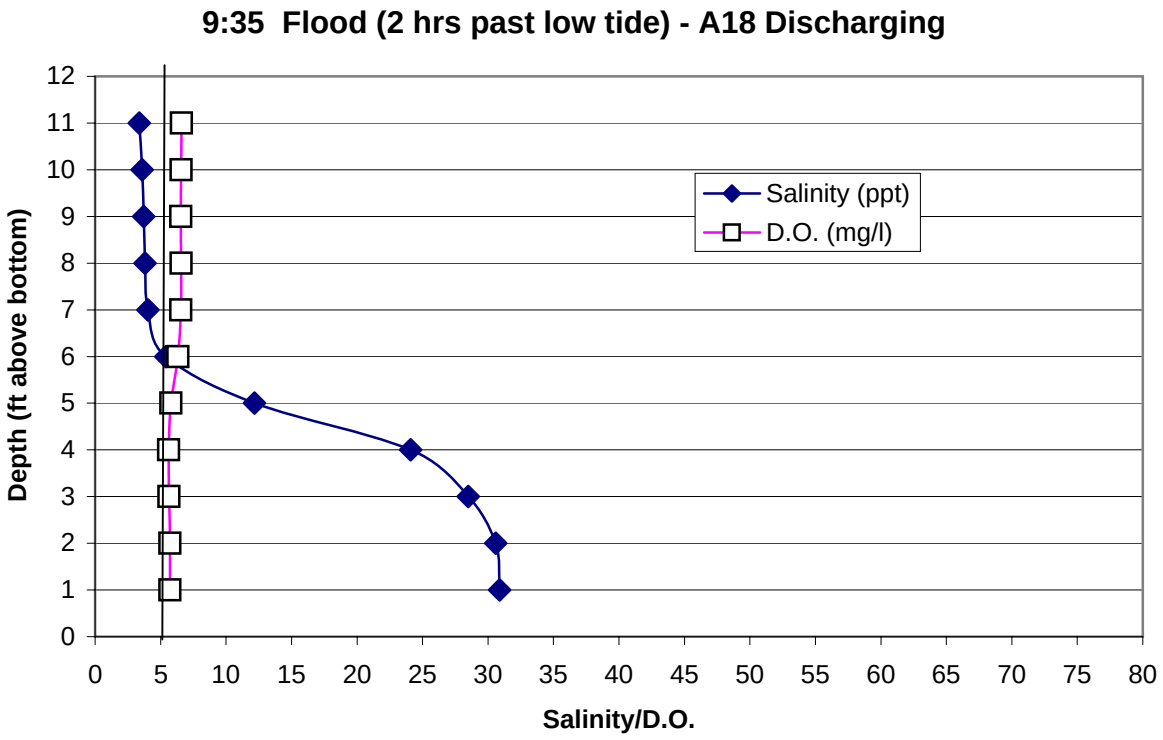
Station A18-3

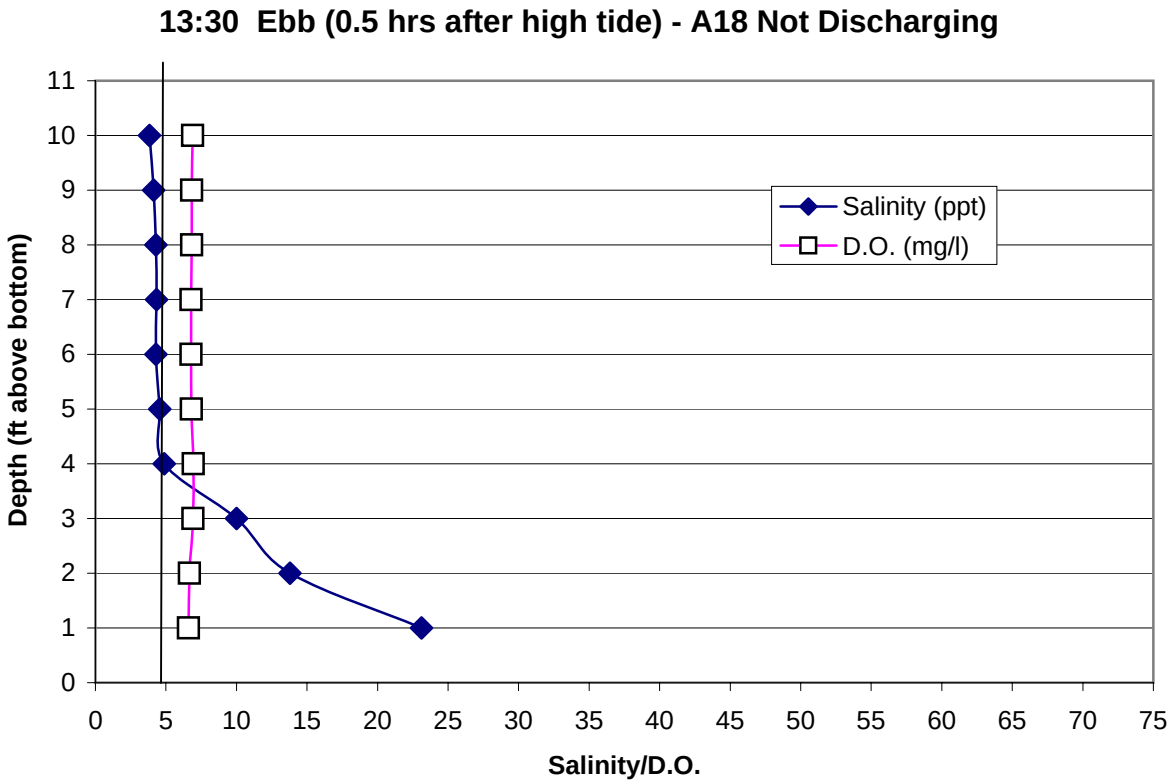
Friday, March 18, 2005



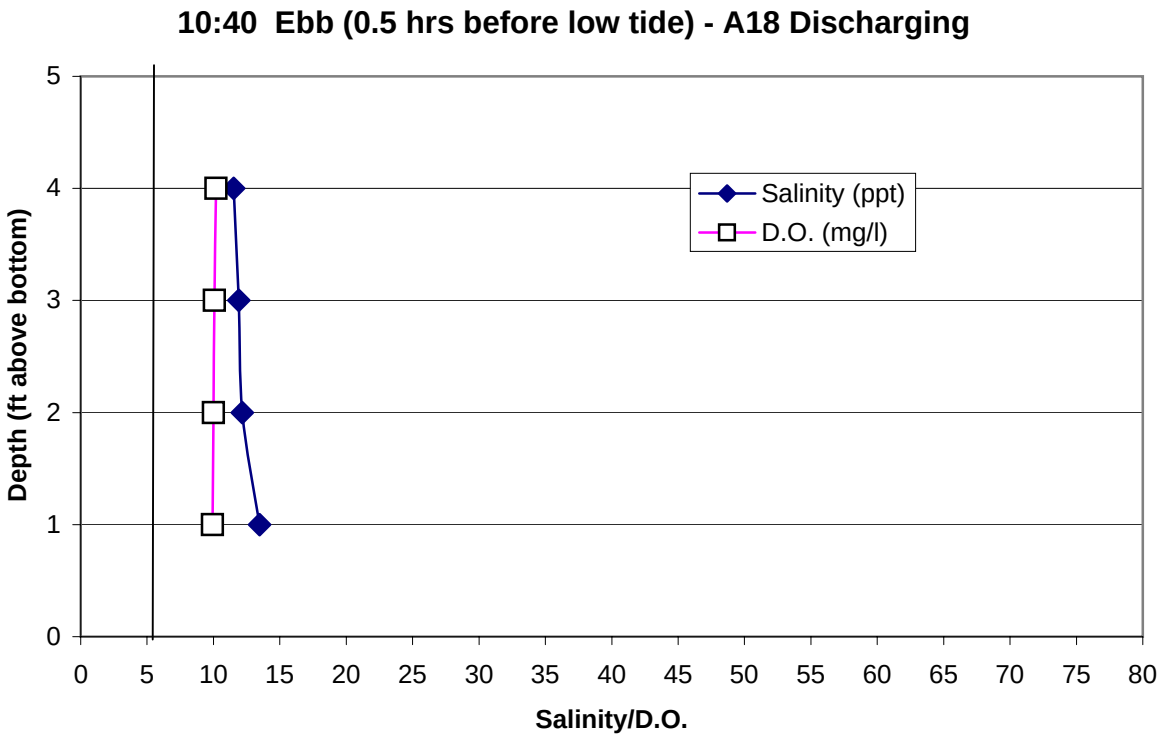


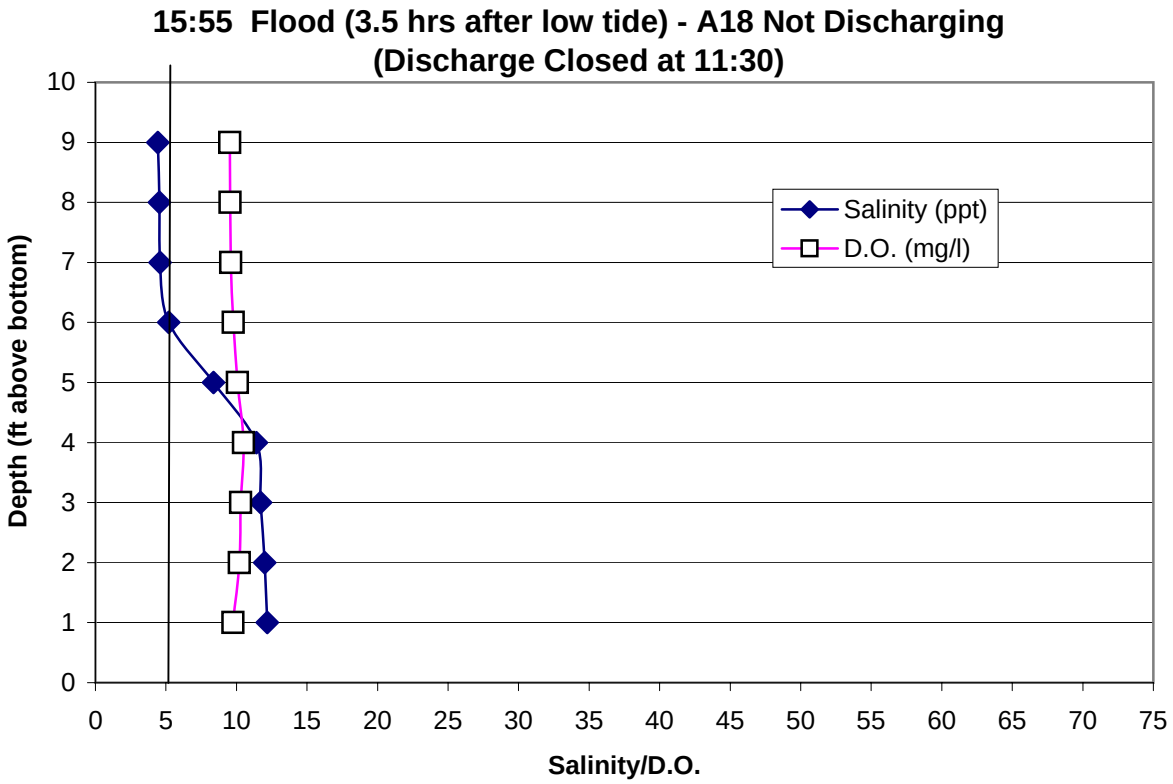
Station A18-3 Thursday, March 24, 2005





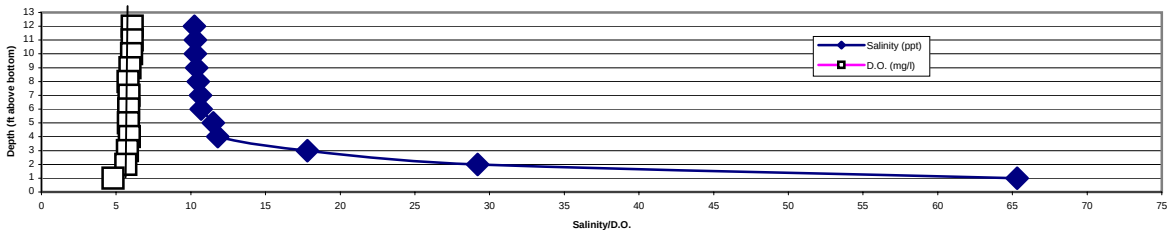
Station A18-3 Wednesday, March 30, 2005



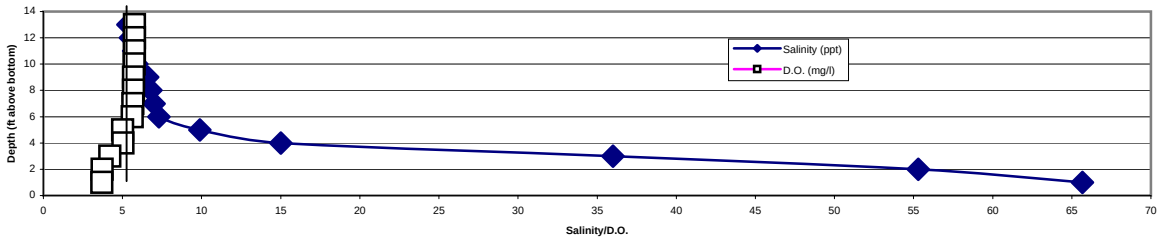


Station A-A18-3

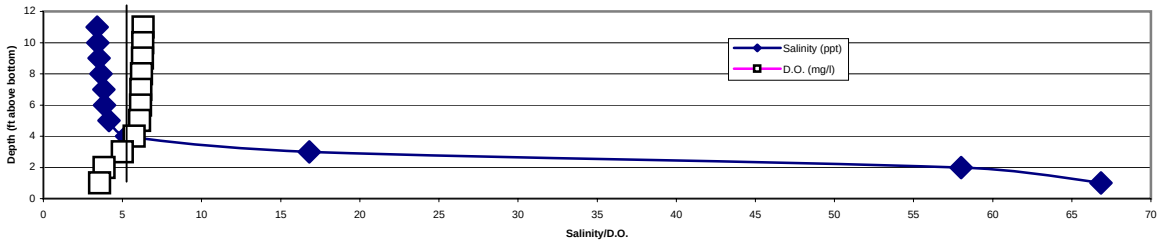
Slack high tide



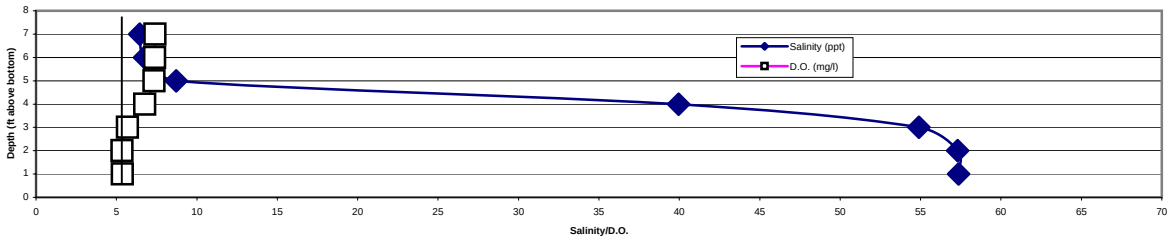
Ebb - 2 hrs past high tide



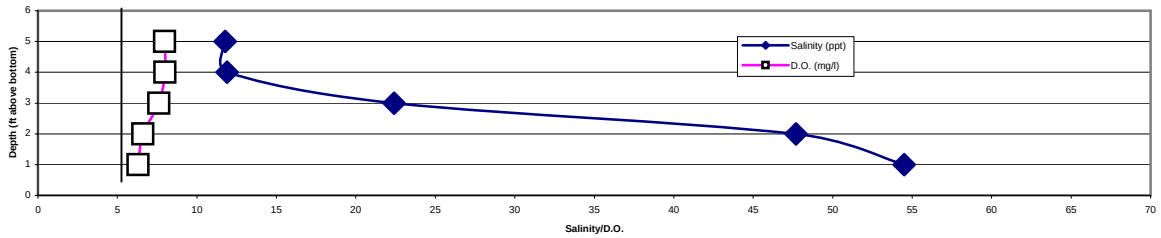
Ebb - 2 hrs past high tide



Ebb - 1.5 hrs before low tide

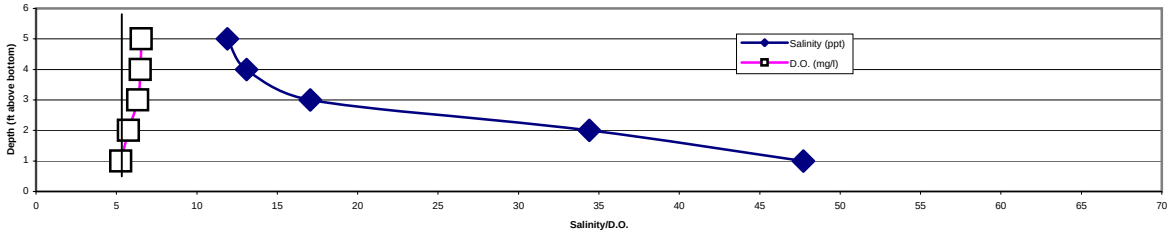


Ebb - 0.5 hrs before low tide

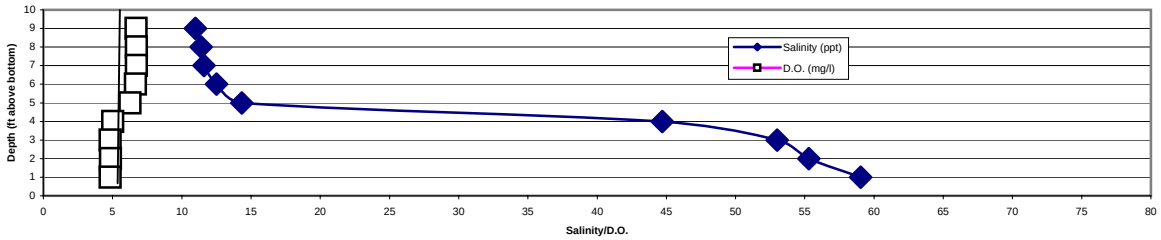


Ebb - 0.5 hrs before low tide

Ebb - 0.5 hrs before low tide



Flood - 2.5 hrs past low tide



Monitoring Event - Artesian Slough at A-A18-4

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Just Upstream of Coyote Creek	Predischarge	Slack	8	7	2/14/2005	10:28	19.63	1.658	1.078	0.84	76.5	6.97	7.32	8.0	170.1
Just Upstream of Coyote Creek		(low tide)	8	1	2/14/2005	10:25	19.61	1.668	1.084	0.85	81.8	7.46	7.32	9.1	176.8
	Air Temp = 18.0^{o}C, Humidity = 55%, Barometer = 30.21 in Hg, Overcast/rainy														
Just Upstream of Coyote Creek	No	Ebb	13	12	2/18/2005	11:14	18.13	9.298	6.044	5.24	72.7	6.65	7.26	12	112.8
		(2.5 hrs past high)		11	2/18/2005					5.30		6.42			
				10	2/18/2005					5.30		6.42			
				9	2/18/2005					5.38		6.35			
				8	2/18/2005	11:10	17.99	9.908	6.44	5.61	69.5	6.37	7.31		109.7
				7	2/18/2005					5.70		6.35			
				6	2/18/2005					6.30		6.15			
				5	2/18/2005					12.40		5.86			
				4	2/18/2005					43.60		4.70			
				3	2/18/2005					57.00		3.90			
				2	2/18/2005					64.70		3.67			
				1	2/18/2005	11:00	16.56	90.96	59.12	64.84	54.1	3.56	8.13	20	145.2
	Air Temp = 16.5^{o}C, Humidity = 70%, Barometer = 29.94 in Hg, Scattered clouds/sunny														
Just Upstream of Coyote Creek	Yes	Ebb	7	6	2/18/2005	14:15	20.23	14.93	9.706	8.71	84.4	7.26	7.30	12	83.8
		(1 hr before low)		5	2/18/2005					9.26		7.21			
				4	2/18/2005	14:14	20.16	16.10	10.46	9.45	84.1	7.21	7.34		82.0
				3	2/18/2005					11.00		7.17			
				2	2/18/2005					28.40		6.48			
				1	2/18/2005	14:13	18.07	60.83	39.54	40.89	79.8	5.90	8.01	28	99.2
Just Upstream of Coyote Creek	No	Ebb	13	12	2/21/2005	13:26	16.96	14.37	9.342	8.37	63.1	5.81	7.36	19	108.3
		(2 hrs past high)		11	2/21/2005					9.00		5.78			
				10	2/21/2005					9.20		5.78			
				9	2/21/2005					9.20		5.78			
				8	2/21/2005					9.50		5.74			
				7	2/21/2005					9.40		5.74			
				6	2/21/2005	13:04	16.33	16.960	11.02	10.02	61.6	5.69	7.51		117.9
				5	2/21/2005					10.30		5.54			
				4	2/21/2005					20.00		5.11			
				3	2/21/2005					46.60		3.85			
				2	2/21/2005					63.20		3.38			
				1	2/21/2005	13:00	16.31	90.1	58.56	64.11	52.9	3.52	8.06	27	151.7
	Air Temp = 19.5^{o}C, Humidity = 48%, Barometer = 30.00 in Hg, Overcast/rainy														
Just Upstream of Coyote Creek	Yes	Slack	6	6	2/21/2005	17:32	18.61	29.09	18.91	18.03	72.8	6.11	7.56	12	76.1
		(low tide)		5	2/21/2005					18.60		6.03			
				4	2/21/2005					19.50		5.94			
				3	2/21/2005	17:30	18.58	34.75	22.59	21.91	70.4	5.78	7.66		78.1
				2	2/21/2005					24.10		5.63			
				1	2/21/2005	17:28	18.50	39.37	25.59	25.15	68.9	5.56	7.73	41	80.5

Monitoring Event - Artesian Slough at A-A18-4 Cont'd

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Just Upstream of Coyote Creek	Yes	Flood	8	7	2/25/2005	10:29	15.85	15.62	10.15	9.16	67.6	6.34	7.55	43	60.8
		(3 hrs past low)		6	2/25/2005					9.16		6.32			
				5	2/25/2005					9.13		6.30			
				4	2/25/2005	10:28	15.72	15.55	10.1	9.11	66.9	6.28	7.56		61.6
				3	2/25/2005					9.13		6.24			
				2	2/25/2005					9.20		6.27			
				1	2/25/2005	10:25	15.80	16.15	10.05	9.50	68.1	6.37	7.55	76	62.8
	Air Temp = 14.5^{o}C, Humidity = 62%, Barometer = 29.94 in Hg, Overcast														
Just Upstream of Coyote Creek	No	Slack	15	14	2/25/2005	14:49	15.32	17.35	11.28	10.26	65.5	6.16	7.70	20	67.3
		(high tide)		13	2/25/2005					10.30		6.15			
				12	2/25/2005					10.30		6.15			
				11	2/25/2005					10.40		6.15			
				10	2/25/2005					10.40		6.14			
				9	2/25/2005					10.70		6.12			
				8	2/25/2005	14:47	15.29	18.81	12.23	11.21	64.5	6.04	7.75		68.1
				7	2/25/2005					11.50		5.98			
				6	2/25/2005					12.30		5.92			
				5	2/25/2005					37.20		5.10			
				4	2/25/2005					58.50		4.71			
				3	2/25/2005					64.60		4.56			
				2	2/25/2005					65.70		4.55			
				1	2/25/2005	14:41	16.42	91.88	59.72	65.60	70.8	4.65	8.27	460	97.5
	Air Temp = 26.5^{o}C, Humidity = 37%, Barometer = 30.27 in Hg, Sunny/clear														
Just Upstream of Coyote Creek	Yes	Ebb	8	7	3/2/2005	9:52	19.13	12.99	8.441	7.50	77	6.82	7.30	5.5	32.6
		(1 hr before low)		6	3/2/2005					7.60		6.82			
				5	3/2/2005					8.00		6.78			
				4	3/2/2005	9:50	19.00	14.72	9.568	8.58	75.7	6.67	7.37		28.9
				3	3/2/2005					9.50		6.47			
				2	3/2/2005					16.60		6.06			
				1	3/2/2005	9:48	18.16	37.84	24.6	24.07	67	5.47	7.80	18	41.2
	Air Temp = 17.5^{o}C, Humidity = 42%, Barometer = 29.91 in Hg, Sunny/clear														
Just Upstream of Coyote Creek	No	Slack	12	11	3/2/2005	17:33	16.66	10.86	7.06	6.19	84.1	7.88	7.74	20	52.8
		(high tide)		10	3/2/2005					6.20		7.89			
				9	3/2/2005					6.30		7.92			
				8	3/2/2005					6.30		8.02			
				7	3/2/2005					6.40		8.06			
				6	3/2/2005	17:31	17.50	13.20	8.58	7.63	93.3	8.53	7.84		50.5
				5	3/2/2005					13.20		8.83			
				4	3/2/2005					22.10		8.65			
				3	3/2/2005					44.30		7.96			
				2	3/2/2005					50.70		7.34			
				1	3/2/2005	17:27	17.50	74.78	48.61	51.71	101.8	7.13	8.20	32	81.7

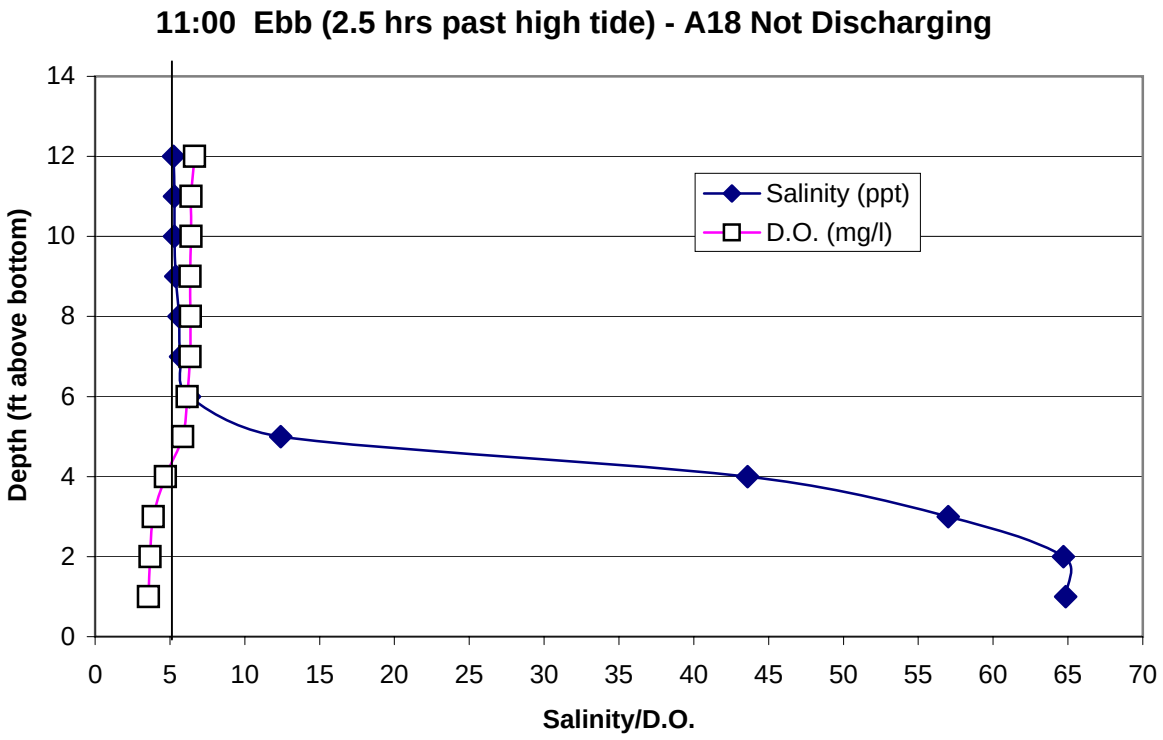
Monitoring Event - Artesian Slough at A-A18-4 Cont'd

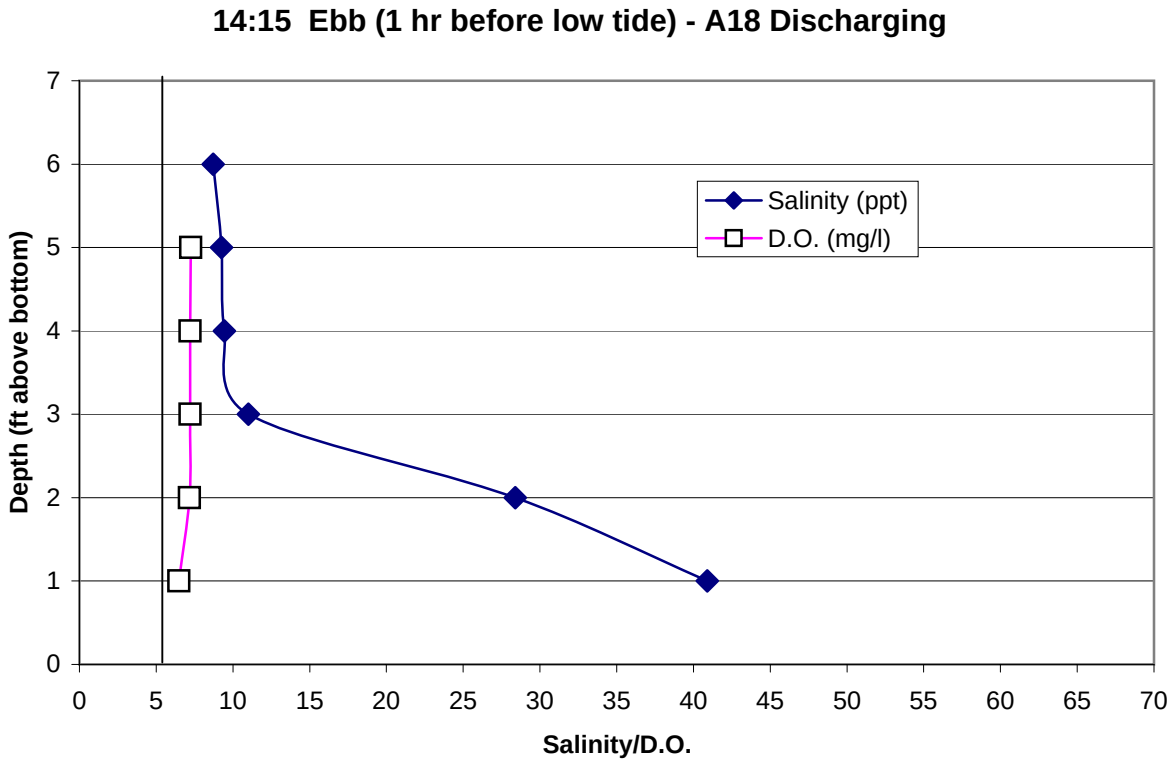
Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Just Upstream of Coyote Creek	No	Ebb	9	8	3/18/2005	9:23	19.69	9.398	6.109	5.29	77.6	6.88	7.37	6.0	143.9
		(2 hrs past high)		7	3/18/2005					5.60		6.82			
				6	3/18/2005					5.50		6.81			
				5	3/18/2005					6.90		6.70			
				4	3/18/2005	9:21	19.26	13.84	8.994	8.03	76.4	6.73	7.84		151.4
				3	3/18/2005					20.20		6.30			
				2	3/18/2005					36.60		6.04			
				1	3/18/2005	9:19	18.69	57.37	37.29	38.28	82.2	6.11	8.39	22	168.5
	Air Temp = 18.0^{o}C, Humidity = 49%, Barometer = 30.06 in Hg, Light Rain														
Just Upstream of Coyote Creek	Yes	Ebb	8	7	3/18/2005	13:44	19.88	22.76	14.80	13.78	102.2	8.58	7.90	22	90.3
		(0.5 hrs before low)		6	3/18/2005					13.90		8.53			
				5	3/18/2005					14.00		8.50			
				4	3/18/2005	13:43	19.86	23.19	15.07	14.06	100.7	8.45	7.89		92.2
				3	3/18/2005					14.30		8.34			
				2	3/18/2005					14.20		8.31			
				1	3/18/2005	13:41	19.75	23.35	15.18	14.17	99.2	8.33	7.83	40	94.9
Just Upstream of Coyote Creek	Yes	Flood	12	11	3/24/2005	9:58	14.43	5.022	3.264	2.71	66.6	6.69	7.58	38	48.6
		(2.5 hrs past low)		10	3/24/2005					2.72		6.68			
				9	3/24/2005					2.74		6.66			
				8	3/24/2005					2.74		6.66			
				7	3/24/2005					2.75		6.65			
				6	3/24/2005					2.76		6.64			
				5	3/24/2005	9:57	14.41	5.087	3.307	2.75	66.3	6.66	7.58		61.1
				4	3/24/2005					2.74		6.66			
				3	3/24/2005					2.74		6.69			
				2	3/24/2005					2.74		6.76			
				1	3/24/2005	9:54	14.43	5.043	3.278	2.73	70.9	7.11	7.64	64	79.6
	Air Temp = 23.0^{o}C, Humidity = 39%, Barometer = 29.88 in Hg, Sunny														
Just Upstream of Coyote Creek	No	Ebb	10	9	3/24/2005	13:52	16.29	8.49	5.52	4.75	69.2	6.60	7.55	35	131.6
		(0.5 hrs after high)		8	3/24/2005					4.79		6.59			
				7	3/24/2005					4.82		6.59			
				6	3/24/2005					4.97		6.57			
				5	3/24/2005	13:50	16.17	9.60	6.24	5.42	69	6.56	7.62		140.6
				4	3/24/2005					5.98		6.55			
				3	3/24/2005					7.30		6.57			
				2	3/24/2005					13.00		6.40			
				1	3/24/2005	13:48	16.44	32.69	21.25	20.48	72.7	6.27	8.10	52	180.8

Monitoring Event - Artesian Slough at A-A18-4 Cont'd

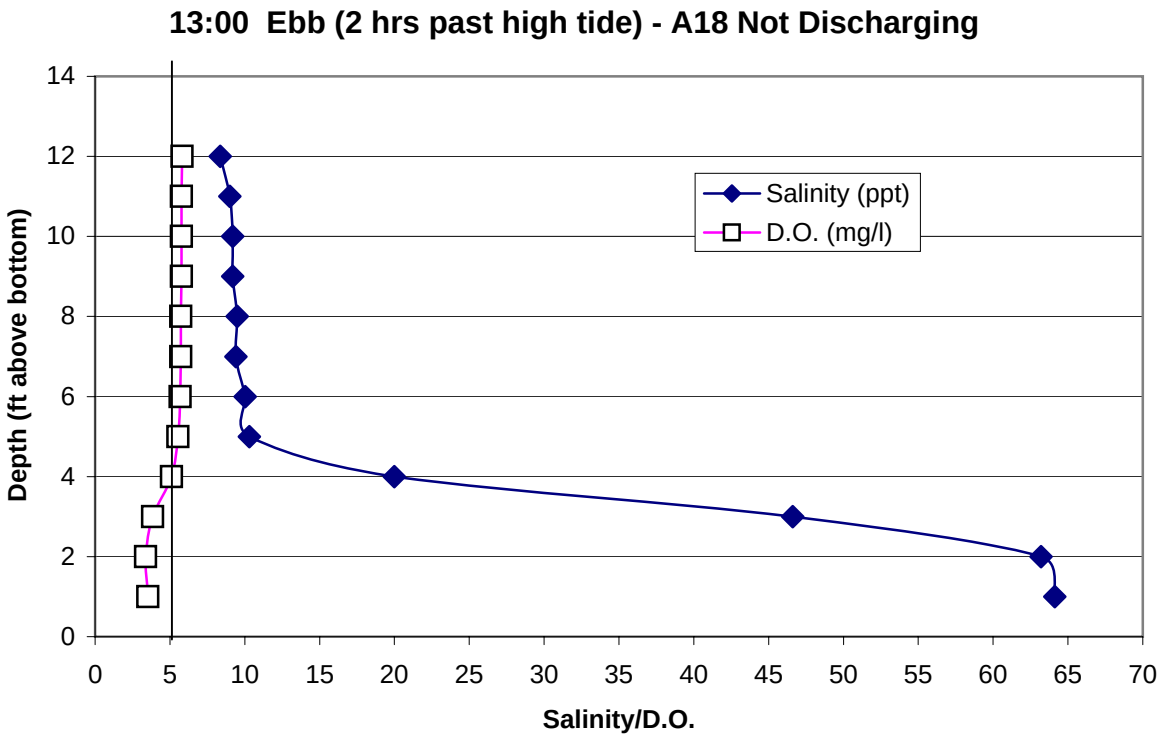
Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Just Upstream of Coyote Creek	Yes	Slack	5	4	3/30/2005	10:53	19.69	18.98	12.34	11.30	112.9	9.66	7.84	22	44.1
		(low tide)		3	3/30/2005					11.40		9.56			
				2	3/30/2005	10:53	19.61	19.12	12.43	11.40	111.1	9.52	7.85		49.5
				1	3/30/2005	10:52	19.40	19.4	12.61	11.58	110.5	9.5	7.86	20	58.7
	Air Temp = 26.5^{o}C, Humidity = 34%, Barometer = 30.12 in Hg, Sunny														
Just Upstream of Coyote Creek	No	Flood	9	8	3/30/2005	15:13	16.68	3.37	2.19	1.78	89	8.56	7.65	32	107.4
		(3.5 hrs past low)		7	3/30/2005					1.80		8.56			
				6	3/30/2005					1.82		8.51			
				5	3/30/2005	15:12	16.51	3.47	2.25	1.83	88.6	8.56	7.65		128.4
				4	3/30/2005					1.86		8.56			
				3	3/30/2005					1.95		8.57			
				2	3/30/2005					2.50		8.64			
				1	3/30/2005	15:11	16.31	4.62	3.00	2.48	95.2	9.20	7.75	43	219.8

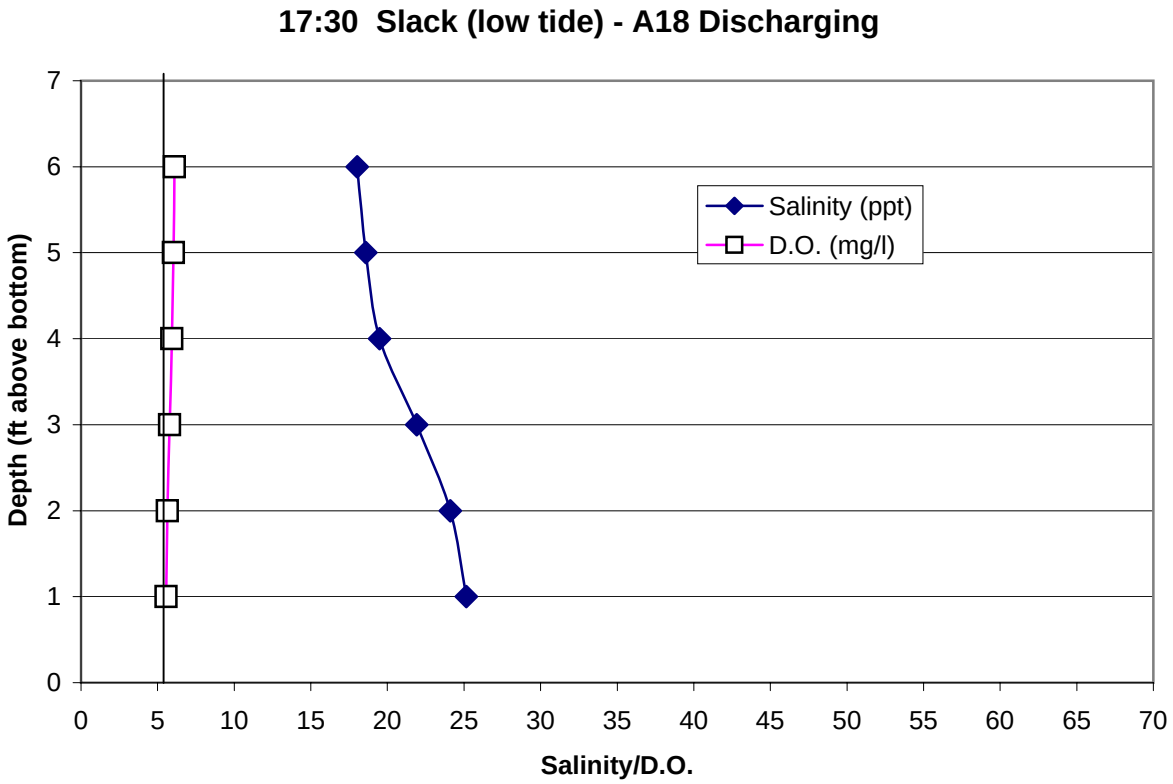
Station A18-4 Friday, February 18, 2005



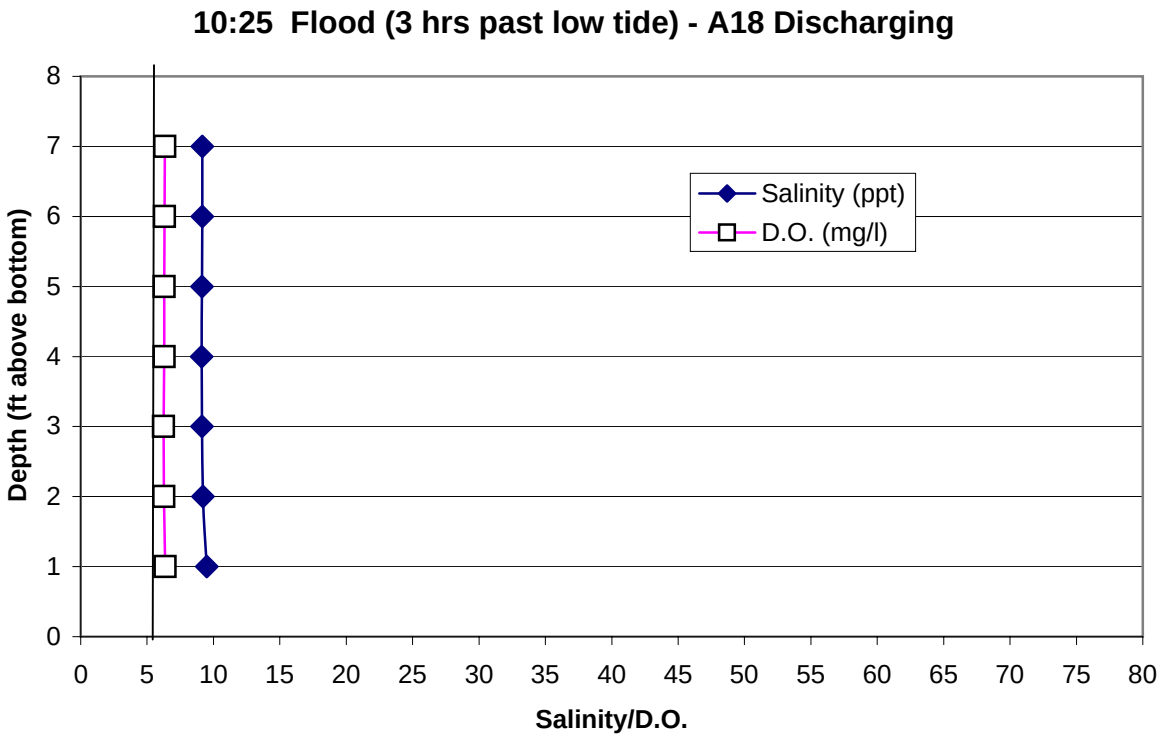


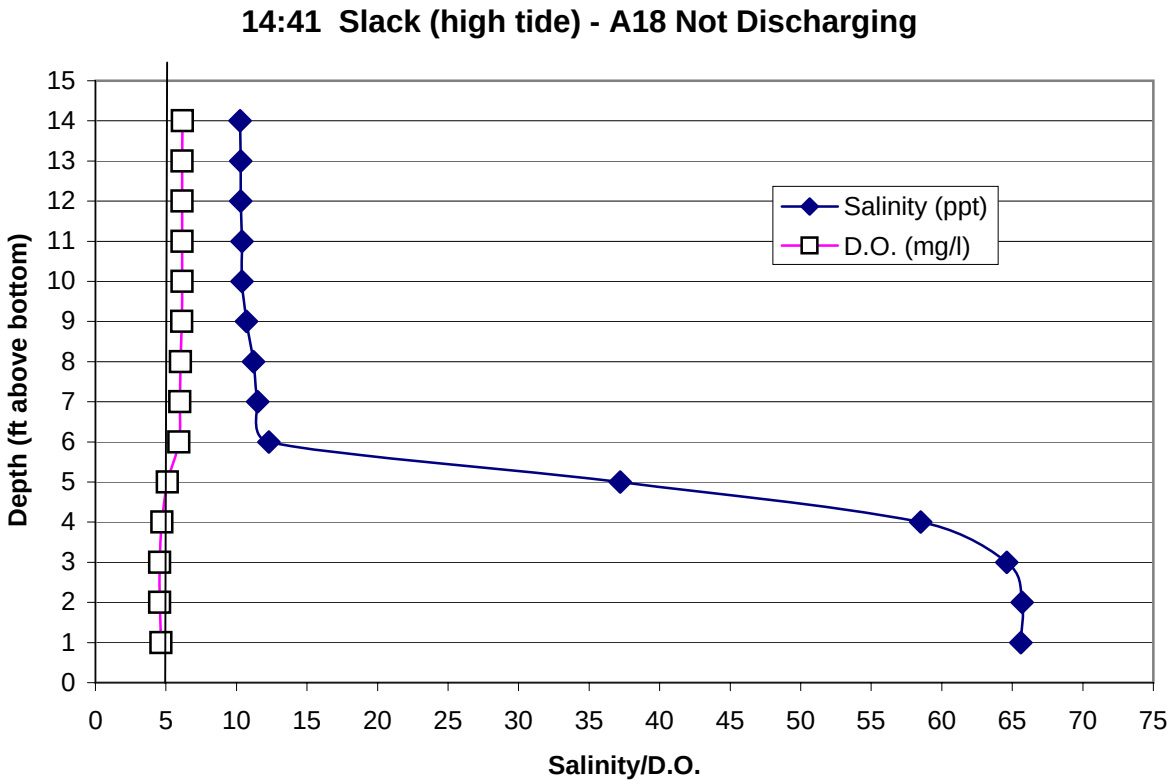
Station A18-4 Monday, February 21, 2005



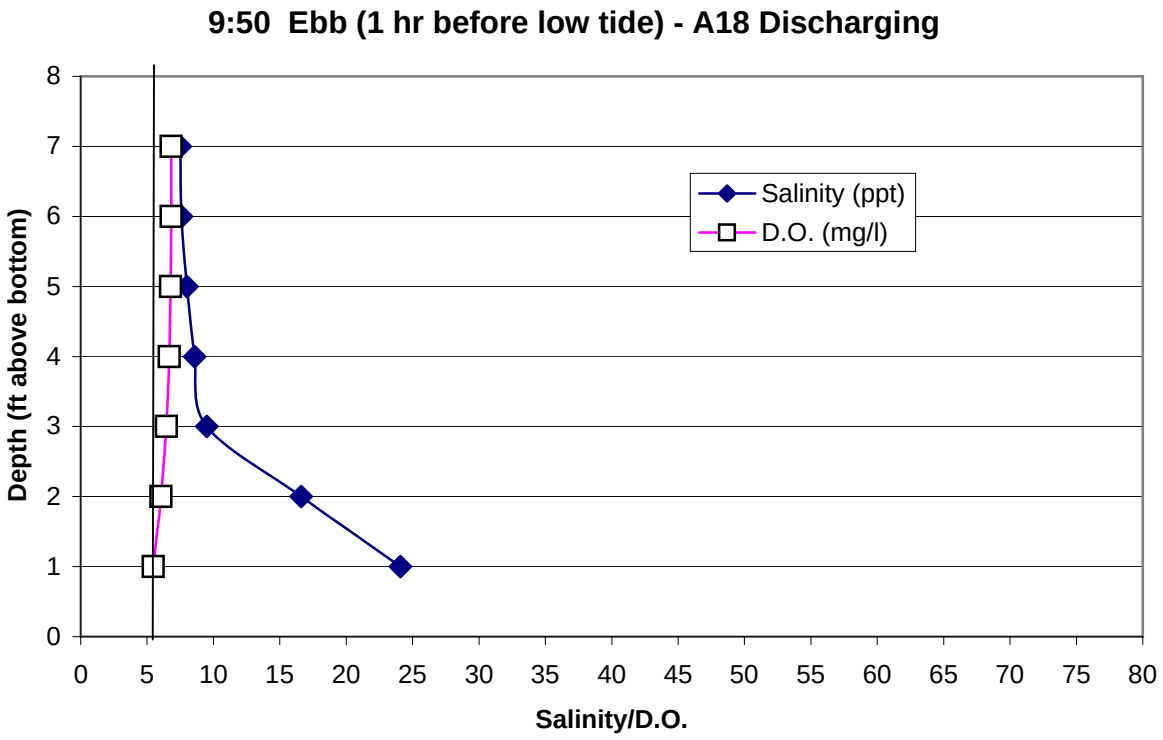


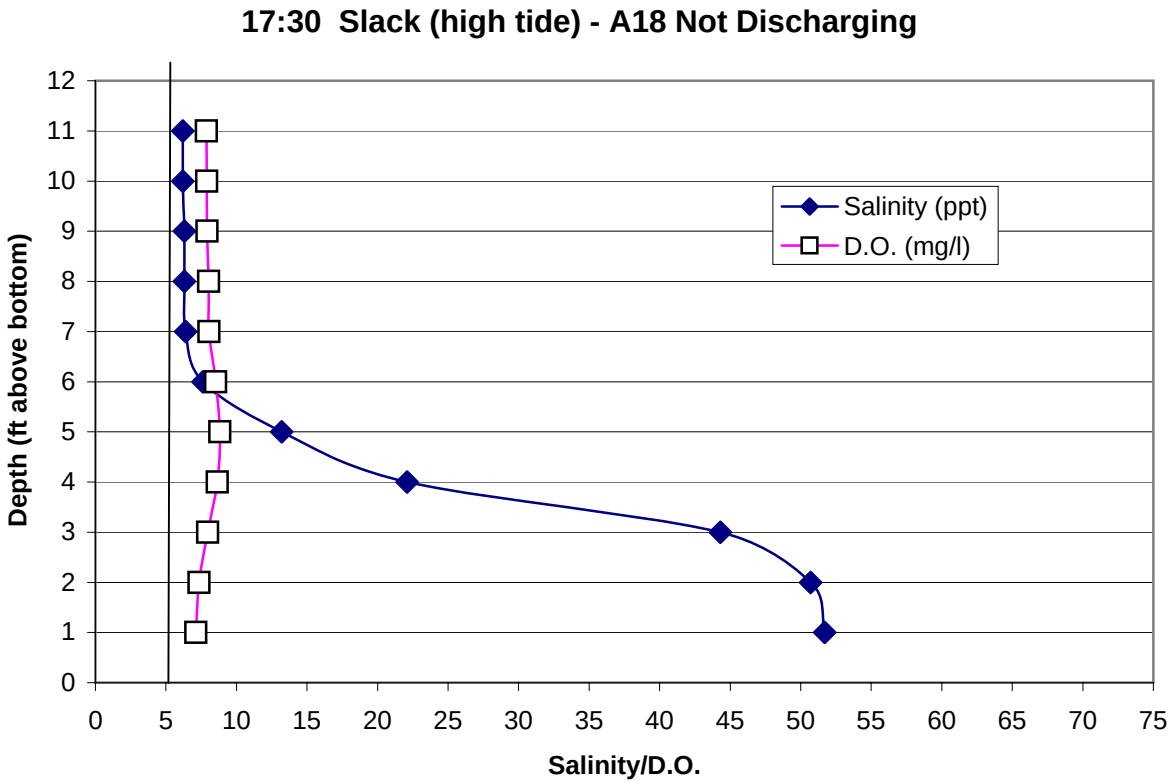
Station A18-4 Friday, February 25, 2005



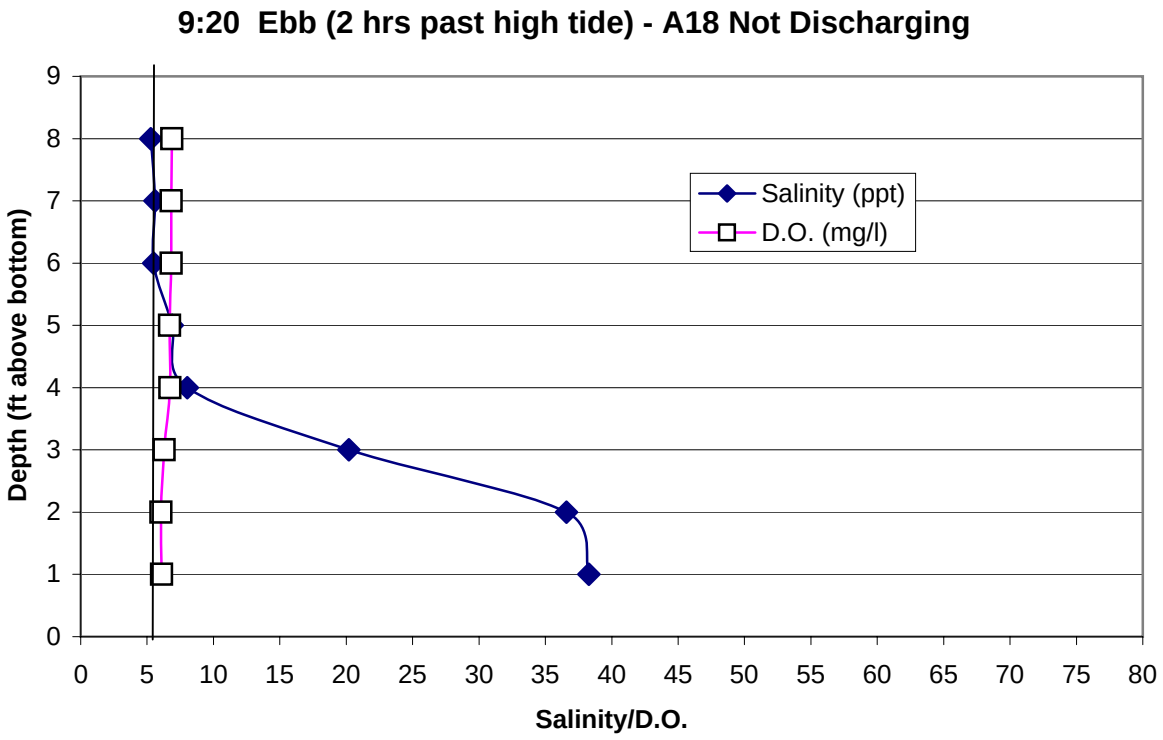


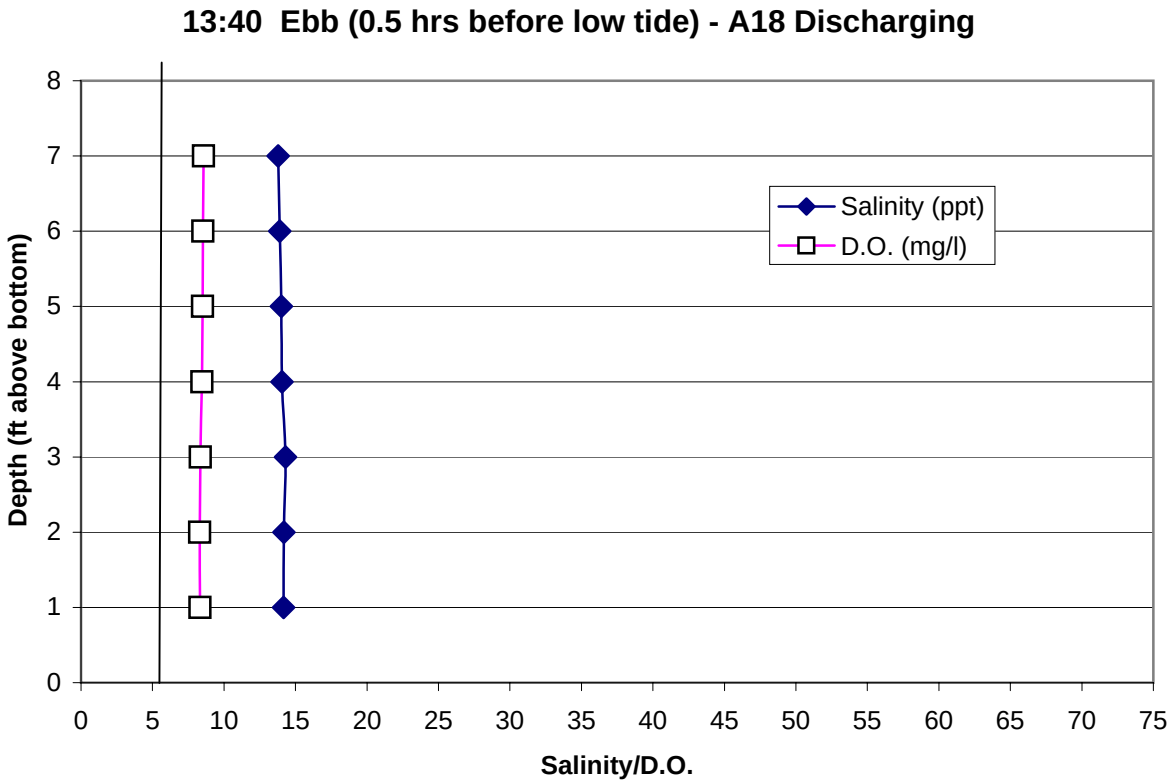
Station A18-4 Wednesday, March 02, 2005



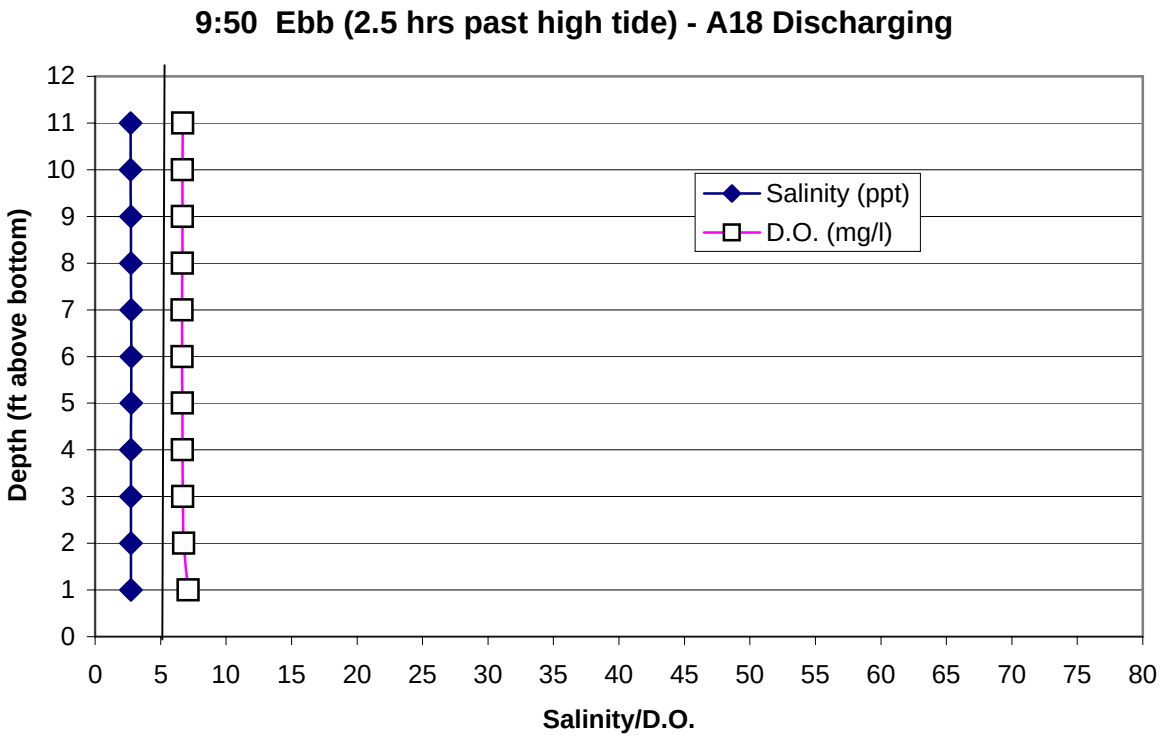


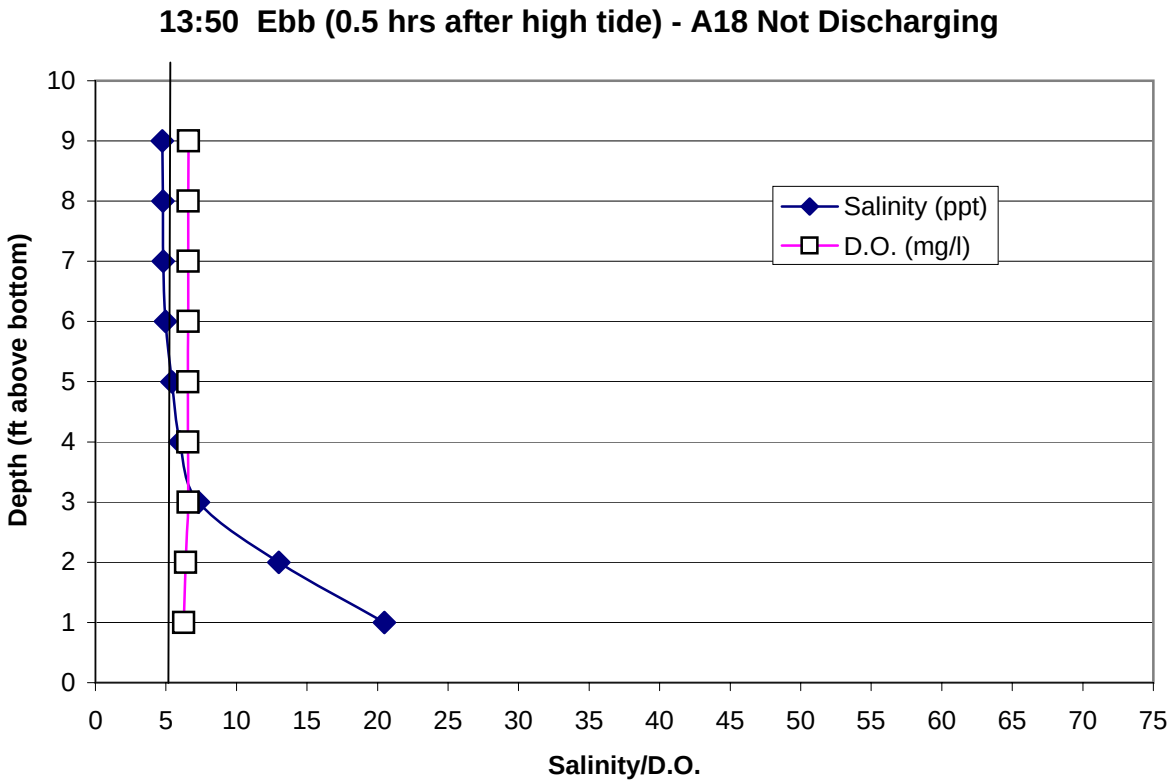
Station A18-4 Friday, March 18, 2005



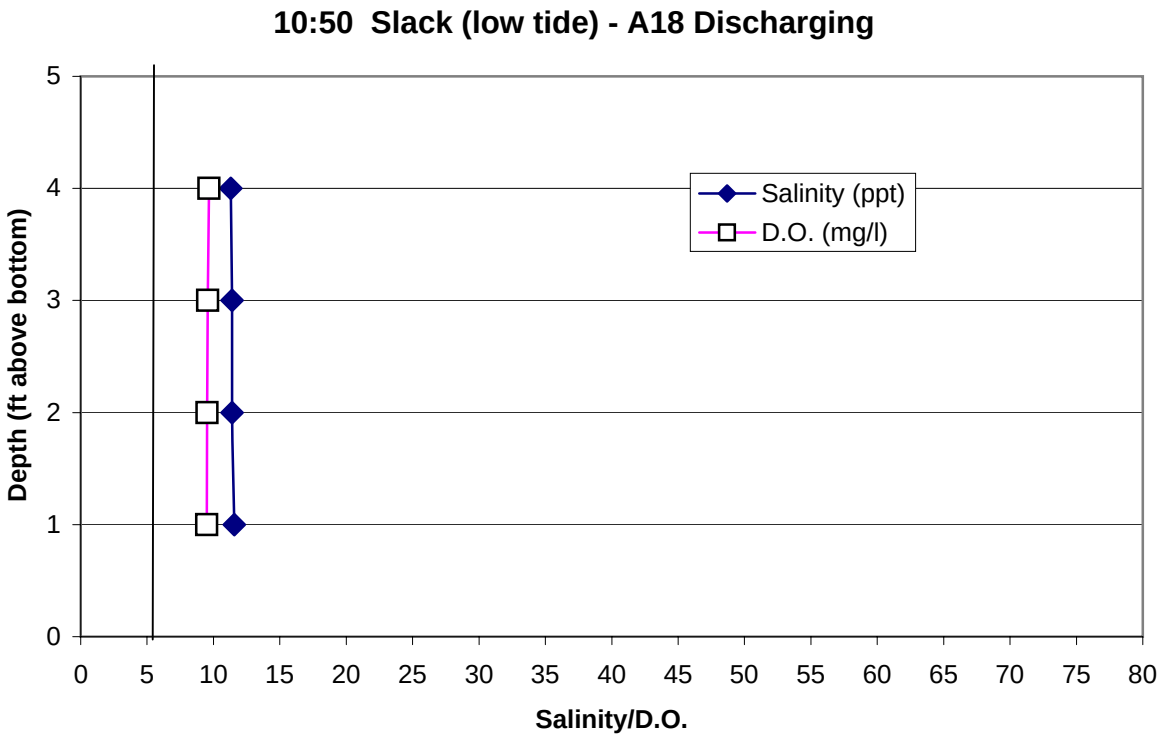


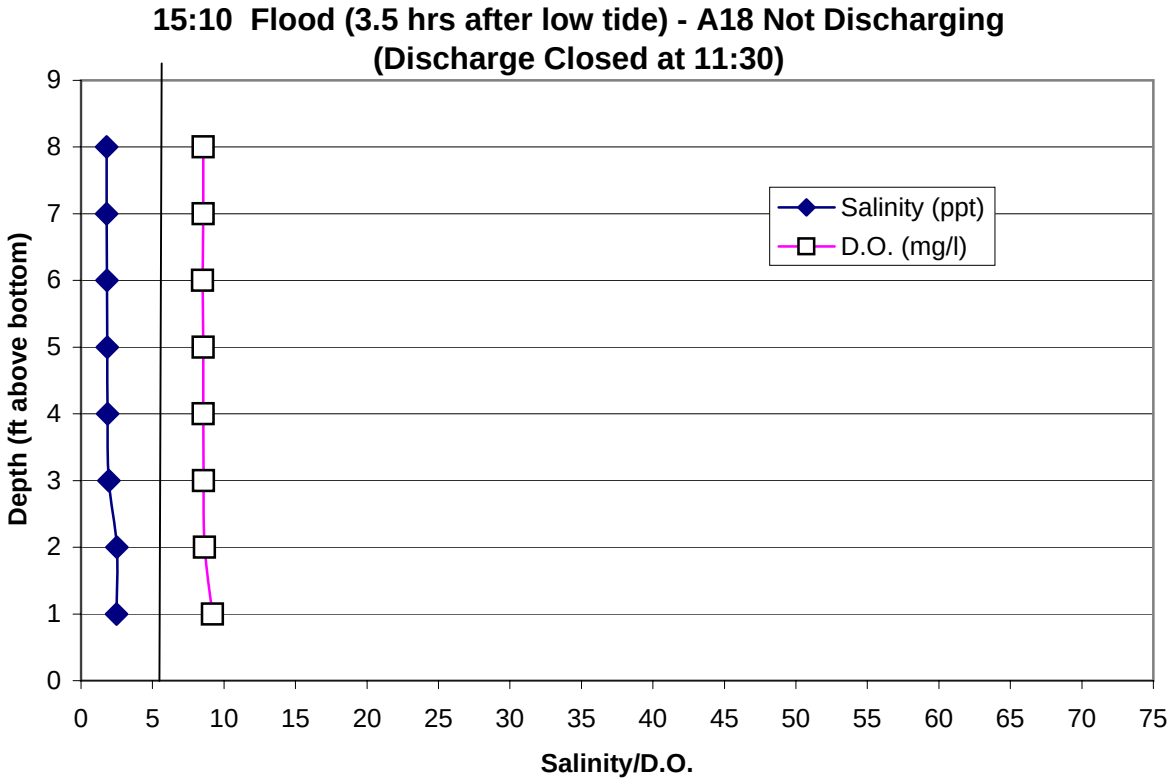
Station A18-4 Thursday, March 24, 2005





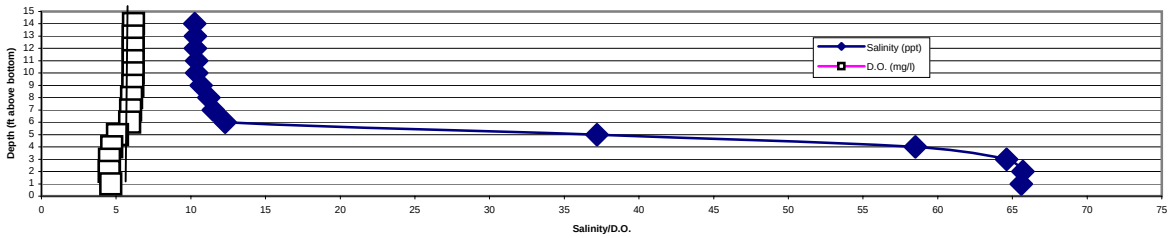
Station A18-4 Wednesday, March 30, 2005



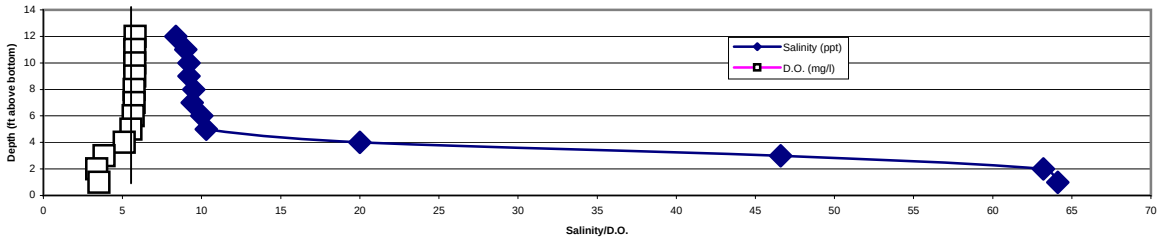


Station A-A18-4

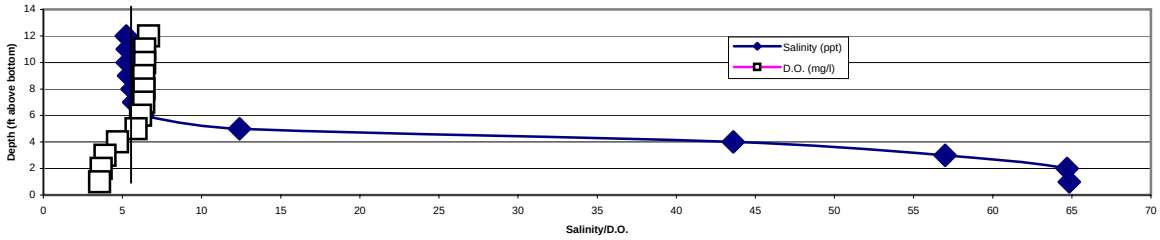
Slack high tide



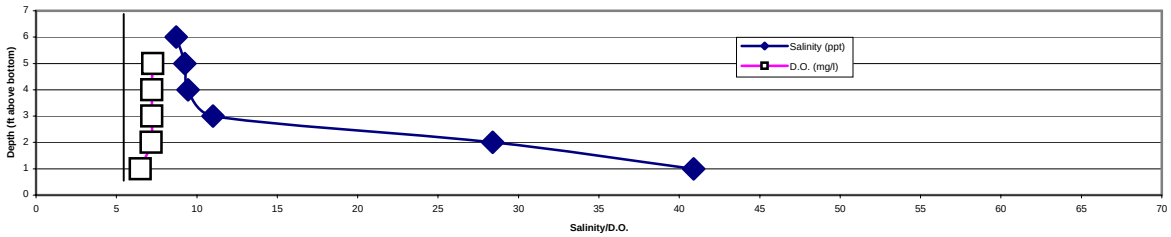
Ebb - 2 hrs past high tide



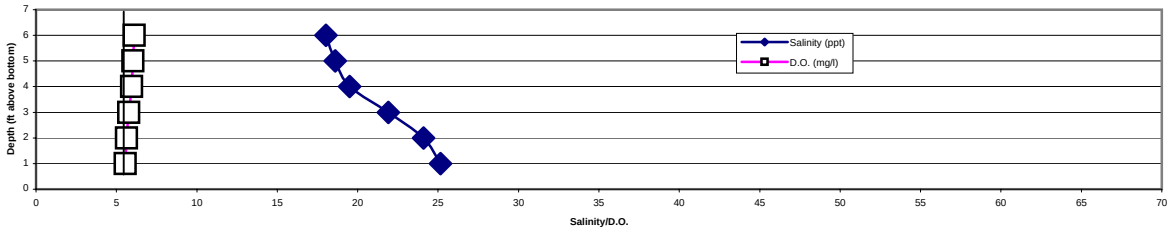
Ebb - 2.5 hrs past high tide



Ebb - 1 hr before low tide

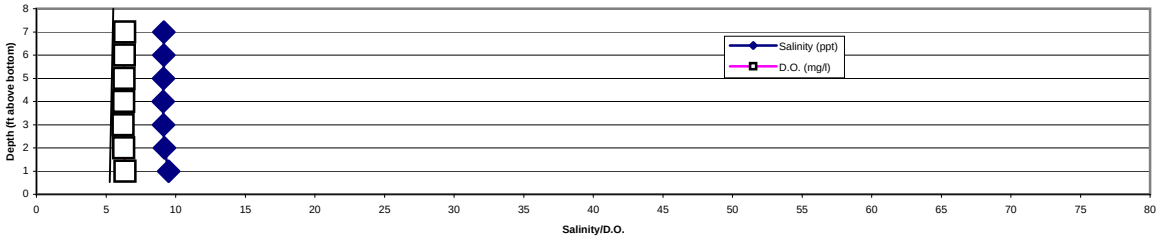


Slack - low tide



Flood - 3 hrs past low tide

Flood - 3 hrs past low tide



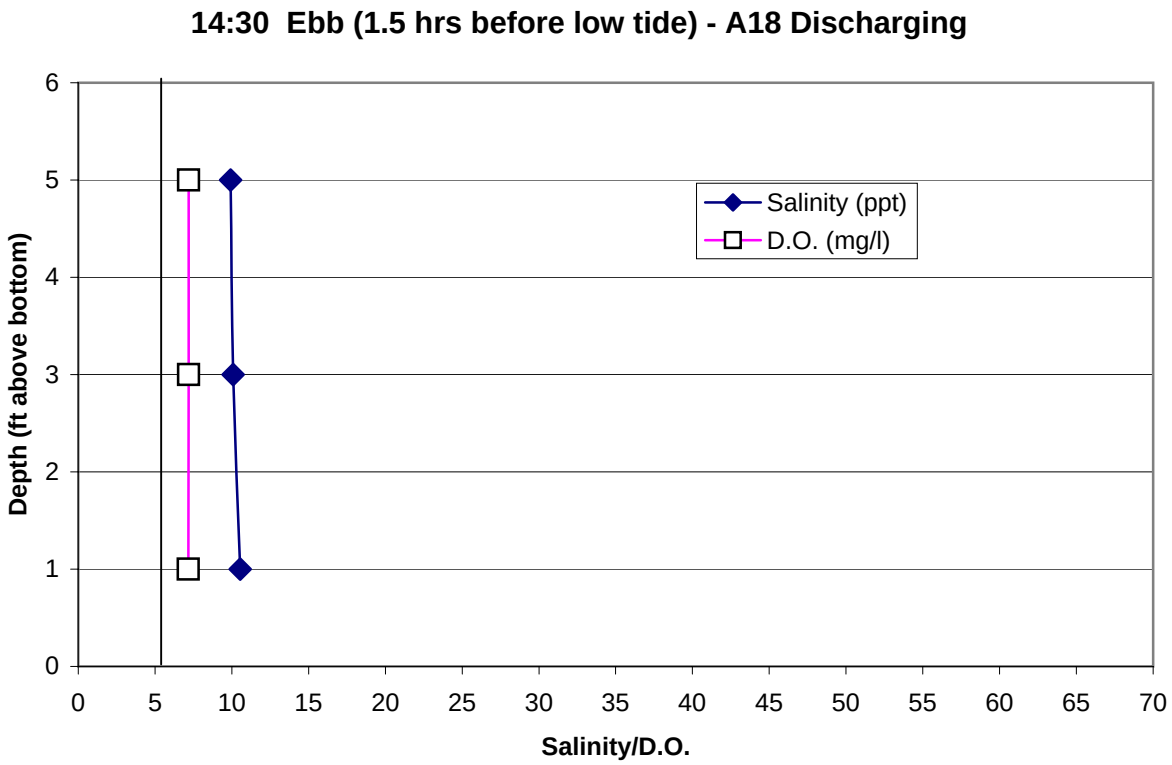
Monitoring Event - Artesian Slough at A-A18-5

