Figure 51: Water temperature 15 minute data at DO-18 for 2006 and 2007 (site not monitored in 2006).

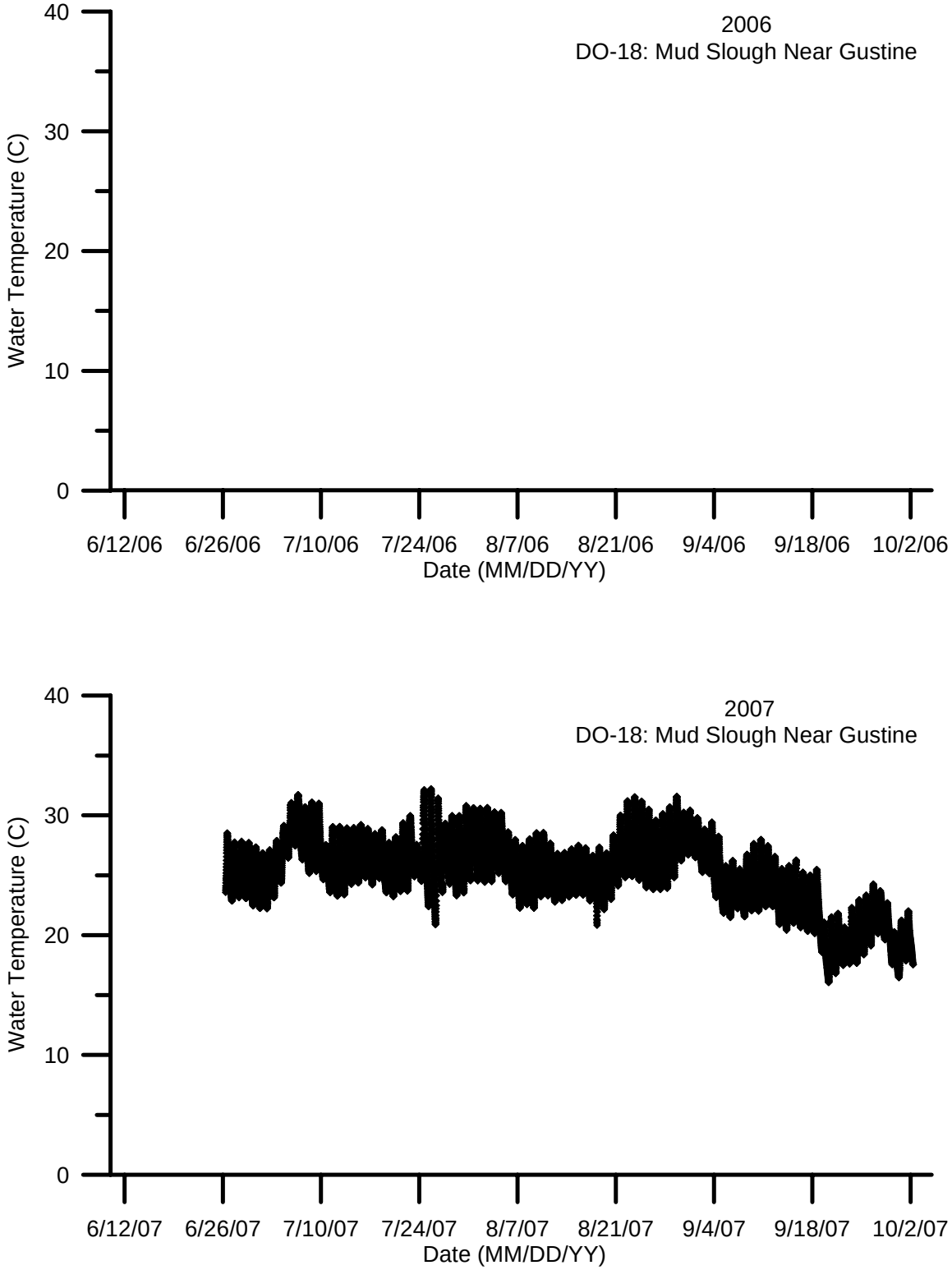


Figure 52: Specific conductance 15 minute data at DO-18 for 2006 and 2007 (site not monitored in 2006).

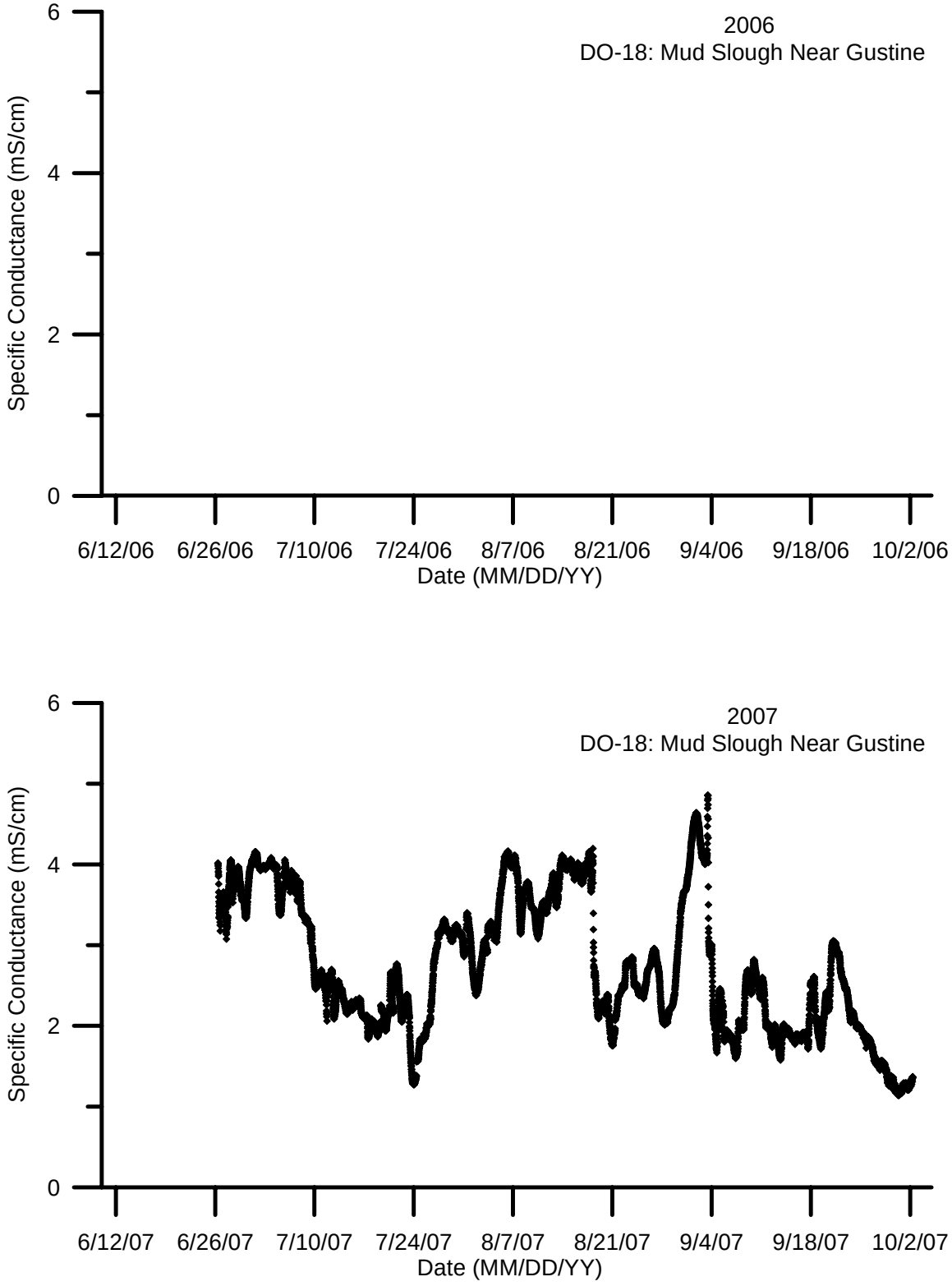


Figure 53: Dissolved oxygen concentration 15 minute data at DO-18 for 2006 and 2007 (site not monitored in 2006).

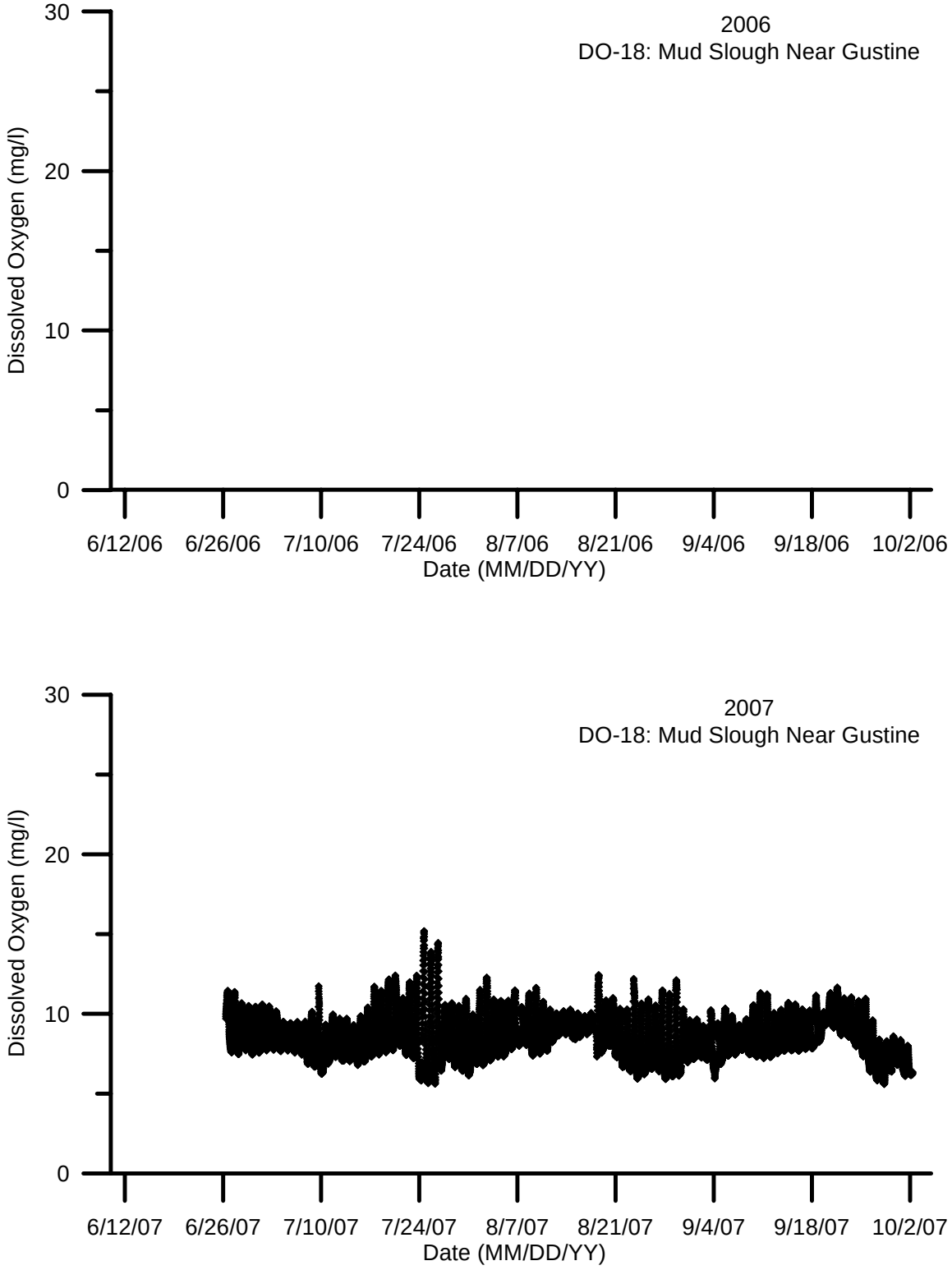
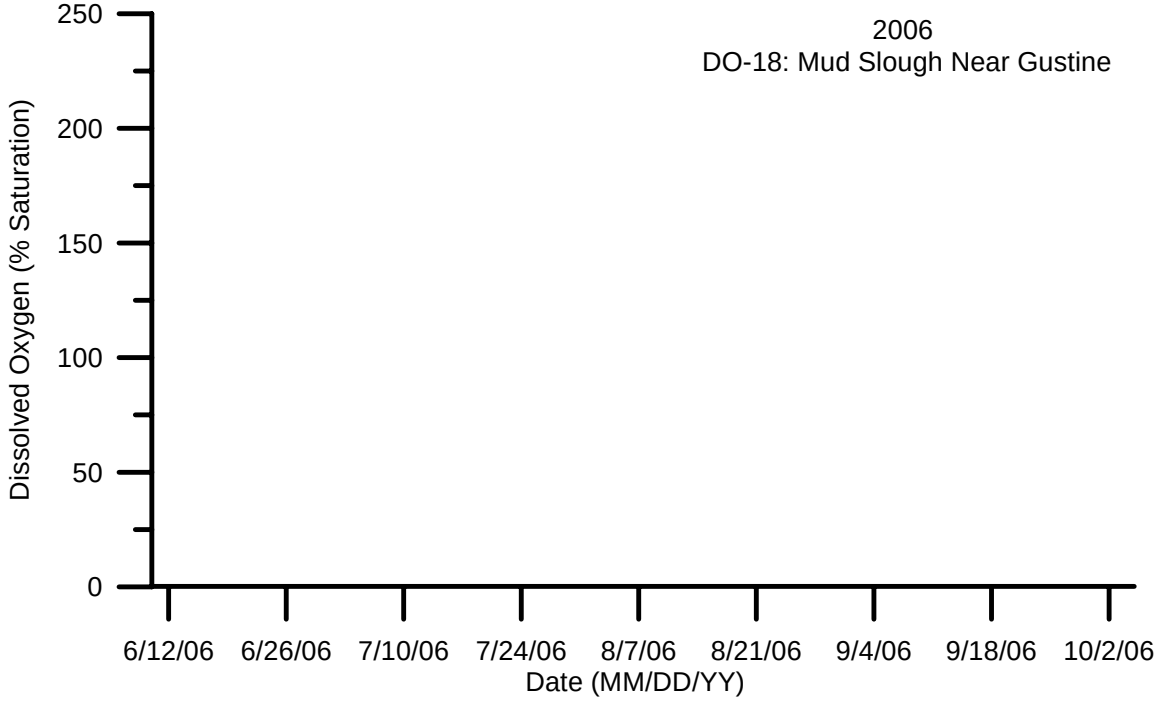


Figure 54: Dissolved oxygen percent of saturation 15 minute data at DO-18 for 2006 and 2007 (site not monitored in 2006).



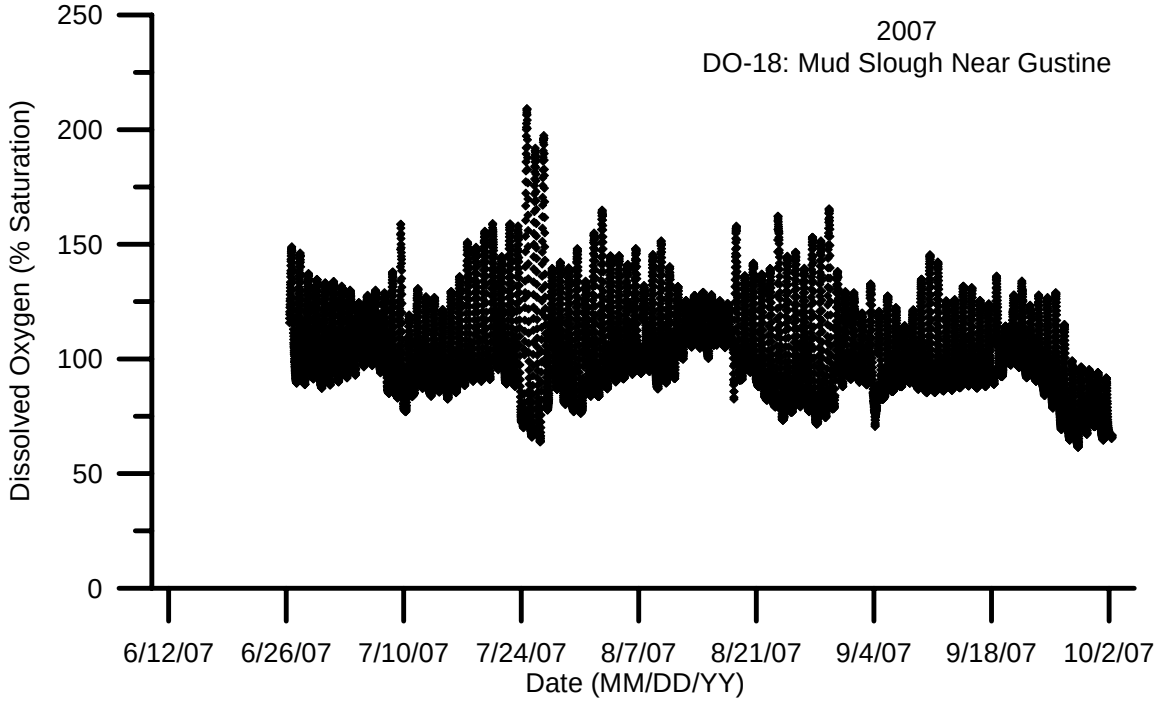
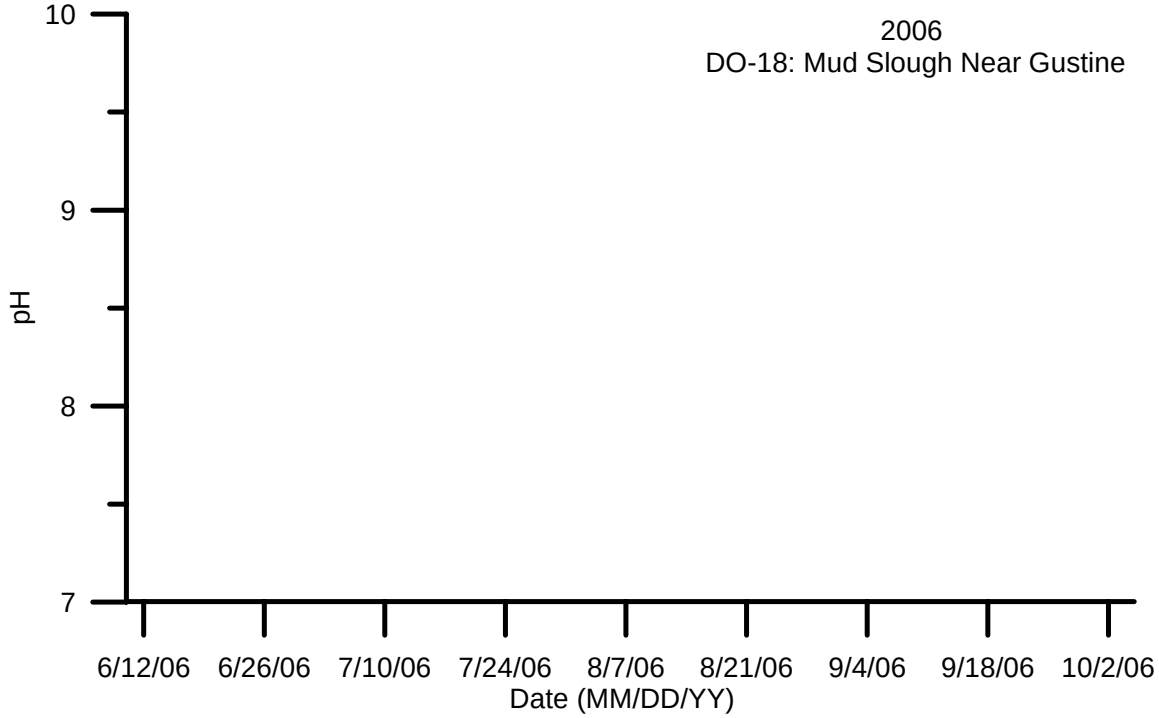


Figure 55: pH 15 minute data at DO-18 for 2006 and 2007 (site not monitored in 2006).



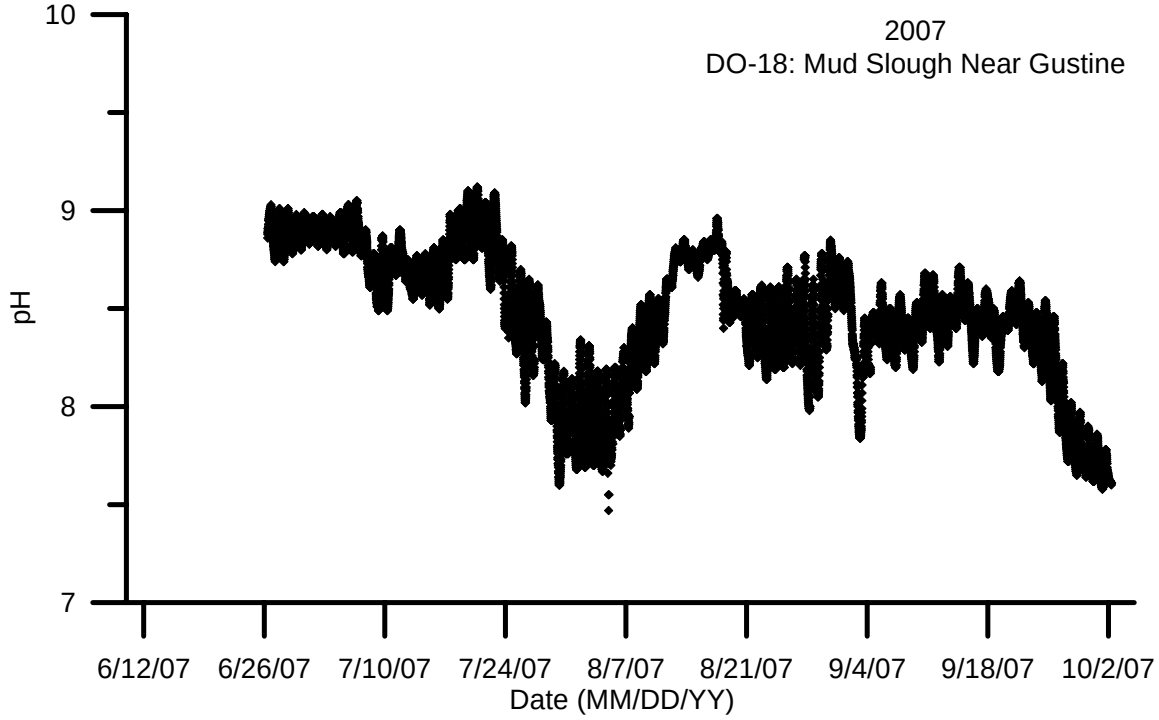
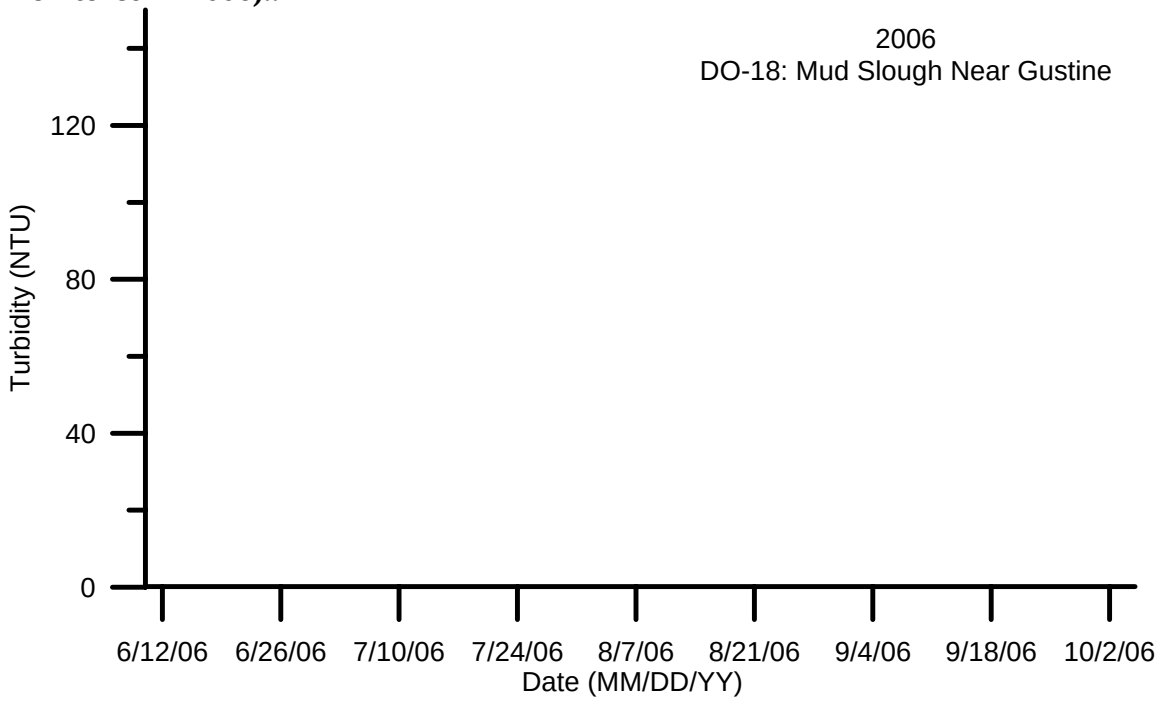


Figure 56: Turbidity 15 minute data at DO-18 for 2006 and 2007 (site not monitored in 2006)..



