2007 Water Quality Monitoring Report

CRWD

Prepared for

Clearwater River Watershed District

January 2008



2007 Water Quality Monitoring Report



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Prepared for:

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- 1 Phase II Addendum Project Report to the MPCA: Grass Lake and the Mississippi River DO TMDL
- 2 Phase II Project Report to the MPCA: Lake Louisa Nutrient TMDL and The Clearwater River, Clear Lake to Lake Betsy Bacteria and Dissolved Oxygen TMDL

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1.0 Introduction

The Clearwater River Watershed District (CRWD) has conducted a stream, precipitation, and lake monitoring program since 1980. The monitoring program has focused on collecting baseline data to assess long-term water quality trends within the CRWD. Appendix A describes the 2007 monitoring program in detail, Figure 1.1 shows the monitoring locations.

In 2003 the CRWD, in partnership with the Minnesota Pollution Control Agency, began a Total Maximum Daily Load (TMDL) study to address the District's impaired waters. As demonstrated in Appendix B and Appendix C, lake water quality has improved dramatically and in stream nutrient and sediment loads were reduced as the result of the Chain of Lakes Restoration Project and other District initiatives. However, some water bodies do not meet state water quality standards. TMDL Studies are on-going for the following waters (Figure 1.2 shows locations):

- Clearwater River between Clear Lake and Lake Betsy for dissolved oxygen (DO) and fecal coliform bacteria,
- o Clearwater River between Grass Lake and the Mississippi River for DO, and
- o Lake Louisa for nutrients.

Data was collected during the 2007 season for the DO TMDL for the Clearwater River between Grass Lake and the Mississippi River. These data are presented in a report to the MPCA: "Phase II Addendum Project Report to the MPCA: Grass Lake and the Mississippi River DO TMDL" (see Attachment 1). Data for the other 303d-listed waters was collected during the 2005 and 2006 field seasons. These data are presented in the report: "Phase II Project Report to the MPCA: Lake Louisa Nutrient TMDL and The Clearwater River, Clear Lake to Lake Betsy Bacteria and Dissolved Oxygen TMDL" (see Attachment 2). These reports can be found in an electronic format on CDs enclosed in this report following the appendices.

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Ten other CRWD Lakes were added to the 2008 303d Impaired Waters List at the request of the CRWD including Clear Lake, Lake Betsy, Union Lake, Scott Lake, Lake Marie, Lake Augusta, Lake Caroline, Swartout Lake, Albion Lake, and Henshaw Lake. The TMDLs for these lakes will be set using existing data where appropriate in Phase III of the ongoing TMDL study. Monitoring locations for the 2007 program included two long-term stations: CR-28.2 in the upper watershed just upstream of Lake Betsy and CR-10.5 in the lower watershed, downstream of Clearwater Lake. Warner Creek was also monitored near its inflow to Clearwater Lake at WR-0.2. The inlet and outlet of Union Lake were also monitored.

Eight lakes were monitored by CRWD including Lake Augusta, Betsy Lake, Clearwater Lake East, Lake Louisa, Otter Lake, Pleasant Lake, School Section Lake, and Union Lake.

Citizen Precipitation Recorders (CPRs) collecting precipitation data in Watkins and Annandale comprise the precipitation records. Citizen volunteers also collected Secchi depths for nine CRWD lakes.

Continuous stream flow was measured by the MPCA on the Clearwater River at Fairhaven and CSAH 40, and the provisional for the Fairhaven station is reported.

Additional monitoring was also conducted in the Cedar Lake subwatershed in 2007. Samples were collected from four lakes, including Albion Lake, Cedar Lake, Henshaw Lake, and Swartout Lake. Samples were also collected from eight tributary streams in the subwatershed.

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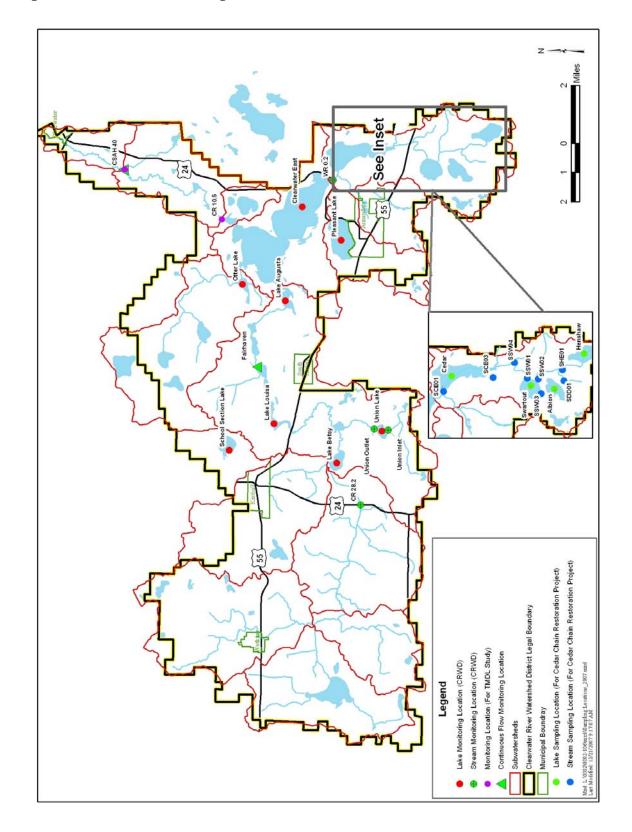
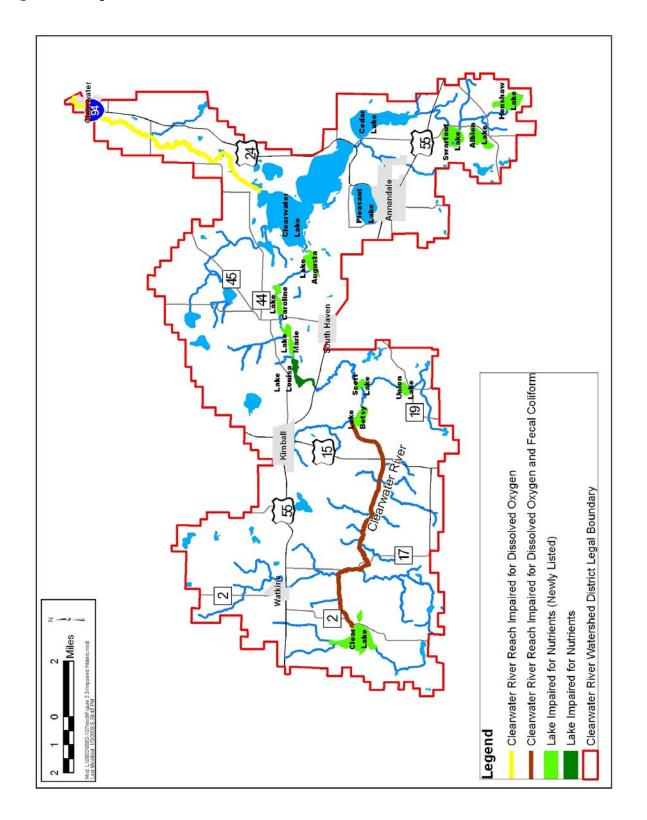


Figure 1.1 2007 Monitoring Locations



2.0 Precipitation

Precipitation during 2007 was below normal overall, but was above normal during February, March, August, September, October, and December. Table 2.1 and Figures 2.1-2.3 show the precipitation records for the CRWD (Appendix D).

Table 2.1	Clearwater River Watershed District 2007 Precipitation Records and Normals
	(inches)

	2007 St. Cloud (Saint Cloud WSO Airport)	2007 Collegeville St. Johns	1971-2000 Normal (St. Cloud)	2007 Watkins (Meeker)*	1971-2000 Normal (Litchfield)	2007 Annandale/ Corinna (Wright)	1971-2000 Normal (Cokato)
January	0.16	0.25	0.76	0.18	0.79	0.39	0.93
February	1.42	1.71	0.59	1.97	0.67	0.69	0.70
March	3.33	3.84	1.50	3.14	1.55	2.29	1.69
April	1.69	2.7	2.13	2.07	2.35	1.78	2.33
Мау	1.3	1.79	2.97	1.04	3.37	2.37	3.30
June	2.92	2.05	4.51	1.96	4.89	2.29	4.62
July	1.63	1.17	3.34	3.23	4.02	1.84	4.04
August	4.14	6.1	3.93	4.65	3.67	4.97	4.00
September	4.1	3.22	2.93	3.74	2.92	5.20	2.78
October	4.11	5.2	2.24	3.76	2.15	4.79	2.23
November	0.01	0.03	1.54	0.00	1.50	0.02	1.73
December	1.01	1.35	0.69	0.84	0.68	1.19	0.71
Total	25.82	29.41	27.13	26.58	28.56	27.82	29.06

Figure 2.12007 St. Cloud and Collegeville Precipitation Records, and NormalPrecipitation Record (inches)

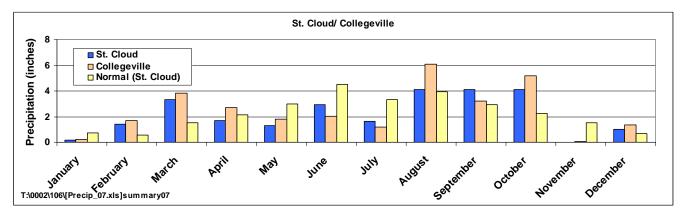


Figure 2.2 2007 Watkins Citizen Precipitation Record and Normal Precipitation Record (inches)

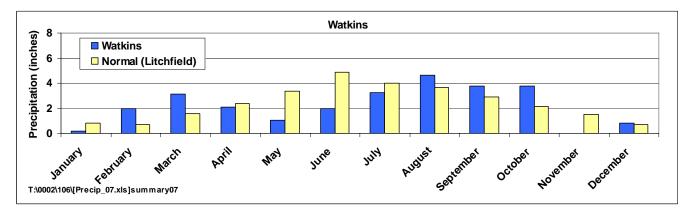
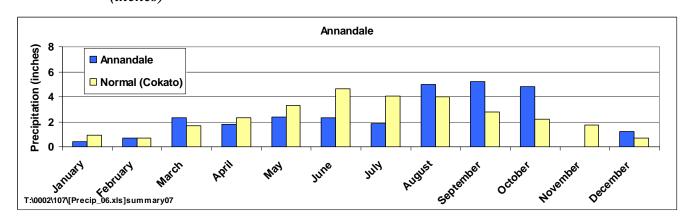


Figure 2.3 2006 Annandale Citizen Precipitation Record and Normal Precipitation Record (inches)

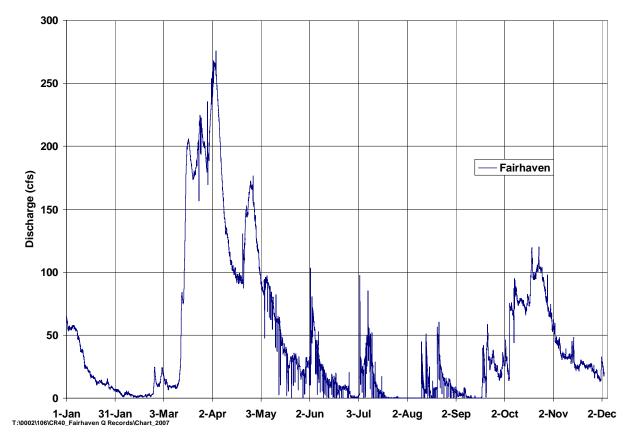


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3.1 RUNOFF AND DISCHARGE

In 2007, the MPCA maintained continuous stage recorders on the Clearwater River at the Fairhaven Dam, located at the outlet of Lake Marie near the center of the watershed, and at the Clearwater River at CSAH 40 at the downstream end of the watershed (Figure 1.1). Figure 3.1 shows the provisional flow record for the Fairhaven Dam; the complete flow record for CSAH 40 was not available at the time of this report.





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Runoff over the upper watershed was 1.0 inch at CR 28.2. Runoff may have been under predicted at CR 28.2, since monitoring is weighted towards summer (April-July), which was drier than normal in 2007. Runoff was 6.2 inches at Fairhaven Dam in the center of the watershed, 3.0 inches at CR10.5, and 4.8 inches at CSAH 40 at the downstream end of the watershed. It is likely that the runoff at Fairhaven Dam (6.2 inches) is high compared to the runoff at CR10.5 (3.5) and CSAH 40 (4.8 inches) due to the storage in the lakes between the two stations.

Average flows at the Fairhaven Dam, CR10.5 and CSAH 40 were 41cfs, 34 cfs and 50 cfs respectively. Table 3.1 summarizes the runoff volumes and average flows for the automated stations, and Figure 3.2 compares the long-term precipitation to runoff for the CRWD as recorded at CR 10.5.

	2007							
Station/ Location	Tributary Sub- watershed Area (acres)	Runoff Volume (ac-ft)	Runoff Over Watershed (inches)	Average Flow (cfs)				
CR28.2*	33,977	2,726	1.0	5				
Fairhaven Dam	58,291	29,972	6.2	41				
CR10.5	99,200	24,707	3.0	34				
CR 40	105,272	42,210	4.8	50				

Table 3.12007 Runoff Volume and Average Flow

T:\0002\106\CR40_Fairhaven Q Records Summary Tables

*Runoff at CR28.2 was likely under predicted due to below average precipitation during the monitoring period in 2007.

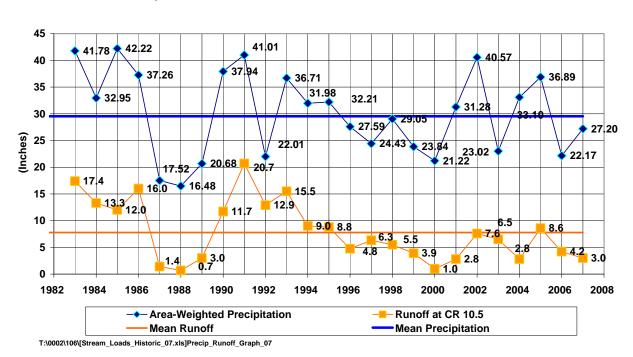


Figure 3.2 Clearwater River Watershed District, Historical Precipitation and Runoff (At CR 10.5)

Table 3.2 compares historic annual precipitation and runoff in the CRWD calculated using discrete flow measurements collected at CR 10.5 as part of the TMDL project. Supplemental information from the CSAH 40 station maintained by the MPCA was used to determine the period during which the Clearwater River was flowing during 2007.

Year	Watkins		Kingston		Maine Prairie		Annandale/ Corinna		Area-Weighted Precipitation Average		Runoff (inches)
1981									19.76	(1)	3.6
1982									24.58	(1)	6.8
1983	46.54				42.32		35.02		41.78		17.4
1984	32.23		30.13		32.37		36.07		32.95		13.3
1985	40.72		39.49		45.28				42.22		12.0
1986	40.02		35.63		39.68		33.40		37.26		16.0
1987	18.97		15.40		19.41		16.16		17.52		1.4
1988	16.57		18.98		15.96		15.01		16.48		0.7
1989	22.13		22.68		21.80		16.96		20.68		3.0
1990	40.35		39.18		41.36		32.18		37.94		11.7
1991	41.30		45.11		43.41		36.28		41.01		20.7
1992	23.06		18.41		20.47		24.35		22.01		12.9
1993	40.17		35.27	(2)	37.54	(2)	33.33		36.71		15.5
1994	34.77				30.13		30.26		31.98		9.0
1995	33.80				33.65		28.66		32.21		8.8
1996	31.31				24.32	(2)	26.13	(2)	27.59		4.8
1997	24.18				21.90		27.37		24.43		6.3
1998	30.03				29.39		27.43	(2)	29.05		5.5
1999	22.08				22.31	(2)	27.71		23.84		3.9
2000	23.83				20.56		19.91		21.22		1.0
2001	31.00				33.56		29.57		31.28		2.8
2002	37.50				40.27		44.72		40.57		7.6
2003	22.63				21.34		26.77	(2)	23.02		6.5
2004	33.58				33.58		31.67		33.10		2.8
2005	32.30	(2)					41.47		36.89	(4)	7.1
2006	22.59						24.15		23.37		4.2
2007	26.58						27.82		27.20		3.5
							M	ean	29.59		7.7
							Std. D	ev.	8.1		5.4

Table 3.2Historic Annual Precipitation and Runoff Volume at CR 10.5

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Table 3.2 Notes: Whole watershed runoff is based on time-weighted average flow at Clearwater Lake outlet (station CR 10.5), and total drainage area of 155 square miles.

1. Data for single gauge in east-central part of watershed (Camp Heritage on Lake Caroline).

2. Average values of other stations in CRWD were used to fill in missing data.

3. Location of Watkins Station changed slightly

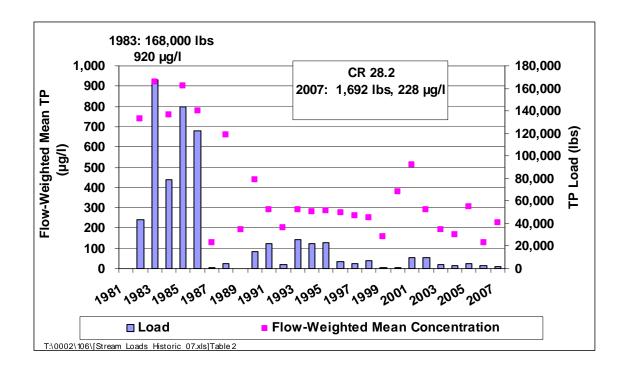
4. Calculated using continuous flow data from MPCA at CSAH 40

3.2 WATER QUALITY

Baseline total phosphorus (TP) concentrations in the Clearwater River remain low as compared with conditions monitored in the early 1980s. Flow-weighted mean total phosphorus concentrations at CR 28.2, just upstream of Lake Betsy, ranged from 740 to 920 µg/l in the early 1980s but were 228 µg/l in 2007. The TP load at CR 28.2 in 2007 was 1,692 lbs. Although

there has been some fluctuation in recent years, TP concentrations at CR 28.2 have been declining overall. Figure 3.3 shows the historical phosphorus load at CR 28.2.

Figure 3.3 Historical Total Phosphorus Loading and Mean Concentration at CR 28.2



Flow-weighted mean TP concentrations at CR-10.5 and WR-0.2 were 31 μ g/l and 64 μ g/l respectively. Total phosphorus loads were 2,057 lbs at CR 10.5 and 76 lbs at WR 0.2, well below historic levels (Figures 3.4 and 3.5). TP concentrations have been declining and have remained stable at both CR 10.5 and WR 0.2 since the early 1990s.

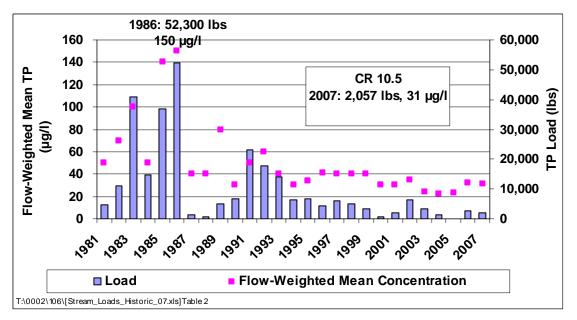
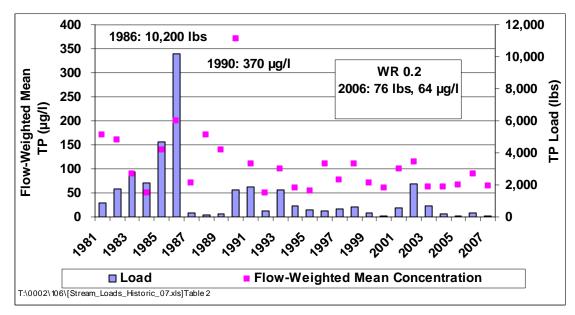


Figure 3.4 Historical Total Phosphorus Loading and Mean Concentration at CR 10.5

Figure 3.5 Historical Total Phosphorus Loading and Mean Concentration at WR-0.2



Soluble reactive phosphorus (SRP) (dissolved form of phosphorus easily utilized by algae) was also monitored. At CR 28.2, SRP was between 9% and 75% of the total fraction, with the highest ratio of 75% occurring in early summer. SRP was below the detection limit and therefore represented a very low percentage of the total phosphorus at CR 10.5 for all but one

event in July for which the ratio was 81%. The ratio at station WR 0.2 ranged from 38% to 66% increasing in the late summer and early fall. These values are higher than observed historically, likely due to low flow in 2007. The values potentially indicate the export of soluble phosphorus from wetlands in the upper watershed.