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Confluence with Coyote Creek	Yes	Ebb	6	5	2/18/2005	14:28	20.10	16.84	10.95	9.92	84.3	7.20	7.30		84.7
		(1.5 hr before low)		3	2/18/2005	14:27	20.18	17.08	11.1	10.08	84.1	7.18	7.30		84.9
				1	2/18/2005	14:26	20.10	17.80	11.57	10.54	83.9	7.16	7.31		84.8
	Air Temp = 16.5^{o}C, Humidity = 70%, Barometer = 29.94 in Hg, Scattered clouds/sunny														
Confluence with Coyote Creek	Yes	Flood	6	5	2/25/2005	10:56	15.19	15.49	10.07	9.08	67.5	6.41	7.62		63.8
		(3.5 hrs past low)		4	2/25/2005					9.10		6.46			
				3	2/25/2005	10:55	15.19	15.49	10.07	9.08	67.9	6.45	7.63		64.2
				2	2/25/2005					9.10		6.47			
				1	2/25/2005	10:54	15.20	15.48	10.06	9.07	71.3	6.77	7.65		63
	Air Temp = 14.5^{o}C, Humidity = 62%, Barometer = 29.94 in Hg, Overcast														
Confluence with Coyote Creek	No	Slack	7	6	2/25/2005	15:01	15.51	17.61	11.45	10.43	65.9	6.17	7.68		72.7
		(high tide)		5	2/25/2005					10.50		6.20			
				4	2/25/2005	15:00	15.45	17.66	11.48	10.46	65.4	6.13	7.68		73.2
				3	2/25/2005					11.20		6.04			
				2	2/25/2005					11.30		6.10			
				1	2/25/2005	14:58	15.34	19.03	12.37	11.35	73.7	6.88	7.71		75.9
	Air Temp = 26.5^{o}C, Humidity = 37%, Barometer = 30.27 in Hg, Sunny/clear														
Confluence with Coyote Creek	Yes	Ebb	4	3	3/2/2005	10:02	19.00	14.58	9.477	8.50	76.8	6.76	7.31		37.8
		(0.5 hrs before low)		2	3/2/2005	10:01	19.12	14.33	9.311	8.34	77.1	6.79	7.3		36.5
				1	3/2/2005	10:00	19.00	16.75	10.89	9.88	74.9	6.55	7.34		36.3
	Air Temp = 17.5^{o}C, Humidity = 42%, Barometer = 29.91 in Hg, Sunny/clear														
Confluence with Coyote Creek	No	Slack	5	4	3/2/2005	17:41	16.65	10.84	7.05	6.18	83.8	7.86	7.70		55.4
		(high tide)		3	3/2/2005	17:40	16.66	10.86	7.06	6.19	84.5	7.93	7.70		55.2
				2	3/2/2005					6.20		8.07			
				1	3/2/2005	17:39	16.41	11.14	7.24	6.36	93.3	8.79	7.72		55.8
Confluence with Coyote Creek	No	Ebb	5	4	3/18/2005	9:35	19.67	9.789	6.363	5.53	77.9	6.90	7.39		144.9
		(2 hrs past high)		3	3/18/2005					9.35		6.46			
				2	3/18/2005	9:33	18.27	19.02	12.36	11.34	71.9	6.33	7.79		152.9
				1	3/18/2005	9:32	18.41	20.79	13.51	12.49	79.2	6.90	7.77		156.8
	Air Temp = 18.0^{o}C, Humidity = 49%, Barometer = 30.06 in Hg, Light Rain														
Confluence with Coyote Creek	Yes	Ebb	5	4	3/18/2005	13:55	18.83	16.88	10.97	9.96	92.2	8.09	7.94		85.9
		(0.5 hrs before low)		3	3/18/2005	13:54	18.93	15.89	10.33	9.33	93.2	8.19	7.94		85.5
				2	3/18/2005					10.80		8.45			
				1	3/18/2005	13:52	19.58	22.57	14.67	13.65	100.5	8.50	7.86		91.0

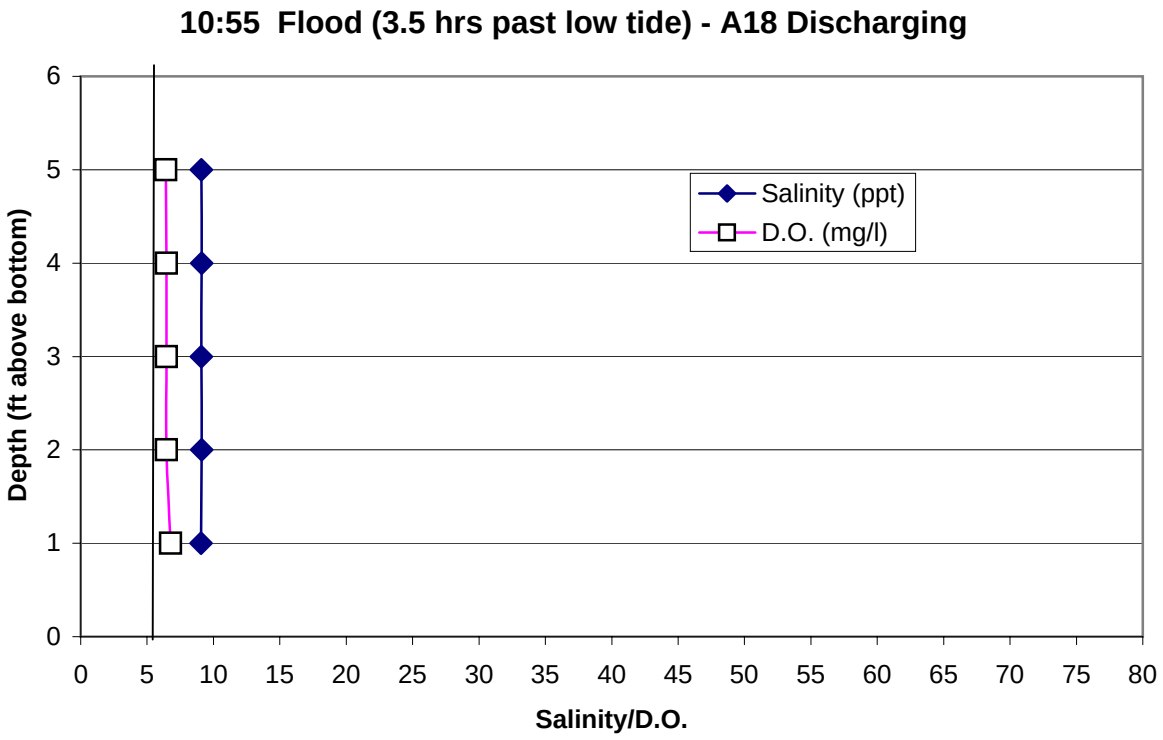
Monitoring Event - Artesian Slough at A-A18-5 Cont'd

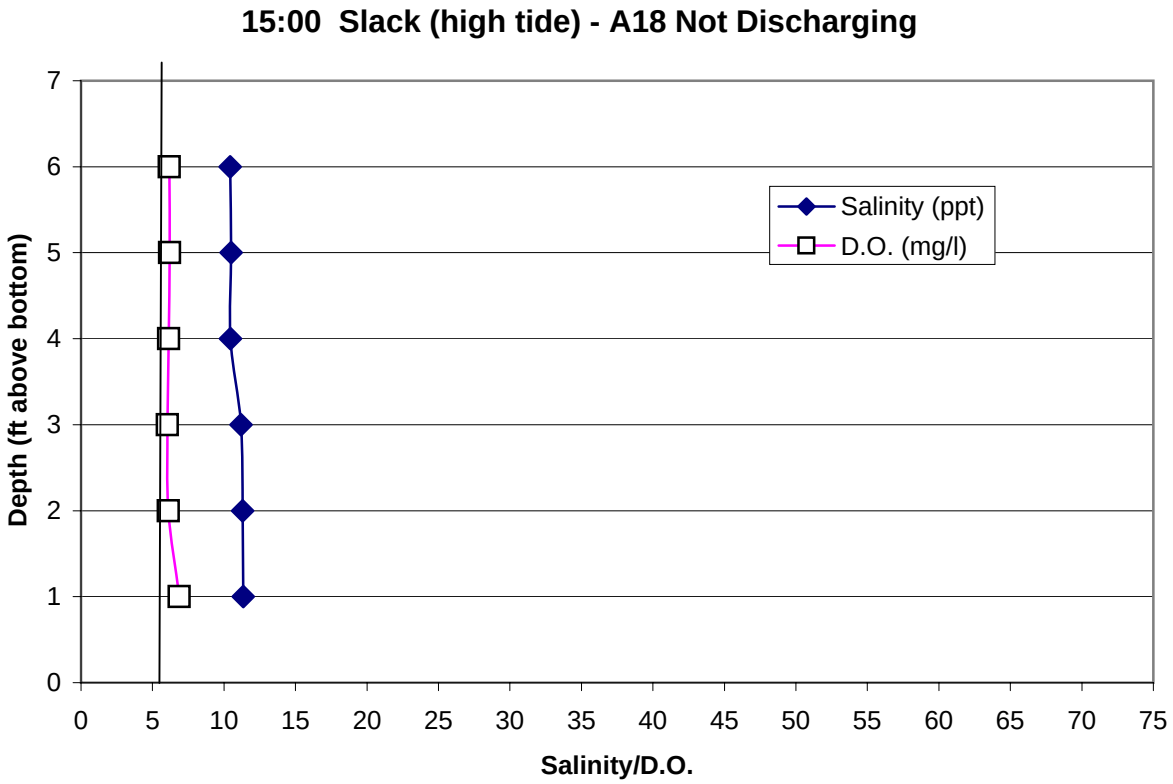
Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Confluence with Coyote Creek	Yes	Flood	7	6	3/24/2005	10:12	14.44	5.378	3.496	2.92	66.4	6.65	7.65		12.1
		(3.0 hrs past low)		5	3/24/2005					2.94		6.64			
				4	3/24/2005	10:12	0.61	5.412	3.518	2.94	66.5	6.66	7.65		11.6
				3	3/24/2005					2.96		6.70			
				2	3/24/2005					2.96		6.75			
				1	3/24/2005	10:08	14.23	5.372	3.492	2.92	78.5	7.91	7.65		30.8
	Air Temp = 23.0^{o}C, Humidity = 39%, Barometer = 29.88 in Hg, Sunny														
Confluence with Coyote Creek	No	Ebb	5	4	3/24/2005	13:59	16.34	8.64	5.62	4.84	71.2	6.78	7.57		122.2
		(0.5 hrs after high)		3	3/24/2005	13:59	16.26	9.28	6.03	5.23	72.3	6.88	7.58		129.4
				2	3/24/2005					5.45		7.05			
				1	3/24/2005	13:58	15.7	9.91	6.44	5.61	80.9	7.77	7.53		155.2
Confluence with Coyote Creek	Yes	Flood	5	4	3/30/2005	11:05	14.97	2.427	1.578	1.26	97.7	9.78	7.93		34.9
		(0.5 hrs past low)		3	3/30/2005	11:04	17.14	11.91	7.742	6.84	102.7	9.50	7.83		51.8
				2	3/30/2005					10.40		9.35			
				1	3/30/2005	11:02	19.59	18.92	12.3	11.27	110	9.43	7.80		90.1
	Air Temp = 26.5^{o}C, Humidity = 34%, Barometer = 30.12 in Hg, Sunny														
Confluence with Coyote Creek	No	Flood	8	7	3/30/2005	15:22	16.52	3.21	2.09	1.69	88.9	8.60	7.66		81.2
		(4 hrs after low)		6	3/30/2005					1.69		8.61			
				5	3/30/2005					1.69		8.64			
				4	3/30/2005	15:21	16.51	3.21	2.09	1.69	89.8	8.68	7.66		87.1
				3	3/30/2005					1.69		8.72			
				2	3/30/2005					1.71		8.79			
				1	3/30/2005	15:20	16.4	3.32	2.16	1.75	95.1	9.21	7.64		104.5

Station A18-5 Friday, February 18, 2005

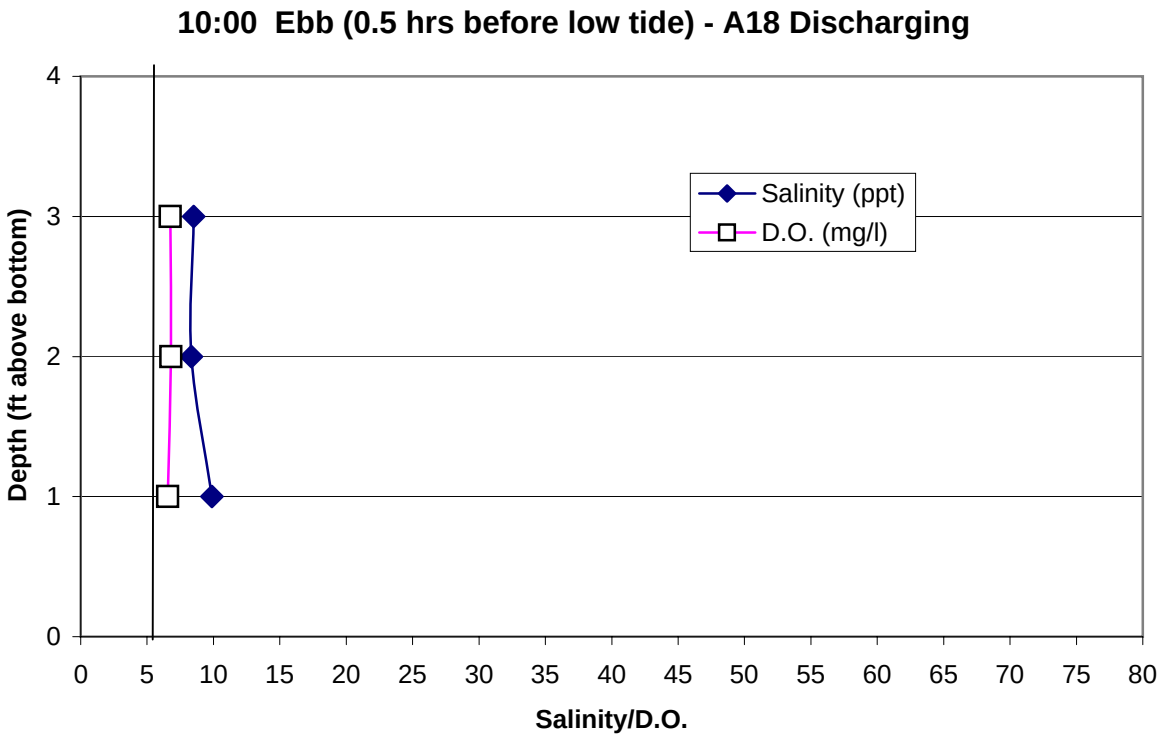


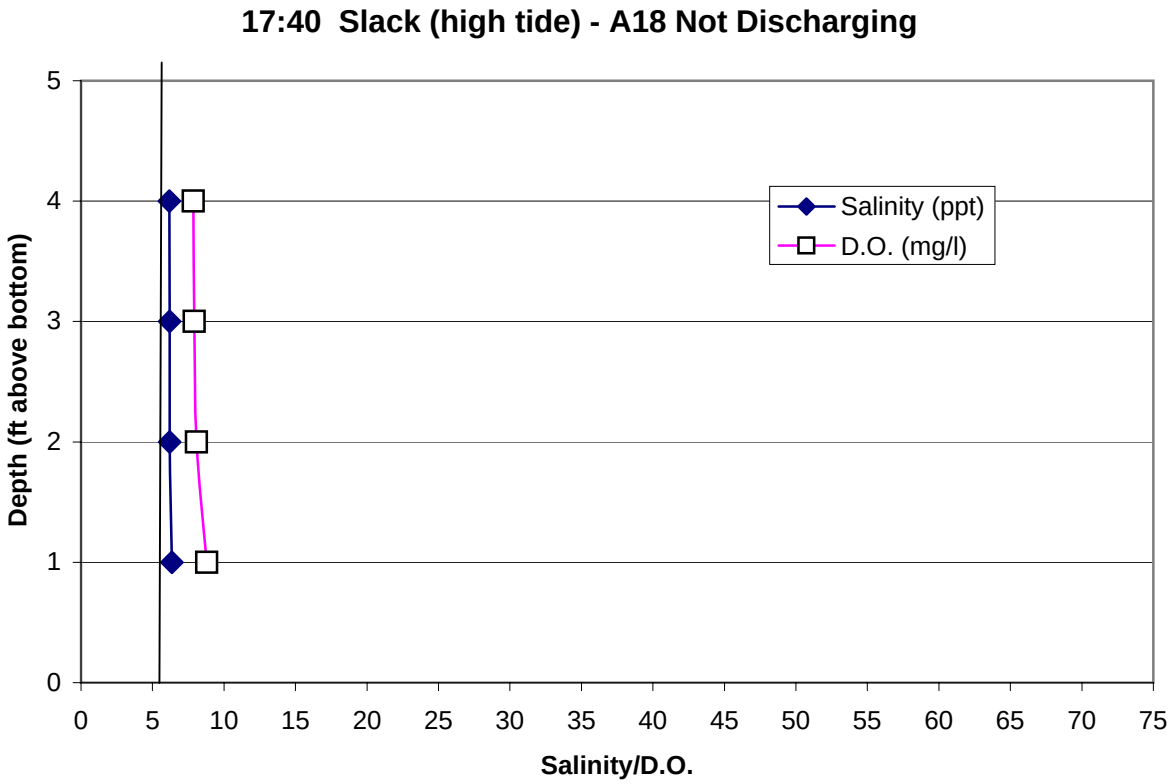
Station A18-5 Friday, February 25, 2005





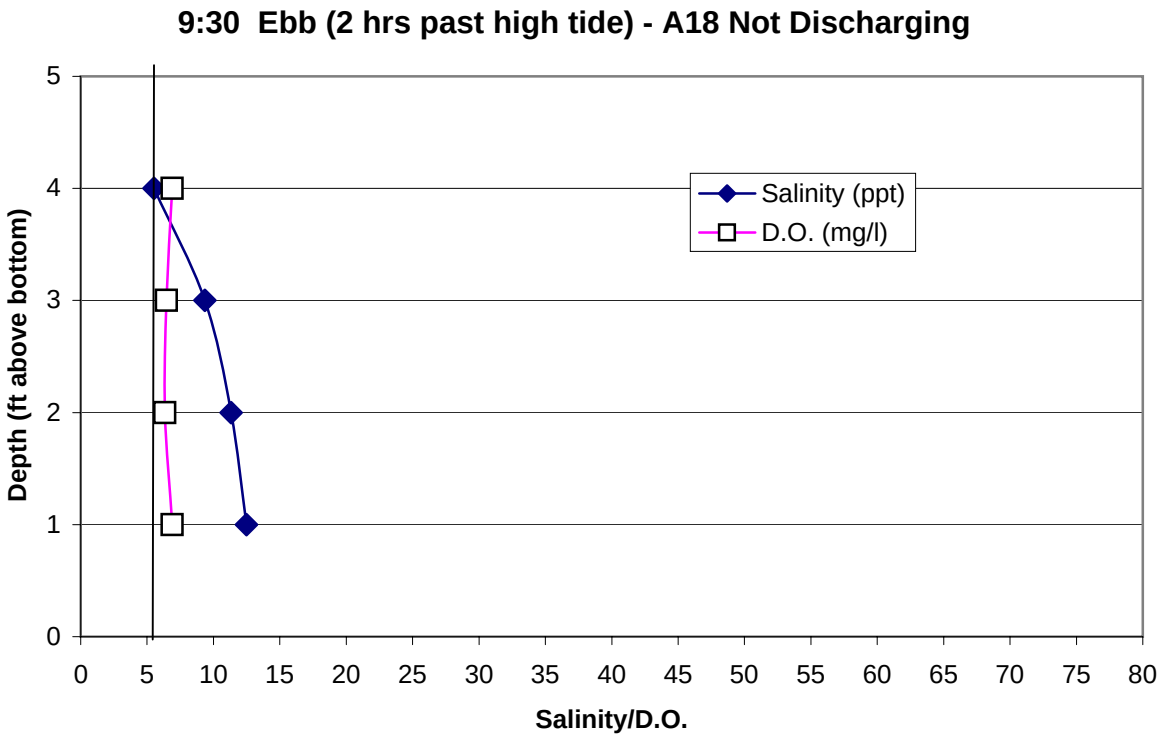
Station A18-5 Wednesday, March 02, 2005

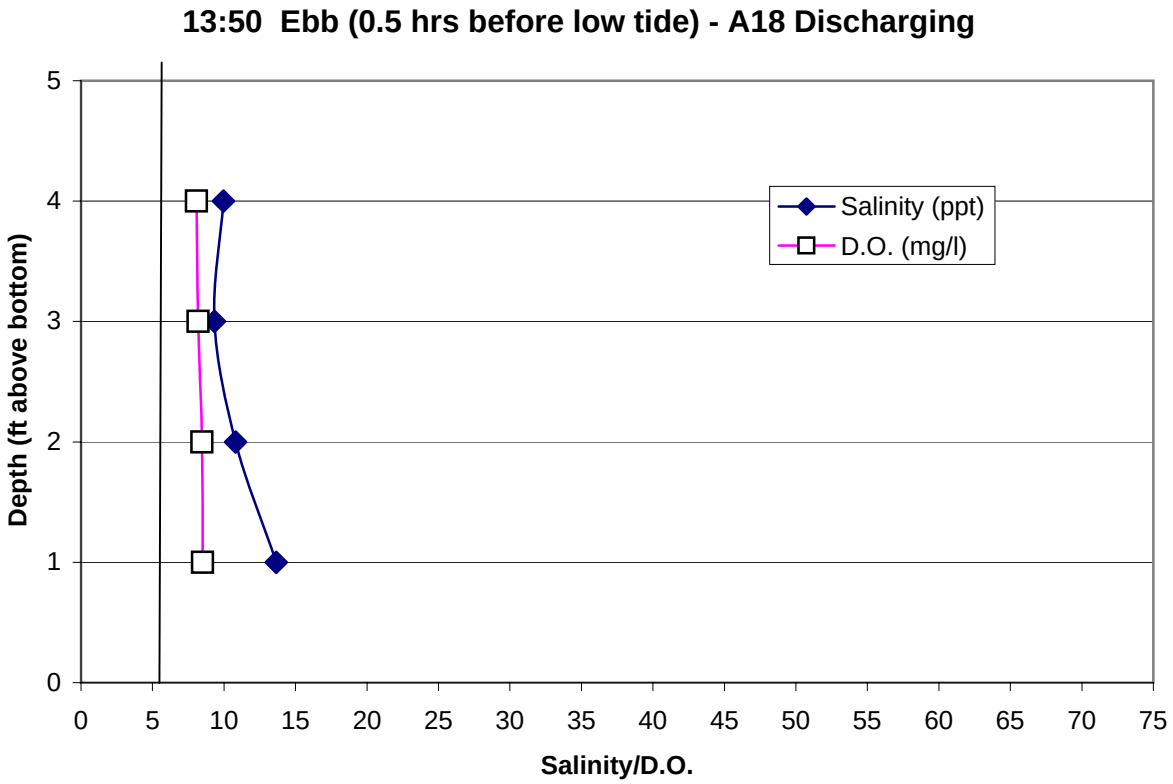




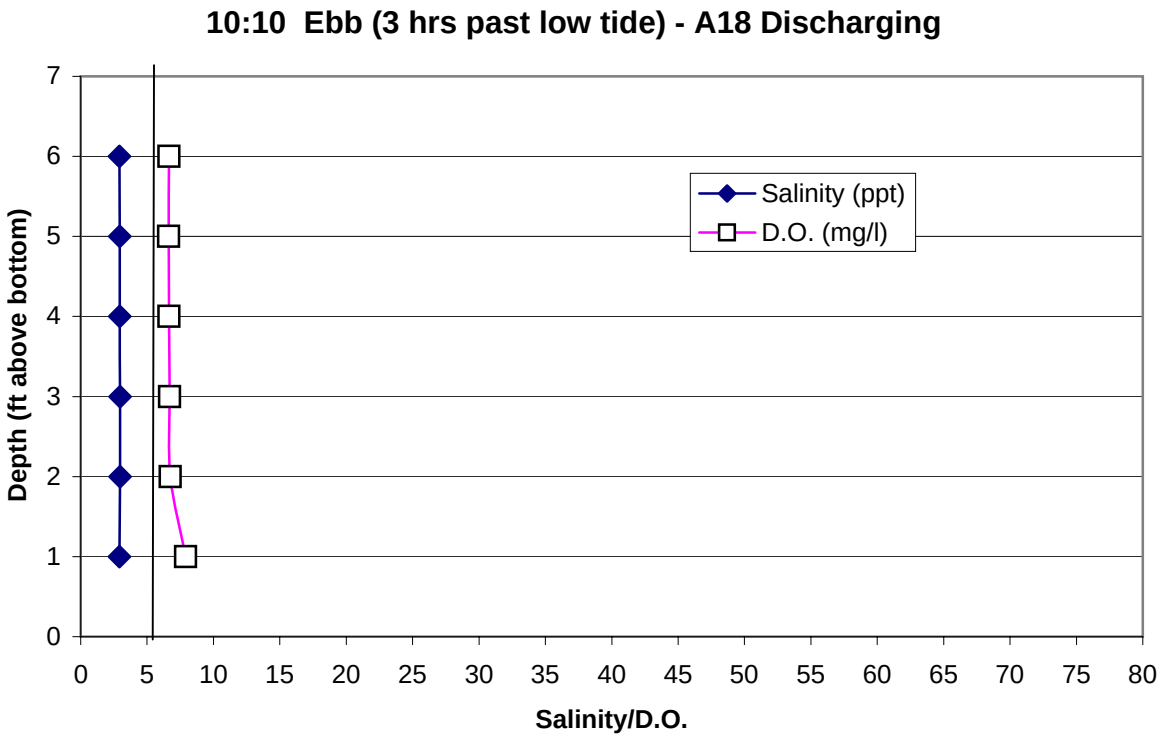
Station A18-5

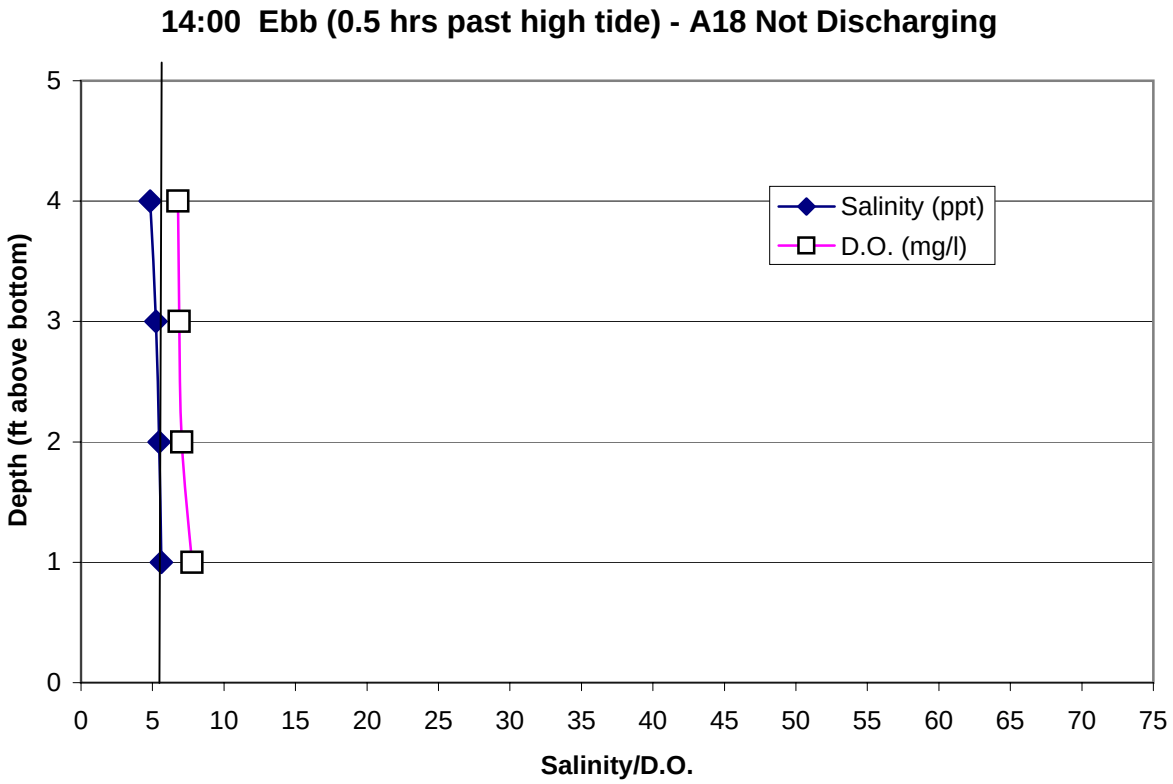
Friday, March 18, 2005



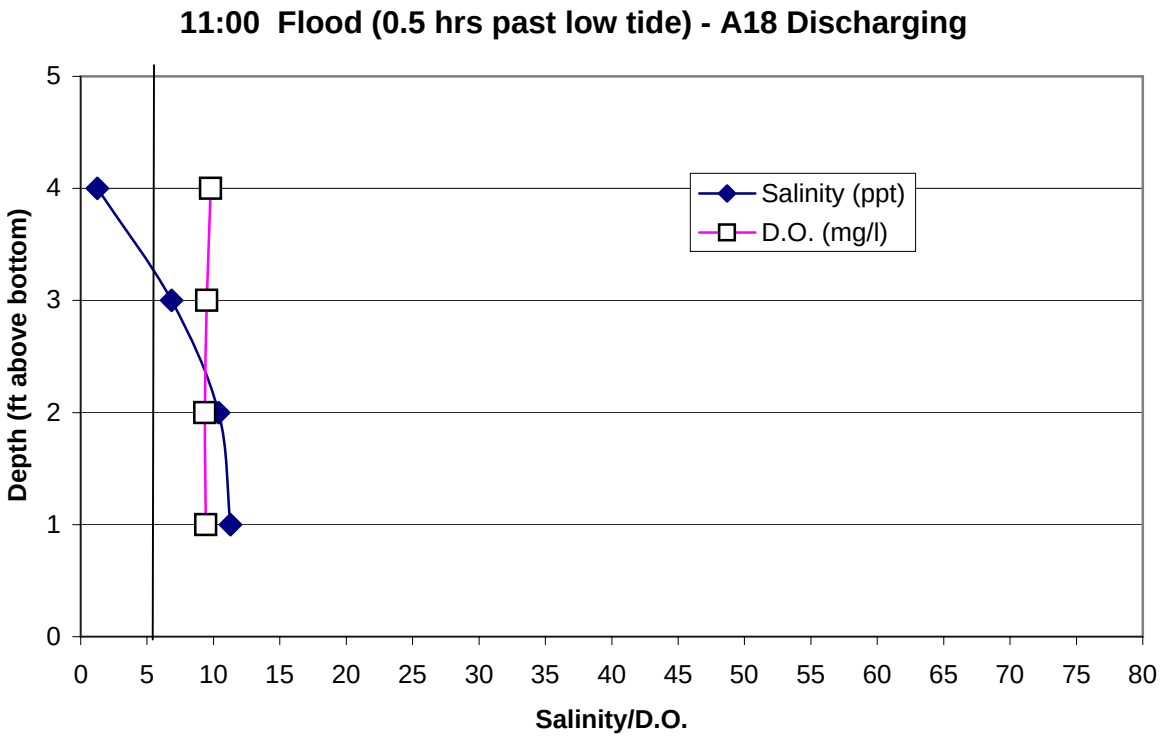


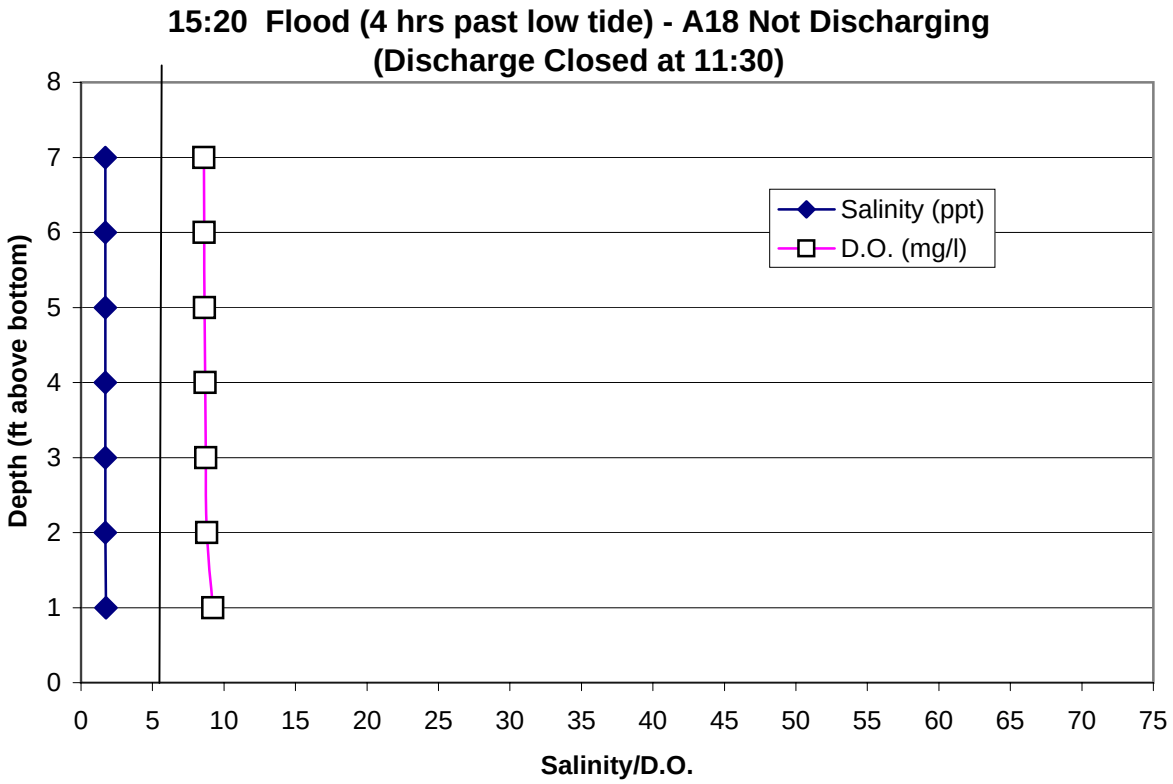
Station A18-5 Thursday, March 24, 2005





Station A18-5 Wednesday, March 30, 2005





Appendix 2-A

Monthly Discrete Water Quality Monitoring in Artesian Sough during the Continuous Circulation Period, May 10 to October 31, 2005

Stations 1-2

Monitoring Event During Continuous Circulation Period - Artesian Slough at A-A18-1

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Prior to Initiation of Continuous Circulation															
Upstream of A18 So Discharge	No	Ebb	8	7	5/2/2005	10:23	22.57	1.09	0.71	0.54	81.4	7.02	7.19	0.80	125.6
		(1.5 hrs past high)		6	5/2/2005					0.55		6.97			
				5	5/2/2005					0.56		6.93			
				4	5/2/2005	10:21	22.54	1.27	0.83	0.64	79.8	6.89	7.24		120.0
				3	5/2/2005					1.30		6.83			
				2	5/2/2005					2.33		6.42			
				1	5/2/2005	10:24	21.34	14.15	9.20	8.21	70.2	5.93	7.57	2.5	137.2
	Air Temp = 18.0^{o}C, Humidity = 49%, Barometer = 30.06 in Hg, Light Rain														
Upstream of A18 So Discharge	Yes	Ebb	4	3	5/2/2005	14:43	23.24	1.25	0.81	0.62	103.6	8.82	7.35	0.7	224.2
		(1 hr before low)		2	5/2/2005	14:42	23.25	1.24	0.81	0.62	104.1	8.85	7.37		230.8
				1	5/2/2005	14:41	23.24	1.26	0.82	0.63	104.1	8.86	7.41	6.2	246.0
1 Week after Initiation of Continuous Circulation															
Upstream of A18 So Discharge	No	Slack	7	6	5/17/2005	9:35	22.90	1.21	0.79	0.60	89.6	7.68	7.33	0.75	83.3
		(high tide)		5	5/17/2005					0.63		7.54			
				4	5/17/2005	9:34	22.88	1.30	0.84	0.65	86.0	7.37	7.38		89.1
				3	5/17/2005					0.80		7.25			
				2	5/17/2005					4.50		6.65			
				1	5/17/2005	9:31	21.75	33.45	21.74	20.99	62.9	4.89	8.25	6.1	135.5
	Air Temp = 19.5^{o}C, Humidity = 48%, Barometer = 29.74 in Hg, Overcast														
Upstream of A18 So Discharge	Yes	Ebb	5	4	5/17/2005	13:31	23.18	1.22	0.79	0.61	102.0	8.69	7.45	0.87	96.7
		(1.5 hrs before low)		3	5/17/2005					0.65		8.69			
				2	5/17/2005	13:30	23.16	1.39	0.91	0.70	102	8.69	7.51		92.4
				1	5/17/2005	13:29	22.98	9.47	6.15	5.32	102	8.49	7.61	1.2	104.1
1 Month after Initiation of Continuous Circulation															
Upstream of A18 So Discharge	No	Ebb	7	6	6/14/2005	9:22	24.48	1.30	0.84	0.65	84.8	7.05	7.19	0.80	152.5
		(2 hrs past high)		5	6/14/2005					0.69		7.01			
				4	6/14/2005					1.34		6.79			
				3	6/14/2005	9:20	24.21	13.90	9.03	8.03	71.7	5.74	7.58		177.0
				2	6/14/2005					19.00		4.80			
				1	6/14/2005	9:19	23.92	32.23	20.95	20.12	62.1	4.67	8.11	12	196.8
	Time = 08:45, Air Temp = 20.0^{o}C, Humidity = 53%, Barometer = 29.83 in Hg, Sunny														
Upstream of A18 So Discharge	Yes	Ebb	4	3	6/14/2005	12:35	25.10	1.280	0.832	0.64	88.0	7.23	6.33	1.2	202.4
		(1.0 hr before low)		2	6/14/2005	12:34	25.10	1.296	0.843	0.65	87.5	7.19	6.39		202.8
				1	6/14/2005	12:33	25.13	1.405	0.913	0.70	88.0	7.23	6.54	1.4	201.6

Monitoring Event During Continuous Circulation Period - Artesian Slough at A-A18-1

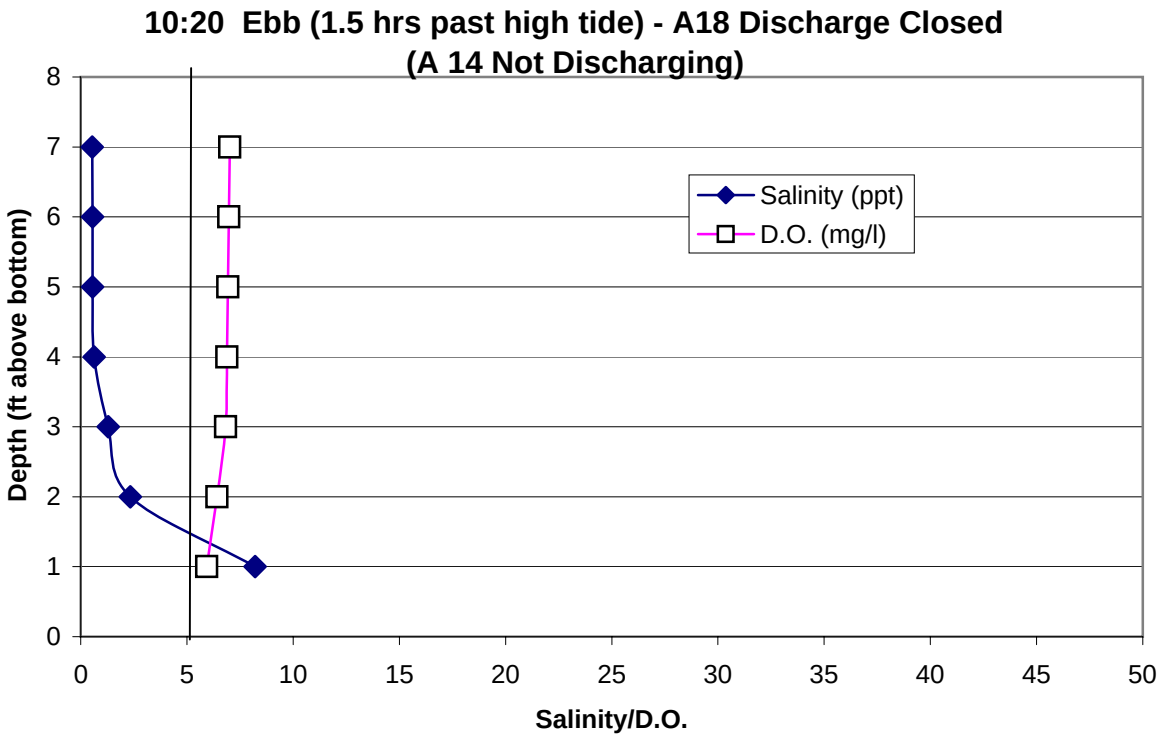
Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
2 Months after Initiation of Continuous Circulation															
Upstream of A18 So Discharge	No	Slack	8	7	7/6/2005	16:56	25.70	1.24	0.81	0.62	95.6	7.77	7.25	0.7	144.5
		(high tide)		6	7/6/2005					0.62		7.79			
				5	7/6/2005					0.64		7.77			
				4	7/6/2005	16:55	25.71	1.31	0.85	0.65	95.5	7.76	7.28		147.1
				3	7/6/2005					0.71		7.77			
				2	7/6/2005					0.90		7.76			
				1	7/6/2005	16:53	25.68	5.78	3.76	3.12	92.1	7.39	7.40	1.5	162.2
	Time = 16:37, Air Temp = 26.5^{o}C, Humidity = 62%, Barometer = 29.85 in Hg, Sunny														
Upstream of A18 So Discharge	Yes	Flood	7	6	7/6/2005	21:07	25.28	1.361	0.884	0.68	95.1	7.78	7.70	0.7	71.5
		(1.0 hr past low)		5	7/6/2005					1.50		7.62			
				4	7/6/2005					10.50		7.60			
				3	7/6/2005	21:05	25.74	29.95	19.47	18.53	101.2	7.43	8.43		86.1
				2	7/6/2005					22.10		7.46			
				1	7/6/2005	21:03	25.84	35.66	23.18	22.46	100.2	7.18	8.51	14	91.4
3 Months after Initiation of Continuous Circulation															
Upstream of A18 So Discharge	No	Flood	3	3	8/9/2005	11:31	26.48	1.22	0.79	0.60	101.1	8.06	7.34	0.70	30.3
		(0.5 hrs past low)		2	8/9/2005	11:30	26.47	1.22	0.79	0.60	100.6	8.07	7.34		27.4
				1	8/9/2005	11:29	26.47	1.21	0.78	0.60	100.6	8.10	7.32	0.84	26.7
	Time = 10:45, Air Temp = 23.5^{o}C, Humidity = 61%, Barometer = 29.85 in Hg, Sunny														
Upstream of A18 So Discharge	Yes	Flood	7	6	8/9/2005	14:13	26.79	1.240	0.806	0.61	105.8	8.43	7.47	0.7	5.1
		(3.0 hrs past low)		5	8/9/2005					0.63		8.43			
				4	8/9/2005	14:12	26.77	1.340	0.870	0.67	105.0	8.37	7.68		-1.5
				3	8/9/2005					0.84		8.17			
				2	8/9/2005					14.20		6.76			
				1	8/9/2005	14:10	25.66	31.12	20.23	19.33	69.9	5.11	8.17	15	24.6
4 Months after Initiation of Continuous Circulation															
Upstream of A18 So Discharge	No	Ebb	9	8	9/9/2005	18:38	25.82	1.60	1.04	0.80	85.7	6.95	7.20	1.7	-92.0
		(1.0 hrs past high)		7	9/9/2005					0.80		6.98			
				6	9/9/2005					0.82		6.98			
				5	9/9/2005					0.87		6.88			
				4	9/9/2005	18:37	25.71	2.18	1.42	1.11	84.1	6.82	7.31		-98.6
				3	9/9/2005					5.63		3.95			
				2	9/9/2005					5.10		4.92			
				1	9/9/2005	18:34	23.68	12.58	8.18	7.22	50.8	4.13	7.56	10	-102.2
	Time = 17:45, Air Temp = 22.2^{o}C, Humidity = 51%, Barometer = 29.85 in Hg, Sunny														
Upstream of A18 So Discharge	Yes	Ebb	4	3	9/9/2005	22:54	25.22	4.098	2.664	2.17	92.5	7.52	7.51	2.2	-95.5
		(2.0 hrs before low)		2	9/9/2005	22:52	24.00	20.820	13.530	12.46	86.3	6.77	8.16		-98.1
				1	9/9/2005	22:51	22.60	37.540	24.400	23.83	73.5	5.54	8.53	21	-88.0

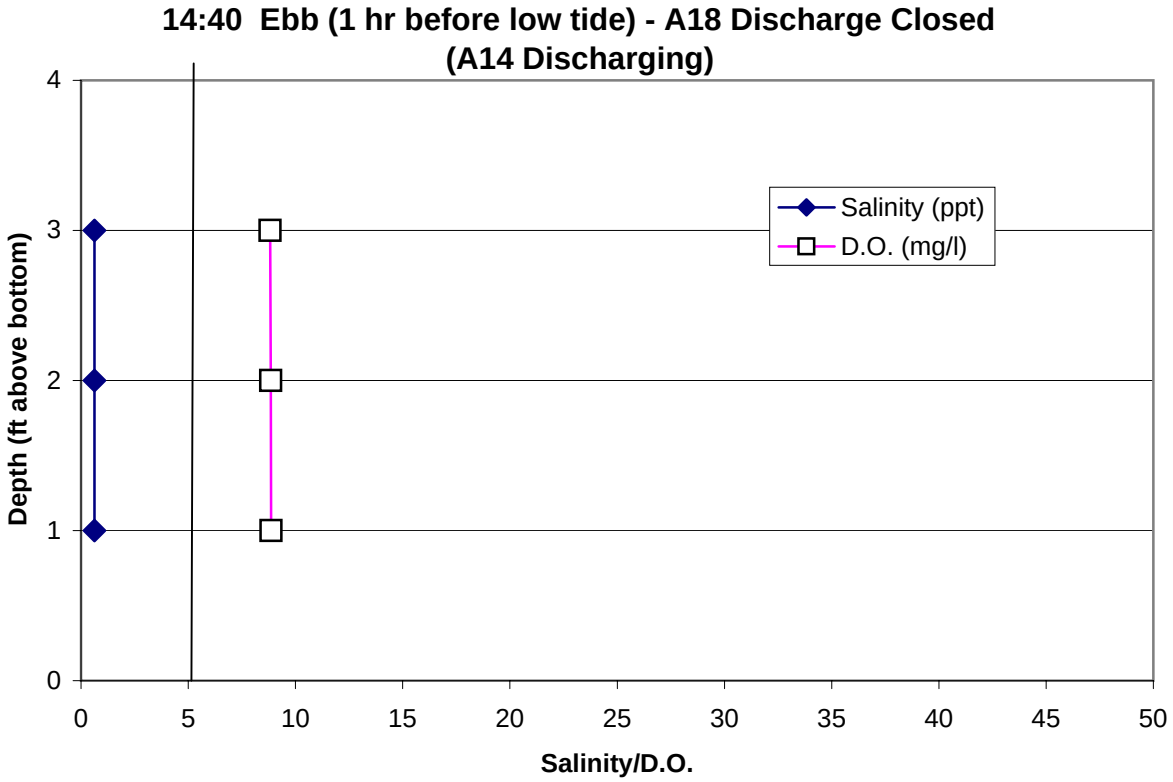
The data below was collected by the City of San Jose, Watershed Investigations using a YSI 600XL multiparameter sonde with water depth pressure sensor except for Turbidity. Turbidity was measured by collecting grab samples from the surface and bottom.

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (actual depth in ft)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
5 Months after Initiation of Continuous Circulation															
Upstream of A18 So Discharge	Yes	Slack - low	4.5	4.15	10/21/2005	10:19	24.61	1.243	0.808	0.62	93.4	7.75	7.39	3.8	-103
		(low tide)		2.92	10/21/2005	10:20	24.61	1.24	0.806	0.62	93.2	7.73	7.31		-98
				2.05	10/21/2005	10:20	24.61	1.24	0.806	0.62	93.5	7.76	7.29		-95
				1.01	10/21/2005	10:21	24.61	1.24	0.806	0.62	93.8	7.78	7.28	2.6	-93