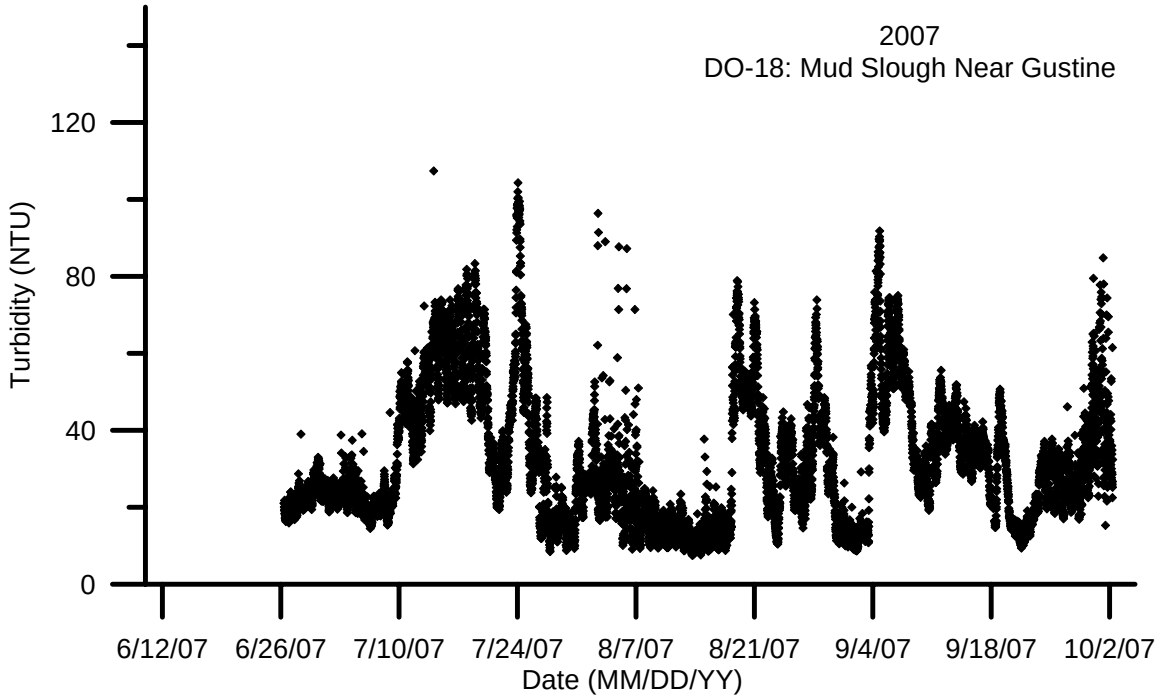
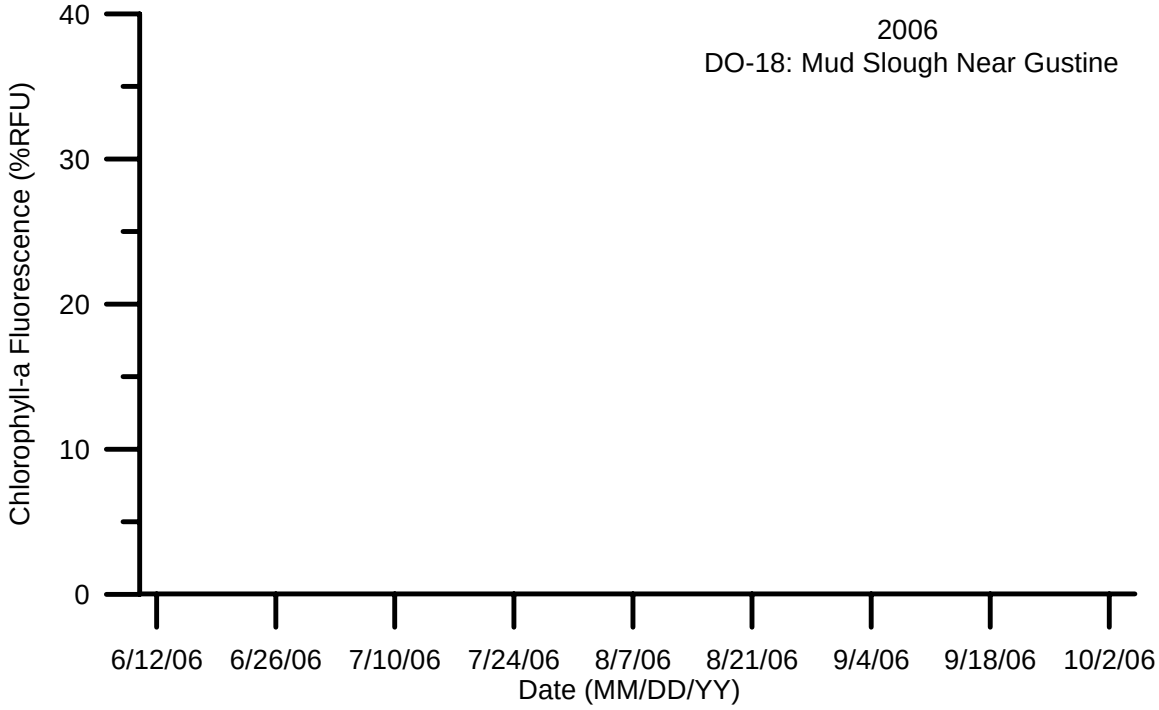


Figure 57: Chlorophyll-*a* fluorescence 15 minute data at DO-18 for 2006 and 2007 (site not monitored in 2006).



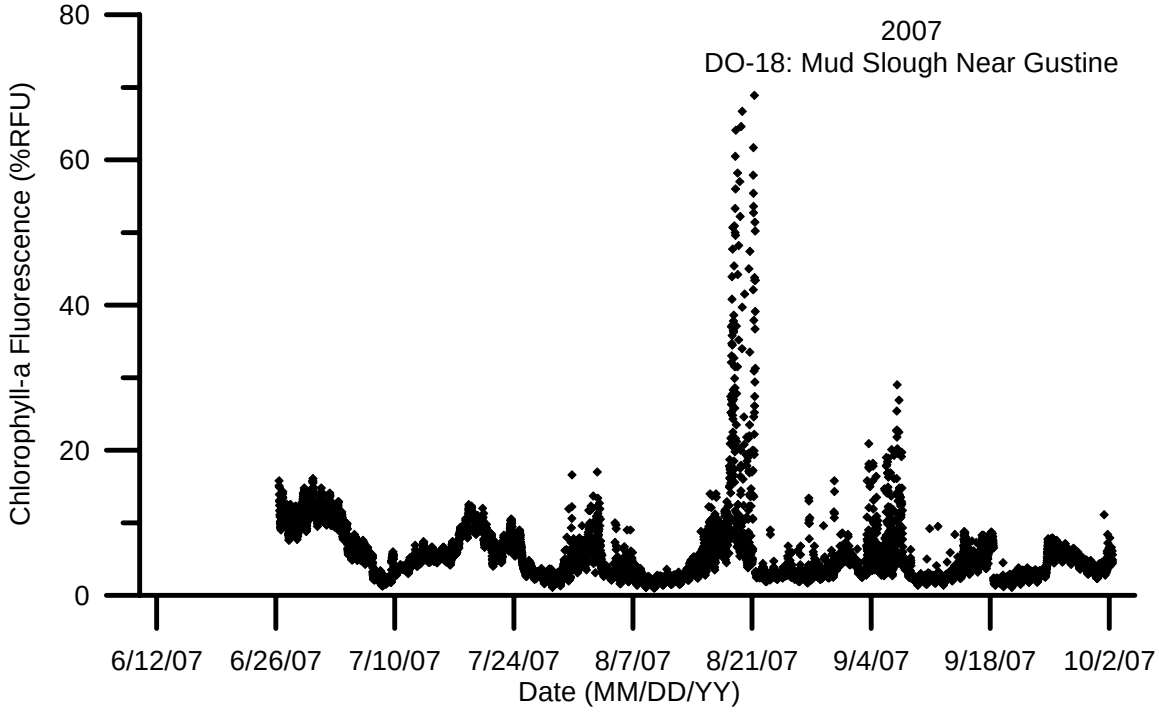
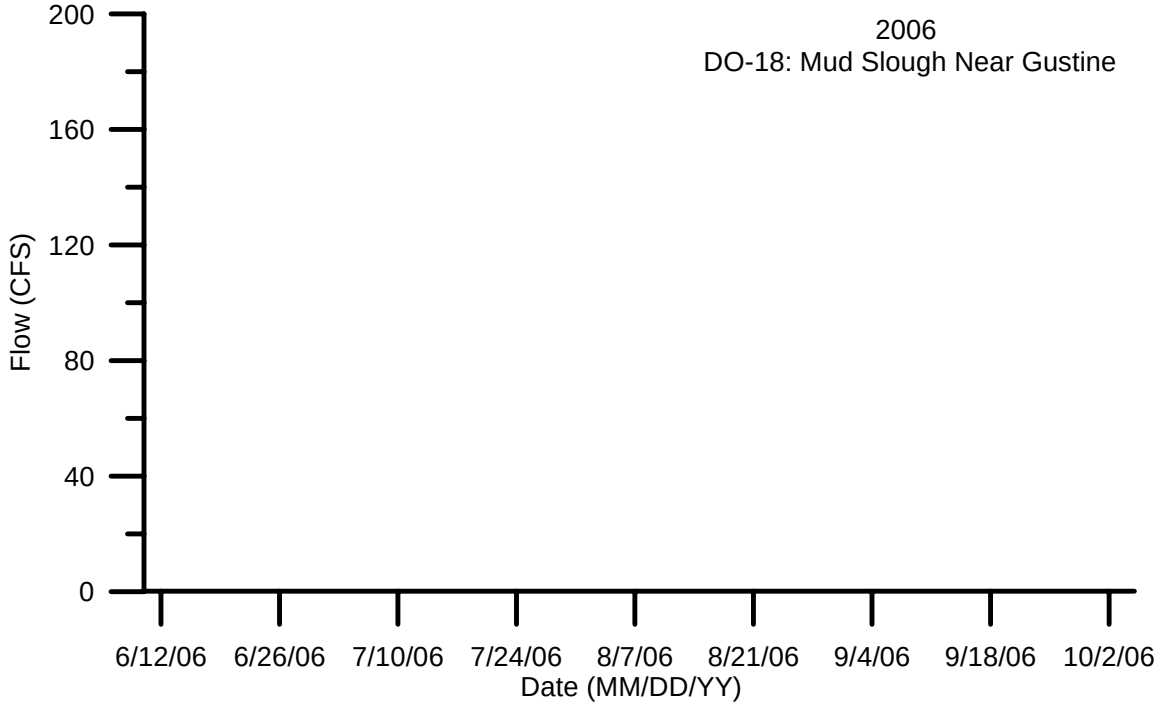


Figure 58: Flow 15 minute data at DO-18 for 2006 and 2007 (site not monitored in 2006).



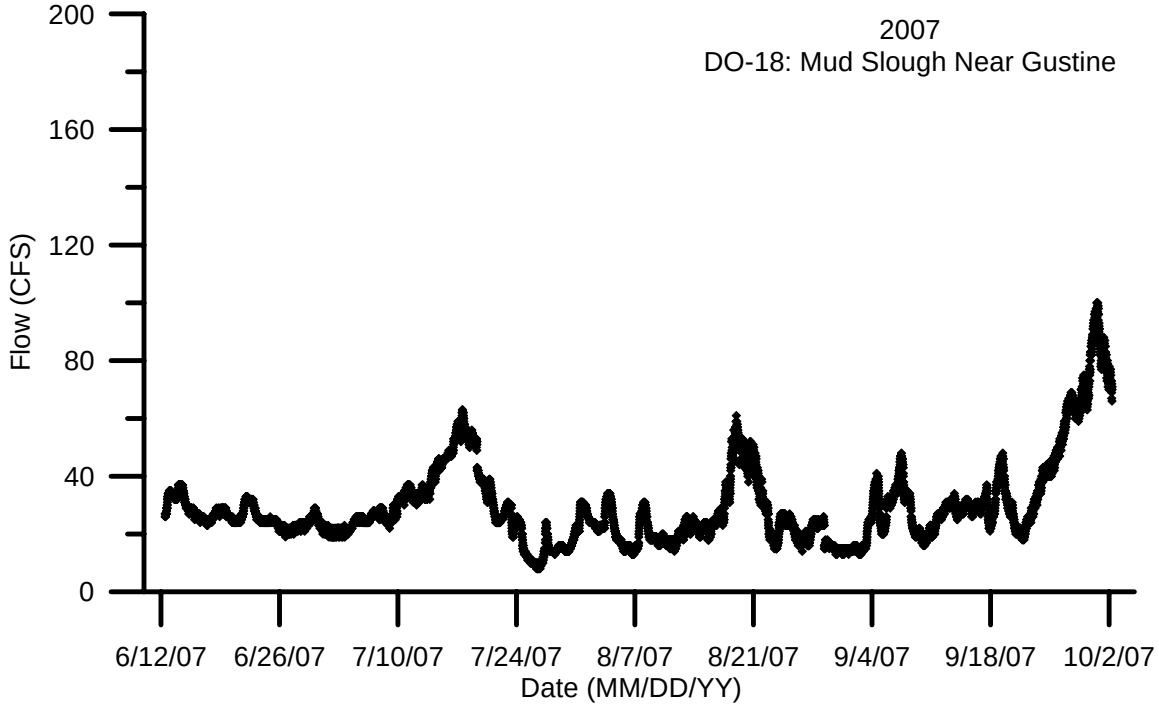
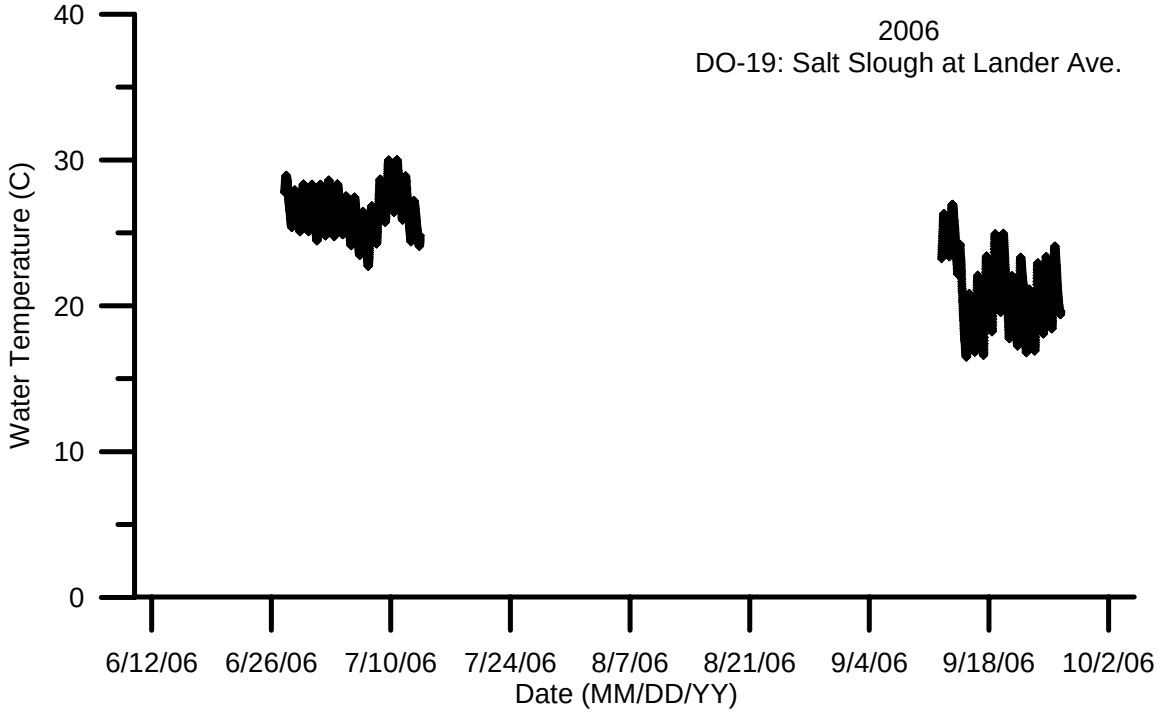


Figure 59: Water temperature 15 minute data at DO-19 for 2006 and 2007.



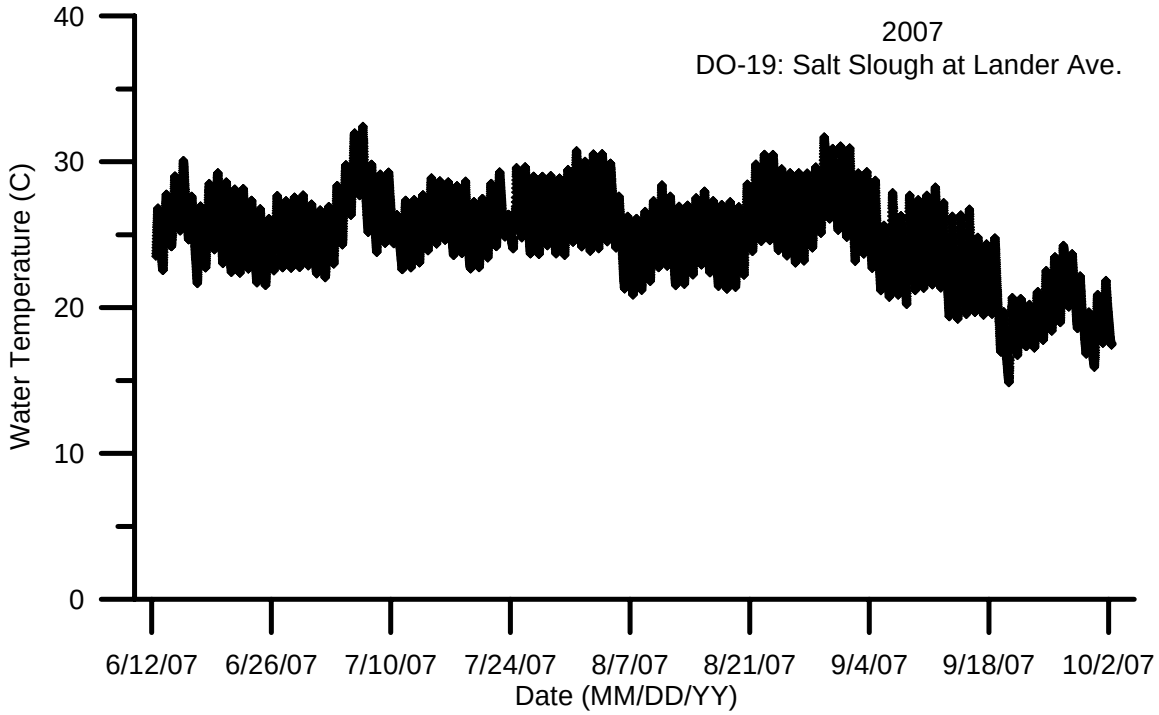
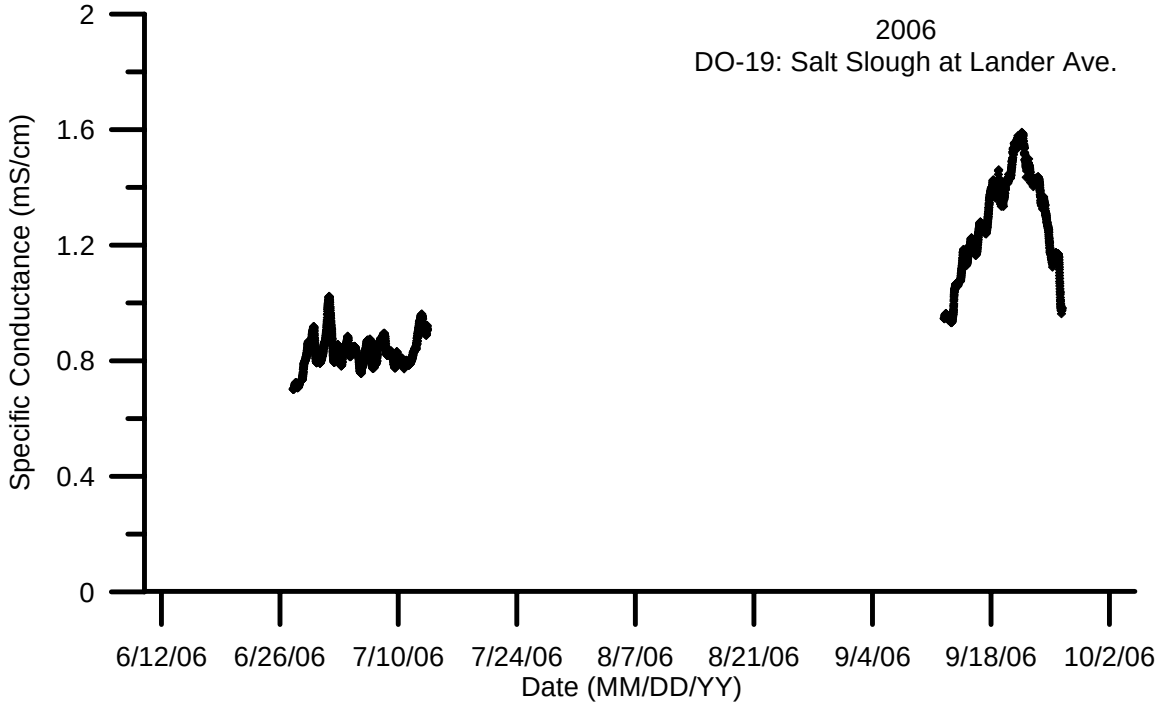


Figure 60: Specific conductance 15 minute data at DO-19 for 2006 and 2007.