Appendix B shows historical phosphorus loads, stream flows, and flow-weighted mean concentrations.

4.1 REGULAR MONITORING

CRWD lakes are sampled on a rotating basis. Lake Augusta, Lake Betsy, Clearwater Lake, Lake Louisa, Otter Lake, Pleasant Lake, School Section, and Union Lake were each sampled four times from June to September in 2007. Albion Lake, Cedar Lake, Henshaw Lake, and Swartout Lake were also sampled four times each as part of the monitoring performed in the Cedar Lake subwatershed. Parameters analyzed include total phosphorus, soluble reactive phosphorus, chlorophyll-a, and a field reading of secchi depth. Lake profiles of lake water temperature and dissolved oxygen were also collected.

Water quality of the lakes monitored in 2007 was generally comparable to monitoring in recent years. Summer average (June 1-September 30) values were compared with the MCPA eutrophication standards for phosphorus, chlorophyll-a, and Secchi disk depth, based on ecoregion and lake type. The MPCA uses separate standards for shallow (less than 15 foot maximum depth or 80% of lake area less than 15 feet deep) and deep lakes (greater than 15 foot maximum depth). The appropriate standards for lakes monitored in the CRWD, which is in the North Central Hardwood Forest ecoregion, are shown in Table 4.1.

Table 4.1 MPCA Standards for Lakes in the North Central Hardwood Forest Ecoregion

	Total Phosphorus	Chlorophyll-a	Secchi Depth					
Lake Category	μg/L	μg/L	meters (not less than)					
Shallow Lakes	60	20	1					
Deep Lakes	40	14	1.4					
Source: Minnesota Pollution Control Agency								

Figures 4.1 and 4.2 compare the average total phosphorus concentrations in lakes sampled in 2007 to the MPCA phosphorus standard.

Figure 4.1 2007 Summer Average Total In-Lake Phosphorus Concentrations (Deep Lakes)

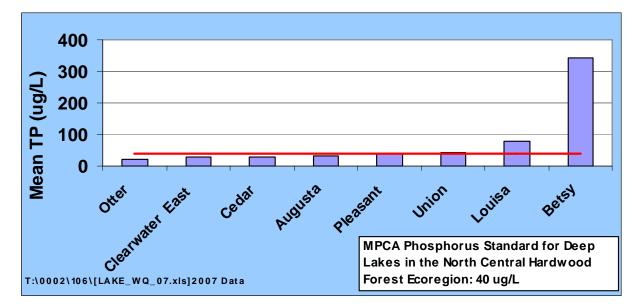


Figure 4.2 2007 Summer Average Total In-Lake Phosphorus Concentrations (Shallow Lakes)

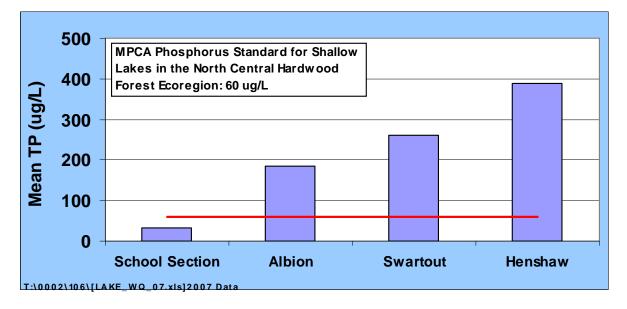
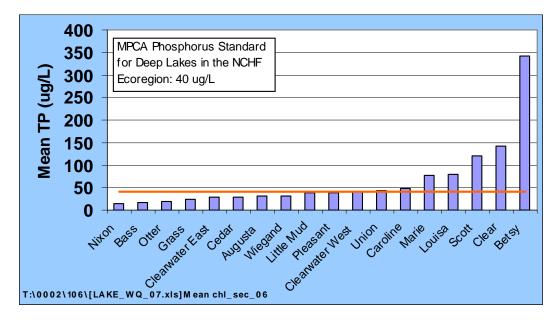


Figure 4.3 compares the most recent average total phosphorus concentration to the standard for deep lakes. Since all four shallow lakes monitored by the CRWD were monitored in 2007, Figure 4.2 compares the average total phosphorus concentration to the standard for shallow

lakes. Based on the most recent monitoring data for each lake, Union, Caroline, Marie, Louisa, Scott, Clear, Betsy, Albion, Swartout, and Henshaw Lakes are impaired for total phosphorus.

Figure 4.3 Summer Average Total In-Lake Phosphorus Concentrations Most Recent Monitoring Data (Deep Lakes)



Figures 4.4 and 4.5 compare the most recent summer average chlorophyll-a concentration for all CRWD lakes to the appropriate chlorophyll standard. The most recent average chlorophyll-a concentrations in Augusta, Clearwater West, Caroline, Clear, Scott, Betsy, Marie, Louisa, Albion, Swartout, and Henshaw Lakes are above the standard for chlorophyll-a.

Figure 4.4 Summer Average Chlorophyll-a Concentrations, Most Recent Monitoring Data (Deep Lakes)

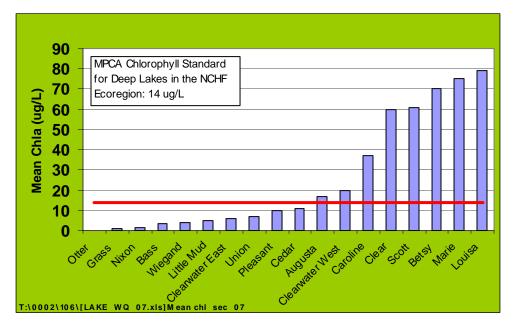
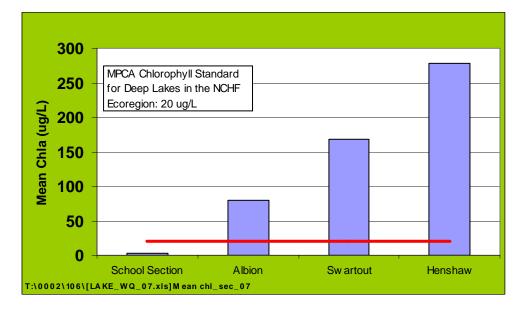


Figure 4.5 Summer Average Chlorophyll-a Concentration, s Most Recent Monitoring Data (Shallow Lakes)



Figures 4.6 and 4.7 compare the most recent average Secchi disk depth for all CRWD lakes to the appropriate Secchi standard. The most recent average Secchi depths demonstrate that Bass, Louisa, Clear, Scott, Betsy, Swartout, and Henshaw Lakes are below the Secchi depth standard.

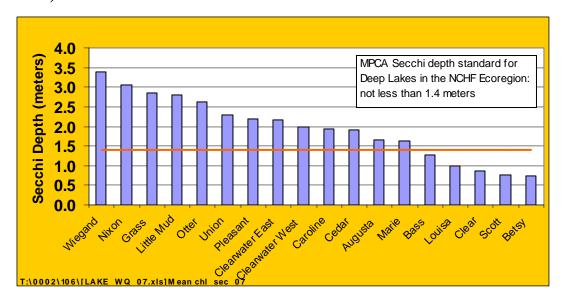
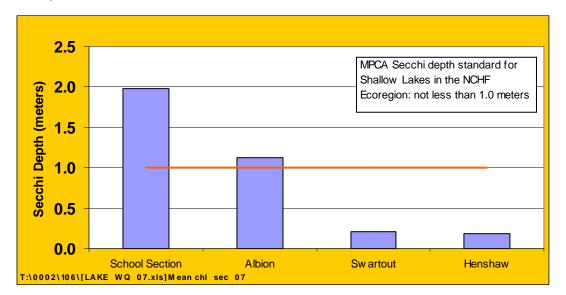


Figure 4.6 Summer Average In-Lake Secchi Depth, Most Recent Monitoring Data (Deep Lakes)

Figure 4.7 Summer Average In-Lake Secchi Depth, Most Recent Monitoring Data (Shallow Lakes)



The Carlson Trophic Status Index (TSI), or level of nutrient enrichment in a lake, was calculated for lakes monitored in 2007 (Table 4.2). Otter Lake is mesotrophic based on the TSI. Additionally, School Section Lake and Clearwater Lake are on the high end of mesotrophy. Union, Pleasant, Augusta, Cedar, Louisa, and Albion are considered eutrophic, and Betsy, Swartout, and Henshaw are all hypereutrophic.

Lake	Avg TSI	TP TSI	Chla-a TSI	Secchi	TSI Based
Lake	Avy 15	16 191		TSI	Classification
Otter	36	47	15	46	Mesotrophic
School Section	49	54	41	50	Mesotrophic
Clearwater East	50	52	48	49	Mesotrophic
Union	52	58	49	48	Eutrophic
Pleasant	53	57	53	49	Eutrophic
Cedar	53	52	54	52	Eutrophic
Augusta	55	54	58	53	Eutrophic
Louisa	66	67	74	59	Eutrophic
Albion	70	79	73	58	Eutrophic
Betsy	75	88	72	65	Hypereutrophic
Swartout	83	84	81	83	Hypereutrophic
Henshaw	87	90	86	85	Hypereutrophic

Table 4.2 2007 Trophic Status Index

T:\0002\106\[LAKE_WQ_07.xls]2007 Data

Water quality observed in most lakes monitored during 2007 (Table 4.3) is within ranges seen in recent years. However, phosphorus levels in Lake Betsy, Pleasant Lake, and Lake Louisa showed a slight increase from the most recent year that each lake was monitored. Although the 2007 average phosphorus concentrations were higher than the last time each of these three lakes was monitored, the average phosphorus concentrations were still in the range of average phosphorus concentrations in recent years.

Overall, based on the most recent monitoring data for all lakes within CRWD, water quality is generally good. Table 4.4 compares CRWD lakes to MPCA impairment standards.

Table 4.32007 Mean In-Lake Total Phosphorus, Chlorophyll-a, and Secchi Depth, andHistorical Ranges

	Total Phosp	horus ug/l	<u>Chloroph</u>	<u>yll-a ug/l</u>	<u>Secchi Depth</u>	(meters)
LAKE	2007 Mean	Historical Range Mean	2007 Mean	Historical Range Mean	2007 Mean	Historical Range Mean
Albion	186	130-296	79	60-204	1.1	0.5-1.2
Augusta	31	28-300	17	4-73	1.6	1.1-1.9
Betsy	343	120-700	70	4-170	0.7	0.5-2.4
Cedar	29	26-58	11	3-20	1.7	1.1-3.0
Clearwater East	28	23-130	6	3-85	2.2	1.2-3.0
Henshaw	390	150-390	278	53-278	0.2	0.2-0.9
Louisa	79	33-440	79	4-101	1.1	0.6-1.5
Otter	20	13-34	1	1-8	2.6	1.9-3.0
Pleasant	39	15-51	10	4-12	2.2	2.0-3.0
School Section	33	21-50	3	3-14	2.0	1.0-2.2
Swartout	262	200-421	168	144-444	0.2	0.2-1.0
Union	43	31-88	7	7-39	2.3	1.0-2.3

T:\0002\106\[mean in lake_tp_chla_secchi_07.xls]Table

	Last		
	Last		
Lake	Monitored		Use
Albion	2007	Increasing P	Impaired
Augusta	2007	Recent Flat P Trend	Full Use
Bass	2006	Slightly Increasing P	Full Use
Betsy	2007	Flat P Trend	Impaired
Caroline	2007	Recent Flat P Trend	Impaired
Cedar	2006	Increasing P	Full Use
Clear	2006	Increasing P	Impaired
Clearwater East	2007	Decreasing P Trend	Full Use
Clearwater West	2006	Decreasing P Trend	Full Use
Grass	2003	Decreasing P Trend	Full Use
Henshaw	2007	Increasing P	Impaired
Little Mud	2006	Decreasing P Trend	Full Use
Louisa	2007	Recent Flat P Trend	Impaired
Marie	2006	Recent Flat P Trend	Impaired
Nixon	2004	Decreasing P Trend	Full Use
Otter	2007	Flat P Trend	Full Use
Pleasant	2007	Flat P Trend	Full Use
School Section	2007	Flat P Trend	Full Use
Scott	2006	Flat P Trend	Impaired
Swartout	2007	Slightly Increasing P	Impaired
Union	2007	Flat P Trend	Impaired
	2005	Decreasing P Trend	Full Use

Table 4.4Lake Trend and Impairment Summary

T:\0002\106\[LAKE_WQ_07.xls]Summary

Historical lake data and trends are in Appendix C. Citizen Secchi depths are in Appendix E. Water quality lab reports are in Appendix F, and field notes are in Appendix G.

4.2 SUPPLEMENTAL MONITORING

In addition to the 2007 regular monitoring program, supplemental monitoring was conducted as part of the Cedar Lake Restoration Project, and at the request of Bass Lake landowners. This monitoring is discussed in the sections below.

4.2.1 Cedar Chain of Lakes Restoration

The Cedar Chain of Lakes Restoration project was started in 2007 in response to a petition by lake shore residents to address the declining water quality and severe algae blooms in Cedar Lake. The primary phosphorus source to Cedar Lake is phosphorus export from the upper watersheds routed through upper watershed lakes. The primary phosphorus source to the upper watershed lakes is internal cycling of phosphorus.

To reduce the phosphorus concentrations in Cedar Lake it is necessary to reduce the nutrient load from the upper watershed, and to reduce the in-lake concentrations in the upper watershed lakes: Lake Albion, Swartout Lake and Henshaw Lake.

Several alternatives were considered, and in 2007 BMPs were implemented to reduce the phosphorus load to Cedar Lake. Part of the restoration project includes on-going monitoring of progress. The restoration efforts, monitoring, and results are discussed below.

4.2.1.1 BMPs Implemented

BMPs implemented in 2007 included installation of rough fish barriers, a wetland treatment basin, buffers, and tile inlet replacements. The locations of these improvement projects are shown on Figure 4.8.

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Three fish barriers were installed during early spring 2007 on the Cedar Lake inlet upstream of Highway 55, and at the Swartout Lake and Henshaw Lake outlets to prevent rough fish migration. Photos of these barriers are shown in Figure 4.9.

Effective rough fish population management would likely result in a significant reduction in the internal loading in upstream watershed lakes, and a decrease in nutrient loading to watershed lakes.

Figure 4.8 Cedar Lake Subwatershed Improvement Project Locations

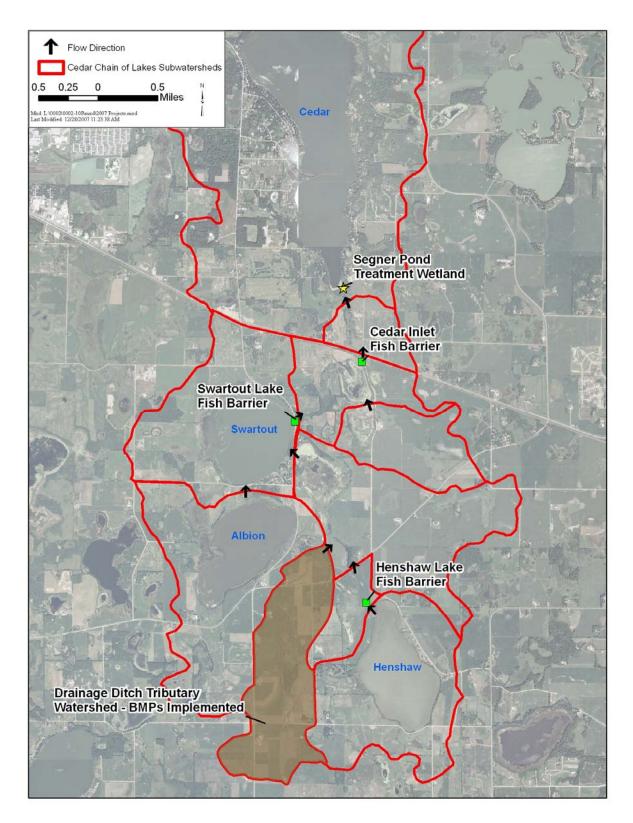


Figure 4.9 Photographs of Fish Barriers



Henshaw Lake Fish Barrier



Swartout Lake Fish Barrier



Cedar Lake Inlet Fish Barrier

Construction began on the Segner Pond treatment wetland on the Cedar Lake inlet just upstream of Cedar Lake in December 2007. When complete, the treatment wetland will consist of a 2.9 acre sedimentation basin with a limestone treatment filter. A stream diversion will route stream flow to the sedimentation basin to remove particulate phosphorus from the inflow to Cedar Lake. The limestone treatment filter will further reduce the phosphorus load to Cedar Lake by removing dissolved phosphorus from the inflow. As the water flows through the limestone filter, the phosphate component in the phosphorus comes in contact with the calcium in the limestone. The phosphate binds to the calcium and is essentially removed from the water. Adding the limestone filter to target the soluble portion of the phosphorus load to Cedar Lake increases the phosphorus removal goal from 50-60%, to about 70-80%.

Watershed best management practices (BMPs) have been implemented in the drainage ditch tributary to Swartout Lake that crosses CR 37 and runs between CR 6 and Iresfeld Ave NW. The BMPs include the buffering of five tile intakes for a three year period, 14 acres of alfalfa buffer for one year, and 132 acres of soybean stubble buffer for one year.

The goal of these measures is to reduce the phosphorus load to the upper watershed lakes and ultimately, Cedar Lake. The measures that are taken on the upper watershed lakes will not only improve the quality of Albion, Henshaw, and Swartout Lakes, but Cedar Lake and lakes farther downstream as well.

4.2.1.2 2007 Monitoring

Cedar Lake, Swartout Lake, Albion Lake, and Henshaw Lake were sampled four times by the CRWD in 2007. Additionally, eight tributary streams were sampled while they were flowing in April-June. The sampling locations are shown on Figure 1-1.

Cedar Lake was also sampled eight times from May to September in 2007 by a lake resident as part of a volunteer lake monitoring program. As shown in Table 4.5, the 2007

average total phosphorus and chlorophyll-a concentrations, and Secchi depth were very similar from both monitoring programs.

	Date	Total Phosphorus (ug/L)	Chlorophyll-a (ug/L)	Secchi Depth (m)
	5/25/2007	18		3.5
	6/29/2007	45	11	0.9
	7/27/2007	20	9	0.9
CRWD Sampling	8/24/2007	31	14	1.5
Results	2007 Average	29	11	1.7
	5/19/2007	26	6	5.2
	6/3/2007	37	21	2.1
	6/17/2007	28	16	1.4
	7/1/2007	34	9	1.1
	7/15/2007	20	4	1.7
	8/19/2007	20	14	1.4
	9/4/2007	19	8	1.4
Volunteer Lake	9/16/2007	21	8	2.0
Sampling Results	2007 Average	26	11	2.0

Table 4.5 2007 Cedar Lake Monitoring Data

T:\0002\106\Cedar_2007 Comparison\Table

Average surface total phosphorus levels were above the MPCA standard in Albion, Henshaw, and Swartout Lakes as shown in Figures 4.1 and 4.2. The average total phosphorus level in Cedar Lake was below the MPCA standard in 2007.

Average chlorophyll-a concentrations were above the MPCA standard in Albion, Swartout, and Henshaw Lakes as shown in Figures 4.4 and 4.5. Average Secchi depth violated the MPCA standard in Henshaw and Swartout Lakes as demonstrated in Figures 4.6 and 4.7.

Samples were also collected near the bottom of each the four lakes. Figure 4.10 shows that concentrations of both total and soluble reactive phosphorus were very similar at both the surface and near bottom in Albion, Henshaw, and Swartout Lakes. This data, along with temperature profile data collected at each lake, demonstrates that these lakes do not stratify and remain mixed throughout most of the summer. This allows for internal loading of phosphorus from the lake sediments.