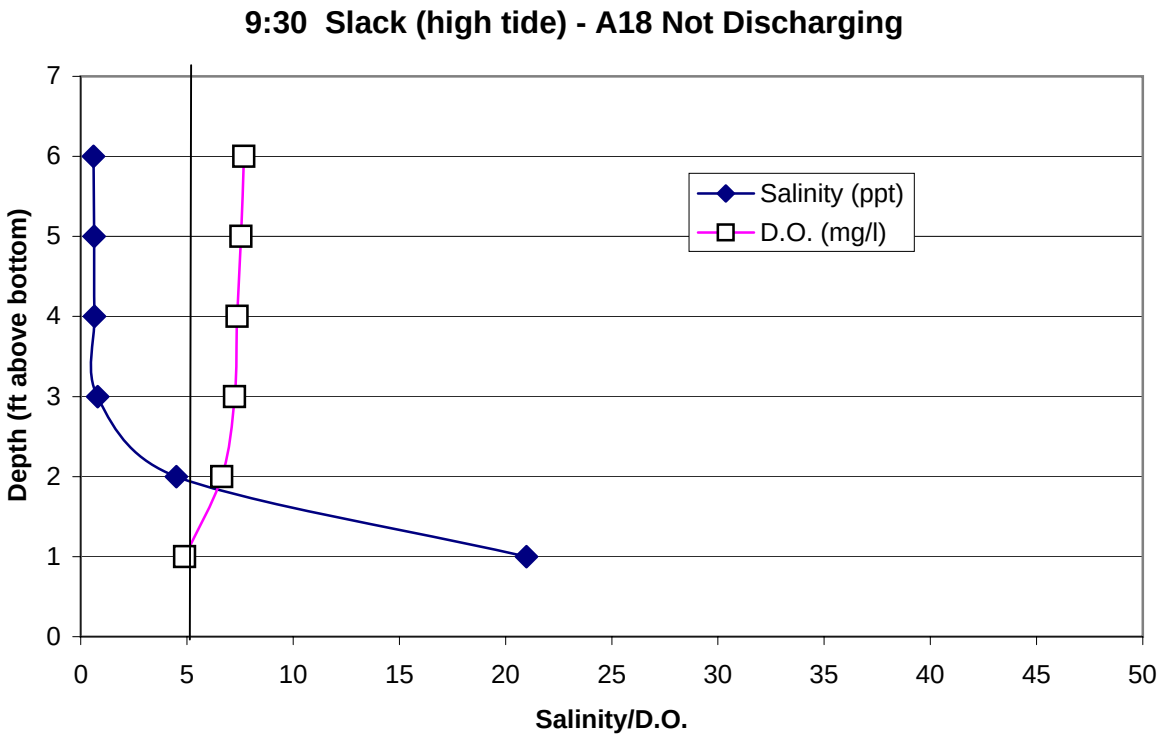
Station A18-1

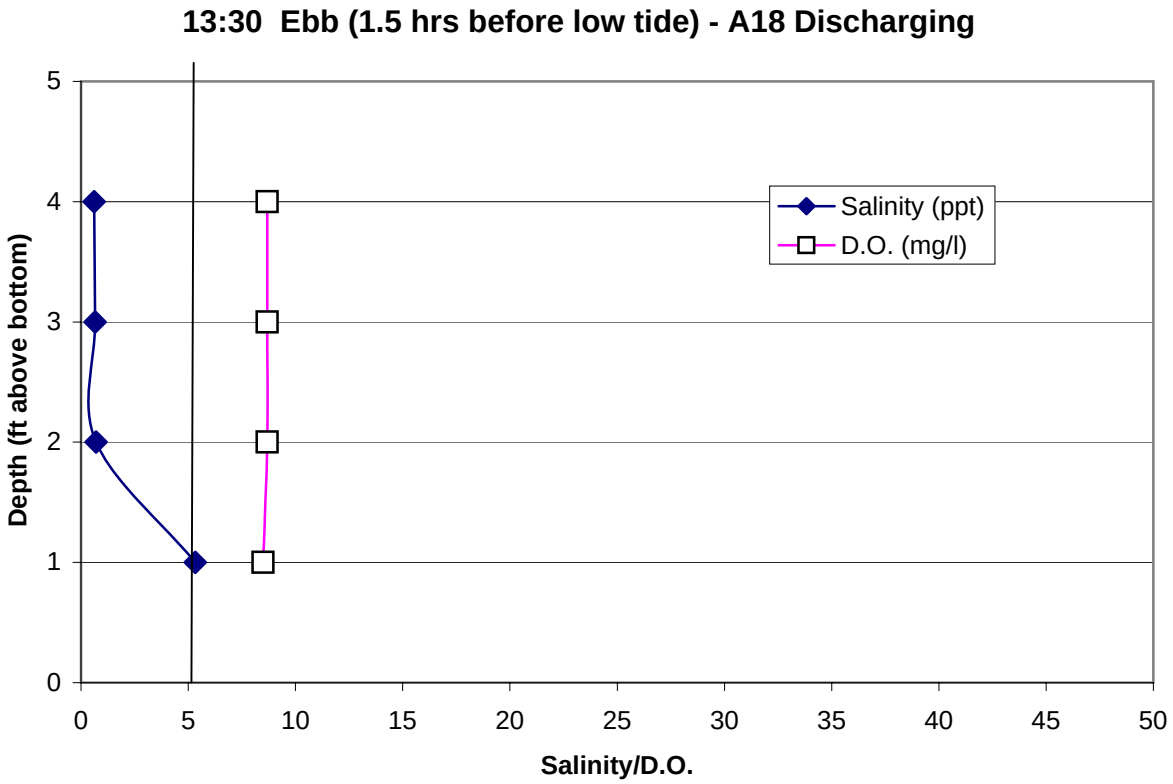
Monday, May 02, 2005



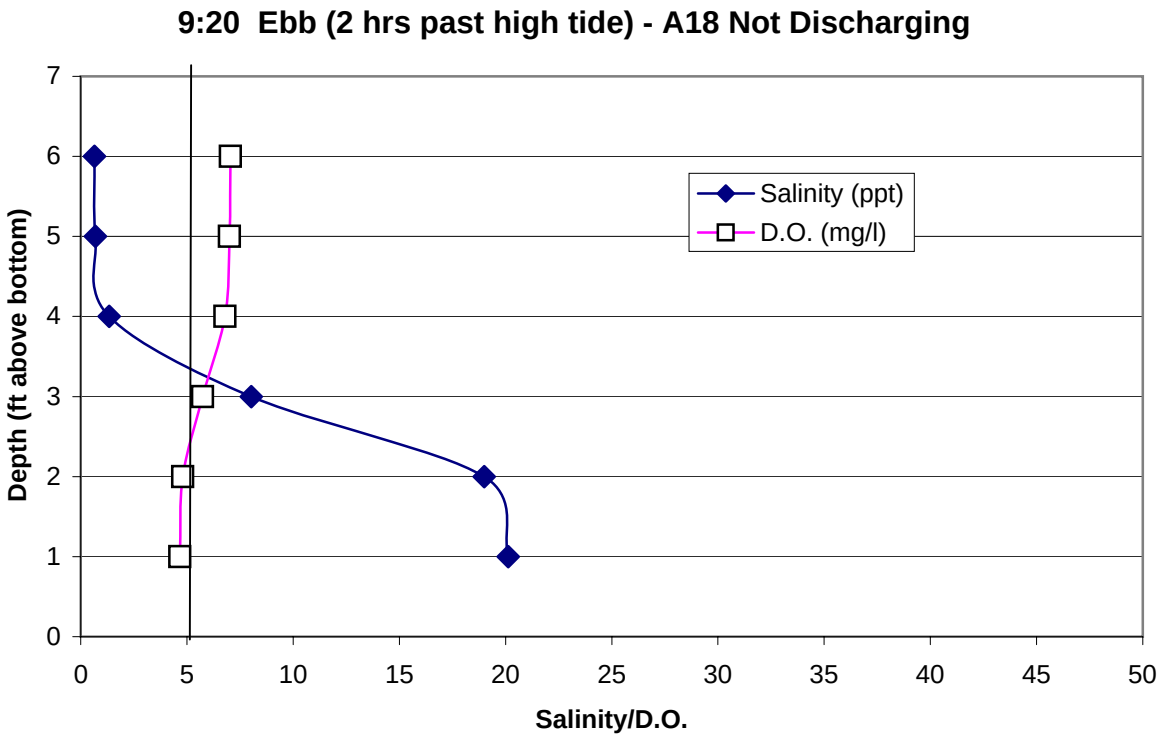


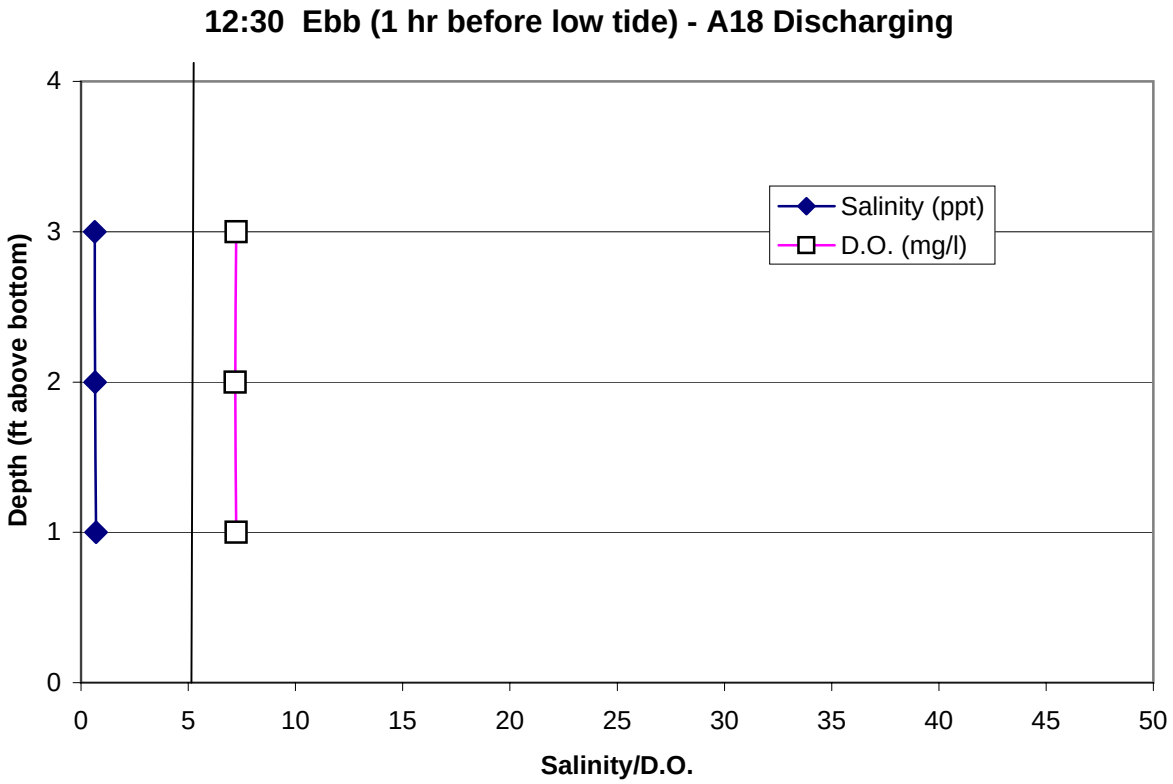
Station A18-1 Tuesday, May 17, 2005



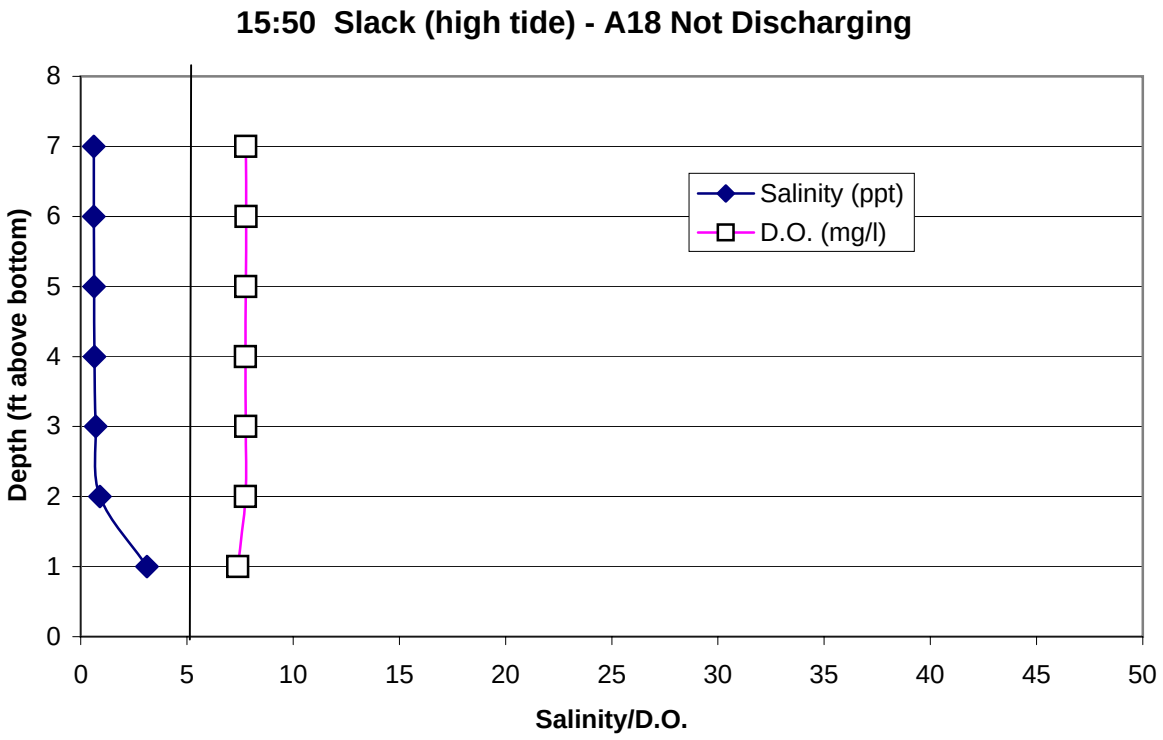


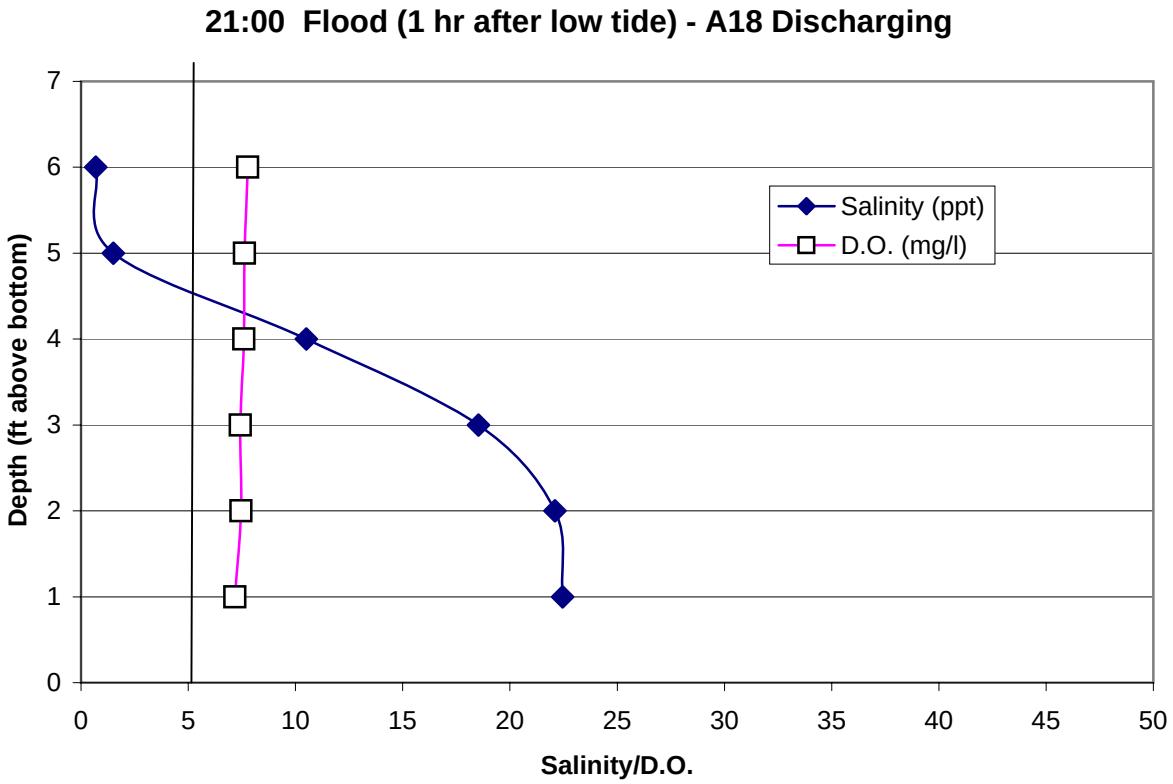
Station A18-1 Tuesday, June 14, 2005



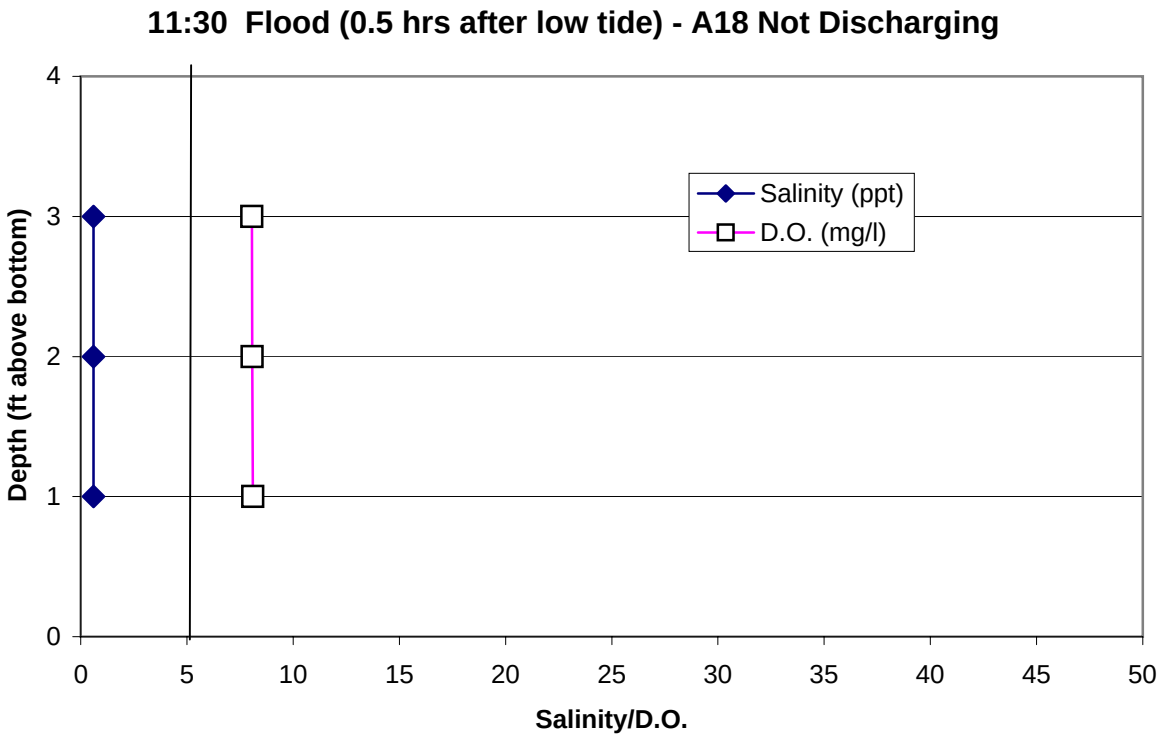


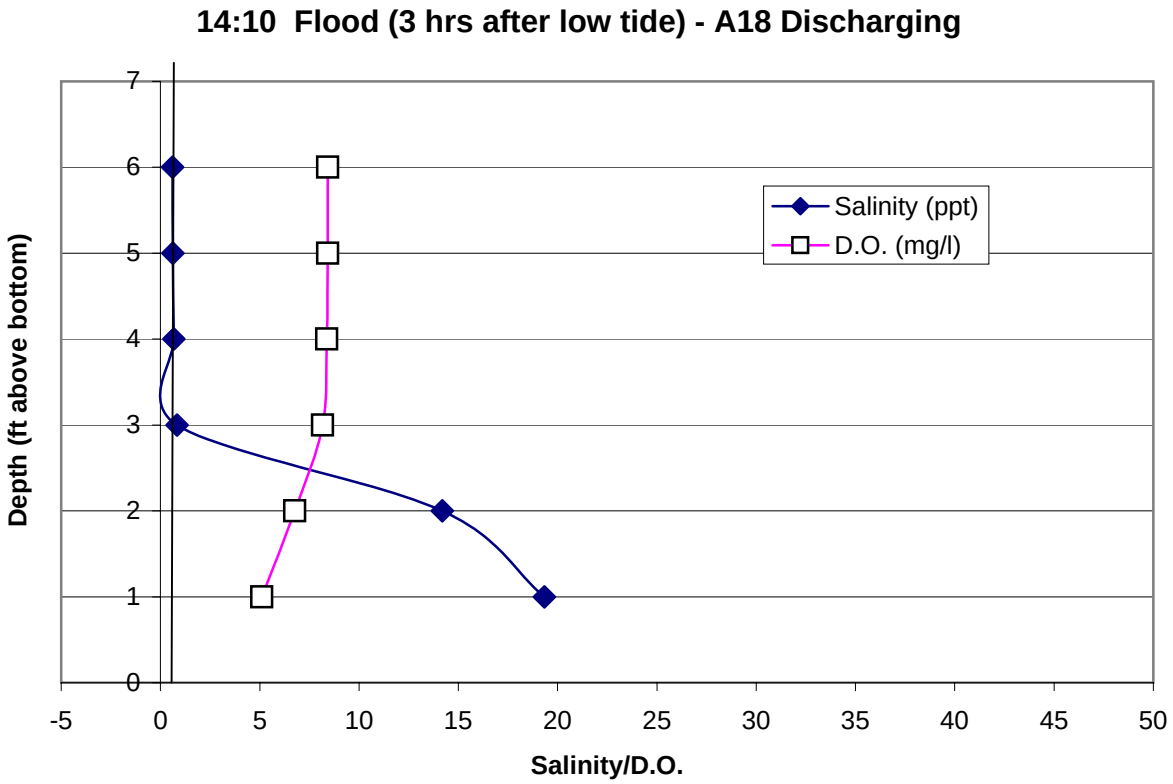
Station A18-1 Wednesday, July 06, 2005





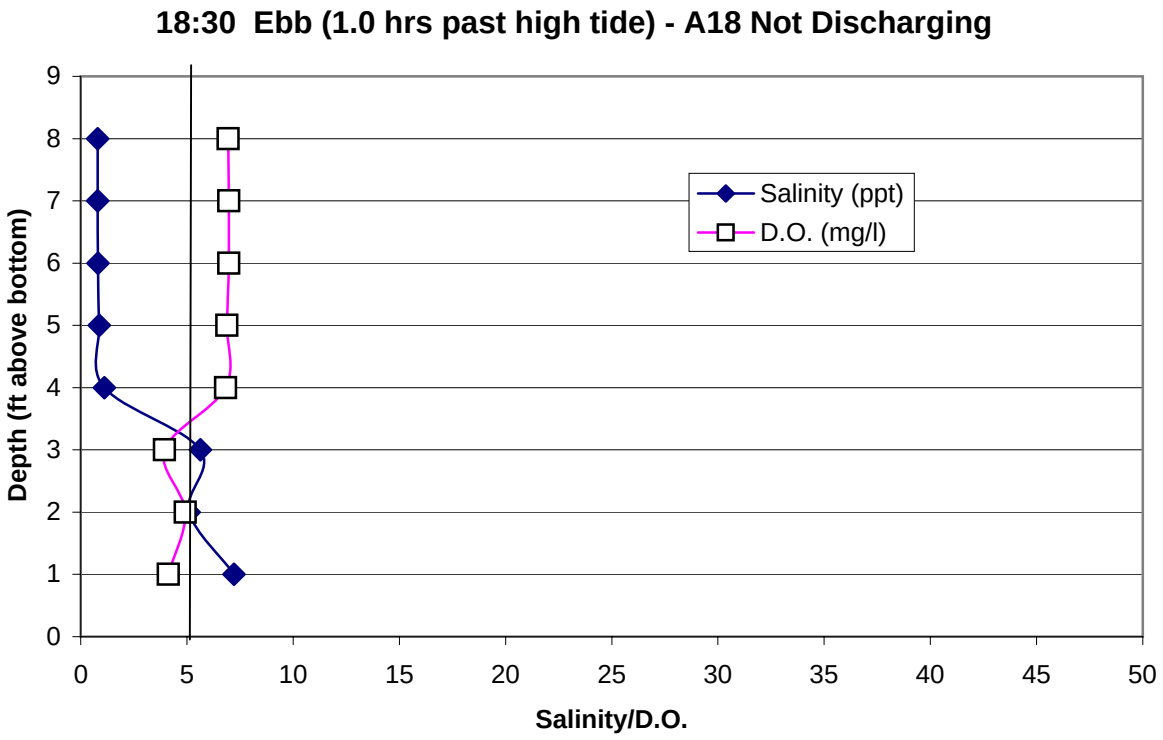
Station A18-1 Tuesday, August 09, 2005

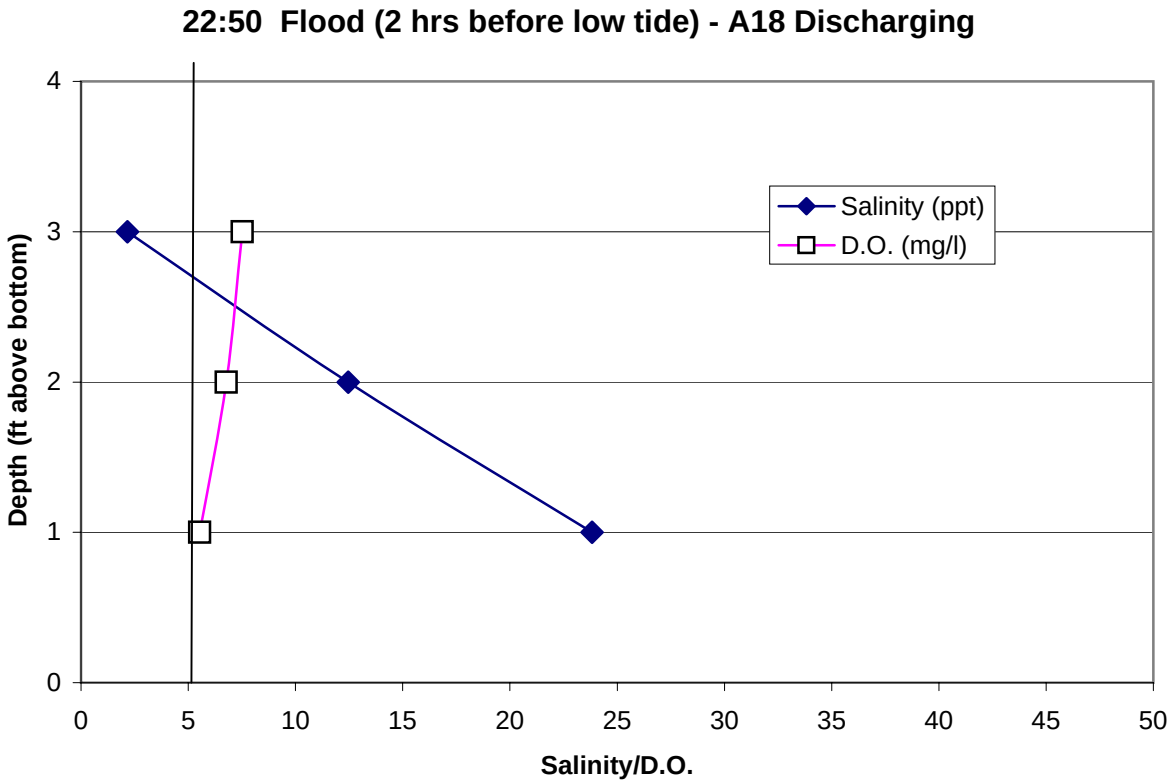




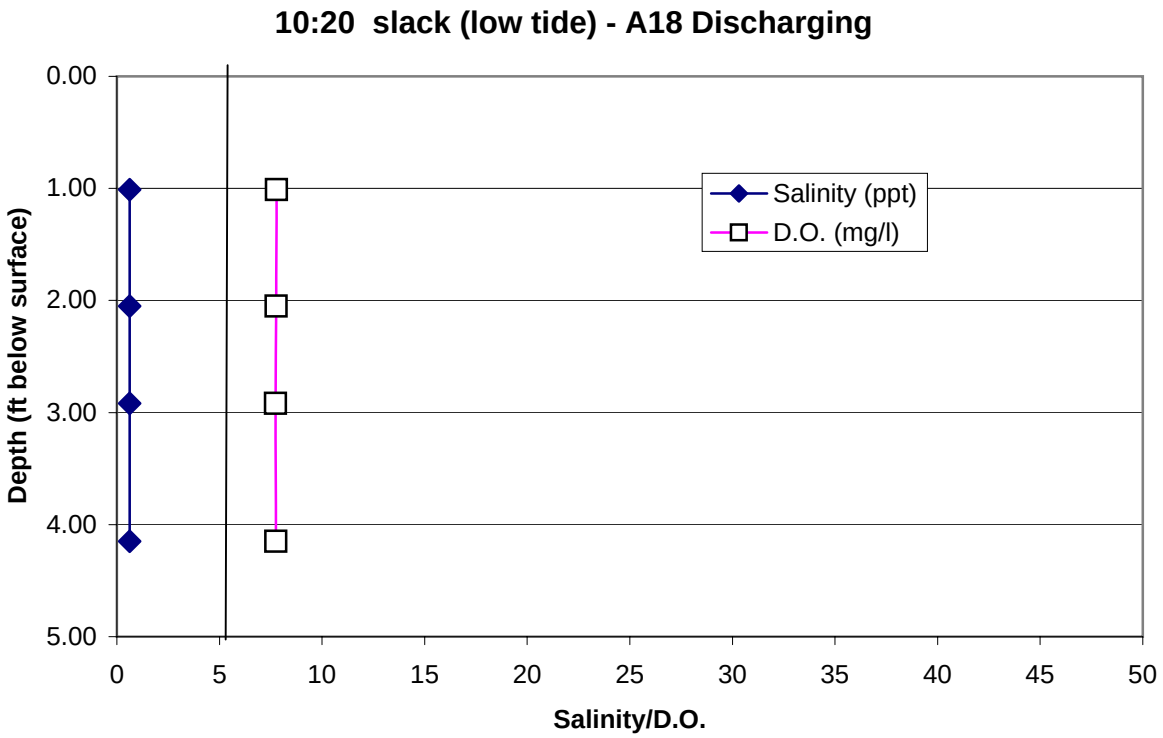
Station A18-1

Friday, September 09, 2005





Station A18-1 Friday, October 21, 2005



Monitoring Event during Continuous Circulation Period - Artesian Slough at A-A18-1.5 (midway between A18-1 and A18-2)

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Prior to Initiation of Continuous Circulation															
Between Stations 1 and 2	No	Ebb	9	8	5/2/2005	10:44	22.5	1.82	1.18	0.92	78.70	6.78	7.24		190.8
		(2 hrs after high)		7	5/2/2005					1.05		6.73			
				6	5/2/2005					2.30		6.71			
				5	5/2/2005					2.53		7.26			
				4	5/2/2005	10:42	21.96	5.48	3.56	2.97	77.00	6.62	7.31		217.6
				3	5/2/2005					3.58		6.56			
				2	5/2/2005					6.00		6.48			
				1	5/2/2005	10:40	21.41	11.90	7.73	6.81	78.30	6.66	7.47		266.5
		Air Temp = 16.5^{o}C, Humidity = 70%, Barometer = 29.94 in Hg, Scattered clouds/sunny													
Between Stations 1 and 2	Yes	Slack	5	4	5/2/2005	14:56	23.35	1.73	1.12	0.87	106.4	9.03	7.52		195.7
		(low tide)		3	5/2/2005					2.70		8.93			
				2	5/2/2005	14:55	23.35	5.87	3.81	3.18	106.1	8.87	7.58		223.0
				1	5/2/2005	14:54	23.36	21.85	14.21	13.15	105.4	8.33	8.28		289.0
1 Week after Initiation of Continuous Circulation															
Between Stations 1 and 2	No	Slack	9	8	5/17/2005	9:54	22.84	1.797	1.168	0.91	87.9	7.52	7.36		93.5
		(high tide)		7	5/17/2005					1.25		7.42			
				6	5/17/2005					1.92		7.24			
				5	5/17/2005					1.95		7.16			
				4	5/17/2005	9:52	22.43	4.199	2.729	2.23	82.1	7.03	7.52		98.3
				3	5/17/2005					2.65		6.87			
				2	5/17/2005					9.75		6.50			
				1	5/17/2005	9:50	21.05	29.87	19.41	18.53	78.8	6.30	8.36		136.5
	Air Temp = 19.5^{o}C, Humidity = 48%, Barometer = 29.74 in Hg, Overcast														
Between Stations 1 and 2	Yes	Ebb	6	4	5/17/2005	13:43	23.13	4.53	2.95	2.42	105.2	8.88	7.44		125.4
		(1 hr before low)		3	5/17/2005	13:42	23.03	7.70	5.00	4.26	107.5	9.00	7.56		135.6
				2	5/17/2005					7.11		9.49			
				1	5/17/2005	13:41	22.09	29.61	19.24	18.35	116.9	9.17	8.44		171.4
1 Month after Initiation of Continuous Circulation															
Between Stations 1 and 2	No	Ebb	7	6	6/14/2005	9:39	24.48	2.558	1.663	1.32	76.2	6.31	7.22		147.2
		(2 hrs past high)		5	6/14/2005					2.90		6.20			
				4	6/14/2005	9:37	23.95	6.137	3.989	3.34	71.9	5.95	7.28		158.8
				3	6/14/2005					4.00		5.80			
				2	6/14/2005					9.38		5.25			
				1	6/14/2005	9:33	23.78	29.87	19.42	18.51	60.9	4.63	8.22		188.2
	Time = 08:45, Air Temp = 20.0^{o}C, Humidity = 53%, Barometer = 29.83 in Hg, Sunny														
Between Stations 1 and 2	Yes	Ebb	6	4	6/14/2005	12:51	25.2	6.36	4.13	3.46	103.2	8.33	7.59		150.2
		(1 hr before low)		3	6/14/2005	12:50	25.21	11.68	7.59	6.65	104.2	8.26	7.80		160.0
				2	6/14/2005					13.10		8.12			
				1	6/14/2005	12:49	25.36	27.44	17.84	16.83	99.1	7.40	8.42		187.1

Monitoring Event during Continuous Circulation Period - Artesian Slough at A-A18-1.5 (midway between A18-1 and A18-2)

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
2 Months after Initiation of Continuous Circulation															
Between Stations 1 and 2	No	Ebb	9	8	7/6/2005	17:16	25.79	2.291	20.88	1.17	97.0	7.85	7.40		137.0
		(1 hr past high)		7	7/6/2005					2.53		8.32			
				6	7/6/2005					2.66		8.45			
				5	7/6/2005					2.83		8.57			
				4	7/6/2005	17:14	26.24	6.332	4.116	3.44	109.0	8.64	7.69		147.4
				3	7/6/2005					4.92		8.61			
				2	7/6/2005					5.43		8.36			
				1	7/6/2005	17:12	26.13	13.13	8.533	7.54	97.6	7.57	7.94		171.1
	Time = 16:37, Air Temp = 26.5^{o}C, Humidity = 62%, Barometer = 29.85 in Hg, Sunny														
Between Stations 1 and 2	Yes	Flood	5	4	7/6/2005	21:19	25.17	5.888	3.827	3.19	94.9	7.67	7.57		95.5
		(I hr past low)		3	7/6/2005	21:18	25.48	9.805	6.373	5.51	96.8	7.69	8.11		91.8
				2	7/6/2005					16.93		7.38			
				1	7/6/2005	21:16	25.78	32.12	1.489	20.01	101.3	7.37	8.76		102.7
3 Months after Initiation of Continuous Circulation															
Between Stations 1 and 2	No	Flood	5	4	8/9/2005	11:43	26.50	1.274	0.83	0.63	100.4	8.04	7.39		54.3
		(0.5 hrs past low)		3	8/9/2005	11:42	26.49	1.277	0.83	0.63	100.5	8.05	7.39		60.9
				2	8/9/2005					0.64		7.86			
				1	8/9/2005	11:41	26.43	1.297	0.84	0.64	99.6	7.99	7.31		89.4
	Time = 10:45, Air Temp = 23.5^{o}C, Humidity = 61%, Barometer = 29.85 in Hg, Sunny														
Between Stations 1 and 2	Yes	Flood	9	8	8/9/2005	14:25	27.03	1.437	0.934	0.72	100.4	7.96	7.52		10.5
		(3 hrs past low)		7	8/9/2005					0.82		7.15			
				6	8/9/2005					1.06		7.06			
				5	8/9/2005					1.24		7.01			
				4	8/9/2005	14:23	26.37	3.063	1.991	1.59	84.7	6.77	7.63		11.4
				3	8/9/2005					2.00		6.92			
				2	8/9/2005					14.20		6.51			
				1	8/9/2005	14:21	25.66	30.50	19.830	18.90	71.4	5.24	8.26		40.5

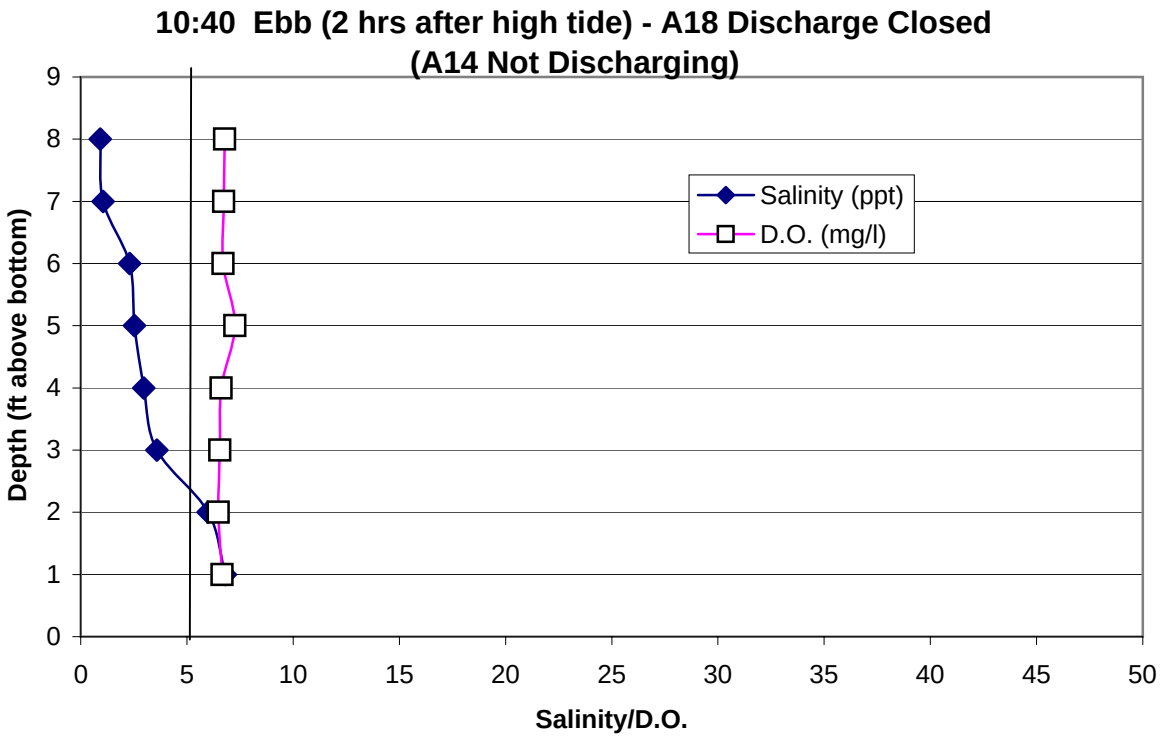
Monitoring Event during Continuous Circulation Period - Artesian Slough at A-A18-1.5 (midway between A18-1 and A18-2)

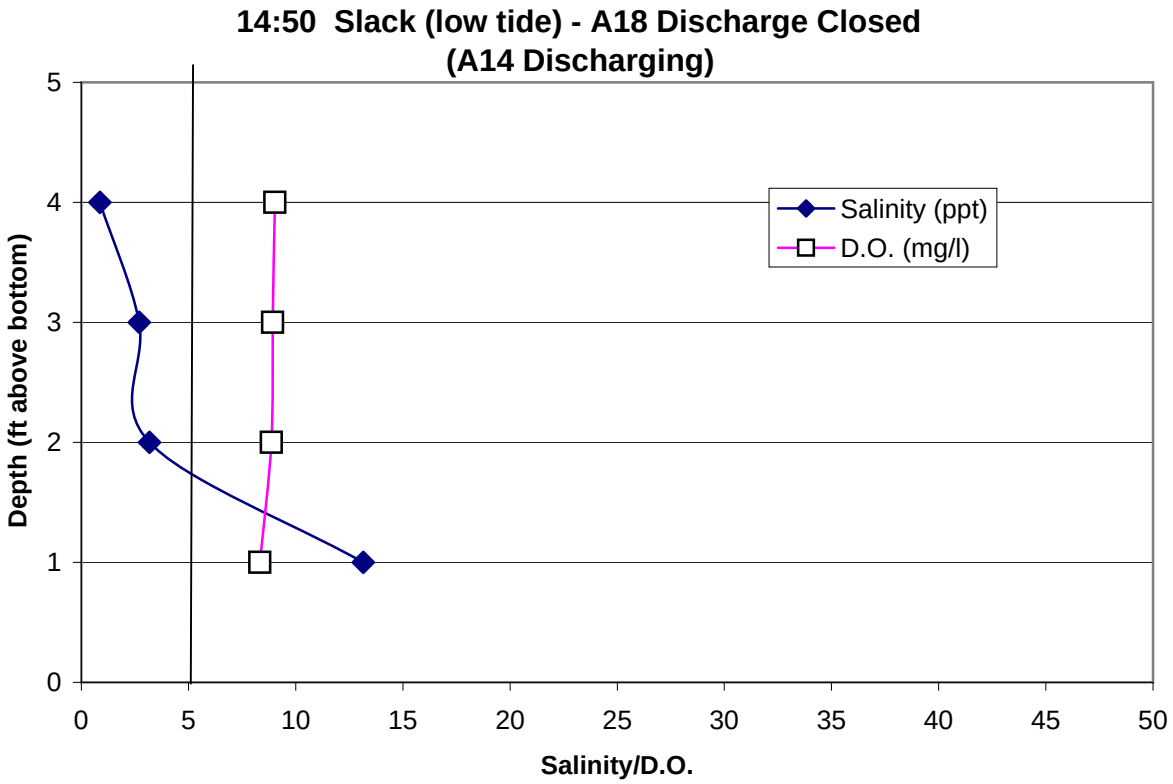
Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
4 Months after Initiation of Continuous Circulation															
Between Stations 1 and 2	No	Ebb	11	10	9/9/2005	18:51	25.64	2.171	1.41	1.11	85.8	6.97	7.19		-105.4
		(1.5 hrs past high)		9	9/9/2005					1.56		7.10			
				8	9/9/2005					1.80		7.48			
				7	9/9/2005					1.87		7.54			
				6	9/9/2005					2.12		7.19			
				5	9/9/2005	18:48	25.22	4.796	3.12	2.56	88.4	7.17	7.33		-105.3
				4	9/9/2005					4.16		5.95			
				3	9/9/2005					5.86		4.73			
				2	9/9/2005					7.60		4.07			
				1	9/9/2005	18:45	23.54	13.960	9.08	8.08	47.8	3.88	7.46		-93.4
	Time = 17:45, Air Temp = 22.2^{o}C, Humidity = 51%, Barometer = 29.85 in Hg, Sunny														
Between Stations 1 and 2	Yes	Ebb	5	4	9/9/2005	23:03	24.79	8.987	5.842	5.02	87.1	7.02	7.65		-120.8
		(1.5 hrs before low)		3	9/9/2005					7.15		6.60			
				2	9/9/2005	23:02	23.56	25.730	16.720	15.71	82.3	6.39	8.23		-123.9
				1	9/9/2005	23:01	22.92	34.110	22.170	21.43	76.0	5.77	8.42		-115.7

The data below was collected by the City of San Jose, Watershed Investigations using a YSI 600XL multiparameter sonde with water depth pressure sensor

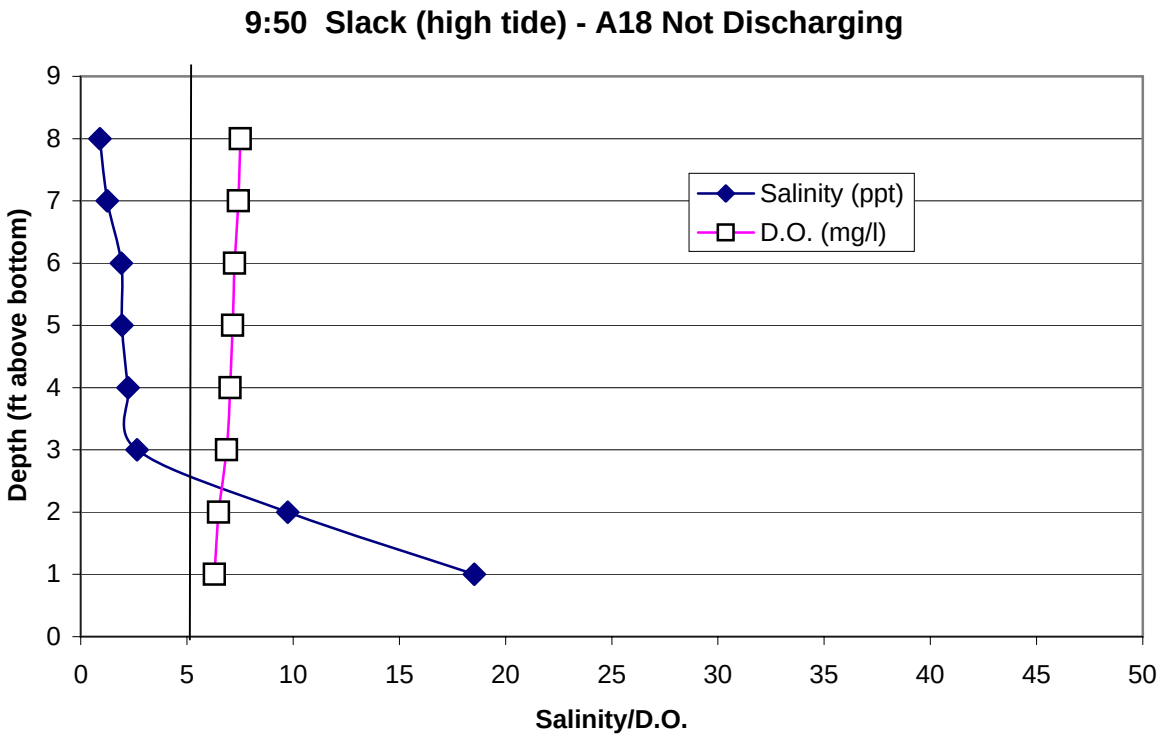
Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (actual depth in ft)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
5 Months after Initiation of Continuous Circulation															
Between Stations 1 and 2	Yes	Slack	5	4.669	10/21/2005	10:43	21.46	9.07	5.896	5.09	87.8	7.53	7.51		-65
		(low tide)		3.605	10/21/2005	10:43	21.76	6.945	4.514	3.82	85.7	7.36	7.68		-69
				2.641	10/21/2005	10:44	23.1	4.518	2.936	2.41	87	7.35	7.75		-79
				1.7	10/21/2005	10:44	24.14	2.519	1.637	1.3	90.3	7.52	7.74		-89
				0.513	10/21/2005	10:44	24.47	1.597	1.038	0.8	92.2	7.66	7.68		-93

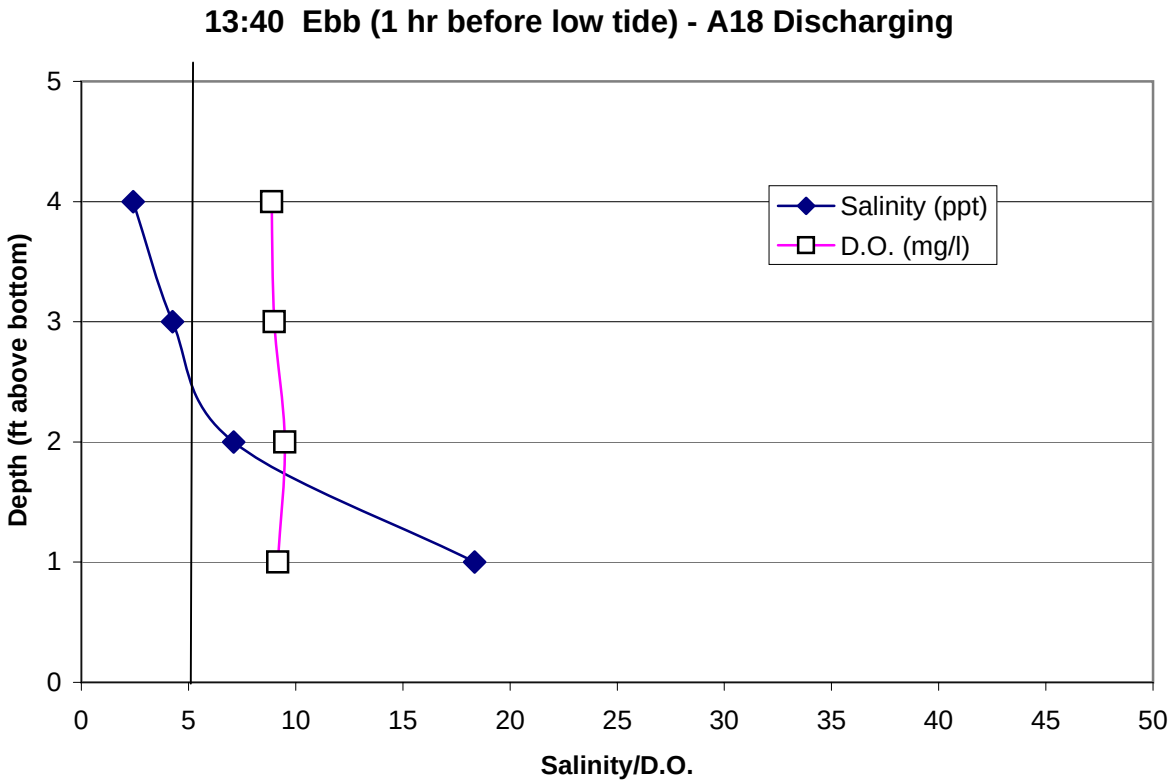
Station A18-1.5 Monday, May 02, 2005



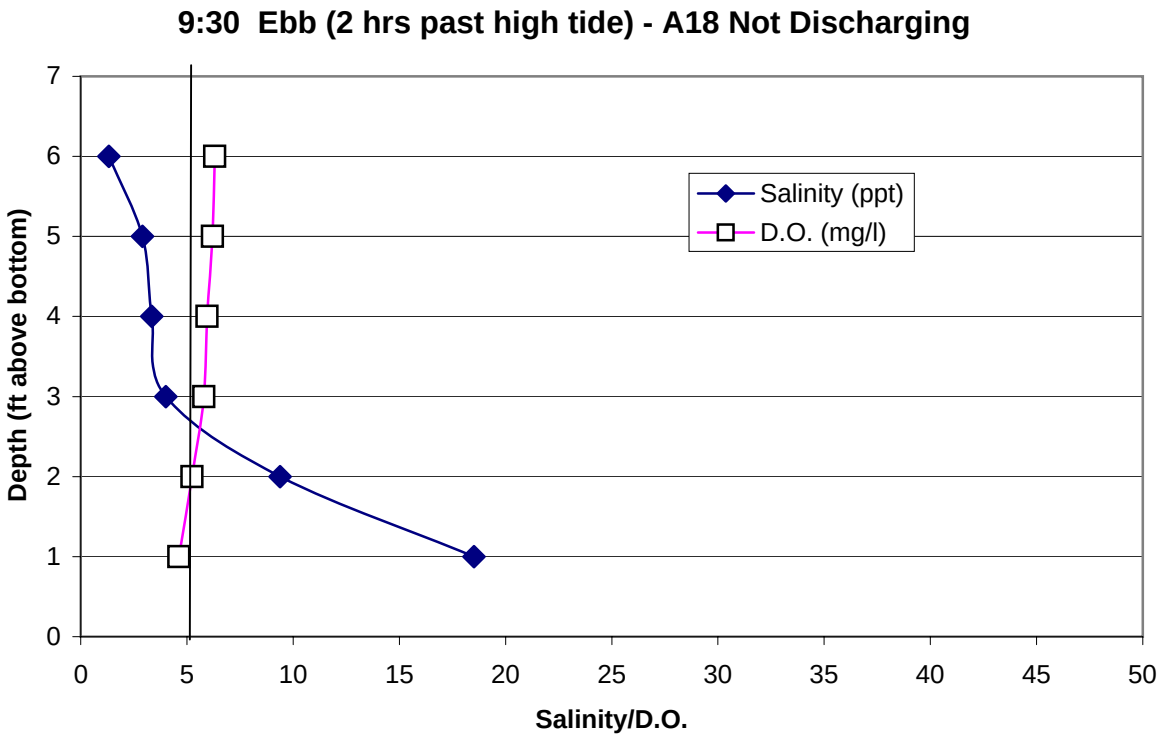


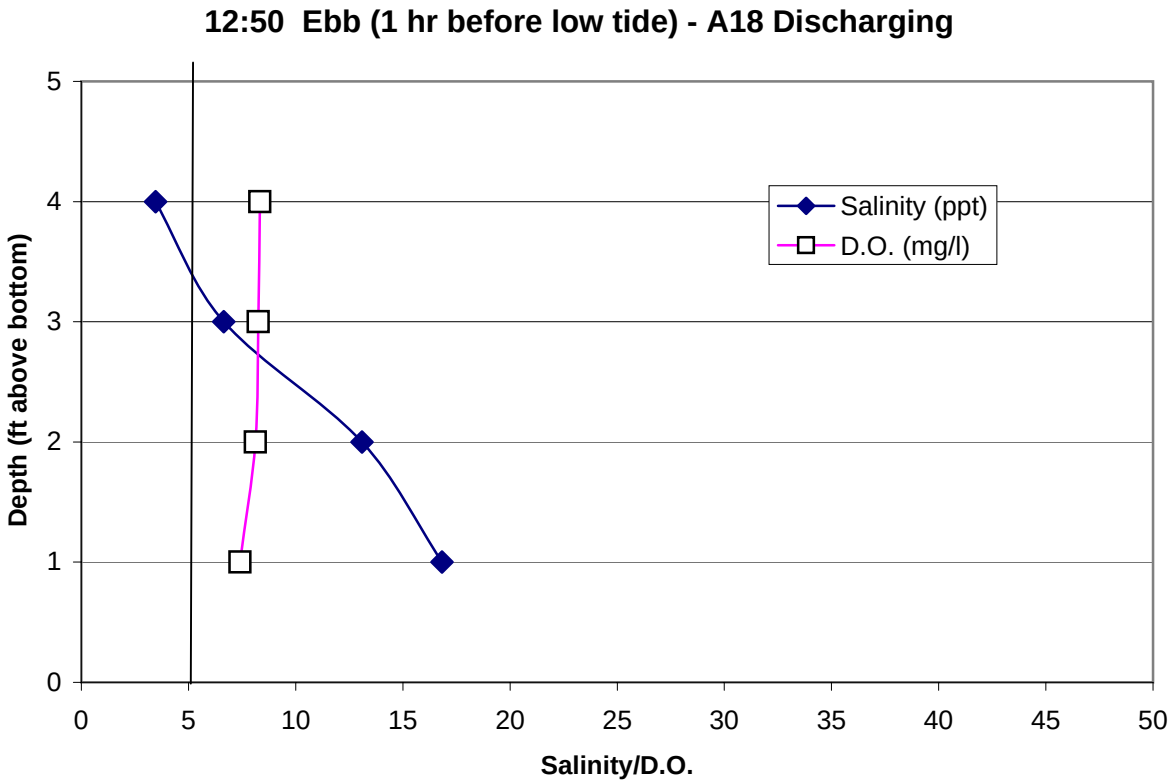
Station A18-1.5 Tuesday, May 17, 2005



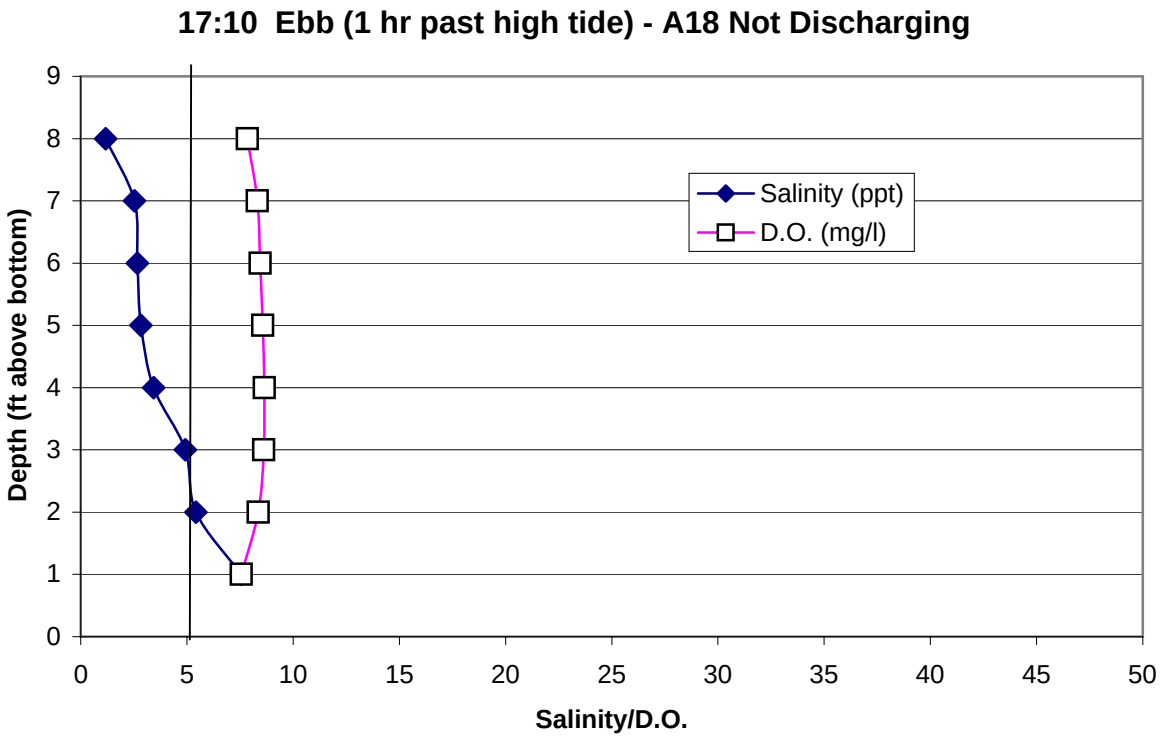


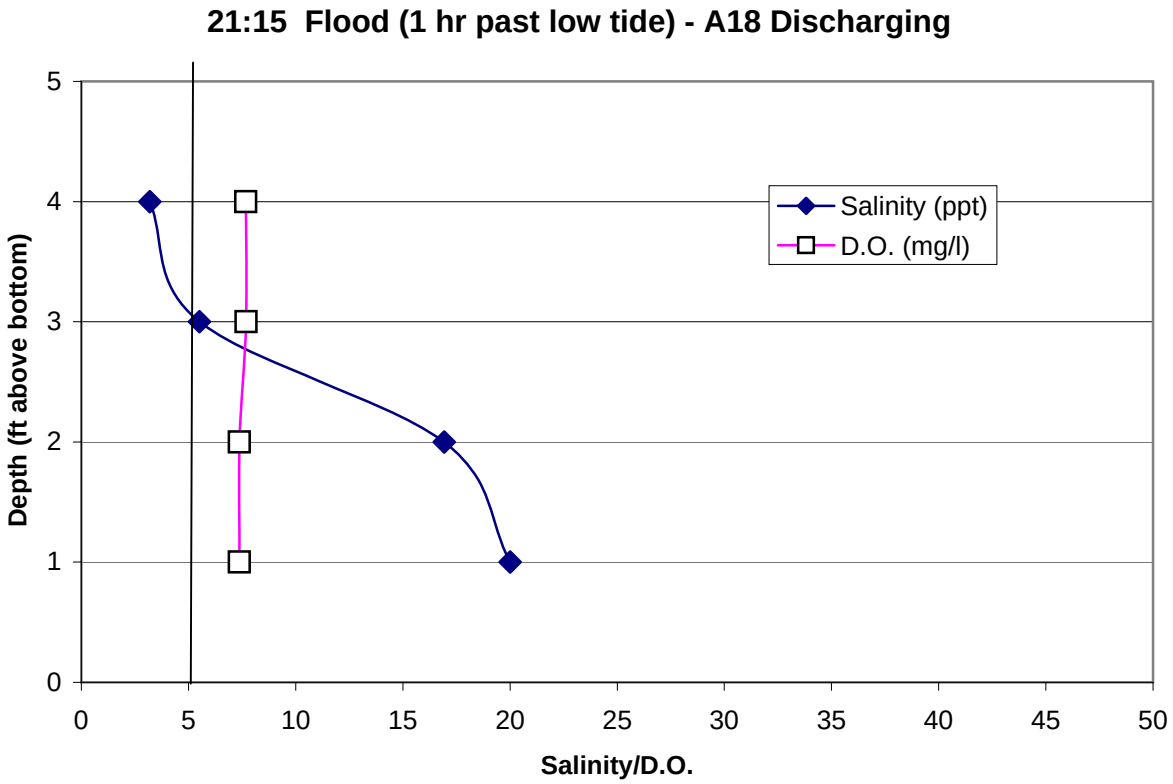
Station A18-1.5 Tuesday, June 14, 2005



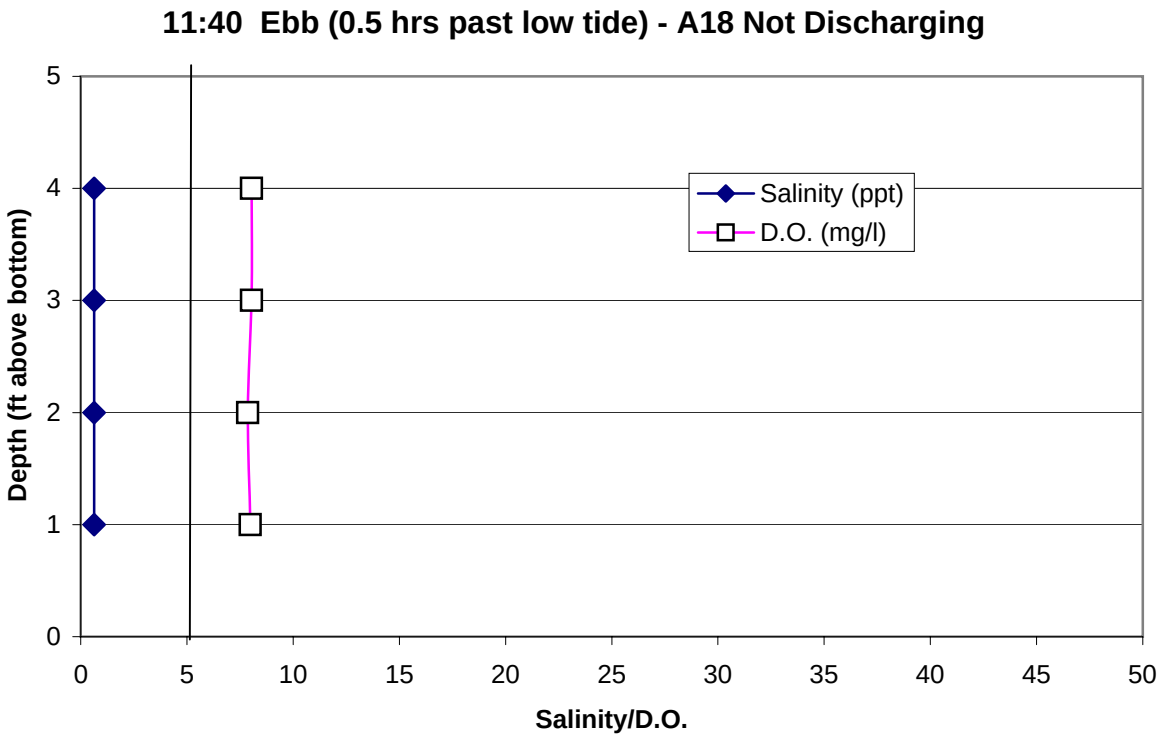


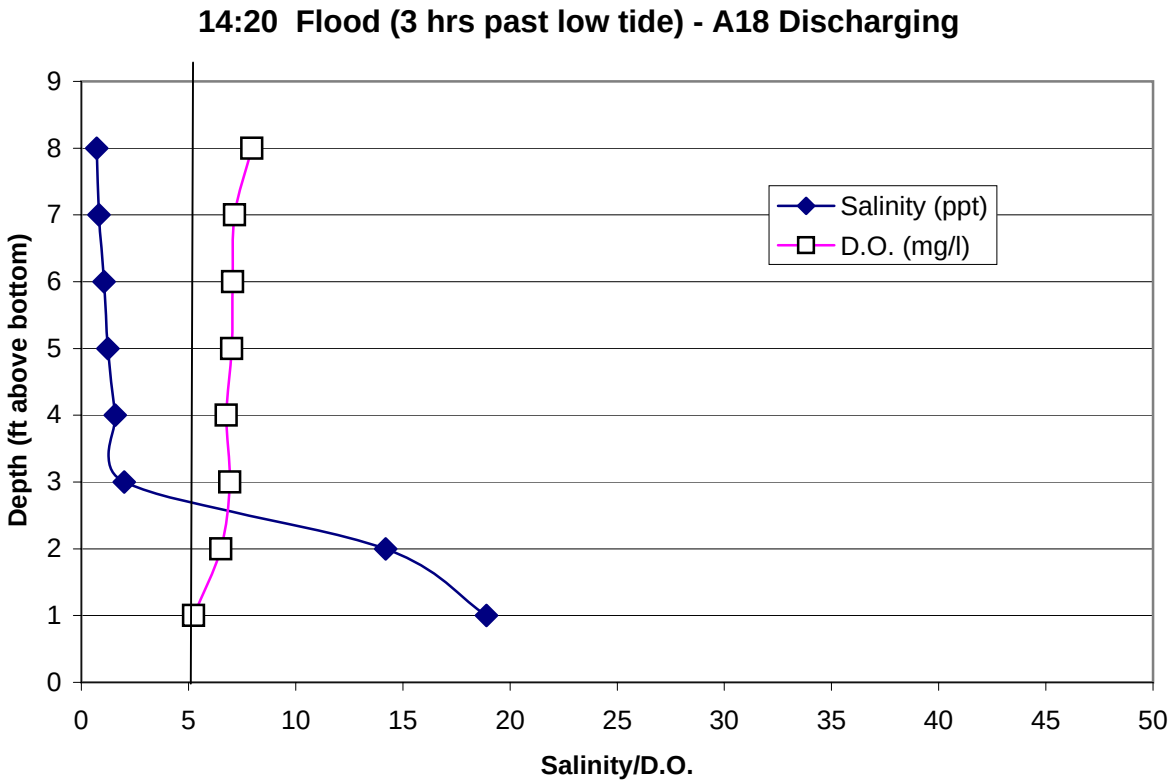
Station A18-1.5 Wednesday, July 06, 2005



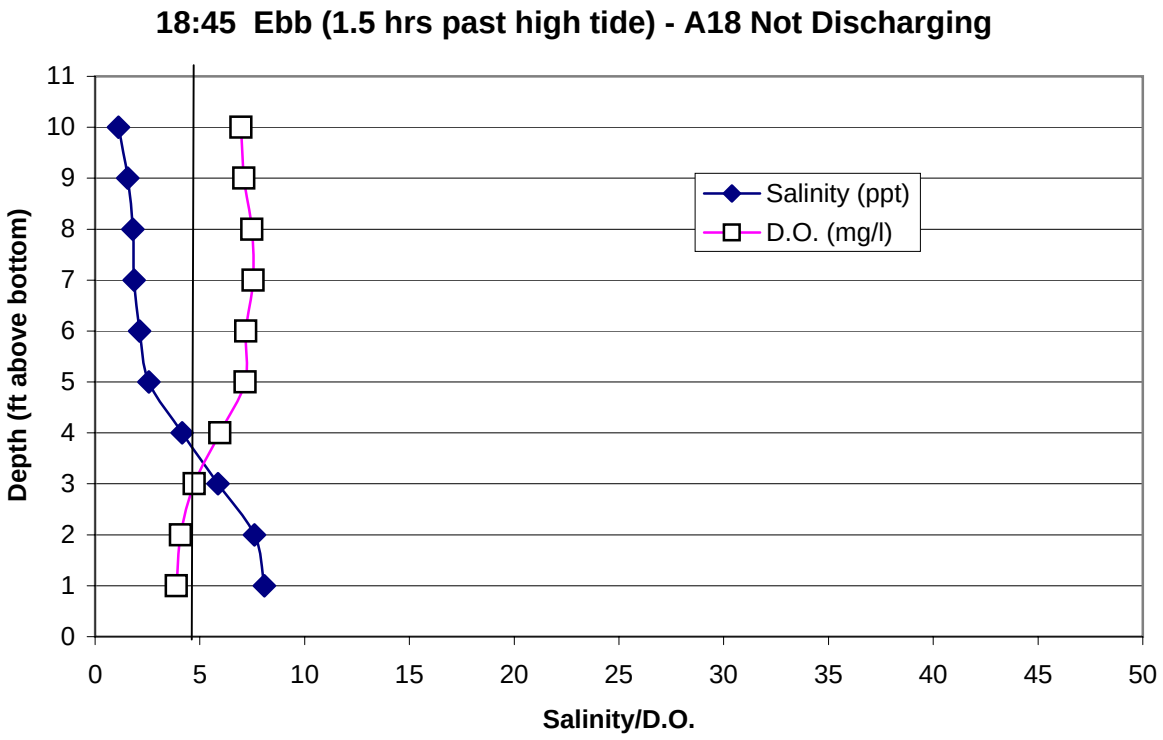


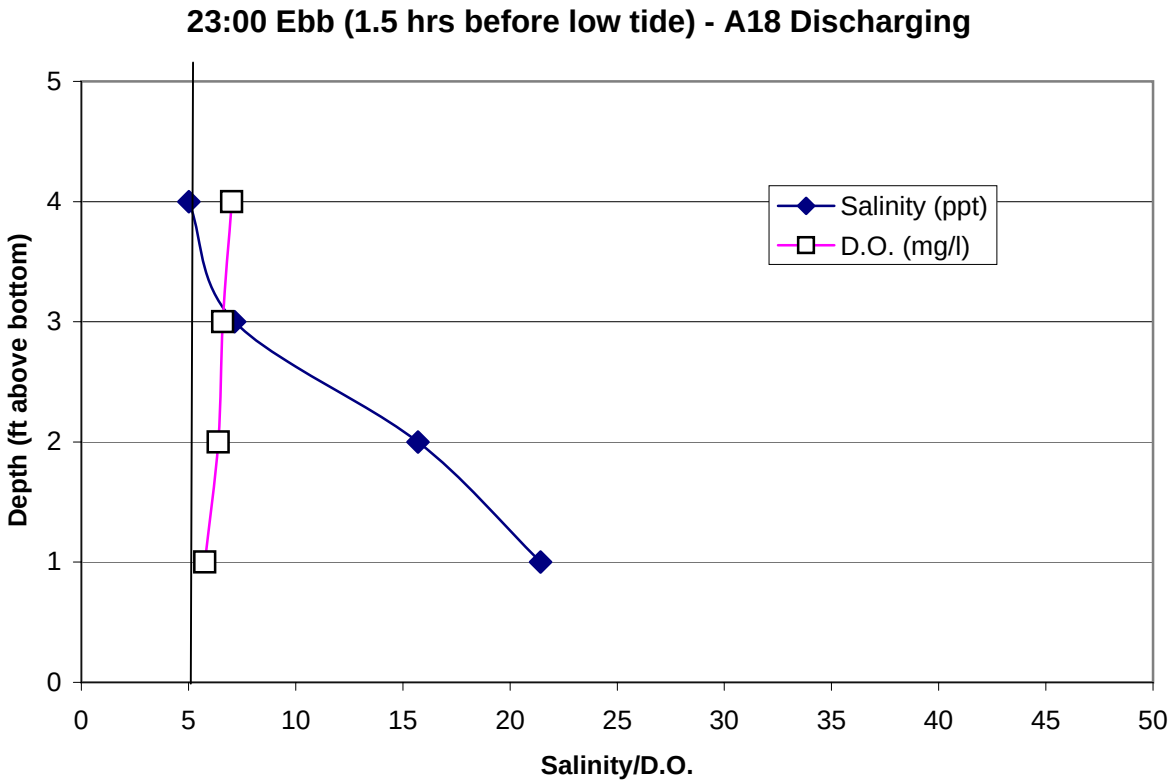
Station A18-1.5 Tuesday, August 09, 2005



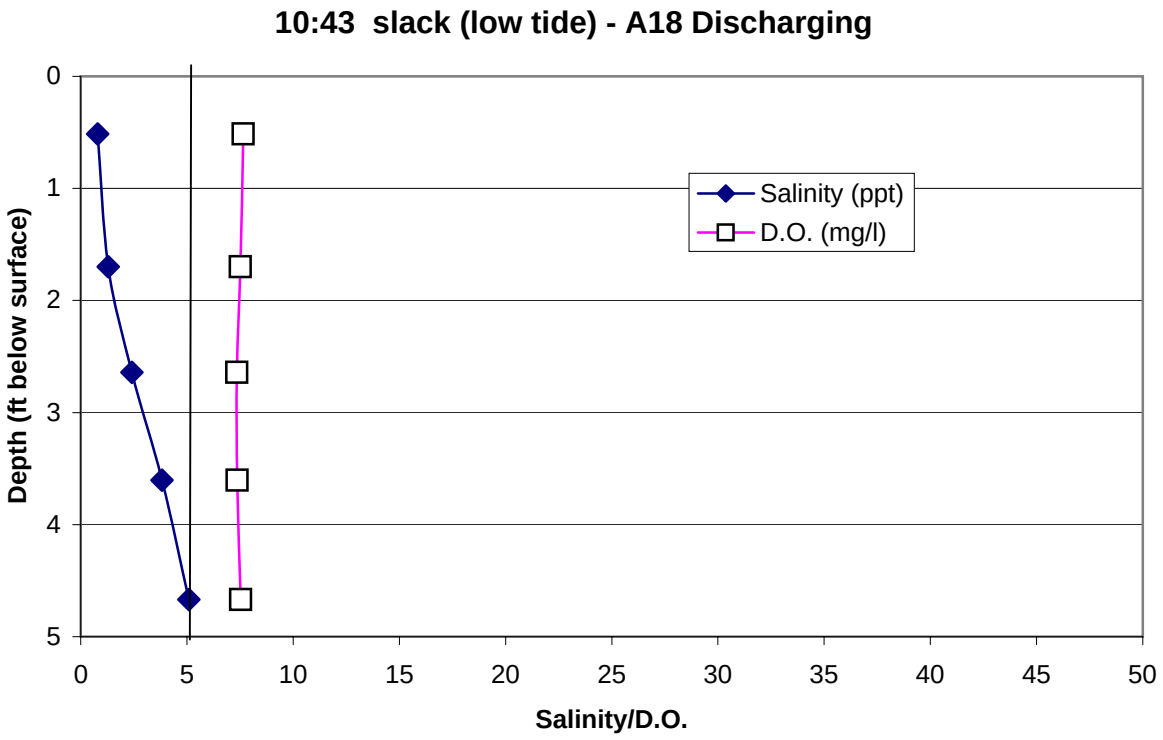


Station A18-1.5 Friday, September 09, 2005





Station A18-1.5 Friday, October 21, 2005



Monitoring Event - Artesian Slough at A-A18-2

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Prior to Initiation of Continuous Circulation															
Downstream of A18 So Discharge	No	Ebb	9	8	5/2/2005	10:58	22.51	2.238	1.455	1.15	79.1	6.8	7.23	1.2	156.8
		(2 hrs past high)		7	5/2/2005					1.33		6.79			
				6	5/2/2005					1.70		6.78			
				5	5/2/2005					2.45		6.74			
				4	5/2/2005	10:56	22.00	5.597	3.638	3.03	77.8	6.68	7.23		170.1
				3	5/2/2005					3.45		6.58			
				2	5/2/2005					5.36		6.60			
				1	5/2/2005	10:53	21.43	12.29	7.986	7.05	74.6	6.33	7.5	2.8	200.4
	Air Temp = 14.5^{o}C, Humidity = 62%, Barometer = 29.94 in Hg, Overcast														
Downstream of A18 So Discharge	Yes	Slack	5	4	5/2/2005	15:05	23.37	2.17	1.41	1.11	106.6	9.02	7.46	2.3	184.7
		(low tide)		3	5/2/2005	15:04	23.4	3.87	2.51	2.04	106	8.92	7.60		195.8
				2	5/2/2005					4.00		8.78			
				1	5/2/2005	15:03	23.37	22.89	14.88	13.82	104.3	8.21	8.25	7.0	241.3
	Air Temp = 26.5^{o}C, Humidity = 37%, Barometer = 30.27 in Hg, Sunny/clear														
1 Week after Initiation of Continuous Circulation															
Downstream of A18 So Discharge	No	Slack	9	8	5/17/2005	10:07	22.80	2.295	1.492	1.18	87.3	7.46	7.33	0.95	84.4
		(high tide)		7	5/17/2005					1.28		7.39			
				6	5/17/2005					1.39		7.30			
				5	5/17/2005					2.01		7.26			
				4	5/17/2005	10:06	22.54	3.974	2.583	2.11	83.6	7.14	7.45		81.7
				3	5/17/2005					2.22		7.06			
				2	5/17/2005					8.85		6.72			
				1	5/17/2005	10:03	21.19	31.61	20.55	19.73	76.0	6.01	8.31	5.8	114.1
	Air Temp = 19.5^{o}C, Humidity = 48%, Barometer = 29.74 in Hg, Overcast														
Downstream of A18 So Discharge	No	Ebb	6	5	5/17/2005	14:00	23.12	6.27	4.08	3.42	106.3	8.92	7.52	5.3	92.0
		(1 hr before low)		4	5/17/2005					4.14		8.97			
				3	5/17/2005	13:59	22.84	13.15	8.55	7.58	108.4	8.93	7.80		100.2
				2	5/17/2005					14.50		8.99			
				1	5/17/2005	13:57	22.05	33.66	21.88	21.13	106.8	8.25	8.43	1.4	137.4

Monitoring Event - Artesian Slough at A-A18-2

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
1 Month after Initiation of Continuous Circulation															
Downstream of A18 So Discharge	No	Ebb	7	6	6/14/2005	9:56	24.45	3.439	2.236	1.80	86.6	7.16	7.25	1.5	148.3
		(2.5 hrs past high)		5	6/14/2005					2.18		7.02			
				4	6/14/2005	9:54	24.05	6.49	4.218	3.54	80.4	6.63	7.34		156.1
				3	6/14/2005					4.87		6.19			
				2	6/14/2005					5.91		6.08			
				1	6/14/2005	9:52	23.72	30.17	19.61	18.71	56.5	4.29	8.31	32	177.1
	Time = 08:45, Air Temp = 20.0^{o}C, Humidity = 53%, Barometer = 29.83 in Hg, Sunny														
Downstream of A18 So Discharge	No	Ebb	6	5	6/14/2005	13:15	25.34	7.40	4.81	4.07	108.7	8.73	7.51	3.3	134.4
		(0.5 hrs before low)		4	6/14/2005					4.96		8.64			
				3	6/14/2005	13:13	25.32	16.06	10.44	9.39	107.9	8.40	7.94		143.2
				2	6/14/2005					14.80		7.74			
				1	6/14/2005	13:11	25.39	26.95	17.52	16.50	90.1	6.73	8.44	23	190.7
2 Months after Initiation of Continuous Circulation															
Downstream of A18 So Discharge	No	Ebb	9	8	7/6/2005	17:28	26.04	2.543	1.65	1.31	102.9	8.29	7.39	2.2	122.8
		(1.5 hrs past high)		7	7/6/2005					1.58		8.15			
				6	7/6/2005					2.35		8.20			
				5	7/6/2005	17:26	26.11	5.078	3.30	2.72	106.3	8.47	7.52		127.5
				4	7/6/2005					3.12		8.56			
				3	7/6/2005					4.31		8.74			
				2	7/6/2005					5.24		8.45			
				1	7/6/2005	17:23	26.29	12.09	7.858	6.89	100.9	7.83	8.00	18	141.0
	Time = 16:37, Air Temp = 26.5^{o}C, Humidity = 62%, Barometer = 29.85 in Hg, Sunny														
Downstream of A18 So Discharge	Yes	Flood	7	6	7/6/2005	21:25	25.03	6.160	4.004	3.35	93.7	7.59	7.55	3.2	93.2
		(I.5 hrs past low)		5	7/6/2005					5.67		7.50			
				4	7/6/2005					9.51		7.42			
				3	7/6/2005	21:23	25.72	21.92	14.250	13.16	97.5	7.38	8.45		92.9
				2	7/6/2005					19.07		7.25			
				1	7/6/2005	21:22	25.65	32.46	21.100	20.25	91.0	6.63	8.60	56	95.5
3 Months after Initiation of Continuous Circulation															
Downstream of A18 So Discharge	No	Flood	5	4	8/9/2005	11:53	26.52	1.334	0.87	0.66	98.8	7.91	7.38	3.6	37.4
		(1.0 hrs past low)		3	8/9/2005	11:52	26.48	1.331	0.87	0.66	98.8	7.91	7.39		39.6
				2	8/9/2005					0.66		7.90			
				1	8/9/2005	11:51	26.46	1.338	0.87	0.67	97.2	7.79	7.39	4.8	46.1
	Time = 10:45, Air Temp = 23.5^{o}C, Humidity = 61%, Barometer = 29.85 in Hg, Sunny														
Downstream of A18 So Discharge	Yes	Flood	9	8	8/9/2005	14:37	27.25	2.084	1.355	1.06	101.8	8.03	7.40	9.8	15.9
		(3.0 hrs past low)		7	8/9/2005					1.22		7.79			
				6	8/9/2005					1.47		7.06			
				5	8/9/2005					1.64		6.41			
				4	8/9/2005	14:34	26.26	3.894	2.531	2.05	77.9	6.22	7.39		19.9
				3	8/9/2005					2.87		6.64			
				2	8/9/2005					11.30		6.92			
				1	8/9/2005	14:31	25.68	30.11	19.570	18.63	66.8	4.91	8.11	22	47.0

Monitoring Event - Artesian Slough at A-A18-2

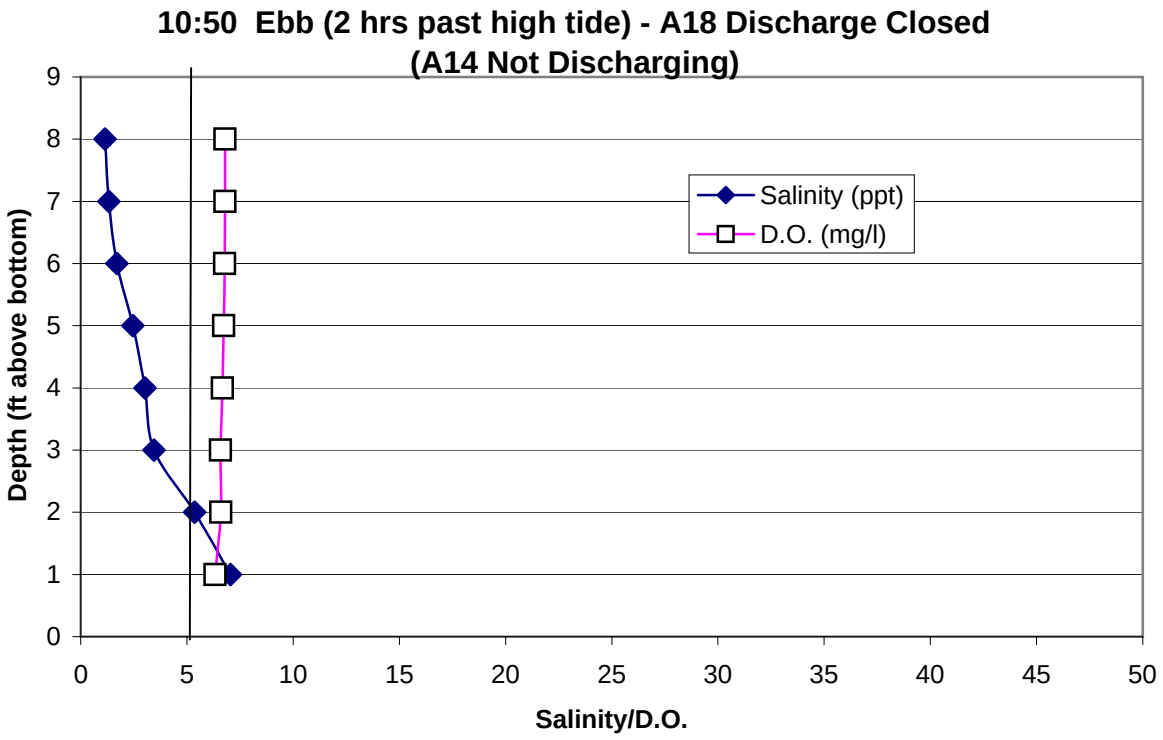
Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (°C)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
4 Months after Initiation of Continuous Circulation															
Between Stations 1 and 2	No	Ebb	11	10	9/9/2005	19:03	25.46	2.605	1.69	1.34	89.2	7.25	7.23	3.5	-112.4
		(1.5 hrs past high)		9	9/9/2005					1.40		7.29			
				8	9/9/2005					1.43		7.01			
				7	9/9/2005					1.52		7.01			
				6	9/9/2005					1.80		6.93			
				5	9/9/2005					2.87		6.48			
				4	9/9/2005	19:00	24.68	8.199	5.33	4.55	68.8	5.57	7.41		-121.0
				3	9/9/2005					5.45		5.18			
				2	9/9/2005					7.07		4.13			
				1	9/9/2005	18:58	23.54	13.760	8.94	7.95	46.2	3.75	7.47	24	-114.1
	Time = 17:45, Air Temp = 22.2°C, Humidity = 51%, Barometer = 29.85 in Hg, Sunny														
Between Stations 1 and 2	Yes	Ebb	6	5	9/9/2005	23:12	24.53	8.865	5.762	4.95	87.5	7.10	7.56	4.6	-99.4
		(1.5 hrs before low)		4	9/9/2005					6.15		6.72			
				3	9/9/2005	23:10	23.71	15.570	10.120	9.09	77.4	6.22	7.97		-110.1
				2	9/9/2005					15.20		5.97			
				1	9/9/2005	23:09	23.06	32.510	21.130	20.32	71.7	5.46	8.35	18	-113.3

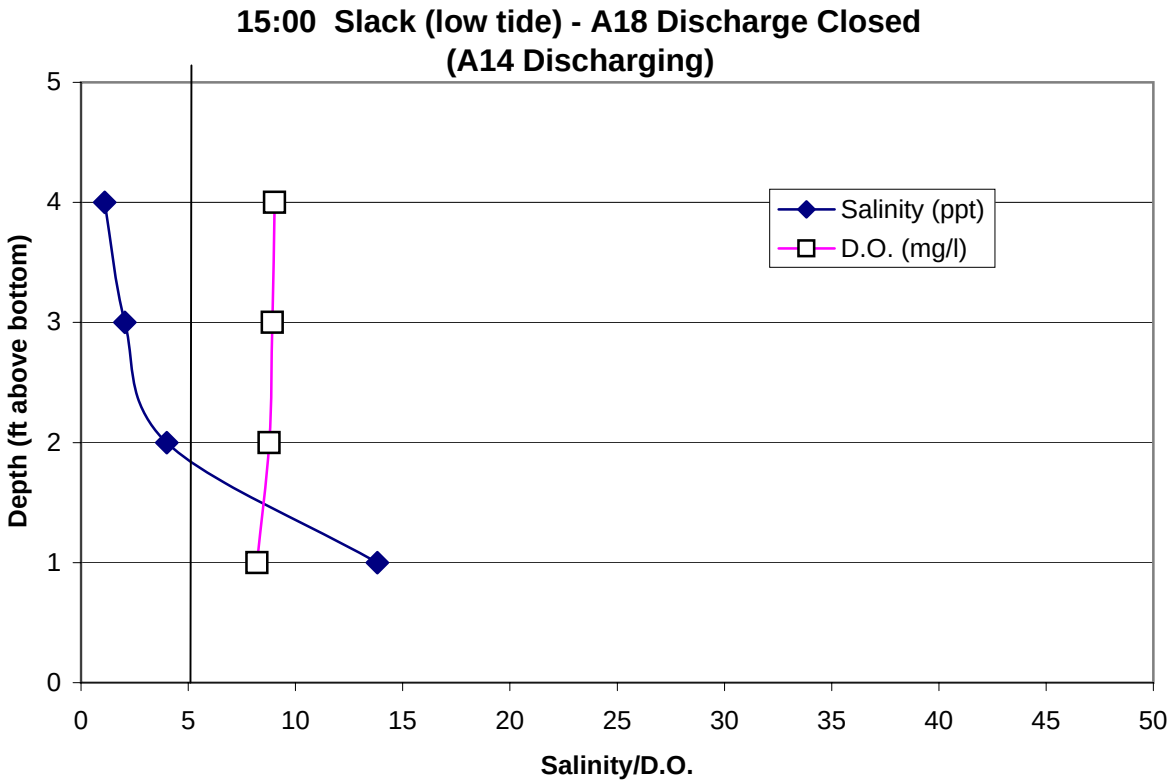
The data below was collected by the City of San Jose, Watershed Investigations using a YSI 600XL multiparameter sonde with water depth pressure sensor except for Turbidity. Turbidity was measured by collecting grab samples from the surface and bottom.