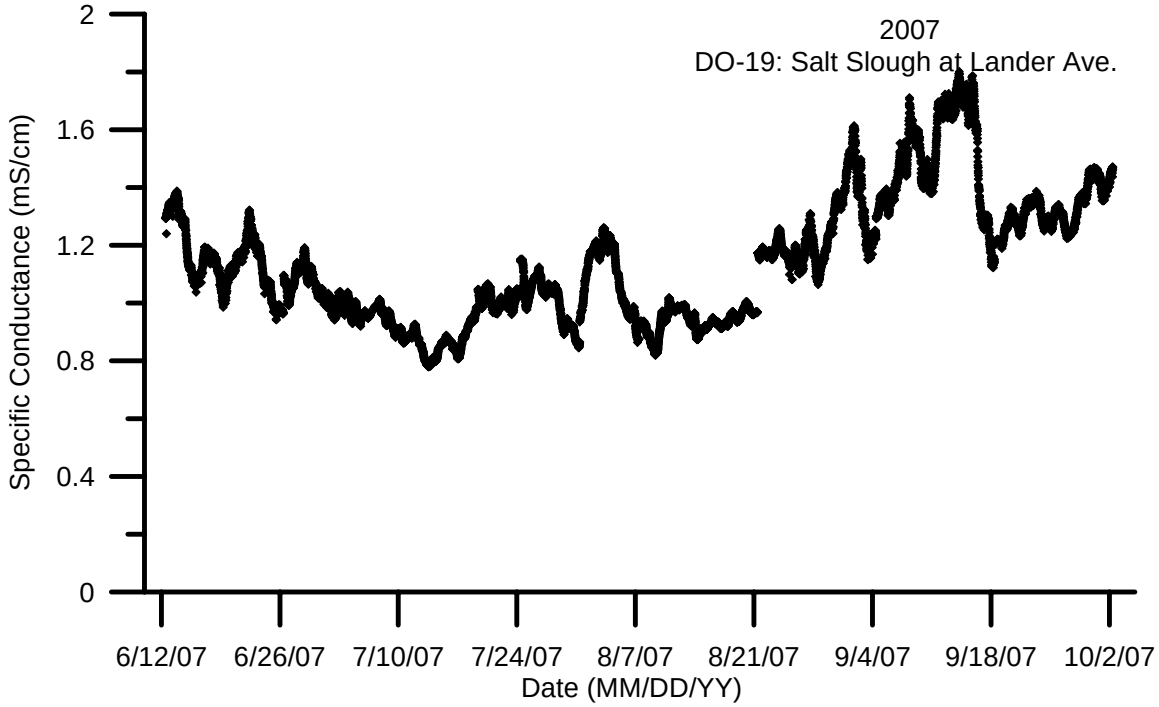
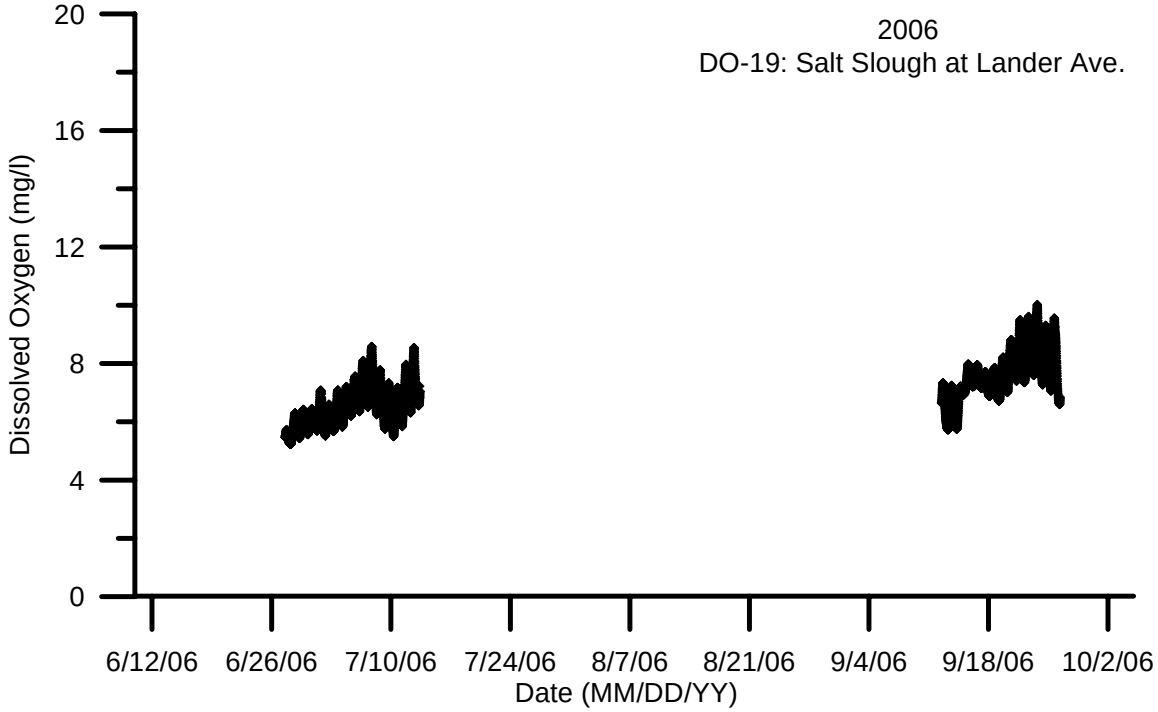


Figure 61: Dissolved oxygen concentration 15 minute data at DO-19 for 2006 and 2007.



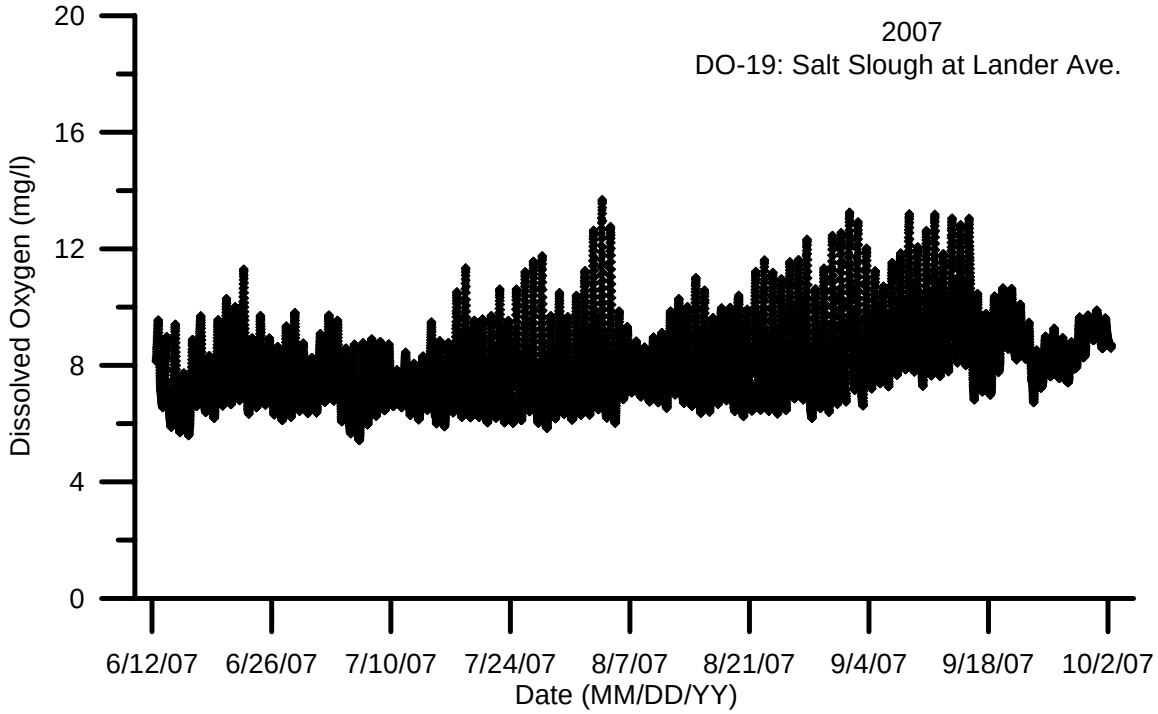
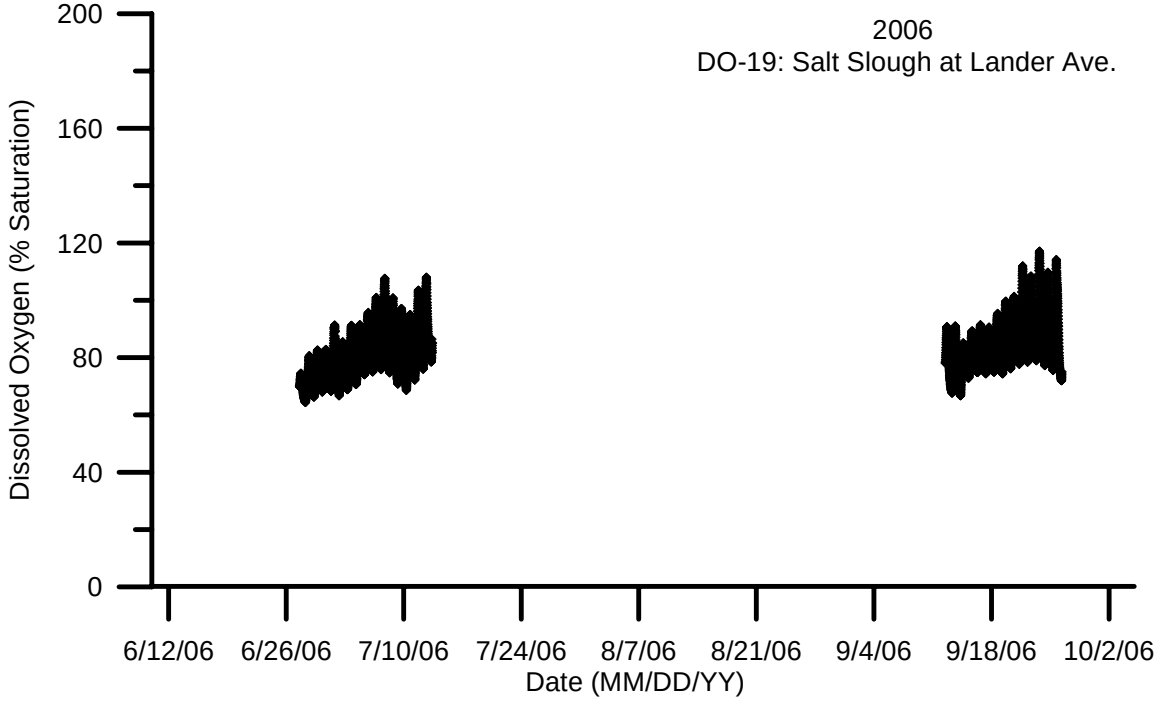


Figure 62: Dissolved oxygen percent of saturation 15 minute data at DO-19 for 2006 and 2007.



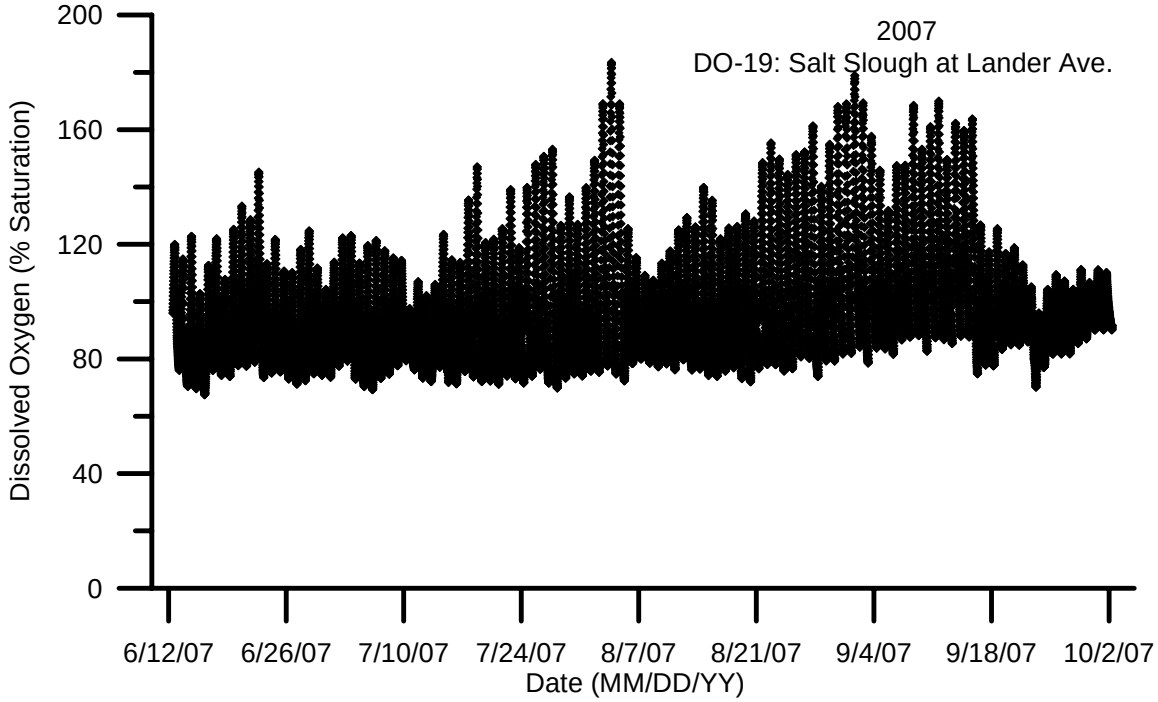
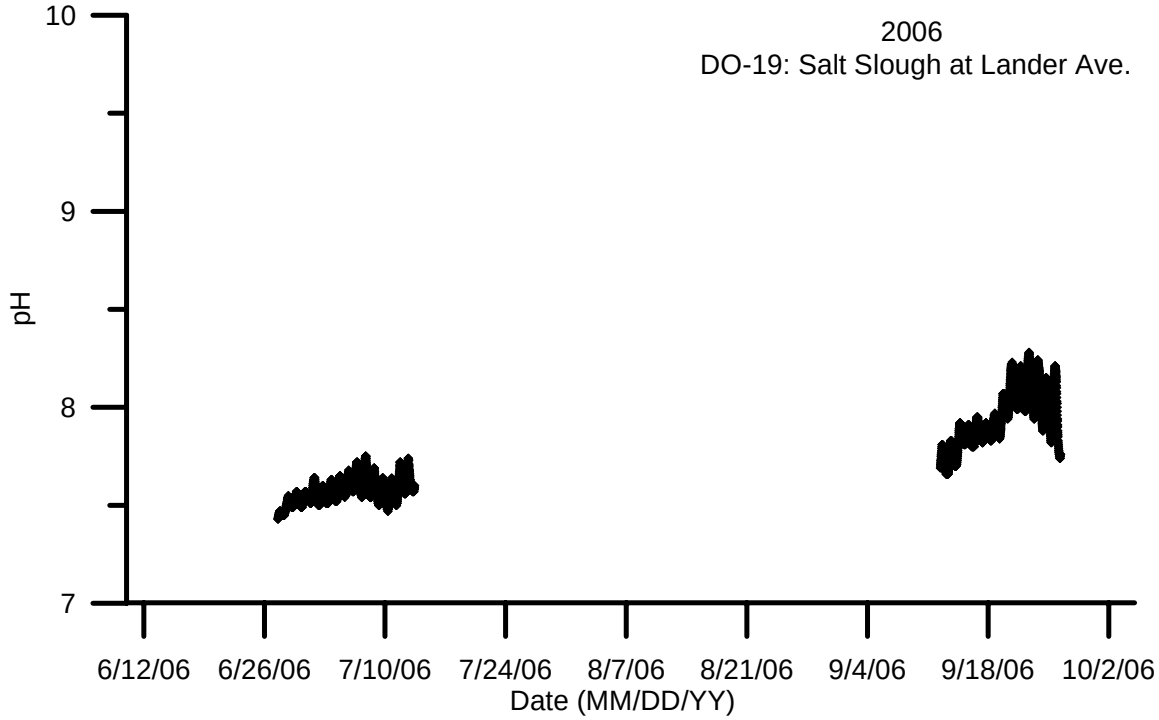


Figure 63: pH 15 minute data at DO-19 for 2006 and 2007.



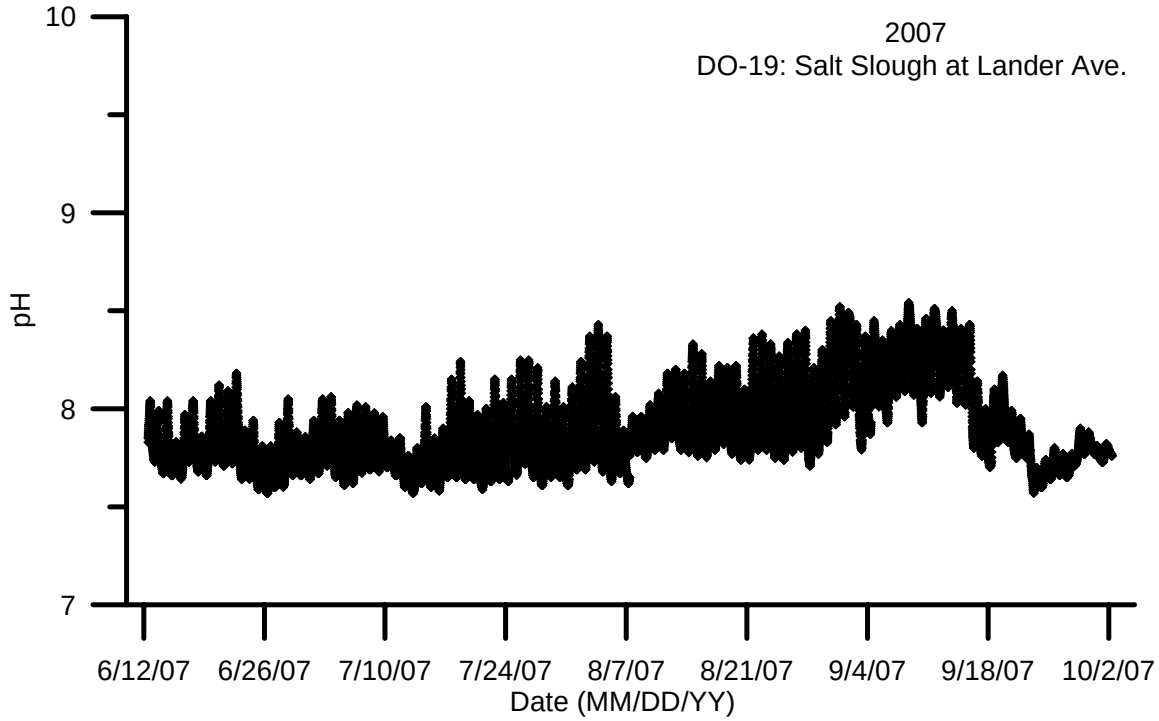
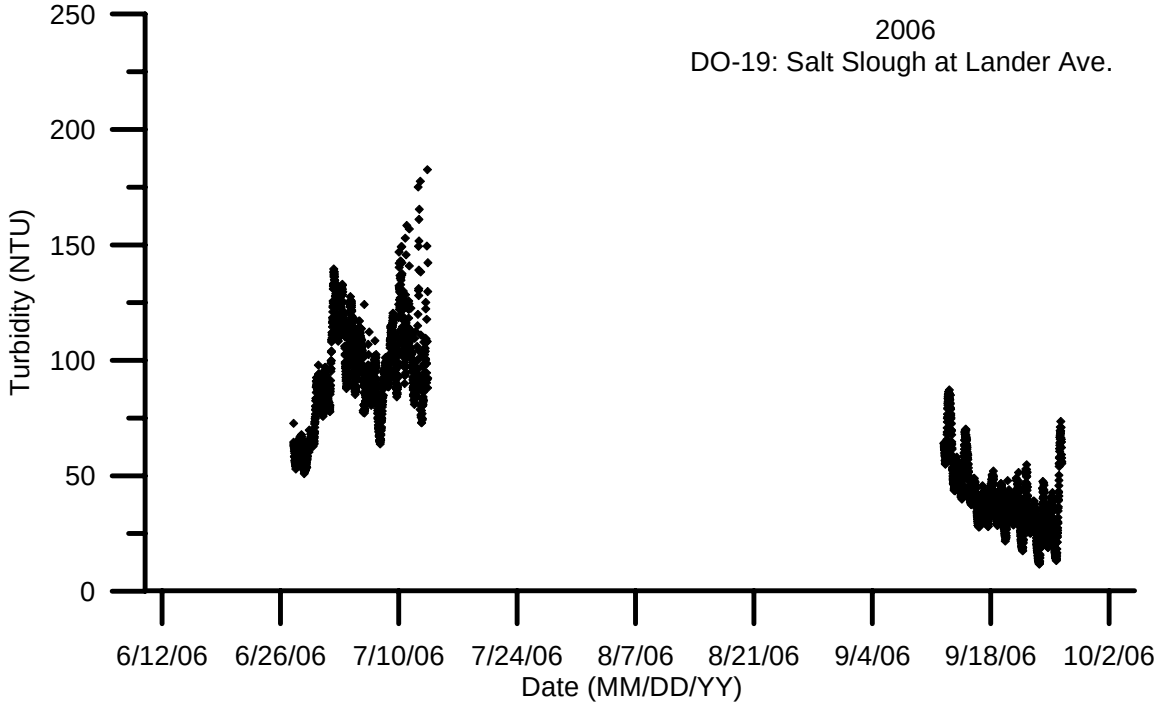


Figure 64: Turbidity 15 minute data at DO-19 for 2006 and 2007.



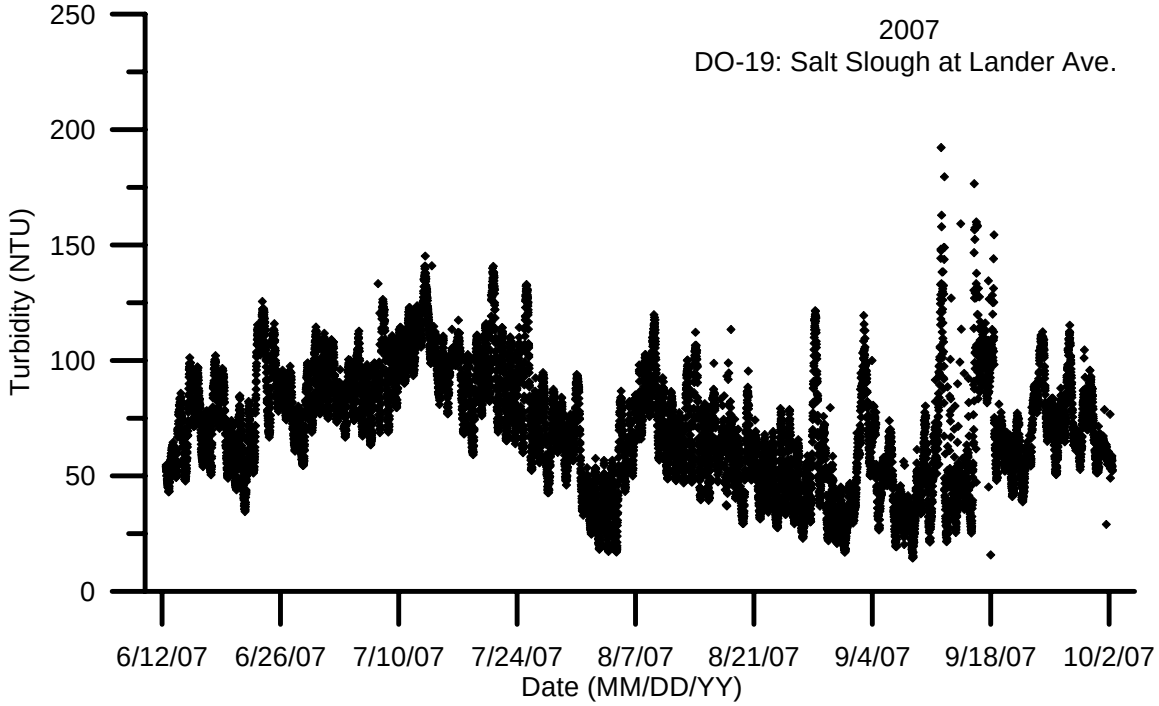


Figure 65: Chlorophyll-*a* fluorescence 15 minute data at DO-19 for 2006 and 2007.