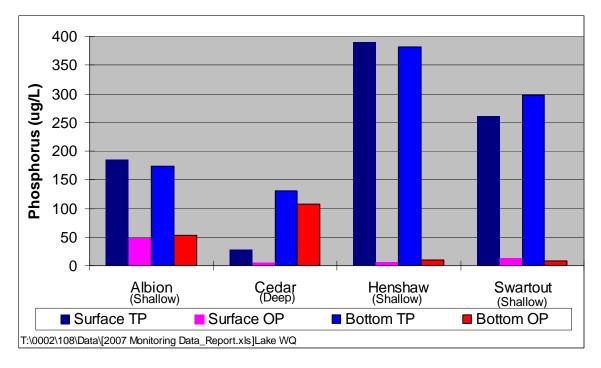


Figure 4.10 Phosphorus Concentrations in Cedar Lake Subwatershed Lakes

Eight tributary streams in the Cedar Lake subwatershed were also monitored in 2007. Overall, stream flow was lower than normal in these tributaries due to below normal precipitation during the summer of 2007. The majority of the tributaries were flowing from April to June, and then did not flow again until significant precipitation events occurred in September and October. Total phosphorus concentrations were similar or slightly higher at these monitoring locations than during previous years. However, as a result of the below normal stream flow for most of the summer, total external phosphorus loading to Cedar Lake and the other upper watershed lakes was lower than normal in 2007. The approximate phosphorus loads at each sampling point are shown on Figure 4.11.

The annual total phosphorus loading to each lake was also calculated using a Canfield-Bachman model. A summary of the total phosphorus load to each lake and an estimate of the internal load is shown in Table 4.6. As indicated by the phosphorus loading to each lake, internal loading makes up nearly the entire phosphorus load to Swartout, Albion, and Henshaw Lakes. This helps to explain the poor water quality of these lakes in a year with below average precipitation and little runoff over the watershed.

					Estimated Internal
	Watershed	Estimated	Measured	Estmated Canfield-	Load as
	Runoff	External TP	External TP	Bachmann Annual	Percentage of
Lake	[inches]	Load [lbs]	Loads [lbs/yr]	TP Load [lbs]	Annual Load
Cedar	2	734	998	1300	0%
Swartout	2	406	399	6000	93%
Albion	2	77		1600	95%
Henshaw	2	57		4000	99%

Table 4.6-Cedar Lake Subwatershed Lakes Phosphorus Loading

T:\0002\106\[CB_Analysis_Swartout.xls]Table 4

Historical total phosphorus and chlorophyll-a concentrations, along with Secchi depth readings for Cedar, Swartout, Albion and Henshaw Lakes are shown in Appendix C. Overall, total phosphorus concentration trends have been increasing on all four of the lakes that were monitored in the Cedar Lake subwatershed.

Although total phosphorus levels decreased slightly on Swartout and Albion lakes since the lakes were last monitored, phosphorus levels remain well above the MPCA standard. Total phosphorus levels increased on Henshaw Lake in 2007 and were above the water quality standard as well.

In 2007, total phosphorus levels decreased on Cedar Lake in comparison to recent years, and the average phosphorus concentration of 29 ug/L was below the water quality standard for total phosphorus in deep lakes of 40 ug/L. The external load of phosphorus to the lake of approximately 1,000 lbs was also below normal in 2007 likely due mostly to below normal runoff and precipitation. A previous study conducted as part of the Engineers Report for the Cedar, Albion, Swartout, Henshaw Improvement Project indicated that a total phosphorus load to Cedar Lake of 1,000 lbs per year or less was needed to maintain in-lake phosphorus concentrations below the water quality standard. The decrease in average phosphorus concentration that coincided with the reduced load to the lake indicates that the water quality of Cedar Lake will respond favorably to a total

phosphorus load reduction. The goal of the projects implemented in the Cedar Chain of Lakes subwatershed is to maintain an annual external load of phosphorus of 1,000 lbs per year during normal and above normal precipitation years as well.

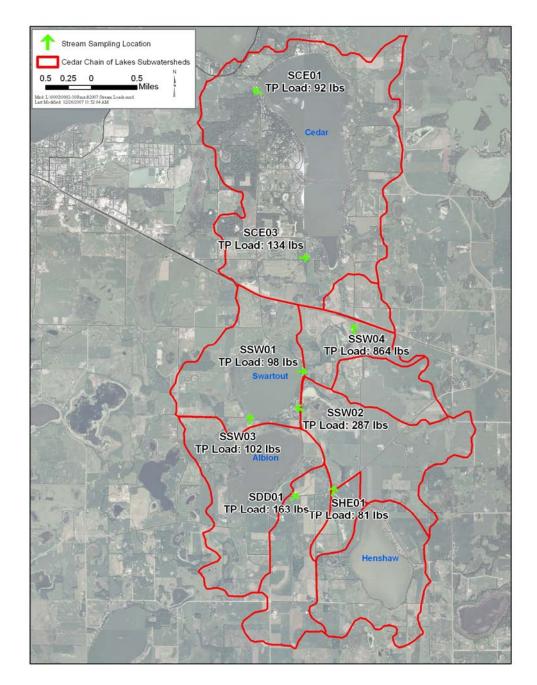


Figure 4.11 Phosphorus Loading at Tributary Stream Sampling Locations

4.2.2 Bass Lake

In response to concerns about an apparent decline in the water quality in Bass Lake, the CRWD proposed to conduct water quality monitoring after precipitation events at locations around the lake in 2007. Although there are no channelized inflows to Bass Lake, there are several points around the lake where runoff from the lake's direct watershed flows into the lake following significant precipitation events.

Since the flow duration is very short and occurs only during significant precipitation events, the CRWD enlisted a lake resident to collect water quality samples. The volunteer was unable to collect samples during the 2007 monitoring season due to the short duration of flow and lack of concentration of the flow.

5.0 Conclusions

- 1. Area weighted annual precipitation was 27.20 inches in 2007, 2.39 inches below the mean.
- 2. Continuous flow measurements recorded at Fairhaven Dam near the center of the watershed show that runoff over the watershed was 6.2 inches, while the calculated runoff at CR 10.5 was 3.0 inches, both below the annual mean of 7.9 inches.
- 3. The Clearwater River phosphorus load was about 2,057 pounds at CR-10.5. This is low compared with historical averages. The upper watershed load was similar to those measured in the recent past for similar runoff conditions, 1,692 pounds at CR 28.2, well below the established phosphorus-loading goal of 5,000 pounds for Clearwater Lake.
- 4. The water quality of CRWD lakes is generally good, most lakes are considered full use based on MPCA nutrient criteria. Some lakes experienced an increase in total phosphorus concentrations in 2007, even though precipitation and runoff were lower than normal in 2007. The CRWD will continue to pay special attention to evaluating the water quality in Clear Lake, Lake Betsy, and Bass Lake in upcoming years.
- 5. Water quality in Cedar Lake was better than it was in 2006, likely due to a decrease in the external load of phosphorus to the lake. Although precipitation and runoff were lower than normal in 2007, the water quality in the upper watershed lakes in this subwatershed continued to decline. The 2007 monitoring results confirm that water quality in Cedar Lake is driven by external phosphorus loads from the upper watershed lakes. The 2007 monitoring results also confirm that water quality in Albion, Swartout, and Henshaw lakes is driven by internal loading of phosphorus.

2007 Water Quality Monitoring Program

DRAFT MEMORANDUM

TO:	Clearwater River Watershed District Board of Managers
FROM:	Norman C. Wenck Engineer for the District
DATE:	February 11, 2007
RE:	Proposed 2007 Water Quality Monitoring Program

Introduction

The Clearwater River Watershed District conducts annual water quality monitoring at selected lakes and selected locations on streams. The District's proposed 2007 program is intended to provide data throughout the District. Three TMDL studies, currently underway, will focus on the impaired waters. Phase II of the TMDL study (data collection) will continue in 2007.

The 2007 proposed lake monitoring follows the long-term plan shown in Table 1. The proposed stream monitoring sites together with laboratory and field parameters are shown in Table 2.

Lake Monitoring

The District 2007 regular lake monitoring includes Clearwater Lake East, Lake Augusta, Lake Louisa, Lake Betsy, Pleasant Lake, School Section Lake and Otter Lake. The Clearwater River below Grass Lake will also be monitored under the TMDL Grant. The proposed stations and the parameters to be monitored are shown on Table 2. Citizens also monitor approximately 10 lakes for secchi depth. The Cedar Lake watershed and its upper watershed lakes will be monitored under a special program as part of the Cedar, Albion, Swartout, Henshaw Improvement Project No 06-1.

Stream Monitoring

The Clearwater River will be monitored at station CR28.2. Warner Creek will be monitored at WR 0.2. These stations will be monitored six times for water quality and flow. Parameters are total phosphorus and soluble reactive phosphorus.

Bass Lake

Several (5) run-in points to Bass Lake have been identified and will be sampled and analyzed during three storm events in 2007. No flow occurred for this proposed sampling during 2006.

Estimated Cost

This proposed basic program is estimated to cost \$19,700.

Summary

The proposed monitoring program continues the program in place since 1981, coordinates with other programs, and reflects input from the Board and citizens. Please feel free to call me at 763-479-4201 or Rebecca Kluckhohn at 763-479-4224 with any questions or comments that you may have.

LAKE STATIONS ⁽¹⁾	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
Clearwater Lake:														
Clearwater East	Х	Х	Х	Х	Х	Х	Х	Х	DNR		Х		Х	
Clearwater West	Х	Х	Х	Х	Х	Х	Х	Х	DNR	Х		Х		Х
Main Stem Lakes:														
Augusta	Х		Х		Х		Х		DNR		Х		Х	
Louisa	Х		Х		Х		Х		TMDL/ DNR	TMDL	Х		Х	
Caroline		Х				Х		Х	DNR	Х		Х		Х
Scott		Х	Х			Х		Х		Х		Х		Х
Marie		Х		Х		Х		Х	DNR	Х		Х		Х
Betsy	Х		Х		Х		Х		Х		Х		Х	
Other Lakes:														
Cedar			Х		Х		Х	Х	Х	Х		Х		Х
Pleasant	Х		Х	Х				Х	MPCA		Х			Х
School Section	Х		Х	Х				Х			Х			Х
Nixon	Х		Х		Х			Х			Х			Х
Otter	Х		Х		Х			Х			Х			Х
Bass		Х	Х		Х				MPCA/ DNR	Х			Х	
Clear		Х	Х	Х			Х		х			Х		
Union		Х	Х			Х			MPCA			Х		
Henshaw		Х	Х			Х			Х		Х			
Little Mud			Х			Х				Х			Х	
Wiegand			Х			Х			Х				Х	
Swartout			Х				Х		Х	Х			Х	
Albion			Х				Х		Х	Х			Х	
Grass			Х				Х		DNR			Х		
Number of Lakes														
Monitored W/														
CRWD Funding	9	9	20	6	9	9	10	10	7	10	9	8	9	9

TABLE 1 PROPOSED LONG-TERM WATER QUALITY MONITORING PLAN FOR CRWD LAKES

Note:

⁽¹⁾Lake selection based on total lake size ranking scores (Lake Priority Ranking, 1990)

Category	2007 Schedule	Station	Parameters
Lakes:	May 15 -16	The CRWD will monitor Clearwater (East), Augusta, Louisa, Betsy, Grass, Pleasant, School Section, and Otter	Field: Secchi depth, DO and temperature profiles
	June 19 - 20	Cedar, Albion, Swartout, and Hensaw Lakes will be monitored under Project No. 06-1	Lab: surface samples only for total phosphorus, soluble reactive phosphorus, chlorophyll-a
	Jul 24 - 25		
	Aug 28 - 29		Citizen Secchi: 10 sites not listed here
Streams:	April 10	WRO.2	Field: flows, DO and temperature
	May 1		Lab: total phosphorus, soluble reactive phosphorus, total suspended solids
		CR 28.2	
	June 5 July 10	The Clearwater River downstream of Grass Lake will be monitored through	
	August 2 September 5	the TMDL Study	
	Bi-weekly	River Stage at CR10.5(TMDL)	
Precipitation:	Daily	Watkins and Corrinna	
	3 events	Bass Lake Run in points	Tributaries Field: DO, temperature, conductivity, pH profiles; Lab: total phosphorus, soluble reactive phosphorus
Special:			Lakes Field: DO, temperature, conductivity, pH profiles; Lab: 3 profile samples for total phosphorus, soluble reactive phosphorus, iron, chlorophyll-a

TABLE 2 Proposed 2007 CRWD Monitoring Plan Summary

Historical Mean Flow and Phosphorus Loading

APPENDIX B Historical Mean Flow and Phosphorus Loading

Clearwater River Watershed District

				Flow-Weighted Average Total Phosphorus			
Station		Average Stream		Concentration	Total Phosphorus Load		
Main Stem:	Year	(cu m/sec)	(cfs)	(mg/l)	(kg)	(lb)	
CR 28.2	1981 (1) 1981			1.400			
(Actual River	1982 (1)	0.93	32.8	0.740	19,700	43,500	
Mile 27.2)	1983	2.62	92.6	0.920	76,000	168,000	
	1984	1.49	52.6	0.760	35,700	78,800	
	1985	2.32	81.9	0.900	65,500	144,000	
	1986	3.20	113	0.780	55,200	122,000	
	1987	0.11	3.90	0.130	460	1,020	
	1988	0.09	3.12	0.660	1,850	4,080	
	1989	0.02	0.72	0.190	120	260	
	1990	0.51	18.0	0.440	7,040	15,500	
	1991 1992	1.11 0.26	39.1 9.30	0.290 0.200	10,200 1,660	22,500 3,650	
	1992	1.28	9.30 45.2	0.200	11,600	25,600	
	1993	1.28	41.2	0.290	10,100	22,300	
	1995	1.17	40.4	0.288	10,100	22,900	
	1996	0.33	11.7	0.274	2,860	6,300	
	1997	0.27	9.36	0.260	2,170	4,790	
	1998	0.41	14.4	0.250	3,190	7,020	
	1999	0.08	2.78	0.160	400	870	
	2000	0.02	0.72	0.380	240	530	
	2001 (4),(5)	0.27	9.46	0.510	4,309	9,500	
	2002	0.47	16.50	0.291	4,290	9,460	
	2003	0.28	9.92	0.190	1,710	3,770	
	2004	0.48	17.04	0.166	1,248	2,751	
	2005 (6)	1.11	39.28	0.306	1,862	4,105	
	2006	0.31	11.10	0.130	1,328	2,928	
	2007	0.14	5.02	0.228	767	1,692	
CR 10.5	1981 (1)	1.15	40.6	0.050	2,060	4,550	
	1982 (1)	2.20	77.8	0.070	4,990	11,000	
	1983	5.64	199	0.100	18,500	40,800	
	1984	4.28	151	0.050	6,620	14,600	
	1985	3.88	137	0.140	16,700	36,800	
	1986	5.52	195	0.150	23,700	52,300	
	1987	0.46	16.2	0.040	600	1,320	
	1988	0.23 0.97	7.95	0.040	260	580	
	1989 1990	3.77	34.2 133	0.080 0.030	2,340 3,060	5,150 6,750	
	1990	6.68	236	0.050	10,500	23,200	
	1991	4.16	230 147	0.060	8,090	17,800	
	1992	5.01	177	0.040	6,330	14,000	
	1994	2.92	103	0.030	2,850	6,290	
	1995	2.83	100	0.034	3,040	6,710	
	1996	1.53	54.2	0.041	1,970	4,350	
	1997	2.06	72.8	0.040	2,690	5,940	
	1998	1.78	63.0	0.040	2,330	5,120	
	1999	1.25	44.1	0.040	1,520	3,350	
	2000	0.31	10.8	0.030	280	610	
	2001 (4),(5)	0.90	31.7	0.030	850	1,873	
	2002	2.46	87.0	0.035	2,950	6,500	
	2003	2.11	74.6	0.024	1,590	3,500	
	2004	1.66	58.8	0.022	639	1,409	
	2005 (6)	3.05	107.6	0.023	59	130	
	2006 (6)	1.76	62.2	0.032	1,263	2,785	
m_Loads_Historic_(2007	0.97	34.1 1/16/2008	0.031	933	2,057	

APPENDIX B Historical Mean Flow and Phosphorus Loading

Clearwater River Watershed District

2007 Annual Report

				Flow-Weighted Average Total Phosphorus		
Station		Average Stream	n Flow	Concentration	Total Phosphor	us Load
Main Stem:	Year	(cu m/sec)	(cfs)	(mg/l)	(kg)	(lb)
Tributaries:				_		
WR 0.2 (2)	1981 (1)	0.07	2.60	0.170	390	860
	1982 (1)	0.23	8.20	0.160	780	1,720
	1983	0.47	16.50	0.090	1,270	2,800
	1984	0.60	21.20	0.050	950	2,100
	1985	0.48	17.10	0.140	2,130	4,700
	1986	0.86	30.40	0.200	4,630	10,200
	1987	0.04	1.50	0.070	100	230
	1988	0.01	0.40	0.170	60	130
	1989	0.03	1.19	0.140	80	180
	1990	0.06	2.28	0.370	750	1,660
	1991	0.26	9.22	0.111	860	1,900
	1992	0.11	4.02	0.050	170	370
	1993	0.24	8.59	0.100	760	1,670
	1994	0.18	6.34	0.060	320	700
	1995	0.12	4.27	0.054	210	460
	1996	0.05	1.78	0.110	180	380
	1997	0.09	3.15	0.077	220	480
	1998	0.09	3.11	0.110	290	650
	1999	0.06	2.03	0.070	130	280
	2000 (3)	0.01	0.44	0.060	25	56
	2001 (4),(5)	0.08	2.88	0.100	257	567
	2002	0.26	9.17	0.114	930	2,060
	2003	0.16	5.79	0.062	320	710
	2004	0.07	2.6	0.063	78	172
	2005	0.58	20.6	0.066	22	48
	2006	0.06	2.1	0.090	102	224
	2007		0.9	0.064	34	76

NOTES:

Flow values are time-weighted averages unless otherwise noted.

Total phosphorus values are flow- and time-weighted averages unless otherwise noted.