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (actual depth in ft)	Date	Time	Temp (°C)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
5 Months after Initiation of Continuous Circulation															
Downstream of A18 So. Discharge	Yes	Slack	5.5	4.99	10/21/2005	10:36	21.57	8.611	5.597	4.81	82.8	7.1	7.39	93.2	-71
		(low tide)		4.066	10/21/2005	10:37	21.73	7.962	5.175	4.42	79.4	6.8	7.48		-72
				3.002	10/21/2005	10:37	23.16	4.829	3.139	2.59	84.1	7.08	7.57		-82
				2.028	10/21/2005	10:37	23.88	2.677	1.74	1.38	87.5	7.32	7.59		-90
				1.07	10/21/2005	10:38	24.18	2.335	1.518	1.2	91	7.59	7.49	16.8	-90

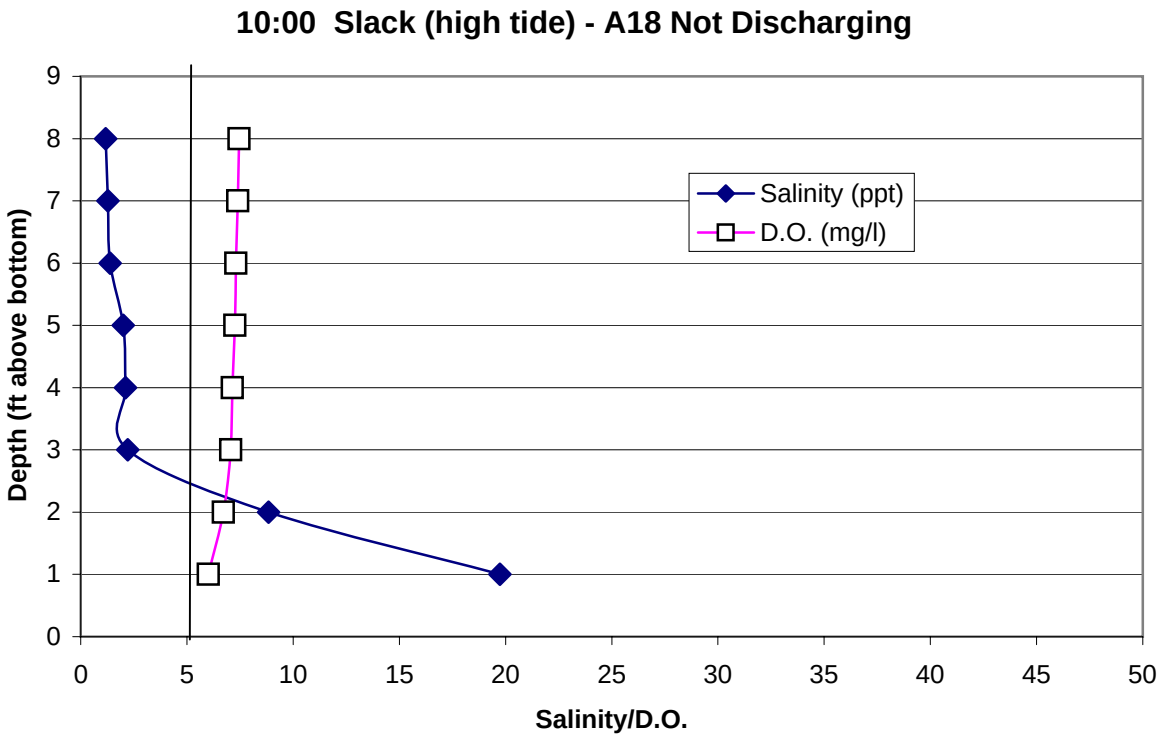
Station A18-2

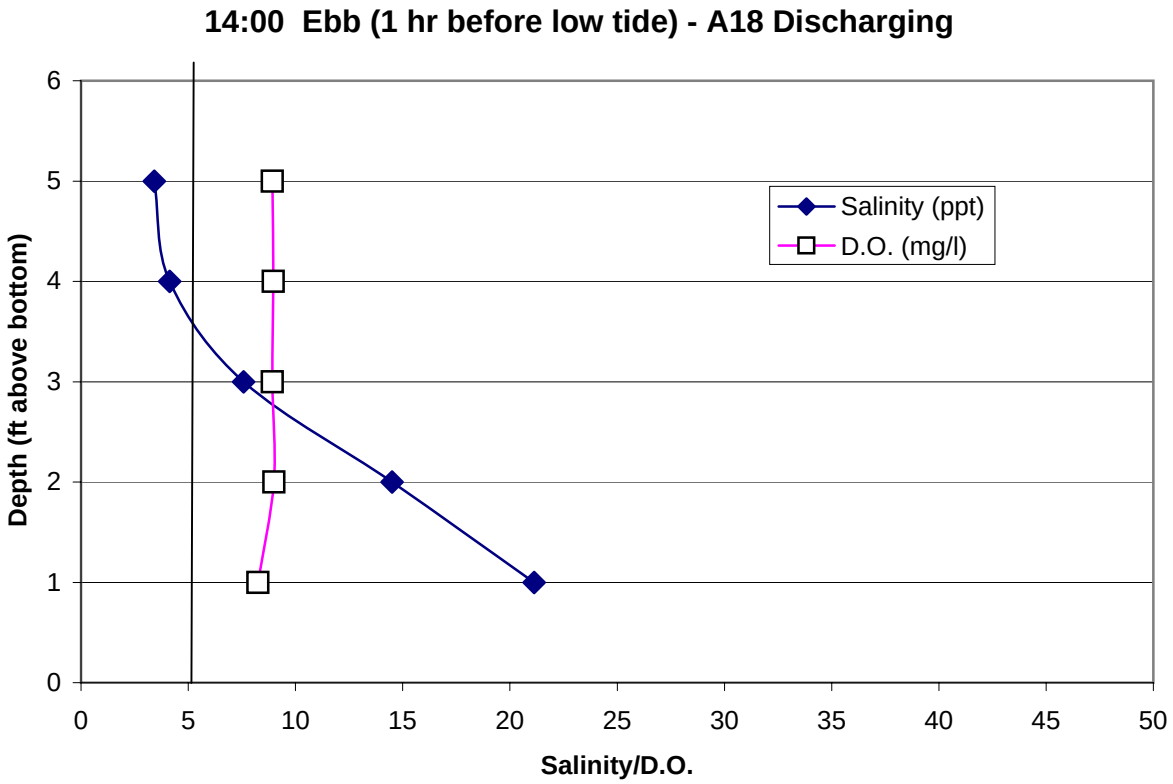
Monday, May 02, 2005



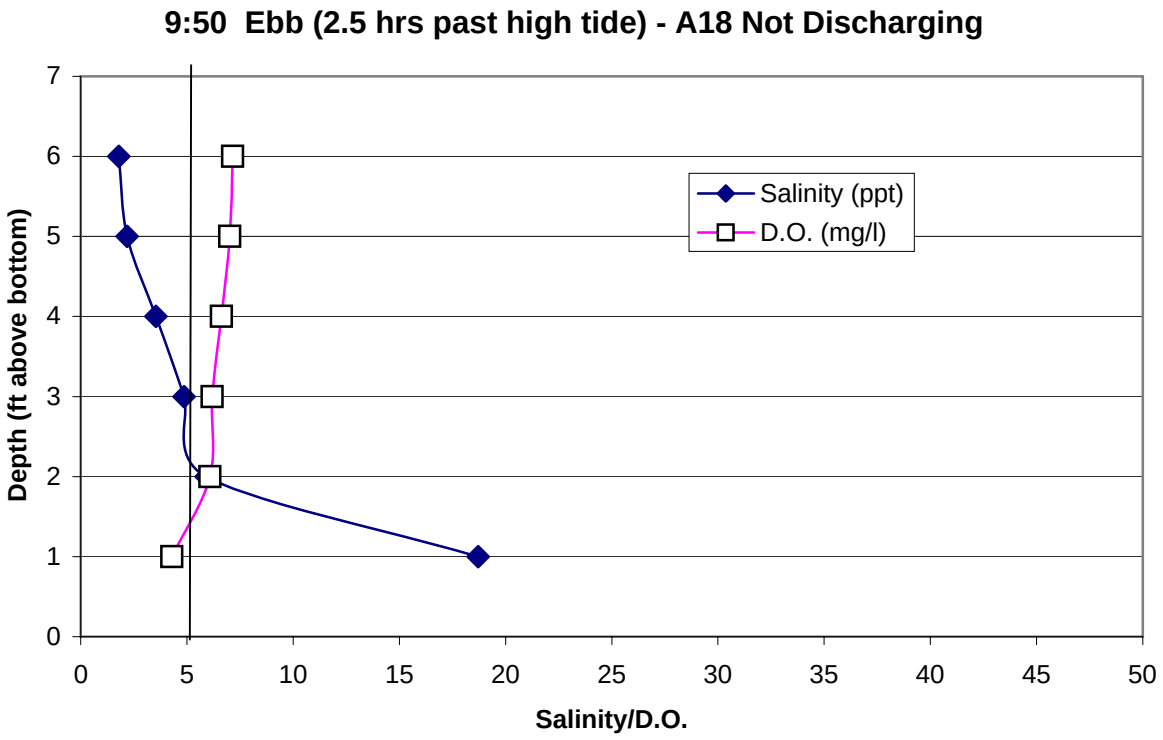


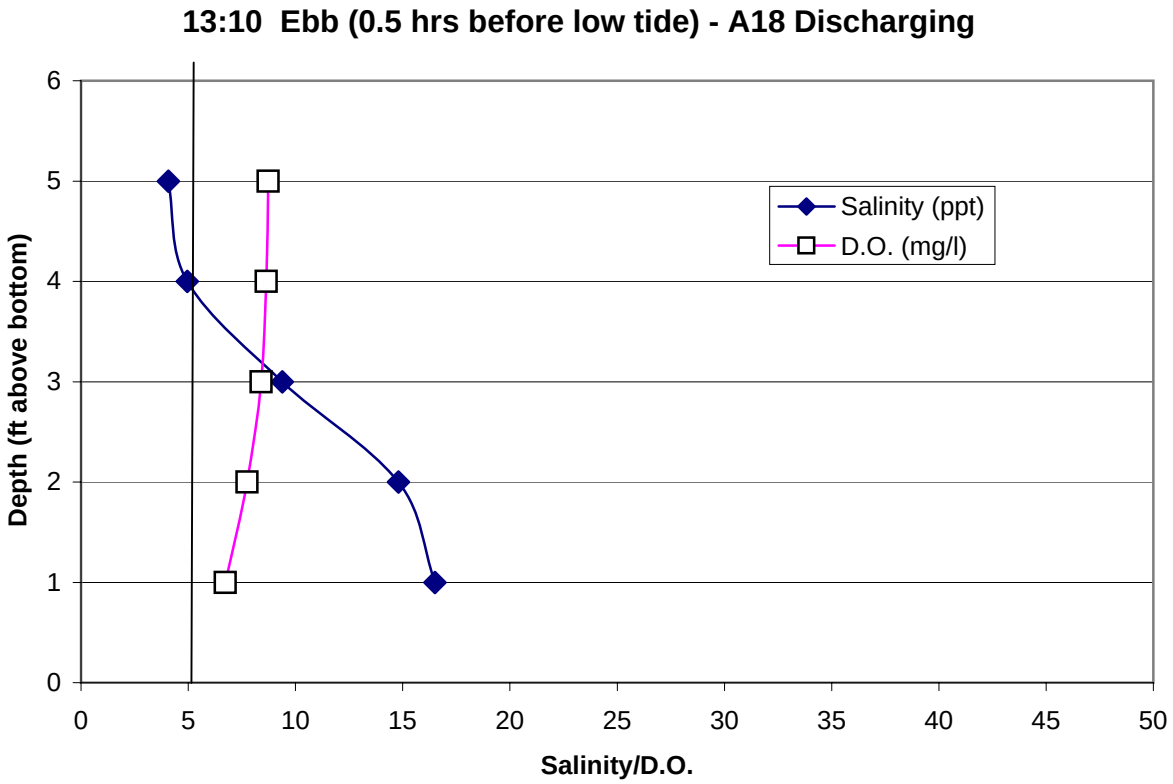
Station A18-2 Tuesday, May 17, 2005



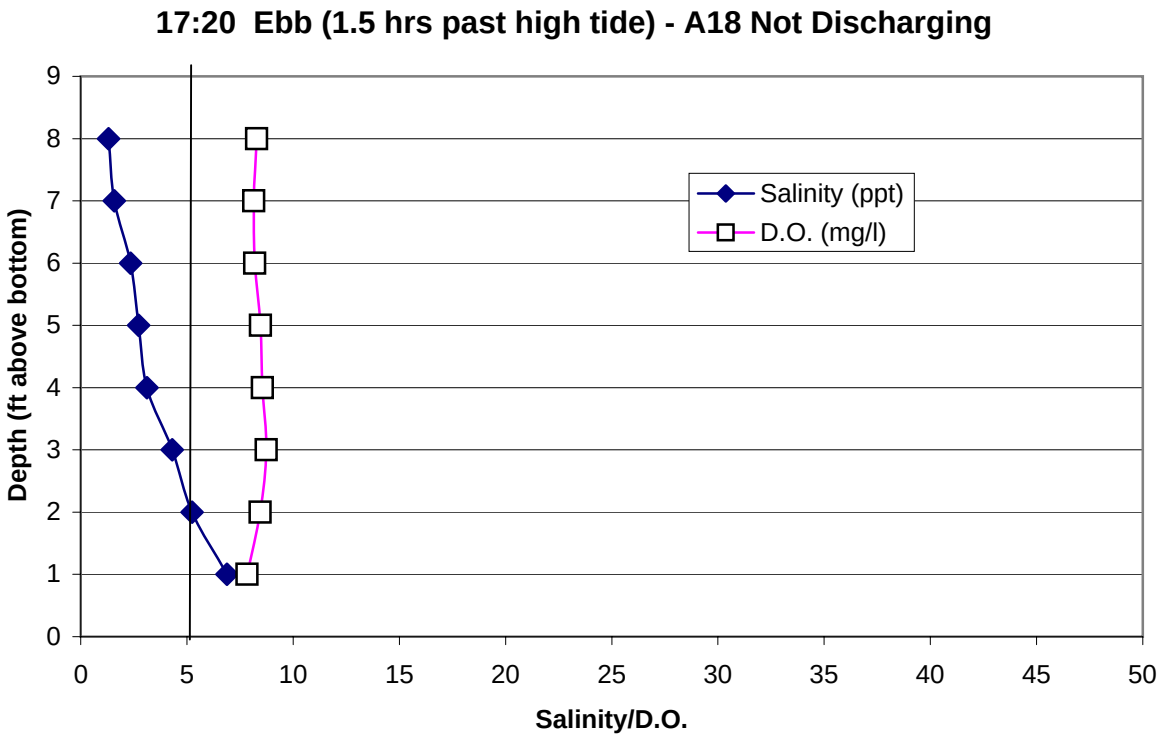


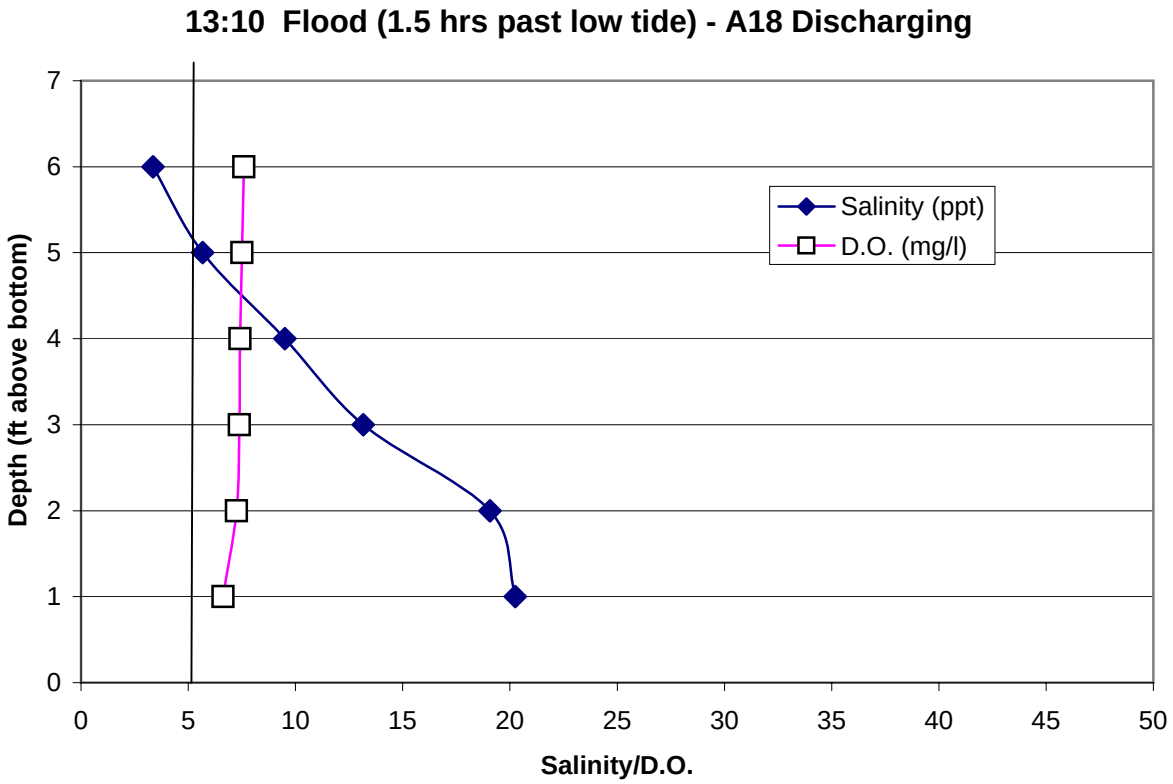
Station A18-2 Tuesday, June 14, 2005



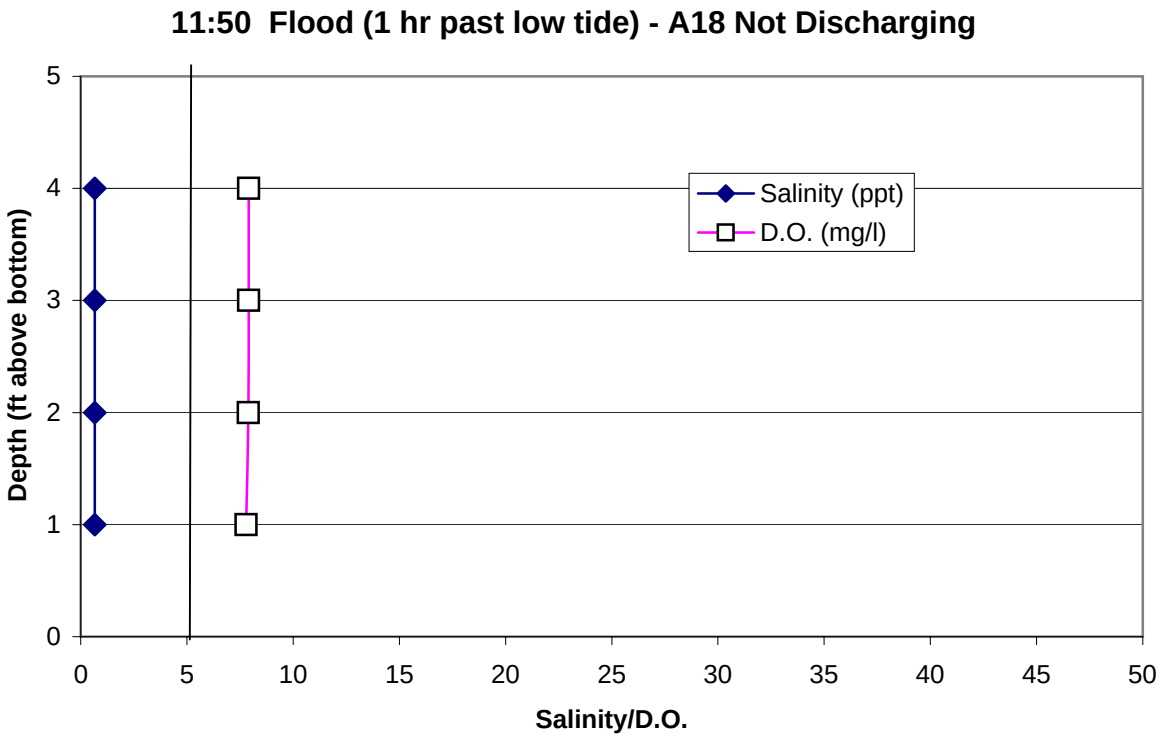


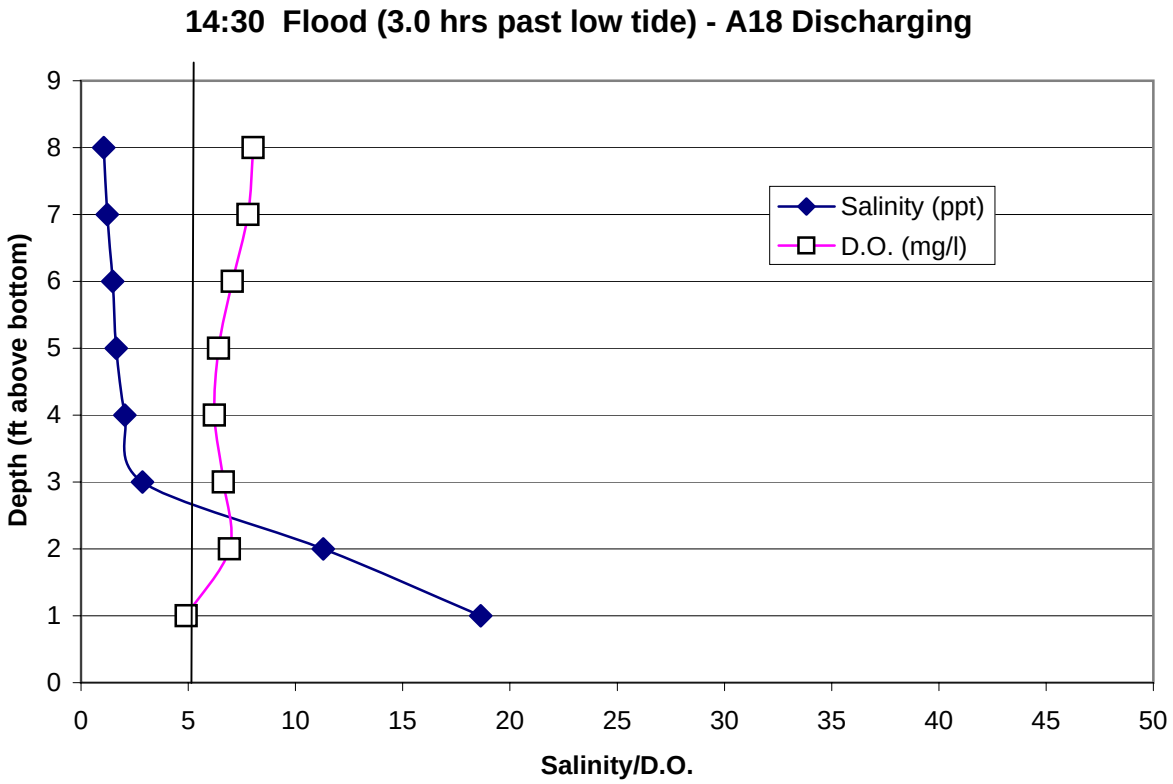
Station A18-2 Wednesday, July 06, 2005





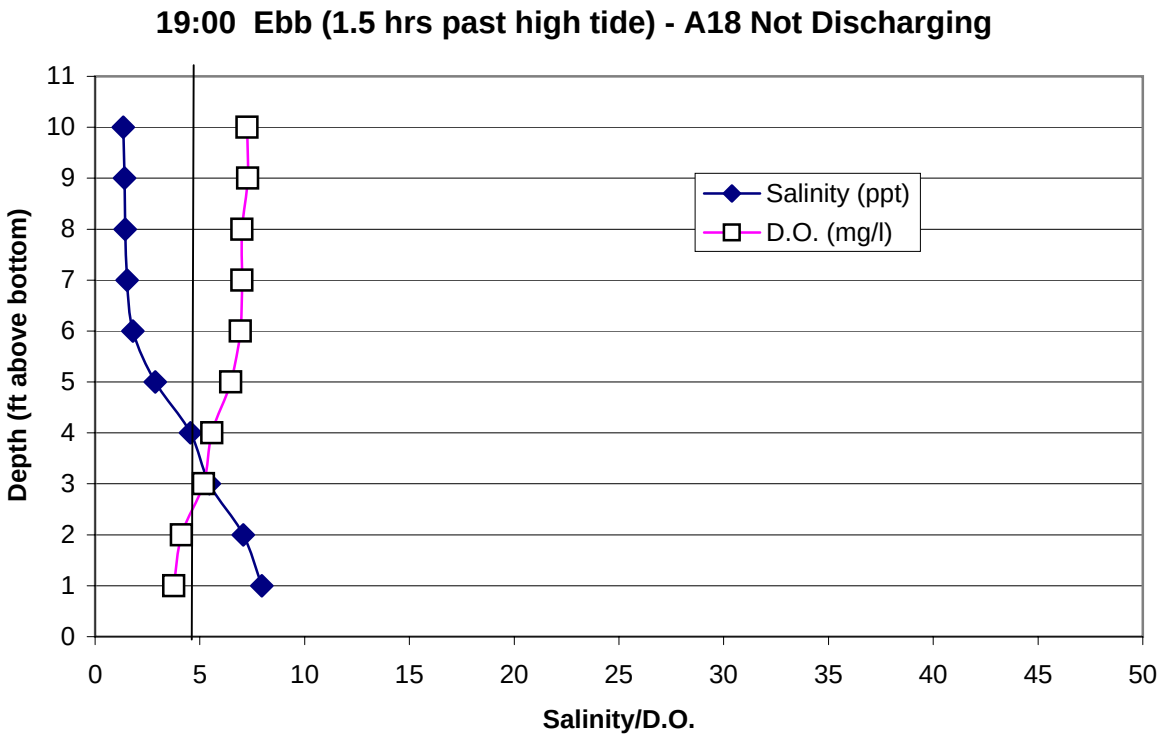
Station A18-2 Tuesday, August 09, 2005

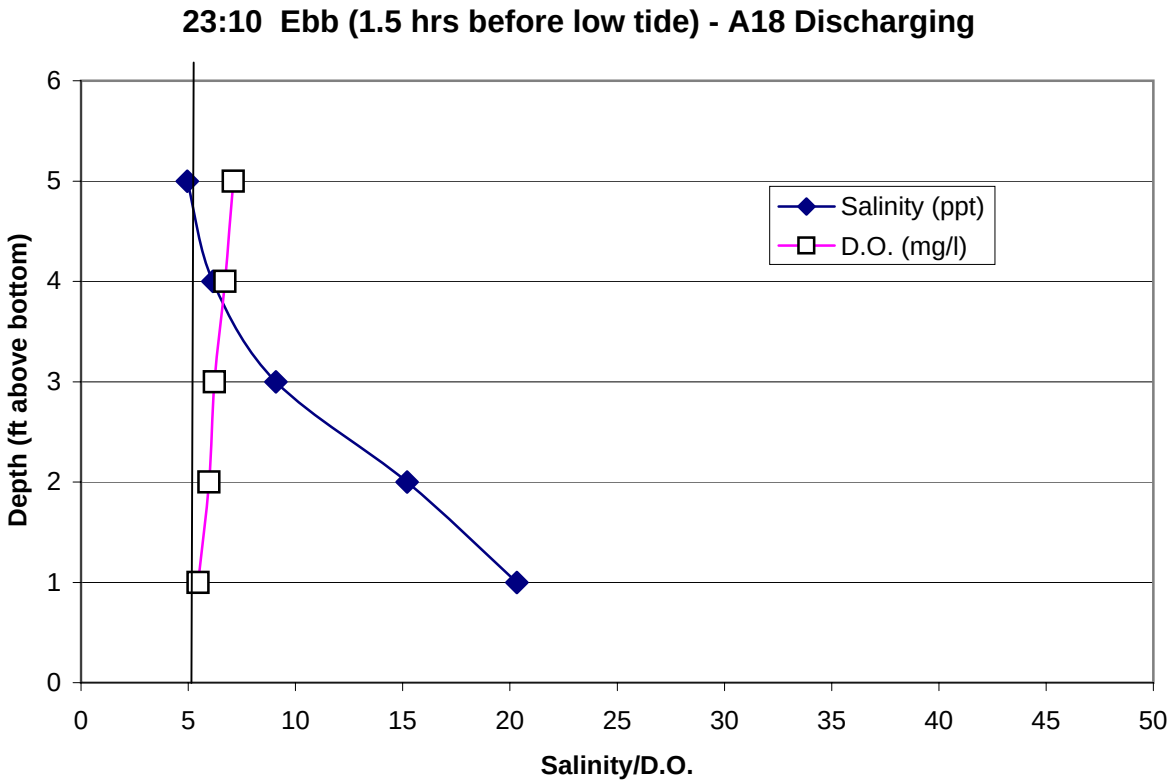




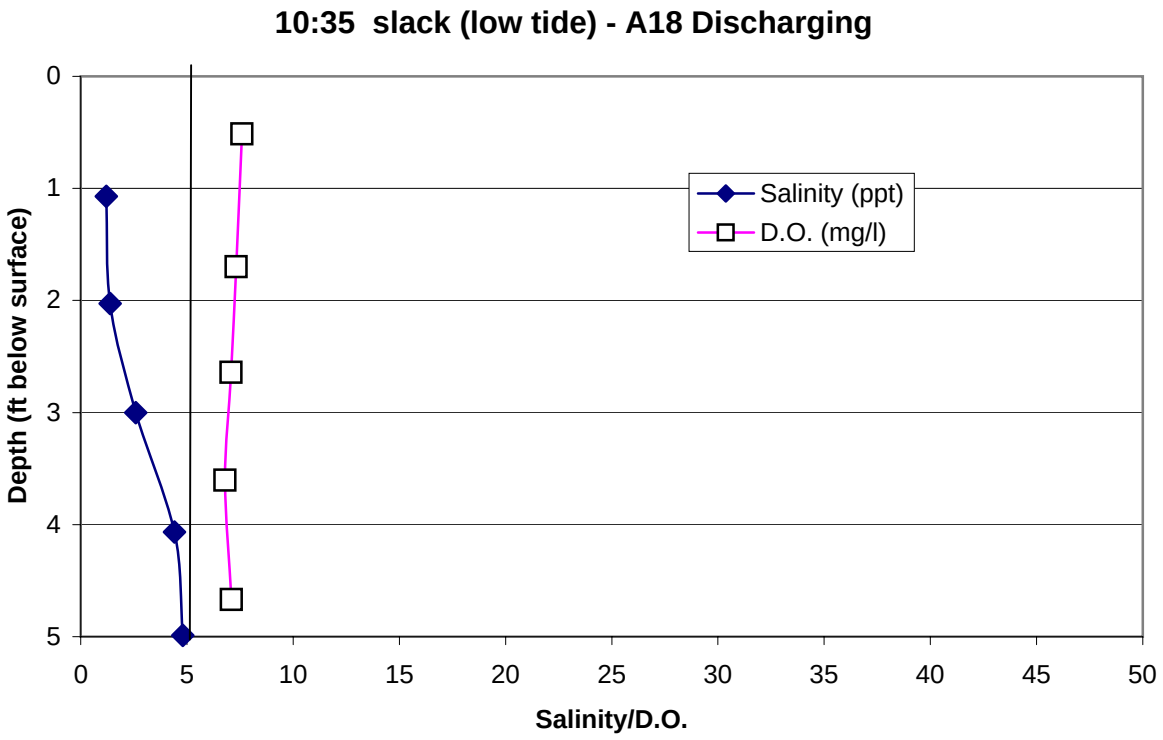
Station A18-2

Friday, September 09, 2005





Station A18-2 Friday, October 21, 2005



Appendix 2-B

Monthly Discrete Water Quality Monitoring in Artesian Sough during the Continuous Circulation Period, May 10 to October 31, 2005

Stations 3-5

Monitoring Event - Artesian Slough at A-A18-3

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Prior to Initiation of Continuous Circulation															
Downstream of A18 So Discharge	No	Ebb	7	6	5/2/2005	11:17	21.99	4.817	3.131	2.58	74.8	6.44	7.23	57	201.2
		(2.5 hrs past high)		5	5/2/2005					2.74		6.37			
				4	5/2/2005	11:16	21.87	5.267	3.424	2.84	73.3	6.32	7.25		213.8
				3	5/2/2005					3.00		6.31			
				2	5/2/2005					3.35		6.26			
				1	5/2/2005	11:15	21.51	10.75	6.99	6.11	73.4	6.25	7.40	2.2	253.6
	Air Temp = 14.5^{o}C, Humidity = 62%, Barometer = 29.94 in Hg, Overcast														
Downstream of A18 So Discharge	Yes	Slack	5	4	5/2/2005	15:18	23.78	6.09	3.96	3.31	107.5	8.92	7.47	12	273.7
		(low tide)		3	5/2/2005	15:17	23.78	6.11	3.97	3.32	107.0	8.87	7.47		288.0
				2	5/2/2005					3.35		8.81			
				1	5/2/2005	15:16	23.71	6.37	4.14	3.48	105.6	8.77	7.47	12	333.8
1 Week after Initiation of Continuous Circulation															
Downstream of A18 So Discharge	Yes	Ebb	10	9	5/17/2005	10:29	22.46	3.35	2.177	1.76	84.3	7.24	7.29	1.1	88.9
		(1 hr past high)		8	5/17/2005					1.82		7.19			
				7	5/17/2005					1.93		7.10			
				6	5/17/2005					2.38		6.96			
				5	5/17/2005					2.56		6.66			
				4	5/17/2005	10:24	21.78	16.02	10.42	9.39	70.7	5.88	7.80		93.3
				3	5/17/2005					19.30		5.04			
				2	5/17/2005					21.70		4.84			
				1	5/17/2005	10:20	21.46	36.92	24	23.41	61.0	4.70	8.36	14	151.0
	Air Temp = 19.5^{o}C, Humidity = 48%, Barometer = 29.74 in Hg, Overcast														
Downstream of A18 So Discharge	No	Ebb	6	5	5/17/2005	14:16	23.07	8.53	5.54	4.75	105.8	8.82	7.53	2.1	77.1
		(0.5 hrs before low)		4	5/17/2005					5.33		8.72			
				3	5/17/2005					6.96		8.54			
				2	5/17/2005	14:14	22.57	17.50	11.38	10.33	99.5	8.11	7.90		92.4
				1	5/17/2005	14:13	22.22	23.52	15.29	14.26	97.0	7.78	8.12	7.8	130.0
1 Month after Initiation of Continuous Circulation															
Downstream of A18 So Discharge	No	Ebb	7	6	6/14/2005	10:13	24.23	4.232	2.751	2.25	74.0	6.12	7.22	1.9	144.0
		(3 hrs past high)		5	6/14/2005					2.58		6.09			
				4	6/14/2005					2.81		5.98			
				3	6/14/2005	10:10	23.89	9.624	6.255	5.41	64.4	5.27	7.60		157.9
				2	6/14/2005					14.30		3.30			
				1	6/14/2005	10:08	23.84	26.29	17.09	16.08	36.4	2.80	8.09	14	191.4
	Time = 08:45, Air Temp = 20.0^{o}C, Humidity = 53%, Barometer = 29.83 in Hg, Sunny														
Downstream of A18 So Discharge	Yes	Slack	5	4	6/14/2005	13:30	25.92	9.98	6.49	5.61	101.2	7.97	7.57	8.5	120.0
		(low tide)		3	6/14/2005					5.88		7.89			
				2	6/14/2005	13:28	25.31	16.64	10.81	9.75	91.2	7.09	7.90		132.2
				1	6/14/2005	13:27	25.14	18.49	12.02	10.94	85.1	6.59	7.90	17	141.1

Monitoring Event - Artesian Slough at A-A18-3

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (°C)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
2 Months after Initiation of Continuous Circulation															
Downstream of A18 So Discharge	No	Ebb	8	7	7/6/2005	17:47	26.02	5.013	3.26	2.68	100.6	8.04	7.51	5.4	133.3
		(1.5 hrs past high)		6	7/6/2005					2.87		8.03			
				5	7/6/2005					2.88		7.95			
				4	7/6/2005	17:46	26.00	6.351	4.128	3.45	96.5	7.68	7.56		139.8
				3	7/6/2005					3.75		7.46			
				2	7/6/2005					4.90		6.83			
				1	7/6/2005	17:43	25.77	10.40	6.763	5.87	82.8	6.53	7.63	25	173.1
	Time = 16:37, Air Temp = 26.5°C, Humidity = 62%, Barometer = 29.85 in Hg, Sunny														
Downstream of A18 So Discharge	Yes	Flood	7	6	7/6/2005	21:39	25.12	7.293	4.740	4.01	93.8	7.56	7.55	6.5	96.1
		(I.5 hrs past low)		5	7/6/2005					4.12		7.55			
				4	7/6/2005					6.29		7.24			
				3	7/6/2005	21:37	26.09	17.55	11.410	10.32	91.3	6.98	8.19		96.4
				2	7/6/2005					11.51		6.53			
				1	7/6/2005	21:36	26.21	21.58	14.030	12.93	76.9	5.78	8.26	20	98.5
3 Months after Initiation of Continuous Circulation															
Downstream of A18 So Discharge	No	Flood	5	4	8/9/2005	12:06	26.07	3.315	2.15	1.73	73.2	5.88	7.27	15	37.9
		(1.0 hr past low)		3	8/9/2005	12:05	25.92	3.353	2.18	1.75	71.6	5.76	7.27		40.5
				2	8/9/2005					1.75		5.75			
				1	8/9/2005	12:03	25.77	3.372	2.19	1.76	70.9	5.72	7.26	18	63.2
	Time = 10:45, Air Temp = 23.5°C, Humidity = 61%, Barometer = 29.85 in Hg, Sunny														
Downstream of A18 So Discharge	Yes	Flood	10	9	8/9/2005	14:52	25.56	6.697	4.353	3.66	59.2	4.74	7.41	36	34.6
		(3.5 hrs past low)		8	8/9/2005					3.67		4.75			
				7	8/9/2005					3.67		4.75			
				6	8/9/2005					3.69		4.71			
				5	8/9/2005	14:50	25.47	6.839	4.445	3.74	58.0	4.65	7.39		46.3
				4	8/9/2005					3.75		4.65			
				3	8/9/2005					3.75		4.61			
				2	8/9/2005					3.75		4.59			
				1	8/9/2005	14:49	25.48	6.81	4.427	3.72	57.1	4.58	7.36	51	61.5
4 Months after Initiation of Continuous Circulation															
Downstream of A18 So Discharge	No	Ebb	8	7	9/9/2005	19:17	24.45	5.741	3.73	3.11	75.2	6.14	7.28	9.5	-113.0
		(1.5 hrs past high)		6	9/9/2005					3.55		5.75			
				5	9/9/2005	19:14	24.45	7.262	4.72	3.99	67.4	5.50	7.36		-112.7
				4	9/9/2005					4.44		5.42			
				3	9/9/2005					5.71		4.53			
				2	9/9/2005					5.93		4.12			
				1	9/9/2005	19:12	23.74	11.410	7.41	6.49	51.0	4.16	7.38	28	-95.6

Monitoring Event - Artesian Slough at A-A18-3

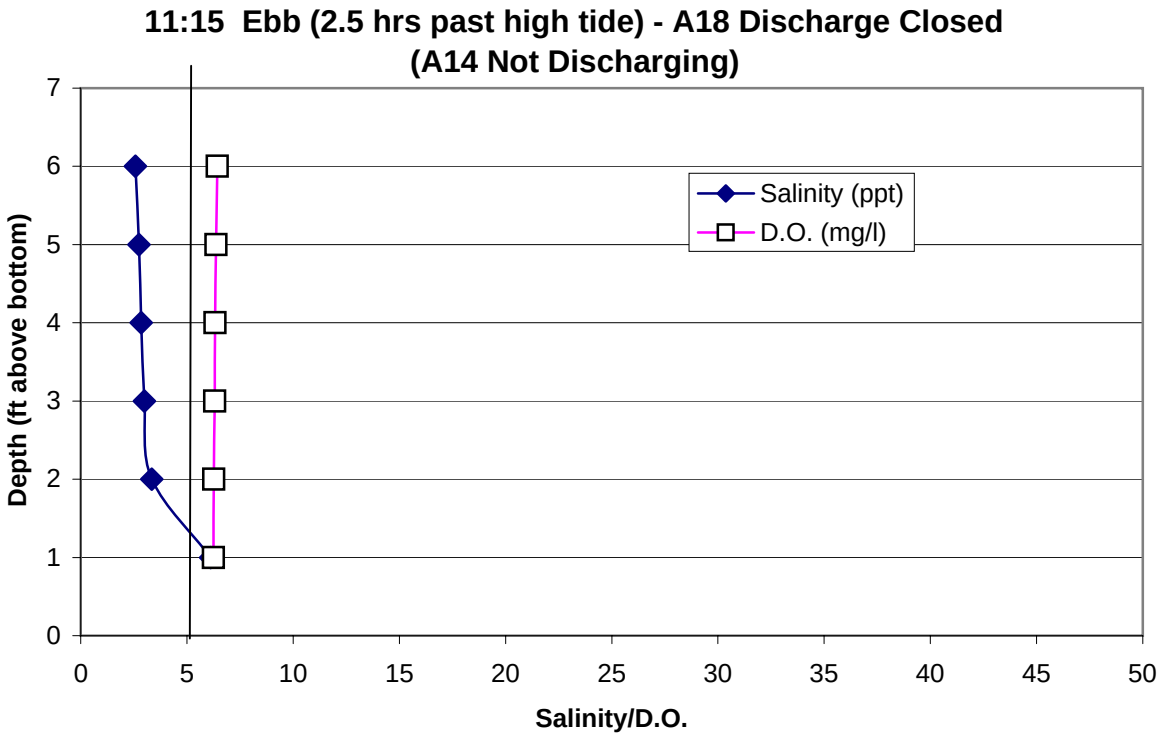
Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Time = 17:45, Air Temp = 22.2^oC, Humidity = 51%, Barometer = 29.85 in Hg, Sunny															
Downstream of A18 So Discharge	Yes	Ebb	6	5	9/9/2005	23:30	24.00	11.460	7.450	6.53	75.3	6.11	7.51	11	-75.1
		(1.5 hrs before low)		4	9/9/2005					7.08		6.08			
				3	9/9/2005	23:29	23.95	14.500	9.425	8.41	73.2	5.88	7.62		-74.4
				2	9/9/2005					10.40		5.46			
				1	9/9/2005	23:28	23.73	21.000	13.650	12.58	63.3	4.98	7.81	22	-66.7

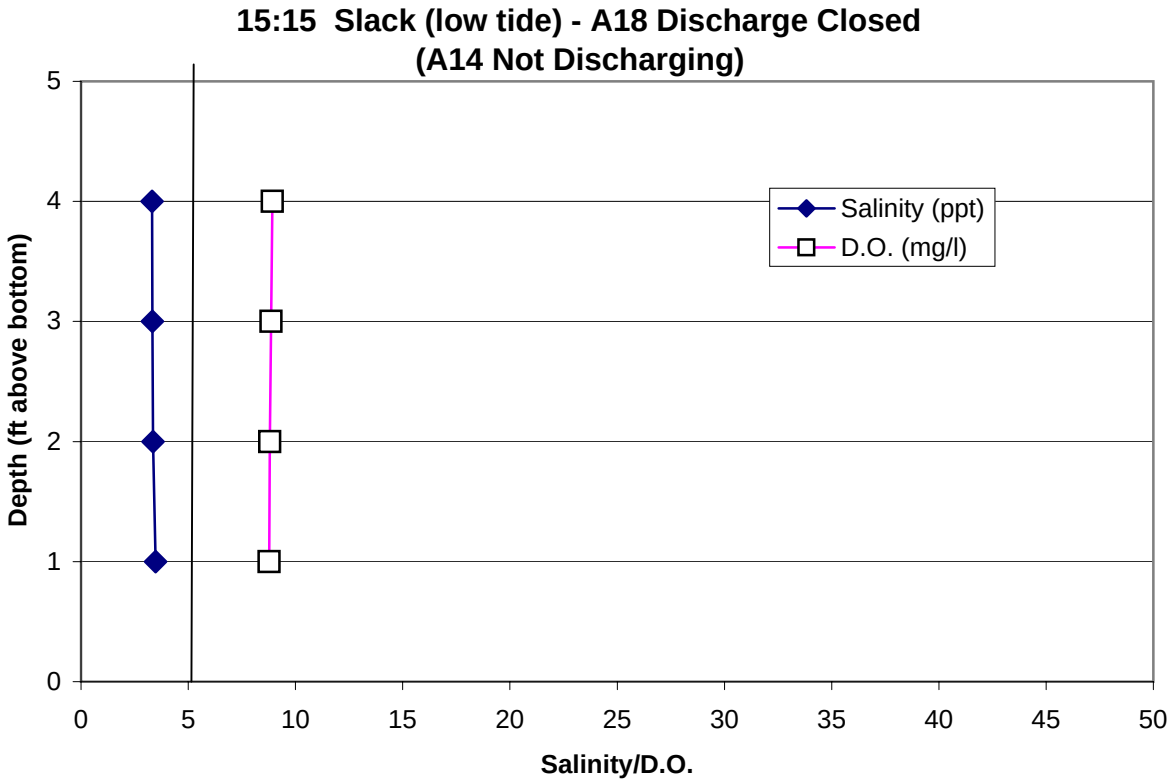
The data below was collected by the City of San Jose, Watershed Investigations using a YSI 600XL multiparameter sonde with water depth pressure sensor except for Turbidity. Turbidity was measured by collecting grab samples from the surface and bottom.

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (actual depth in ft)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
5 Months after Initiation of Continuous Circulation															
Midway point between discharge	Yes	Flood	8	7.241	10/21/2005	10:54	21.67	21.192	13.77	12.73	50.9	4.16	7.34	61.6	-63
and Coyote Creek		(0.5 hrs after low)		6.004	10/21/2005	10:55	22.36	10.254	6.665	5.8	46.3	3.89	7.62		-80
				5.124	10/21/2005	10:55	22.45	9.167	5.959	5.14	58.2	4.9	7.56		-82
				4.047	10/21/2005	10:56	22.55	7.988	5.192	4.43	61.8	5.21	7.56		-84
				3.028	10/21/2005	10:56	22.91	5.817	3.781	3.16	67.3	5.68	7.58		-88
				2.061	10/21/2005	10:57	23.21	4.629	3.009	2.47	74.9	6.31	7.58		-91
				1.053	10/21/2005	10:57	23.37	4.072	2.647	2.16	81.1	6.82	7.53	32.9	-91

Station A18-3

Monday, May 02, 2005

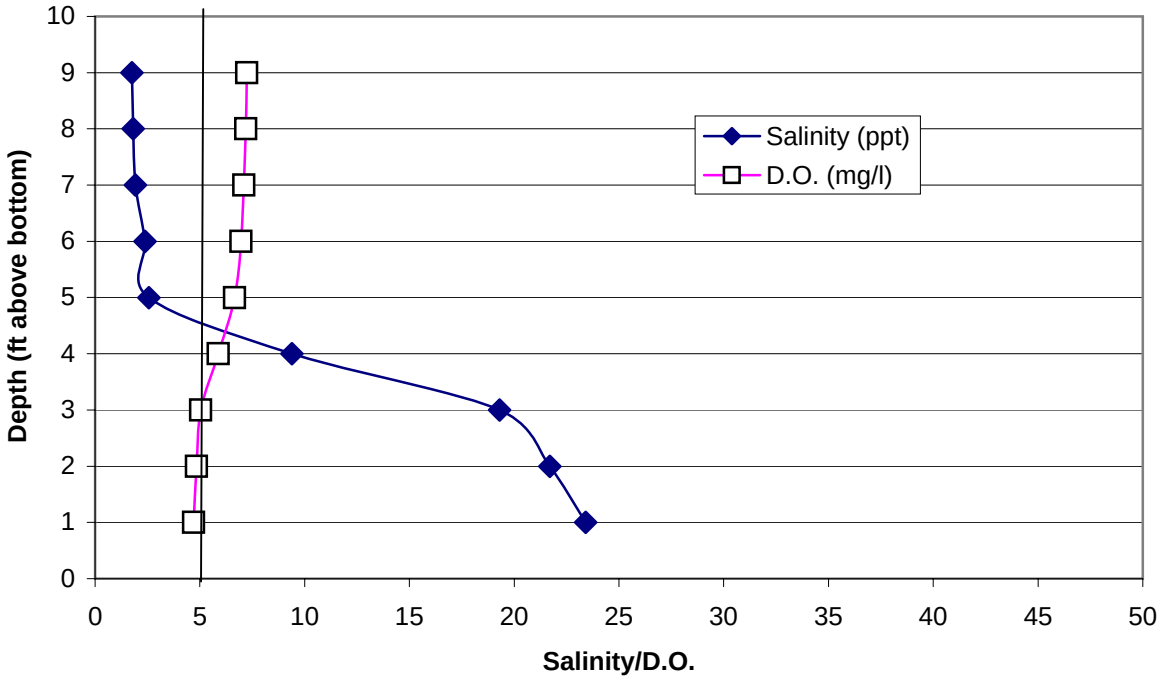




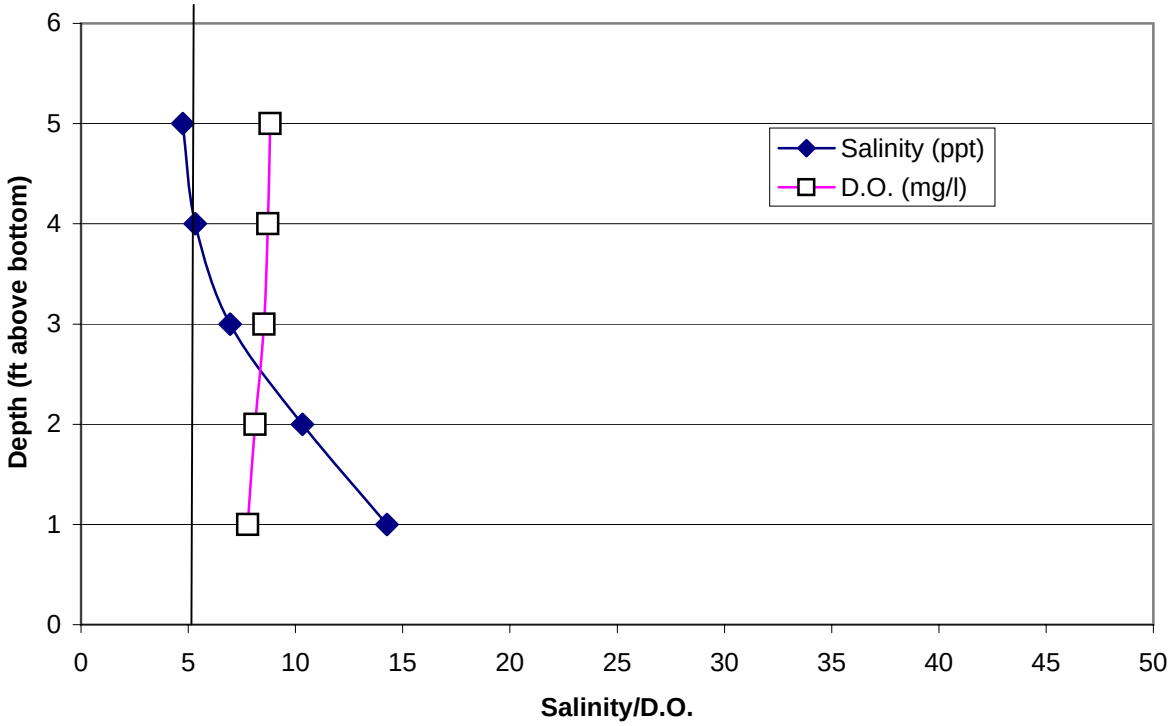
Station A18-3

Tuesday, May 17, 2005

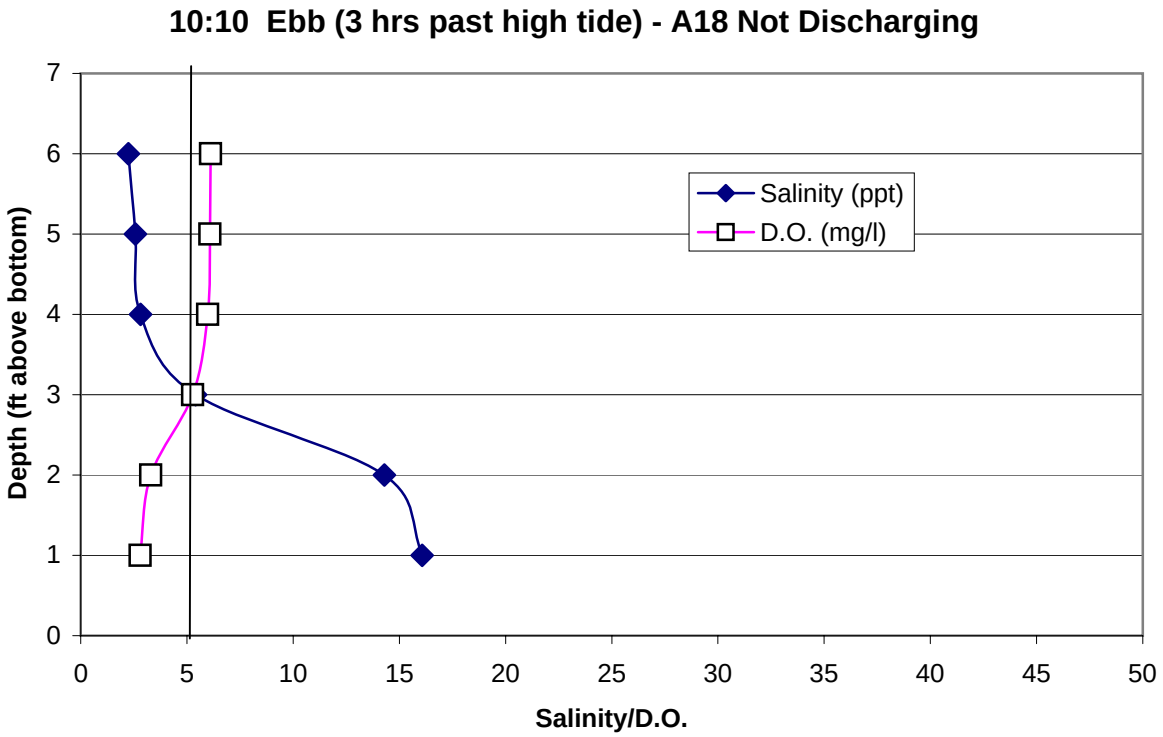
10:20 Ebb (1 hr past high tide) - A18 Not Discharging