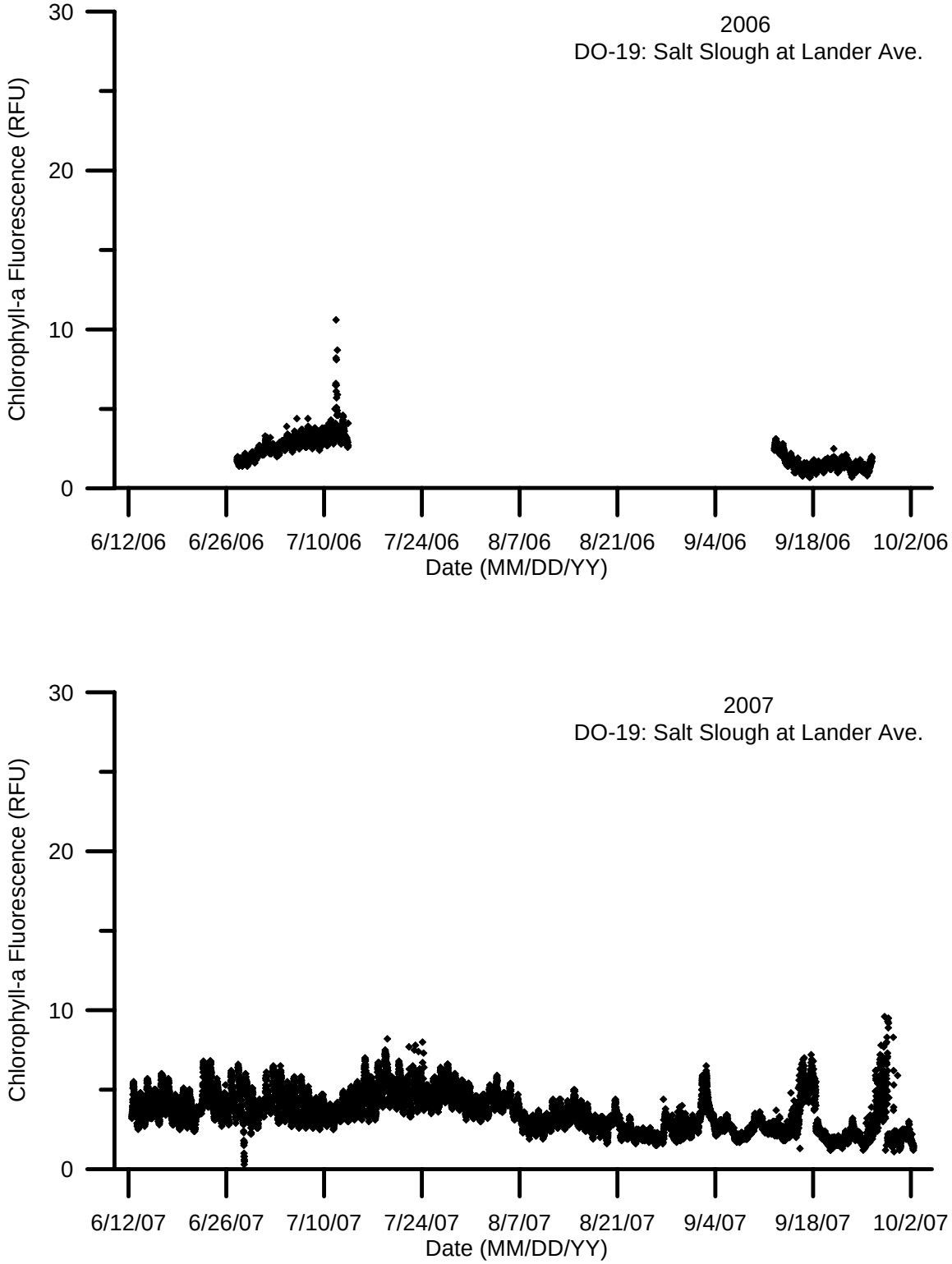
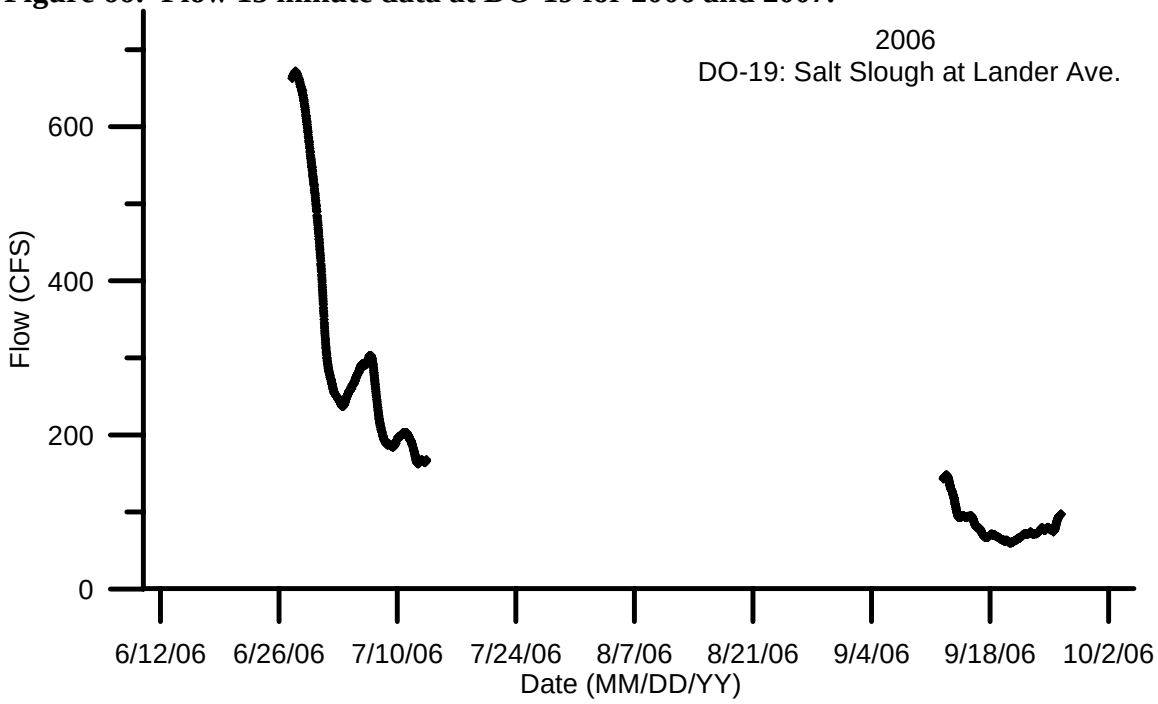


Figure 66: Flow 15 minute data at DO-19 for 2006 and 2007.



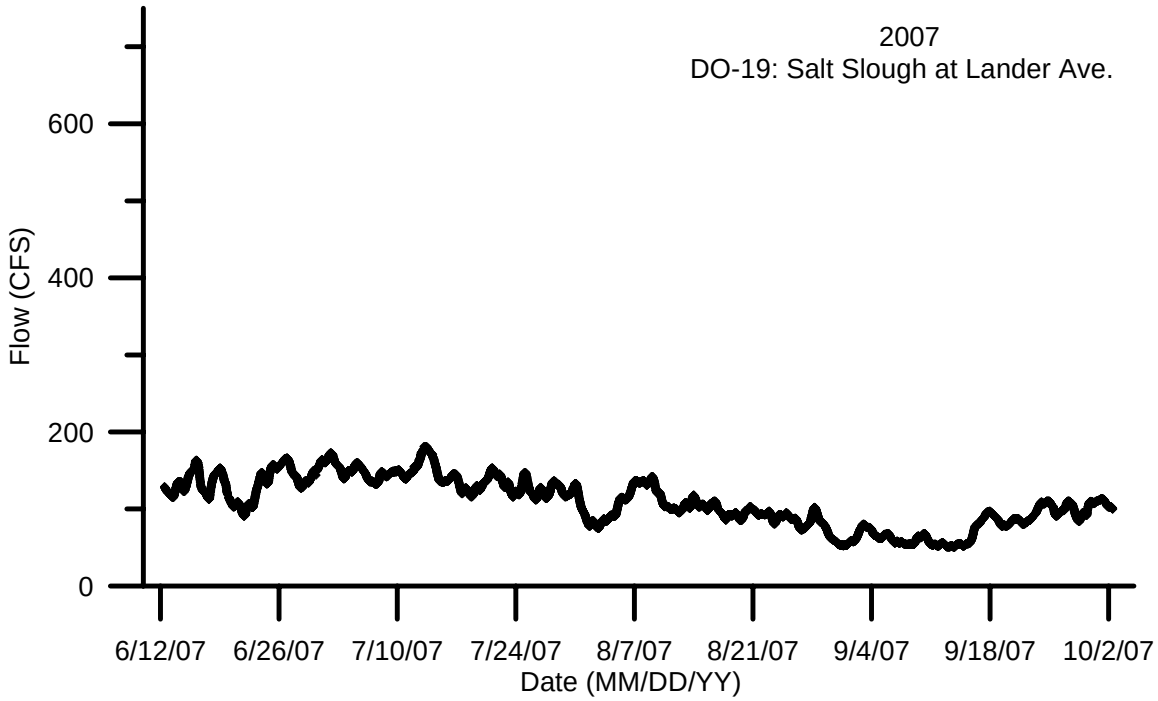
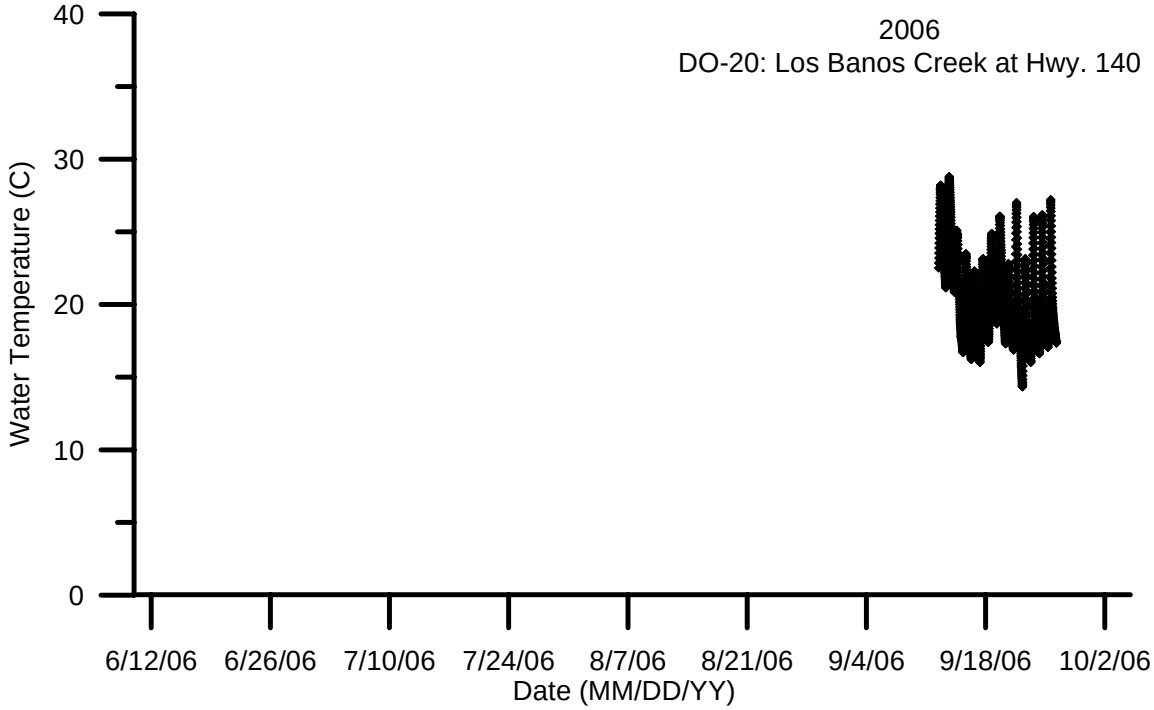


Figure 67: Water temperature 15 minute data at DO-20 for 2006 and 2007 (site not monitored in 2007).



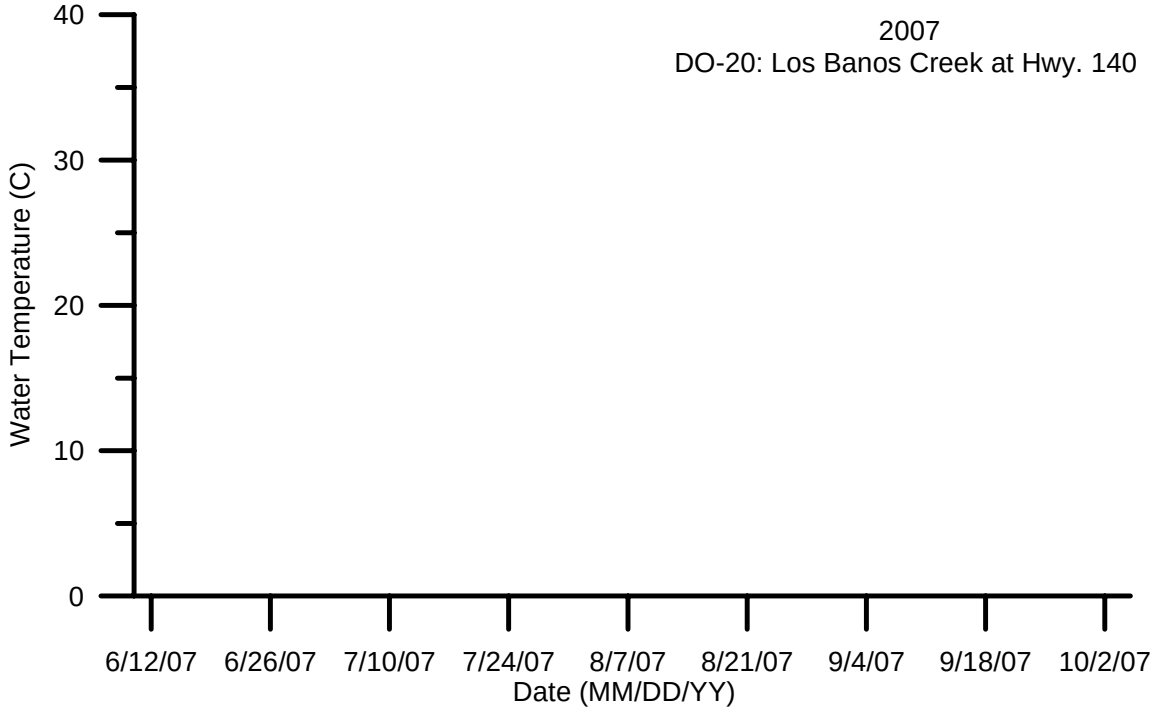
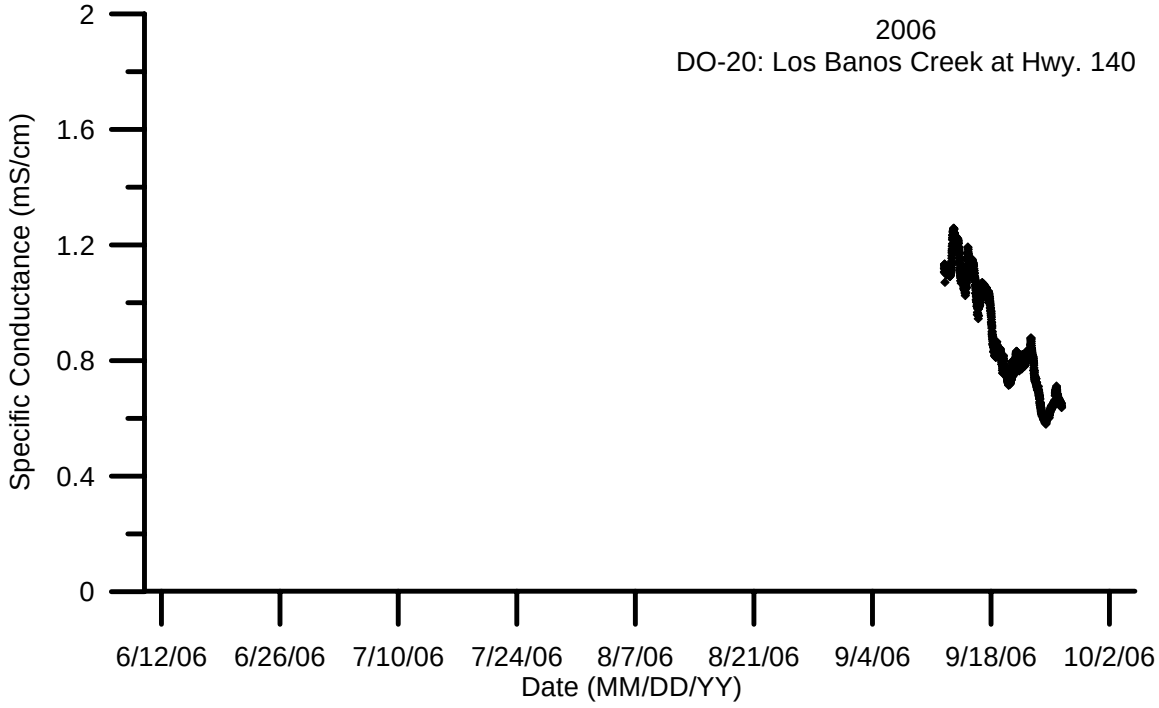


Figure 68: Specific conductance 15 minute data at DO-20 for 2006 and 2007 (site not monitored in 2007).



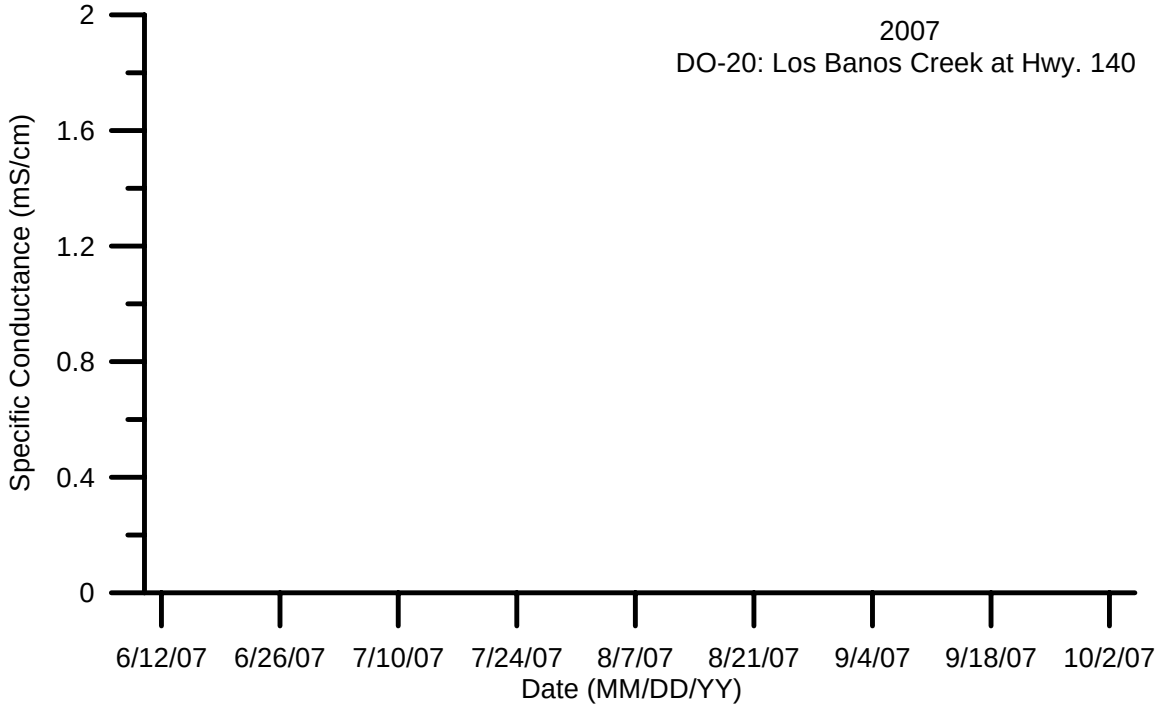
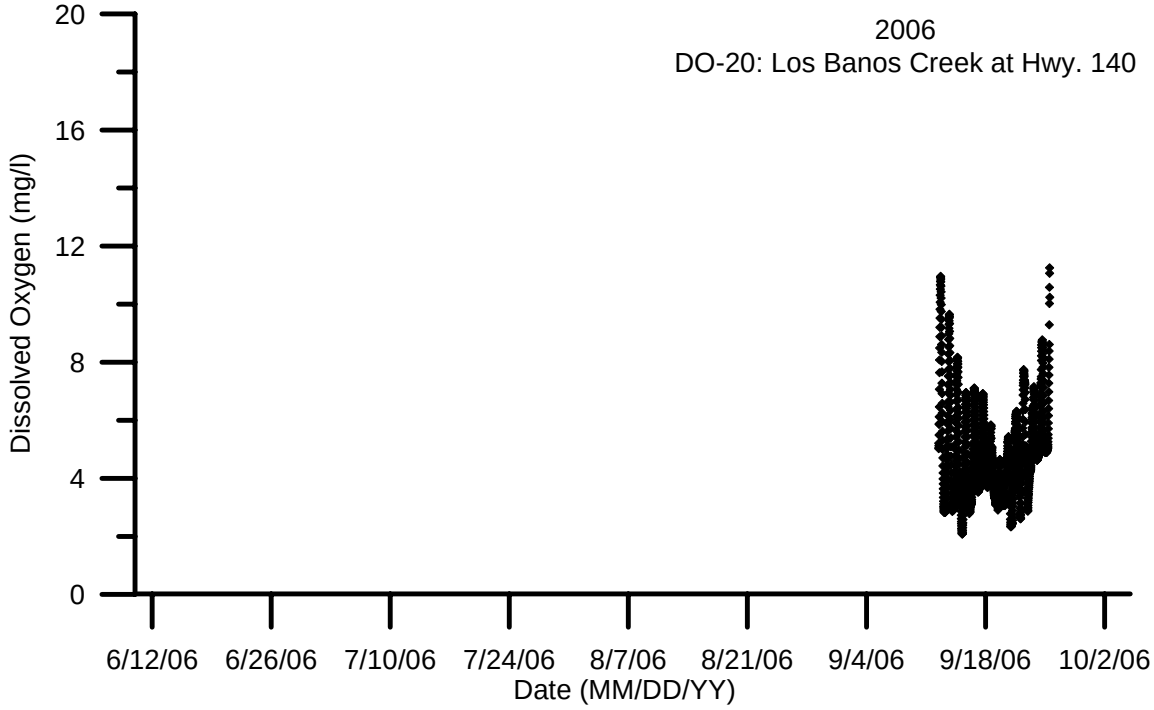


Figure 69: Dissolved oxygen concentration 15 minute data at DO-20 for 2006 and 2007 (site not monitored in 2007).



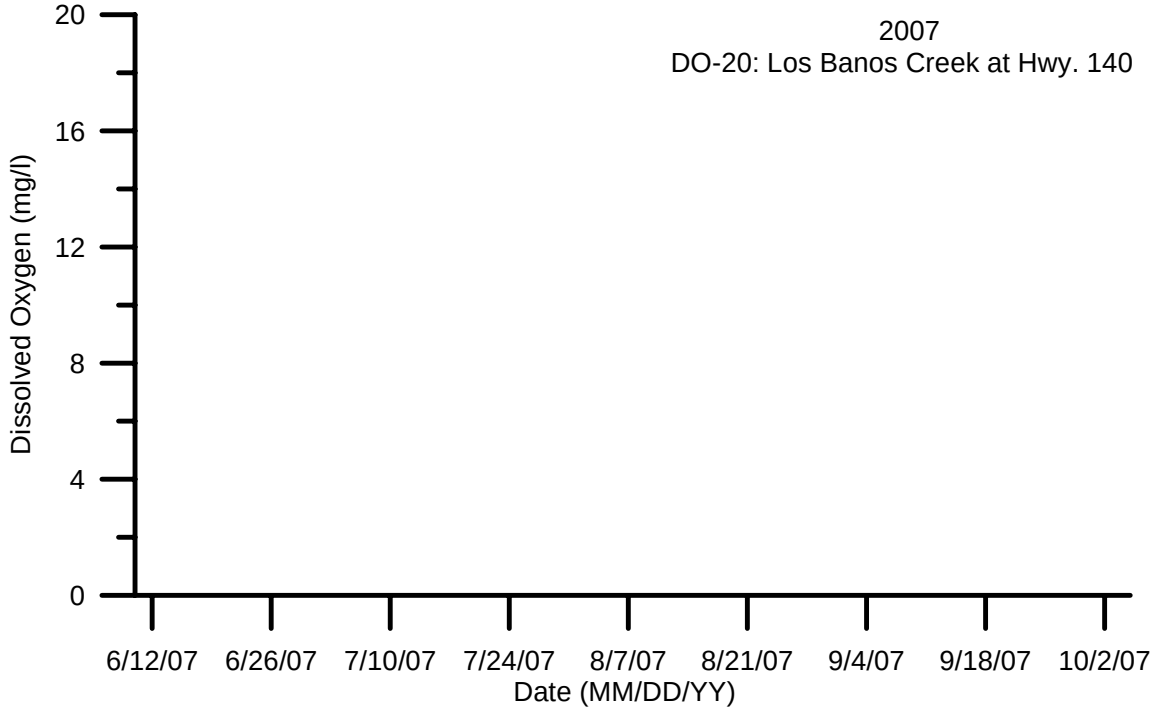
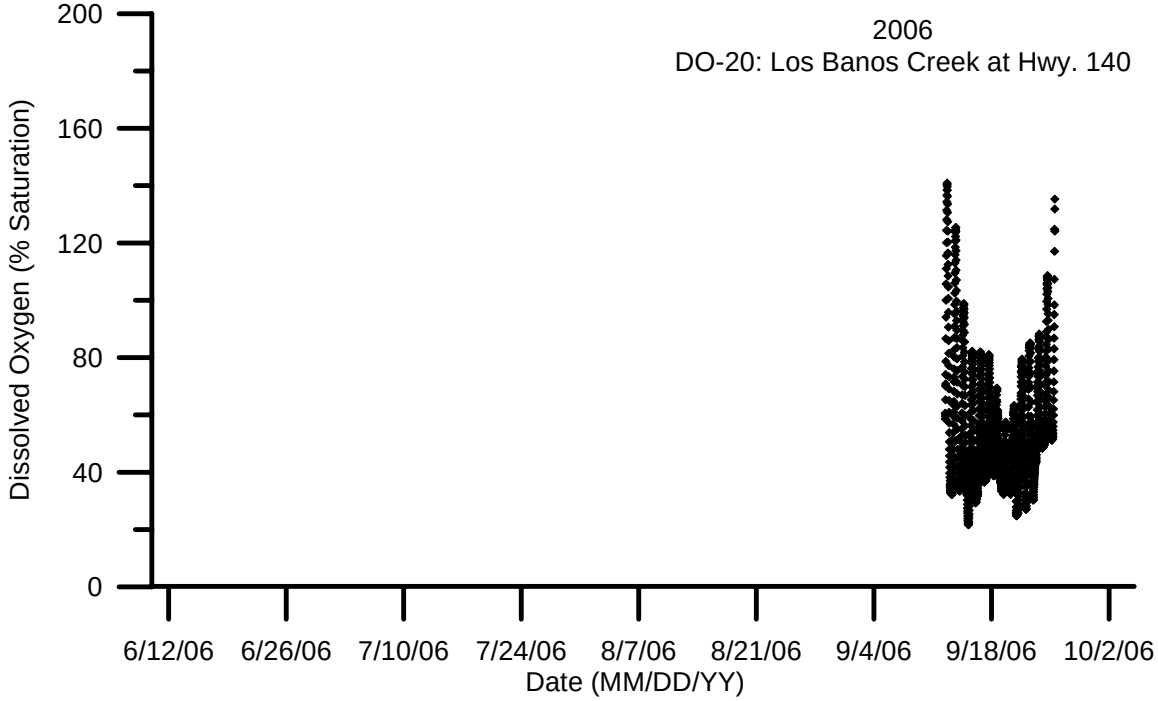


Figure 70: Dissolved oxygen percent of satureation 15 minute data at DO-20 for 2006 and 2007 (site not monitored in 2007).