- (1) Values in 1981 and 1982 are arithmetic means
- (2) Station WR 0.2 was designated Station WC 0.2 in 1981-1983
- (3) Phosphorus values in 2000 are flow-weighted and adjusted per log-log regression on flow so as to correspond to annual mean flows.
- (4) 2001 Flow and total phosphorus values are arithmetic averages.
- (5) 2001 total phosphorus loads estimated from arithmetic averages of flow and total phosphorus values.
- (6) Values in 2005 and 2006 were calculated using supplemental flow data from CSAH 40 near Clearwa

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Lake Historical Data

Summary of Historical Lake Water Quality Data Summer (June-September) Epilimnetic Means

Clearwater River Watershed District

			Secchi Disk				
	Number of	Tot Phosphore		Chlorop	hyll-a (ug/l)		arency (m)
	Samples	Mean (3)	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
ALBION							
1996	4	130	24	204	224	0.5	0.3
1990	4 4(5)	220	65	204 169	72	0.5	0.0
2003	4	199	78	117	73	1.0	
2005	4	248	182	60	44	0.8	
2006	3	296	82.28	203	82	1.2	
2007	4 _	186	83	79	107 100	1.1	0.1
Mean		213	86	139	100	0.9	0.1
<u>AUGUSTA</u>							
1981	7	260	400	25	14	1.4	0.3
1982 1983	7 7	140 300	120 90	34 4	21 3	1.4 1.8	0.6 1.0
1983	7	90	30	4	2	1.6	0.8
1985	7	120	120	23	12	1.2	0.2
1986	6	90	40	69	91	1.9	0.5
1987	7	30	10	20	12	1.3	0.3
1988	5	40	10	19	6	1.4	0.3
1989	6	80	30	26	40	1.5	0.4
1990	5	90	20	73	105	1.7	0.7
1991 1992	3 8	80 30	40 20	56 19	73 6	1.1 1.6	0.4 0.7
1992	o 4 (1)	68	20 20	42	19	1.0	0.7
1995	4 (2)	28	(4) 15	21	12	1.8	0.7
1997	4	46	(4) 13		5) 1	1.7	0.2
1999	4(6)	37	4	9	2.7	1.6	0.2
2001	2	48	6	6	0.0	1.8	0.0
2002	SWCD	84.3	15	14	22	1.9	
2003 2007	3 4	42 31	15 13	29 17	23 7	1.5 1.6	
Mean	-	87	53	27	25	1.6	0.4
BASS							
1994	4	13	(4) 14	5	0.8	3.2	0.4
1998	4	28	11	2	1.0	3.1	0.6
1999	3	22	5	3	1.4	3.1	0.7
2001	2	25	4	3	1.0	4.2	1.8
2005	9	17	4	4	1.5		
Mean	-	21	8	3	1	3.4	1
<u>BETSY</u>							
1981	7	700	190	8	5.6	2.4	1.1
1982	7	650	90	59	50	1.3	0.7
1983	7	560	270	5	4	1.1	1.3
1984	7	350	160	7	5	0.8	0.2
1985 1987	7 2	280 120	230 0	30 74	26 35	1.1 0.9	0.6 0.41
1987	4(2)	290	183	18	13	1.0	0.41
1995	4	245	105	100 (5		0.8	0.05
1999	3(8)	247	110	170	85	0.8	0.2
2001	2	420	368	4	1	0.5	0.0
2003	4	194	78	45	52.0	1.3	
2005	4	140	58	20 70	11.4	1.1	
2007	4	343	174	70	95.0	0.7	
Mean	-	349	155	45	32	1.1	0.5

Summary of Historical Lake Water Quality Data Summer (June-September) Epilimnetic Means

Clearwater River Watershed District

		Tota	1			Seco	chi Disk
	Number of	Phosphorou		Chlorop	hyll-a (ug/l)		arency (m)
	Samples	Mean (3)	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
CAROLINE							
1981	7	220	100	39	33	1.3	0.3
1982	7	260	140	54	35	1.4	0.8
1983	7	300	140	3	3	1.8	1.1
1984	7	140	50	5	2	1.3	0.3
1985	7	170	150	41	46	1.5	0.6
1987	2	50	10	46	30	1.1	0.4
1994	4	40	18	55	16	0.8	0.2
1996	4	88	33	36	12	1.2	0.2
1998	4	86	24	55	43	1.2	0.1
2001 (SCV	WD) 5	43	18	12	10	1.8	0.8
2002	,	95		45		1.6	
2003 (SCV	WD) 5	66		29		1.5	
2004	4	45	8	25	18	1.1	0.0
2006	4	47	20	37	36	1.9	
Mean	-	118	59	34	24	1.4	0
<u>CEDAR</u>							
1993	4	30	10	13	5.9	3.0	0.4
1996	4	33	8	13	6.5	2.4	0.3
1999	4	31	8	10	4.4	1.1	0.2
2001	2	26	5	6	1.0	1.8	1.4
2003	4	52	41	11	6	1.9	
2004	4	33	15	3	3	2.6	1 reading
2005	5	37	11	9	4	2.9	-
2006	4	58	40	20	18.8	2.6	
2007	4	29	12	11	68.0	1.7	
Mean	-	37	17	11	13	2.2	0.6
CLEAR							
1994	4	80	24	17	8	1.2	0.3
1998	4	220	141	110	141	1.0	0.1
1999	4	188	43	85	47	0.5	0.0
2000	4	228	30	134	42.6	0.3	0.1
2003	4	200	52	72	23	0.7	
2005	4	307	107	60	82	1.1	
2006	4	143	19	60	20	0.9	
Mean		195	59	77	52	0.8	0.1

Summary of Historical Lake Water Quality Data Summer (June-September) Epilimnetic Means

Clearwater River Watershed District

			Secchi Disk				
	Number of	Phosphorou	(0)		rophyll-a (ug/l)		arency (m)
	Samples	Mean (3)	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
CLEARWATER EAS							
1981	7	60	20	11	8	2.6	0.7
1982	7	60	30	12	9	2.7	1.6
1983	7	90	50	3	2	2.4	1.8
1984	7	90	40	4	2	1.4	0.2
1985	7	130	60	39	28	1.2	0.3
1986	6	80	40	85	132	2.1	0.8
1987	7	30	10	18	20	2.6	1.2
1988	5	40	10	10	5	2.9	1.8
1989	6	60	20	5	4	3.0	1.9
1990	5	90	100	18	9	2.0	0.6
1991	3	50	20	10	7	1.4	0.2
1992	8	30	10	20	10	2.0	0.6
1993	4(1)	43	15	42	38	1.5	0.8
1994	4	23	5	14	9	1.4	0.2
1995	4 (2)	30	8	16	10	1.6	0.4
1996	4	33	8	10	3	2.1	0.3
1997	4	52	17	8	(5) 2	1.6	0.2
1998	4 (6)	36	18	11	3	1.9	0.4
1999	4	54	6	10	2.1	1.8	0.2
2000	4	33	18	10	3.4	2.3	1.0
2001	2	40	25	7	0.0	2.4	0.7
2002		36		14		1.8	
2003	3	22	5	7	6	2.4	
2004	4	29	13	6	3	2.6	0
2007	4	28	11	6	5	2.2	
Mean	-	50.8	23.3	16	13.3	2.1	0.7

Summary of Historical Lake Water Quality Data Summer (June-September) Epilimnetic Means

Clearwater River Watershed District

		Total				Secchi Disk		
	Number of	Phosphorou		Chlorop	ohyll-a (ug/l)	Transp	arency (m)	
	Samples	Mean (3)	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	
CLEARWATER WES	<u>T</u>							
1981	7	60	20	45	71	2.6	0.9	
1982	7	100	60	29	25	1.7	0.7	
1983	7	160	100	4	5	1.8	1.4	
1984	7	70	30	4	2	1.4	0.2	
1985	7	110	80	24	17	1.9	1.3	
1986	6	50	20	77	137	2.6	1.0	
1987	7	40	10	20	12	2.0	0.4	
1988	5	40	10	17	10	2.6	1.2	
1989	6	70	10	8	4	2.3	0.9	
1990	5	50	20	31	15	1.9	0.8	
1991	3	60	40	18	12	1.5	0.0	
1992	8	60	70	29	24	1.9	0.6	
1993	4(1)	40	0	29	6	1.4	0.3	
1994	4	33	15	17	8	1.5	0.2	
1995	4 (2)	35	11	21	10	1.4	0.3	
1996	4	43	11	9	2	2.0	0.3	
1997	4	44	3	13	6	1.5	0.1	
1998	4(7)	34	11	14	3	1.5	0.1	
1999	4(6)	31	4	10	2.0	1.6	0.3	
2000	4	41	31	9	2.9	1.9	0.4	
2001	2	42	11	8	1.0	1.4	0.0	
2002		42		18		1.9		
2003	3	27	9	14	9	2.2		
2004	4	26	8	7	4	1.7	0.0	
2006	4	40	12.84	11	24.6	1.9		
Mean	-	54	25	19	17	1.8	1	
GRASS								
1996	4	38	26	12	5	1.9	0.5	
1990	4	30	0	12	5	1.9	0.5	
1999	4	25	2	14	9.3	1.9	0.4	
2003	2	23	2	14	1	2.9	0.4	
2005	17	24	2	1	1	3.2	0.986	
2003	17					5.2	0.980	
Mean	-	29	8	9	5	2.5	0.6	
<u>HENSHAW</u>								
1995	4	270	58	238	67	0.4	0.1	
1998	4 (5)	150	48	53	22	0.9	0.2	
1999	4	295	156	136	166	0.9	0.1	
2002	•	210	100	103	100	0.7	011	
2005	5	281	177	144	137.9	0.5		
2007	4	390	134	278	127.0	0.2		
Mean	-	241	110	135	98	0.7	0.1	
LITTLE MUD								
1995	4	55	50	36	38	1.6	0.5	
1999	3	62	42	5	4	2.1	0.1	
2002		49		21		1.4		
2006	4	39	4	5	2	2.8		
Mean	-	51	32	17	14	2.0	0.3	

Summary of Historical Lake Water Quality Data Summer (June-September) Epilimnetic Means

Clearwater River Watershed District

			Tota				Seco	chi Disk
		Number of	Phosphoro		Chlor	ophyll-a (ug/l)		arency (m)
		Samples	Mean (3)	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
LOUISA								
1981		7	440	110	39	29	1.4	0.4
1982		7	420	140	68	26	1.5	0.5
1983		7 7	410	170	4	4	1.4	1.4
1984		7	220	80	8	6	1.0	0.1
1985 1986		6	160 190	100 50	26 96	17 86	1.1 1.1	0.3 0.1
1980		0 7	190	10	90 70	44	0.8	0.1
1988		5	140	60	101	39	0.6	0.2
1989		6	110	40	69	78	0.8	0.5
1990		5	200	80	55	35	1.3	0.5
1991		3	160	70	31	18	1.5	0.3
1992		8	140	140	46	22	1.1	0.3
1993		4(1)	170	40	35	13	1.2	0.2
1995		4 (2)	100	36	75	27	0.8	0.2
1997		4	68	7	59	(5) 8	0.9	0.2
1999		4	73	29	38	20	1.0	0.1
2001		2	33	30	5	4	0.9	
2003		3	100	13	68	28	1.1	
2006	Site 1	7	54	21	41	24	1.0	
2006	Site 2	7	57	20	43	25	1.0	
2007		4	79	44	79	52	1.1	
Mean			173	65	49	28	1.1	0.3
MARIE								
1981		7	270	130	31	19	1.3	0.5
1982		7	360	120	63	57	1.3	0.6
1983		7	340	160	4	4	0.9	0.3
1984		7	190	60	7	5	0.9	0.3
1985		7	230	210	34	14	1.0	0.2
1986		6	160	30	92 95	91	1.1	0.1
1987		7	120	30	95 152	30	0.6	0.1
1988		5	220	80	153	91	0.4	0.1
1989		6	120	40	58 101	54	0.6	0.4
1990 1994		5 4	150 90	60 99	71	33 19	0.8 0.6	0.2 0.1
1994		4	100	39	37	5	0.0	0.1
1990		4	76	15	56	12	1.1	0.1
2000		4	70	15	13	7.7	2.3	1.0
2000		7	74 70	10	37	1.1	1.2	1.0
2002		3	87	50	81	67	1.2	
2003		4	84	45	34	16	1.1	0.0
2006		4	78	30.16	75	65	1.6	0.0
Mean		-	157	72	58	35	1.1	0.3
<u>NIXON</u>								
1994		4	25	(4) 25	5	(4) 3.4	1.8	0.7
1997		4	30	8	5	(5) 1.5	2.8	0.2
1999		4	39	17	7	8.7	3.3	0.5
2001		2	21	1	6	3.0		(8)
2004		4	15	4	2	1	3.0	0.1
Mean		-	26	11	5	3	2.8	0

Summary of Historical Lake Water Quality Data Summer (June-September) Epilimnetic Means

Clearwater River Watershed District

						G	1. D. 1
	Number of	To Phosphor		Chloroph	nyll-a (ug/l)		hi Disk arency (m)
	Samples	Mean (3)	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
OTTER	Bampies	Wiedin (5)	Std. Dev.	Wiedi	Std. Dev.	Wiedh	Stu. Dev.
<u></u>							
1994	4	13	(4) 4	8	1.8	1.9	0.3
1997	4	23	10	4 (5)) 1.5	2.1	0.3
1999	4	34	5	7	4.8	3.0	0.4
2001	2	30	22	4	1.0	2.8	0.4
2004	4	16	10	3	2	2.2	0.0
2007	4	20	10	1	1	2.6	
Mean		23	10	4	2	2.4	0
PLEASANT							
1993	4	15	(4) 9	12	8	2.0	0.6
1997	4	51	31	9 (5)		2.4	0.6
1999	4(6)	25	<u>5</u>	<u>9</u> 4	5.8	3.0	0.9
2004	4	20	9	4	1	2.3	0.0
2005	9	29	11	12	10	3.0	1.0
2007	4	39	6	10	6	2.2	
Mean		29.9	11.8	9	5.5	2.5	0.6
SCHOOL SECTION							
1993	4	35	(4) 38	14	9	2.2	0.8
1997	4	29	(4) 58	11 (5)		1.6	0.4
1997	4(5)	<u>50</u>	<u>12</u>	<u>11</u> (5)	<u>10</u>	<u>1.0</u>	0.4 0.5
2004	4(3)	$\frac{30}{21}$	<u>12</u> 9	3	$\frac{10}{2}$	$\frac{1.0}{2.0}$	0.0
2004	4	33	11	3	4	2.0	0.0
2007	+	55	11	5	4	2.0	
Mean		34	17	10	6	1.7	0
<u>SCOTT</u>							
1981	7	660	340	26	27	1.9	0.9
1981	6	540	220	20 57	39	1.4	0.7
1982	7	450	170	3	3	1.4	1.4
1985	7	270	100	6	5	0.7	0.1
1985	7	260	280	35	29	1.1	0.5
1994	4	160	117	94	71	0.7	0.1
1996	4	280	174	223	68	0.5	0.1
1998	4 (5)	230	176	141	77	0.8	0.1
1999	3	223	163	76	30	0.6	0.1
2002		210		103		0.7	
2003	4	158	52	66	33	0.8	
2004	4	103	20	51	4	0.8	0.0
2006	3	120	392	61	17	0.8	
Mean	-	282	184	72	34	0.9	0.4
<u>SWARTOUT</u>							
1996	4	370	181	173	164	1.0	0.7
1999	4(6)	200	75	151	91	0.7	0.2
2003	4	421	293	444	524	0.9	
2005	4	278	41.8	144	53	0.5	
2005	3	372	125	207	89.2	0.9	
2000	4	262	72	168	124.0	0.2	
	-						0.5
Mean		317	131	214	184	0.7	0.5

Summary of Historical Lake Water Quality Data Summer (June-September) Epilimnetic Means

Clearwater River Watershed District

2007 Annual Report

	Number of	Tota Phosphorou	Secchi Disk Transparency (m)				
	Samples				hyll-a (ug/l) Std. Dev.	Mean	Std. Dev.
<u>UNION</u>	F			Mean			
1995	4	43	15	15	1	1.4	0.3
1998	4 (5)	50	27	16	9	1.7	0.4
1999	3	31	15	12	10	1.8	0.9
2002		88		39		1.0	
2005	7	58	13	22	17.0	1.9	0.7
2007	4	43	21	7	3.0	2.3	
Mean	-	54	18	21	9	1.6	1
WIEGAND							
1995	4	35	5	12	2	1.7	0.2
1999	4(5)	61	44	6	1.1	2.4	0.6
2002		37		5		3.0	
2005	4	31	4	3	1.9	3.4	
Mean		41	18	7	2	2.6	0.4

Notes:

(1) The fourth sample was collected on October 6, 1993.

(2) The fourth sample was collected on October 2 or 3, 1995

(3) Starting in 1993, Total phosphorus means are rounded to two significant figures. Prior to 1993, the mean values were rounded to the nearest 10 ug/l.

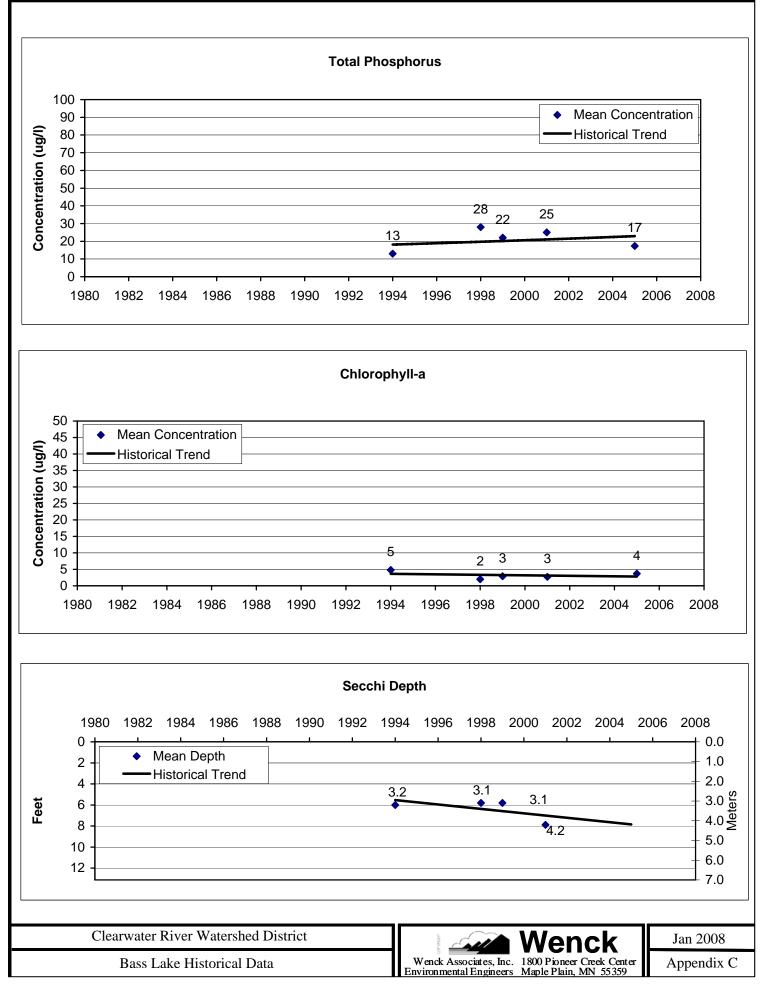
(4) Values reported as "Less than" the detection limit were estimated as half of the detection limit.

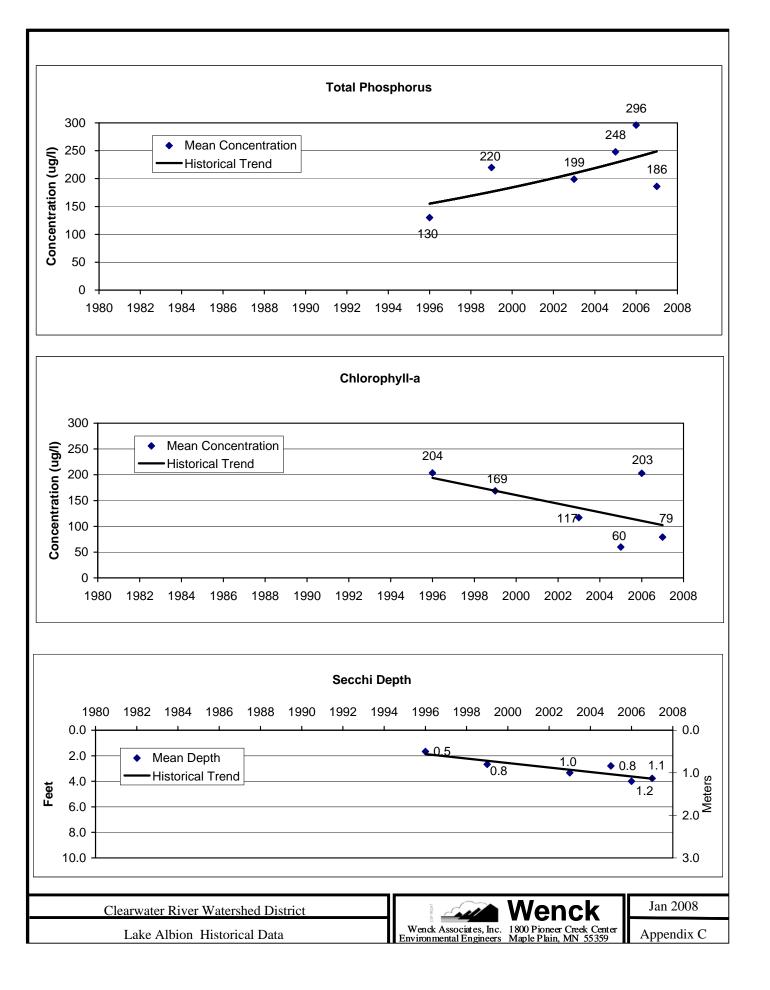
(5) Three samples were analyzed for chlorophyll-a.