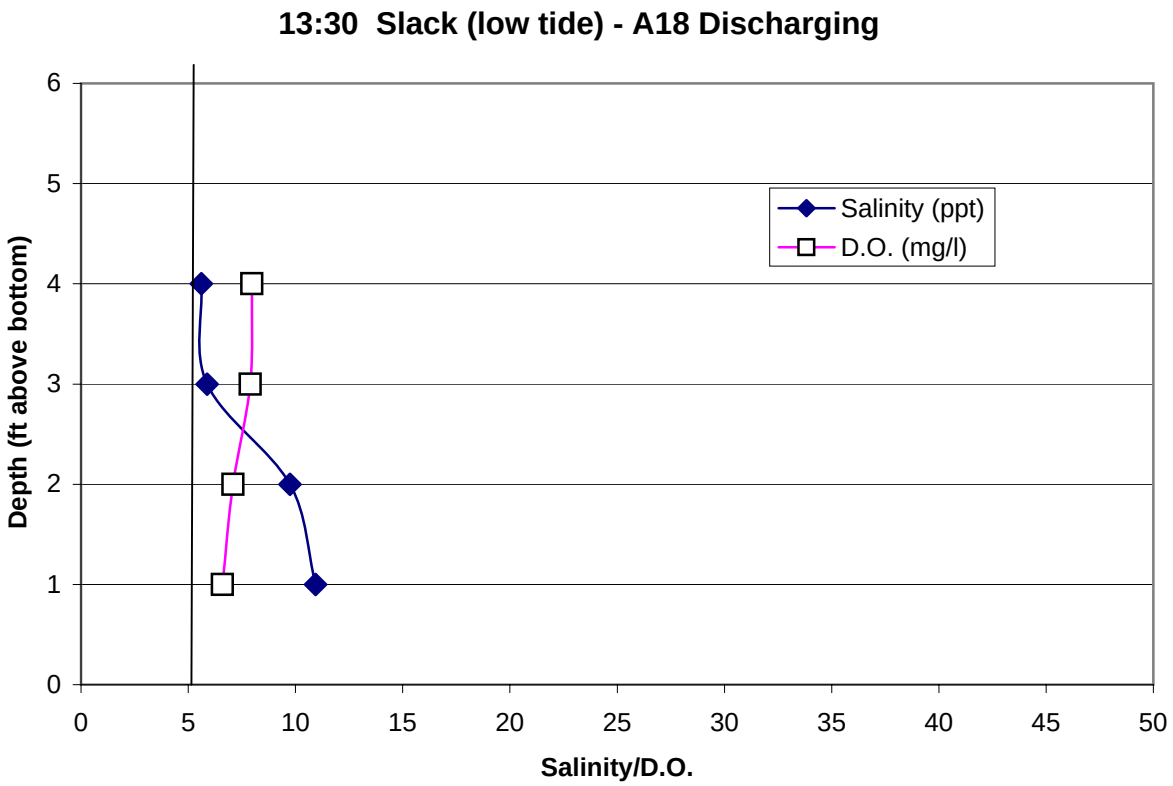


14:15 Ebb (0.5 hrs before low tide) - A18 Discharging

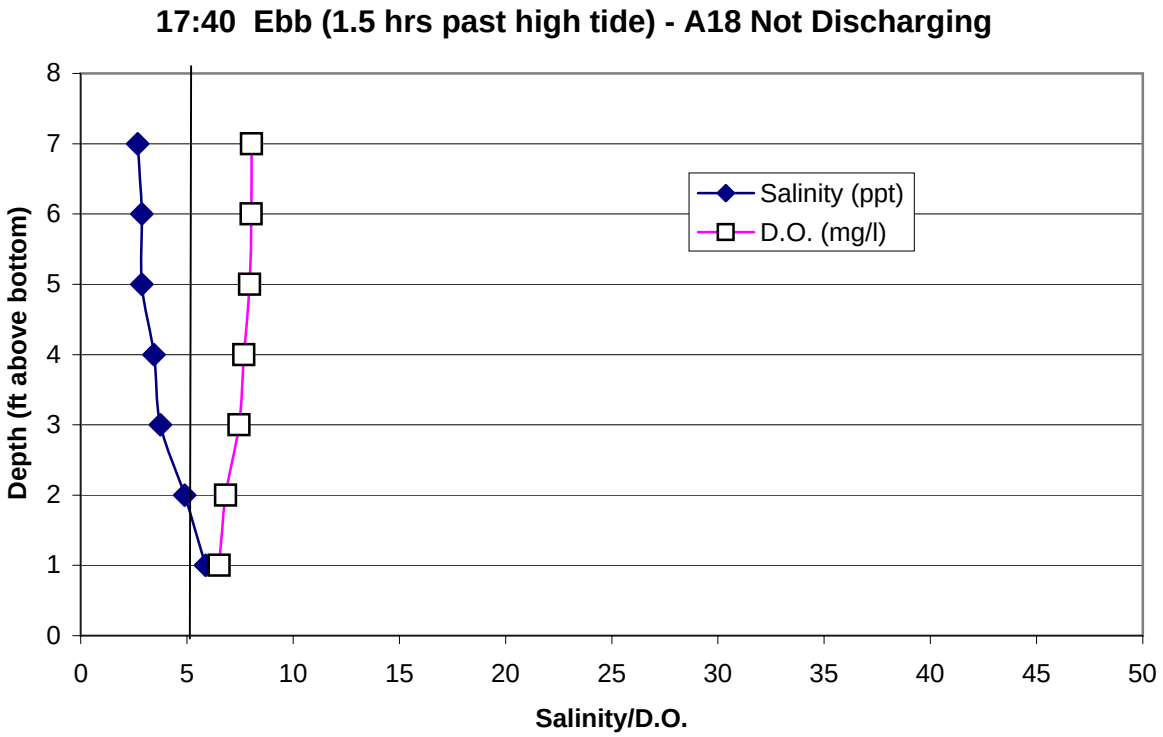


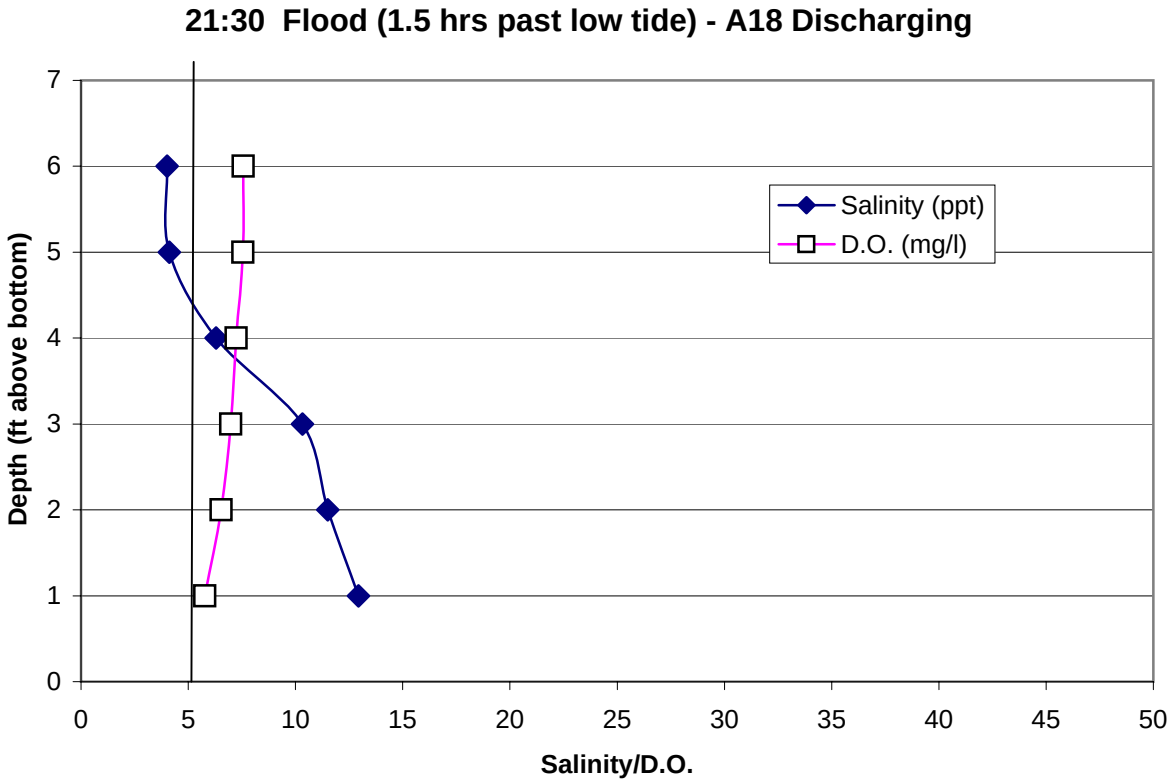
Station A18-3 Tuesday, June 14, 2005





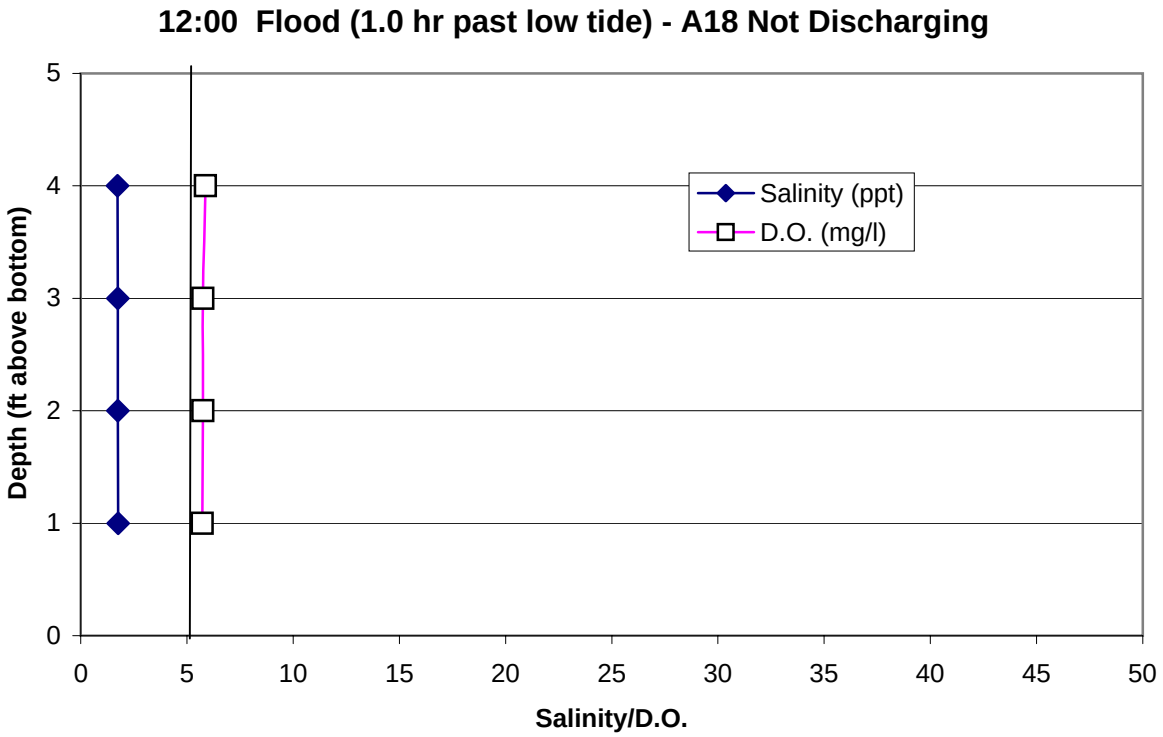
Station A18-3 Wednesday, July 06, 2005

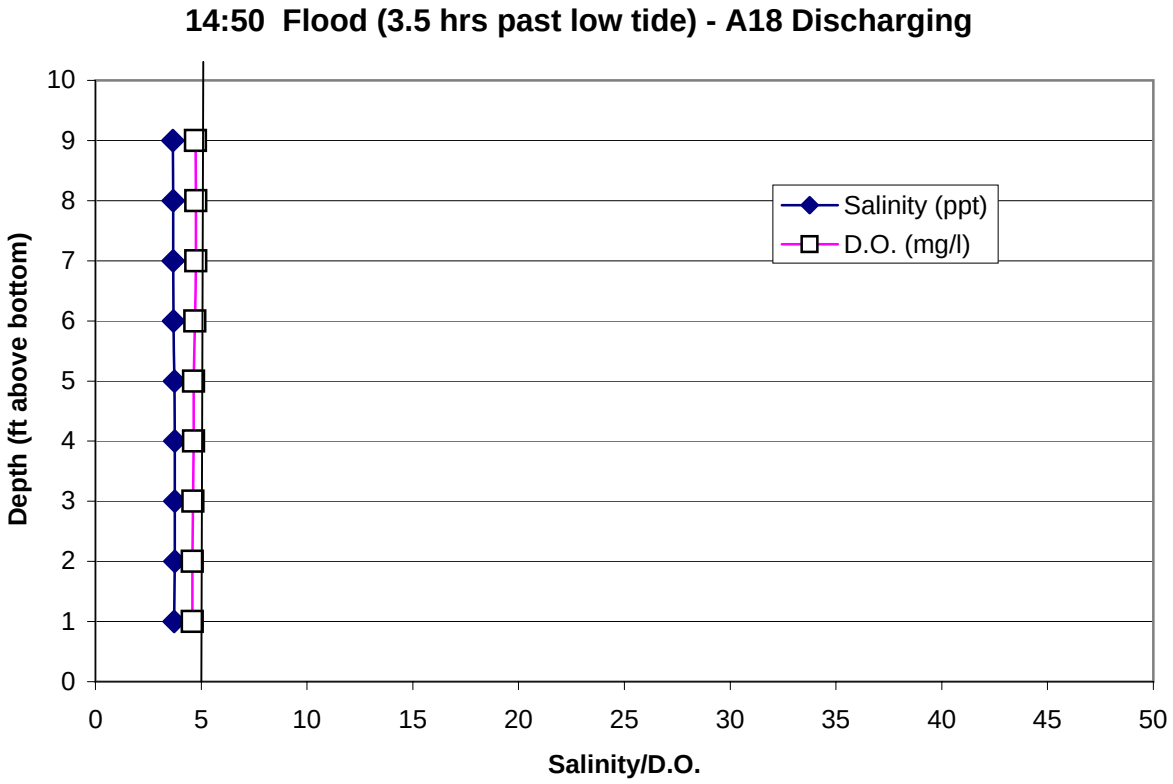




Station A18-3

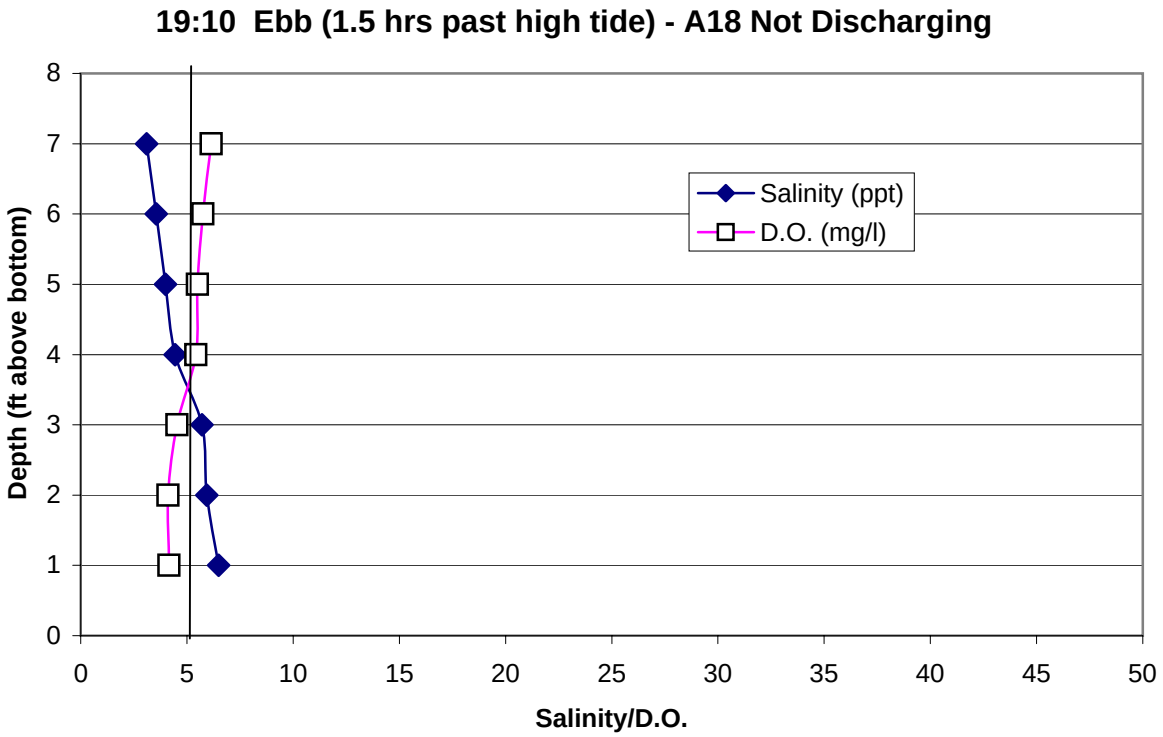
Tuesday, August 09, 2005

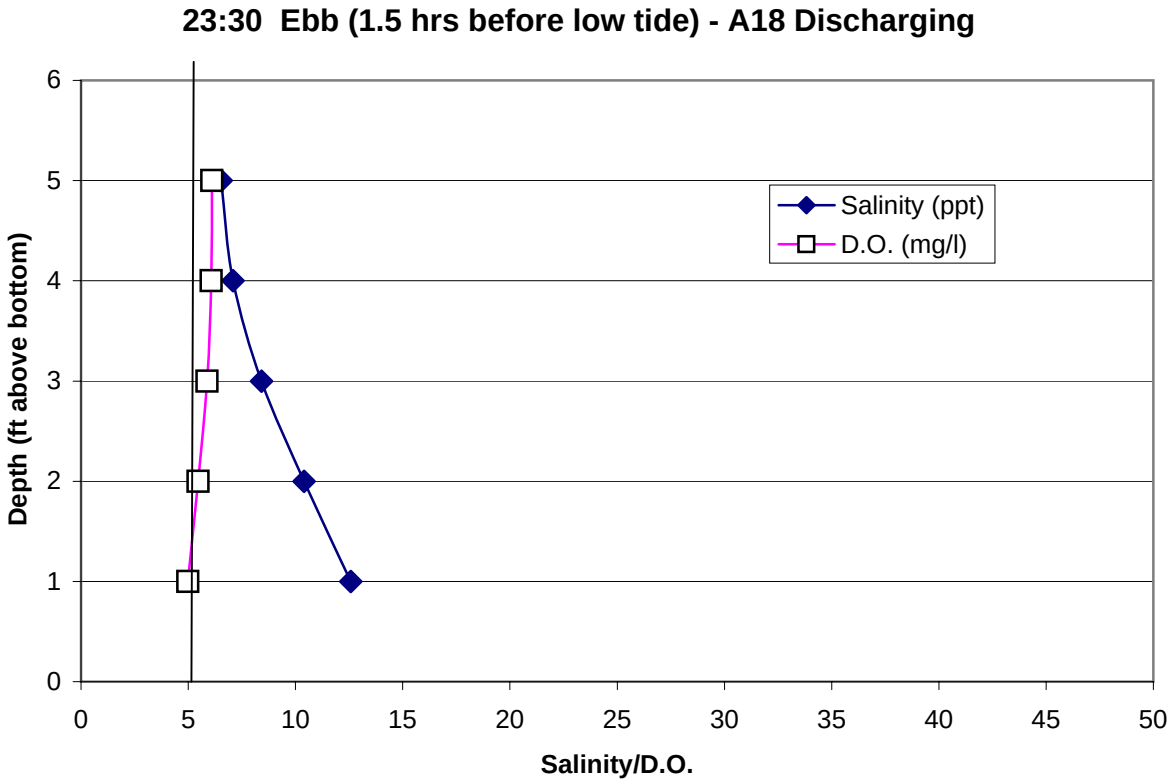




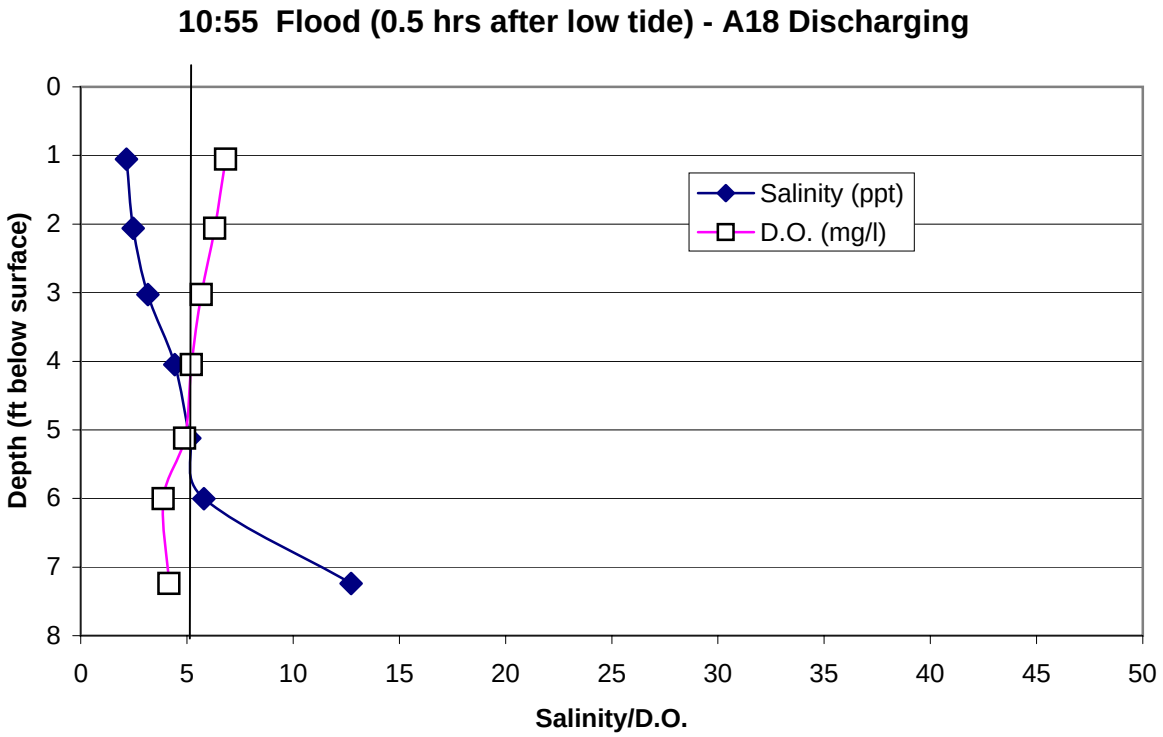
Station A18-3

Friday, September 09, 2005





Station A18-3 Friday, October 21, 2005



Monitoring Event - Artesian Slough at A-A18-4

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Prior to Initiation of Continuous Circulation															
Just Upstream of Coyote Creek	No	Ebb	9	8	5/2/2005	11:38	21.76	6.97	4.53	3.84	70	6.01	7.27	5.4	195.5
		(3 hrs past high)		7	5/2/2005					3.89		6.00			
				6	5/2/2005					3.92		5.95			
				5	5/2/2005					3.92		5.91			
				4	5/2/2005					4.01		5.89			
				3	5/2/2005	11:37	21.65	7.61	4.94	4.21	68	5.84	7.32		216.1
				2	5/2/2005					4.92		5.67			
				1	5/2/2005	11:36	21.42	11.48	7.46	6.56	66.6	5.67	7.41	4.7	244.6
	Air Temp = 23.0^{o}C, Humidity = 39%, Barometer = 29.88 in Hg, Sunny														
Just Upstream of Coyote Creek	Yes	Slack	5	4	5/2/2005	15:34	23.82	6.62	4.30	3.62	100.6	8.32	7.41	20	194.8
		(low tide)		3	5/2/2005					3.66		8.31			
				2	5/2/2005	15:33	23.80	6.74	4.38	3.69	100.1	8.29	7.42		205.8
				1	5/2/2005	15:32	23.79	6.74	4.38	3.69	99.7	8.25	7.42	10	232.9
1 Week after Initiation of Continuous Circulation															
Just Upstream of Coyote Creek	No	Ebb	8	7	5/17/2005	10:52	21.73	6.67	4.33	3.66	73.8	6.35	7.36	3.6	120.0
		(1 hr past high)		6	5/17/2005					3.73		6.30			
				5	5/17/2005					3.75		6.27			
				4	5/17/2005	10:51	21.70	6.87	4.47	3.78	71.8	6.18	7.37		133.2
				3	5/17/2005					4.15		6.02			
				2	5/17/2005					4.38		5.80			
				1	5/17/2005	10:49	21.85	23.26	15.12	14.09	60.4	4.88	7.91	4.8	187.1
	Air Temp = 19.5^{o}C, Humidity = 48%, Barometer = 29.74 in Hg, Overcast														
Just Upstream of Coyote Creek	Yes	Ebb	6	5	5/17/2005	14:32	22.77	11.30	7.35	6.44	93.4	7.76	7.52	12	103.3
		(0.5 hrs before low)		4	5/17/2005					6.59		7.62			
				3	5/17/2005	14:30	22.75	11.72	7.62	6.69	92.4	7.66	7.54		153.5
				2	5/17/2005					6.73		7.70			
				1	5/17/2005	14:29	22.64	11.78	7.66	6.73	94.9	7.89	7.54	7.5	206.7
1 Month after Initiation of Continuous Circulation															
Just Upstream of Coyote Creek	No	Ebb	8	7	6/14/2005	10:32	24.09	6.15	4.00	3.34	71.2	5.86	7.22	4.5	141.8
		(3.5 hrs past high)		6	6/14/2005					3.37		5.84			
				5	6/14/2005					3.87		5.70			
				4	6/14/2005					3.83		5.69			
				3	6/14/2005	10:28	24.06	10.69	6.95	6.05	64.6	5.25	7.34		160.1
				2	6/14/2005					10.48		4.12			
				1	6/14/2005	10:25	24.09	19.79	12.86	11.79	48.1	3.78	7.68	24	193.5
	Time = 08:45, Air Temp = 20.0^{o}C, Humidity = 53%, Barometer = 29.83 in Hg, Sunny														
Just Upstream of Coyote Creek	Yes	Slack	6	5	6/14/2005	13:55	25.92	9.59	6.23	5.37	57.6	4.54	7.43	16	115.5
		(low tide)		4	6/14/2005					5.48		4.50			
				3	6/14/2005	13:54	25.17	10.19	6.62	5.74	57.3	4.57	7.45		118.6
				2	6/14/2005					5.97		5.09			
				1	6/14/2005	13:53	25.25	10.77	7.00	6.09	67.7	5.38	7.46	34	124.1

Monitoring Event - Artesian Slough at A-A18-4

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
2 Months after Initiation of Continuous Circulation															
Just Upstream of Coyote Creek	No	Ebb	8	7	7/6/2005	18:07	25.06	9.210	5.99	5.15	56.0	4.49	7.64	32	138.5
		(2.0 hrs past high)		6	7/6/2005					5.16		4.45			
				5	7/6/2005					5.16		4.44			
				4	7/6/2005	18:06	25.05	9.221	5.993	5.16	55.6	4.46	7.64		142.3
				3	7/6/2005					5.16		4.39			
				2	7/6/2005					5.18		4.35			
				1	7/6/2005	18:03	24.97	9.28	6.033	5.19	54.0	4.33	7.57	27	163.3
	Time = 16:37, Air Temp = 26.5^{o}C, Humidity = 62%, Barometer = 29.85 in Hg, Sunny														
Just Upstream of Coyote Creek	Yes	Flood	7	6	7/6/2005	21:49	24.73	7.976	5.184	4.41	67.0	5.43	7.61	31	110.1
		(2.0 hrs past low)		5	7/6/2005					4.46		5.23			
				4	7/6/2005					4.47		5.15			
				3	7/6/2005	21:48	24.79	8.06	5.237	4.46	63.6	5.15	7.60		112.2
				2	7/6/2005					4.45		5.13			
				1	7/6/2005	21:47	24.76	8.06	5.241	4.47	63.4	5.13	7.56	38	112.2
3 Months after Initiation of Continuous Circulation															
Just Upstream of Coyote Creek	No	Flood	7	6	8/9/2005	12:19	25.08	6.130	3.99	3.33	56.4	4.57	7.41	32	29.3
		(1.0 hr past low)		5	8/9/2005					3.34		4.51			
				4	8/9/2005					3.34		4.49			
				3	8/9/2005	12:18	25.01	6.109	3.97	3.32	54.6	4.43	7.41		32.3
				2	8/9/2005					3.32		4.42			
				1	8/9/2005	12:16	24.99	6.076	3.95	3.30	54.7	4.43	7.41	45	41.1
	Time = 10:45, Air Temp = 23.5^{o}C, Humidity = 61%, Barometer = 29.85 in Hg, Sunny														
Just Upstream of Coyote Creek	Yes	Flood	11	10	8/9/2005	15:09	24.94	15.92	10.35	9.30	57.5	4.51	7.63	42	29.2
		(4.0 hrs past low)		9	8/9/2005					9.59		4.54			
				8	8/9/2005					9.78		4.52			
				7	8/9/2005					9.79		4.51			
				6	8/9/2005					9.78		4.50			
				5	8/9/2005					9.83		4.51			
				4	8/9/2005	15:08	24.60	16.78	10.90	9.85	57.5	4.53	7.63		36.6
				3	8/9/2005					9.82		4.54			
				2	8/9/2005					9.85		4.53			
				1	8/9/2005	15:06	24.70	16.63	10.81	9.75	57.6	4.52	7.64	44	43.3

Monitoring Event - Artesian Slough at A-A18-4

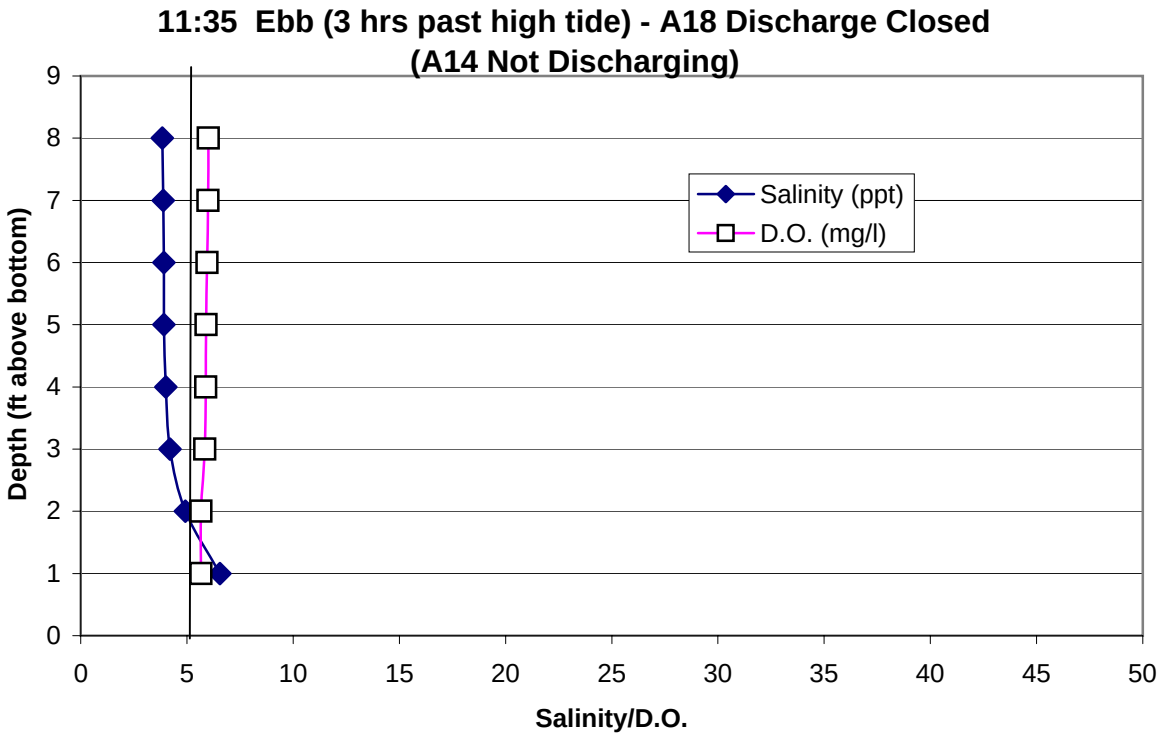
Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
4 Months after Initiation of Continuous Circulation															
Just Upstream of Coyote Creek	No	Ebb	9	8	9/9/2005	19:33	23.79	11.01	7.156	6.25	65.7	5.36	7.51	23	-106.3
		(1.5 hrs past high)		7	9/9/2005					6.27		5.35			
				6	9/9/2005					6.32		5.35			
				5	9/9/2005					6.33		5.37			
				4	9/9/2005	19:31	23.76	11.26	7.319	6.40	65.3	5.32	7.51		-100.7
				3	9/9/2005					6.30		5.30			
				2	9/9/2005					6.38		5.31			
				1	9/9/2005	19:30	23.70	11.28	7.330	6.41	65.0	5.30	7.47	29	-94.7
	Time = 17:45, Air Temp = 22.2^{o}C, Humidity = 51%, Barometer = 29.85 in Hg, Sunny														
Just Upstream of Coyote Creek	Yes	Slack	7	6	9/9/2005	23:47	24.09	11.48	7.46	6.54	68.8	5.57	7.38	21	-62.9
		(low tide)		5	9/9/2005					6.53		5.55			
				4	9/9/2005					6.52		5.53			
				3	9/9/2005	23:46	24.10	11.41	7.42	6.49	68.3	5.53	7.39		-60.8
				2	9/9/2005					6.48		5.55			
				1	9/9/2005	23:45	24.04	11.33	7.37	6.45	68.2	5.53	7.39	18	-60.8

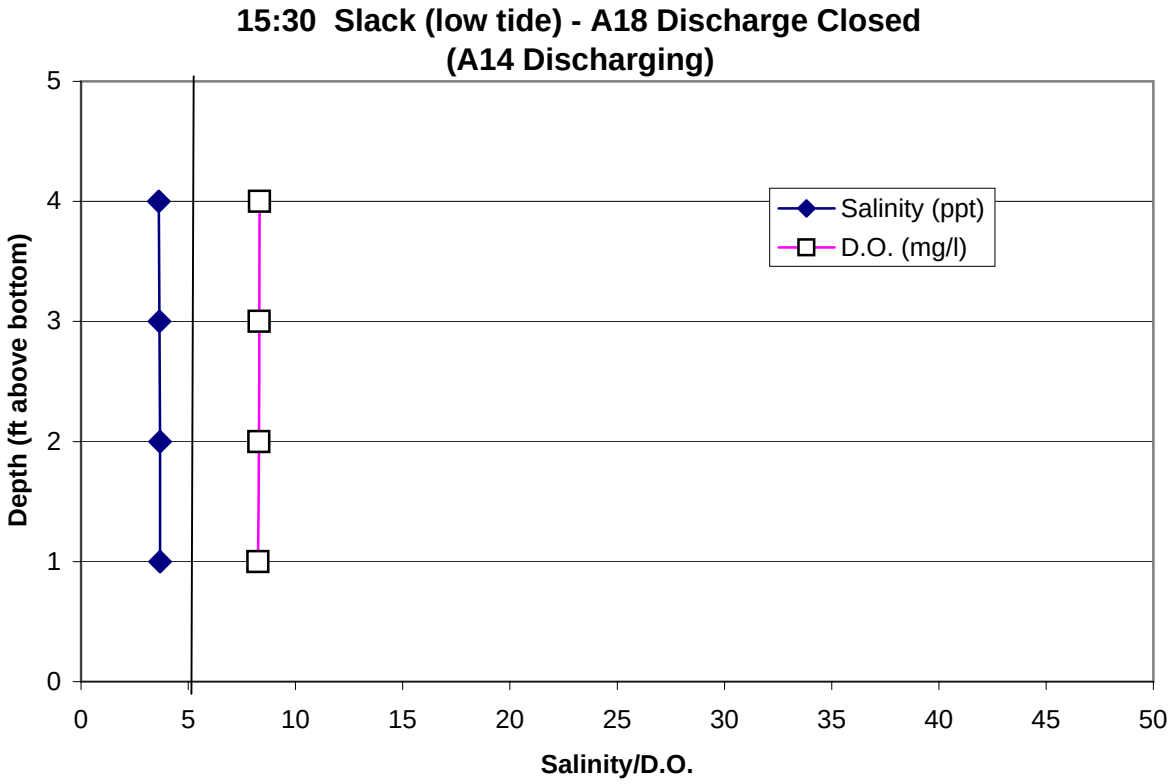
The data below was collected by the City of San Jose, Watershed Investigations using a YSI 600XL multiparameter sonde with water depth pressure sensor except for Turbidity. Turbidity was measured by collecting grab samples from the surface and bottom.

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (actual depth in ft)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
5 Months after Initiation of Continuous Circulation															
Near A18 intake structure	Yes	Flood	6	5.123	10/21/2005	11:07	20.94	9.285	6.035	5.22	56.8	4.92	7.46	128	-86
		(0.5 hrs after low)		3.719	10/21/2005	11:08	21.43	8.889	5.778	4.98	52.7	4.53	7.47		-85
				2.793	10/21/2005	11:08	22.05	8.28	5.382	4.61	56.9	4.84	7.47		-86
				1.653	10/21/2005	11:09	22.27	7.939	5.16	4.41	63.1	5.35	7.46		-86
				0.765	10/21/2005	11:09	22.71	7.357	4.782	4.06	67.2	5.66	7.46	95.7	-87

Station A18-4

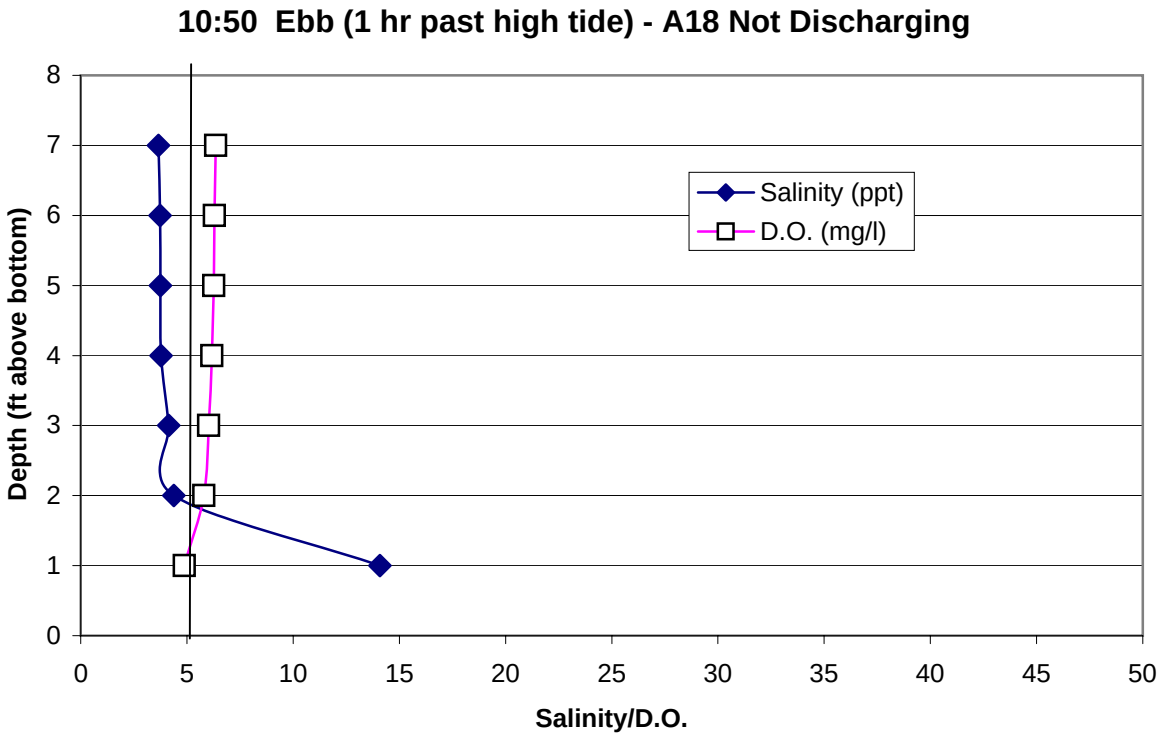
Monday, May 02, 2005

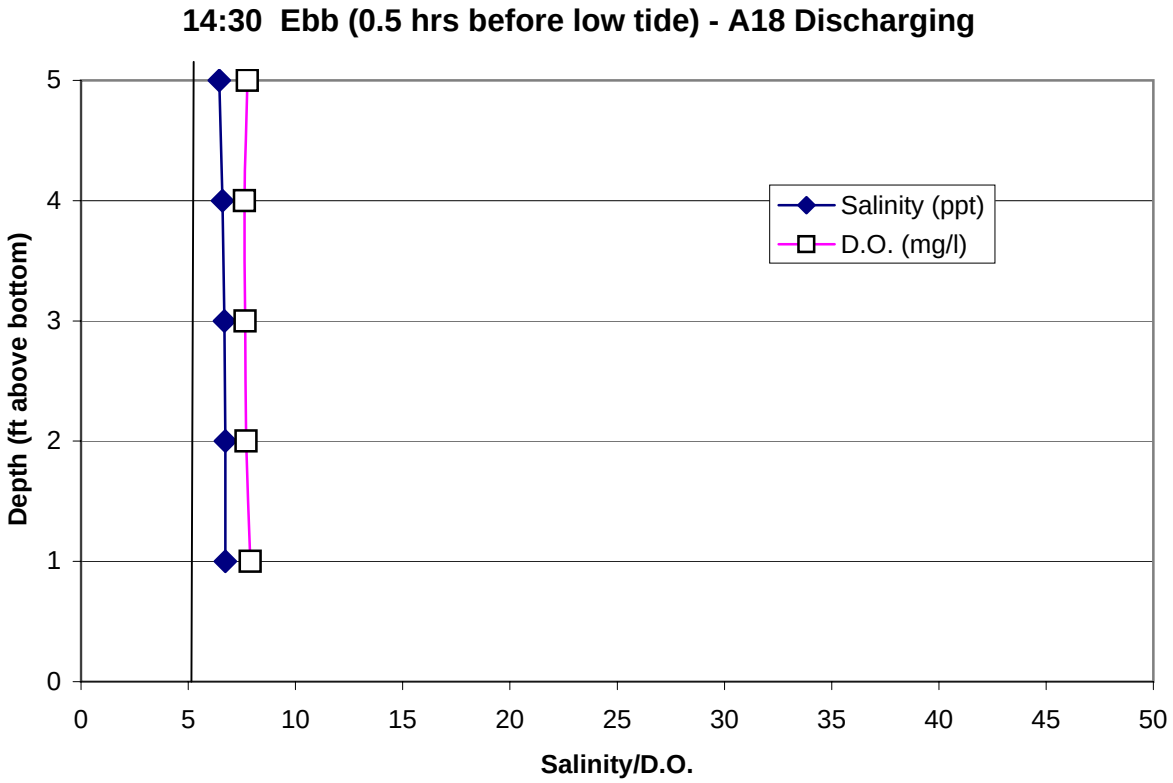




Station A18-4

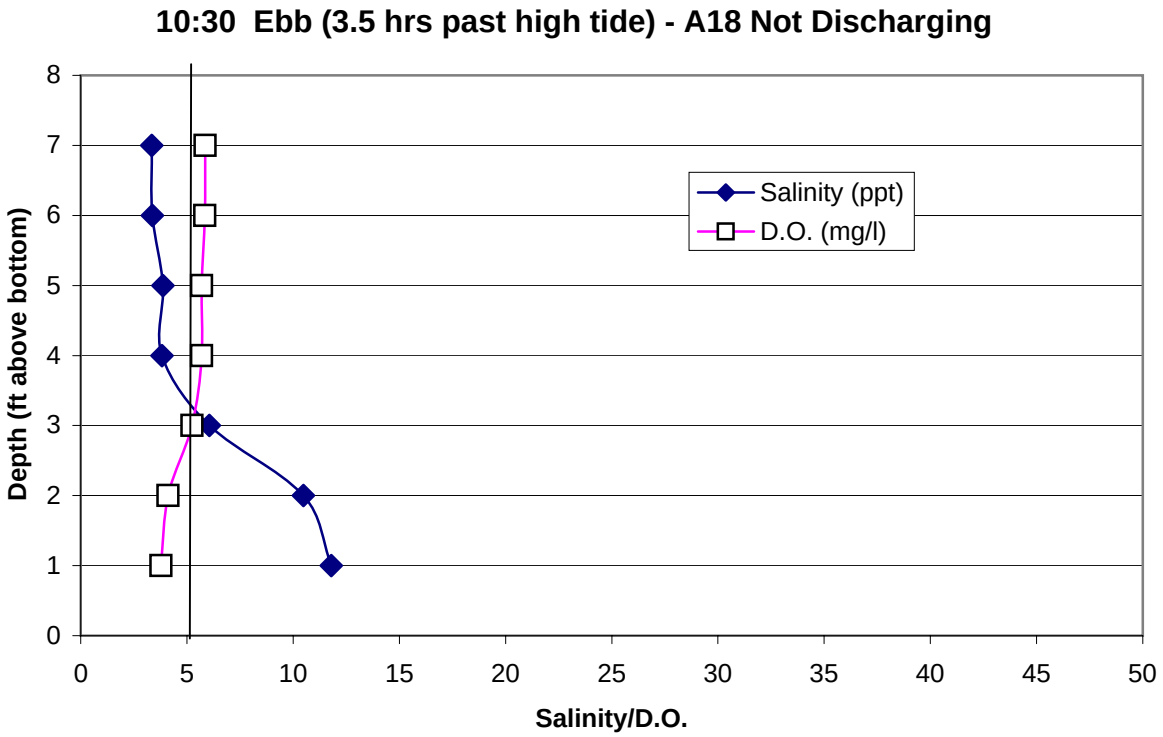
Tuesday, May 17, 2005

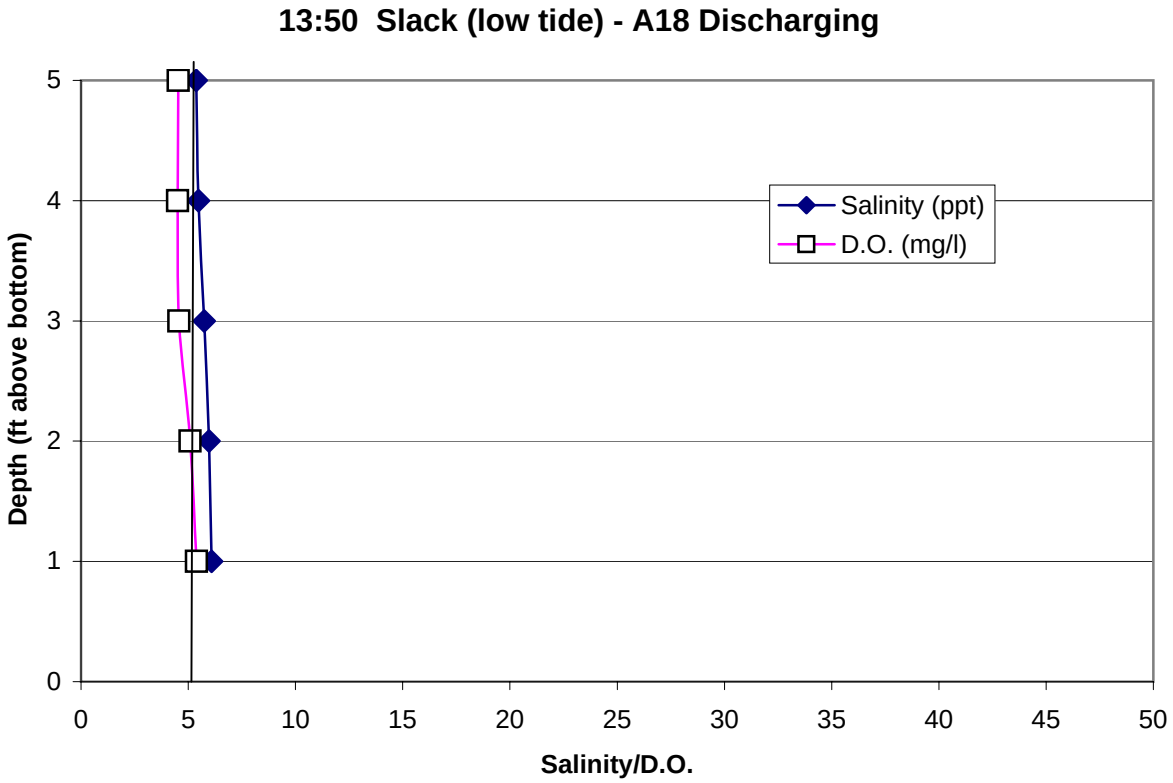




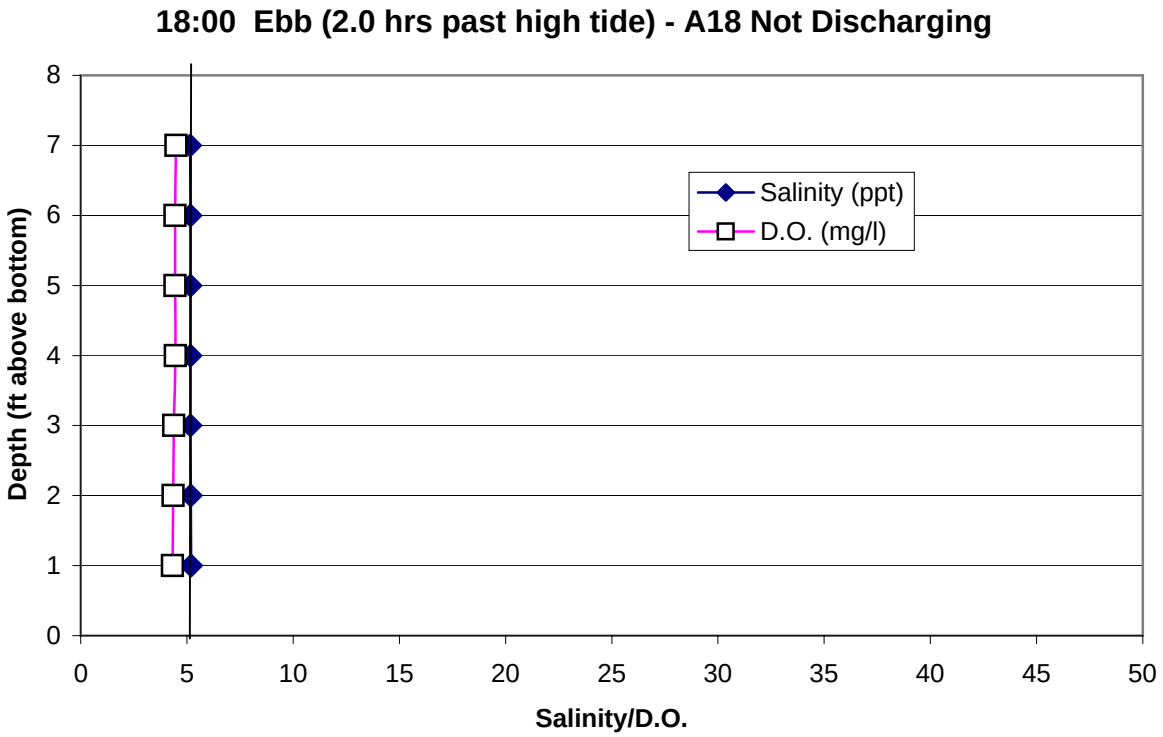
Station A18-4

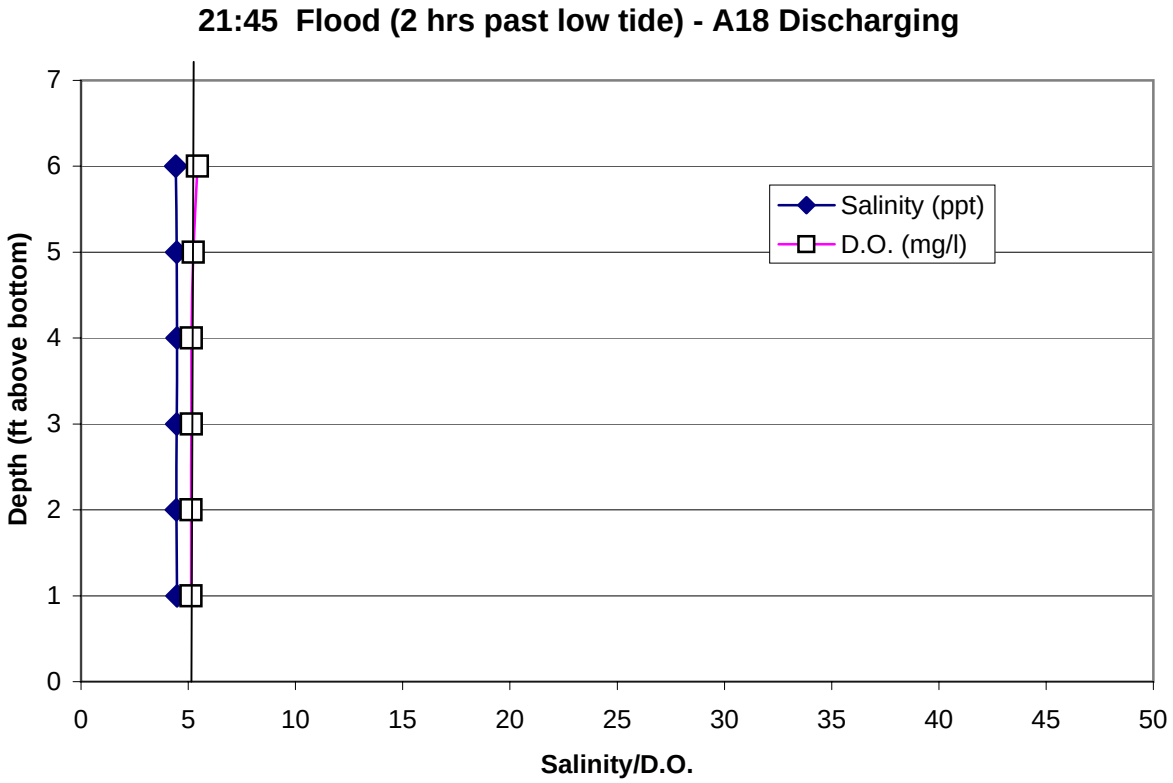
Tuesday, June 14, 2005





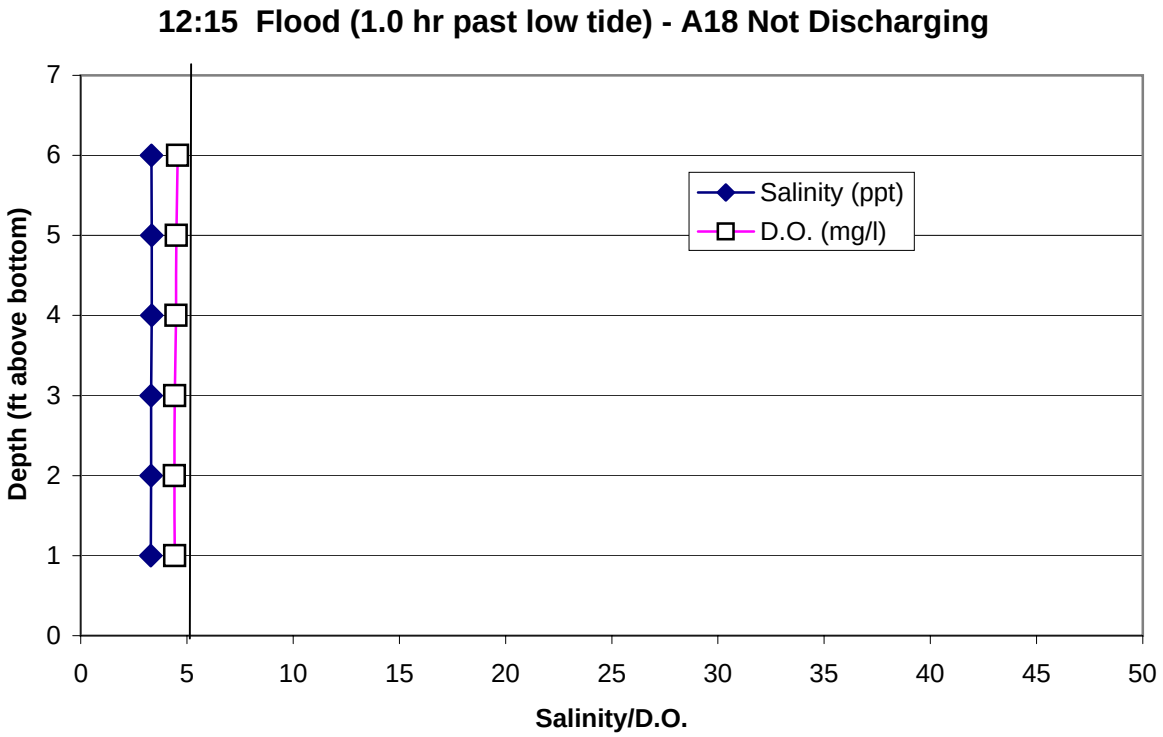
Station A18-4 Wednesday, July 06, 2005

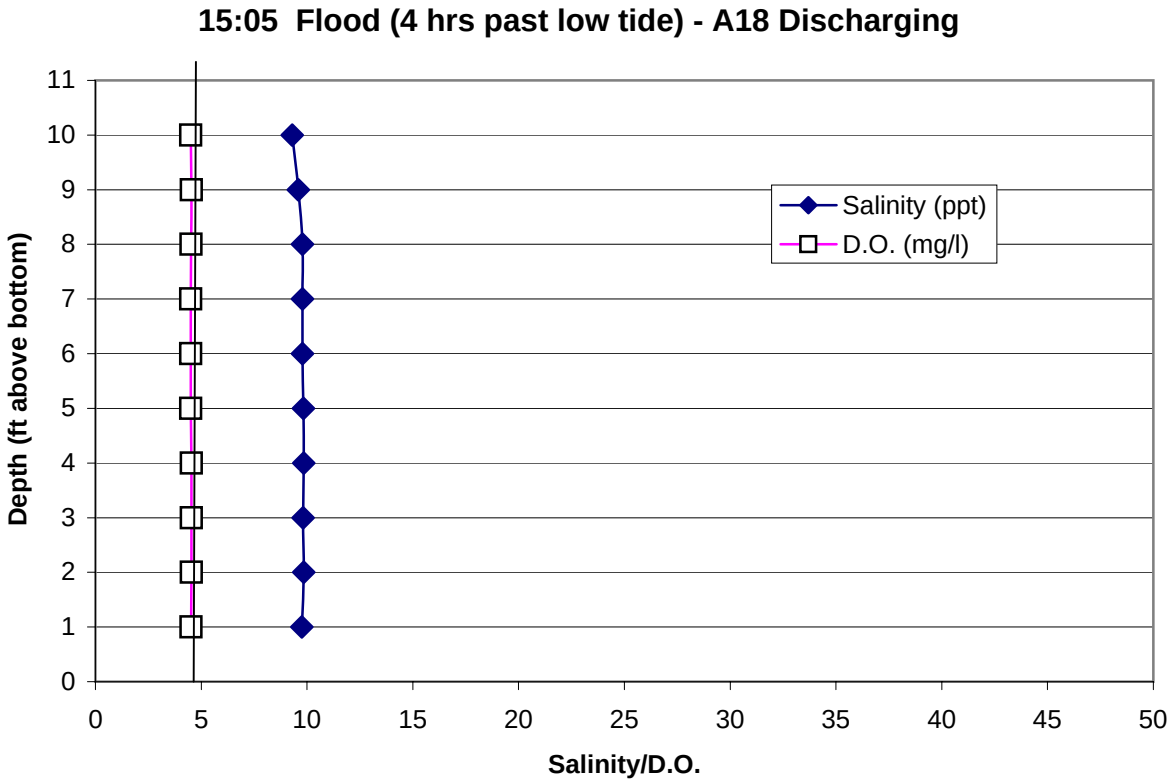




Station A18-4

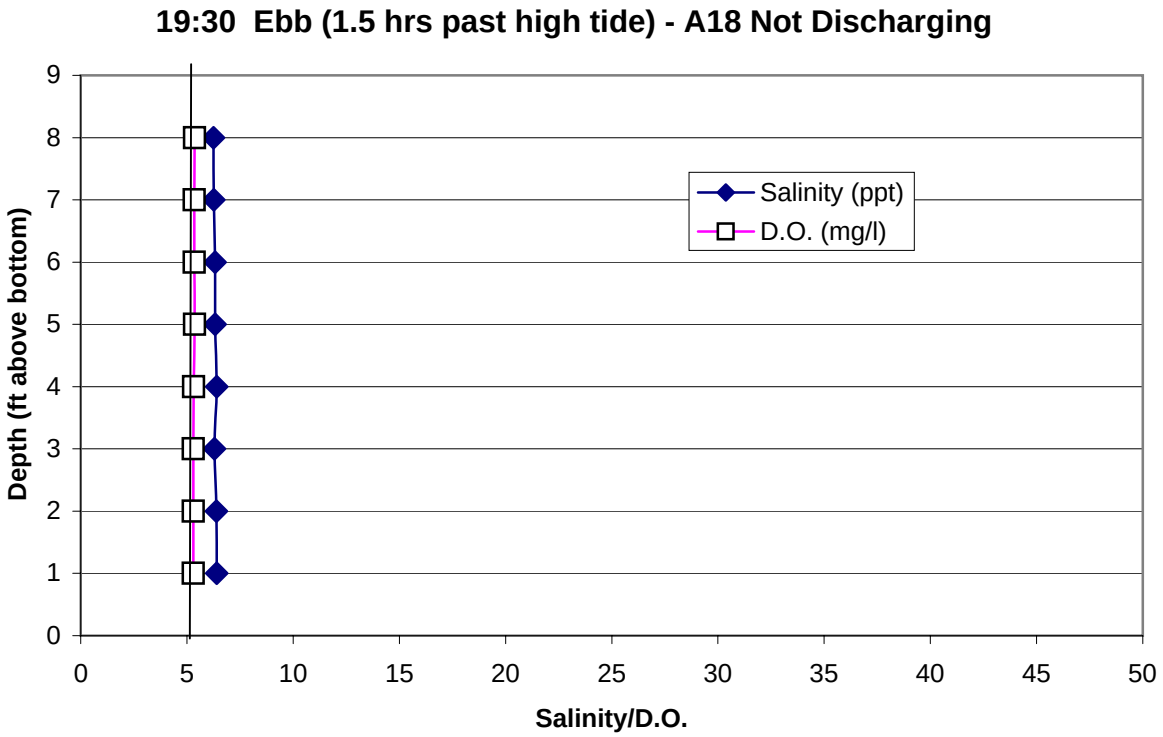
Tuesday, August 09, 2005

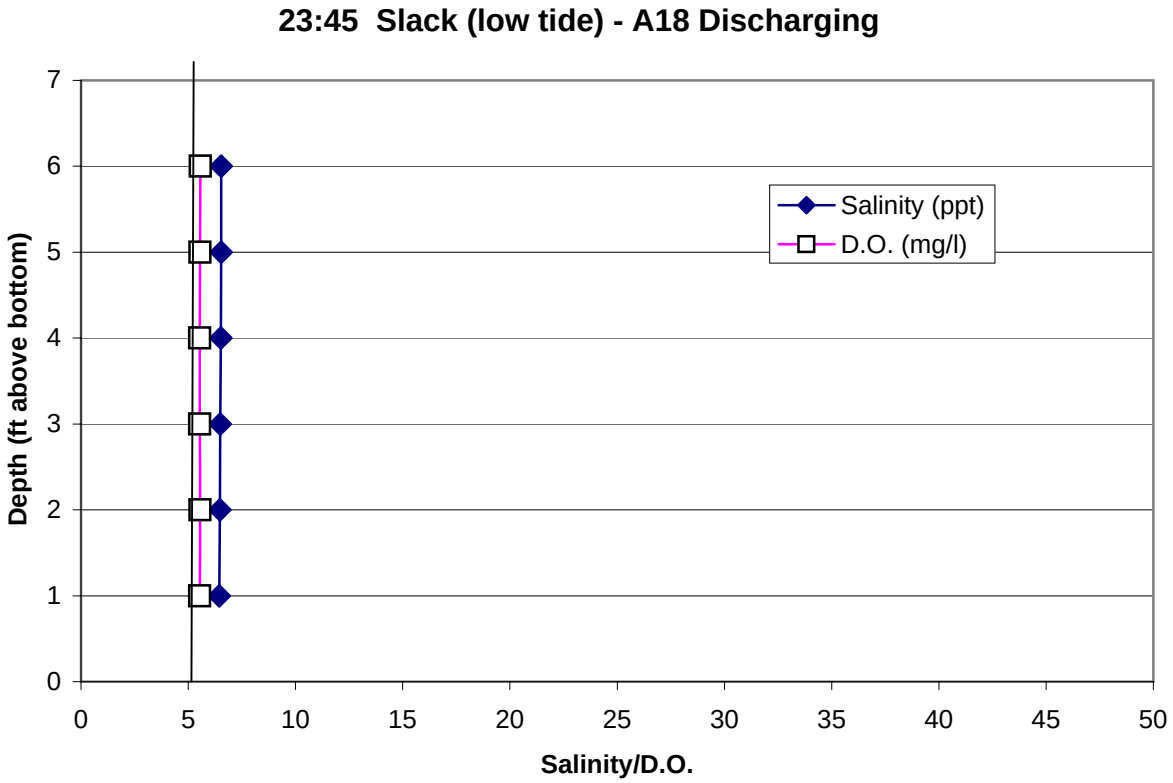




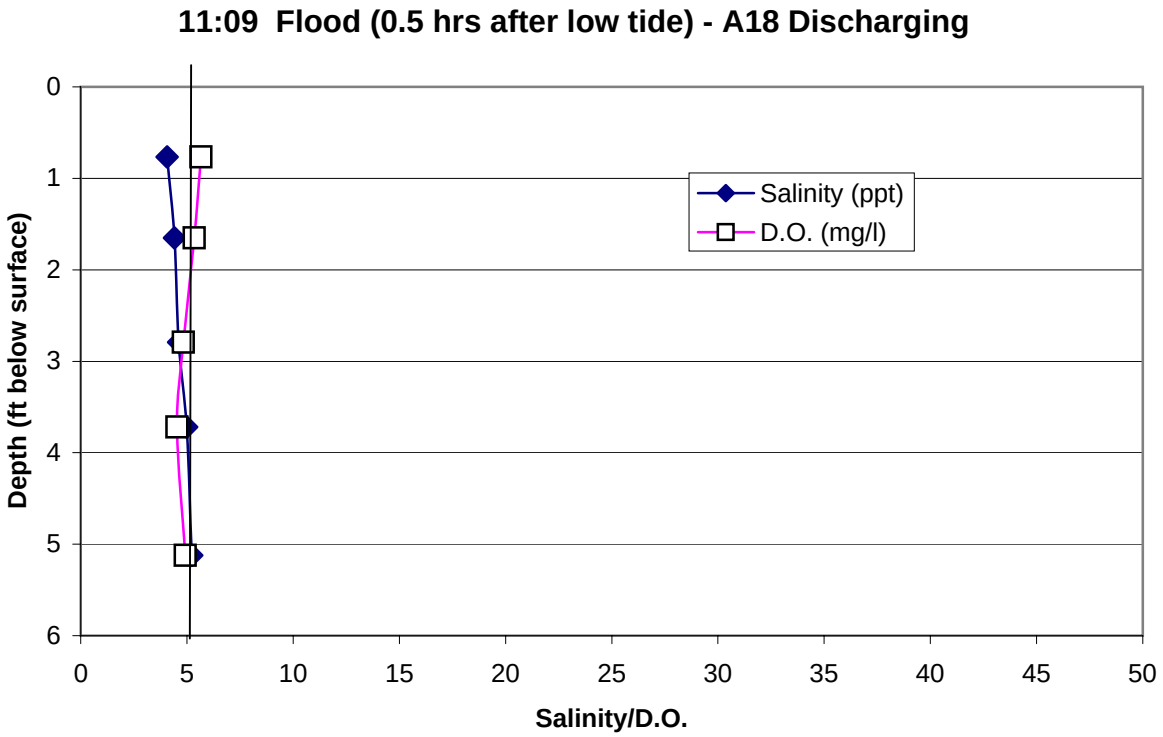
Station A18-4

Friday, September 09, 2005





Station A18-4 Friday, October 21, 2005



Monitoring Event - Artesian Slough at A-A18-5

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
Prior to Initiation of Continuous Circulation															
Confluence with Coyote Creek	No	Ebb	4	3	5/2/2005	11:52	21.79	7.487	4.867	4.14	71.5	6.13	7.27		191.9
		(3 hrs past high)		2	5/2/2005	11:49	21.75	7.537	4.899	4.17	71.4	6.12	7.28		235.7
				1	5/2/2005	11:48	21.72	7.528	4.893	4.16	74.7	6.41	7.28		258.5
	Air Temp = 23.0^{o}C, Humidity = 39%, Barometer = 29.88 in Hg, Sunny														
Confluence with Coyote Creek	Yes	Slack	5	4	5/2/2005	15:48	23.85	6.67	4.33	3.65	98.5	8.14	7.41		180.7
		(low tide)		3	5/2/2005	15:47	23.83	6.66	4.33	3.64	98.5	8.14	7.42		191.3
				2	5/2/2005					3.64		8.14			
				1	5/2/2005	15:45	23.82	6.64	4.32	3.63	97.6	8.08	7.41		219.4
1 Week after Initiation of Continuous Circulation															
Confluence with Coyote Creek	No	Ebb	5	4	5/17/2005	11:09	21.80	6.735	4.378	3.70	74.1	6.37	7.36		104.5
		(1.5 hrs past high)		3	5/17/2005					4.02		6.28			
				2	5/17/2005	11:08	21.76	8.172	5.312	4.55	72.0	6.16	7.43		111.8
				1	5/17/2005	11:07	21.73	9.223	5.995	5.18	75.3	6.42	7.40		122.9
	Air Temp = 19.5^{o}C, Humidity = 48%, Barometer = 29.74 in Hg, Overcast														
Confluence with Coyote Creek	Yes	Slack	5	4	5/17/2005	14:46	21.93	7.77	5.05	4.31	74	6.32	7.81		72.1
		(low tide)		3	5/17/2005					5.65		6.28			
				2	5/17/2005	14:44	22.34	9.41	6.12	5.29	83.9	7.07	7.68		83.1
				1	5/17/2005	14:42	22.79	11.52	7.49	6.57	91.8	7.61	7.50		106.7
1 Month after Initiation of Continuous Circulation															
Confluence with Coyote Creek	No	Ebb	4	3	6/14/2005	10:44	24.24	6.763	4.396	3.70	70.5	5.78	7.25		134.9
		(2 hrs before low)		2	6/14/2005	10:43	24.21	8.055	5.235	4.46	67.2	5.49	7.29		138.9
				1	6/14/2005	10:42	24.14	13.72	8.921	7.93	54.7	4.39	7.43		152.3
	Time = 08:45, Air Temp = 20.0^{o}C, Humidity = 53%, Barometer = 29.83 in Hg, Sunny														
Confluence with Coyote Creek	Yes	Flood	4	3	6/14/2005	14:17	25.75	9.26	6.02	5.18	61.5	4.87	7.45		119.2
		(0.5 hrs past low)		2	6/14/2005	14:16	25.69	9.26	6.02	5.18	59.5	4.72	7.44		122.4
				1	6/14/2005	14:16	25.65	9.26	6.02	5.17	58.4	4.63	7.45		125.4

Monitoring Event - Artesian Slough at A-A18-5

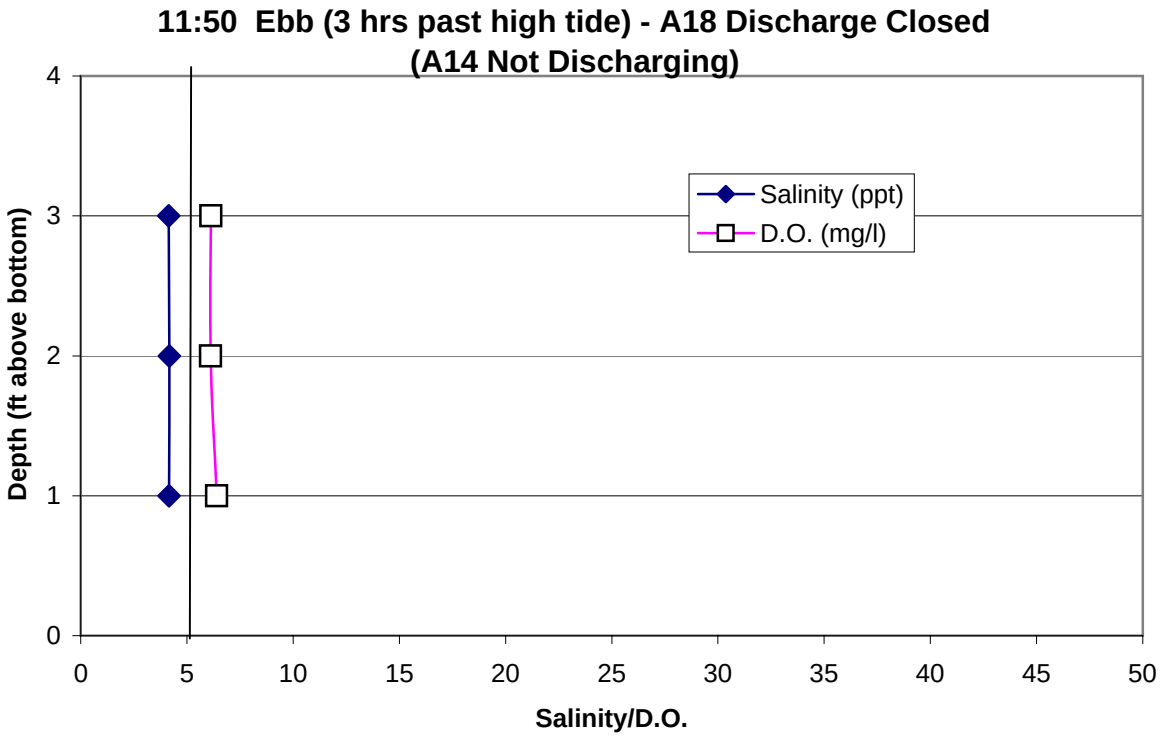
Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
2 Months after Initiation of Continuous Circulation															
Confluence with Coyote Creek	No	Ebb	4	3	7/6/2005	18:23	24.98	8.269	6.03	5.19	55.0	4.41	7.64		115.1
		(2.5 hrs past high)		2	7/6/2005	18:22	24.950	9.33	6.06	5.2	54.50	4.38	7.63		115.4
				1	7/6/2005	18:21	24.87	9.497	6.17	5.32	53.6	4.31	7.63		116.2
	Time = 16:37, Air Temp = 26.5^{o}C, Humidity = 62%, Barometer = 29.85 in Hg, Sunny														
Confluence with Coyote Creek	Yes	Flood	4	3	7/6/2005	21:57	24.18	9.090	5.91	5.08	63.2	5.15	7.64		111.7
		(2.0 hrs past low)		2	7/6/2005	21:56	24.230	9.05	5.88	5.1	63.30	5.15	7.62		111.9
				1	7/6/2005	21:55	24.18	9.013	5.86	5.04	63.8	5.20	7.59		111.0
3 Months after Initiation of Continuous Circulation															
Confluence with Coyote Creek	No	Flood	5	4	8/9/2005	12:30	25.11	6.511	4.23	3.55	57.1	4.61	7.45		40.7
		(1.5 hrs past low)		3	8/9/2005	12:29	25.09	6.516	4.24	3.55	56.7	4.58	7.44		43.2
				2	8/9/2005					3.55		4.55			
				1	8/9/2005	12:28	25.10	6.478	4.21	3.53	55.8	4.51	7.43		50.9
	Time = 10:45, Air Temp = 23.5^{o}C, Humidity = 61%, Barometer = 29.85 in Hg, Sunny														
Confluence with Coyote Creek	Yes	Flood	10	9	8/9/2005	15:18	24.53	19.010	12.360	11.28	58.1	4.54	7.66		25.8
		(4.0 hrs past low)		8	8/9/2005					11.40		4.53			
				7	8/9/2005					11.40		4.50			
				6	8/9/2005					11.40		4.49			
				5	8/9/2005	15:17	24.47	19.150	12.450	11.37	57.1	4.47	7.65		30.9
				4	8/9/2005					11.40		4.46			
				3	8/9/2005					11.40		4.46			
				2	8/9/2005					11.30		4.47			
				1	8/9/2005	15:16	24.53	19.070	12.400	11.32	57.1	4.46	7.64		37.9
4 Months after Initiation of Continuous Circulation															
Confluence with Coyote Creek	No	Ebb	4	3	9/9/2005	19:48	23.77	10.840	7.05	6.15	64.8	5.29	7.50		-124.2
		(2.0 hrs past high)		2	9/9/2005	19:46	23.75	11.050	7.18	6.27	65.3	5.33	7.51		-118.6
				1	9/9/2005	19:47	23.77	11.080	7.20	6.29	64.6	5.27	7.51		-121.6
	Time = 17:45, Air Temp = 22.2^{o}C, Humidity = 51%, Barometer = 29.85 in Hg, Sunny														
Confluence with Coyote Creek	Yes	Slack	4	3	9/9/2005	23:57	24.04	11.530	7.495	6.57	67.8	5.49	7.38		-53.3
		(low tide)		2	9/9/2005	23:57	24.04	11.530	7.496	6.57	67.5	5.47	7.38		-51.9
				1	9/9/2005	23:56	23.98	11.490	7.470	6.54	67.5	5.48	7.38		-47.3

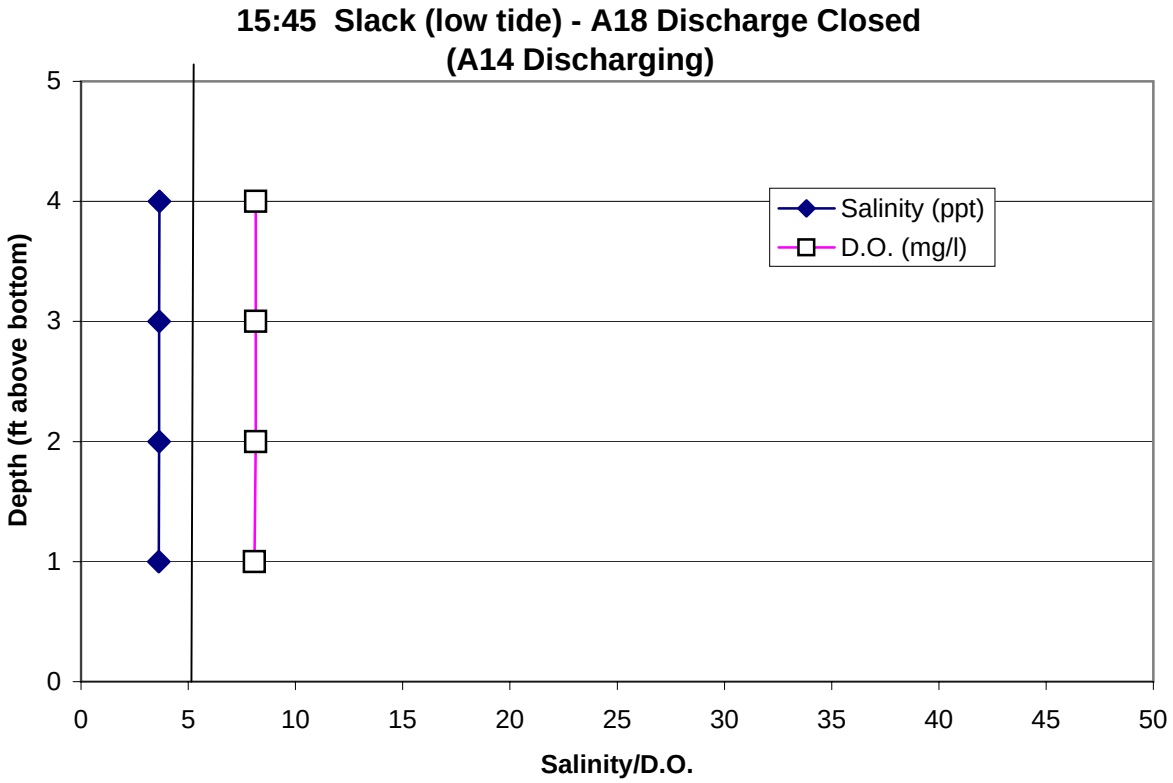
The data below was collected by the City of San Jose, Watershed Investigations using a YSI 600XL multiparameter sonde with water depth pressure sensor.