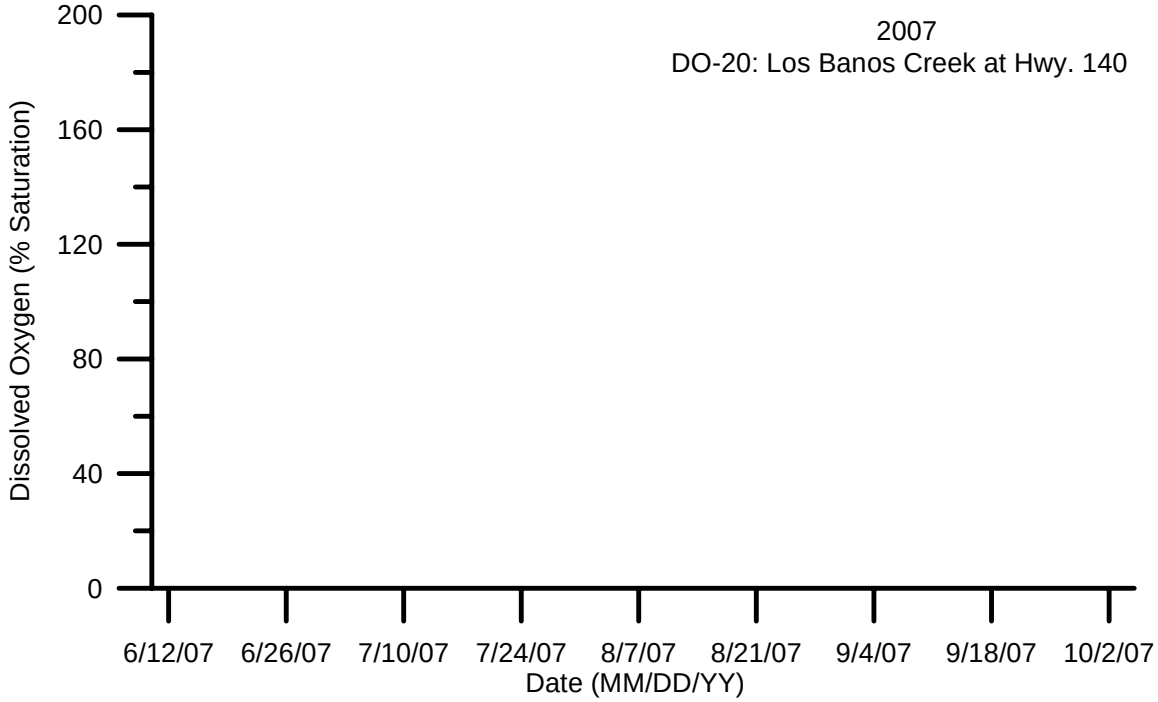
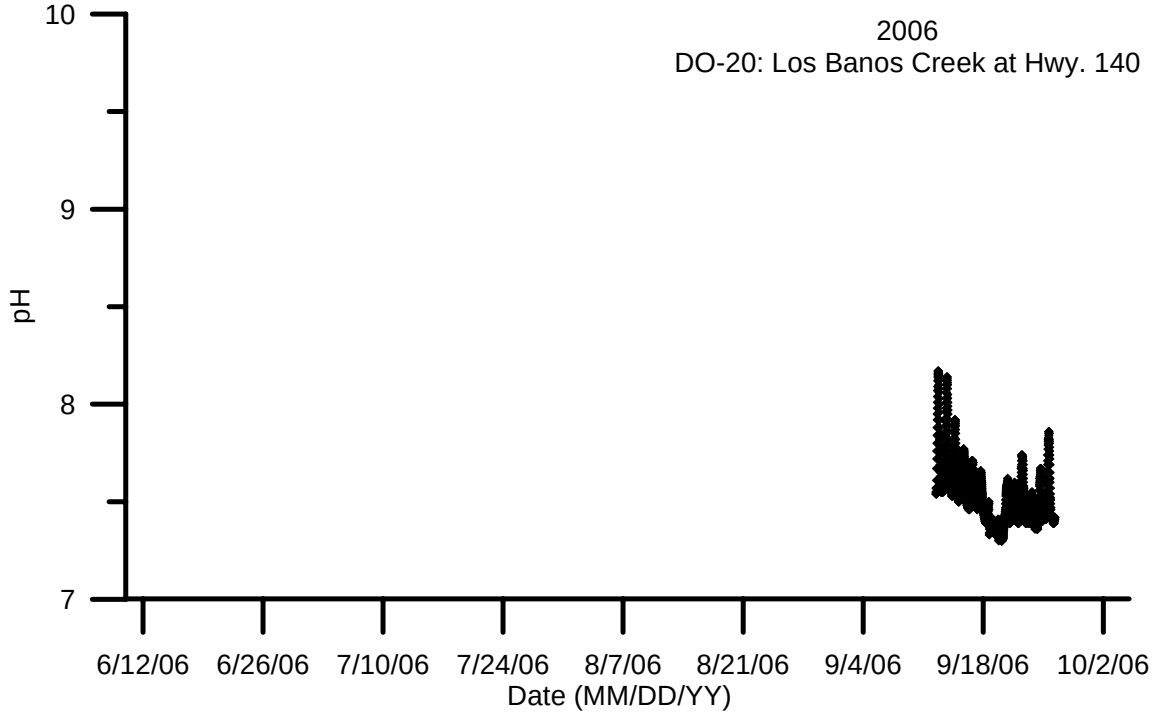


Figure 71: pH 15 minute data at DO-20 for 2006 and 2007 (site not monitored in 2007).



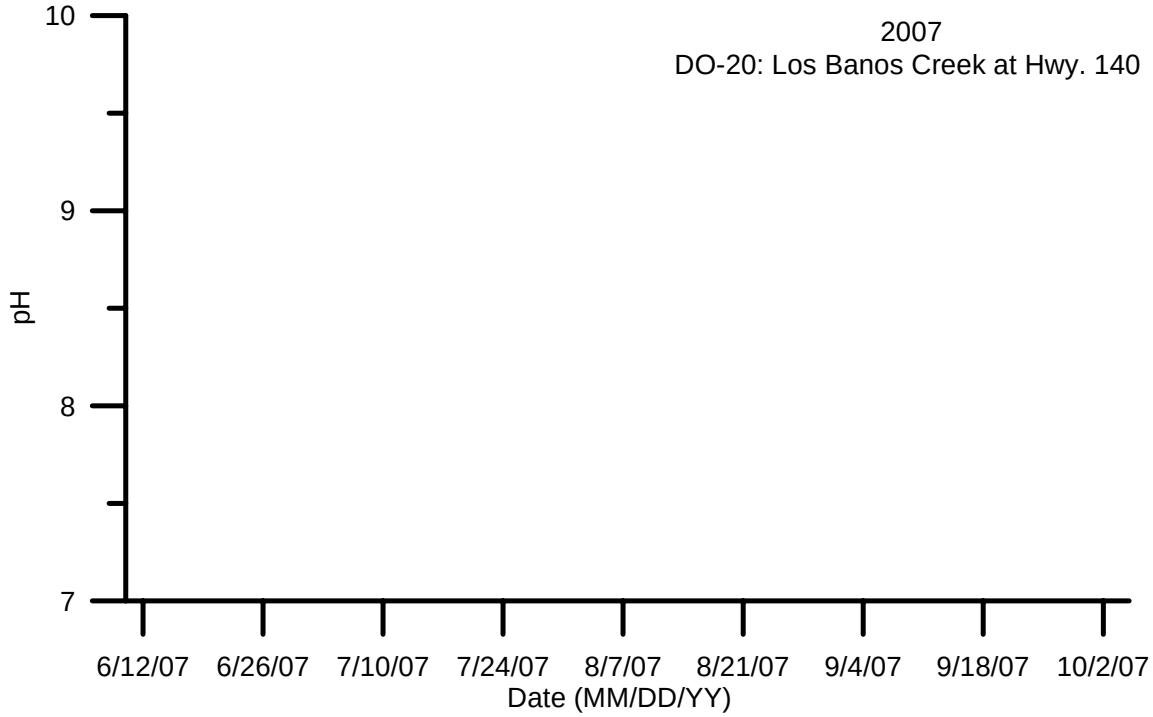


Figure 72: Turbidity 15 minute data at DO-20 for 2006 and 2007 (site not monitored in 2007).

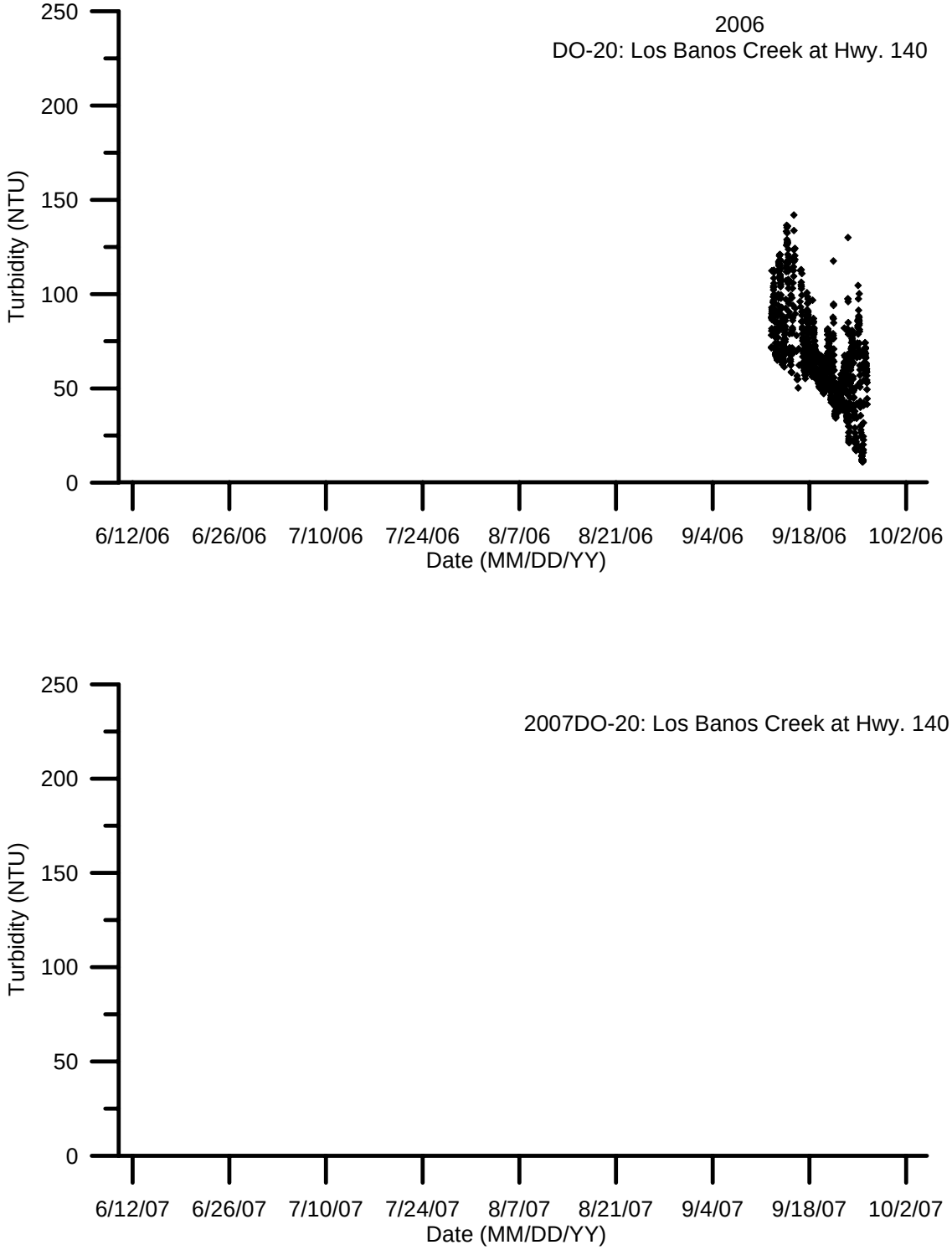
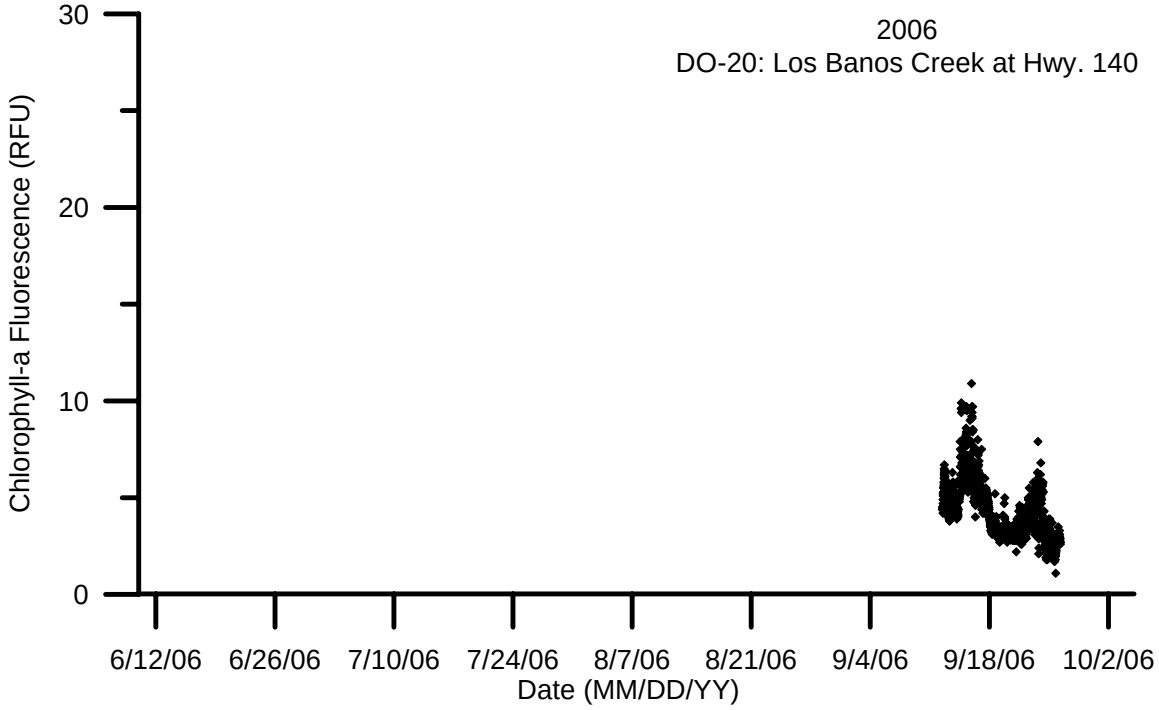


Figure 73: Chlorophyll-*a* fluorescence 15 minute data at DO-20 for 2006 and 2007 (site not monitored in 2007).



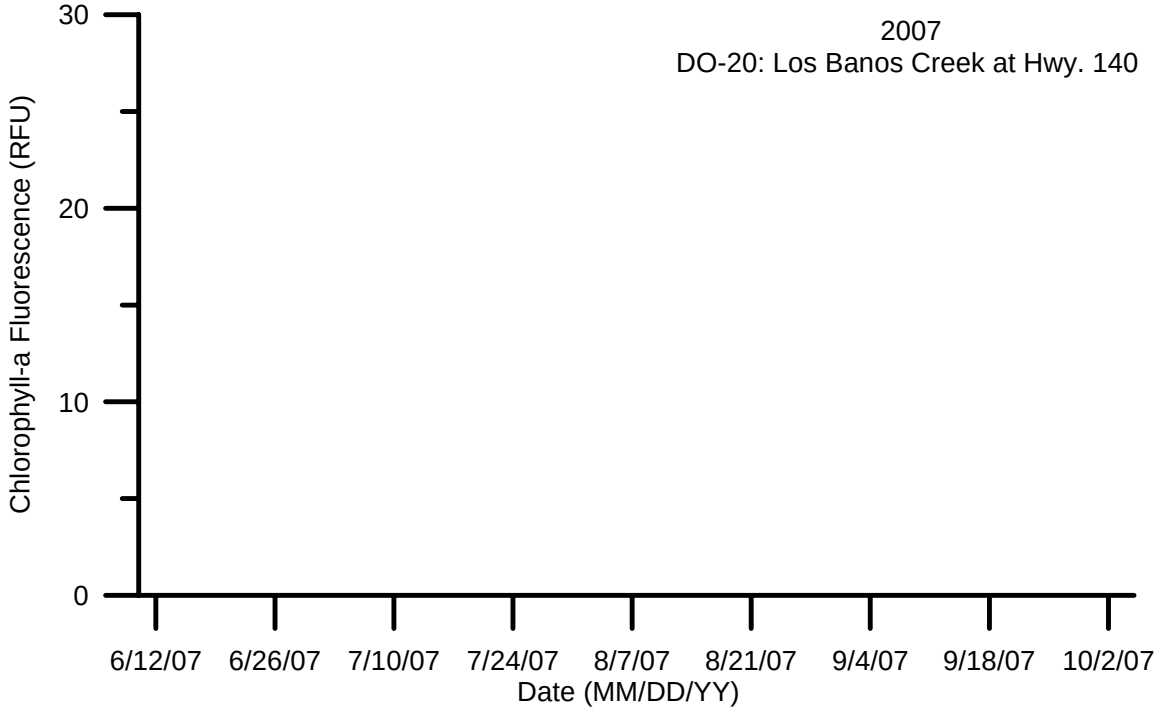
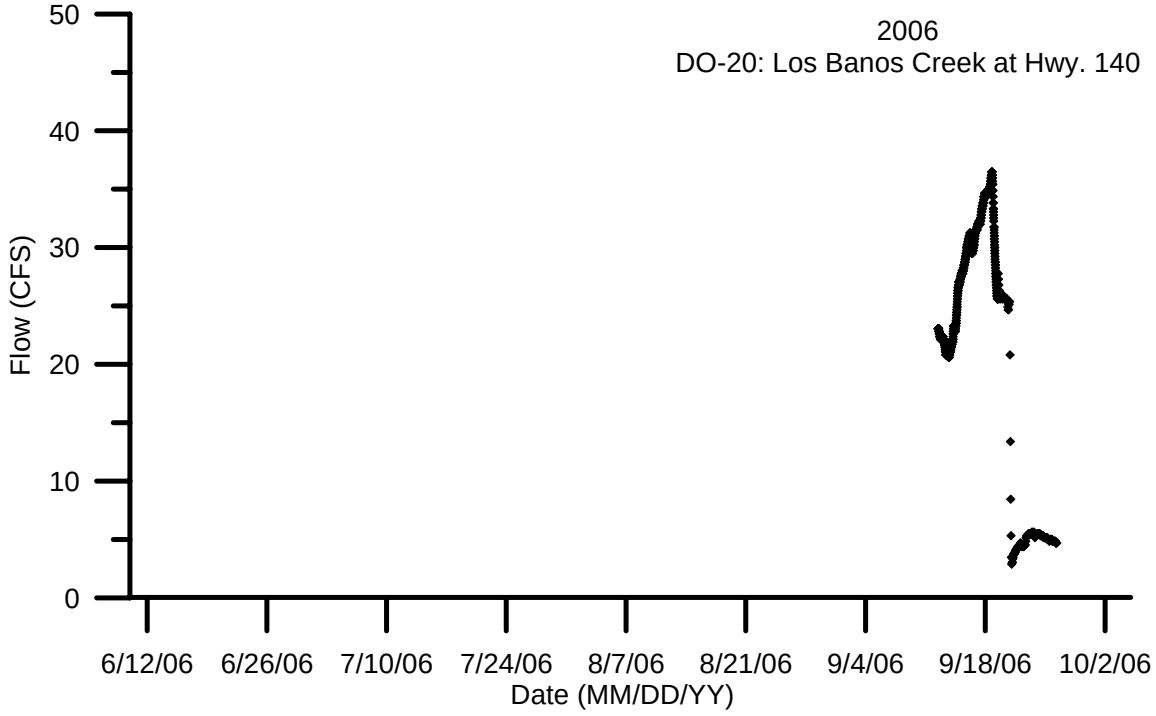


Figure 74: Flow 15 minute data at DO-20 for 2006 and 2007 (site not monitored in 2007).