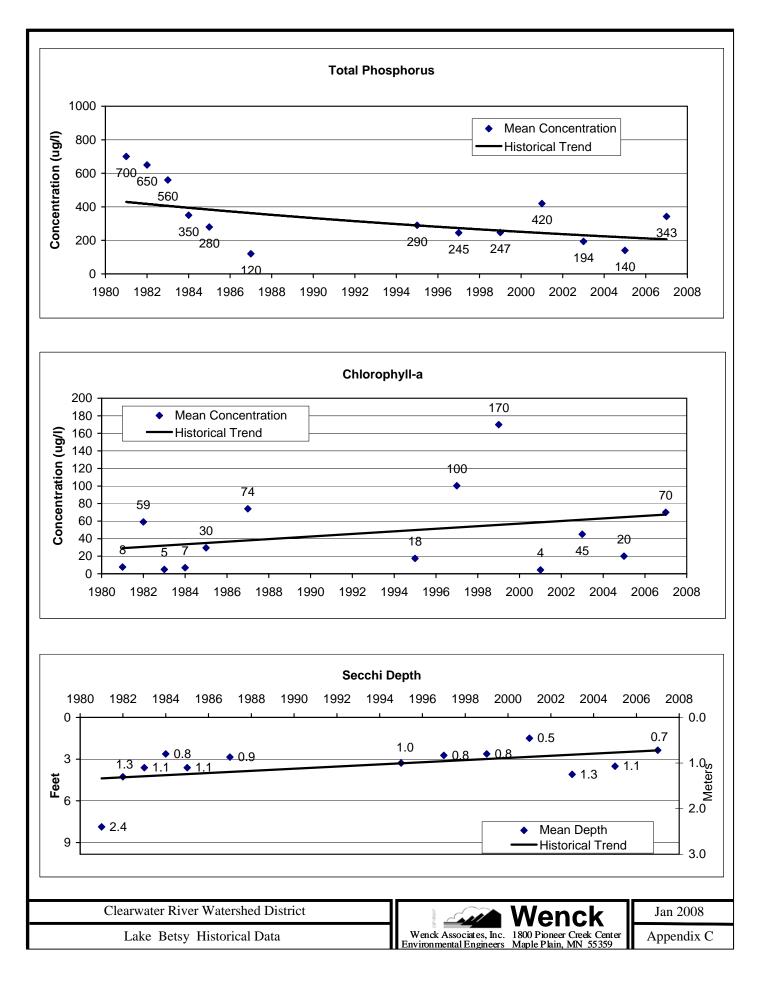
(6) Three samples were analyzed for total phosphorus.

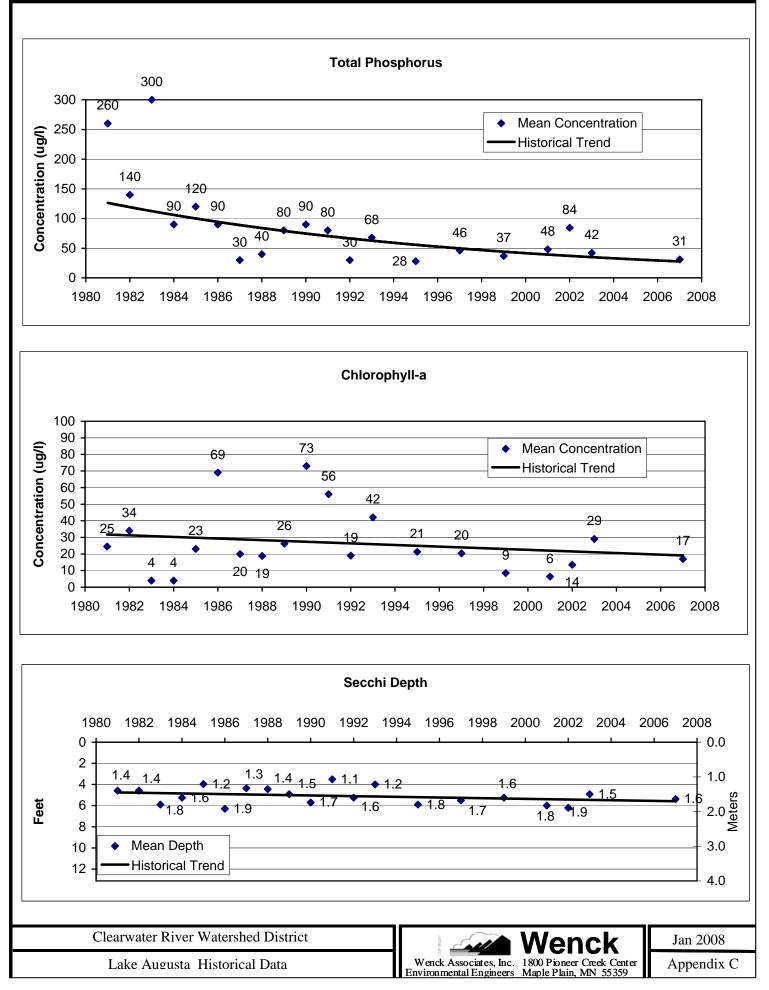
(7) Three secchi disk readings were recorded.(8) One secchi disk reading was recorded.

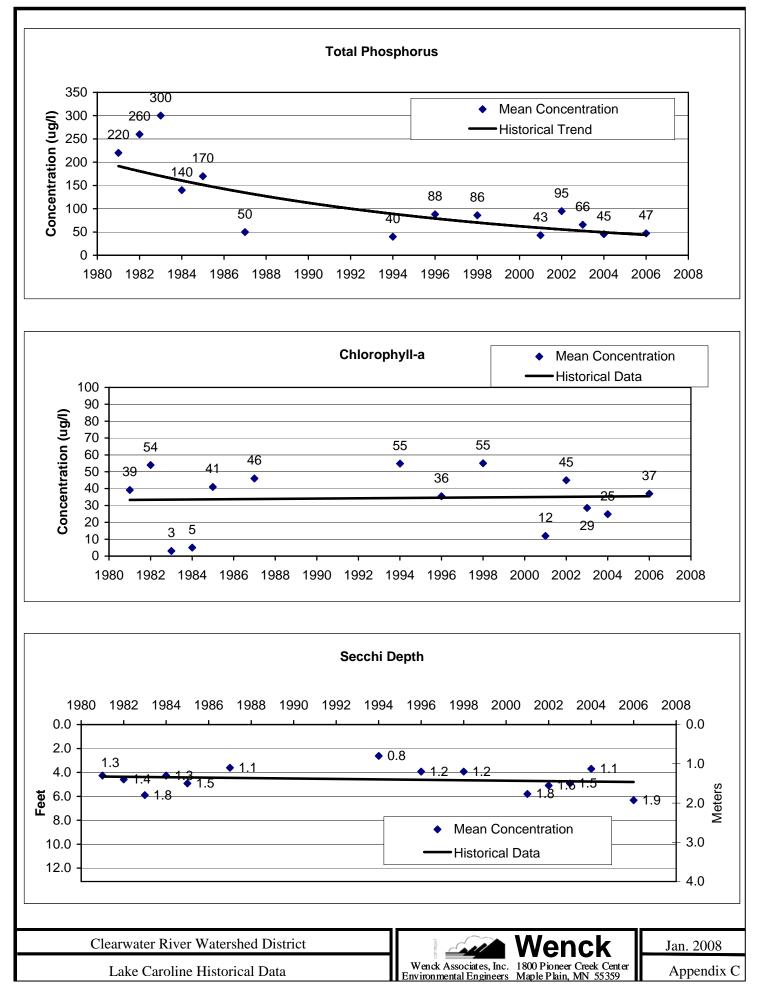
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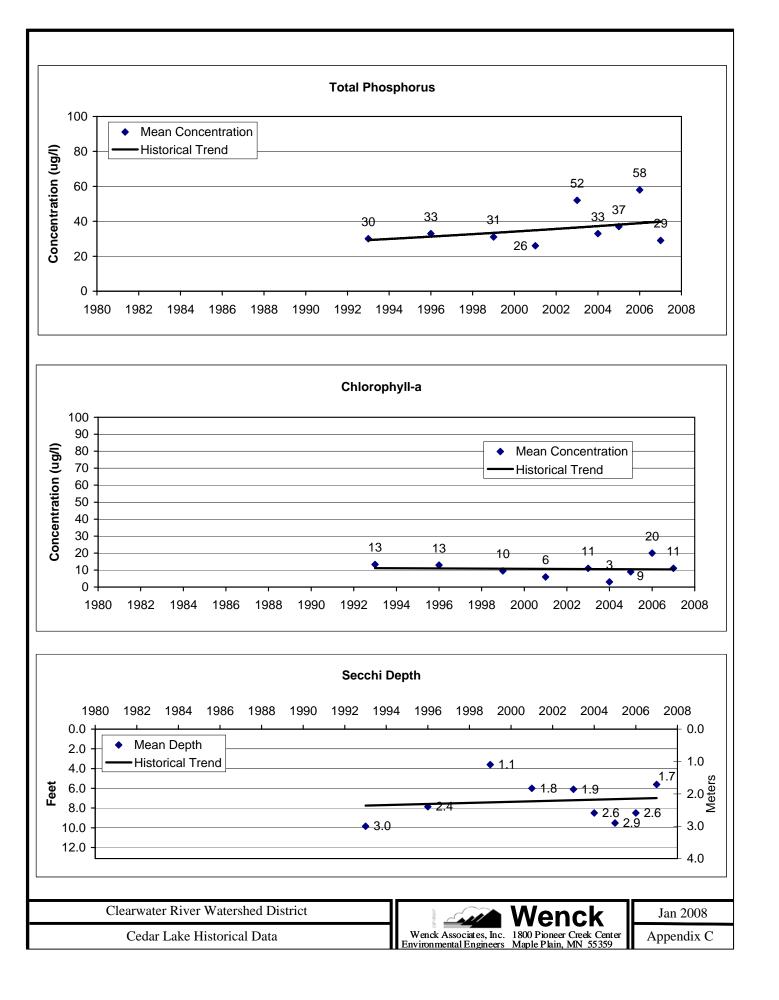