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (actual depth in ft)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
5 Months after Initiation of Continuous Circulation															
Confluence with Coyote Creek	Yes	Flood	9	8.359	10/21/2005	11:15	19.6	13.343	8.673	7.72	50.6	4.44	7.58		-78
		(1 hr after low)		7.346	10/21/2005	11:15	19.66	13	8.45	7.5	48.6	4.26	7.61		-79
				6.455	10/21/2005	11:15	19.71	12.779	8.307	7.37	48.4	4.24	7.62		-79
				5.153	10/21/2005	11:16	19.93	12.187	7.922	7	49.3	4.31	7.6		-80
				4.15	10/21/2005	11:16	20.33	10.922	7.099	6.22	49.8	4.34	7.62		-82
				3.004	10/21/2005	11:17	20.77	10.508	6.83	5.96	57.3	4.96	7.57		-83
				2.128	10/21/2005	11:18	20.88	10.251	6.663	5.8	59.5	5.14	7.57		-83
				1.2	10/21/2005	11:18	21.22	9.828	6.388	5.54	62.8	5.4	7.56		-84
				0.698	10/21/2005	11:19	21.51	9.262	6.02	5.2	65.8	5.64	7.56		-85

Station A18-5

Monday, May 02, 2005

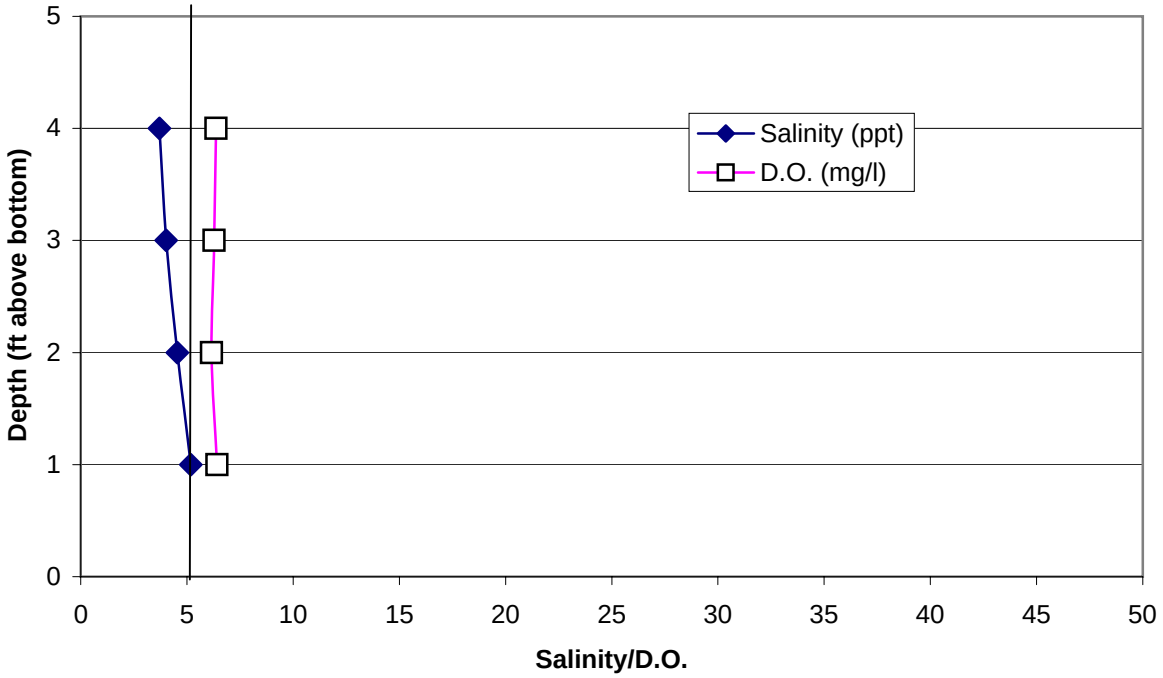




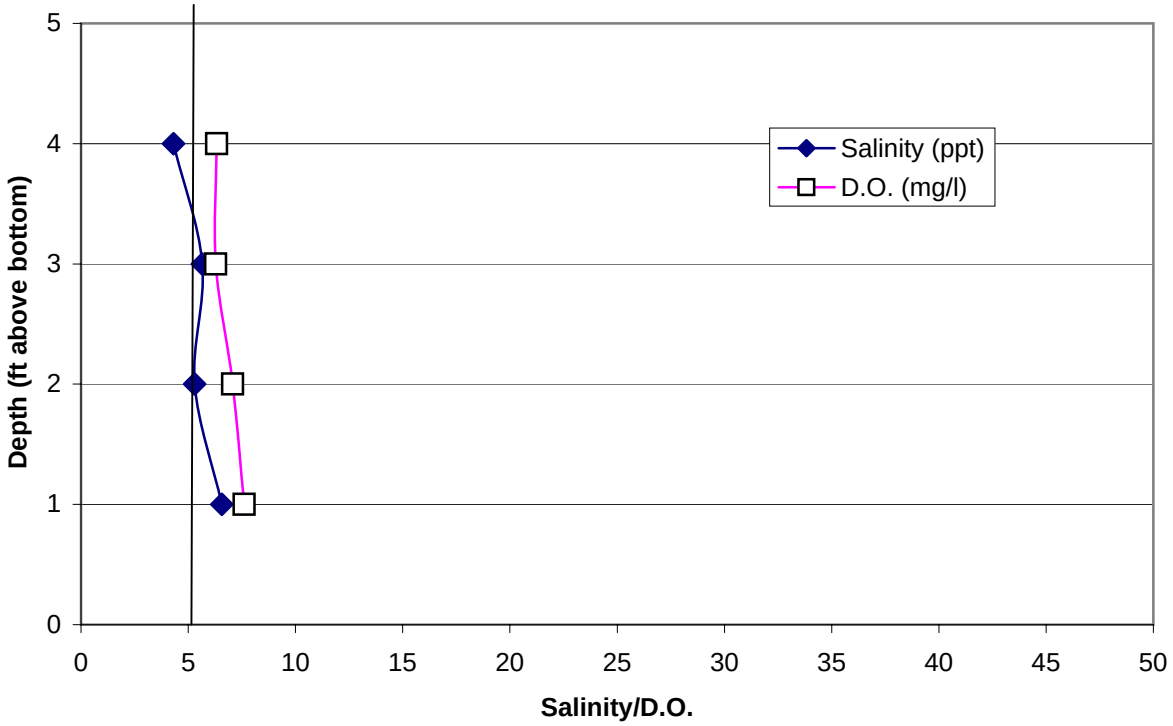
Station A18-5

Tuesday, May 17, 2005

11:10 Ebb (1.5 hrs past high tide) - A18 Not Discharging

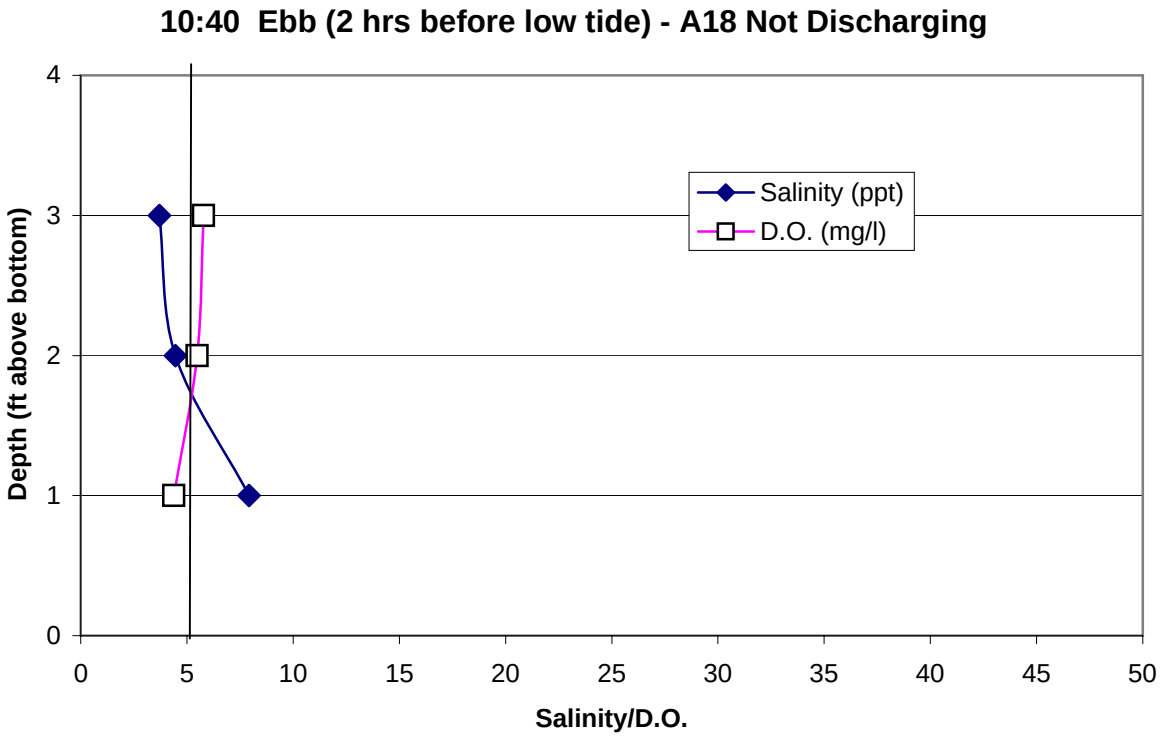


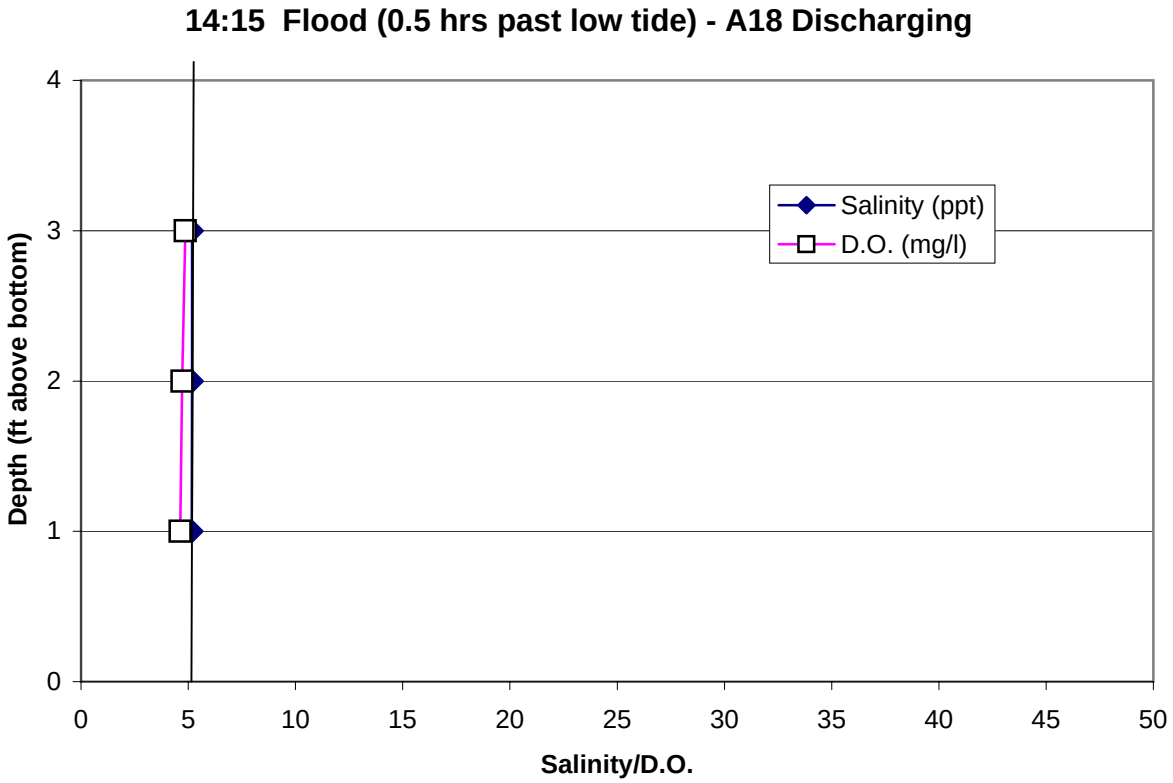
14:45 Slack (low tide) - A18 Discharging



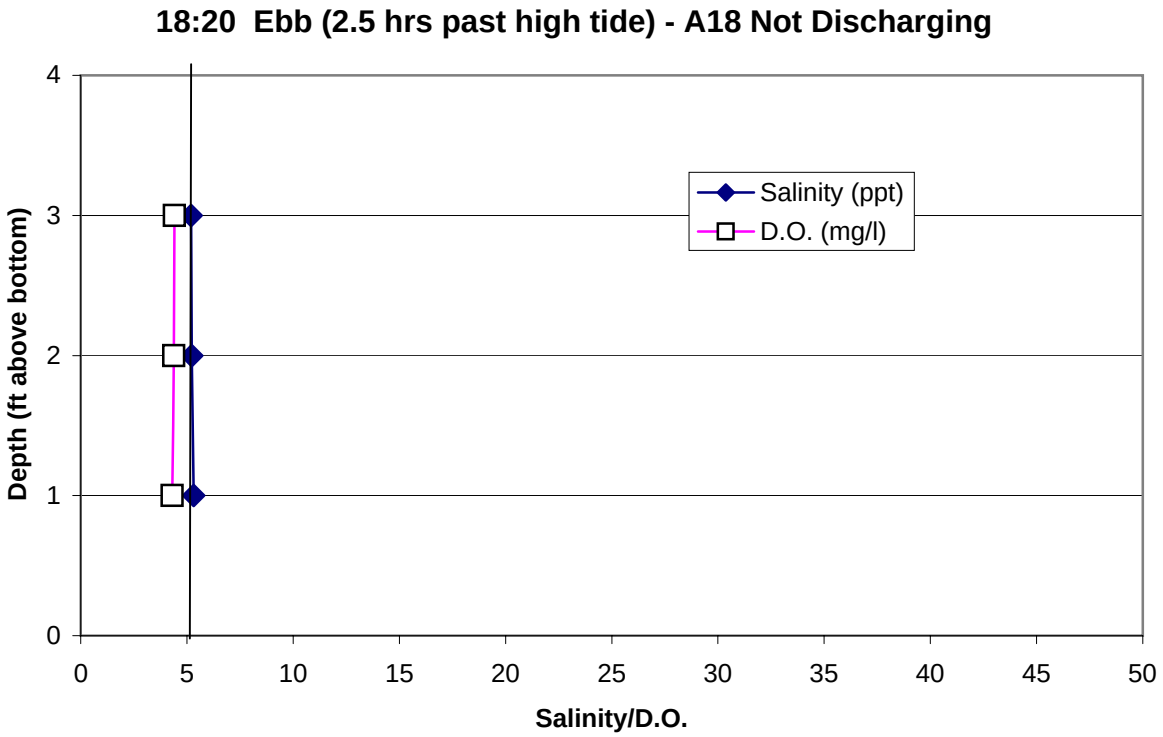
Station A18-5

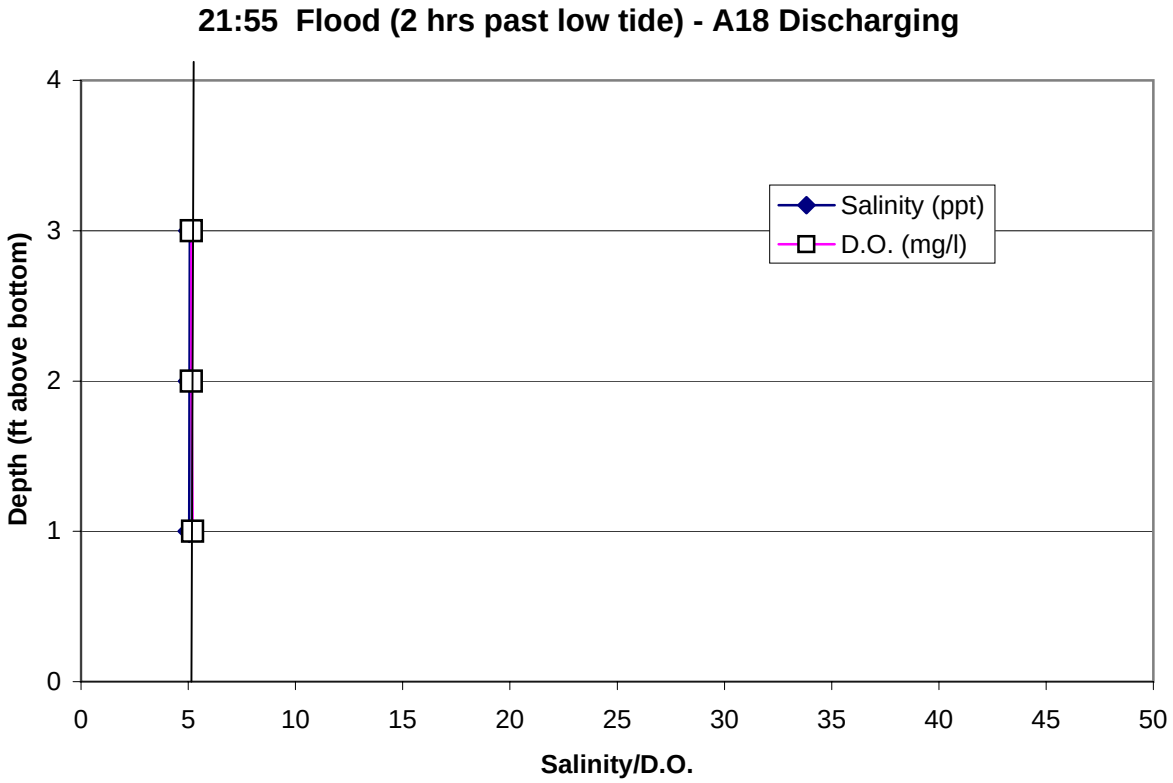
Tuesday, June 14, 2005





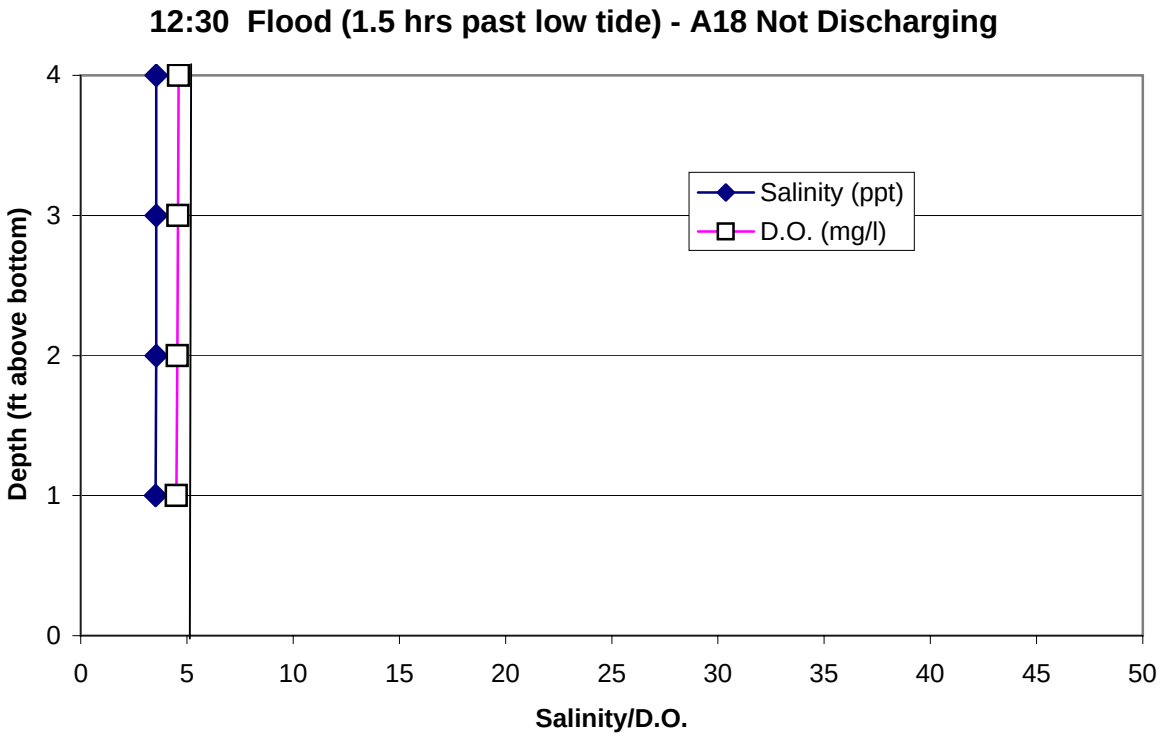
Station A18-5 Wednesday, July 06, 2005

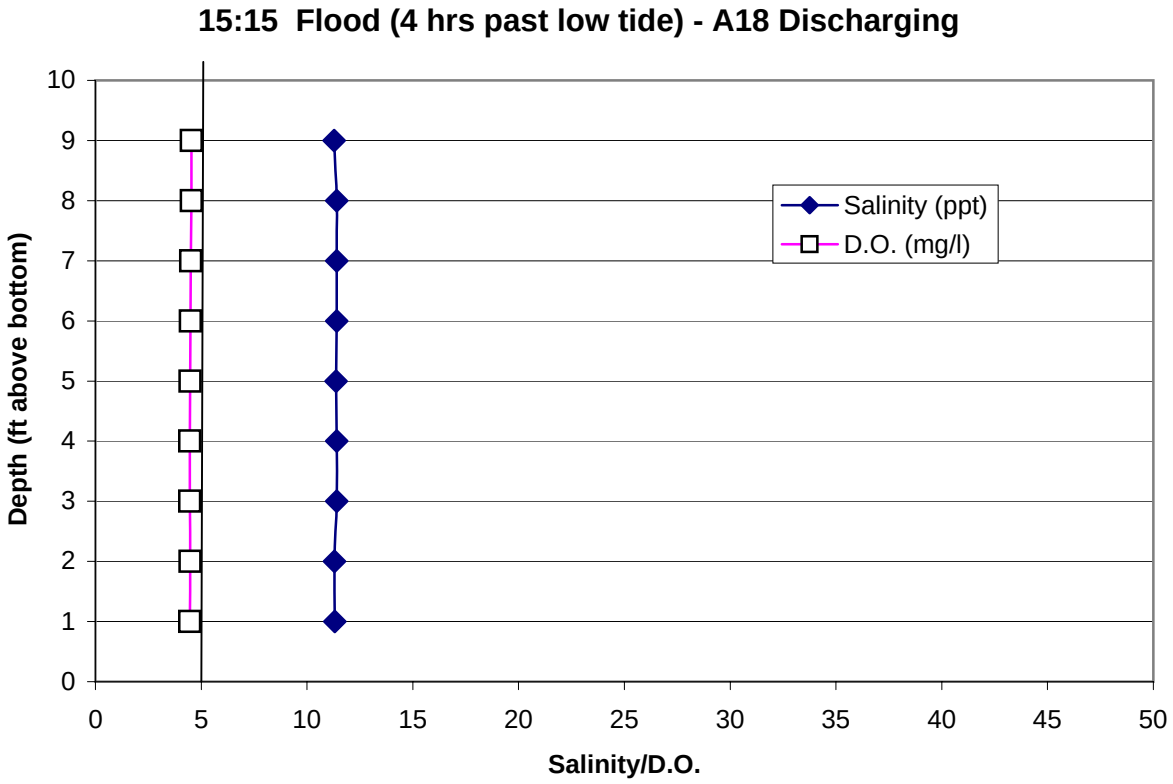




Station A18-5

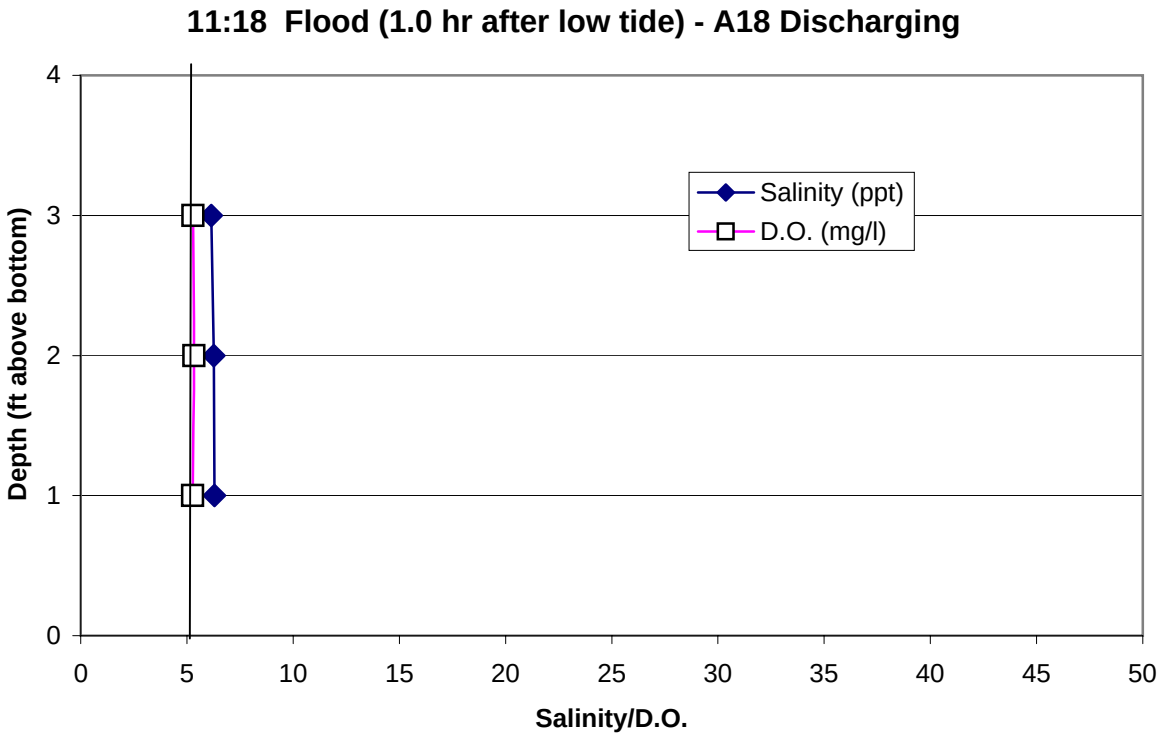
Tuesday, August 09, 2005

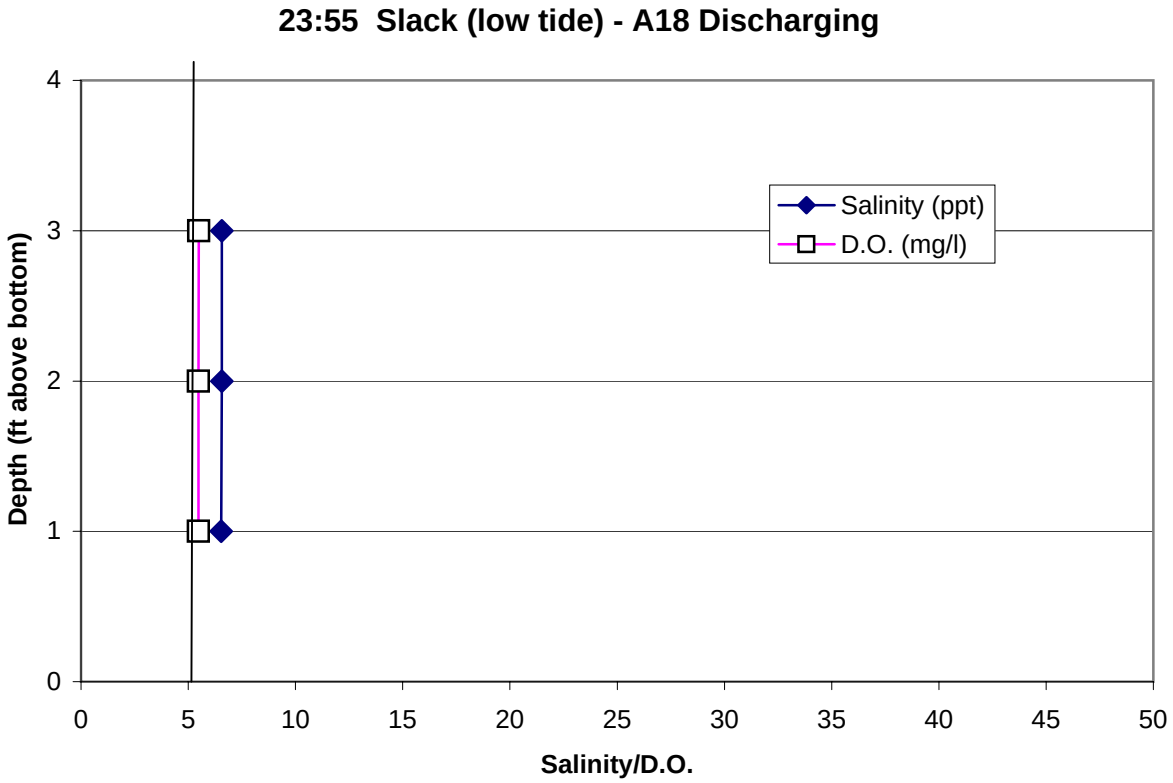




Station A18-5

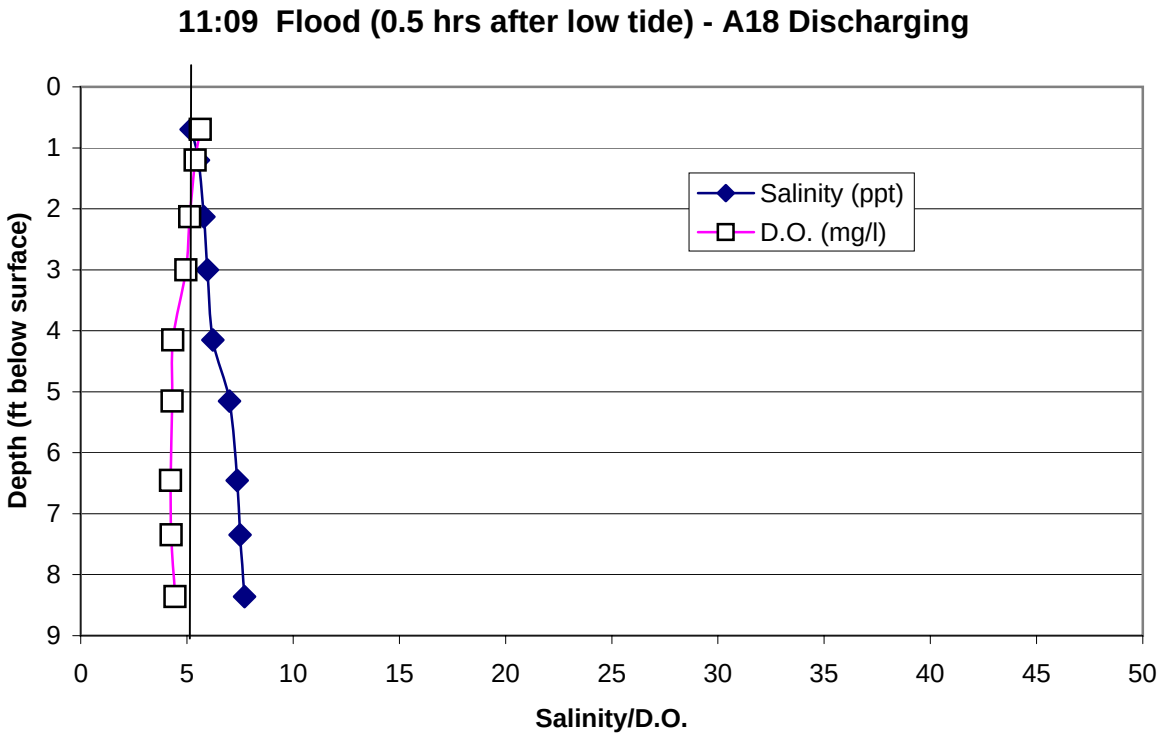
Friday, September 09, 2005





Station A18-5

Friday, October 21, 2005



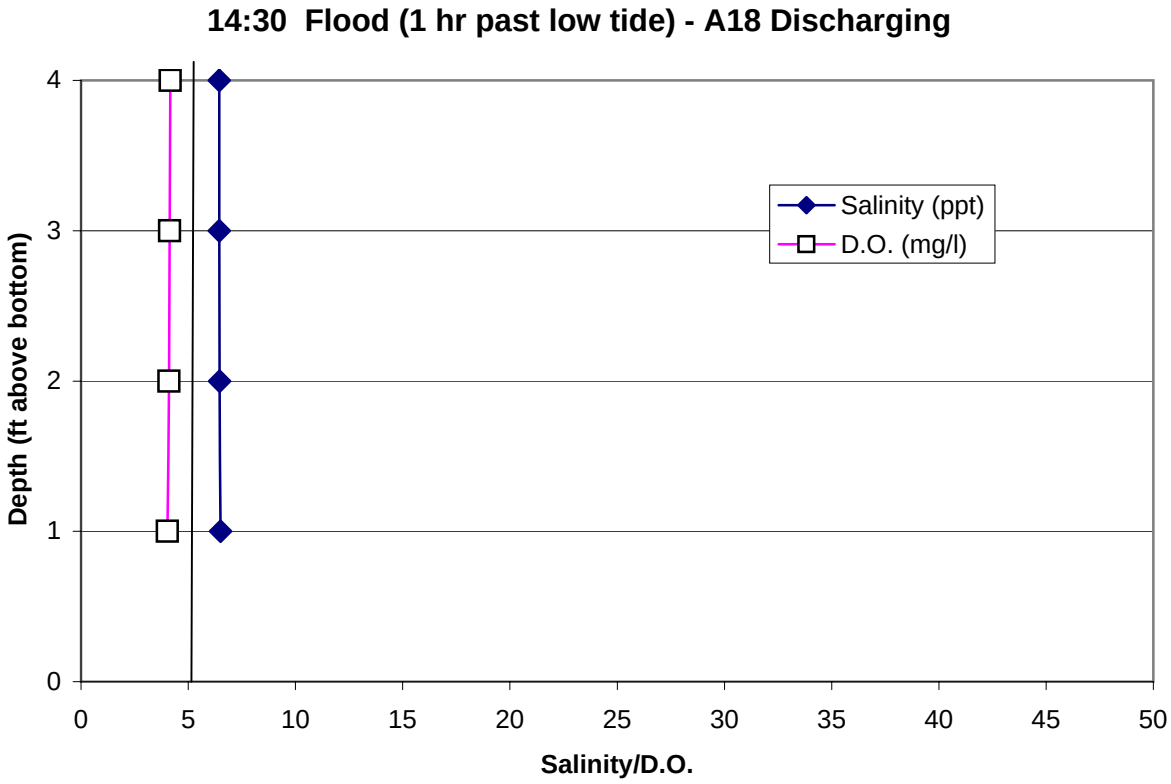
Monitoring Event - Coyote Creek at Railroad Bridge A-A18-6

Location	Discharge?	Tide Stage	Water Depth (ft)	Sample Depth (feet above bottom)	Date	Time	Temp (^oC)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	Turbidity (NTU)	ORP (mv)
1 Month after Initiation of Continuous Circulation															
Coyote Creek at RR Bridge	Yes	Flood	7	6	6/14/2005	14:31	25.19	11.06	7.192	6.27	53.0	4.21	7.48		100.8
		(1 hr past low)		5	6/14/2005					6.36		4.14			
				4	6/14/2005	14:30	25.06	11.34	7.368	6.44	52.4	4.17	7.47		103.9
				3	6/14/2005					6.45		4.13			
				2	6/14/2005					6.46		4.11			
				1	6/14/2005	14:29	24.98	11.42	7.425	6.50	50.6	4.03	7.46		108.7

Time = 08:45, Air Temp = 20.0^oC, Humidity = 53%, Barometer = 29.83 in Hg, Sunny

Station A18-6

Tuesday, June 14, 2005



Appendix 3

Discrete Water Quality Monitoring of Pond A18 Discharge
During the Initial Release and Continuous Circulation Periods

Monitoring Results from Pond A18 Before and During Initial Release

Station	Water Depth (ft)	Sample Depth	Date	Time	Temp (°C)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	ORP (mv)
Pond A18 - at south of discharge structure at top	3 ft	1 ft below surface	12/9/2004	9:48 AM	11.5			128	1.97	40.6	8.1	202
Pond A18 - at south of discharge structure at bottom	3 ft	1 ft above bottom	12/9/2004	9:49 AM	12.0			127	2.78	57.5	8.1	200
So. Discharge Pt.		top	12/17/2004	9:12	11.77	162.7	105.8	130.80	80.2	3.81	8.11	195.9
So. Discharge Pt.		mid	12/17/2004	9:14	12.03	162.6	105.7	130.73	70.0	3.32	8.11	192.7
So. Discharge Pt.	3	bottom	12/17/2004	9:10	12.55	162.8	105.8	131.18	33.0	1.55	8.08	198.9
So. Discharge Pt.		top	1/5/2005	13:14	9.67	145.9	94.84	113.08	102.4	5.64	8.19	103.2
So. Discharge Pt.		mid	1/5/2005	13:19	9.83	146.1	94.98	113.36	81.5	4.47	8.18	66.1
So. Discharge Pt.	3	bottom	1/5/2005	13:17	10.23	147	95.55	114.37	42.9	2.32	8.14	62.4
Low tide & overcast skies/rainy												
So. Discharge Pt.		top	1/5/2005	15:34	9.84	145.8	94.75	113.02	126.1	6.93	8.21	201.9
So. Discharge Pt.		mid-hi	1/5/2005	15:38	9.87	145.8	94.76	113.04	112.2	6.16	8.24	74.5
So. Discharge Pt.		mid	1/5/2005	15:37	9.84	146.2	95.00	113.39	94.1	5.16	8.22	72.1
So. Discharge Pt.	3	bottom	1/5/2005	15:36	10.28	147.3	95.74	114.67	38.6	2.08	8.15	67.2
Lower tide & mostly cloudy/some sun												
So. Discharge Pt.		top	1/6/2005	8:16	9.5	148.7	96.66	115.74	100.6	5.46	8.3	36.9
So. Discharge Pt.		mid-hi	1/6/2005	8:20	9.88	148.4	96.44	115.57	89.9	4.86	8.28	41.8
So. Discharge Pt.		mid-low	1/6/2005	8:22	10.22	149.7	97.28	116.98	52.2	2.78	8.25	45.2
So. Discharge Pt.	3	bottom	1/6/2005	8:18	10.45	150.2	97.6	117.56	32.1	1.69	8.23	37.7
So. Discharge Pt.		3:1 diluted top						29.10				
High tide & cloudy with a little sun												
So. Discharge Pt.		top	1/6/2005	11:54	10.05	148.3	96.37	115.54	121.2	6.53	8.33	199.5
So. Discharge Pt.		top	1/6/2005	12:04	10.26	148.1	96.29	115.49	111.3	5.97	8.37	62.7
So. Discharge Pt.		mid-hi	1/6/2005	11:59	9.69	148.9	96.77	116.00	95.6	5.17	8.35	57.1
So. Discharge Pt.		mid-low	1/6/2005	12:00	9.73	148.9	96.8	116.05	97.7	5.27	8.33	58.6
So. Discharge Pt.		mid-lower	1/6/2005	12:02	10.1	149.9	97.44	117.18	49.2	2.62	8.28	61.4
So. Discharge Pt.	3	bottom	1/6/2005	11:58	10.06	149.8	97.36	117.04	43.8	2.34	8.28	53.1
Lower tide & sunny skies												
So. Discharge Pt.		top	1/20/2005	8:44	9.31	145.6	94.66	112.66	105.7	5.88	8.23	255.8
So. Discharge Pt.		mid	1/20/2005	8:47	9.31	145.7	94.68	112.69	98.7	5.49	8.26	243.1
So. Discharge Pt.	3	bottom	1/20/2005	8:46	9.45	145.9	94.82	112.96	68.7	3.8	8.22	246.8
High tide & foggy, Air Temp = 7.8°C												
So. Discharge Pt.		top	1/20/2005	11:19	9.87	145.6	94.61	112.82	118.6	6.52	8.28	185.0
So. Discharge Pt.		mid-hi	1/20/2005	11:25	9.47	145.9	94.83	112.99	107.9	5.97	8.30	163.8
So. Discharge Pt.		mid	1/20/2005	11:24	9.27	145.8	94.80	112.85	100.3	5.57	8.28	163.7
So. Discharge Pt.	3	bottom	1/20/2005	11:23	9.38	146.1	94.94	113.11	61.8	3.42	8.24	164.5
Lower tide & sunny, Air Temp = 14°C, Sun broke through at 09:30												
So. Discharge Pt.		top	2/2/2005	9:34	12.47	143.1	93.01	111.3	99.8	5.3	8.2	241.6
So. Discharge Pt.		mid	2/2/2005	9:38	12.29	143.2	93.07	111.33	84.9	4.52	8.21	228.3
So. Discharge Pt.	3	bottom	2/2/2005	9:36	12.26	143.2	93.06	111.31	90.9	4.84	8.21	234.2
Ebb tide & sunny, Air Temp = 17.6°C												
So. Discharge Pt.		top	2/18/2005	11:54	14.27	138.5	90.02	107.26	112.1	5.93	8.37	182.7
So. Discharge Pt.	3	bottom	2/18/2005	11:56	14.05	140.8	91.51	109.44	76.6	4.01	8.32	169.2
Ebb tide, scattered clouds/sunny, Air Temp = 16.5°C												
So. Discharge Pt.		top	2/21/2005	15:09	15.5	120.3	78.19	90.36	117.9	6.77	8.41	22.6
So. Discharge Pt.		mid	2/21/2005	15:08	14.64	129.2	84.01	98.52	96.6	5.35	8.34	18.9
So. Discharge Pt.	3	bottom	2/21/2005	15:06	14.28	145	94.23	113.59	6.4	0.32	8.12	36.9
Ebb tide, overcast/rainy, Air Temp = 19.5°C												

Continuous Circulation Monitoring Results from Pond A18

Station	Water Depth (ft)	Sample Depth	Date	Time	Temp (°C)	Sp. Cond (ms/cm)	TDS (g/l)	Sal (ppt)	DO (% sat)	DO (mg/l)	pH	ORP (mv)
So. Discharge Pt.	1	top	5/2/2005	9:00	20.41	55.75	36.24	37.07	19.6	1.42	8.38	143.3
So. Discharge Pt.	2	mid-hi	5/2/2005	9:04	20.29	55.74	36.23	37.06	15.4	1.12	8.39	129.8
So. Discharge Pt.	3	mid	5/2/2005									
So. Discharge Pt.	4	mid-low	5/2/2005	9:03	20.22	55.75	36.23	37.07	14.5	1.05	8.38	131.9
So. Discharge Pt.	5	bottom	5/2/2005	9:02	20.18	55.75	36.24	37.07	13.6	0.99	8.37	134.1
Sunny												
So. Discharge Pt.	1	top	5/2/2005	12:10	21.82	55.75	36.24	37.06	30.8	2.18	8.35	114.4
So. Discharge Pt.	2	mid-hi	5/2/2005	12:14	21.52	55.81	36.28	37.11	20.6	1.46	8.36	118.7
So. Discharge Pt.	3	mid	5/2/2005									
So. Discharge Pt.	4	mid-low	5/2/2005	12:13	21.07	55.76	36.24	37.07	15.8	1.13	8.35	119.4
So. Discharge Pt.	5	bottom	5/2/2005	12:12	20.48	55.81	36.28	37.11	14.7	1.07	8.36	118.3
Sunny												
So. Discharge Pt.	1	top	5/2/2005	14:14	22.46	55.84	36.3	37.12	38.3	2.68	8.32	153.8
So. Discharge Pt.	2	mid-hi	5/2/2005	14:20	22.4	55.79	36.27	37.08	30.5	2.13	8.33	128.2
So. Discharge Pt.	3	mid	5/2/2005	14:19	22.20	55.81	36.28	37.10	25.2	1.77	8.32	130.5
So. Discharge Pt.	4	mid-low	5/2/2005	14:18	22.03	55.78	36.26	37.08	20.8	1.46	8.31	132.8
So. Discharge Pt.	5	bottom	5/2/2005	14:16	21.90	55.83	36.29	37.12	19.3	1.36	8.31	138.1
Sunny												
So. Discharge Pt.	1	top	5/6/2005	11:06	20.15	55.71	36.21	37.04	103.8	7.56	8.62	132.7
So. Discharge Pt.	2	mid-hi	5/6/2005	11:05	19.91	55.62	36.15	36.97	95.0	6.95	8.59	132.5
	3	mid	5/6/2005	11:04	19.85	55.62	36.15	36.97	92.1	6.75	8.59	137.8
So. Discharge Pt.	4	mid	5/6/2005	11:04	19.82	55.64	36.16	36.99	91.9	6.74	8.59	138.7
So. Discharge Pt.	5	mid-low	5/6/2005	11:03	19.81	55.65	36.17	37.00	92.1	6.75	8.59	139.9
So. Discharge Pt.	6	bottom	5/6/2005	11:02	19.80	55.69	36.2	37.02	91.0	6.67	8.58	145.1
Sunny												
So. Discharge Pt.	1	top	5/17/2005	13:15	21.67	59.77	38.85	40.09	112.7	7.85	8.88	103.1
So. Discharge Pt.	2	mid-hi	5/17/2005	13:15	21.64	59.77	38.85	40.09	109.3	7.62	8.89	105.8
So. Discharge Pt.	3	mid	5/17/2005	13:14	21.39	59.78	38.86	40.10	106.5	7.46	8.87	111.9
So. Discharge Pt.	4	mid-low	5/17/2005	13:13	21.65	59.77	38.85	40.09	106.8	7.44	8.87	123.4
So. Discharge Pt.	5	bottom	5/17/2005	13:11	20.49	59.78	38.86	40.10	80.5	5.72	8.76	195.0
Overcast												
So. Discharge Pt.	1	top	6/14/2005	8:55	23.92	50.25	32.66	32.94	62.6	4.37	8.68	148.9
So. Discharge Pt.	3	mid-hi	6/14/2005	8:54	23.91	50.25	32.66	32.94	57.7	4.03	8.68	155.1
So. Discharge Pt.	4	mid-low	6/14/2005	8:53	23.90	50.25	32.66	32.94	61.0	4.26	8.68	161.9
So. Discharge Pt.	5	bottom	6/14/2005	8:52	23.85	50.25	32.66	32.95	61.8	4.32	8.67	176.4
Sunny												
So. Discharge Pt.	1	top	6/14/2005	15:09	26.60	50.51	32.83	33.07	145.7	9.71	8.84	108.6
So. Discharge Pt.	2	mid-hi	6/14/2005	15:08	25.94	50.47	32.81	33.06	110.3	7.43	8.79	115.9
So. Discharge Pt.	3	mid	6/14/2005	15:07	25.89	50.44	32.79	33.04	102.7	6.93	8.78	124.2
So. Discharge Pt.	4	mid-low	6/14/2005	15:06	25.87	50.46	32.80	33.05	104.5	7.05	8.77	137.4
So. Discharge Pt.	5	bottom	6/14/2005	15:05	25.71	50.47	32.81	33.07	98.8	6.69	8.73	150.7
Sunny												
Actual Discharge - immediately outside discharge pipe	1	top	6/14/2005	15:10	26.11	49.72	32.3	32.51	118.4	7.98	8.78	97.4
So. Discharge Pt.	1	top	7/6/2005	20:42	26.31	48.06	31.24	31.28	124.3	8.41	8.88	89.3
So. Discharge Pt.	2	mid-hi	7/6/2005	20:41	26.30	48.06	31.24	31.28	123.5	8.36	8.88	90.1
So. Discharge Pt.	3	mid	7/6/2005	20:41	26.31	48.05	31.23	31.28	127.0	8.59	8.88	91.7
So. Discharge Pt.	4	mid-low	7/6/2005	20:40	26.31	48.06	31.24	31.28	128.7	8.71	8.88	93.5
So. Discharge Pt.	5	bottom	7/6/2005	20:39	26.30	48.06	31.24	31.29	128.9	8.72	8.86	96.8
Sunny												

Appendix 4

Pond A18 Water Column Metals Report
October 31, 2005

POND A18 WATER COLUMN METALS REPORT

To: Teri Peterson, Cargill Salt
From: Stephen Hansen, S.R. Hansen & Associates
Date: October 31, 2005
Ref: Water Column Metals Study in Pond A18 on September 1, 2005

In the Self-Monitoring Program (SMP) of the discharge permit for Pond A18, an annual water column metals study is required. The requirement is stated in the permit as follows:

> *"Water column samples for total and dissolved arsenic, chromium, nickel, copper, zinc, selenium, silver, cadmium, lead, and mercury shall be collected annually in August or September. When collecting metals samples, the Discharger shall also monitor for salinity and total suspended solids."*

On September 1, 2005, S.R. Hansen & Associates, under the direction of Dr. Stephen R. Hansen, collected water column samples from one location in Pond A18 near the south discharge structure (see Figure 1) to determine the total and dissolved concentrations arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, and zinc. In addition, the water column sample was analyzed for total suspended solids (TSS). These analyses were performed by Columbia Analytical Services in Kelso, Washington. In addition, dissolved oxygen (DO), pH, salinity, and redox potential were determined in for the water column at the sampling location using a YSI Model 556 MPS.

Sample Collection – At the sampling station, a grab samples was collected from the water column at one foot below the surface. This sample was divided into five containers for the following analyses:

- One 1000 ml plastic bottle with no preservatives for TSS analysis
- One 1,000 ml plastic bottle with nitric acid preservative for total metals analysis
- One 1,000 ml plastic bottle with no preservative for dissolved metals analysis
- One 500 ml plastic bottle with nitric acid preservative for total mercury and selenium analyses
- One 500 ml plastic bottle with no preservative for dissolved mercury and selenium analyses

Details of Analytical Measurements – Analysis of the water column samples was performed by Columbia Analytical Services. Due to the high salinity of these samples and the associated analytical interferences, direct analysis of the metals via ICP-MS was not deemed appropriate. Therefore, procedures were employed to remove the metals from the saline matrix prior to quantification. The preparatory and analytical methods used for the quantification of metals in this sample set are as follows:

Selenium - Samples were preserved to 1% HNO_3 and heated in an 85 °C oven overnight. Preparation blanks (PBWs) were preserved and digested in exactly the same manner as the samples. To determine total selenium in water samples, aliquots of the samples were

analyzed by HG-AFS according to EPA Method 7742. Samples were boiled with 40% HCl and potassium persulfate to reduce all inorganic and organic Se to Se(IV). Reaction of the sample with sodium borohydride releases gaseous hydrides that are carried by an argon stream into a hydrogen-fueled flame placed in the path of an atomic fluorescence detector.

Mercury - Samples were preserved to 1-2% BrCl upon receipt. Digested samples were then analyzed for total Hg by cold vapor – atomic fluorescence spectroscopy. Aliquots of each digest were reduced in pre-purged reagent water to Hg^o with $SnCl_2$. The Hg^o was then purged onto gold traps as a pre-concentration step. The Hg contained on the gold traps was then analyzed by thermal desorption into an atomic fluorescence detector, using the dual amalgamation technique according to EPA Method 7470A. Peak heights or peak areas are accessed by chart recorder or integrator, and recorded on bench sheets. All samples were corrected for the instrument (bubbler) blanks.

Arsenic, Copper, Nickel, Cadmium, Silver, and Lead – An aliquot of each sample were placed into a glass extraction jar and adjusted to pH 1.8 with HNO_3. The cobalt(II)-ammonium pyrrolidinedithiocarbamate (Co-APDC) solutions were added to the samples to precipitate the metals of interest. Samples were extracted overnight. Extracts were then filtered through a 0.2-µm membrane filter, and the precipitate was collected on the filters. Each filter was folded and placed in a Teflon vial. Concentrated HNO_3 was added to destroy the organic APDC complex. Each sample was diluted up to 10 mL with 5% HNO_3 and heated on a hotplate at approximately 85 °C for 30 minutes. Preparation blanks, reference materials, matrix triplicates, and matrix spikes were also prepared in the same manner. Analysis was by ICP-MS according to EPA Method 6020.

Zinc - Zn was pre-concentrated by a factor of 20 through reductive precipitation. Sodium borohydride is used as the reducing agent. Iron (Fe) and palladium (Pd) are used as carriers to facilitate coprecipitation of metal borides and to aid the precipitation of metals reduced to the elemental form. The precipitation reaction is carried out when ultra pure ammonium hydroxide is used to adjust the sample pH to 9. The precipitate is collected by filtration through a 0.2 µm filter while most of the salt matrix remains with the filtrate. The precipitate (and filter) are digested with nitric acid and hydrogen peroxide and later analyzed by ICP-MS according to EPA Method 6020.

Chromium - An aliquot of the sample was prepared by adding the $Fe(OH)_2$ extraction solution. Samples were extracted overnight. Extracts were then filtered through a 0.2-µm membrane filter, and the precipitate was collected on the filters. Each filter was folded and placed in a Teflon vial. Concentrated HNO_3 was added to each filter to destroy the complex. Samples were then diluted and analyzed by ICP-MS according to EPA Method 6020.

Total Suspended Solids (TSS) was determined gravimetrically after drying at 103-105°C according to EPA Method 160.2.

Probe Calibration – Major characteristics of the water at the sampling station was determined using a YSI Model 556 MPS. The dissolved oxygen, pH, and salinity probes on the YSI Model 556 MPS were calibrated in the field, immediately prior to use. Each of the probes was calibrated according to directions provided by YSI. The DO probe was calibrated using the % saturation method, the pH probe was calibrated using the 2-point method (i.e., pH 7.0 and 10.0),

the salinity probe was calibrated using the direct salinity method with standards of 35 ppt and 10 ppt, and the ORP probe was calibrated using a Zobell solution standard of 244 mV at 15°C.

Results – The results from this annual water column metals study are summarized in Tables 1 and 2. These results indicate that the water column sample collected near the point of discharge from Pond A18 on September 1, 2005 contains extremely low concentrations of all 10 metals considered. In addition, Table 1 summarizes the USEPA saltwater and freshwater ambient water quality criteria for each metal, as presented in USEPA's 2002 National Water Quality Criteria Document (EPA-822-R-02-047). The measured water column concentration for each of the metals is in compliance with its associated saltwater and freshwater criteria.

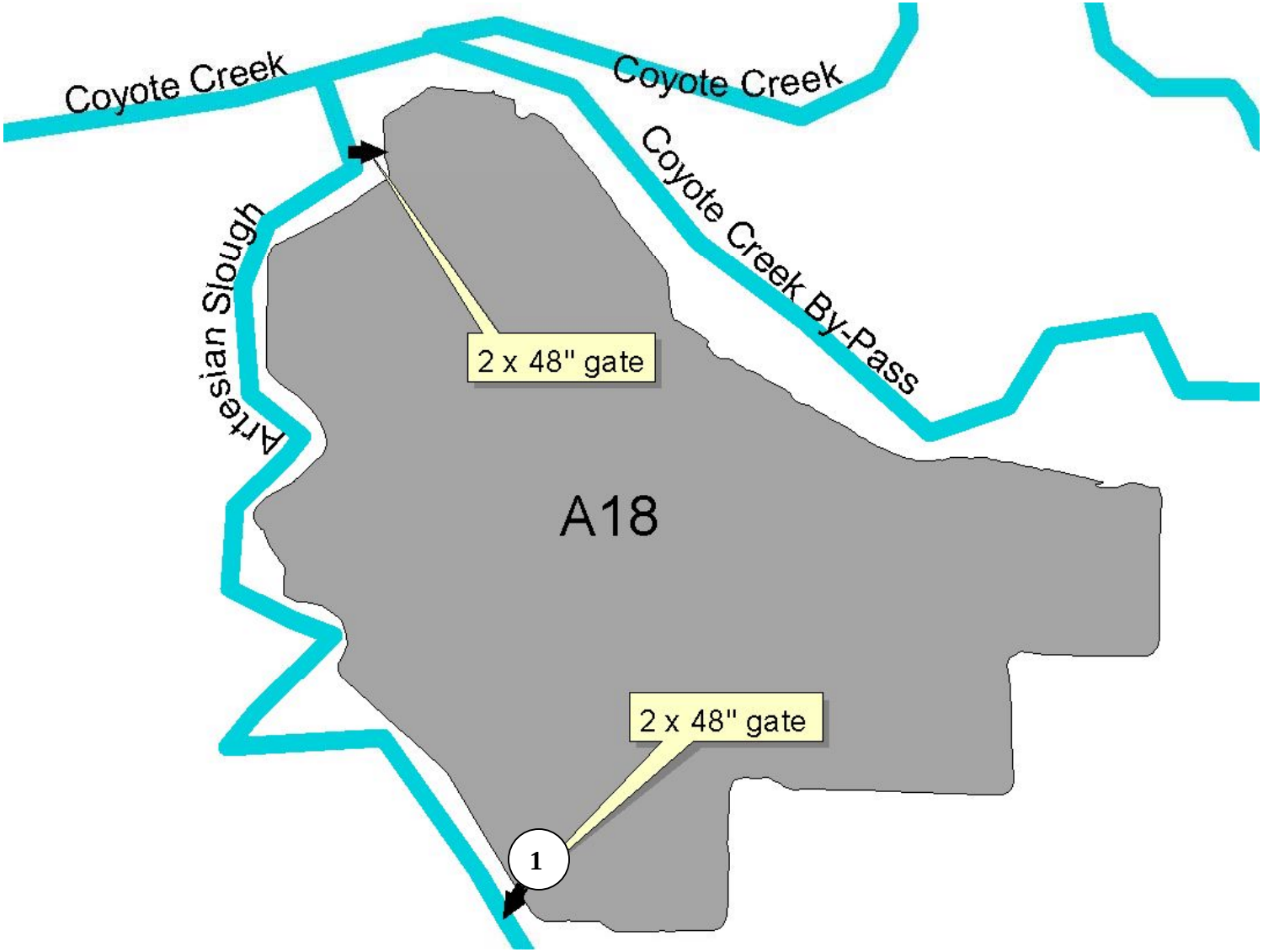


Figure 1. Sampling Location for Surface Water Metal Concentration Study

Table 1. Results for Pond A18 Water Column Metals Study					
	Reporting Limit	Measured Concs (ug/l)		USEPA Criteria (ug/l)	
Analyte	(ug/l)	Total	Dissolved	Saltwater	Freshwater
As	2.5	2.6	nd	36	150
Cd	0.10	nd	nd	8.8	0.25
Cr	0.10	nd	nd	50	11
Cu	0.50	0.5	nd	3.1	9.0
Pb	0.10	nd	nd	8.1	2.5
Hg	0.20	nd	nd	0.94	0.77
Ni	1.0	2.1	1.7	8.2	52
Se	1.0	nd	nd	71	5.0
Ag	0.10	nd	nd	3.2	1.9
Zn	2.5	nd	nd	81	120
TSS	5.0	97.5			

Table 2. Water Quality Conditions at Sampling Location					
	(Measurements made at 1 ft below water surface)				
Time of Measurement	Temp (^{o}C)	Salinity (ppt)	D.O. (mg/l)	pH	ORP (mv)
4:09 PM	27.0	30.7	11.3	9.33	-84

Appendix 5

Pond A18 Sediment Mercury Report
October 31, 2005

POND A18 SEDIMENT MERCURY REPORT

To: Teri Peterson, Cargill Salt
From: Stephen Hansen, S.R. Hansen & Associates
Date: October 31, 2005
Ref: Sediment Mercury Study in Pond A18 on September 1, 2005

In the Self-Monitoring Program (SMP) of the discharge permit for Pond A18, an annual sediment mercury study is required. The requirement is stated in the permit as follows:

> *"The Discharger shall collect annual samples for mercury and methyl mercury in August or September of each year from Pond A18. In collecting mercury samples, the Discharger shall follow the guidelines in Section C of the SMP, and monitor for pH, TOC, sulfides, and redox potential. Further, the Discharger shall report concentrations of mercury in mg/kg dry weight."*

On September 1, 2005, S.R. Hansen & Associates, under the direction of Dr. Stephen R. Hansen, collected sediment samples from four locations in Pond A18 (see Figure 1) to determine the concentrations of total mercury and methyl mercury in pond sediments. In addition, the sediment samples were analyzed for pH, total organic carbon (TOC), total sulfides, redox potential, and particle size distribution. The total mercury, mono-methyl mercury, and % solids analyses were performed by BrooksRand in Seattle, Washington. The pH, TOC, total sulfide, redox potential, and particle size analyses were performed by Columbia Analytical Services in Kelso, Washington. Dissolved oxygen (DO), pH, salinity, and redox potential were determined for the overlying water at each of the sampling stations using a YSI Model 556 MPS.

Sample Collection – At each of the four sampling stations, four sediment grab samples were collected using a pre-cleaned stainless steel coring device. The top 0-5 cm of these four grab sub-samples were then composited in a pre-cleaned stainless steel bowl and distributed using a pre-cleaned stainless steel spoon into three sample containers:

- a 6-oz plastic jar with no preservative for mercury analyses,
- a 16-oz glass jar glass bottle with no preservative for pH, redox potential, TOC, and particle size analyses
- a 4-oz glass jar with Teflon cap liner with preservative for total sulfide analysis.

These composited samples were placed on ice and shipped overnight to the analytical laboratories.

Details of Analytical Measurements – Analysis of the sediment samples was performed by BrooksRand and Columbia Analytical Services. The methods used for the analyses are as follows:

- **Total Mercury** – All samples were prepared and analyzed in accordance with EPA Method 1631E. Sediment samples were digested with nitric acid/sulfuric acid and further oxidized with bromine monochloride. All samples were then analyzed with stannous

chloride reduction, gold amalgamation and cold vapor atomic fluorescence spectroscopy (CVAFS) detection using a BRL Model III CVAFS Mercury Analyzer. All sample results for low-level mercury analysis were blank corrected, as described in EPA Method 1631E. Final results reported in "ng/g (dry)" were dry-weight corrected.

- **MonoMethyl Mercury** – Sediment samples were prepared by acid bromine/methylene chloride extraction. Samples were analyzed by ethylation, purge and trap, GC column separation, thermal decomposition and CVAFS using a BRL Model III CVAFS Mercury Analyzer. Final results reported in "ng/g (dry)" were dry-weight corrected.

- **Particle Size Distribution** – The particle size distribution in each sample was determined according to ASTM Method D422-82M.

- **Oxidation-Reduction Potential** (ORP) was determined according to ASTM Method D1498-76.

- **Total Organic Carbon (TOC)** was determined by high temperature oxidation and coulometric detection according to ASTM Method D4129-82 Mod1.

- **pH** was determined according to USEPA Method 9045C for soil and wastes.

- **Sulfide** was determined via a titrametric procedure for acid-soluble and acid insoluble sulfides according to USEPA Method 9034.

Probe Calibration - The condition of the overlying water at each sediment sampling station was determined using a YSI Model 556 MPS. The dissolved oxygen, pH, and salinity probes on the YSI Model 556 MPS were calibrated in the field, immediately prior to use. Each of the probes was calibrated according to directions provided by YSI. The DO probe was calibrated using the % saturation method, the pH probe was calibrated using the 2-point method (i.e., pH 7.0 and 10.0), the salinity probe was calibrated using the direct salinity method with standards of 35 ppt and 10 ppt, and the ORP probe was calibrated using a Zobell solution standard of 244 mV at 15°C.

Results – The results of this annual sediment mercury study are summarized in Table 1. The total mercury in the sediment samples ranged from 195 to 307 ng/g (dry wt), which is equivalent to 0.195 to 0.307 ug/g (dry wt). All of these values are less than the USEPA criteria for total mercury in contaminated sediments of 1.0 ug/g (dry wt). The methyl mercury in the sediment samples ranged from 0.421 to 3.373 ng/g (dry wt), which is equivalent to 0.421 to 3.373 ug/kg (dry wt).

It should be noted that there is a trend of decreasing concentrations of both total mercury and methyl mercury in the upper 5 cm of sediment in Pond A18 as one moves from the north to the south of the pond (i.e., from the north intake to the south outlet).

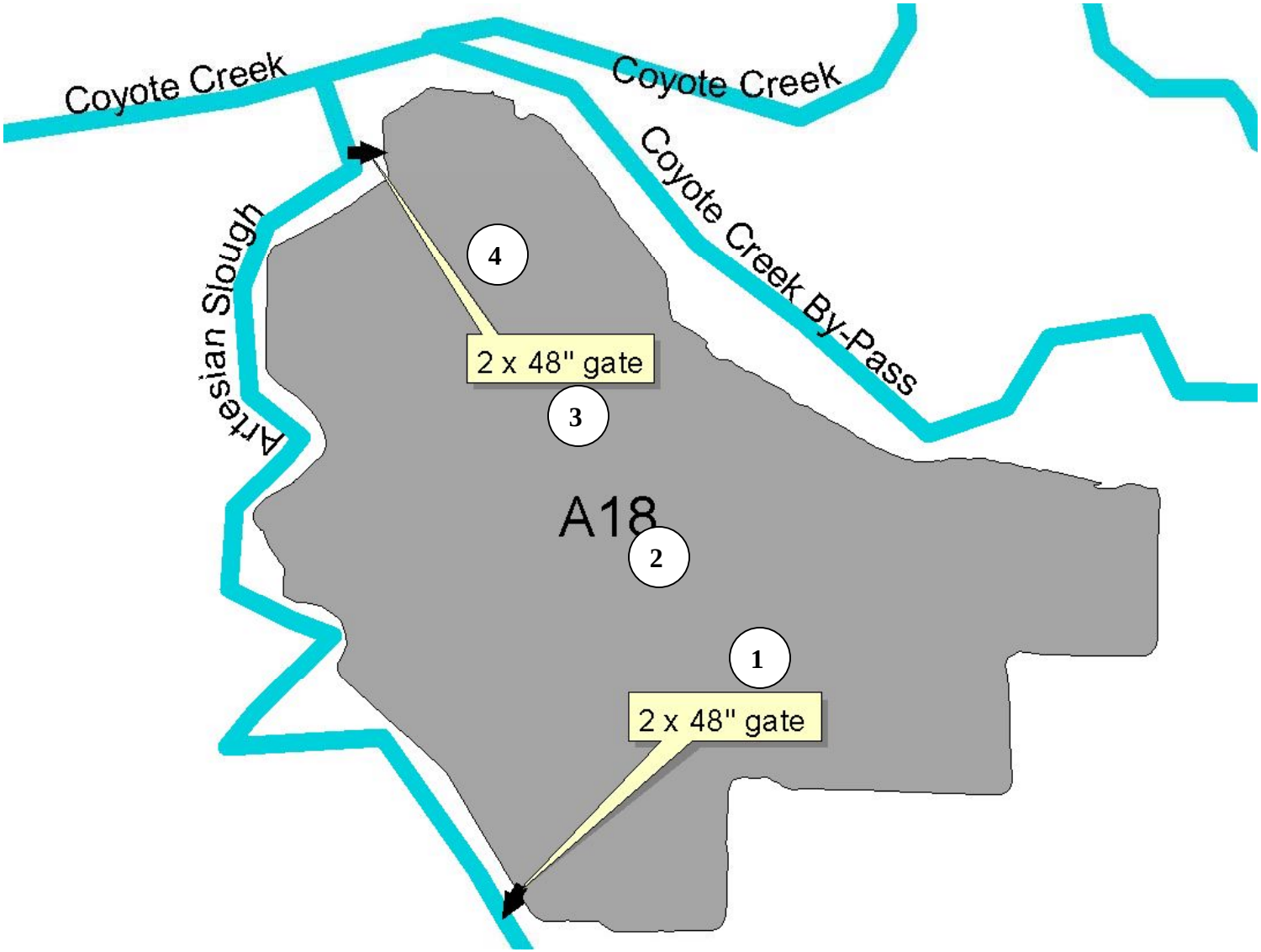


Figure 1. Sampling Locations for Sediment Mercury Study in Pond A18

	A18-1	A18-2	A18-3	A18-4
Sediment Results				
Time Samples Collected	11:37 AM	3:04 PM	2:20 PM	1:24 PM
Tot Hg (ng/g dry wt)	195	233	220	307
(mg/kg dry wt)	0.195	0.233	0.22	0.307
MonoMethyl Hg (ng/g dry wt)	0.421	0.638	2.095	3.373
(mg/kg dry wt)	0.000421	0.000638	0.00210	0.00337
% Solids	25.89	37.60	42.34	49.51
Sediment Size Distribution (%)				
Gravel, Medium	17.7	36.8	8.96	15.0
Gravel, Fine	2.35	7.57	12.1	6.86
Sand, Very Coarse	5.66	7.78	16.6	6.89
Sand, Coarse	6.95	6.43	11.5	11.6
Sand, Medium	2.92	5.89	7.02	8.91
Sand, Fine	5.34	6.13	7.24	10.7
Sand, Very Fine	1.3	1.74	0.60	3.30
Silt	39.2	27.8	28.0	31.9
Clay	38.7	22.5	16.7	13.4
Total Sulfide (mg/kg)	1595	1010	1740	1140
pH	7.64	7.85	7.86	8.04
ORP (millivolts)	17.1	18.5	18.2	12.9
TOC (%)	9.02	4.12	3.53	2.47
Overlying Water Results				
Time Measurements Made	11:37 AM	3:04 PM	2:20 PM	1:24 PM
Water Depth	2 ft	1 ft	1 ft	1 ft
Temp (^{o}C) (within 1 ft of bottom)	23.7	25.5	24.6	23.5
Salinity (ppt) (within 1 ft of bottom)	30.5	30.6	30.5	26.5
DO (mg/l) (within 1 ft of bottom)	4.05	8.79	10.94	4.73
pH (within 1 ft of bottom)	9.01	9.08	9.08	8.71
ORP (mv) (within 1 ft of bottom)	-6.00	-76.1	-59.1	-28.2

Appendix 6

Pond A18 Monitoring Report: Benthic Invertebrates In Artesian Slough
November 10, 2005

Draft 11/10/05

POND A18 MONITORING REPORT: BENTHIC INVERTEBRATES IN ARTESIAN SLOUGH

To: Teri Peterson, Cargill Salt
From: Stephen Hansen, S.R. Hansen & Associates
Date: November 10, 2005
Ref: Benthic Invertebrate Monitoring in Artesian Slough for Pond A18 Discharge

On February 17, 2005, circulation of water through Pond A-18 was initiated, with ambient water entering the pond through the northern intake/discharge structure and pond water discharging into Artesian Slough through the southern intake/discharge structure. As a condition of the Waste Discharge Requirements, four grab samples of bottom sediment were to be collected from each of four sites in Artesian Slough (see Figure 1) on each of the following five occasions:

- Within one week before initiating discharge
- 14 days (± 2 days) after initiating discharge
- 28 days (± 2 days) after initiating discharge
- Once in late summer (August/September) of the year in which discharge was initiated
- Once in late summer of the following year

These sediment samples were then to be analyzed for benthic macroinvertebrate community structure characteristics. This report presents the results from the first four monitoring events.