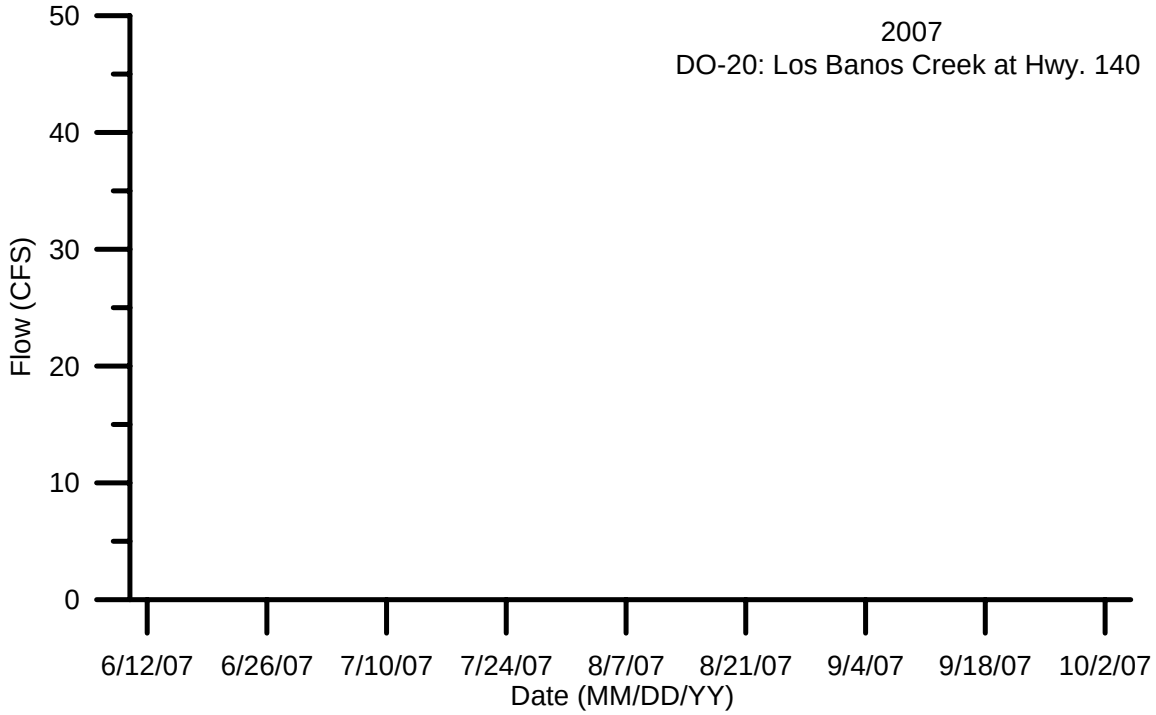
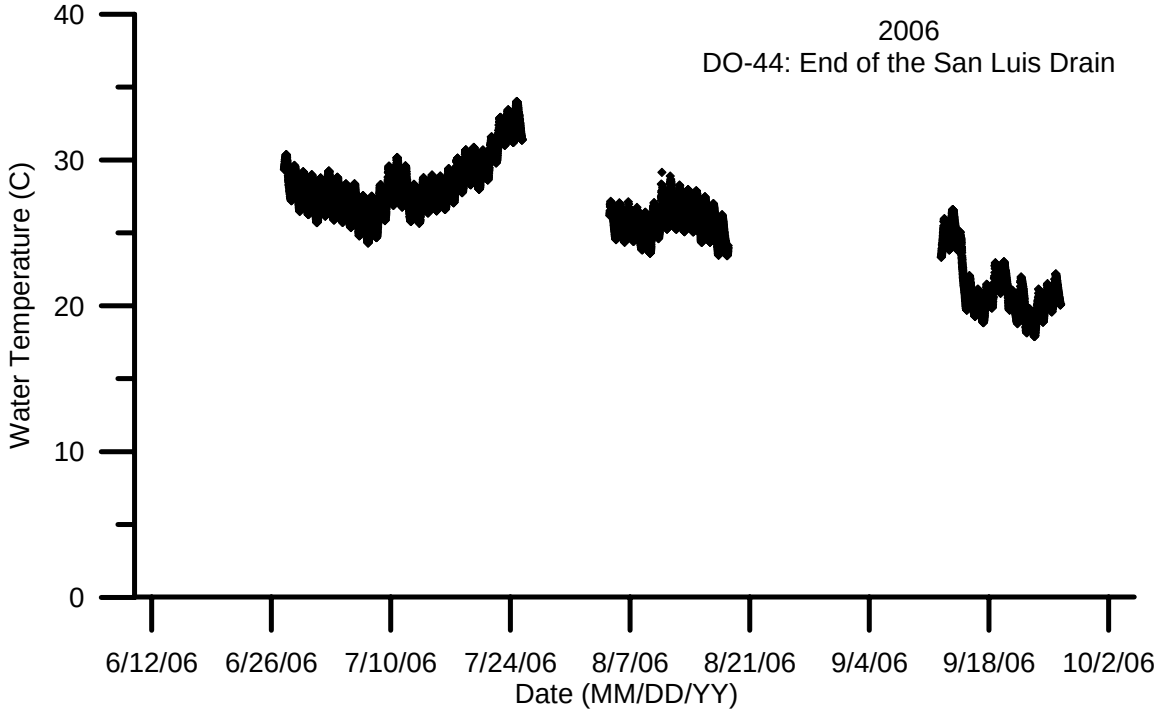


Figure 75: Water temperature 15 minute data at DO-44 for 2006 and 2007.



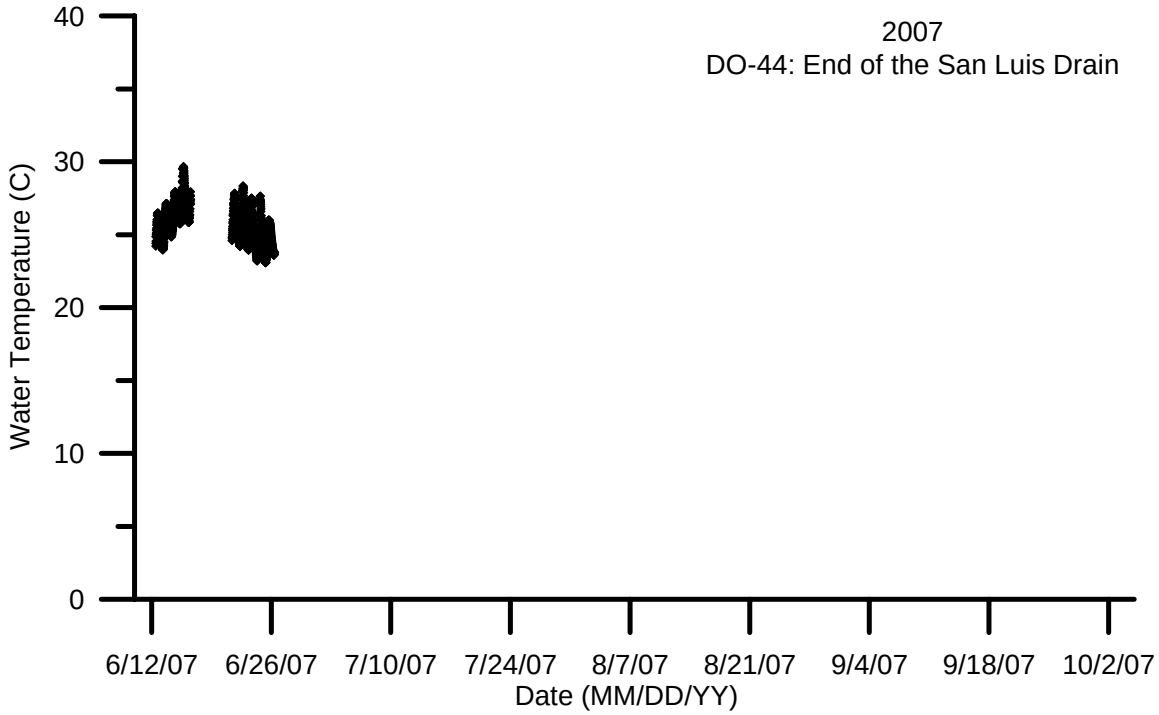
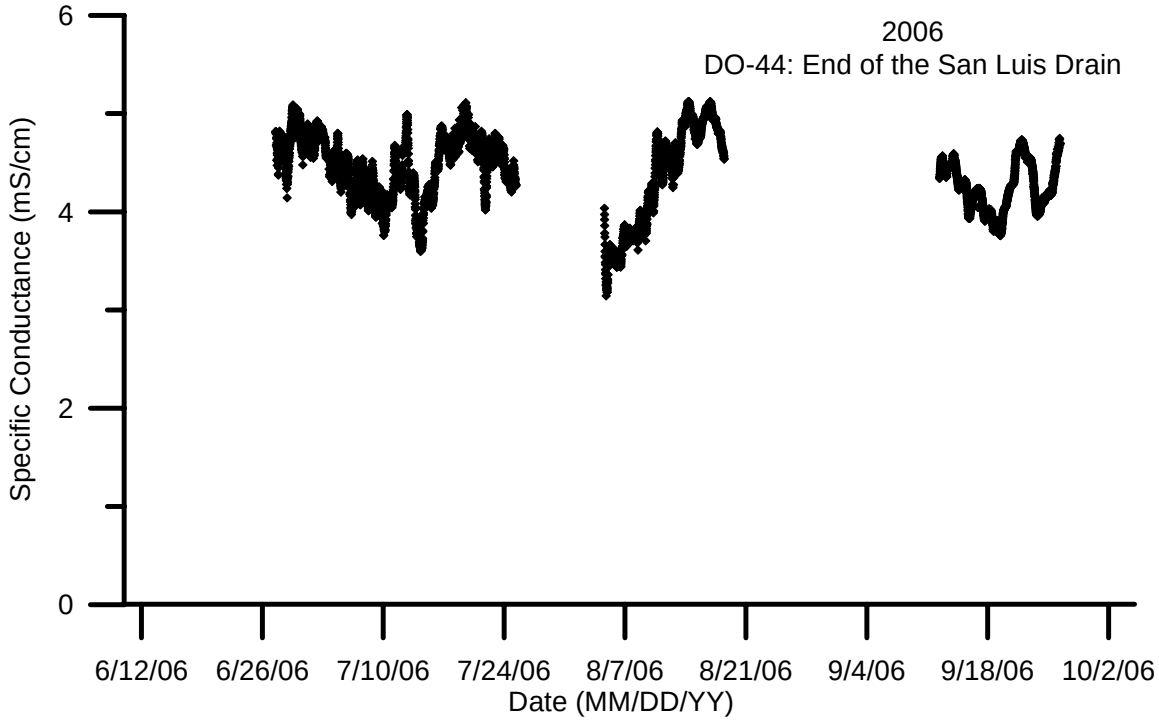


Figure 76: Specific conductance 15 minute data at DO-44 for 2006 and 2007.



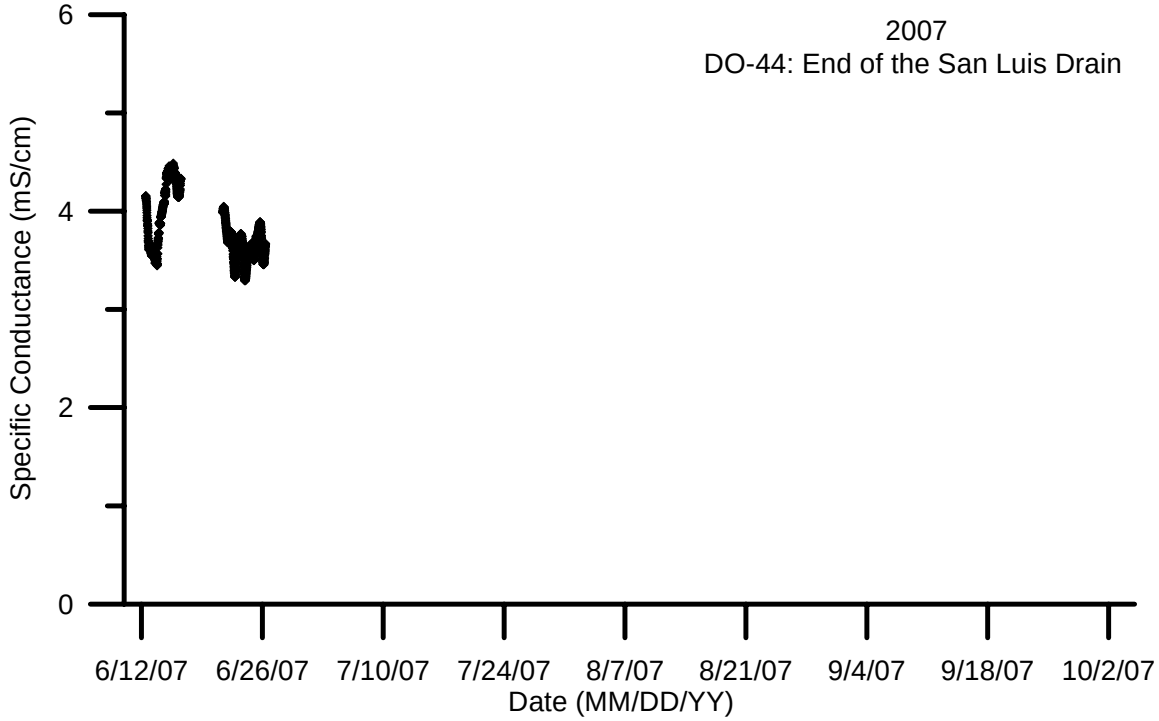
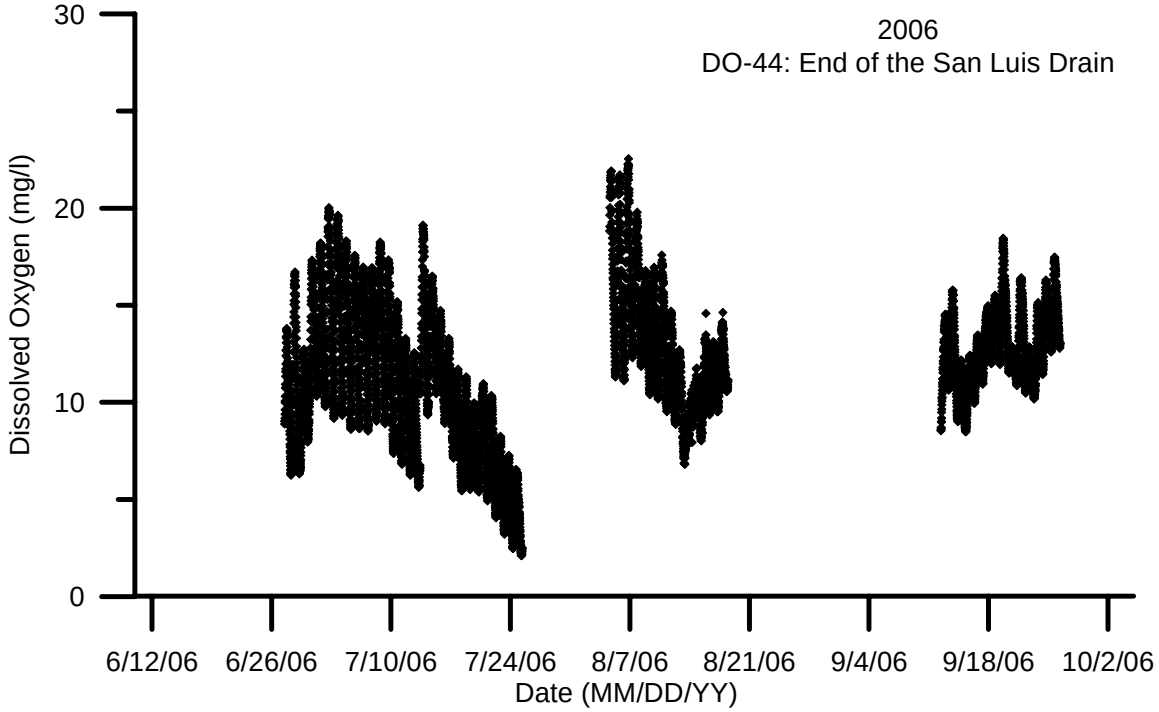


Figure 77: Dissolved oxygen concentration 15 minute data at DO-44 for 2006 and 2007.



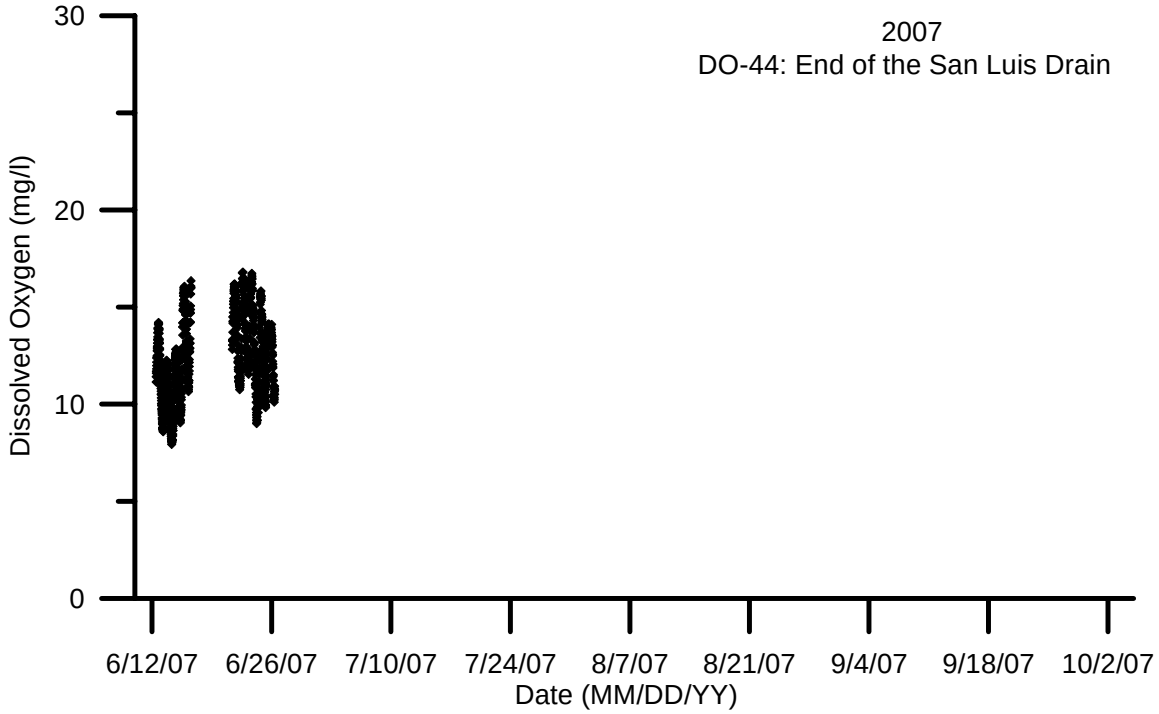
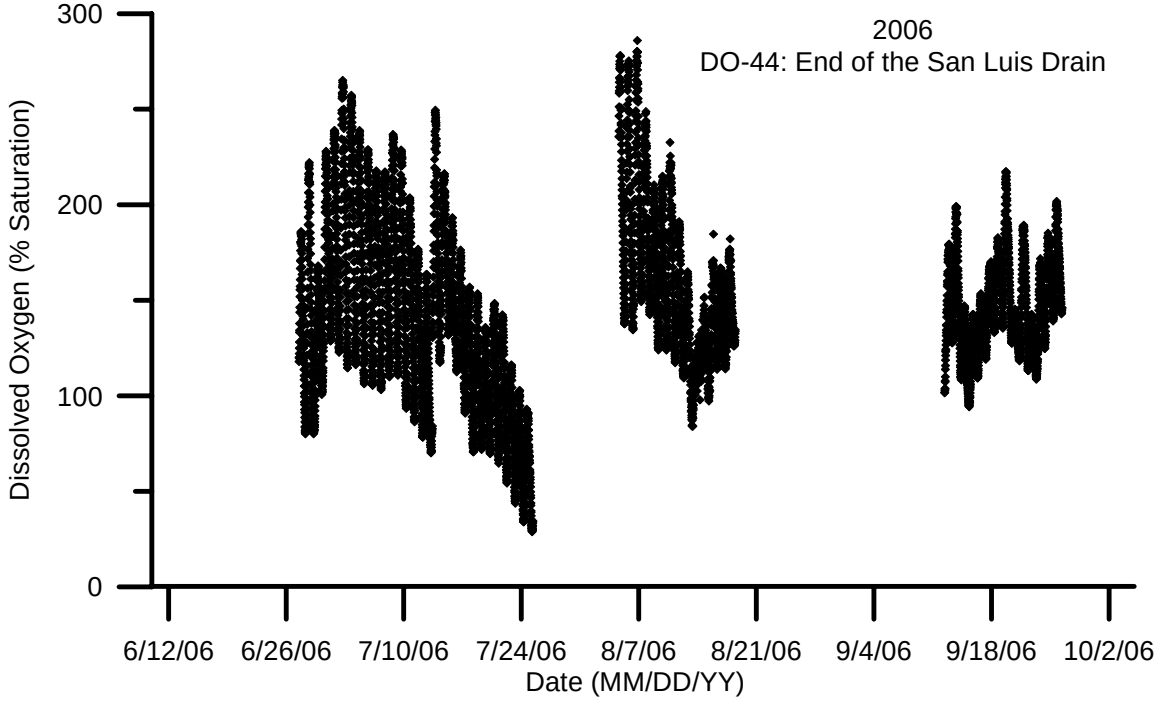


Figure 78: Dissolved oxygen percent of saturation 15 minute data at DO-44 for 2006 and 2007.



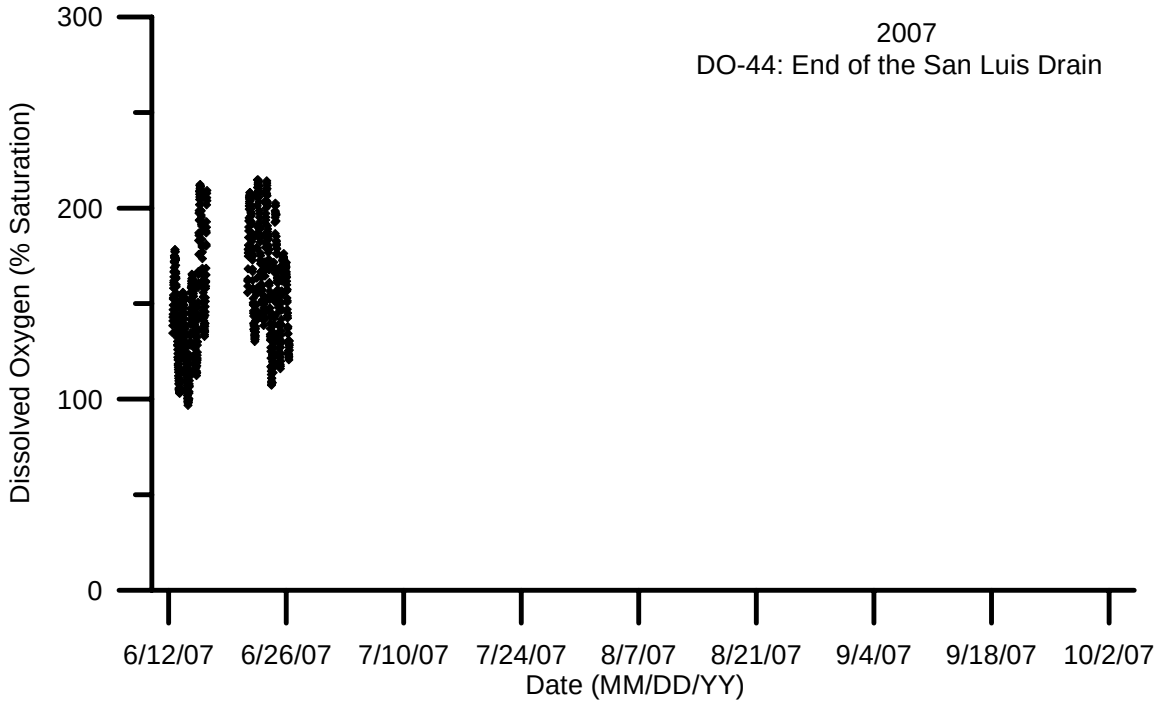
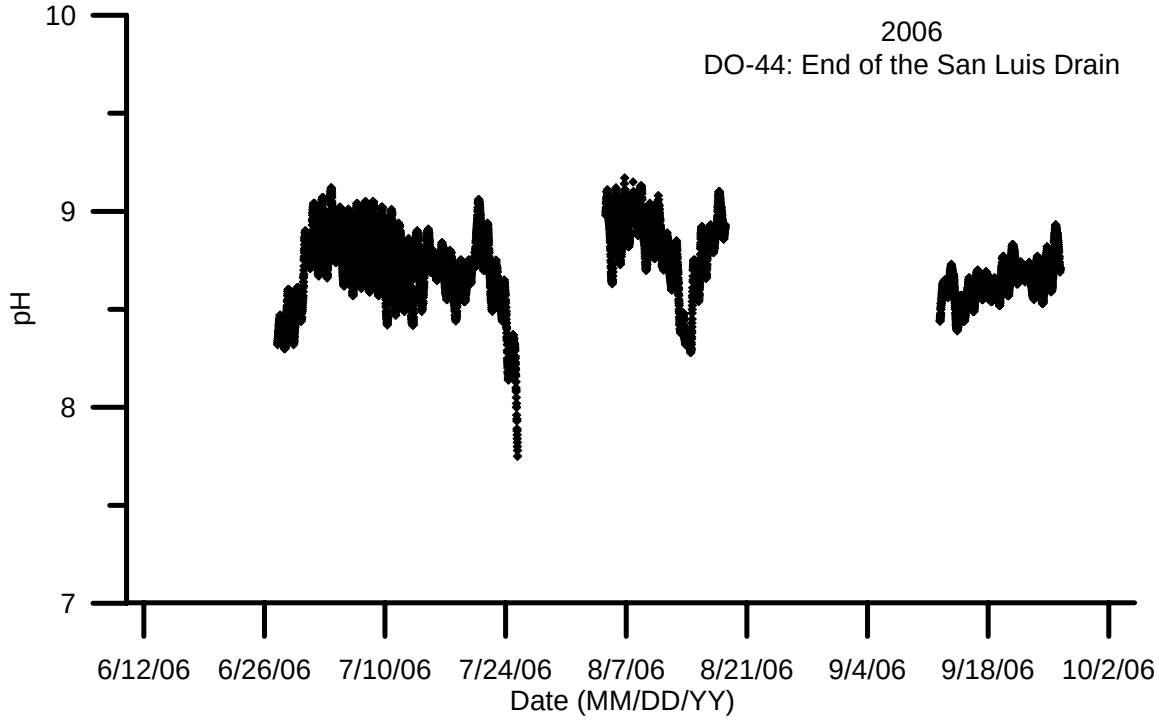


Figure 79: pH 15 minute data at DO-44 for 2006 and 2007.