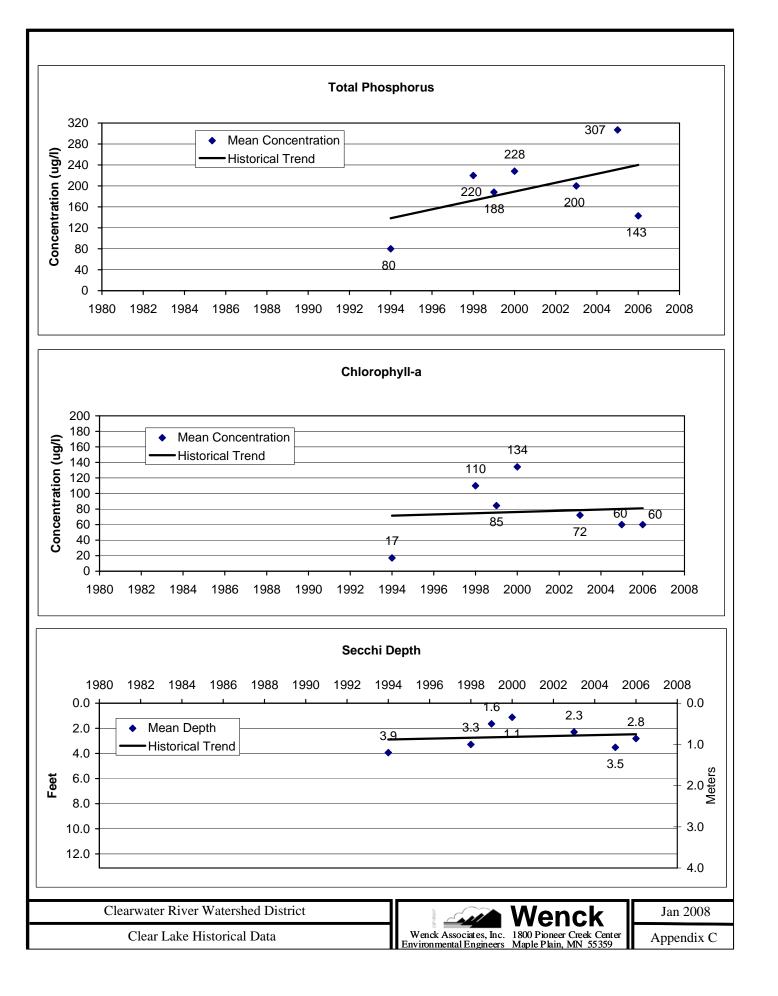


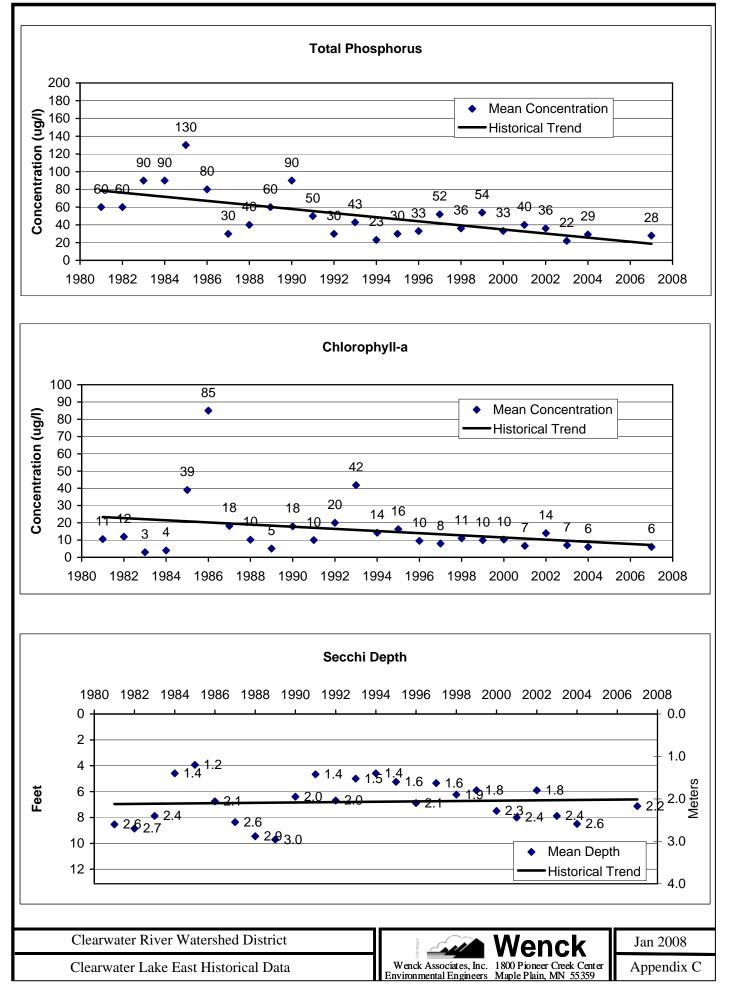


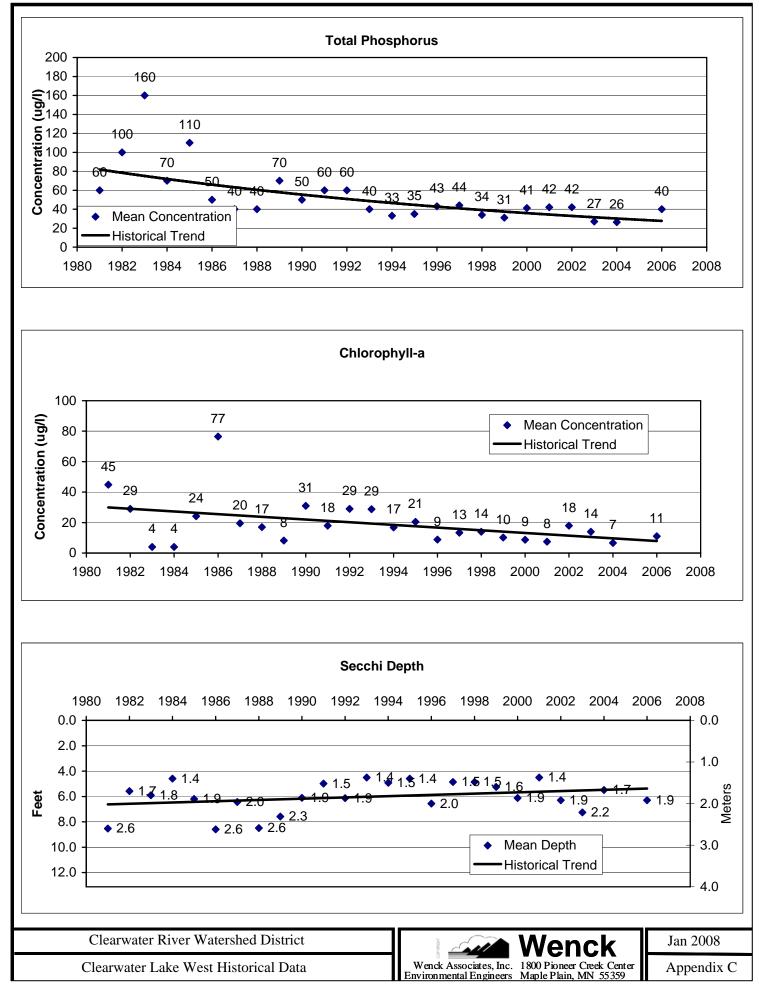


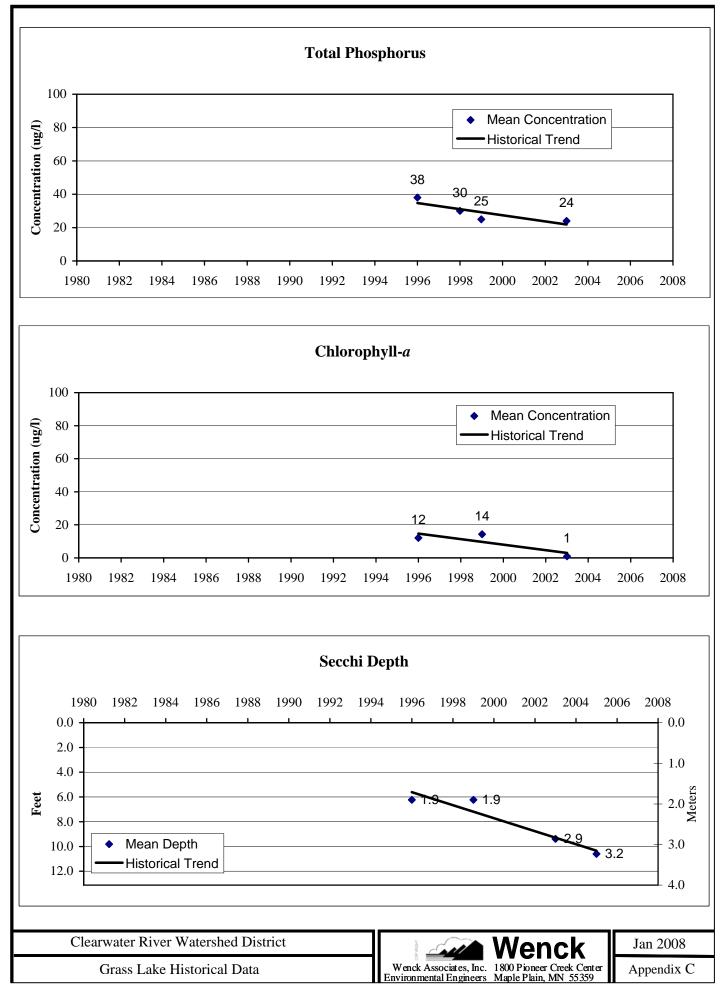


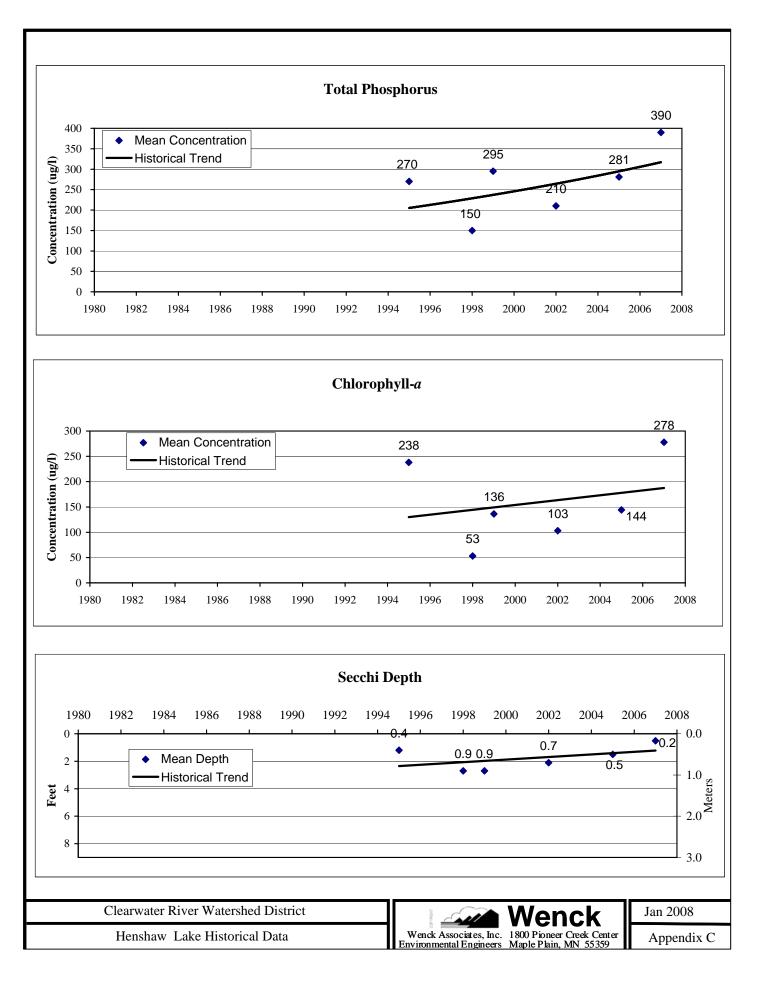


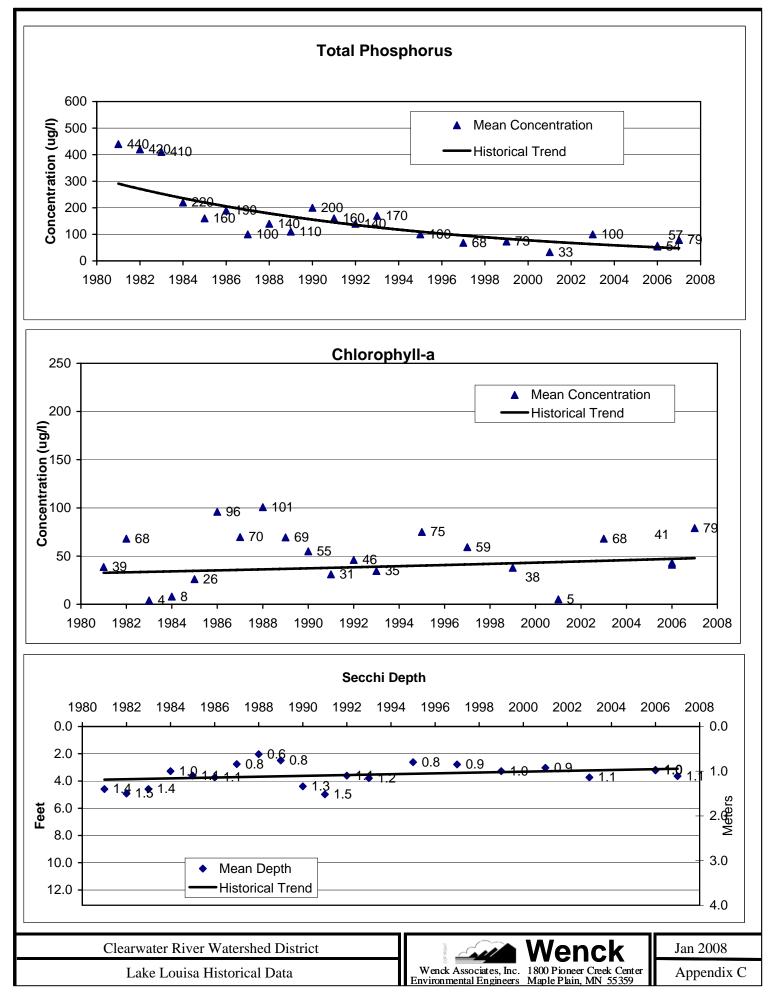


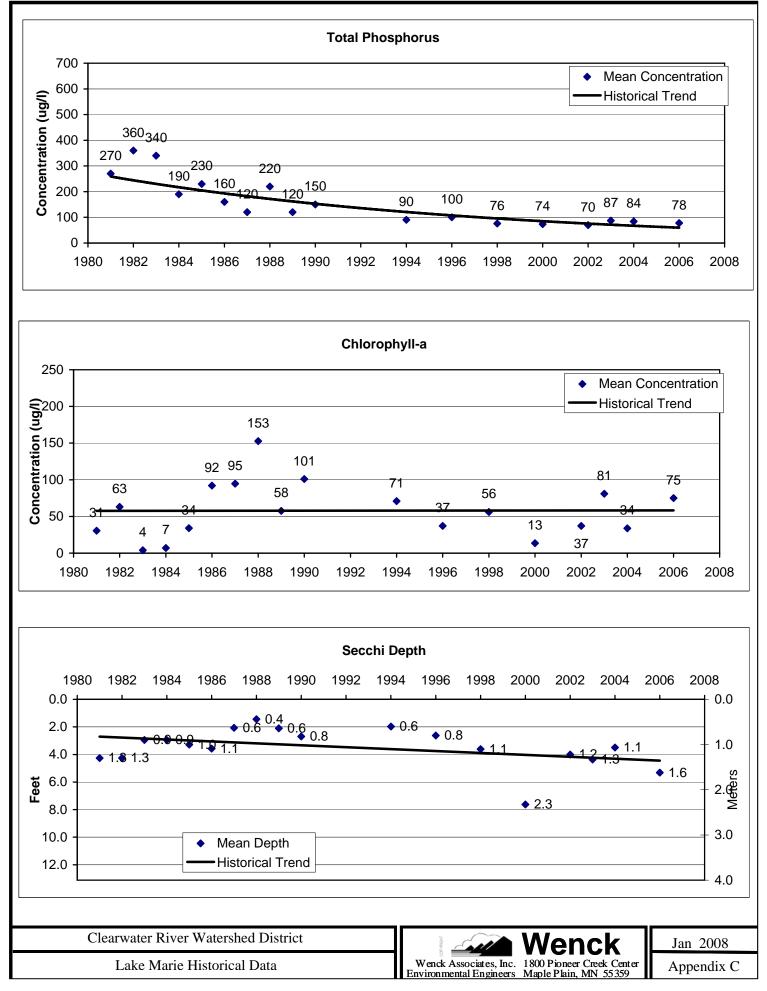


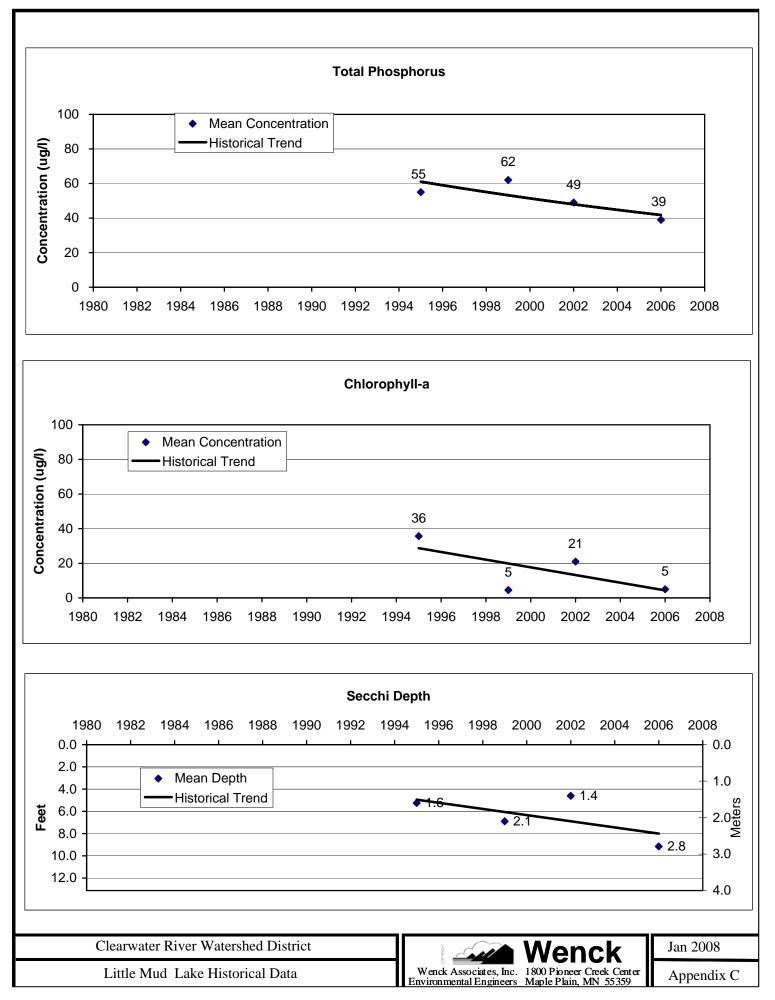


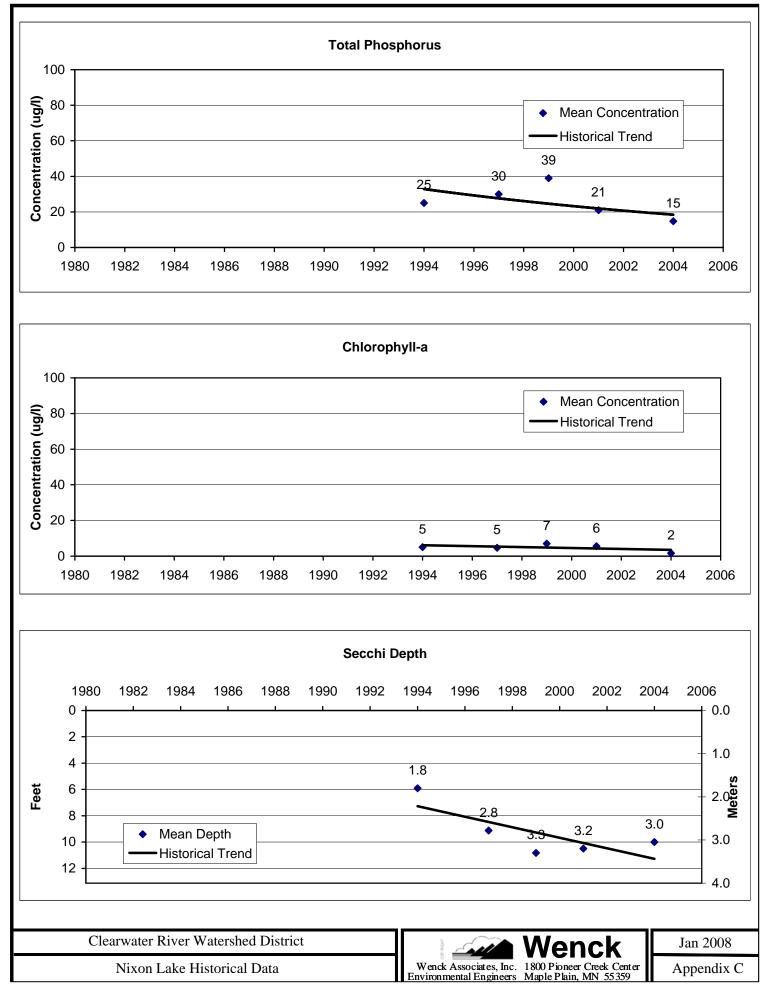


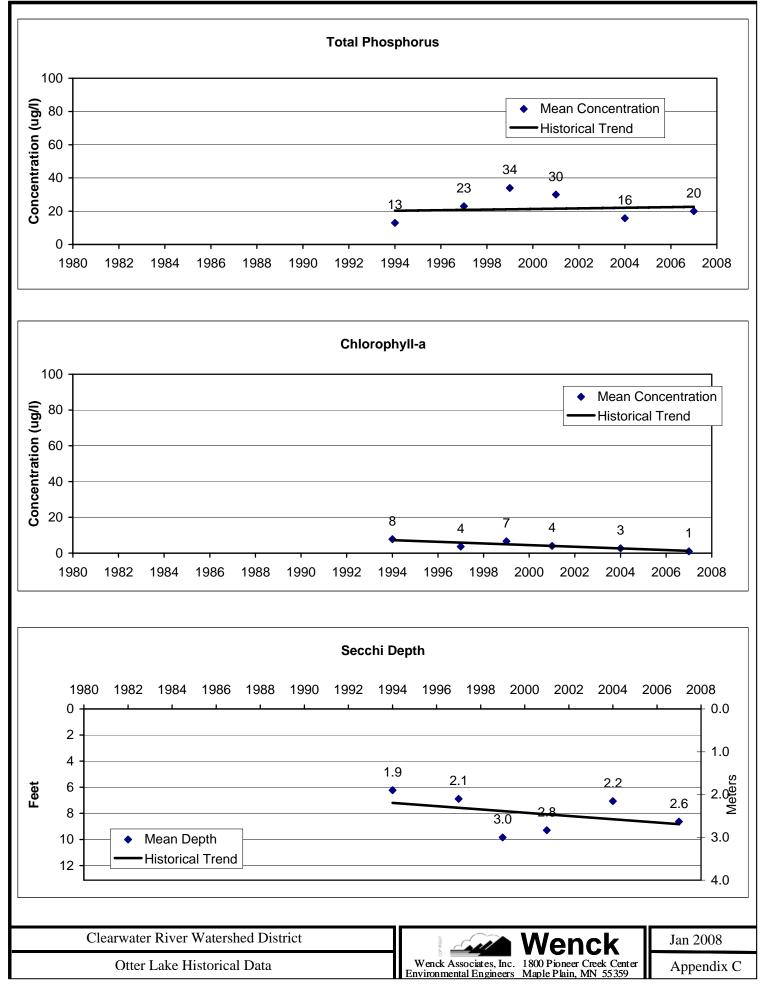




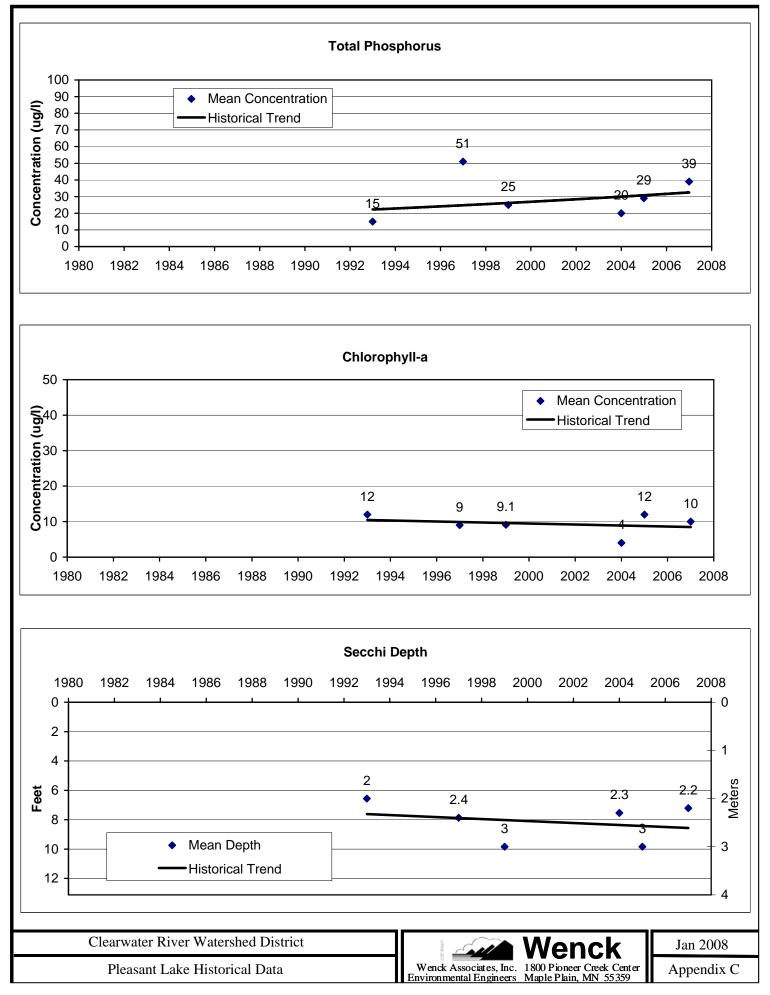


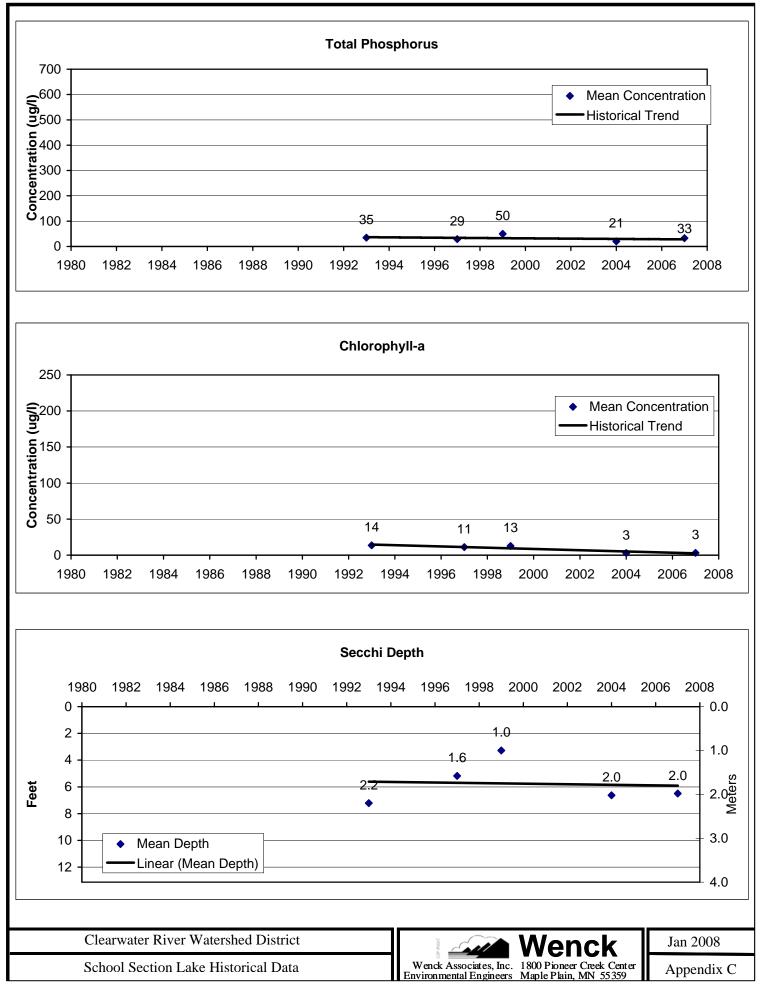


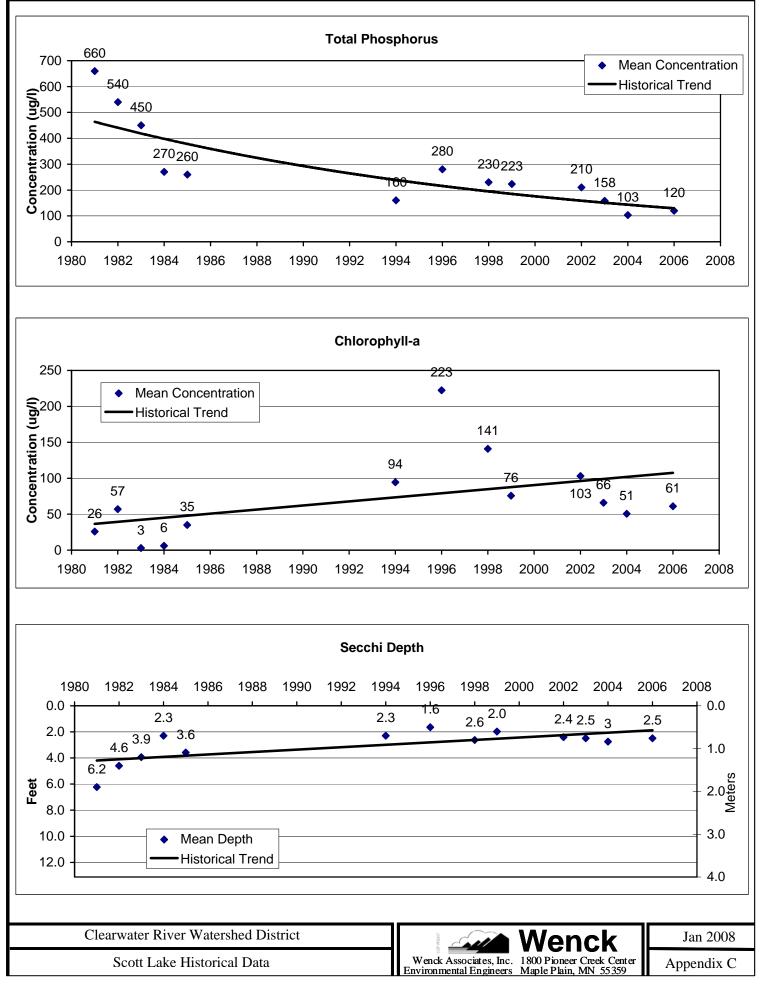


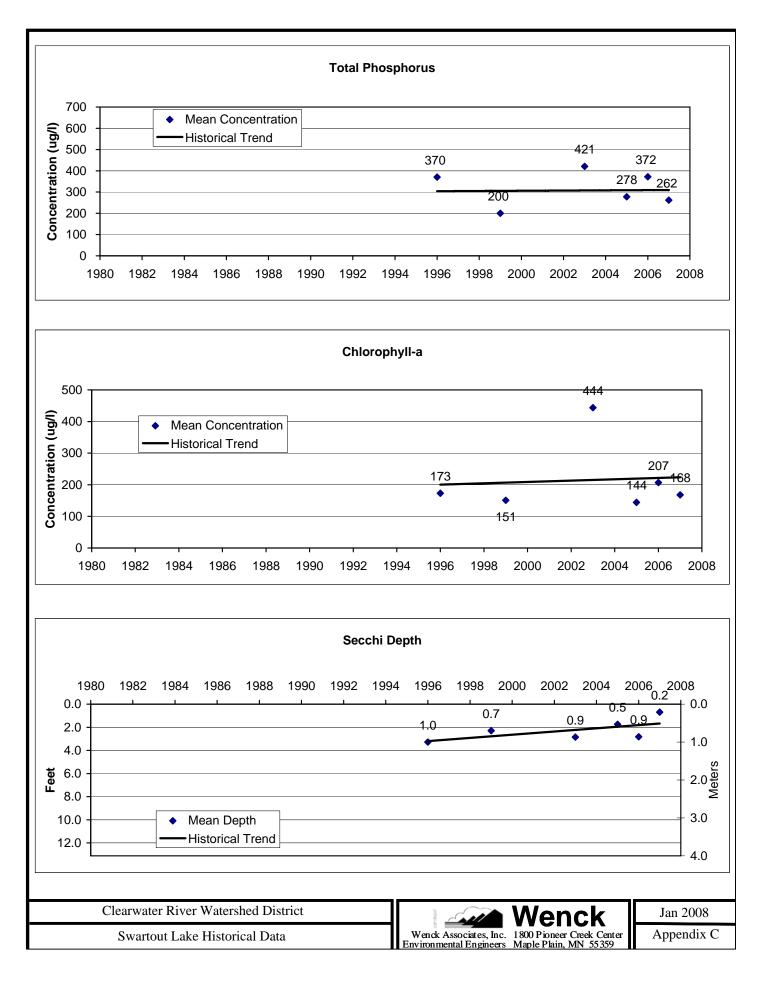


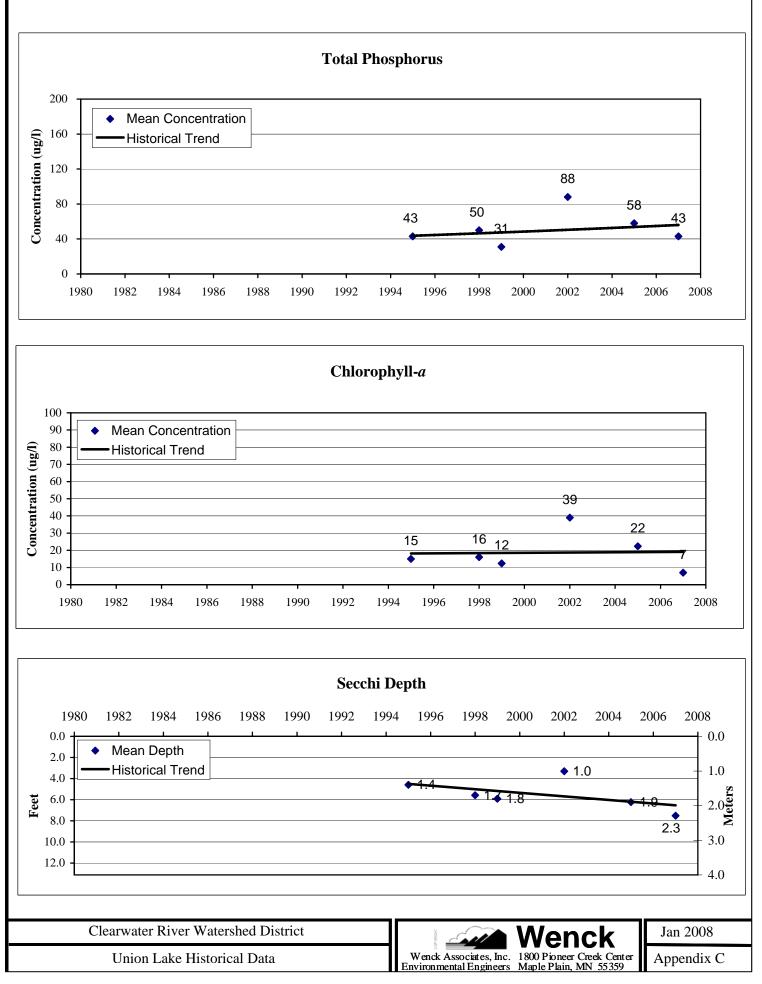
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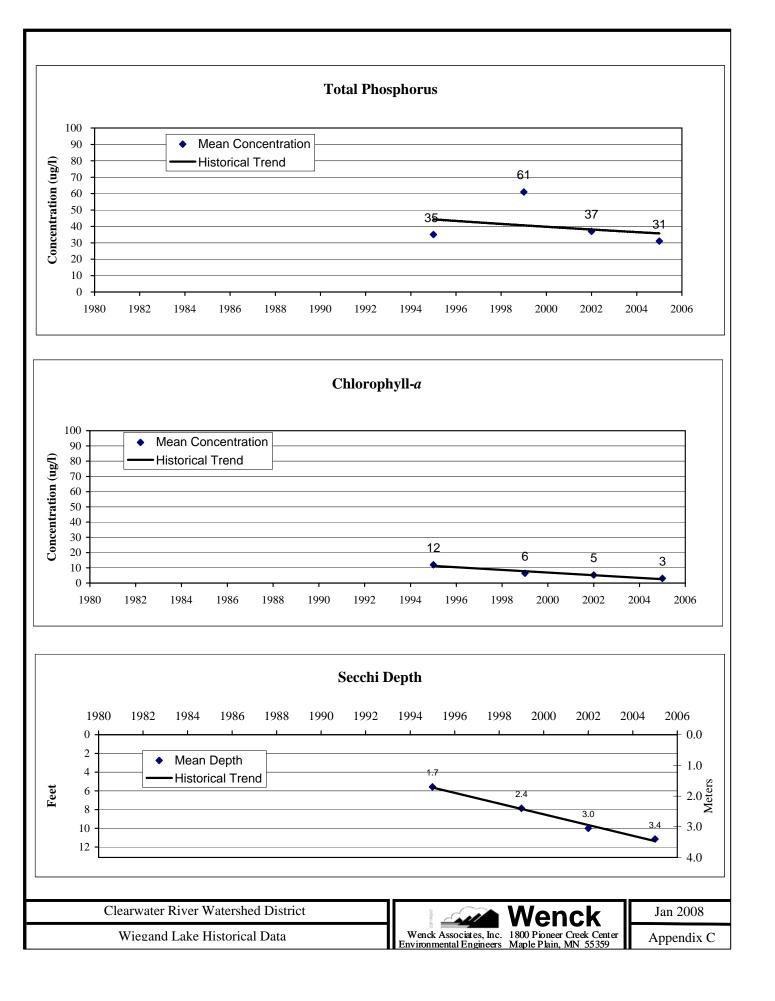












Appendix D

Citizen Precipitation Records

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Etc. (Ins & Hoths	. Tenths		(Ter) i	nperature and Phenology items are very useful).	test tube wedge		eighing Other				yesno
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WAL RESOLUT	ZES				Year	Month	Ob Time	Соц	nty	Township	Range	Section
.ame (Oar	уK	lein)		nee	ter			Township Fores	Name FPro	irie
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24-H	OUR AMO	OUNTS		REMARKS:			(Check One):					
Rain, Melted Snow	Snow (Ins. &	Snow On	Giv	e times and comments about events.	cylinder	X	tipping bucket			ening diame		
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State Climatology Office, 439 Borlaug Hall, University of Minnesota, 1991 Upper Buford Circle, St. Paul, MN 55108-6028

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24	-HOUR A	MOUNT		TUES L	UQTK				<u> 27</u>	(320) 764	1-2645
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Address					-				Telephone No.
		Kil	<u>bur</u>						(320) 274-5179
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Address	921	14. K	112	BURY AVE	NW				Telephone No. (320) 274517	79
24-H		DUNTS		REMARKS:	. Gai	ige type	(Check One):	-		
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State Climatology Office, 439 Borlaug Hall, University of Minnesota, 1991 Upper Buford Circle, St. Paul, MN 55108-6028

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Address	921	4 K	721	BEMARKS	NW.			Tele	phone No. 20 1 274 3	
24-HC	OUR AMO	UNTS	1		Gau	ge type	(Check One):]		•
Rain,	Snow	Snow	G	ive times and comments about events.	cylinder	100	tipping bucket		diameter/size (inche	
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Address	Gai	ir D	- 1 -	BURY AVE	a t t i l		<u></u>		Telephone No.	
24-H	7 <u>-/</u> OUR AMO	<u>4 K</u>	24	REMARKS:			(Check One):		1320 1274 517	9
Rain,	Snow	Snow	G	ive times and comments	cylinder		tipping bucket	1	catch opening diameter/size (inches)	
Melted Show Etc. (Ins.	(ins. & Tenths)	On Ground	(Te	about events. mperature and Phenology	test tube		weighing		maximum catch depth (inches) board/ruler/post used for snow <u>&_y</u> es	80
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State Climatology Office, 439 Borlaug Hall, University of Minnesota, 1991 Upper Buford Circle, St. Paul, MN 55108-6028

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.me	111	CLA	1	NOVOTNE	Coi	unty Na UR	me 16-11 T		Township Name
Address	-			<u>BURY AVE</u> REMARKS:					Telephone No. (320) 274 5179
24-H	OUR AMO	UNTS		REMARKS:	Gaug	e type	(Check One):		•
Rain, Melled Snow	Snow (Ins. &	Snow On	19	ve times and comments about events.	cylinder	~	tipping bucket		ening diameter/size (inches)
Etc. (ins. & Hdths)	Tenths)	Ground (Inches)	(Tei	mperature and Phenology	test tube	·	weighing		π catch depth (inches) ler/post used for snow <u>U</u> yesno
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Address	921	4 K	1LB	JOVOTNE	NW.				Telephon	e No.	1.5179
24-HC	UR AMC	UNTS		REMARKS:	Ga	uge type	(Check One):				•
Rain,	Snow	Snow	Give	e times and comments about events.	cylinder	~	tipping bucket		opening diame		
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Address	9210	4 K	1LI	SURY AVE	NW.				Telephone No. (320) 274 5179
24-HC	OUR AMOL	JNTS		REMARKS:	Gau	ge type	(Check Ons):		
Rain, Meted Snow,	Snow	Snow On	Gi	ve times and comments about events.	cylinder	~	tipping bucket		pening diameter/size (inches)
Elc. (Ins. & Hdths)	Tenths)	Ground (Inches)	(Tei	mperature and Phenology items are very useful).	test tube	_	weighing		um catch depth (inches) uler/post used for snow Lyesno