Methods: During each of the four monitoring events, four grab sediment samples were collected from each of three stations (i.e., Stations 2, 3, and 4) in Artesian Slough. Samples were collected from mid-channel (i.e., the deepest water) at each of the three stations. The fourth station (i.e., Station 1) could not be sampled for benthos analysis because the substrate was heavily scoured by the SJSC WTP discharge and, consequently, consisted of rocks and coarse gravel.

The first set of samples was collected on February 14, 2005, which was 3 days prior to the initiation of discharge. The second set of samples was collected on March 2, 2005, which was 13 days after the initiation of discharge. The third set of samples was collected on March 18, 2005, which was 29 days after the initiation of discharge. The fourth set of samples was collected on September 2, 2005, which was approximately 6 months after the initiation of discharge.

All samples were collected using a Van Veen sampler, with the top 6-8 cms of the sediment sample being collected for invertebrate analysis. The area of the samples collected was 0.126 m^2 for the first set of samples and 0.05 m^2 for the second, third, and fourth sets of samples.

The collected sediment samples were placed into pre-cleaned plastic buckets and returned to the Pacific Eco-Risk laboratory in Martinez, California. They were stored at 4^oC until screened and sorted. After sorting, the specimens were identified, when possible, to species, counted and weighed. Four endpoints were determined for each sample – i.e., # species, # individuals,

diversity as the Shannon Index, and total biomass. For comparison purposes, results obtained from the first sample for biomass and for # individuals were divided by 2.52, so that all results would pertain to a 0.05 m^2 area.

Mid-Channel Results: The data obtained from the mid-channel samples are presented in Tables 1-4. A summary of the four invertebrate community endpoints (i.e., # species, diversity, # individuals, and biomass) is presented by station and sampling event in Table 5 and illustrated in Figures 2 and 3.

For Stations 2 and 3, the mid-channel results indicate sharp declines in all four community structure parameters after two weeks of discharge and further declines after a month. However, after 6 months of discharge, total recovery in the benthic invertebrate community is observed. All community structure and biomass endpoints indicate a more diverse and abundant invertebrate community after 6 months of discharge than was observed prior to the initiation of discharge.

For Station 4, which is furthest downstream from the discharge point, the mid-channel results indicate sharp declines in three of the four community structure parameters (# species, Shannon's index, and biomass) after two weeks of discharge and further declines after a month. The impact on the "total numbers of individuals" appears to be of lower magnitude and duration. As with Stations 2 and 3, after 6 months of discharge, Station 4 shows a total recovery in the benthic invertebrate community. All community structure and biomass endpoints indicate a more diverse and abundant invertebrate community after 6 months of discharge than was observed prior to the initiation of discharge.

Evidence of Invertebrate Refuges during Early Phases of Discharge: After the initiation of the Pond A18 discharge, monitoring in Artesian Slough indicated that the salinity in the water column was stratified throughout the slough. At all stations, the higher salinity water, which had been discharged from the pond, was at the bottom of the water column and lower salinity water, which originated from the SJSC discharge and/or the bay, was at the top. During the first month of discharge, the salinity in the bottom layer was as high as 70-80 ppt for most of the length of Artesian Slough. The maximum thickness of the highly saline, bottom layer occurred at high tide and was approximately 3-4 ft at all stations. At low tide, the thickness of this bottom layer was approximately 1-2 ft.

Surveys were performed across Artesian Slough at Stations 2 and 3 to determine the depth profile across the channel. The results of these surveys are illustrated in Figure 4 and indicate that, at both stations, there is a deep water channel, in which the higher saline water would be contained, and shallower areas on the sides of the channel, in which there would be little, if any, contact with the higher saline water. "Side-channel" sampling sites were selected in these shallower areas and benthos samples were collected at these sites during the third sampling event. The objective of this sampling was to see if the benthic invertebrate community in these "side-channel" areas had been unaffected by the Pond A18 discharge. If the benthic community was found to be robust in these "side-channel" areas, it would serve as a ready source for migration into the mid-channel areas when the salinity of the Pond A18 discharge reached normal estuarine concentrations during the Continuous Circulation Period.

The data obtained from the “side-channel” samples are presented in Tables 6 and 7. Also included in these tables are the results from the pre-discharge sampling event and the mid-channel samples collected at the same time as the “side-channel” samples. A summary of the four invertebrate community structure endpoints (i.e., # species, diversity, # individuals, and biomass) is presented by station, sampling event, and slough location in Table 8 and illustrated in Figure 5. At both stations, one month after the initiation of discharge from Pond A18, the benthic community is much more diverse and numerous in the shallow-water, side-channel samples than in the deep-water, mid-channel samples. All four of the community endpoints clearly demonstrate this difference. In addition, at both stations, one month after the initiation of discharge, the shallow-water, side-channel benthic community is very similar to the mid-channel benthic community that was observed in the pre-discharge samples. This is true for all four of the community structure endpoints considered. These results indicate that the benthic community inhabiting the higher elevation banks of Artesian Slough was not adversely impacted by the Pond A18 discharge during the first month and could, therefore, serve as a ready source of migration into the deeper-water regions of the slough. The observed recovery of the benthic invertebrate community in these deeper-water regions after only 6 months suggests that the shallow-water refuge may have played a role.

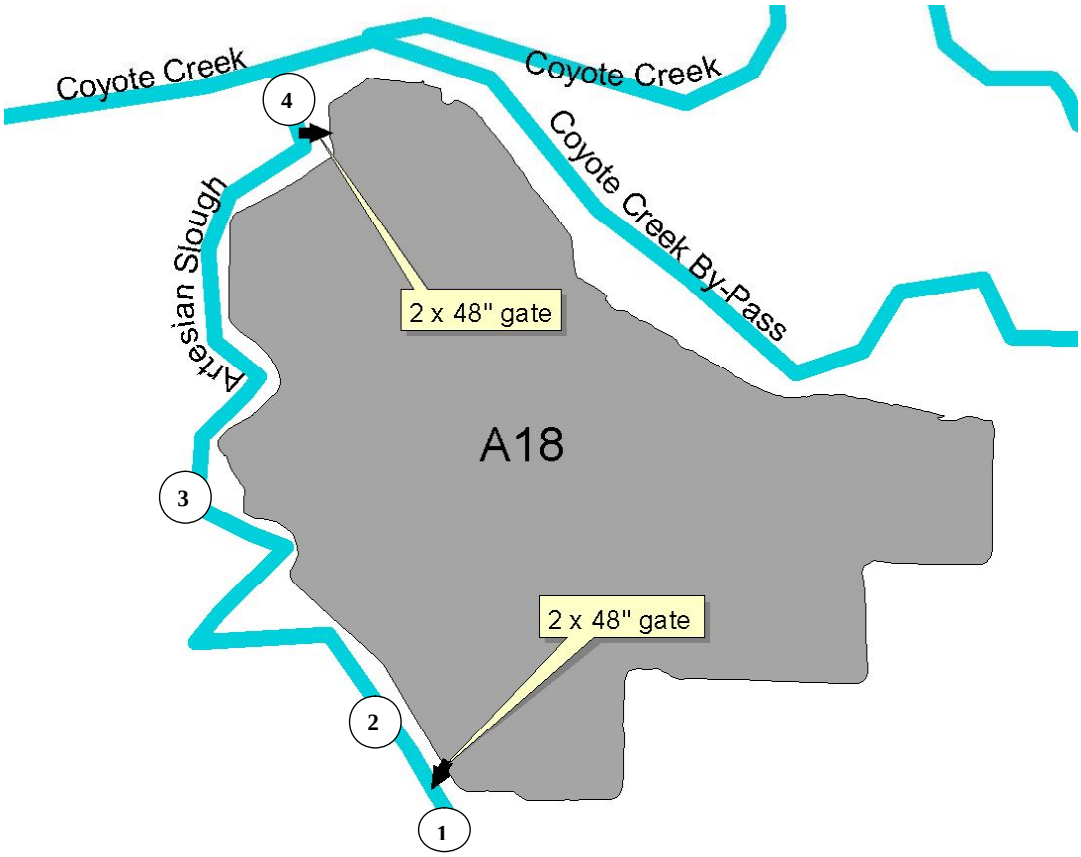


Figure 1. Sampling Locations for Benthic Invertebrate Monitoring

Figure 2. Community Structure Results for Mid-Channel Stations

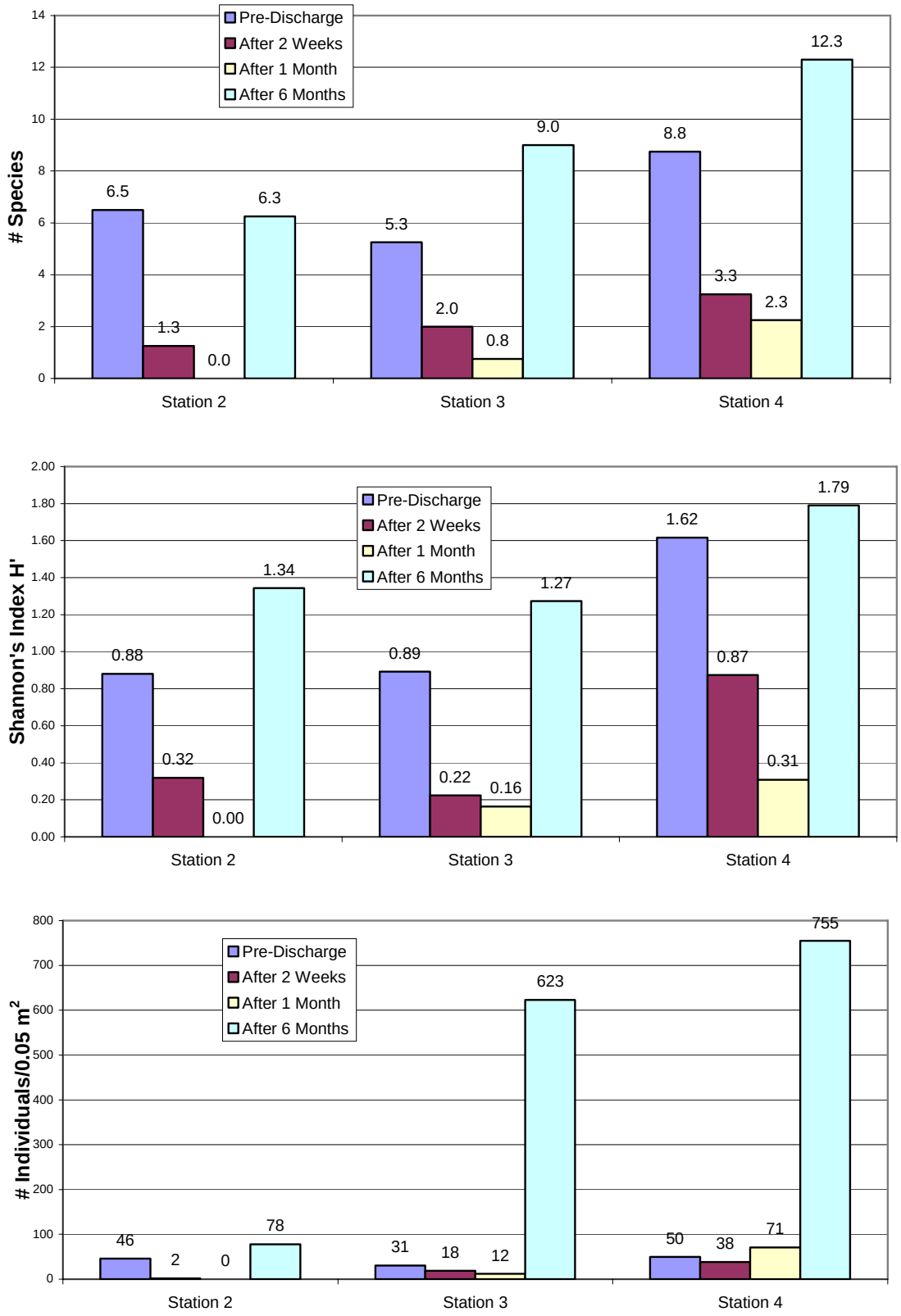


Figure 3. Biomass Results for Mid-Channel Stations
(Results in gm per 0.05 m^2 of sediment)

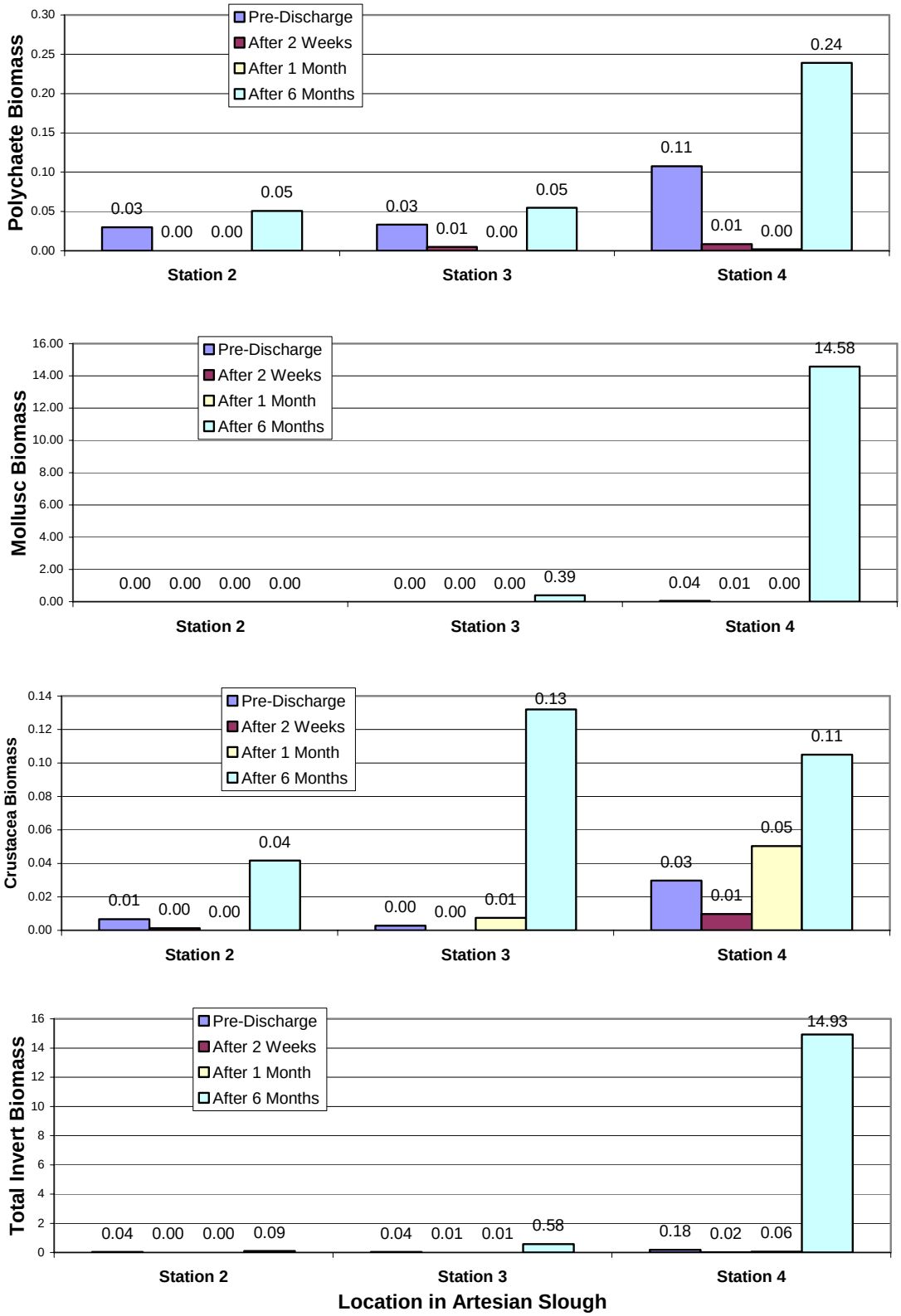
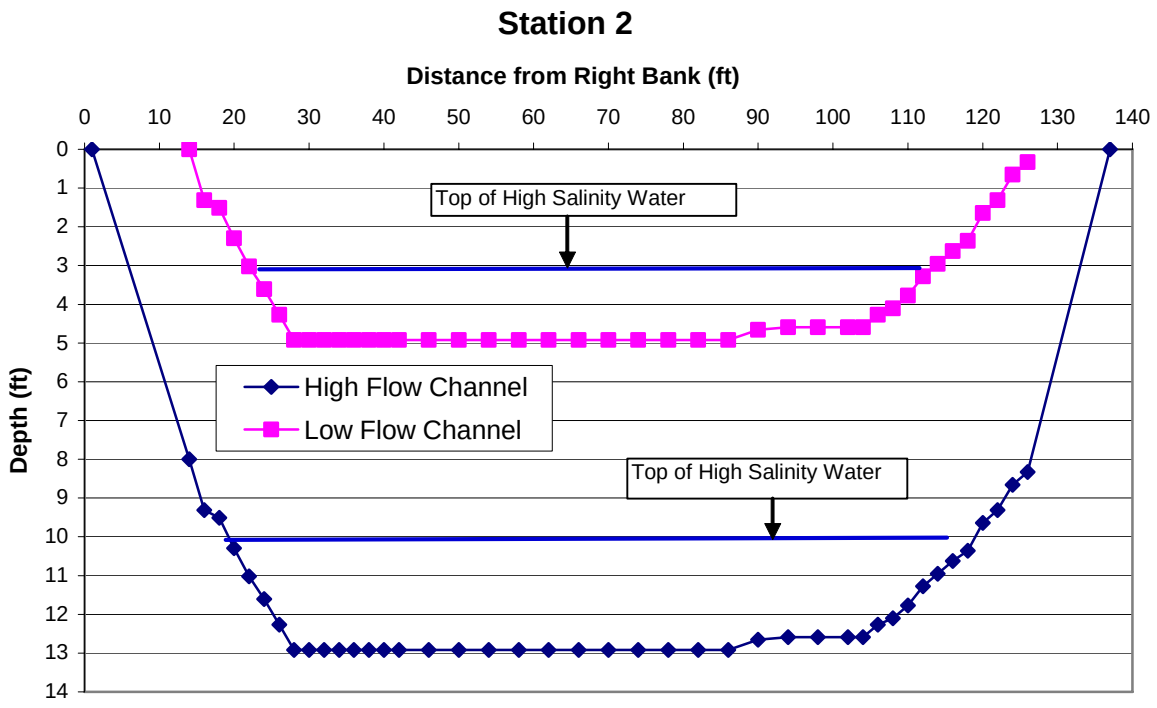


Figure 4. Cross-Sectional Depth Profiles at Stations 2 and 3



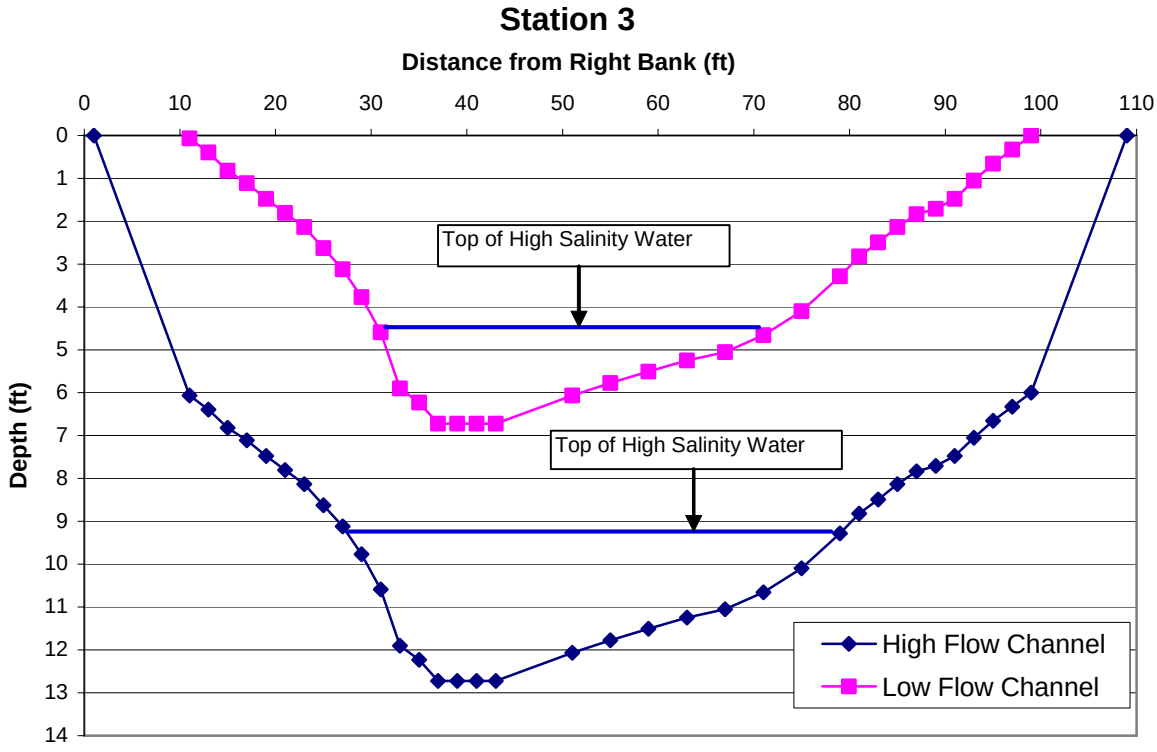


Figure 5. Community Structure Results for Side- & Mid-Channel Stations

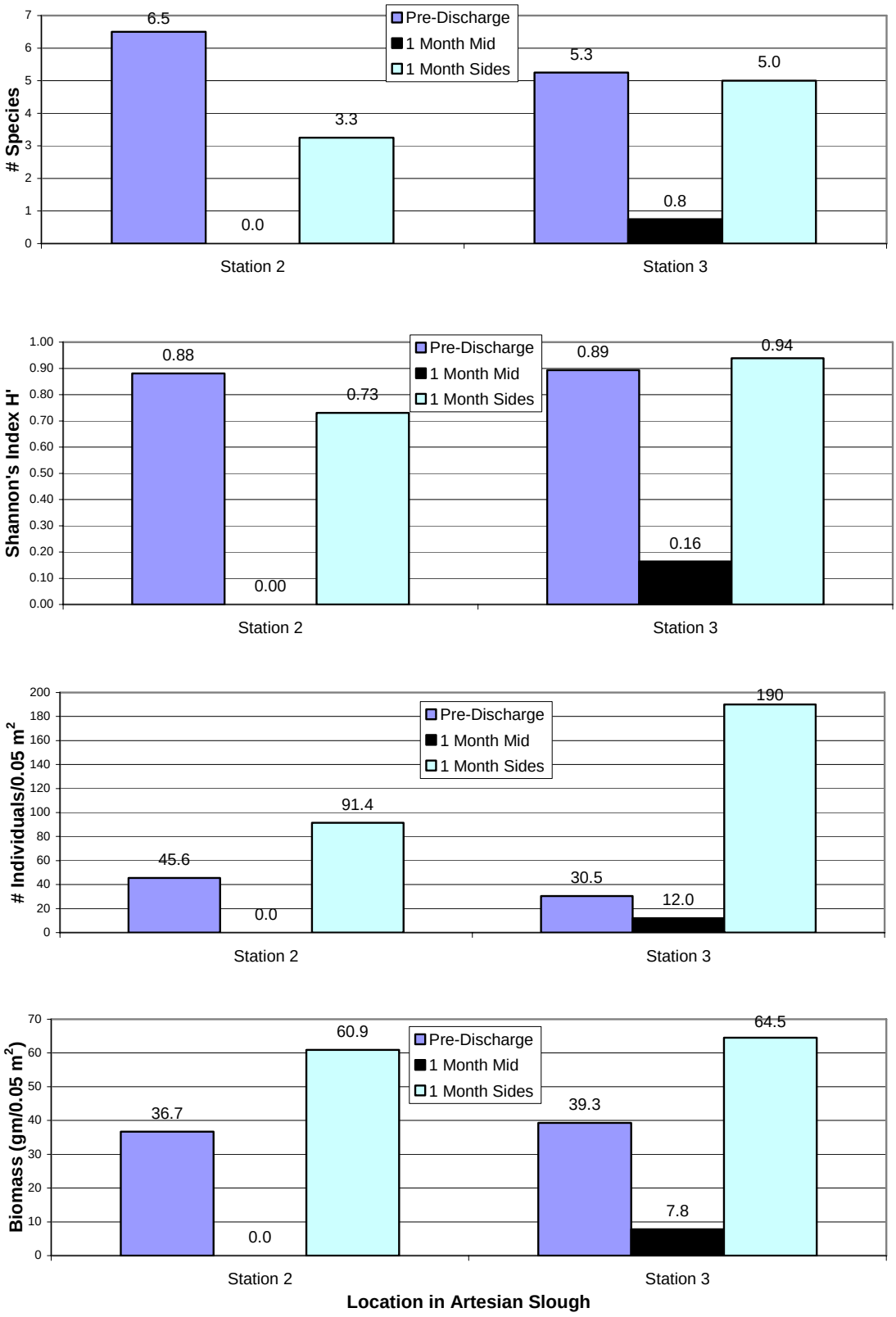


Table 1. Results of Benthos Survey in Artesian Slough for Pond A18 Initial Release

First Sampling Event - Pre-Discharge - Mid-Channel

	Abundance (# individuals per 0.126 m^2 of sediment)											
	Station 2				Station 3				Station 4			
REP	A	B	C	D	A	B	C	D	A	B	C	D
ANNELIDA												
Boccardia sp. 1	2								29	19	12	20
Tubificola sp. indet.	113	149	76	22	20	32	38	135	59	74	37	29
Marenzellaria viridis								1	29	15	17	13
Potamilla sp. indet.	4	1		2	2		2		1	2		3
Neanthes succinea									1		2	
MOLLUSCA												
Assiminea californica					2	1		2	1			
Macoma balthica											1	
Mactromeris hemphillii										3	2	2
Gastropoda sp. indet.						1						
ARTHROPODA												
Chironomidae sp. indet. (midge)		2		2								
Corophiidae sp. indet. (damaged)						1						
Eogammarus confervicolus			1					2				
Harpacticoida sp. indet.	14	14	19	4	3	11		25	6	1	2	4
Grandidierella japonica		1			1			1	38	10	26	13
Nippoleucon hinumensis	13	4		1	5	1	5	16	14		10	3
Ostracoda sp. indet.		2		1			all dead					
Zeuxo maledivensis				1							1	
MISCELLANEOUS												
Nemertinea sp. indet.											1	
Nematoda sp. indet.	7	2	1	2								
SUMMARY STATISTICS												
# Species	**6**	**8**	**4**	**8**	**6**	**6**	**2**	**7**	**9**	**7**	**11**	**8**
# Individuals	**153**	**175**	**97**	**35**	**33**	**47**	**45**	**182**	**178**	**124**	**111**	**87**
Diversity (Shannon Index)	**0.945**	**0.638**	**0.605**	**1.335**	**1.253**	**0.929**	**0.525**	**0.864**	**1.689**	**1.25**	**1.795**	**1.733**

	Biomass (gm of animals per 0.126 m^2 of sediment)											
	Station 2				Station 3				Station 4			
REP	A	B	C	D	A	B	C	D	A	B	C	D
Polychaetes	0.098	0.109	0.058	0.035	0.067	0.078	0.096	0.095	0.299	0.247	0.202	0.335
Molluscs	0	0	0	0	0.005	0.005	0	0.004	0.007	0.136	0.19	0.064
Crustacea	0.024	0.017	0.002	0.023	0.006	0.009	0.003	0.01	0.141	0.019	0.1	0.041
Misc	0.002	0.002	0	0	0.004	0.006	0.005	0.003	0	0	0	0
Total Biomass (gms)	**0.124**	**0.128**	**0.06**	**0.058**	**0.082**	**0.098**	**0.104**	**0.112**	**0.447**	**0.402**	**0.492**	**0.44**

Table 2. Results of Benthos Survey in Artesian Slough for Pond A18 Initial Release

Second Sampling Event - 2 Weeks After Initiation of Discharge - Mid-Channel

	Abundance (# individuals per 0.05 m^2 of sediment)											
	Station 2				Station 3				Station 4			
REP	A	B	C	D	A	B	C	D	A	B	C	D
ANNELIDA												
Boccardia sp. 1									1	5	4	
Tubificola sp. indet.	2				14	28	13	13	13	8	22	17
MOLLUSCA												
Assiminea californica						1						
Mactromeris hemphillii								1			1	
ARTHROPODA												
Chironomidae sp. indet. (midge)		1										
Nippoleucon hinumensis									32	6	31	12
MISCELLANEOUS												
Nemertinea sp. indet.				1								
Nematoda sp. indet.	1	2				2	1		1			
SUMMARY STATISTICS												
# Species	**2**	**2**	**0**	**1**	**1**	**3**	**2**	**2**	**4**	**3**	**4**	**2**
# Individuals	**3**	**3**	**0**	**1**	**14**	**31**	**14**	**14**	**47**	**19**	**58**	**29**
Diversity (Shannon Index)	**0.637**	**0.637**	**0.000**	**0.000**	**0.000**	**0.380**	**0.257**	**0.257**	**0.781**	**1.080**	**0.957**	**0.678**

	Biomass (gm of animals per 0.05 m^2 of sediment)											
	Station 2				Station 3				Station 4			
REP	A	B	C	D	A	B	C	D	A	B	C	D
Polychaetes	0	0	0	0	0.005	0.007	0.003	0.005	0.009	0.012	0.009	0.003
Molluscs	0	0	0	0	0	0.003	0	0	0	0	0.027	0
Crustacea	0	0.005	0	0	0	0	0	0	0.014	0.005	0.01	0.01
Misc	0	0	0	0	0	0	0	0	0	0	0	0
Total Biomass (gms)	**0**	**0.005**	**0**	**0**	**0.005**	**0.01**	**0.003**	**0.005**	**0.023**	**0.017**	**0.046**	**0.013**

Table 3. Results of Benthos Survey in Artesian Slough for Pond A18 Initial Release

Third Sampling Event - 1 Month After Initiation of Discharge - Mid-Channel

	Abundance (# individuals per 0.05 m^2 of sediment)											
	Station 2				Station 3				Station 4			
REP	A	B	C	D	A	B	C	D	A	B	C	D
ANNELIDA												
No species found												
MOLLUSCA												
Assiminea californica							2		1		1	
ARTHROPODA												
Corixidae sp. indet. (water boatman)												1
Crangon franciscorum												1
Harpacticoida sp. indet.												6
Grandidierella japonica						1						43
Nippoleucon hinumensis					15	18	10	2	2			227
Sinocorophium alienense												1
MISCELLANEOUS												
No species found												
SUMMARY STATISTICS												
# Species	**0**	**0**	**0**	**0**	**1**	**2**	**2**	**1**	**2**	**0**	**1**	**6**
# Individuals	**0**	**0**	**0**	**0**	**15**	**19**	**12**	**2**	**3**	**0**	**1**	**279**
Diversity (Shannon Index)	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.206**	**0.451**	**0.000**	**0.637**	**0.000**	**0.000**	**0.599**

	Biomass (gm of animals per 0.05 m^2 of sediment)											
	Station 2				Station 3				Station 4			
REP	A	B	C	D	A	B	C	D	A	B	C	D
Polychaetes	0	0	0	0	0	0	0	0	0	0	0	0.007
Molluscs	0	0	0	0	0	0	0.001	0	0.005	0	0.002	0
Crustacea	0	0	0	0	0.005	0.012	0.013	0	0.007	0	0	0.194
Misc	0	0	0	0	0	0	0	0	0	0	0	0
Total Biomass (gms)	**0**	**0**	**0**	**0**	**0.005**	**0.012**	**0.014**	**0**	**0.012**	**0**	**0.002**	**0.201**

Table 4. Results of Benthos Survey in Artesian Slough for Pond A18 Initial Release

Fourth Sampling Event - 6 Months After Initiation of Discharge - Mid-Channel

	Abundance (# individuals per 0.05 m^2 of sediment)											
	Station 2				Station 3				Station 4			
REP	A	B	C	D	A	B	C	D	A	B	C	D
ANNELIDA												
Dipolydora socialis	1	12	4	6								
Tubificola sp. indet.	15	72	8	38	51	265	575	431	32	427	193	164
Marenzellaria viridis									0	4	1	1
Potamilla sp. indet.	0	4	2	3	0	3	6	3	48	107	102	135
Spionidae sp. Indet.					6	11	21	14	38	274	364	284
MOLLUSCA												
Assiminea californica	1	0	0	2	24	78	117	94	2	10	0	0
Macoma balthica					2	0	1	2	17	26	20	24
Mactrotoma californica					1	0	0	0	47	40	23	20
ARTHROPODA												
Cirripedia sp. Indet.									1	0	0	0
Corophiidae sp. indet. (damaged)	4	0	0	0	2	3	0	0	19	28	13	16
Harpacticoida sp. indet.					0	1	1	0	0	1	0	0
Grandidierella japonica	2	13	2	36	111	174	154	177	80	171	68	42
Nippoleucon hinumensis	1	7	3	50	68	22	25	33	5	42	10	6
Sinocorophium alienense	0	0	0	22	0	4	2	4	11	38	23	30
Sphaeroma quoyanum									5	0	1	0
Synidolea laticulata									0	1	3	0
Zeuxo maledivensis	0	0	0	2	4	0	0	0				
MISCELLANEOUS												
Nemertinea sp. indet.	0	0	0	1	0	1	0	0	0	0	0	1
SUMMARY STATISTICS												
# Species	**6**	**5**	**5**	**9**	**9**	**10**	**9**	**8**	**13**	**13**	**12**	**11**
# Individuals	**24**	**108**	**19**	**160**	**269**	**562**	**902**	**758**	**305**	**1169**	**821**	**723**
Diversity (Shannon Index)	**1.197**	**1.069**	**1.458**	**1.652**	**1.485**	**1.309**	**1.103**	**1.195**	**2.082**	**1.801**	**1.613**	**1.669**

	Biomass (gm of animals per 0.05 m^2 of sediment)											
	Station 2				Station 3				Station 4			
REP	A	B	C	D	A	B	C	D	A	B	C	D
Polychaetes	0.026	0.132	0.008	0.037	0.009	0.048	0.910	0.071	0.048	0.207	0.339	0.362
Molluscs	0.003	0	0	0.003	0.161	0.072	0.645	0.679	17.318	14.975	14.115	11.920
Crustacea	0.009	0.038	0.004	0.116	0.114	0.188	0.121	0.106	0.070	0.179	0.094	0.078
Misc	0	0	0	0	0	0	0	0	0	0	0	0
Total Biomass (gms)	**0.038**	**0.17**	**0.012**	**0.156**	**0.284**	**0.308**	**1.676**	**0.856**	**17.436**	**15.361**	**14.548**	**12.36**

Table 5. Results of Benthos Surveys in Artesian Slough

Mid-Channel Samples

Monitoring Event	Avg # Species			Diversity (Shannon Index H')		
	Station 2	Station 3	Station 4	Station 2	Station 3	Station 4
Pre-Discharge	6.50	5.25	8.75	0.881	0.893	1.617
2 Weeks After Start of Discharge	1.25	2.00	3.25	0.319	0.224	0.874
1 Month after Start of Discharge	0.00	0.75	2.25	0.000	0.164	0.309
6 Months after Start of Discharge	6.25	9.00	12.3	1.344	1.273	1.791

Monitoring Event	# Individuals/0.05 m^2		
	Station 2	Station 3	Station 4
Pre-Discharge	45.6	30.5	49.6
2 Weeks After Start of Discharge	1.75	18.3	38.3
1 Month after Start of Discharge	0.00	12.0	70.8
6 Months after Start of Discharge	77.8	623	755

Biomass Measurements (gm/0.05 m^2)

Monitoring Event	Total Biomass			Polychaete Biomass		
	Station 2	Station 3	Station 4	Station 2	Station 3	Station 4
Pre-Discharge	0.037	0.038	0.177	0.030	0.033	0.108
2 Weeks After Start of Discharge	0.001	0.006	0.025	0.000	0.005	0.008
1 Month after Start of Discharge	0.000	7.80	0.056	0.000	0.000	0.002
6 Months after Start of Discharge	94.0	576	14,925	0.051	0.055	0.239

Biomass Measurements (gm/0.05 m^2)

Monitoring Event	Mollusc Biomass			Crustacea Biomass		
	Station 2	Station 3	Station 4	Station 2	Station 3	Station 4
Pre-Discharge	0.000	0.002	0.039	0.007	0.003	0.030
2 Weeks After Start of Discharge	0.000	0.001	0.007	0.001	0.000	0.010
1 Month after Start of Discharge	0.000	0.000	0.004	0.000	0.008	0.050
6 Months after Start of Discharge	0.002	0.389	14,581	0.042	0.132	0.105

Table 6. Results of Benthos Survey in Artesian Slough for Pond A18 Initial Release

Third Sampling Event - 1 Month After Initiation of Discharge - Station 2 Side-Channel & Mid-Channel

	Abundance (# individuals per 0.05 m^2 of sediment)											
	Station 2 - Right Side-Channel				Station 2 - Mid-Channel				Station 2 - Left Side-Channel			
REP	A	B	C	D	A	B	C	D	A	B	C	D
ANNELIDA												
Tubificola sp. indet.			2						244	100	63	51
Sabellidae												1
MOLLUSCA												
Assiminea californica	1		2	1								
ARTHROPODA												
Harpacticoida sp. indet.									22	3	25	
Grandidierella japonica				1					1		5	7
Nippoleucon hinumensis	10	22	2	5					43	18	73	23
Ostracoda sp. indet.												
Sinocorophium alienense				1								3
MISCELLANEOUS												
No species present												
SUMMARY STATISTICS												
# Species	**2**	**1**	**3**	**4**	**0**	**0**	**0**	**0**	**4**	**3**	**4**	**5**
# Individuals	**11**	**22**	**6**	**8**	**0**	**0**	**0**	**0**	**310**	**121**	**166**	**85**
Diversity (Shannon Index)	**0.305**	**0.000**	**1.099**	**1.074**	**0.000**	**0.000**	**0.000**	**0.000**	**0.669**	**0.533**	**1.120**	**1.036**

	Biomass (gm of animals per 0.05 m^2 of sediment)											
	Station 2 - Right Side-Channel				Station 2 - Mid-Channel				Station 2 - Left Side-Channel			
REP	A	B	C	D	A	B	C	D	A	B	C	D
Polychaetes	0	0	0.001	0	0	0	0	0	0.158	0.023	0.011	0.035
Molluscs	0	0	0	0	0	0	0	0	0	0	0	0
Crustacea	0.007	0.012	0.004	0.019	0	0	0	0	0.028	0.011	0.078	0.101
Misc	0	0	0	0	0	0	0	0	0	0	0	0
Total Biomass (gms)	**0.007**	**0.012**	**0.005**	**0.019**	**0**	**0**	**0**	**0**	**0.186**	**0.034**	**0.089**	**0.136**

Table 7. Results of Benthos Survey in Artesian Slough for Pond A18 Initial Release

Third Sampling Event - 1 Month After Initiation of Discharge - Station 3 Side-Channel & Mid-Channel

	Abundance (# individuals per 0.05 m^2 of sediment)											
	Station 3 - Right Side-Channel				Station 3 - Mid-Channel				Station 3 - Left Side-Channel			
REP	A	B	C	D	A	B	C	D	A	B	C	D
ANNELIDA												
Boccardia sp. 1												
Tubificola sp. indet.		1							5			6
Sabellidae				3								
MOLLUSCA												
Assiminea californica	1	4		5			2		2			
ARTHROPODA												
Corophiidae sp. indet. (damaged)	4	3		8								
Eogammarus confervicolus		2		1								1
Harpacticoida sp. indet.	1								106	72	46	57
Grandidierella japonica	4	12	1	176		1			11	18	29	29
Nippoleucon hinumensis	1	4		23	15	18	10	2	174	244	219	218
Ostracoda sp. indet.												
Sinocorophium alienense	1	4		4								
Sinocorophium heteroceratum				16								
Sphaeroma quoyanum				1								
MISCELLANEOUS												
No species present												
SUMMARY STATISTICS												
# Species	**6**	**7**	**1**	**9**	**1**	**2**	**2**	**1**	**5**	**3**	**4**	**5**
# Individuals	**12**	**30**	**1**	**237**	**15**	**19**	**12**	**2**	**298**	**334**	**294**	**311**
Diversity (Shannon	**1.561**	**1.697**	**0.000**	**0.995**	**0.000**	**0.206**	**0.451**	**0.000**	**0.906**	**0.718**	**0.758**	**0.876**

	Biomass (gm of animals per 0.05 m^2 of sediment)											
	Station 2 - Right Side-Channel				Station 2 - Mid-Channel				Station 2 - Left Side-Channel			
REP	A	B	C	D	A	B	C	D	A	B	C	D
Polychaetes	0	0.002	0	0.002	0	0	0	0	0.001	0.002	0	0.002
Molluscs	0.003	0.006	0	0.009	0	0	0.001	0	0.004	0.004	0	0
Crustacea	0.005	0.054	0.002	0.185	0.005	0.012	0.013	0	0.04	0.076	0.047	0.072
Misc	0	0	0	0	0	0	0	0	0	0	0	0
Total Biomass (gms)	**0.008**	**0.062**	**0.002**	**0.196**	**0.005**	**0.012**	**0.014**	**0**	**0.045**	**0.082**	**0.047**	**0.074**

Table 8. Results of Benthos Surveys in Artesian Slough

Side-Channel & Mid-Channel - One Month After Initiation of Discharge

Monitoring Event - Location	# Species		Diversity (Shannon Index H')	
	Station 2	Station 3	Station 2	Station 3
Pre-Discharge - Mid Channel	6.50	5.25	0.881	0.893
One Month - Mid-Channel	0.00	0.75	0.000	0.164
One Month - Right Side-Channel	2.50	5.75	0.620	1.063
One Month - Left Side-Channel	4.00	4.25	0.840	0.815
One Month - Avg Side-Channels	3.25	5.00	0.730	0.939

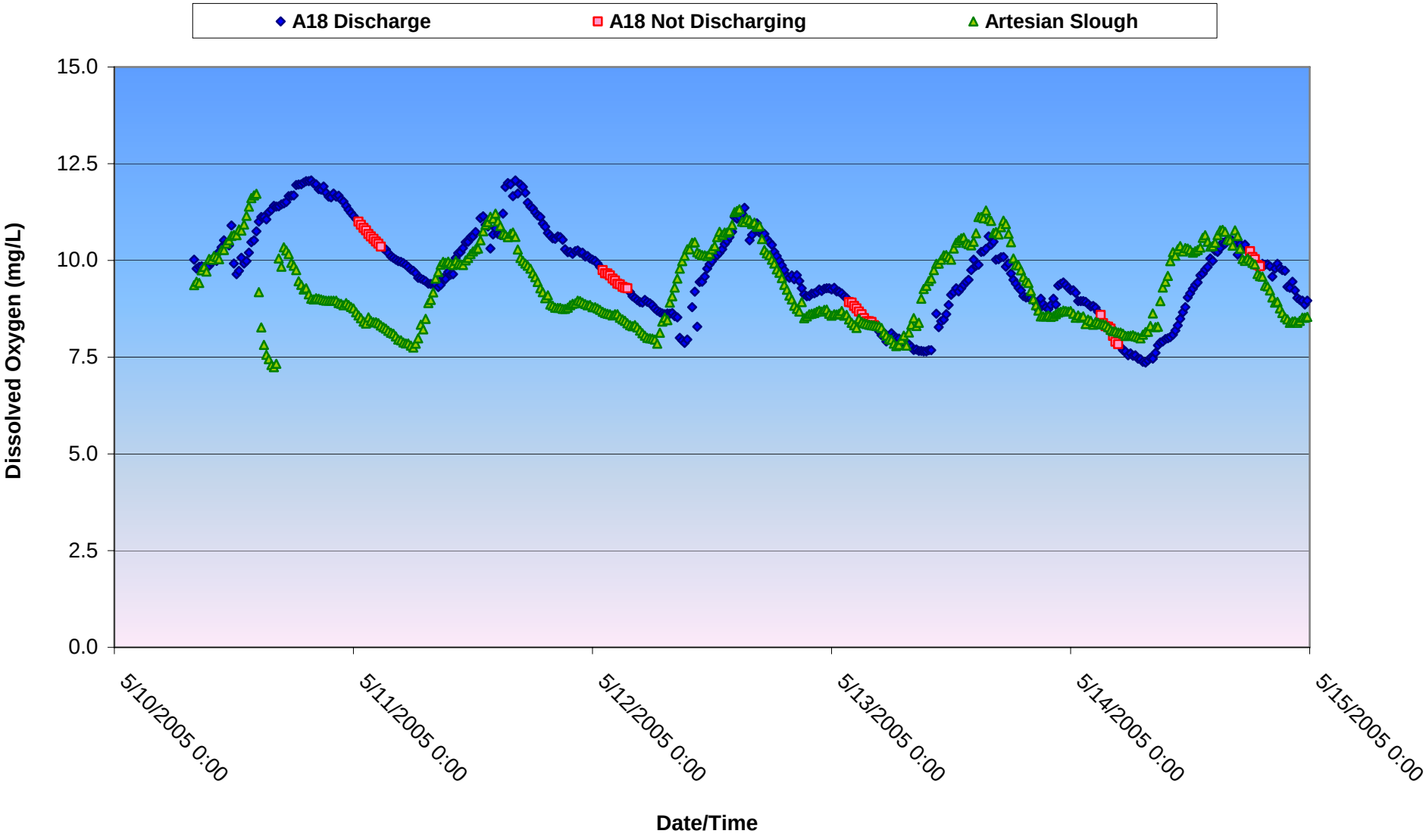
Monitoring Event - Location	# Individuals/0.05 m^2		Biomass (mg/0.05 m^2)	
	Station 2	Station 3	Station 2	Station 3
Pre-Discharge - Mid Channel	45.6	30.5	36.7	39.3
One Month - Mid-Channel	0	12.0	0.0	7.8
One Month - Right Side-Channel	11.8	70.0	10.8	67.0
One Month - Left Side-Channel	171	310.0	111.0	62.0
One Month - Avg Side-Channels	91.40	190.0	60.9	64.5

Appendix 7

Continuous Monitoring of Dissolved Oxygen in Artesian Slough and Pond A18 Discharge During the Continuous Circulation Period, May 10 to October 31, 2005

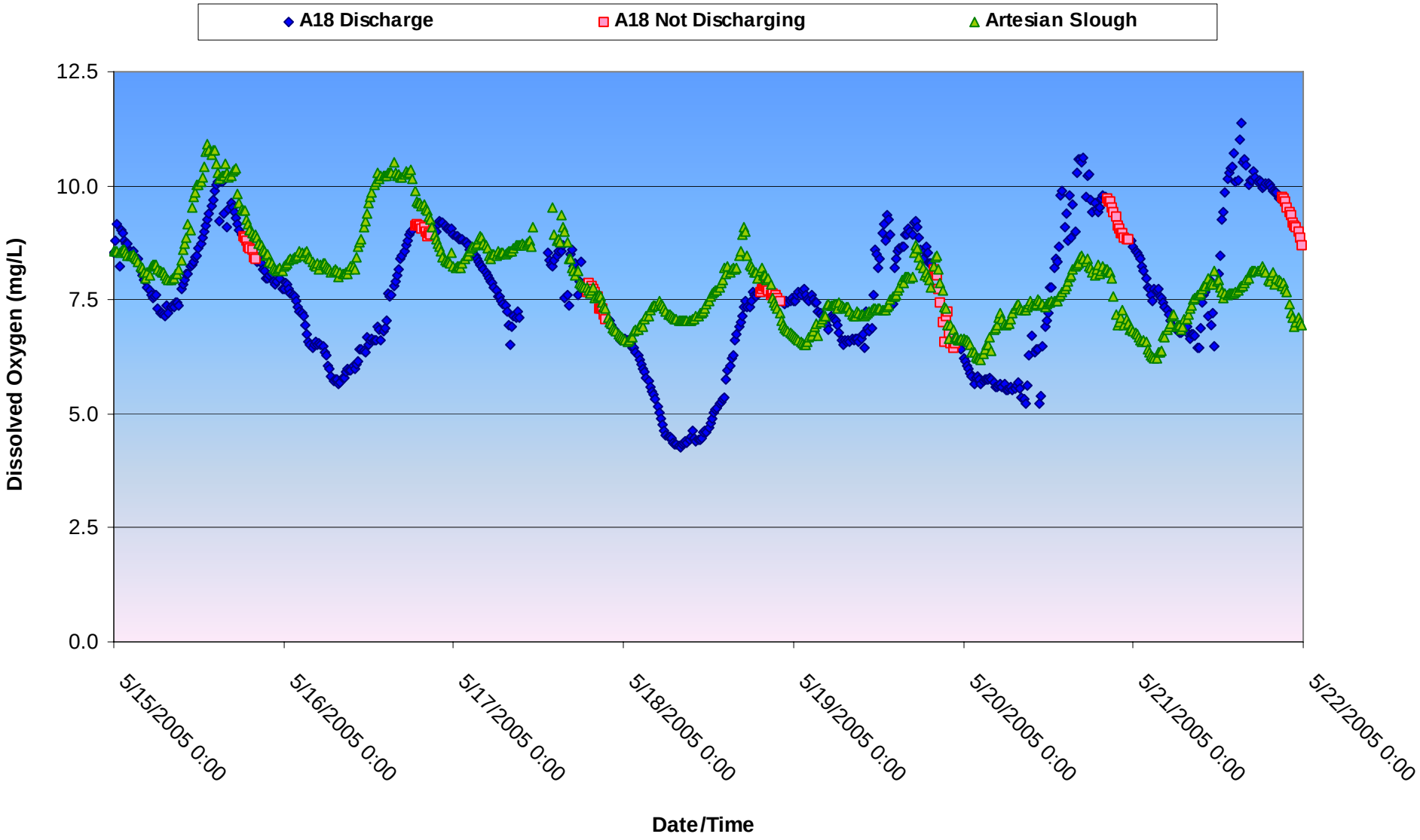
Dissolved Oxygen Levels at A18 Discharge and in Artesian Slough

Week 1 Continuous Circulation Period: May 10-14, 2005



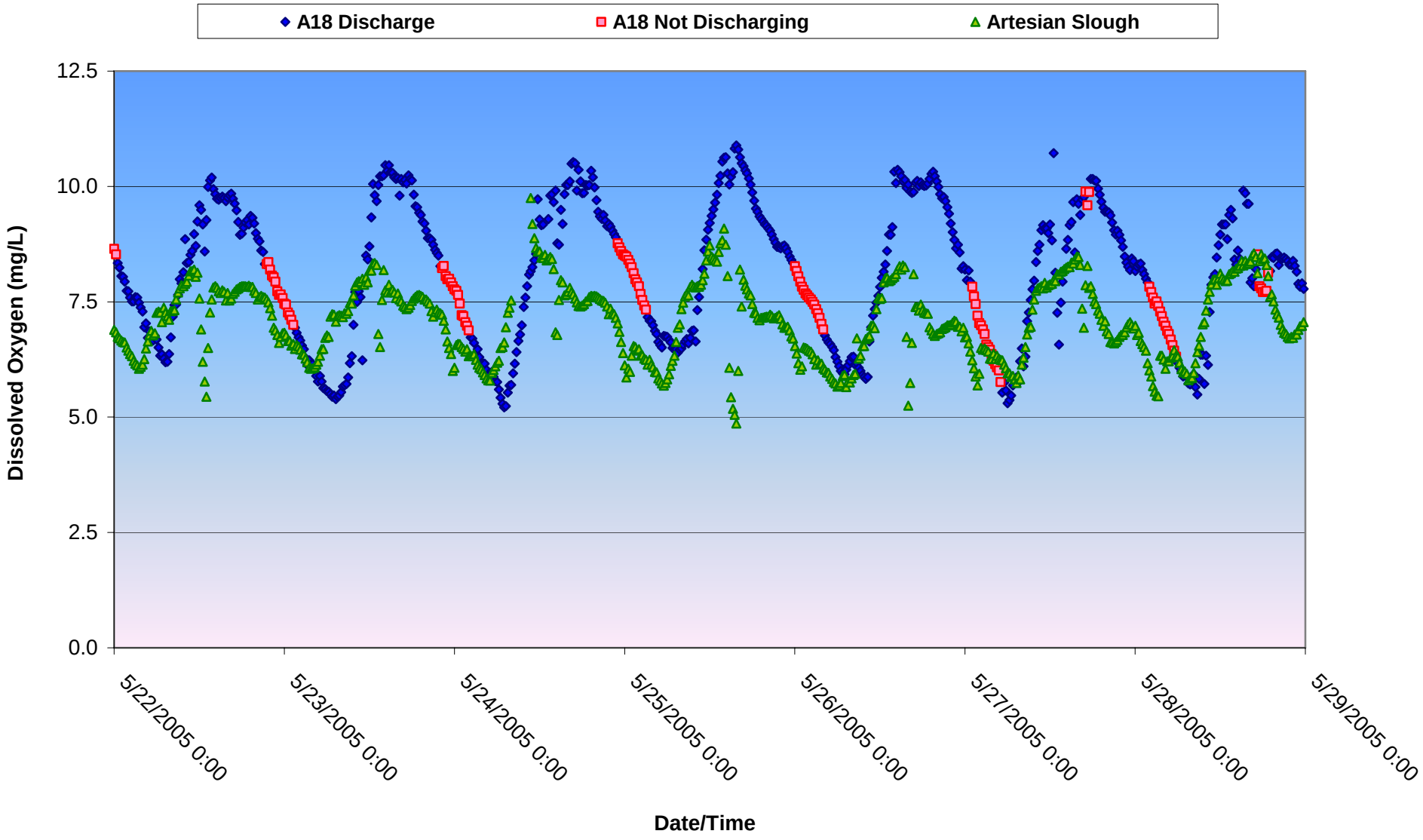
Dissolved Oxygen Levels at A18 Discharge and in Artesian Slough

Week 2 Continuous Circulation Period: May 15-21, 2005



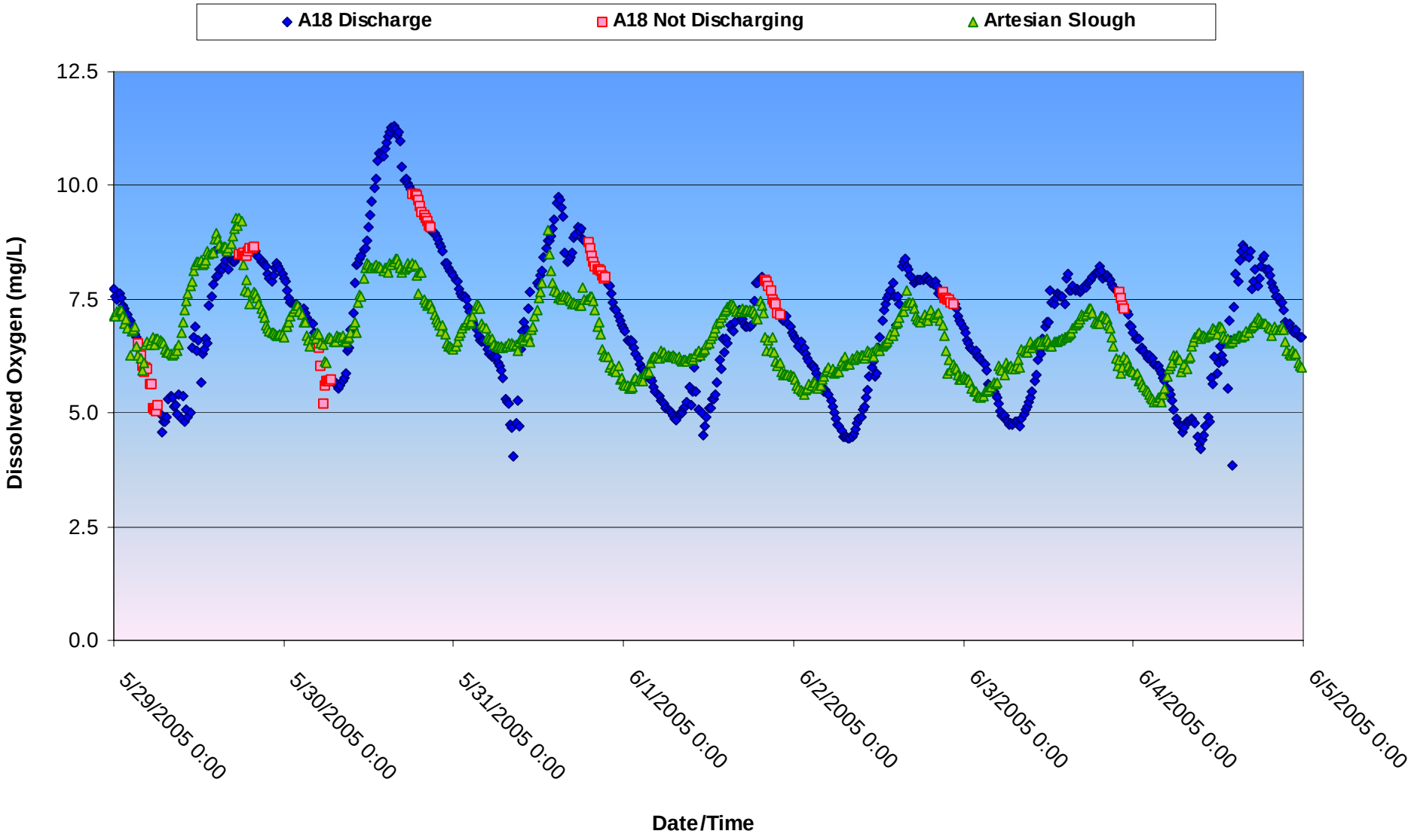
Dissolved Oxygen Levels at A18 Discharge and in Artesian Slough

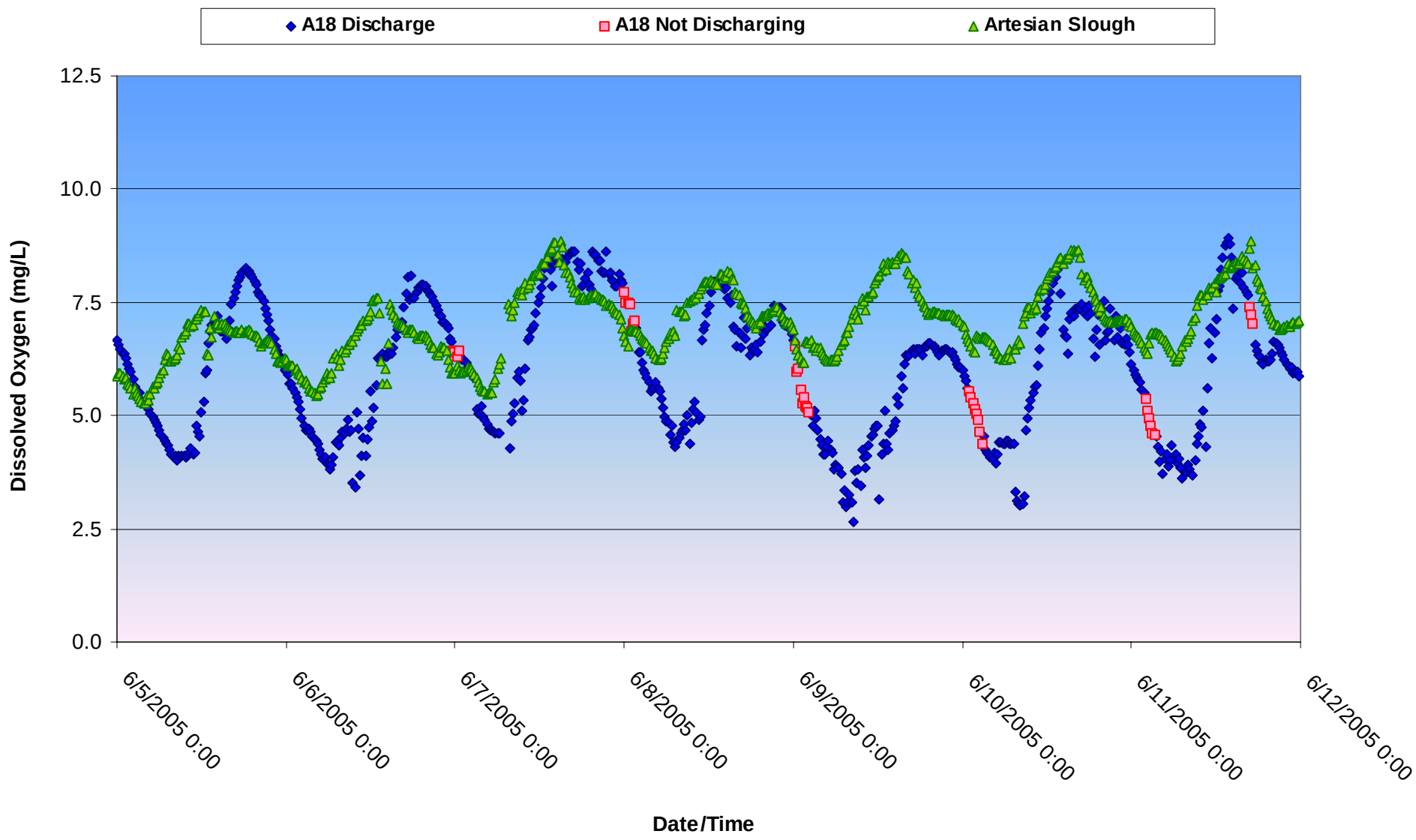
Week 3 Continuous Circulation Period: May 22-28, 2005



Dissolved Oxygen Levels at A18 Discharge and in Artesian Slough

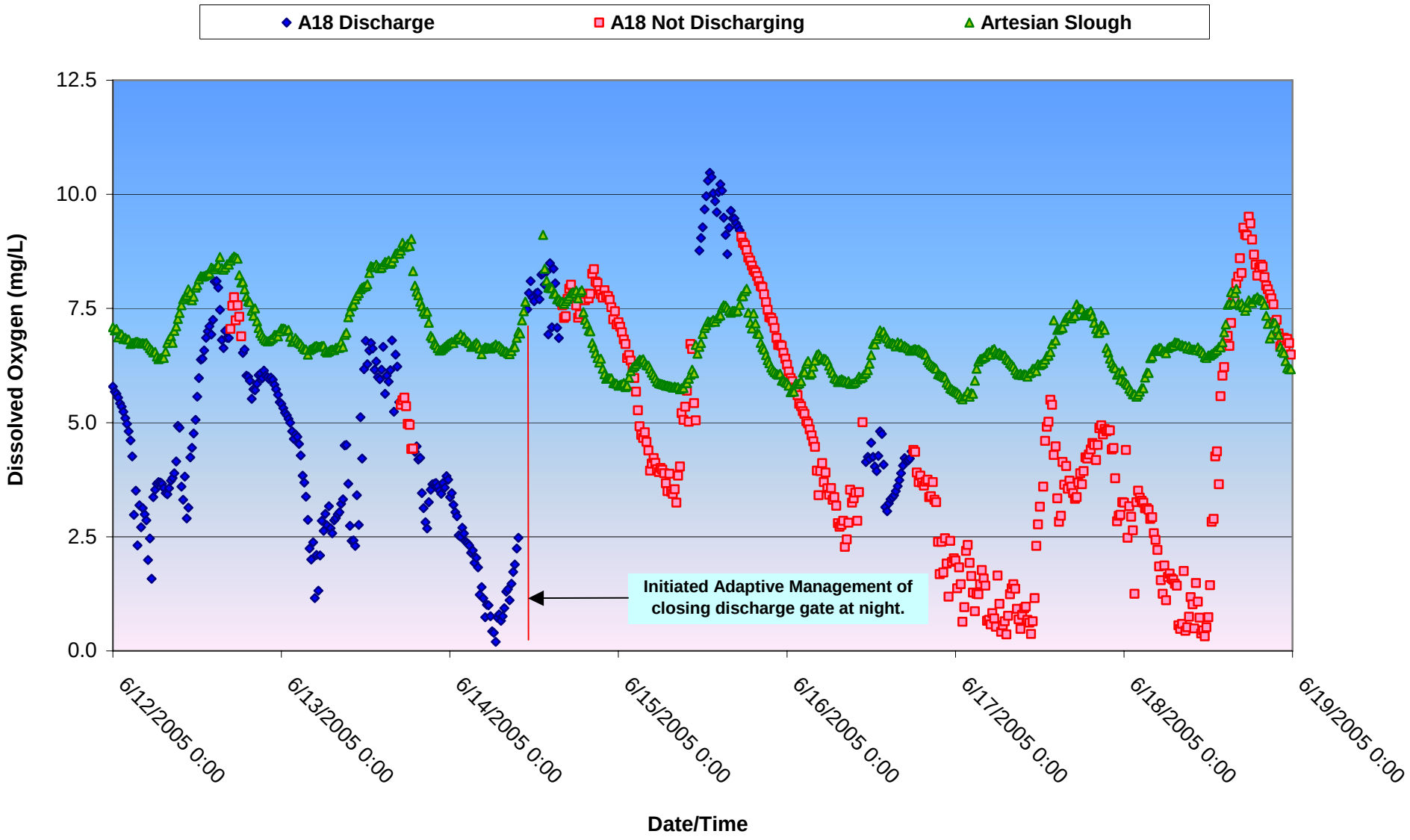
Week 4 Continuous Circulation Period: May 29 - June 4, 2005




Dissolved Oxygen Levels at A18 Discharge and in Artesian Slough
Week 5 Continuous Circulation Period: June 5-11, 2005
A18 Discharge
A18 Not Discharging
Artesian Slough
Dissolved Oxygen (mg/L)
12.5
10.0
7.5
5.0
2.5
0.0
6/5/2005 0:00
6/6/2005 0:00
6/7/2005 0:00
6/8/2005 0:00
6/9/2005 0:00
6/10/2005 0:00
6/11/2005 0:00
6/12/2005 0:00
Date/Time

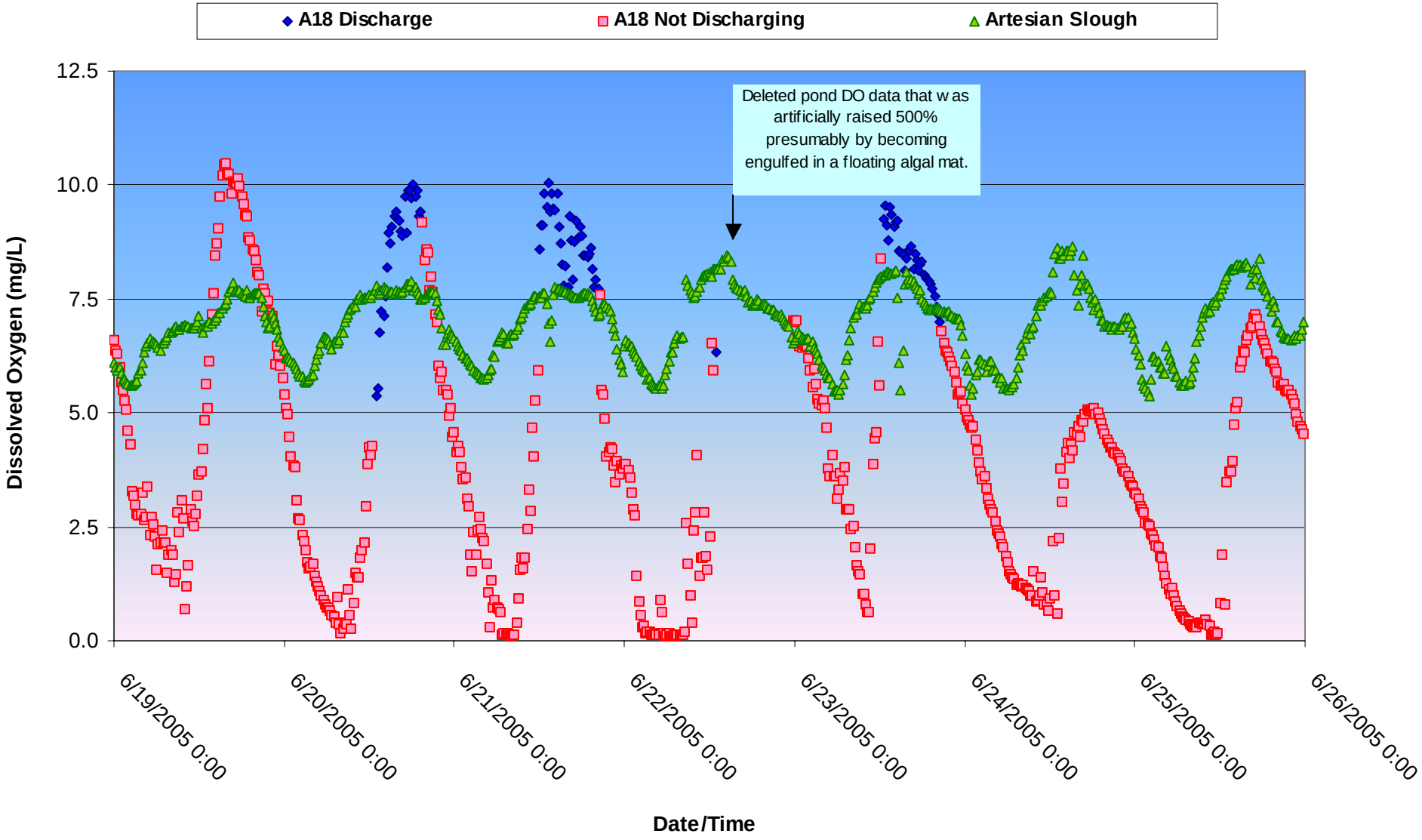
Dissolved Oxygen Levels at A18 Discharge and in Artesian Slough