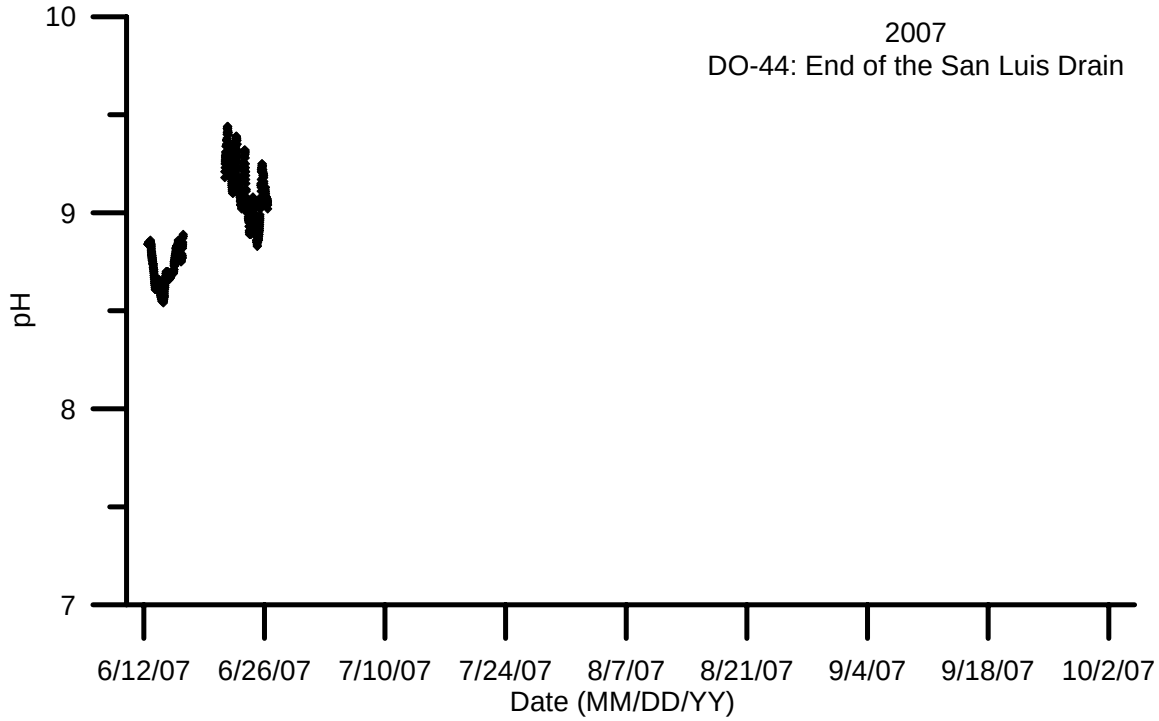
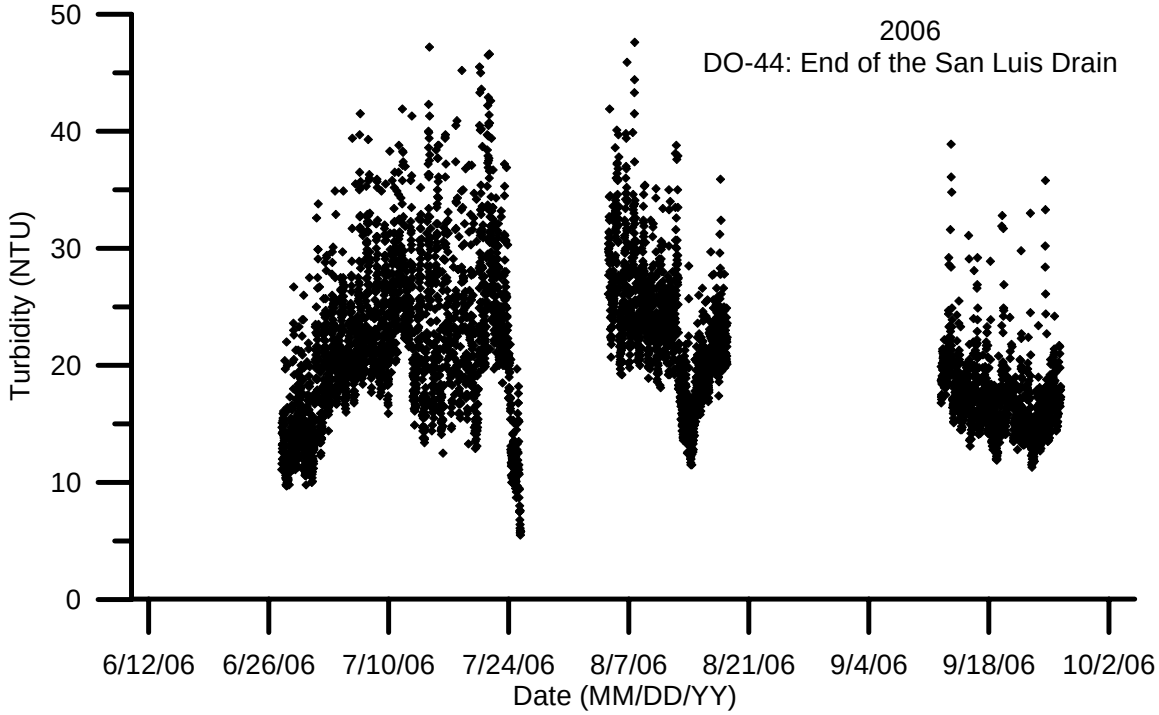


Figure 80: Turbidity 15 minute data at DO-44 for 2006 and 2007.



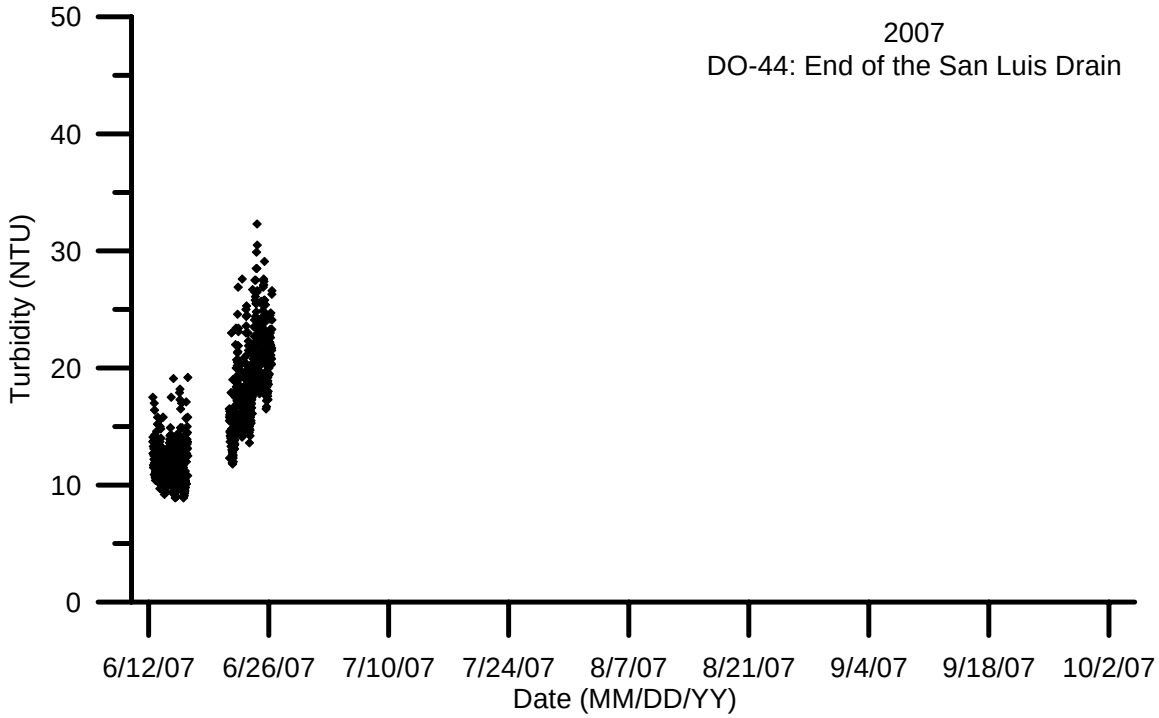
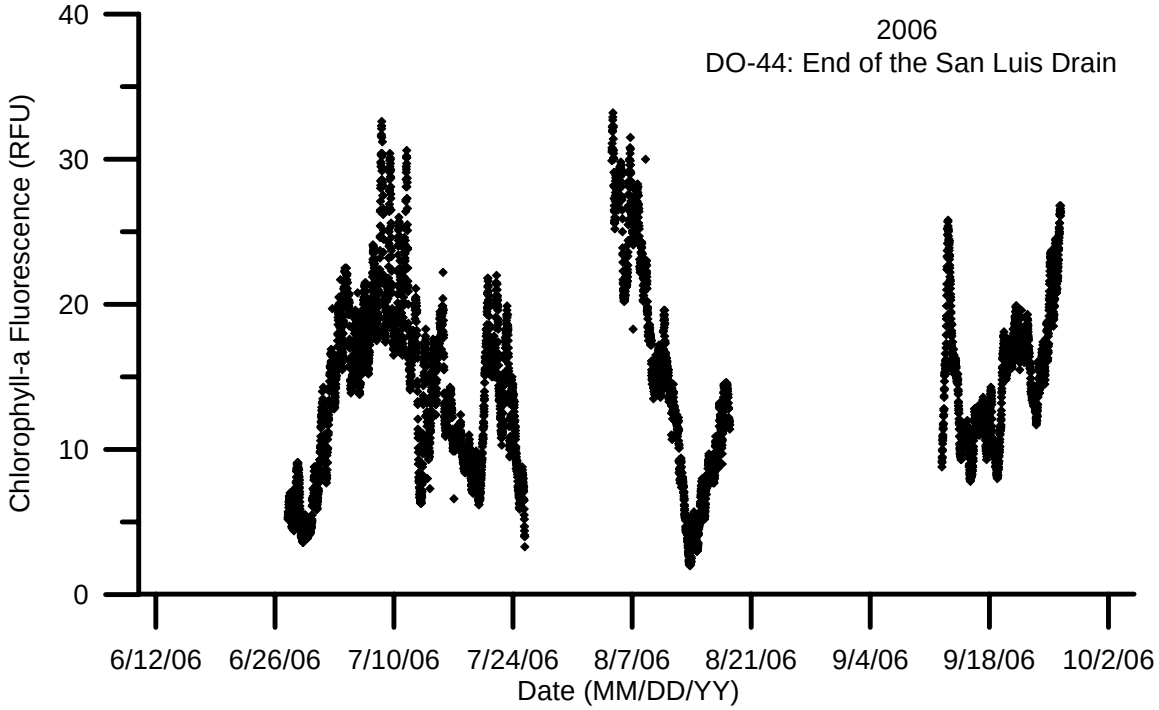


Figure 81: Chlorophyll-*a* fluorescence 15 minute data at DO-44 for 2006 and 2007.



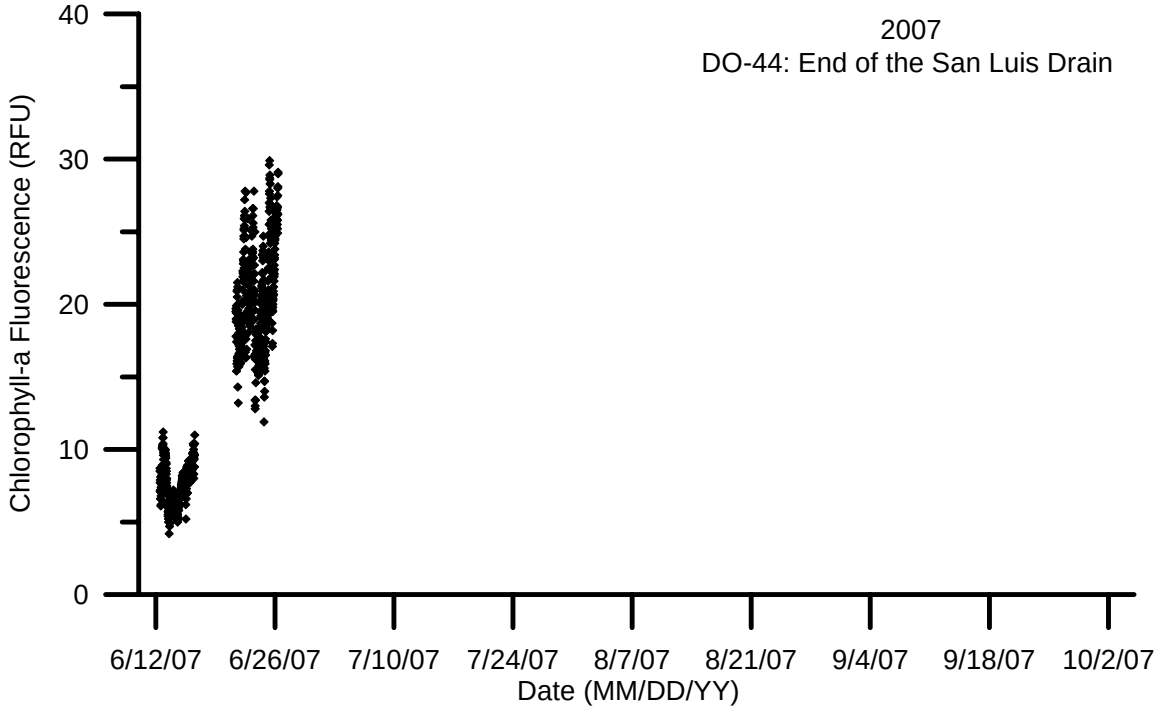
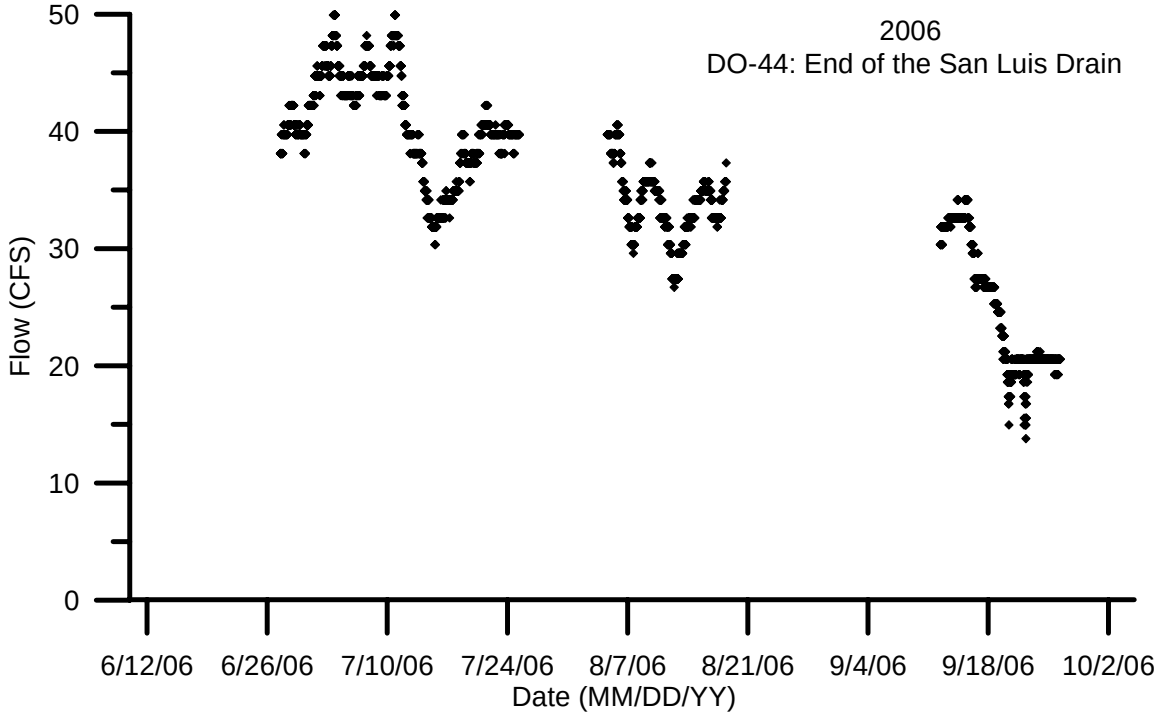
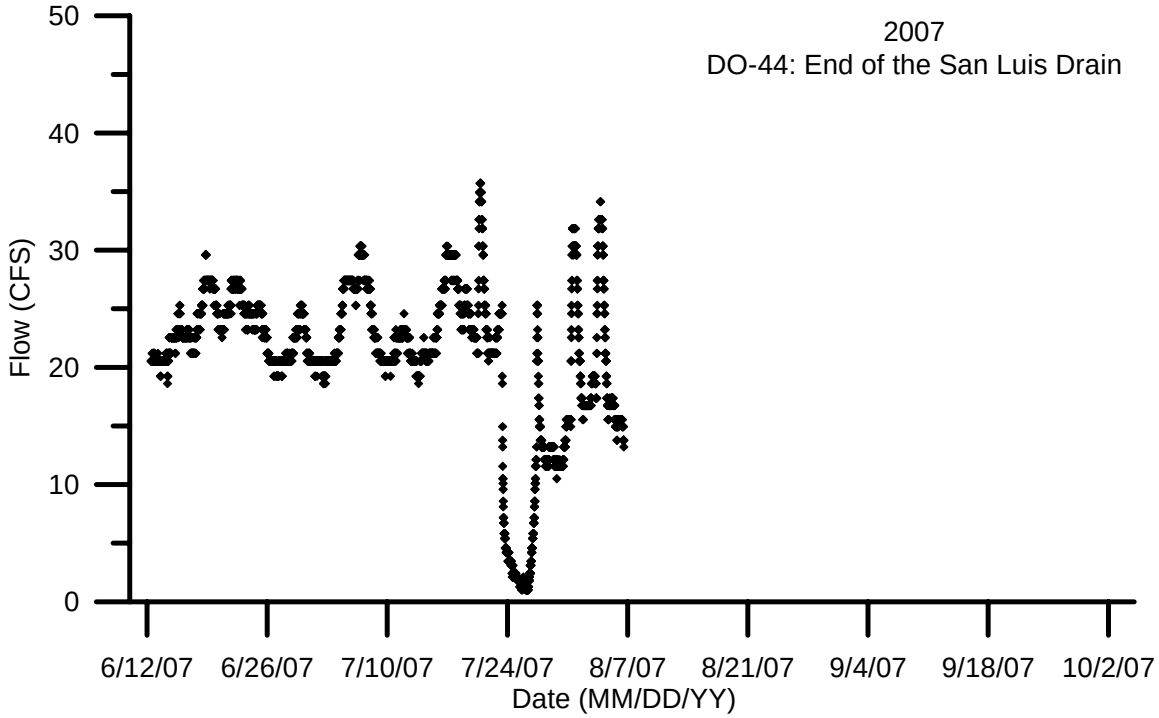


Figure 82: Flow 15 minute data at DO-44 for 2006 and 2007.





Analyses 1 & 2
2006 and 2007 Continuous Monitoring Sonde QA and Deployment Descriptions

Analysis 1: 2006 Continuous Monitoring Sonde QA and Deployment Descriptions

DO-05 SJR at Vernalis

June 27, 2006 to July 13, 2006
Notebook Reference: F10P12-15 F8P112-119 F9P21-29
The instrument was deployed in the existing 4"PVC pipe stilling wells already in place on the monitoring platform. The SONDE was attached to the platform using a 5/8 braided nylon rope and submerged to about 7-8 feet below the water surface. Upon retrieval of the SONDE, the instrument was found exactly where it was left, with the instrument still submerged, though barely.

Calibration	**Sonde S/N:**	**06E2316AA YSI#3**				
Pre-deployment					**Post-deployment**	
	Calibration value	Pre-Calibration	Post-Calibration	pass/fail (+/-20%)	Calibration check	pass/fail (+/-20%)
Depth (ft)	0	0.051	-0.001	Pass	0.084	Pass
Pressure (mmHg)		759.3	759.3	-	761.1	-
DO %	100		99.9	Pass	101.9	Pass
DO (mg/L)	8.445		8.45	Pass		
DO (mg/L)	8.759				8.94	Pass
DO Charge	25-75				45.1	Pass
Temp (degC)	Ambient		23.77	-	21.86	-
EC	1.408	1.397	1.408	Pass	1.382	Pass
pH	4	4	4	Pass	4.17	Pass
	7	7	7	Pass	7.03	Pass
	10	9.98	10	Pass	10.05	Pass
ORP	231	216.9	231	Pass	232.4	Pass
Turbidity (NTU)	0	0.3	0	Pass	1.9	Fail
	40	40.7	40	Pass	35.5	Pass
	200	185	200	Pass		
	180				172.6	Pass
Chla	≤0		-1.9	Pass	-2.2	Pass
Flr	≤0		-0.4	Pass	-0.5	Pass

July 13, 2006 to July 25, 2006
Notebook Reference: F10P12-15, 26-31 F9P17-29
The instrument was deployed in the existing 4"PVC pipe stilling wells already in place on the monitoring platform. The SONDE was attached to the platform using a 5/8 braided nylon rope and submerged to about 3-4 feet below the water surface. Upon retrieval of the SONDE, the instrument was found exactly where it was left, with the instrument still submerged. Removed values that were below 25 for DO charge.

Calibration	**Sonde S/N:**	**05J2250 AC (YSI#9)**				
Pre-deployment					**Post-deployment**	
	Calibration value	Pre-Calibration	Post-Calibration	pass/fail (+/-20%)	Calibration check	pass/fail (+/-20%)
Depth (ft)	0	0.059	0	Pass	-0.384	Fail
Pressure (mmHg)		763.1	763.1	-	753.7	-
DO %	100		100.4	Pass	58.5	Fail
DO (mg/L)	8.482		8.53	Pass		
DO (mg/L)	8.578				5.03	Fail
DO Charge	25-75				22.6	Fail
Temp (degC)	Ambient		23.54	-	22.95	-
EC	1.408	1.373	1.408	Pass	1.401	Pass
pH	4	4.09	4	Pass	4.09	Pass
	7	7.04	7	Pass	7.02	Pass
	10	10.01	10	Pass	9.98	Pass
ORP	234	No ORP sensor				
Turbidity (NTU)	0	0.9	0	Pass	-2.3	Fail
	40	39.6	40.1	Pass	40.5	Pass
	180	178.6	180	Pass		
	165				167.3	Pass
Chla	≤0	-0.1	-0.3	Pass	-1.7	Pass
Flr	≤0	0	-0.2	Pass	-0.3	Pass

Sep 12, 2006 to Sep 26, 2006

Notebook Reference: F9P ,90-97

The instrument was deployed in one of our custom 4"PVC pipe housings and attached to the platform using a 5/8 braided nylon rope and submerged to about 3-4 feet below the water surface. Upon retrieval of the SONDE, the instrument was found exactly where it was left, with the instrument still submerged. Removed values that were below 25 for DO charge.

Calibration	**Sonde S/N:**	**06E2065 AB YSI#5**				
Pre-deployment					**Post-deployment**	
	Calibration value	Pre-Calibration	Post-Calibration	pass/fail (+/-20%)	Calibration check	pass/fail (+/-20%)
Depth (ft)	0	0.151	0	Pass	0.021	Pass
Pressure (mmHg)		761.7	761.7	-	762.2	-
DO %	100		100.2	Pass	79.6	Fail
DO (mg/L)	8.737		8.77	Pass		
DO (mg/L)	8.692				6.96	Pass
DO Charge	25-75		31.8	Pass	23.7	Fail
Temp (degC)	Ambient		21.99	-	22.26	-
EC	1.408	1.385	1.408	Pass	1.395	Pass
pH	4	4.14	4	Pass	3.97	Pass
	7	6.93	7	Pass	6.95	Pass
	10	10.11	10.02	Pass	10	Pass
ORP	233.6	232.4	233.6	Pass	237.3	Pass
Turbidity (NTU)	0	0.4	0	Pass	-0.1	Pass
	40	37.7	39.9	Pass	42.5	Pass
	200	198.2	199.9	Pass	206.6	Pass
Chla	≤0	-1.7	-1.7	Pass	-2.7	Pass
Flr	≤0	-0.4	-0.3	Pass	-0.6	Pass

DO-07 SJR at Patterson

June 27, 2006 to July 13, 2006
Notebook Reference: F10P12-15 F8P112-119 F9P21-29
The instrument was deployed in one of our custom 4"PVC pipe housings for added protection. The SONDE plus housing was attached with a 1/4" vinyl coated cable and padlocked to the platform of the pumping station. Upon retrieval of the SONDE, the instrument was found exactly where it was left, but out of the water due to the significant drop in river level SONDE was out of the water for approx. 6 days. *wiper parked over sensor Chla and Flr reading high, removed high values/outliers.