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Address	921	4 K	JLBUR	OTNE YAVE MARKS:	NW.				Telephone No. (320)2		79
24-HC	OUR AMO	UNTS	RE	MARKS:	Gaug	je type ((Check One):				
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State Climatology Office, 439 Borlaug Hall, University of Minnesota, 1991 Upper Buford Circle, St. Paul, MN 55108-6028

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Minnesota Department of Natural Resources Division of Forestry 0 7 1 am 8 6 2 6 2 8 2 0 Minnesota Department of Natural Resources Division of Forestry Value Imp Imp 8 6 2 6 2 8 2 0 Minnesota Department of Natural Resources Division of Forestry Year Month Ob Time County Township Range Sectio Ame VICLA NOVOTNE County Name Township Name Township Name Corr I N'N A Address 9214 K3LB URY AVE WK Import Corr I N'N A Telephone No. Import Size (inches)	
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Address 7214 K 1LB URY AVE NUL, Telephone No. 24-HOUR AMOUNTS REMARKS: Gauge type (Check One): (320) 274.57 Rain, Snow Snow Give times and comments about events, cylinder // tipping bucket catch opening diameter/size (inches)	
Rain, Snow Snow Give times and comments cylinder / tipping bucket catch opening diameter/size (inches) _	19
Mated Scow (los & On about events, about eve	•
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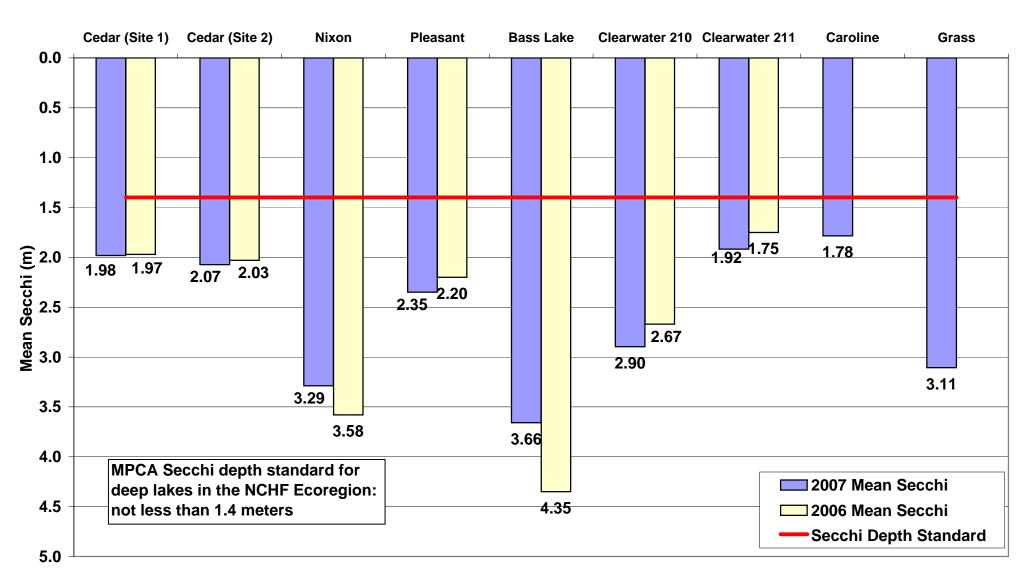
State Climatology Office, 439 Borlaug Hall, University of Minnesota, 1991 Upper Buford Circle, St. Paul, MN 55108-6028

Appendix E

Secchi Data from Citizen's Lake Monitoring Program

APPENDIX E

Secchi Data from Citizen's Lake Monitroing Program



Clearwater River Watershed District 2007 Annual Report

t:/0002/106/secchi_07

MP	CA Cit	izen Lake-N	Monitoring Prog	řam	2007 Seco	hi Data	Sheet	Lake #
								LIANE #
You	r Name	e: Dan	Ross					Site #
.•			Ross oth Street 1 Taven MN		-			Office Use Do not write in this space,
Add	ress:	10151 12	0 Street 1	Un)	• Use a	a separate data si	heet for <u>EACH</u> site.
		So the	1. na 1					om, mark B next to Secchi.
	*	JOILYN I	IGDEN TIN					ion; RC = Recreational Suitability
								& 9 in is 6.75 ft - NOT 6.9 ft.
				<u></u>				n your marked lake map.
Lake	Name:	Bas	ń		Count		WRIGH	
		Lake: /_				mande	0216/1	7
Phone	e: (_)	= sur	nme	r:()-	,		winter.
Is this	s the sa	me sampling	g site YOU monit	tored	l last year?	Yes	Lake depth at	sampling site: <u>23</u> ft.
Line	2007		Secchi		PC	RS	Color of	Other
#	Date	Time	(nearest 1/2 ft)	*B	(1 5)	(1 5)	Water	Notes
Ex.	5/20	10:15 Im	5.5 ft		2	3	Green	Breezy, Temp: 70 F
1	5/26	10:30 p.m.	12.0 ft		2	2	GRN	POLLEN
2	6/16	1:30 m	<u>/3,5 ft</u>		2	1	GRN	LOTS OF POLLEN
3	6/23		13.5 ft		<u> </u>	1	GRN	Breezy
4	7/1	2:00	<u>/3,5</u> ft			i	GRN	Breeze
5	7/8	3:00 m			2_	1	GRN	
6	7/15	10:30 p.m.	11.5 1	iye. Maraya	a	1	GRN	Sight Breeze
7	7/22	12:30 m	11.5 ft				GRN	
8	7/28	1:00 (p.m)	12.0 ft		z	1	GRN	Sumy - slight broeze
9	8/3	1:30 am	12.5 ft		ð	1	GRN	Sunny calm
10	8/17	12:30 pm	12.5 ft		3	1	GRN	Partly cloudy
11	9/2	2:15	13.0 ft		2	1	GRN	
12	9/az-	11:30 n.m.	$\mathcal{S}.O$ ft		a	2	BROWN	Dight breeze
13		a.m. p.m.	ft.			÷		IL DIG WARY
14		a.m. p.ni.	ft					
15		a.m. p.m.	ft					
16		a.m. p.m.	ft					
17		a.m.		N. S. C.				
18		p.m. a.m.	ff					
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At the end of your sampling season, please return the top page of this form by November 10, 2007



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Minnesota Pollution Control Agency

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MPCA Citizen Lake-Monitoring Program 2007 Secchi Data Sheet



4187 Bridgewater Rd

South Haven, MN 55382

Dave Faidley

86-0281

Lake #		
Site #		
Office Use	Do not write in this space	

Use a separate data sheet for EACH site.

If disk is on lake bottom, mark B next to Secchi.

PC = Physical Condition; RC = Recreational Suitability

- Record carefully: 6 ft & 9 in is 6.75 ft NOT 6.9 ft.
- For NEW sites, send in your marked lake map.

Lake Name:	County:	Stearns/ Wright
Location of Lake: miles	of	
Phone: $(320) - 236 - 3004 =$ summe	r; ()	Sume = winter.
Is this the same sampling site YOU monitored	l last year?	Lake depth at sampling site: ft.