Week 6 Continuous Circulation Period: June 12-18, 2005



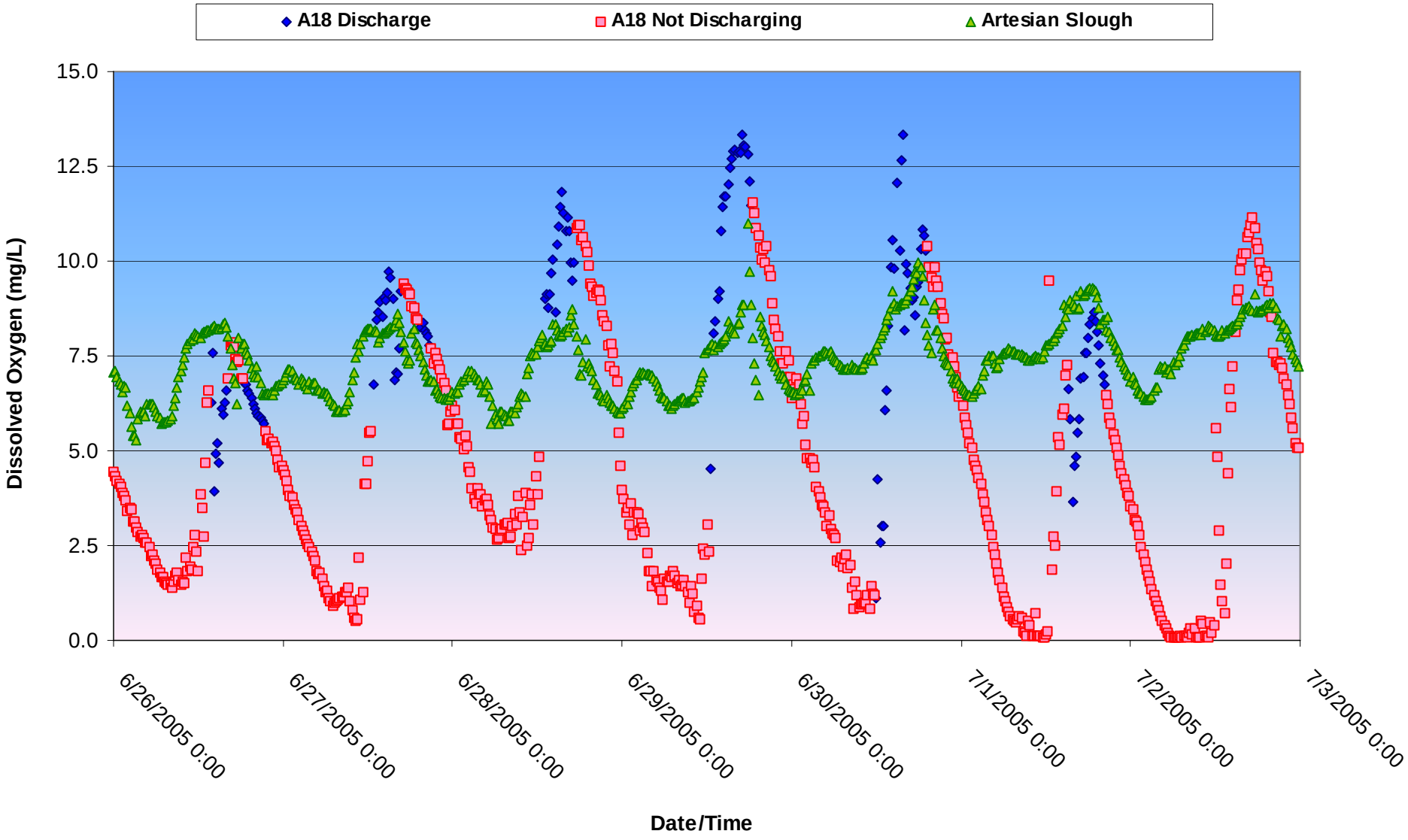
Dissolved Oxygen Levels at A18 Discharge and in Artesian Slough

Week 7 Continuous Circulation Period: June 19-25, 2005



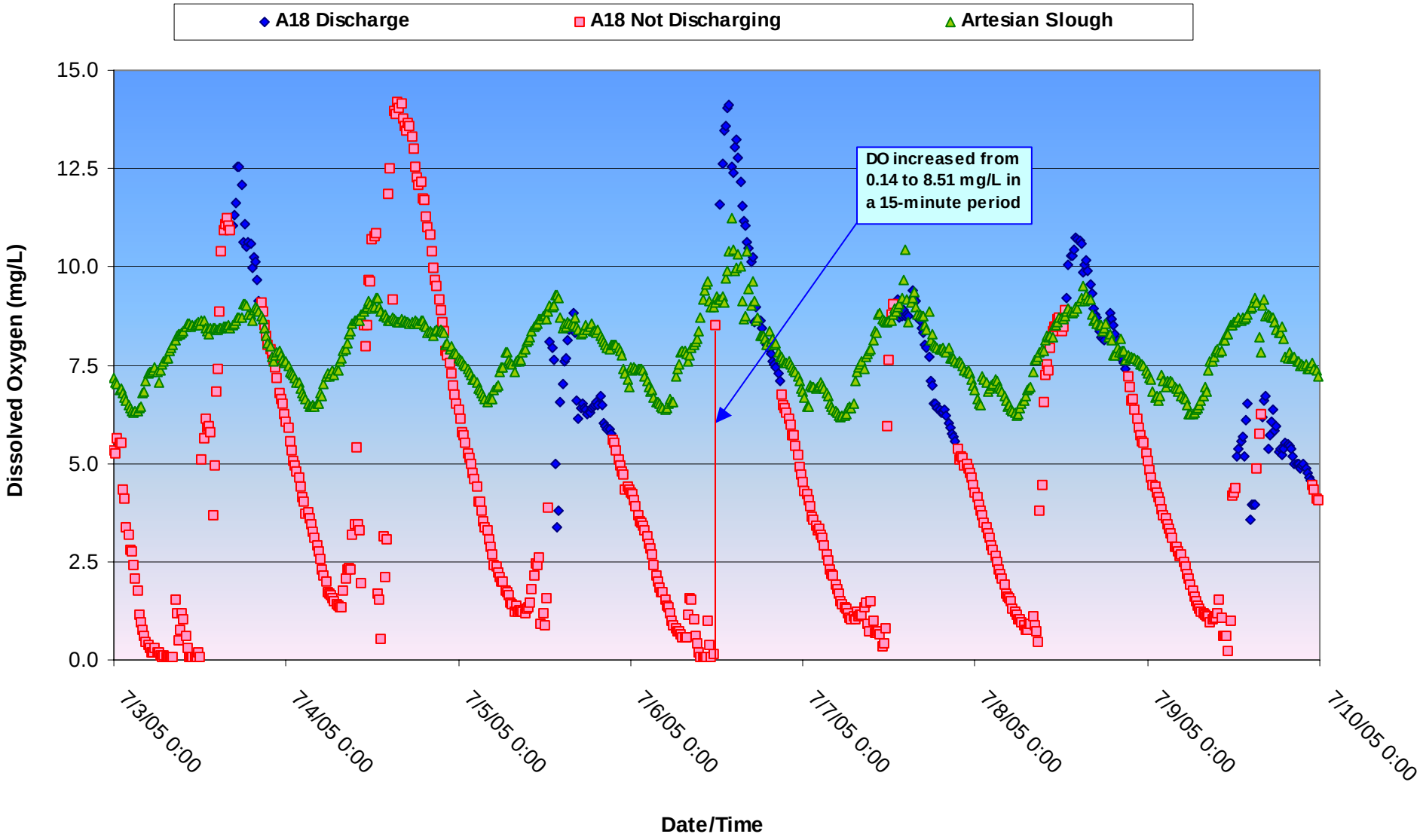
Dissolved Oxygen Levels at A18 Discharge and in Artesian Slough

Week 8 Continuous Circulation Period: June 26 - July 2, 2005



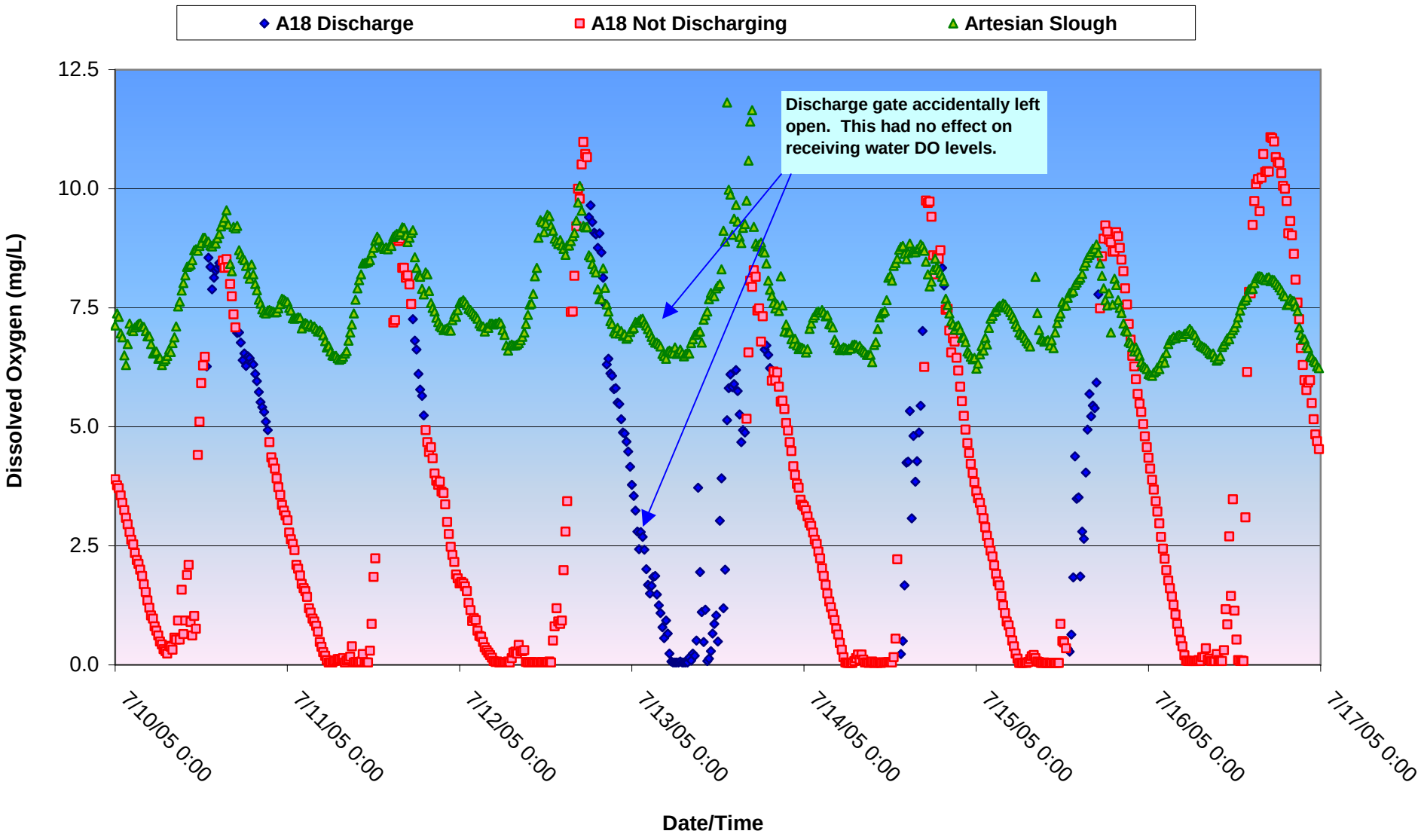
Dissolved Oxygen Levels at A18 Discharge and in Artesian Slough

Week 9 Continuous Circulation Period: July 3-9, 2005



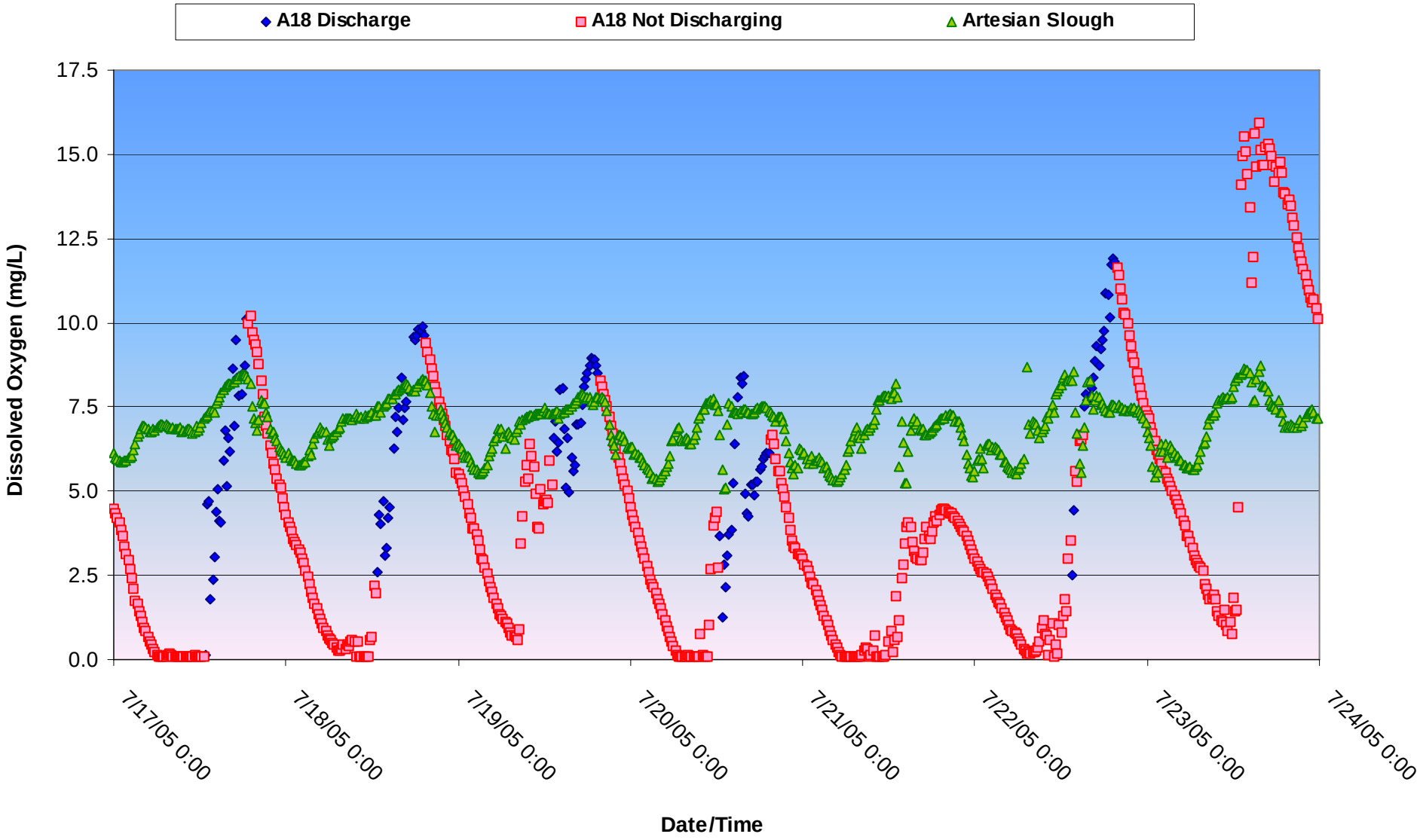
Dissolved Oxygen Levels at A18 Discharge and in Artesian Slough

Week 10 Continuous Circulation Period: July 10-16, 2005



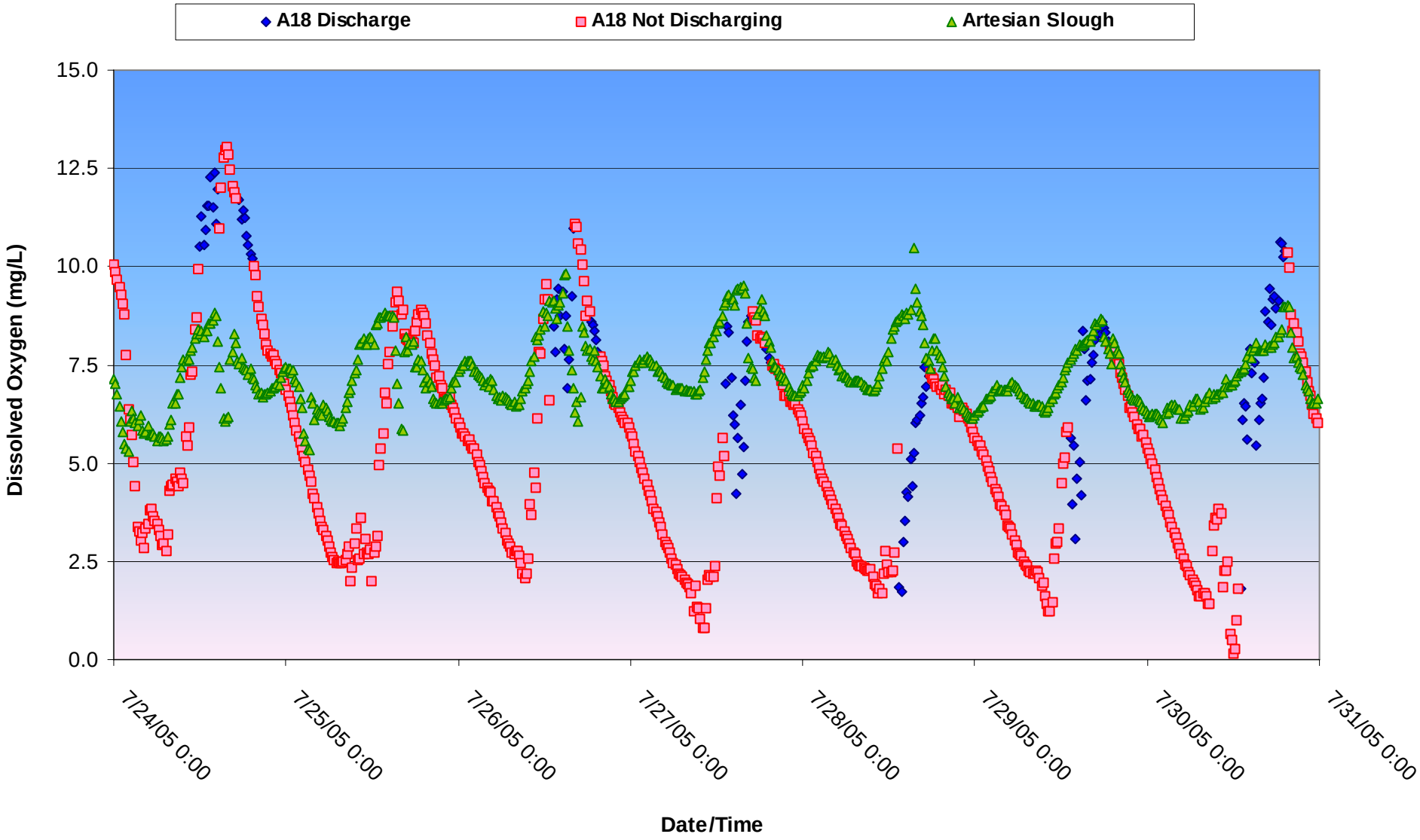
Dissolved Oxygen Levels at A18 Discharge and in Artesian Slough

Week 11 Continuous Circulation Period: July 17-23, 2005



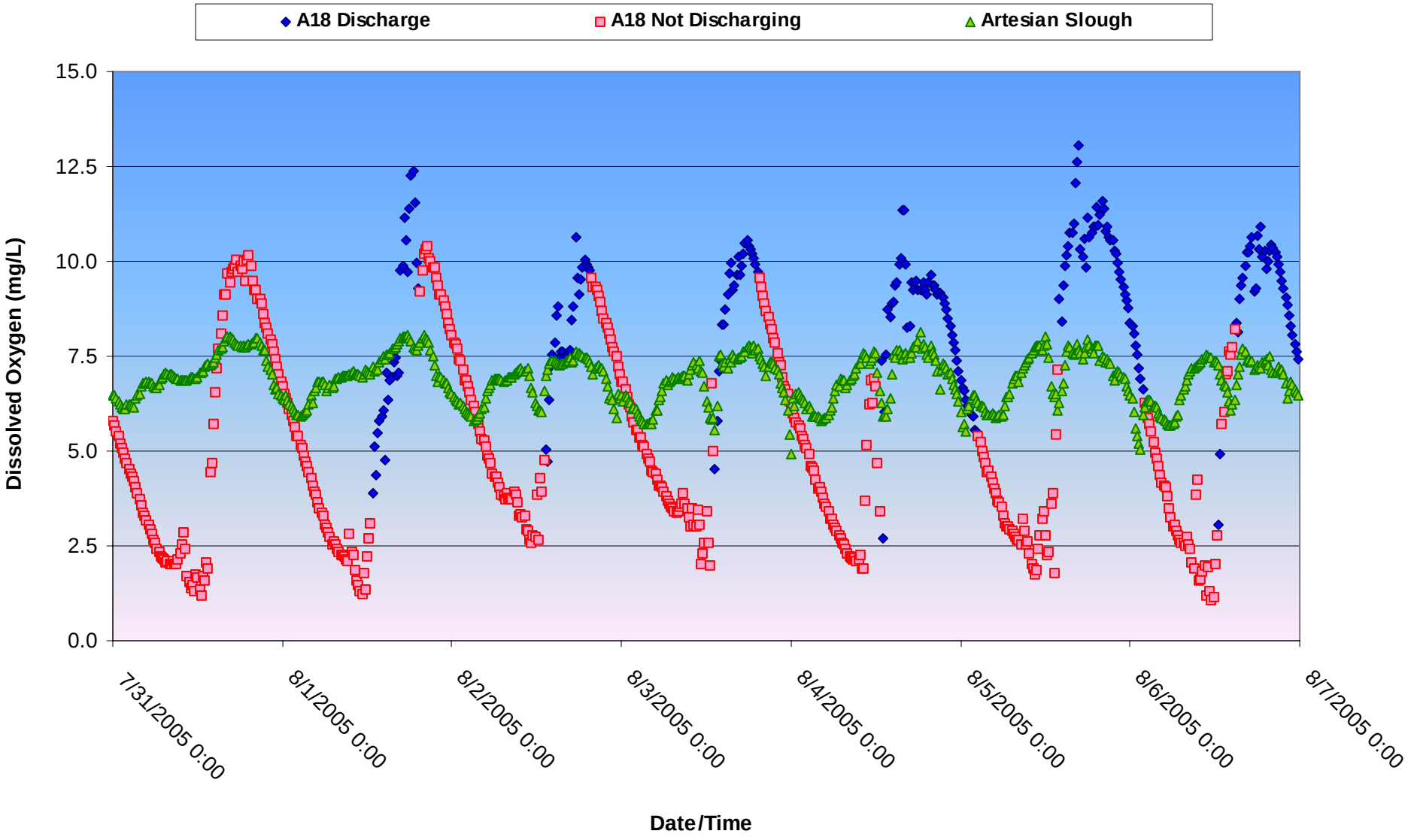
Dissolved Oxygen Levels at A18 Discharge and in Artesian Slough

Week 12 Continuous Circulation Period: July 24-30, 2005



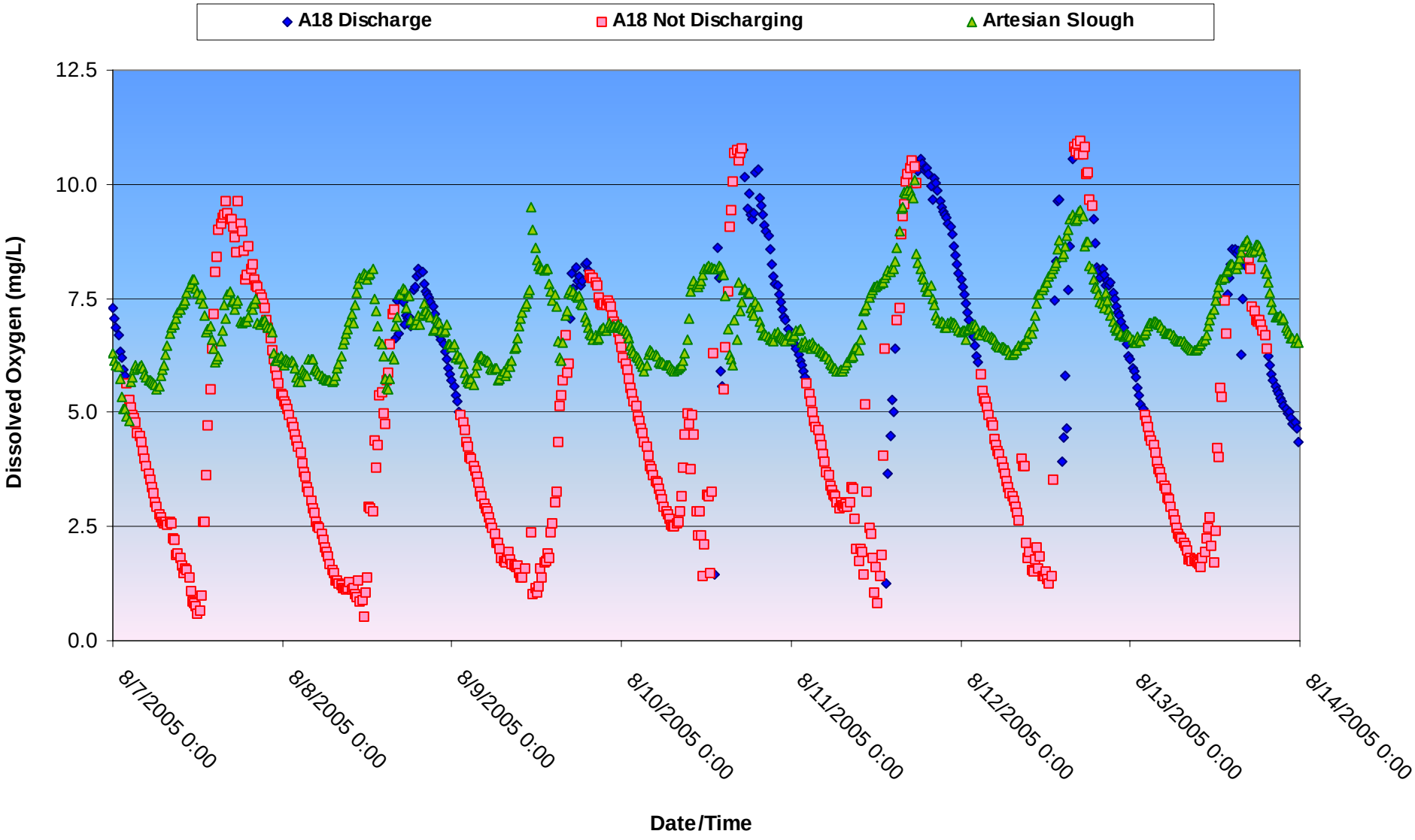
Dissolved Oxygen Levels at A18 Discharge and in Artesian Slough

Week 13 Continuous Circulation Period: July 31 - August 6, 2005



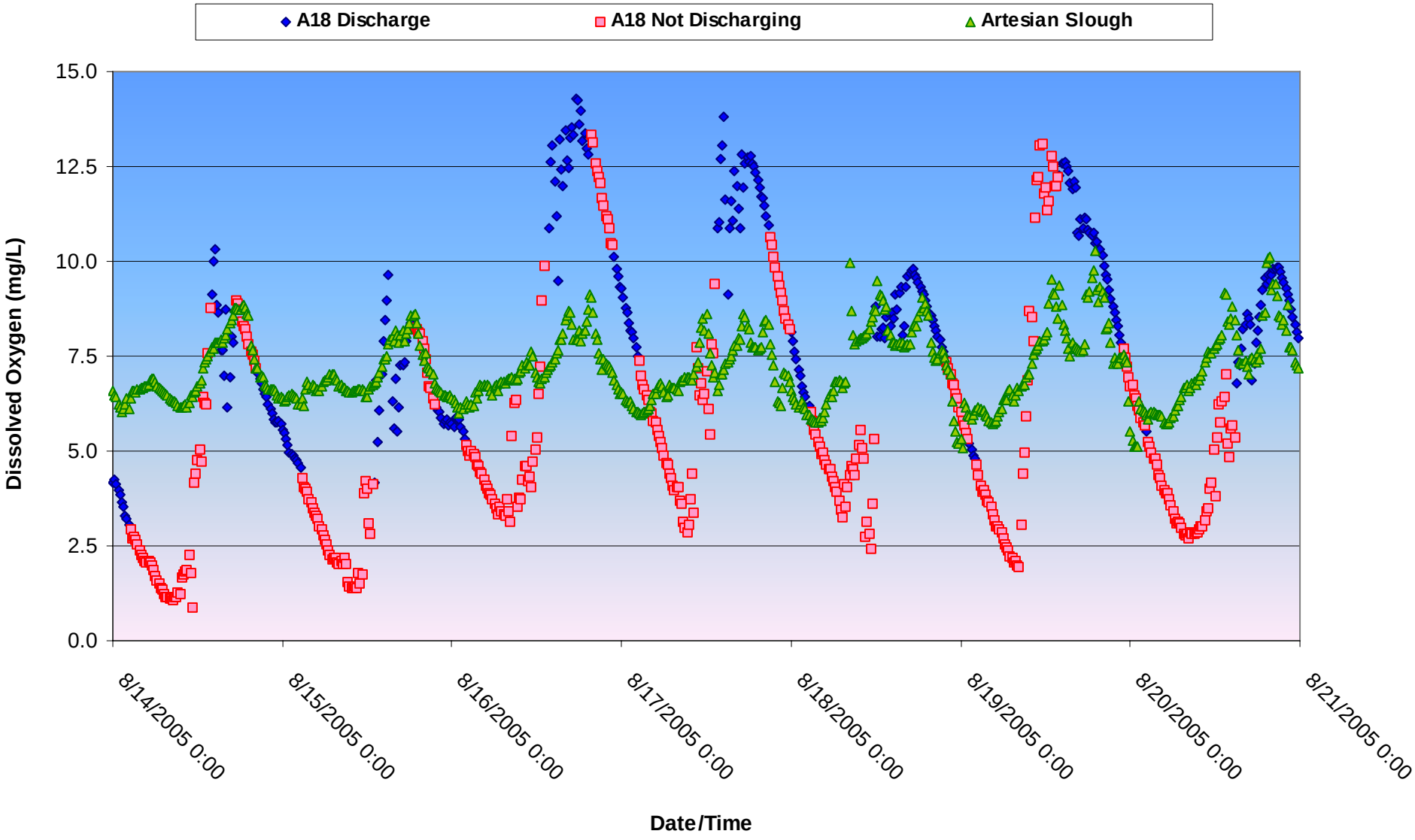
Dissolved Oxygen Levels at A18 Discharge and in Artesian Slough

Week 14 Continuous Circulation Period: August 7-13, 2005



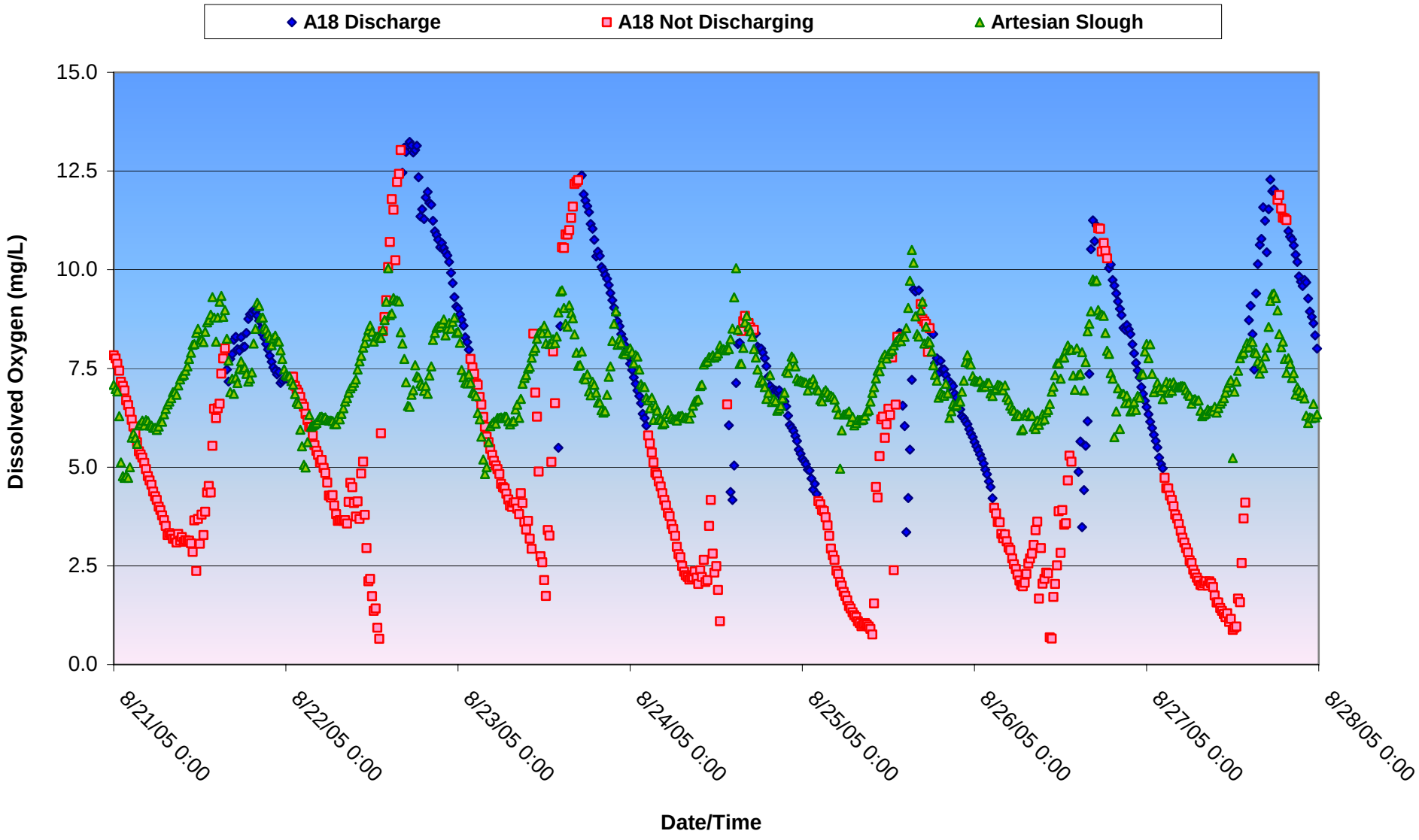
Dissolved Oxygen Levels at A18 Discharge and in Artesian Slough

Week 15 Continuous Circulation Period: August 14-20, 2005



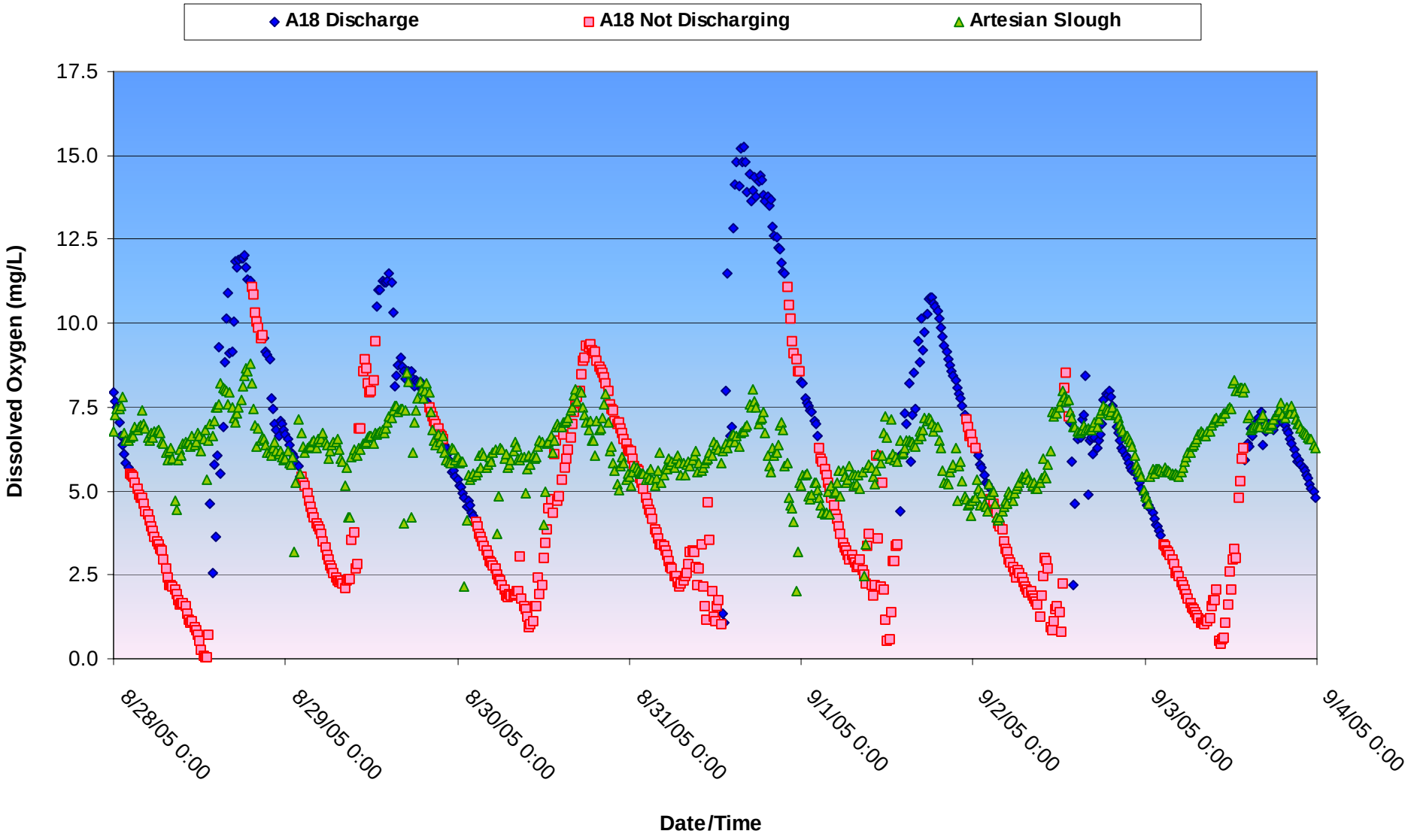
Dissolved Oxygen Levels at A18 Discharge and in Artesian Slough

Week 16 Continuous Circulation Period: August 21-27, 2005



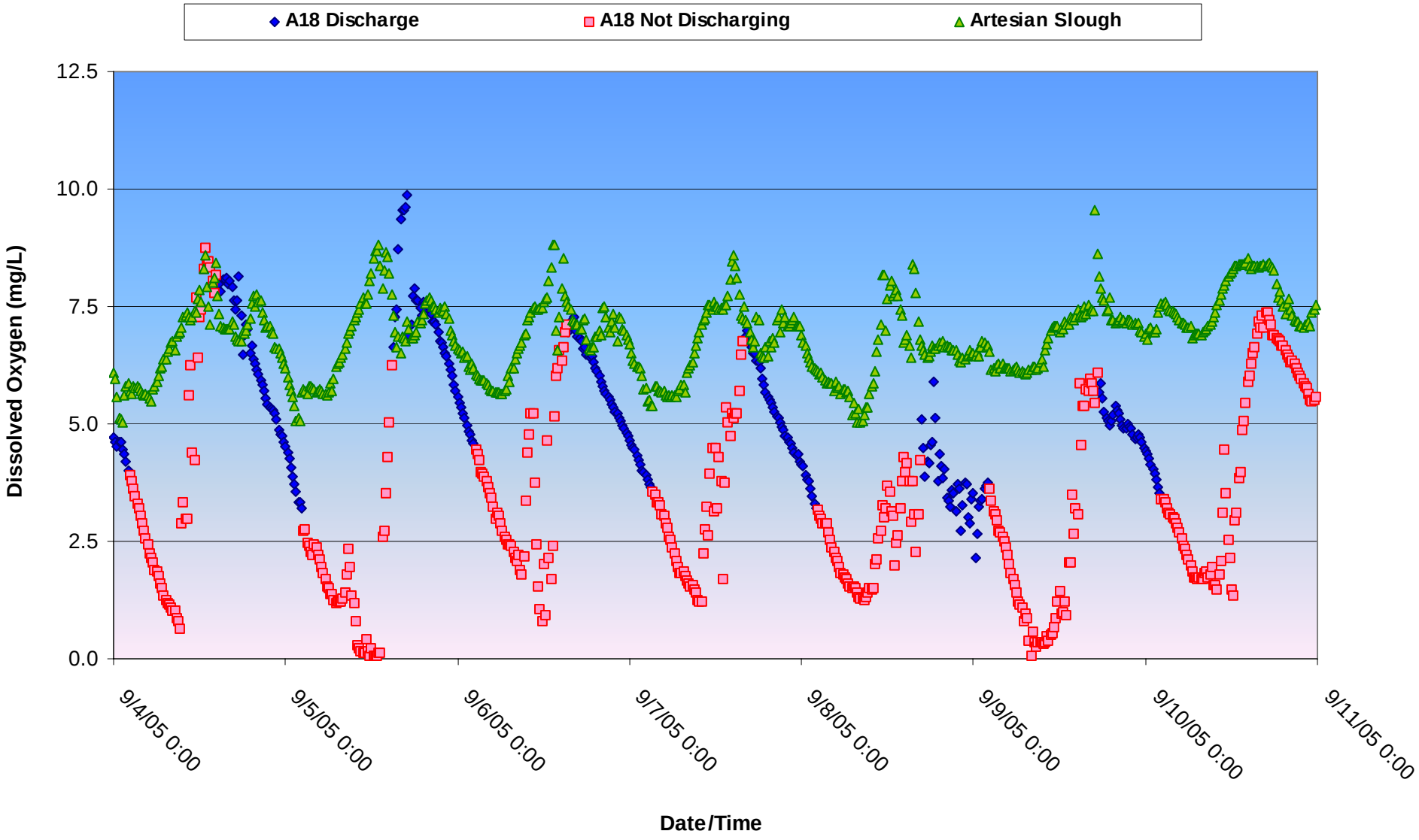
Dissolved Oxygen Levels at A18 Discharge and in Artesian Slough

Week 17 Continuous Circulation Period: August 28 - September 3, 2005



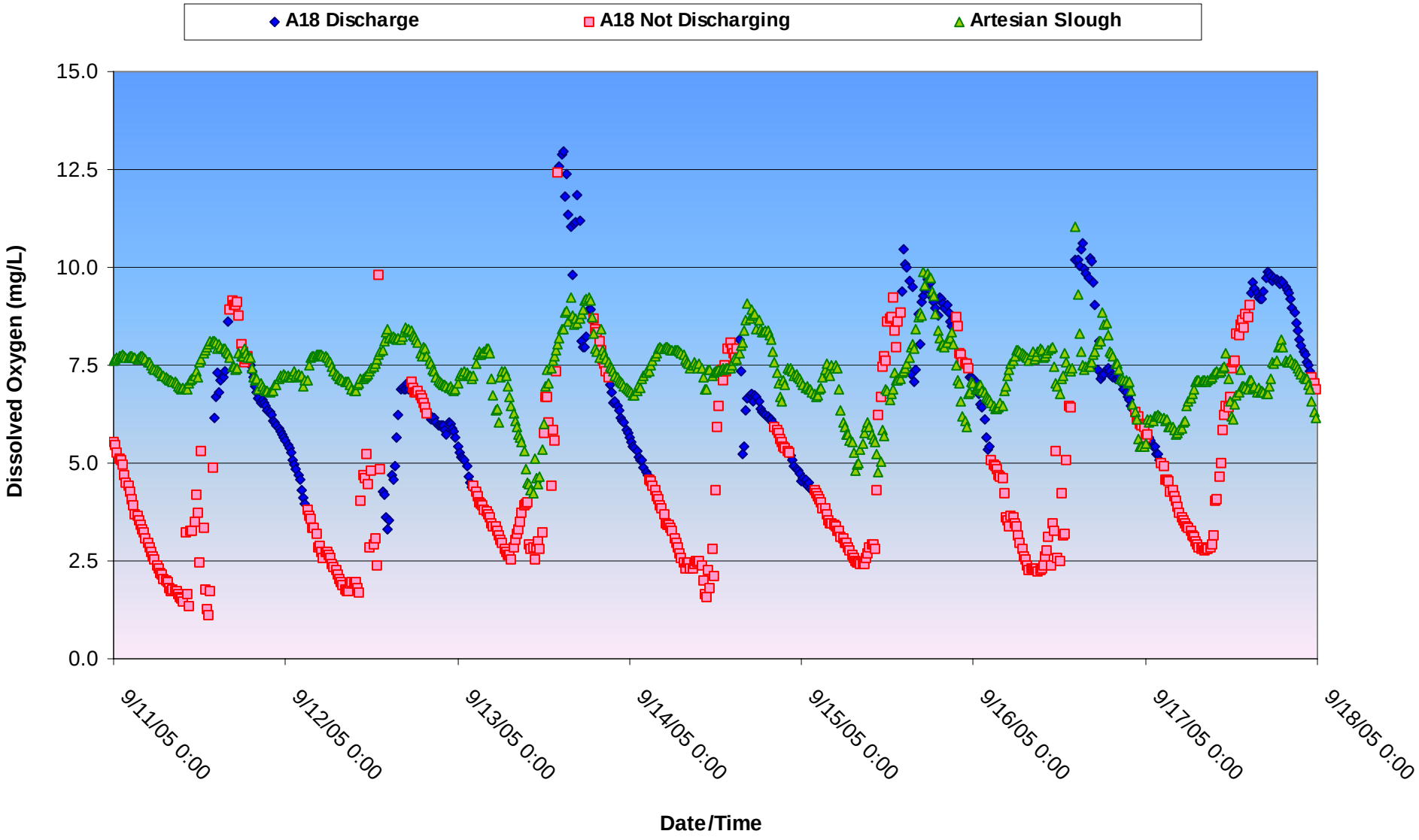
Dissolved Oxygen Levels at A18 Discharge and in Artesian Slough

Week 18 Continuous Circulation Period: September 4-10, 2005



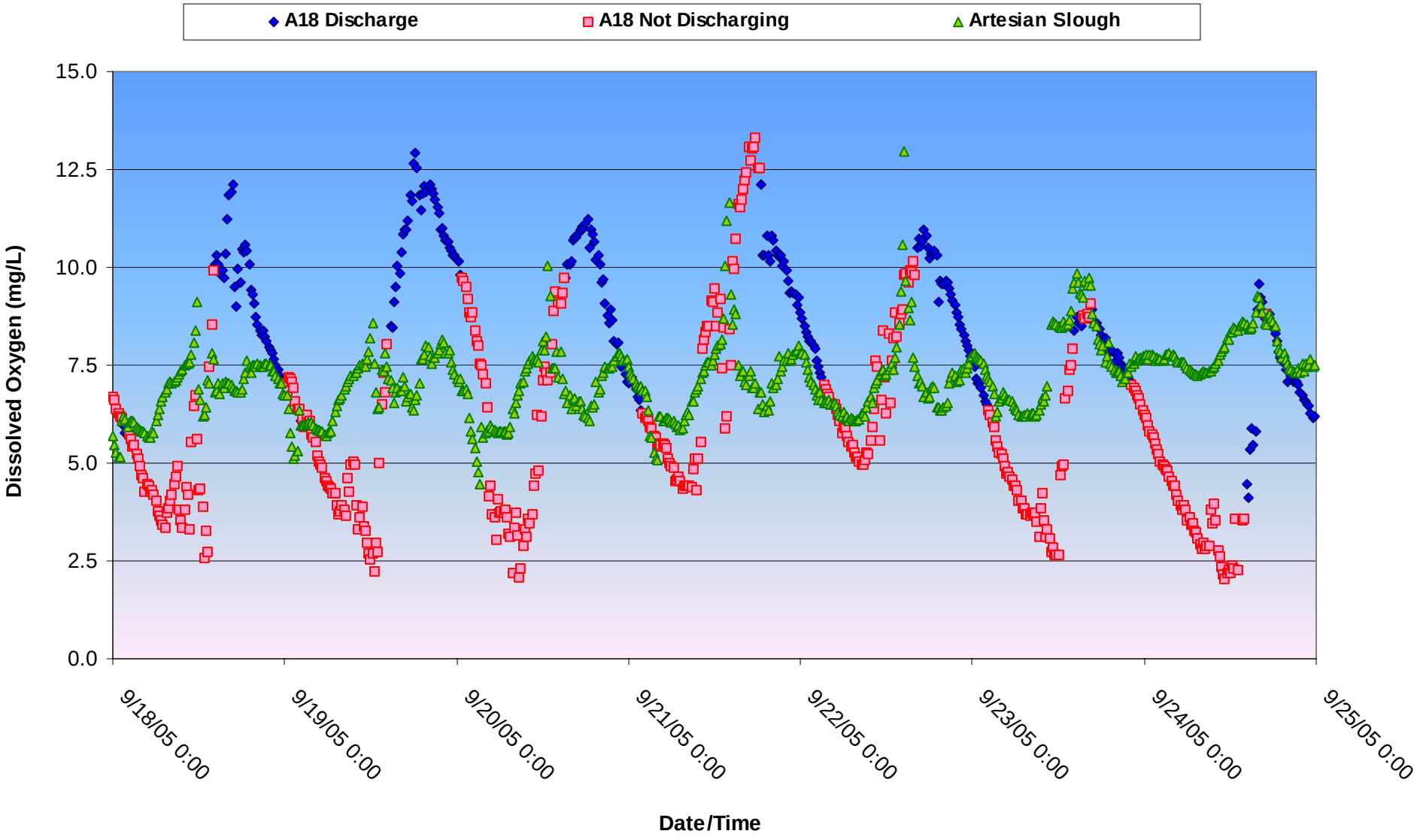
Dissolved Oxygen Levels at A18 Discharge and in Artesian Slough

Week 19 Continuous Circulation Period: September 11-17, 2005



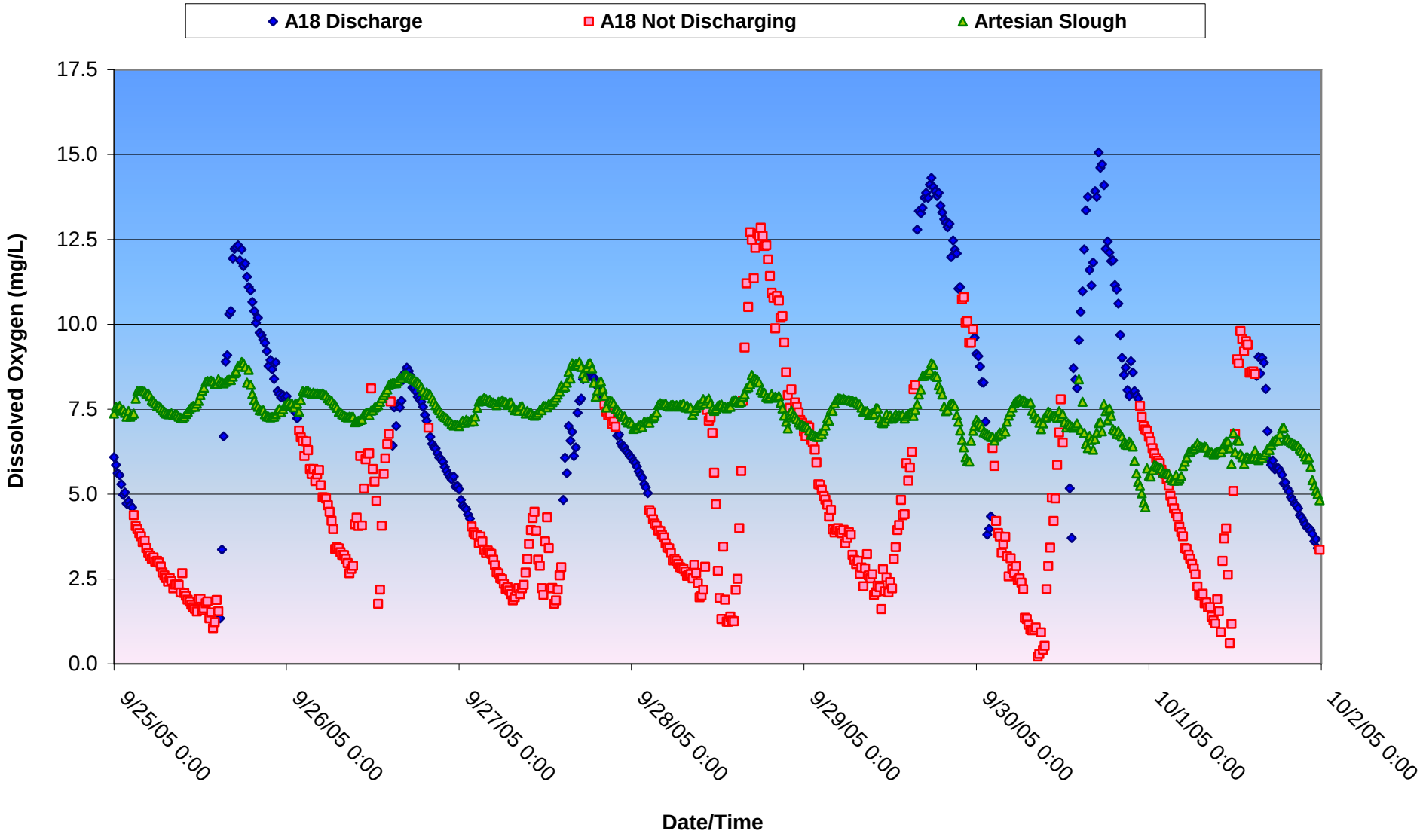
Dissolved Oxygen Levels at A18 Discharge and in Artesian Slough

Week 20 Continuous Circulation Period: September 18-24, 2005



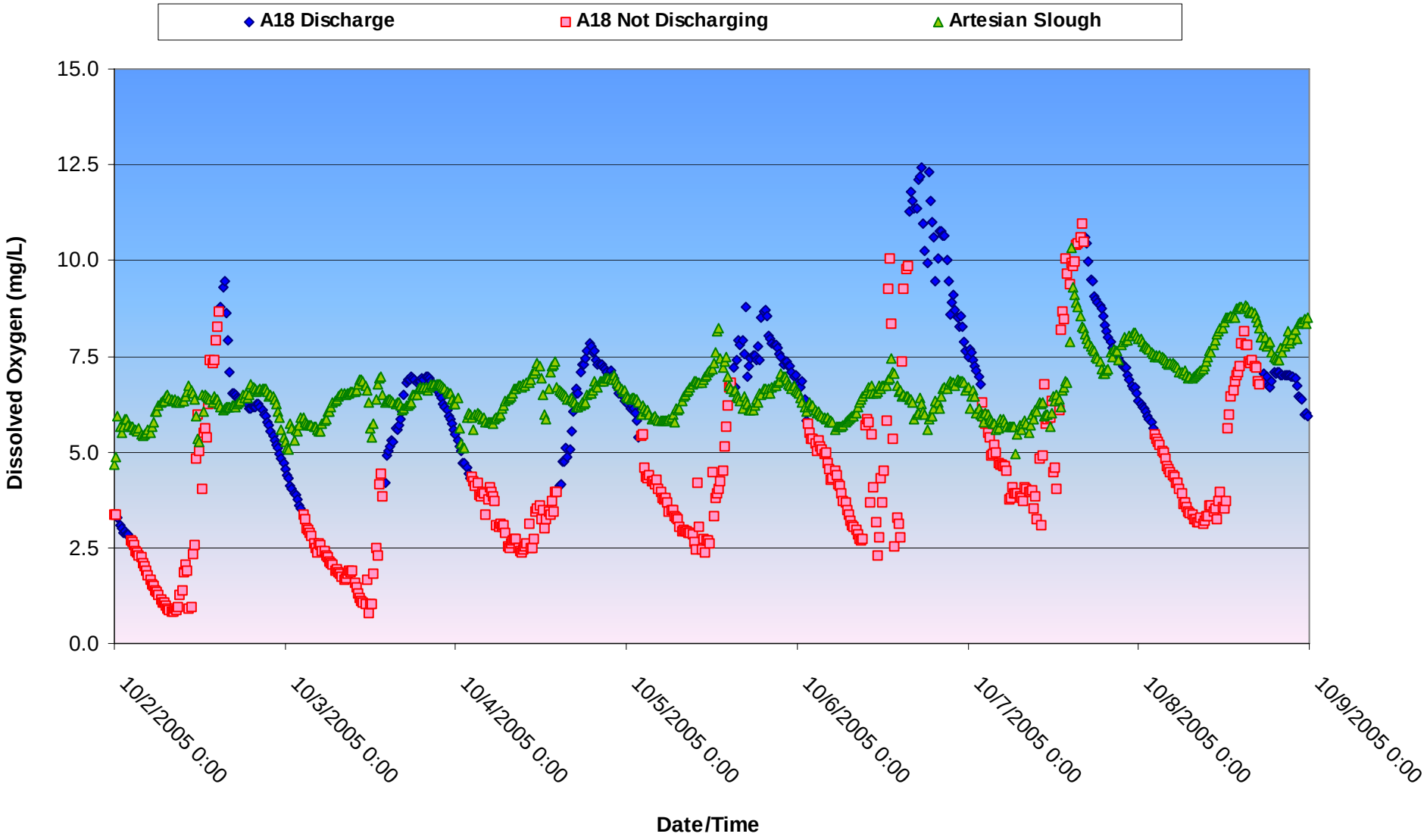
Dissolved Oxygen Levels at A18 Discharge and in Artesian Slough

Week 21 Continuous Circulation Period: September 25 - October 1, 2005



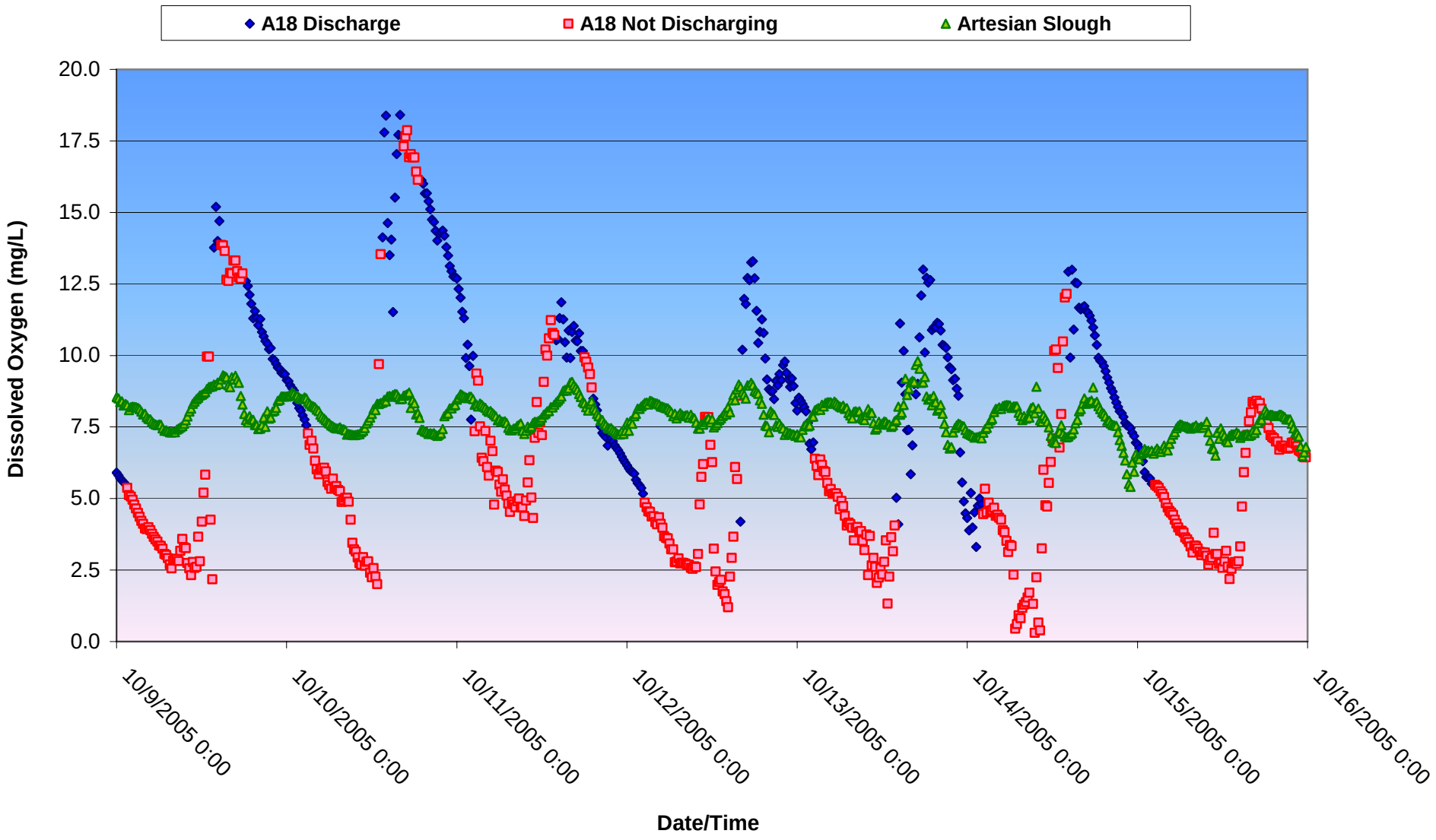
Dissolved Oxygen Levels at A18 Discharge and in Artesian Slough

Week 22 Continuous Circulation Period: October 2-8, 2005



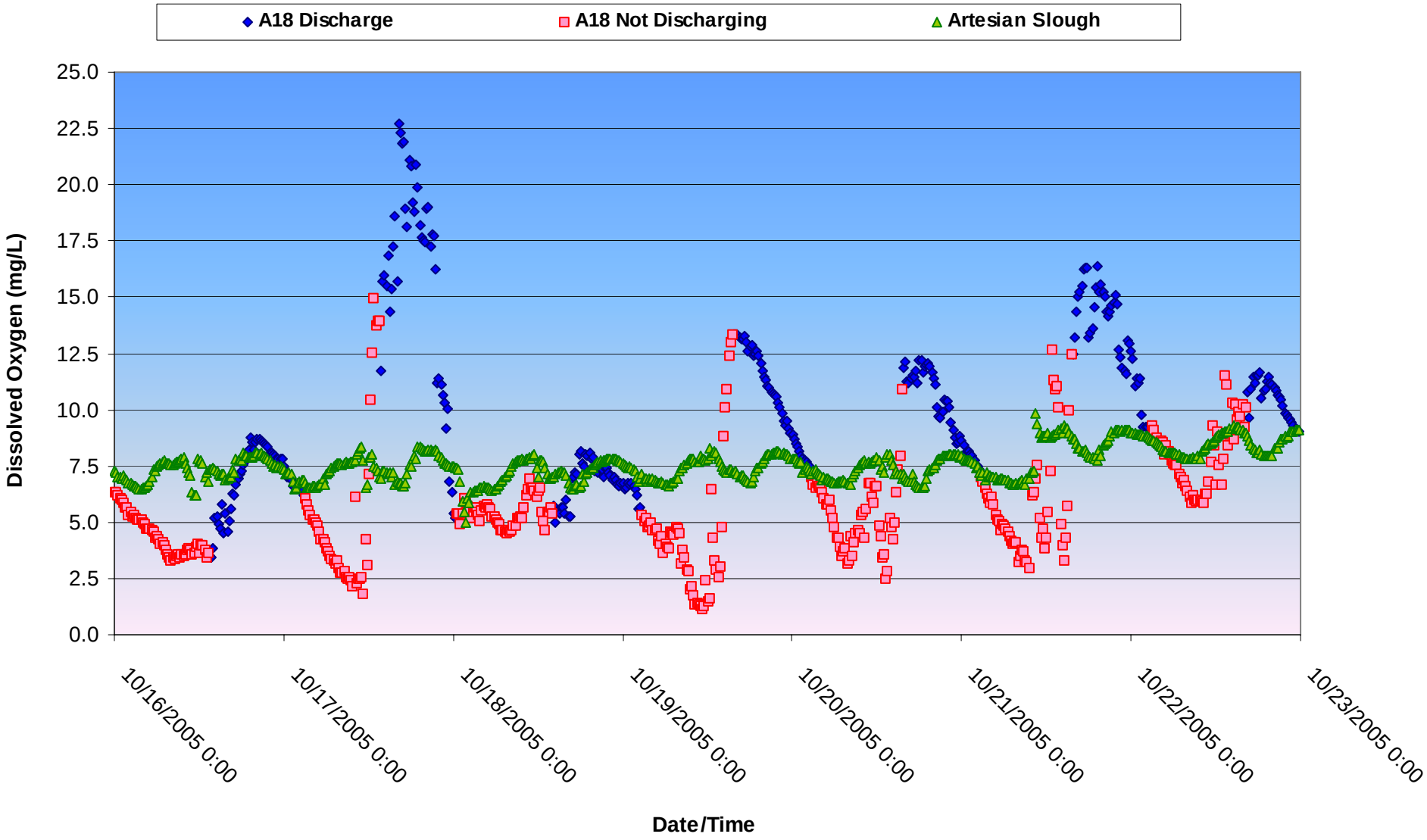
Dissolved Oxygen Levels at A18 Discharge and in Artesian Slough

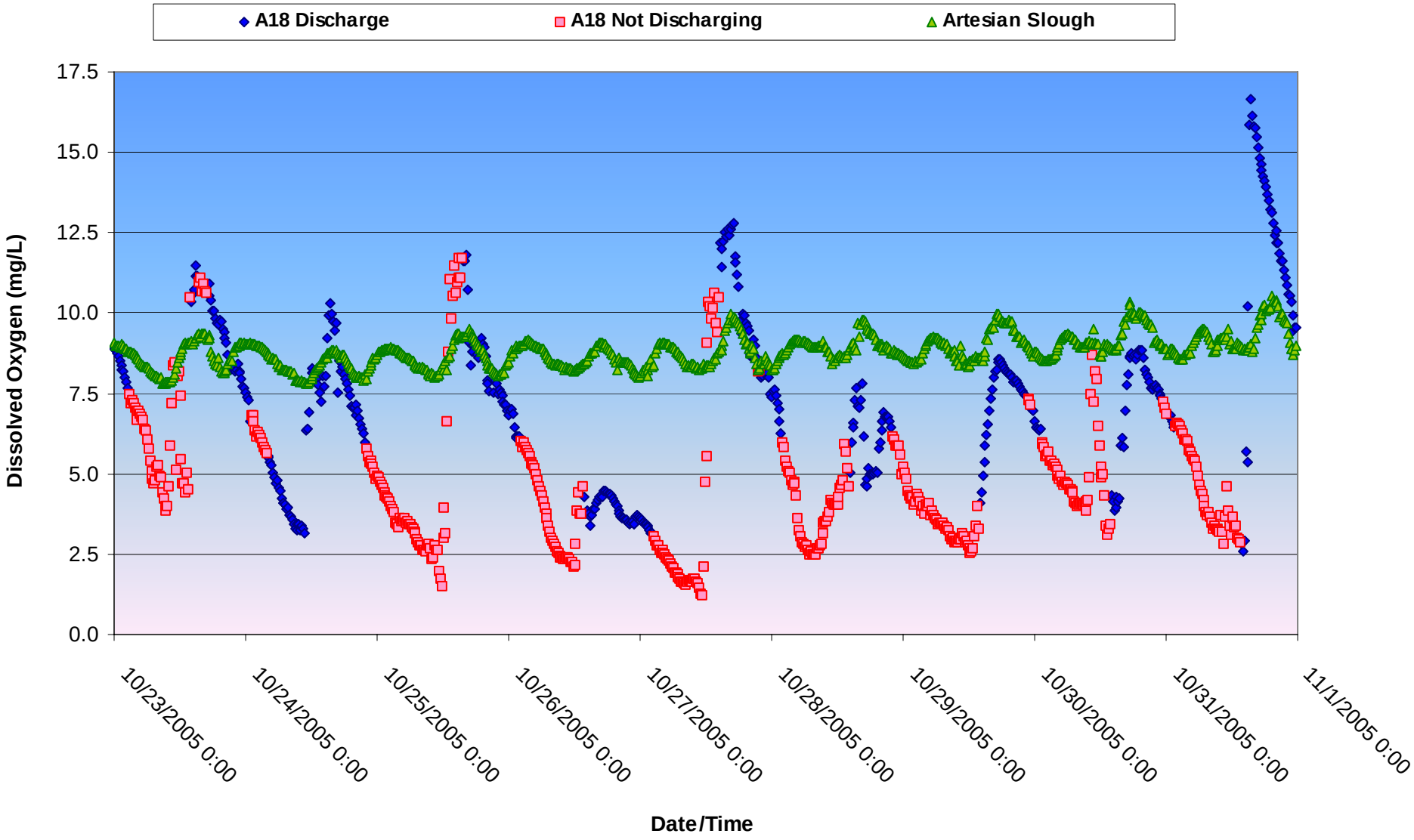
Week 23 Continuous Circulation Period: October 9-15, 2005



Dissolved Oxygen Levels at A18 Discharge and in Artesian Slough

Week 24 Continuous Circulation Period: October 16-22, 2005



Dissolved Oxygen Levels at A18 Discharge and in Artesian Slough

Week 25 Continuous Circulation Period: October 23-31, 2005