Calibration	**Sonde S/N:**	**06E2064 AA**				
Pre-deployment					**Post-deployment**	
	Calibration value	Pre-Calibration	Post-Calibration	pass/fail (+/-20%)	Calibration check	pass/fail (+/-20%)
Depth (ft)	0	-0.208	0.001	Pass	0.102	Pass
Pressure (mmHg)		759	759.1	-	761.1	-
DO %	100		99.9	Pass	109.4	Pass
DO (mg/L)	8.447		8.45	Pass		
DO (mg/L)	8.662				9.44	Pass
DO Charge	25-75				34.9	Pass
Temp (degC)	Ambient		23.76	-	22.44	-
EC	1.408	1.425	1.408	Pass	1.388	Pass
pH	4	4.06	4	Pass	3.99	Pass
	7	7.03	7	Pass	6.95	Pass
	10	9.99	10	Pass	9.96	Pass
ORP	231	213.5	231	Pass	232.4	Pass
Turbidity (NTU)	0	-0.3	0	Pass	-0.3	Fail
	40	40.7	40	Pass	33.3	Pass
	200	191.4	200	Pass		
	180				160.4	Pass
Chla	≤0		-2.1	Pass	310.1	Fail
Flr	≤0		-0.5	Pass	73.8	Fail

July 13, 2006 to July 25, 2006
Notebook Reference: F10P12-15, 26-31 F9P17-29
The instrument was deployed in one of our custom 4"PVC pipe housings for added protection. The SONDE plus housing was attached with a 1/4" vinyl coated cable and padlocked to the ladder on the far end of the pumping station. Upon retrieval of the SONDE, the instrument was found exactly where it was left. All red flagged values for Turbidity on DO-19, DO-7 cannot be discounted as true values. However, they are most likely not valid (high COV, unrealistic compared to other sites upstream/downstream, higher than corresponding independent QC value). Removed values that were below 25 for DO charge.

Calibration	**Sonde S/N:**	**06E2064 AC (YSI #10)**				
Pre-deployment					**Post-deployment**	
	Calibration value	Pre-Calibration	Post-Calibration	pass/fail (+/-20%)	Calibration check	pass/fail (+/-20%)
Depth (ft)	0	1.169	0	Pass	-0.238	Fail
Pressure (mmHg)		762.1	762.1	-	756.6	-
DO %	100		100.3	Pass	56.9	Fail
DO (mg/L)	8.532		8.57	Pass		
DO (mg/L)	8.883				5.07	Fail
DO Charge	25-75		39	Pass	16.5	Fail
Temp (degC)	Ambient		23.23	-	21.14	-
EC	1.408	1.392	1.408	Pass	1.437	Pass
pH	4	4.09	4	Pass	3.98	Pass
	7	6.96	7	Pass	7.01	Pass
	10	9.98	10	Pass	10.07	Pass
ORP	234	213.7	234	Pass	232.9	Pass
Turbidity (NTU)	0	0.8	0	Pass	-1.9	Fail
	40	35.9	40	Pass	41	Pass
	180	176.2	180	Pass		
	165				172.1	Pass
Chla	≤0	0.2	0.2	Pass	-0.4	Pass
Flr	≤0	0.1	0.1	Pass	0	Pass

Sep 12, 2006 to Sep 26, 2006
Notebook Reference: F9P ,90-97
The instrument was deployed in a black PVC housing. The SONDE was attached to the underside of the pump platform near the northeast corner and secured with a cable and padlock. It was submerged to about 2-3 feet below the water surface. Upon retrieval, the SONDE was found where it was left and still submerged.

Calibration	**Sonde S/N:**	**06E2064 AA YSI#7**				
Pre-deployment					**Post-deployment**	
	Calibration value	Pre-Calibration	Post-Calibration	pass/fail (+/-20%)	Calibration check	pass/fail (+/-20%)
Depth (ft)	0	0.136	0	Pass	0.013	Pass
Pressure (mmHg)		762.1	762.1	-	762.4	-
DO %	100		100.3	Pass	102.2	Pass
DO (mg/L)	8.787		8.82	Pass		
DO (mg/L)	8.714				8.92	Pass
DO Charge	25-75		54.3	Pass	40	Pass
Temp (degC)	Ambient		21.7	-	22.13	-
EC	1.408	1.389	1.408	Pass	1.401	Pass
pH	4	4.2	4.02	Pass	3.84	Pass
	7	6.82	7	Pass	6.9	Pass
	10	10.18	10.03	Pass	10.03	Pass
ORP	233.6	236.1	233.6	Pass	233.8	Pass
Turbidity (NTU)	0	0.3	0	Pass	-0.1	Pass
	40	44	39.9	Pass	41.9	Pass
	200	199.2	200	Pass	210.4	Pass
Chla	≤0	-1.5	-1.7	Pass	-3	Pass
Flr	≤0	-0.3	-0.3	Pass	-0.7	Pass

DO-08 SJR at Crows Landing (Turlock Sportsman Club)

June 27, 2006 to July 13, 2006
Notebook Reference: F10P12-15 F8P112-119 F9P21-29
The instrument was deployed in one of our custom 4"PVC pipe housings for added protection. The SONDE plus housing was attached with a 1/4" vinyl coated cable and padlocked to the dock at the Turlock Sportsman Club. Upon retrieval of the SONDE, the instrument was found exactly where it was left, with the instrument still submerged.

Calibration	**Sonde S/N:**	**06E2065 AA**				
Pre-deployment					**Post-deployment**	
	Calibration value	Pre-Calibration	Post-Calibration	pass/fail (+/-20%)	Calibration check	pass/fail (+/-20%)
Depth (ft)	0	0.044	0	Pass	0.079	Pass
Pressure (mmHg)		759.1	759.1	-	760.6	-
DO %	100		99.9	Pass	103.9	Pass
DO (mg/L)	8.349		8.35	Pass		
DO (mg/L)	8.452				8.78	Pass
DO Charge	25-75				38	Pass
Temp (degC)	Ambient		24.38	-	23.73	-
EC	1.408	1.406	1.408	Pass	1.359	Pass
pH	4	4	4	Pass	4.07	Pass
	7	7	7	Pass	7.02	Pass
	10	9.99	10	Pass	10.04	Pass
ORP	231	217.5	231	Pass	230.5	Pass
Turbidity (NTU)	0	0	0	Pass	0.2	Pass
	40	40.2	40.1	Pass	34.8	Pass
	200	185.1	200.2	Pass		
	180				166.5	Pass
Chla	≤0		-1.8	Pass	-1.1	Pass
Flr	≤0		-0.4	Pass	-0.3	Pass

July 13, 2006 to July 25, 2006
Notebook Reference: F10P12-15, 26-31 F9P17-29
The instrument was deployed in one of our custom 4"PVC pipe housings for added protection. The SONDE plus housing was attached with a 1/4" vinyl coated cable and padlocked to the dock at the Turlock Sportsman Club. Upon retrieval of the SONDE, the instrument was found exactly where it was left, with the instrument still submerged.

Calibration	**Sonde S/N:**	**05J2250 AB (YSI #8)**				
Pre-deployment					**Post-deployment**	
	Calibration value	Pre-Calibration	Post-Calibration	pass/fail (+/-20%)	Calibration check	pass/fail (+/-20%)
Depth (ft)	0	0.027	0	Pass	-0.255	Fail
Pressure (mmHg)		762.7	762.7	-	756.5	-
DO %	100		99.9	Pass	102.6	Pass
DO (mg/L)	8.530		8.45	Pass		
DO (mg/L)	8.624				8.88	Pass
DO Charge	25-75				26.7	Pass
Temp (degC)	Ambient		23.24	-	22.67	-
EC	1.408	1.384	1.408	Pass	1.404	Pass
pH	4	4.12	4	Pass	4.02	Pass
	7	7.02	7	Pass	7.07	Pass
	10	9.99	10	Pass	10.09	Pass
ORP	234	288.3	237.2	Pass	No ORP sensor	
Turbidity (NTU)	0	-0.9	0	Pass	-0.1	Pass
	40	41.2	40	Pass	41.2	Pass
	180	184	180	Pass		
	165				163.2	Pass
Chla	≤0	0.3	0.4	Fail	0.5	Fail
Flr	≤0	0.1	0.2	Pass	0.1	Pass

Sep 12, 2006 to Sep 26, 2006
Notebook Reference: F9P ,90-97
The instrument was deployed in one of our custom 4"PVC pipe housings. The SONDE plus housing was attached with a 1/4" vinyl coated cable and padlocked to the dock at the Turlock Sportsman Club. Upon retrieval, the SONDE was found exactly where it was left and still submerged.

Calibration	**Sonde S/N:**	**06E2064 AC YSI#10**				
Pre-deployment					**Post-deployment**	
	Calibration value	Pre-Calibration	Post-Calibration	pass/fail (+/-20%)	Calibration check	pass/fail (+/-20%)
Depth (ft)	0	0.143	0	Pass	0.033	Pass
Pressure (mmHg)		761.9	761.9	-	762.7	-
DO %	100		100.3	Pass	103.1	Pass
DO (mg/L)	8.787		8.82	Pass		
DO (mg/L)	8.630				8.91	Pass
DO Charge	25-75		35.9	Pass	35.9	Pass
Temp (degC)	Ambient		21.7	-	22.63	-
EC	1.408	1.391	1.408	Pass	1.381	Pass
pH	4	4.17	4	Pass	3.95	Pass
	7	6.93	7	Pass	6.99	Pass
	10	10.06	10.01	Pass	10.03	Pass
ORP	233.6	232	233.6	Pass	233.9	Pass
Turbidity (NTU)	0	0	0	Pass	0.1	Pass
	40	39.5	40	Pass	42.5	Pass
	200	199	200	Pass	211.4	Pass
Chla	≤0	0.4	0.1	Pass	0	Pass
Flr	≤0	0	0	Pass	0.2	Pass

DO-19 Salt slough at Lander Ave.

June 27, 2006 to July 13, 2006
Notebook Reference: F10P12-15 F8P112-119 F9P21-29
The instrument was deployed in one of our custom 4"PVC pipe housings for added protection. The SONDE plus housing was attached with a 1/4" vinyl coated cable and padlocked at arms length under the water surface to stakes which had previously been secured into the stream bed to support the existing USGS monitoring station sensor. Upon retreival of the SONDE, the instrument was found exactly where it was left, but only the bottom 1/2 of the instrument was still in the water because stream levels had receded more than 3 feet. Fortunately the sensors were still submerged and able to take readings.

Calibration	**Sonde S/N:**	**06E2064 AB**				
Pre-deployment					**Post-deployment**	
	Calibration value	Pre-Calibration	Post-Calibration	pass/fail (+/-20%)	Calibration check	pass/fail (+/-20%)
Depth (ft)	0	0.056	0	Pass	0.03	Pass
Pressure (mmHg)		759.2	759.2	-	760	-
DO %	100		99.9	Pass	109.2	Pass
DO (mg/L)	8.492		8.49	Pass		
DO (mg/L)	8.527				9.32	Pass
DO Charge	25-75				33.9	Pass
Temp (degC)	Ambient		23.48	-	23.26	-
EC	1.408	1.421	1.408	Pass	1.359	Pass
pH	4	4.04	4	Pass	4.14	Pass
	7	7.01	7	Pass	7.02	Pass
	10	9.98	10	Pass	10.01	Pass
ORP	231	214.9	231	Pass	230.2	Pass
Turbidity (NTU)	0	-0.2	0	Pass	0.9	Fail
	40	40.2	40	Pass	37.8	Pass
	200	185.4	200.1	Pass		
	180				156.4	Pass
Chla	≤0		-1.3	Pass	-1.2	Pass
Flr	≤0		-0.4	Pass	-0.3	Pass

Sept. 12, 2006 to Sept. 26, 2006
Notebook Reference: F9P ,90-97
The instrument was deployed in one of our custom 4"PVC pipe housings and attached with a 1/4" vinyl coated cable and padlocked at arms length under the water surface to stakes which had previously been secured into the stream bed to support the existing USGS monitoring station sensor. Upon retrieval, the SONDE was found where it was left and still submerged

Calibration	**Sonde S/N:**	**05K1979 AB YSI#11**				
Pre-deployment					**Post-deployment**	
	Calibration value	Pre-Calibration	Post-Calibration	pass/fail (+/-20%)	Calibration check	pass/fail (+/-20%)
Depth (ft)	0	0.004	0	Pass	0.067	Pass
Pressure (mmHg)		762.1	762.1	-	762.3	-
DO %	100		100.3	Pass	93.6	Pass
DO (mg/L)	8.817		8.85	Pass		
DO (mg/L)	8.776				8.25	Pass
DO Charge	25-75		49.2	Pass	38	Pass
Temp (degC)	Ambient		21.52	-	21.76	-
EC	1.408	1.391	1.413	Pass	1.404	Pass
pH	4	4.16	4	Pass	4.02	Pass
	7	6.96	7	Pass	7	Pass
	10	10.04	10	Pass	10.03	Pass
ORP	233.6	251.7	232.7	Pass	290	Fail
Turbidity (NTU)	0	-0.2	0.2	Pass	0.1	Pass
	40	45.4	40.1	Pass	41.8	Pass
	200	198.3	199.9	Pass	206.7	Pass
Chla	≤0	-1.7	-2.1	Pass	-1.3	Pass
Flr	≤0	-0.5	-0.5	Pass	-0.3	Pass

DO-20 Los Banos Creek

Sept. 12, 2006 to Sept. 26, 2006
Notebook Reference: F9P ,90-97
The instrument was deployed in one of our custom 4"PVC pipe housings and attached with a 1/4" vinyl coated cable and padlocked to the bridge across the stream. Upon retrieval, the SONDE was found where it was left with sensor end just submerged. Flow is calculated from old rating curve because new one hasn't been established since the bubbler was re-installed new rating curve will likely change flow values so this is preliminary data. Removed values that were below 25 for DO Charge. No ORP sensor.

Calibration	**Sonde S/N:**	**05J2250 AC YSI#9**				
Pre-deployment					**Post-deployment**	
	Calibration value	Pre-Calibration	Post-Calibration	pass/fail (+/-20%)	Calibration check	pass/fail (+/-20%)
Depth (ft)	0	0.277	0	Pass	0.005	Pass
Pressure (mmHg)		762.2	762.2	-	762.5	-
DO %	100		100.3	Pass	25	Fail
DO (mg/L)	8.763		8.8	Pass		
DO (mg/L)	8.635				2.17	Fail
DO Charge	25-75		53.3	Pass	7.3	Fail
Temp (degC)	Ambient		21.84	-	22.6	-
EC	1.408	1.38	1.409	Pass	1.409	Pass
pH	4	4.13	4	Pass	3.95	Pass
	7	6.86	7	Pass	6.97	Pass
	10	10.14	10.02	Pass	10.04	Pass
ORP	233.6	385	233.6	Pass	295.3	Fail
Turbidity (NTU)	0	0.4	0	Pass	-0.2	Pass
	40	38.9	40	Pass	40.7	Pass
	200	195.7	200	Pass	205.3	Pass
Chla	≤0	-0.6	-0.3	Pass	-0.2	Pass
Flr	≤0	-0.2	-0.1	Pass	-0.1	Pass

DO-44 San Luis Drain End

June 27, 2006 to July 13, 2006
Notebook Reference: F10P12-15 F8P112-119 F9P21-29
The instrument was deployed in one of our custom 4"PVC pipe housings for added protection. The SONDE plus housing was attached with a 1/4" vinyl coated cable and padlocked to the side of a USGS monitoring station platform near the San Luis Drain outlet pipe. Upon retrieval of the SONDE, the instrument was found exactly where it was left, with the instrument still submerged.

Calibration	**Sonde S/N:**	**06E2065 AB**				
Pre-deployment					**Post-deployment**	
	Calibration value	Pre-Calibration	Post-Calibration	pass/fail (+/-20%)	Calibration check	pass/fail (+/-20%)
Depth (ft)	0	0.059	0	Pass	0.04	Pass
Pressure (mmHg)		759.3	759.3	-	760.2	-
DO %	100		99.9	Pass	103	Pass
DO (mg/L)	8.384		8.39	Pass		
DO (mg/L)	8.447				8.71	Pass
DO Charge	25-75				41	Pass
Temp (degC)	Ambient		24.16	-	23.76	-
EC	1.408	1.404	1.408	Pass	1.326	Pass
pH	4	4	4	Pass	4.14	Pass
	7	7.03	7	Pass	7.06	Pass
	10	9.99	10	Pass	10.06	Pass
ORP	231	215.2	231	Pass	229.3	Pass
Turbidity (NTU)	0	-0.2	0	Pass	0.9	Fail
	40	41.1	40	Pass	42	Pass
	200	184.9	200	Pass		
	180				175.1	Pass
Chla	≤0		-1.9	Pass	-1.8	Pass
Flr	≤0		-0.4	Pass	-0.5	Pass

July 13, 2006 to July 25, 2006
Notebook Reference: F10P12-15, 26-31 F9P17-29
The instrument was deployed in one of our custom 4"PVC pipe housings for added protection. The SONDE plus housing was attached with a 1/4" vinyl coated cable and padlocked to the side of a USGS monitoring station platform near the San Luis Drain outlet pipe. Upon retrieval of the SONDE, the instrument was found exactly where it was left, with the instrument still submerged.

Calibration **Sonde S/N:** **05K1978 AB (YSI #11)**

Pre-deployment					**Post-deployment**	
	Calibration value	Pre-Calibration	Post-Calibration	pass/fail (+/-20%)	Calibration check	pass/fail (+/-20%)
Depth (ft)	0	1.0368	0	Pass	-0.269	Fail
Pressure (mmHg)		762.8	762.8	-	756.6	-
DO %	100		100.4	Pass	97.3	Pass
DO (mg/L)	8.490		8.53	Pass		
DO (mg/L)	8.548				8.31	Pass
DO Charge	25-75		42	Pass	36.9	Pass
Temp (degC)	Ambient		23.49	-	23.13	-
EC	1.408	1.408	1.408	Pass	1.377	Pass
pH	4	4.25	4	Pass	4.06	Pass
	7	6.98	7	Pass	7.05	Pass
	10	9.97	10	Pass	10.1	Pass
ORP		No ORP sensor		Pass		Pass
Turbidity (NTU)	0	6.9	0.1	Pass	-2.1	Fail
	40	36.1	39.7	Pass	41.9	Pass
	180	182	180.1	Pass		
	165				171.1	Pass
Chla	≤0	-1.1	-1.4	Pass	-2.8	Pass
Flr	≤0	-0.2	-0.4	Pass	-0.5	Pass

Aug 04, 2006 to Aug 18, 2006

Notebook Reference: F9P36-39, 46-52, 61-66 F10P69-73

The instrument was deployed in a black PVC housing. The SONDE was attached towards the front of the check station near the edge and secured with a cable and padlock. It was submerged to about 2-3 feet below the water surface. Upon retrieval of the SONDE, the instrument was found exactly where it was left, with the instrument still submerged.

Calibration	**Sonde S/N:**	**06E2065 AA (YSI#4)**				
Pre-deployment					**Post-deployment**	
	Calibration value	Pre-Calibration	Post-Calibration	pass/fail (+/-20%)	Calibration check	pass/fail (+/-20%)
Depth (ft)	0	-0.002	0	Pass	0.096	Pass
Pressure (mmHg)		758.5	758.5	-	760.6	-
DO %	100		99.8	Pass	99.4	Pass
DO (mg/L)	8.584		8.58	Pass		
DO (mg/L)	8.615				8.53	Pass
DO Charge	25-75		35.9	Pass	30.8	Pass
Temp (degC)	Ambient		22.91	-	22.72	-
EC	1.408	1.425	1.408	Pass	1.389	Pass
pH	4	4.02	4	Pass	4.12	Pass
	7	6.99	7	Pass	7.05	Pass
	10	10.02	10	Pass	10.07	Pass
ORP		NO ORP sensor		Pass		Pass
Turbidity (NTU)	0	-0.2	0	Pass	-0.3	Fail
	40	39.3	39.9	Pass	44.3	Pass
	200	190.8	199.7	Pass	228.5	Pass
Chla	≤0	-2	-1.7	Pass	-1	Pass
Flr	≤0	-0.4	-0.4	Pass	-0.3	Pass

Sept. 12, 2006 to Sept. 26, 2006
Notebook Reference: F9P ,90-97
The instrument was deployed in one of our custom 4"PVC pipe housings and attached with a 1/4" vinyl coated cable and padlocked to the side of the platform near the San Luis Drain outlet structure. Upon retrieval, the SONDE was found where it was left and still submerged.

Calibration	**Sonde S/N:**	**06E2064 AB YSI#6**				
Pre-deployment					**Post-deployment**	
	Calibration value	Pre-Calibration	Post-Calibration	pass/fail (+/-20%)	Calibration check	pass/fail (+/-20%)
Depth (ft)	0	0.187	0	Pass	0.014	Pass
Pressure (mmHg)		762	762	-	762.4	-
DO %	100		100.3	Pass	98.6	Pass
DO (mg/L)	8.724		8.76	Pass		
DO (mg/L)	8.724				8.65	Pass
DO Charge	25-75		43.1	Pass	38	Pass
Temp (degC)	Ambient		22.07	-		-
EC	1.408	1.382	1.408	Pass	1.401	Pass
pH	4	4.15	4	Pass	4.07	Pass
	7	6.97	7	Pass	6.96	Pass
	10	10.03	10	Pass	9.99	Pass
ORP	233.6	232.5	233.6	Pass	236	Pass
Turbidity (NTU)	0	-0.2	0	Pass	-0.1	Pass
	40	39.9	40	Pass	40.8	Pass
	200	192.2	199.8	Pass	203.9	Pass
Chla	≤0	-1.7	-1.2	Pass	-0.8	Pass
Flr	≤0	-0.3	-0.3	Pass	-0.2	Pass

Analysis 2: 2007 Continuous Monitoring Sonde QA and Deployment Descriptions

DO-05 SJR at Vernalis

June 12, 2007 to June 21, 2007
15 minute measurements with YSI Sonde 6600: #11
Notebook Reference: F12p105-113,131-140 F13p1-5
The instrument was deployed in a black PVC housing. The SONDE plus housing were attached to the DWR platform with 3/16" steel cable and secured with a padlock. It was submerged to about 2-3 feet below the water surface. Upon retrieval of the SONDE, the instrument was found exactly where it was left, with the instrument still submerged.

QA/QC	Standard Value Pre Deploy	Pre-Calibration Reading	Post-Calibration Reading	Pass/Fail (+/- 20%) 1=pass 0=fail	Standard Value Post Deploy	Post-Deploy Reading	Pass/Fail (+/- 20%) 1=pass 0=fail
Depth (ft)	0	-0.178	0	1	0	0.16	1
Pressure (mmHg)	n/a	756.8	756.8	n/a	n/a	759.5	n/a
DO %	100	95.5	99.6	1	100	101.6	1
DO (mg/L)	8.81	8.45	8.82	1	8.81	8.96	1
DO Charge	25-75	47.1	47.1	1	25-75	45.1	1
Wet towel Temp (degC)	Ambient	21.35	21.36	n/a	Ambient	21.56	n/a
EC Temp (degC)	21.6	21.66	21.66	1	23.2	23.05	1
EC	1.408	1.45	1.408	1	1.408	1.432	1
LCS EC	1.412	n/a	1.368	1	1.412	1.354	1
pH 4.0	4	4.04	4	1	4	4.04	1
pH 7.0	7	6.97	7	1	7	7	1
pH 10.0	10	10.06	10.01	1	10	9.98	1
LCS pH 4.01	4.01	n/a	4.05	1	4.01	4.08	1
LCS pH 7.0	7	n/a	6.95	1	7	6.9	1
LCS pH 10.01	10.01	n/a	9.96	1	10.01	9.98	1
ORP	235.42	236.4	235.4	1	233.61	231.1	1
Turbidity 0 NTU	0	-1.8	0.1	1	0	-0.8	1
Turbidity 40 NTU	40	49.1	40.2	1	40	35.8	1
Turbidity 200 NTU	200	207.7	199.8	1	200	169.9	1
Chla	≤0	-1.8	-1.8	1	≤0	-1.7	1
Flr	≤0	-0.5	-0.3	1	≤0	-0.4	1