Line #	2007 Date	Time	Secchi (nearest 1/2 ft)	*B	PC (1 5)	RS (1 5)	Color of Water	Other Notes
Ex.	5/20	10:15 am	5.5 ft		2	3	Green	Breezy, Temp: 70 F
1	4/2/0	Sice and	the ft		2	2-3	Clarl	Clear day, Calu
2	1/2=	a.in. p.m.	12.0 ft			2		Citer and p
3	5/12	4:00 a.m.	10,0 ft		2	2	V	dear Calin
4	-1	/ a.m. p.m.	, ft					
5	5/24	3:30 P.ID	8.5 ft		2	2-3	Clar grea	Calm
6		a.m. p.m.	ft					
7	6/11	2:00 a.m.	5.5 ft		3	2-3	browish-82	en Calm
8		a.m. p.m.	ft		: 			
9	6/21	410 a.m.	4.0 ft		3	2-3	11 11	• †
10	1	p.m.	ft		<u></u>	7		
11	1/8	His a.m.	3.5 ft		3	· 4	11 11	Sunn Musgy
12	1	ji.m.	ft			/		weak preating up
13	88	3: w a.m.	3.0 ft		3	4	4 4	Calm
14		a.m. p.m.	ft					
15	93	4: ~ a.m.	2,5 ft		3	4	16 H	Chen Sum
16		p.m.	ft					
17	9/17	41.0 p.m.	<u>3.5</u> ft		3	3	4 4	Calm Scinic
18	1.1	/ a.m. p.m.	ft					
19		a.in. p.m.	ft					
20	9/28	11-100 a.m.	6.0 ft		3	3	le "	
21		/ a.m. p.m. a.m.	ft				improv	
22	114	p.m.	ft					
23	Note		to hot the	ma	+ avau		had very	- little inflow
24		p.m.	from Clean	Fing	ite Rn	er this	Summer	+ liftle jain.
_25		a.m. p.m.	Al auser	ha	ter ch	vite to	he "the	worst" ever

At the end of your sampling season, please return the top page of this form by November 10, 2007

Minnesota Pollution Control Agency

MPCA Citizen Lake-Monitoring Program 2007 Secchi Data Sheet

Your	· Name:	Rober	+BJ	hnso	מ			Site # $\frac{2e3}{Damat write in this space}$
E K. A		Pro-1	755					
Addı	ess:	1001	<u>155</u> wdale 55		-		-	eet for <u>EACH</u> site.
	-	ANNA	WDA/E 1	mr.	_			m, mark B next to Secchi.
	_	•		<u> </u>	_			on; RC = Recreational Suitability
	-		<u> </u>	302	-		-	& 9 in is 6.75 ft - NOT 6.9 ft.
						For N	E w sites, send in	your marked lake map.
	Name:	<u> </u>	AR		_ Count	y:	, WRigh 1 <u>A 16</u> . - 5867 =	<u> </u>
		Lake: 3			$-$ of $ \frac{4}{52}$	NANC	- <u>5867</u> =1). 24
					· (Sec. 9 1 1 1 1 1 1	sampling site: <u>20</u> ft.
Line	2007		Secchi		PC	RS	Color of	Other
Line #	Date	Time	(nearest 1/2	ft) *		(1 5)	Water	Notes
Ex.	5/20	10:15 (am)	5.5	ft	2	3	Green	Breezy, Temp: 70 F
1	5/10	1.30 am	14.0	ft		2	C/EAR	Survey Calm Cocl
2	5/31	120 p.m.	7.5	ft	2	2	Sta arren	11 Slight BREEZE
3	6/26	1:15 p.m.	3:0	ft	3	3	ane 24	4 04
4	17/12	1:20 p.m.	4,0	ft	3	3	1 4	4 4
5	5/6	2100 p.m.	4.0	ft	3	2	17	Slightonucest, colm
6	\$/10	12100 p.m.	3.0	ft 📄	3	3	11	Simmer Calm
7	\$/34	/120 p.m.	5.0	ft	3	3	4	404
8	9/1	1-2:10 p.m.	5,5	ft	-2	2/	Ot green	" Set Breeze
9	9/29	12:15 p.m.	8.0	ft	n	2-	11 January 11	4 11 0
10	10/8	12.15 p.m.	8.0	ft	22	2-	4	Ste Biene oninest
11	÷	a.m.		ft			· · · · · · · · · · · · · · · · · · ·	97
12	4 26 274	u.m. p.m.		ft				
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23		â.m. p.m.		ft				
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25		a.m. p.m.		ft				

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At the end of your sampling season, please return the top page of this form by November 10, 2007



Minnesota Pollution Control Agency

MARCA Officen Lake-Monitoring Program 2007 Secchi Data Sheet



CLMP3615 Robert B. Johnson Box 755 Annandale, MN 55302

86-0227

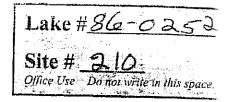


- Use a separate data sheet for EACH site. 9
- If disk is on lake bottom, mark B next to Secchi. 6
- PC = Physical Condition; RC = Recreational Suitability 0
- Record carefully: 6 ft & 9 in is 6.75 ft NOT 6.9 ft. Θ
- For NEW sites, send in your marked lake map. 0

Lake	Name:	Q	EdAR miles <u>N.</u>		County	WR	2;467-	Land L
Locat	ion of I	_ake: <u>3</u>	miles \mathcal{N}_{i}	E	of ANI	VANDALE		, yan (
Phone	e:(32	0)-274	- <u>855</u> 0 = su	mme	r; (<u>320)-</u>	672 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	$\Delta \Phi / - winte$	r.
Is this	s the sar	ne sampling	g site YOU moni	tored	l last year?_	<u> Ve s</u> Eake	depth at samp	oling site: <u>30</u> ft.
Line	2007		Secchi		PC	RS	Color of	Other
#	Date	Time	(nearest 1/2 ft)	*B	(1 5)	(1 5)	Water	Notes
Ex.	5/20	10:15 (am)	5.5 th	100	2	8-20	Green :	Breezy, Temp: 70 E
1	5/10	1:40 p.m.	18.0 ft		2200		CLEAR	SUNNY, CAIM COOL
2	5/31	1.3 p.m.	8.0 ft		レ	2	It green	M. Slight Energe
3	6/26	1:30 p.m.	3.0 ft		3.	3	arean)	4 04 0
4	17/12-	1:30 p.m.	4.0 ft		3	3	() //	I H
5	\$/6	2:10 p.m.	4.0 ft		3	3	1	Hight overcost -
6	8/10	12:00 p.m.	3.5 A		3	3	· · · · · · · · · · · · · · · · · · ·	Kanny, Calm
7	8/24	1:15	m 5.0 ft		14.3 警	3		- 11 [' 11
8	9/11	12,00 p.m.	6.0 ft	11	- V	12	Oto green	11 Slight Areze
9	9/1	12100 p.m.	8 / ft		γ_{z}	2-2-10:00	404	4 0 4 3
10	10/8	12:00 p.m.	5.0 ft		2	Ţ	11	11 4 Set Breeze + overcast
11		a.m. p.m.	ft					2
12		a.m. p.in.	fi fi			1 1 1		
13		ی " a.m. p.m.	ft.		a Bar All			-
14		a.m. p.m.	'ft	1.000				
15		a.m. p.m.	ft					
16	4	a.m. p.m.	ft	1				
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18		a.m. p.m.	ft					
19		a.m. p.m.	ja ist a ft					
20		a.m. p.m.	ft ft					
21		a.m. p.m.	ft					
22		a.m. p.m.	ft	1			· · · · · · · · · · · · · · · · · · ·	
23		a.m. p.m.	ft					
24		a.m. p.m.	ft					,
25		a.m. p.m.	ft					

At the end of your sampling season, please return the top page of this form by November 10, 2007

MPCA Citizen Lake-Monitoring Program 2007 Secchi Data Sheet



South Haven, MN 55382-9294

CLMP4571

Delores Roeder 463 Beachwood Rd 86-0252

- Use a separate data sheet for <u>EACH</u> site.
- If disk is on lake bottom, mark B next to Secchi.
- PC = Physical Condition; RC = Recreational Suitability
- Record carefully: 6 ft & 9 in is 6.75 ft NOT 6.9 ft.
- For NEW sites, send in your marked lake map.

		-			-	TUTINENYS	ates, send in your	· marked lake map.
Lake	Name:	Clearu	vater		County	: 11 m	John to	
Loca	tion of]	Lake: <u>3</u>	$\frac{1}{2272} = \sin \frac{1}{2}$	h	_ of <u>Ar</u>		Te	<u></u>
Phon	e: <u>B</u> A	2)-214	- <u>7272</u> = sun	nme	r; ()	4 m	= winte	er.
Is thi	s the sa	me samplin	g site YOU monit	orec	i last year?_	√ ~S [₽] Lake	depth at sam	pling site: <u>20</u> ft.
Line	2007		Secchi		PC	RS	Color of	
#	Date	Time	(nearest 1/2 ft)	*B	(1 5)	(1 5)	Water	Notes
Ex.	5/20	10:15 ⁴ (10)	5.5 7 8 ft	201 - 20 	2		Green	Breezy, Temp: 70 F
1	617	1:00	12.0 ft		2	2	Tan	C. audy - Breazy
2	6/12		7,5 ^{ti}		3	.3.	Greenish	Partly cloudy - bre
3	6/21	2:30	q_{15} ti	i	2	2	En/green	Cloudy
4	6/27	11:15 p.m.	9.5 ft		2	2	Tan area	
5	715	10:15 p.m.			2	2	11 11	ix / ii
6	7/12	11:15 🖤	815 ft		2	2	16 17	Partly cloudy Windy
7	17/17	10:00 p.m.	10.5 ft		2	2	15 11	Hazy sun - celly
8	7/28	11:15	10.5 h		3	3	dK Toulona	
9	0/6	12:4500	9.5 ft		2	Z	('	hazu - Lichtum
10	8/13	/1/15 Pm	10,0 ft		え	a	11	1074 - 10 Midu
11	8124	10:45 m	9.5 ft		3	3	ti	Sunny, calm
12	9/3	1120 m	9.5 ft		:2	ス	(Same - wonder
13		p.m.	ft					Sung -LEVEL
14		a.m. p.m.	ft					
15		a.m. p.m.	ft					
16		a.m. p.m.	ft					
17		a.m. p.m.	ft					
18		a.m. p.m.	ft				·····	
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21		a.m. p.m.	ft					
22		a.m. p.m.	ft				· · · · · · · · · · · · · · · · · · ·	
23		4.m. p.m.	ft					
24		a.m. p.m.	ft					
25		2.10. p.m.	ft				<u></u>	
		pette 1						

At the end of your sampling season, please return the top page of this form by November 10, 2007



- mer e guinan Laka Manitarina Propram 2007 Seechi Data Sheet

86-0252



CLMP4571

Delores Roeder 463 Beachwood Rd South Haven, MN 55382-9294

Lake	#86-0252
Site #	211
	Do not write in this space.

- Use a separate data sheet for <u>EACH</u> site.
- If disk is on lake bottom, mark B next to Secchi.
- PC = Physical Condition; RC = Recreational Suitability
- Record carefully: 6 ft & 9 in is 6.75 ft NOT 6.9 ft.
- For NEW sites, send in your marked lake map.

Lake Name: <u>Clearwater</u> County: Wright	
Location of Lake: 3 miles Nor The of annandele	
Phone: $(320) - 274 - 7272 =$ summer; $() =$ winter.	ŋ
Is this the same sampling site YOU monitored last year? $\sqrt{e} \leq 2$ Take depth at sampling site: $-\sqrt{2}$ ft	· ~~

13 cms	ciic sais	ne anaprine	g site i OU monit	01.04	i inst year i_		aopen at being	+++
Line	2007		Secchi		PC	RS	Color of 📲	Other
#	Date	Time	(nearest 1/2 ft)	*B	(1 5)	(1 5)	Water 🗒	3. Notes
Ex.	. <u>5/20</u> .	-10-15 (m)	55 - ft.	1	. 2.		Green 75	Breezy; Femp: 70 F
1	6/1	1:15 m	11.0 ^{ft}		2	<u> </u>	Tan	Cloudy, Breezy
2	6/12	11:45	8,5 ^{ft}		3	3	Greenish	Partly cloudy -6400
3	10/21	2:45	6,0 1		12	2	Tan/gran	Cloudy! 1
4	6/29	M.96	4:5 - it		3	3	Kelle Kore	Sunny Litelice
5	715	10:30 m	5.0 ft		E.	3	green	12/11/
6	7/12	11:300	5.0 ft	-	<u>್</u>	2	Tan grace	Partly Gudy 42mldy
<u>7</u> :	7/17	10,15 p.m.	loi 5 ft	-	3	3	is the in	Hazyson-C m
8	7/28	11:00	4.5 ft		4	- 4	dk green	Mostly sinny - calm
· 9	8/6	1:00 Am	5,5 ft		2	2	dK En/que	Nory-light wind
10	8/13	11,00 p.m.	7.5 ft		2	ユ		Wayy - Leindy
11	8/24	11:00 P.M.	7,0 ft		3	3	green	sunny, Calm!
12	9/3	1:45 p.m.	6. 5 ft	·	2.	. 7	Tan Jaken	Usindy Survey
13		a.m. p.m.	ft					1
14		a.m. p.m.	ft.					
15		រ.៣. p.m.	ft					
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17		1.0). p.m.	ft					
18		a.m. p.m.	ft				······	
19		a.m. p.m.	ft					
20	-	a.m. p.m.	ft					
21		n.m. p.m.	ft				· · · · ·	
22	+	a.m. p.m,	ft	```				
23	1 1-	1.in. p.n.	ft					
24		<u>ம</u> ர பா பா	ft					
25	*	a.m. p.m.	fi				and the second	
L		1	<u> </u>		L			

At the end of your sampling season, please return the top page of this form by November 10, 2007

Minnesota Pollution Control Agency

MPCA Citizen Lake-Monitoring Program 2005 Secchi Data Sheet

			fondoring Frog	1 aill	2002	Juci	m Data Oik	La	ke #		
									· · · · · · · · · · · · · · · · · · ·		
1				•				Sit	ie #		
	CLMP55		86-0243								
		I Derosier			• Use a separate data sheet for <u>EACH</u> site.						
	309 Alde		22						mark "B" next to Secchi.		
i	South Ha	iven, MN 553	82						RC = Recreational Suitability		
			$\cdot /$				Record ca	refully: 6 ft & 9	in is 6.75 ft - NOT 6.9 ft.		
							For NEW	sites, send in yo	our marked lake map.		
· · · · · · · · · · · · · · · · · · ·											
	Name:		-55		C	Count	y: STEA	Rn 5 9	LARIGHT		
Loca	tion of l	Lake:	miles		of _						
Phon Is this	e: $(\underline{f},\underline{J},\underline{f},\underline{f},\underline{f},\underline{f},\underline{f},\underline{f},\underline{f},f$	<u>2)- 274</u>	$-\frac{8032}{1} = sur$	nme	r; (<u>1 Z</u>)-		= win	iter.		
Line	2005	me sampiin	g site YOU moni Secchi	torec	1 last	year'	(<u> アたう</u> Lak	e depth at sau	npling site: <u>30</u> ft.		
#	Date	Time	(nearest 1/2 ft)	*B	PC	RC	Color of Water	Data Entered Online?	Other		
Ex.	5-20	2:00 (^{n.m.})		12.020	2	2			Notes		
			7 5 - 10	53-55	4	4	clear	yes	Sunny, slight breeze		
1	6-14	1) . Cl (a.m.	li [,] ft				V Set 2	no	SSR3DE		
2	6-21	7.00 pm3	9:5 ft					f 1	#109V5B 201		
3	7 37	2. 60 a.m.	θ, v ft				~	() L	S 510 711		
4	5-3	1/1 Can	10t ft				milit	11	5 churchm		
5	8-13	1/1 Lin	121 ft				CHERR.	11	3 Crecht		
6	12-24	11: 0 1 p.m.	𝕺 / ft	at	21	71	it it	11	50.		
7	1220	north p.m.	<i>i)</i> ft		eurl	in the car	1.6 DY	11	570		
8	V		ft ft	t			11,1,1	· · · · · · · · · · · · · · · · · · ·	Calm		
9	1	a.m.	ft						5.6		
10		p.m. a.m.	ft								
11		p.m. a.m.	ft				·		······································		
12		p.m. a.m.	ft				8				
13		р.т. а.т.	ft		<u></u>						
13	19-1 	p.m. a.m,	·····								
14	25.	p.m. n.m.									
15		p.m. a.m.	ft	<u>v</u>							
[]		p.m.	ft								
17		a.m. p.m.	ft								
18		a.m, <u> </u>	ft		[[
19		a.m. p.m.	ft						· · · · · · · · · · · · · · · · · · ·		
_ 20		a.m. p.m.	ft			·					
21		a.m. p.m.	ft			1					
22		a.m. p.m.	ft		-						
23		a.m.	ft								
~4		p.m. a.m.	ft								
25		<u>p.m.</u> a.m.	ft					····			
		p.m.	11								

At the end of your sampling season, please return the top page of this form by November 18, 2005

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		n Lake-Moi	nitoring Progra	m 20	07 Secchi	Data Sh		ake # <u>860</u> ite # <u>202</u> nee Use Do not write	i geren en e
Your I	Name:	and the second						nee Use Donor white	
مەلر ئىچ		Mr. Willi:			0	Use a s	eparate data shee	et for <u>EACH</u> site.	
Addre	55:		oer Ave. NW		0	If disk	is on lake bottom	, mark B next to	Secchi.
		Annandale			0	PC = P	hysical Condition	1; RC = Recreation	al Suitability
					9	Record	l carefully: 6 ft &	9 in is 6.75 ft - NO	1 6.9 If.
		<u> </u>			0	For NI	EW sites, send in	your marked lake n	uap.
	-	N.ª S	Vox		County	; _	W.Dig	aht_	
	Name: on of La	ake:	miles_504	TG.	_of	<u>2-0-1-11,5</u>	ater.	5 - 5	
Locati Phone	: (720)- <u>558 -</u>	$\frac{1.394}{1.394} = \sin \theta$	ımer	;()	1/2 31	= y I also denth at	vinter. sampling site: 🧵	' <u>2</u> ft.
Is this	the sam	ne sampling	site YOU monit	ored	last year.	yer	Color of	قر sampling site: Other	
Line	2007		Secchi	*B	PC (15)	RS (1 5)	Water	Notes	
#	Date	Time	<u>(nearest 1/2 ft)</u>		<u>(1 5)</u> 2	<u>(1 3)</u> 3	Green	Breezy, Temp	the second se
Ex.	5/20	10:15 a.m.	3.3		1	1	(leat	Cutlen -	TOF
1	0-4	11 Fra p.m.	1,07	<u> </u>		1	Cledy		
2	6-9	/// p.m.	<u>10 10</u>		1	1	Pleth	<u></u>	
3	6-14	// e p.m. a.m.		<u> </u>			Fick	UPCATie	72.
4		p.m.			1	1	Class		
5	7-2		10-10 R		1 1000	1	Clean	CAlm-1	IOF_
6	7-7	p.m.	1010	0. <u>11. 11. 11. 11.</u>	<u> </u>	1	Clent	Light K	Nor -
7	7-13	// p.m. 1 (a.mis	10,0 A		1-1-		Class		01
8	7-20		10.0			1	Clean		
9	7-27	// p.m.	10,0		11	. /	CLEAN	,	
10	8-2	10:30pm	11.0 ft		1 /	1	Clean	CH/m -	80F
11 12	8-10	10;50p.m.	$\frac{11.0}{12.5}$ ft		1	1	Clean	Ciflim -	-70F
12	8-16	//. m. /////5	12.0 A		1	1	Clean	Coff m -	JOF
15	8-27		12.0 ft	1000 C	11/	1	Clean		
15	69	// p.m.	12:0 ft		1	1	Clean	Cool NonTh	1 Pres
16	1-1	11 10 p.m. a.m. p.m.	fî						
17		a.m. p.m.	i i i i i i i i i i i i i i i i i i i						
18		a.m. p.m.	ft						
19		a.m. p.m.	ft		/				1.
20	Λ	1 AY The	AS 10 1		Adi F	<u>m</u>	MD TO G	p'of Jute	11595.
21		(a.m. p.m.	fi fi		1			-	
22		a.m. p.m.	ĥ	:					
23		a.m. p.m.	fi						
24		a.m. p.m.	f			<u> </u>			
25	-	a.m. p.m.	fi	t]					

At the end of your sampling season, please return the top page of this form by November 10, 2007



Minnesota Pollution Control Agency

MPCA Citizen Lake-Monitoring Program 2007 Secchi Data Sheet



CLMP6598 John Sedey 580 Lakeshore Cir Annandale, MN 55302 86-0251

the second s	
Lake #	
6: Ц	
Site #	Do not write in this space.
Cifree Cate	120 nor write in this space.

- Use a separate data sheet for <u>EACH</u> site.
- If disk is on lake bottom, mark B next to Secchi.
- PC = Physical Condition; RC = Recreational Suitability
- Record carefully: 6 ft & 9 in is 6.75 ft NOT 6.9 ft.
- For NEW sites, send in your marked lake map.

Lake Name: <u>Flore and</u>	County: Alisht
Location of Lake: miles	of in Anoradate
Phone: (20)-274 - 7427 = summer:	() = winter.
Is this the same sempling gits VOII mentioned	

Is this the same sampling site YOU monitored last year?	New Lake dep	oth at sampling site:	Log ft
		The state of the s	A State State

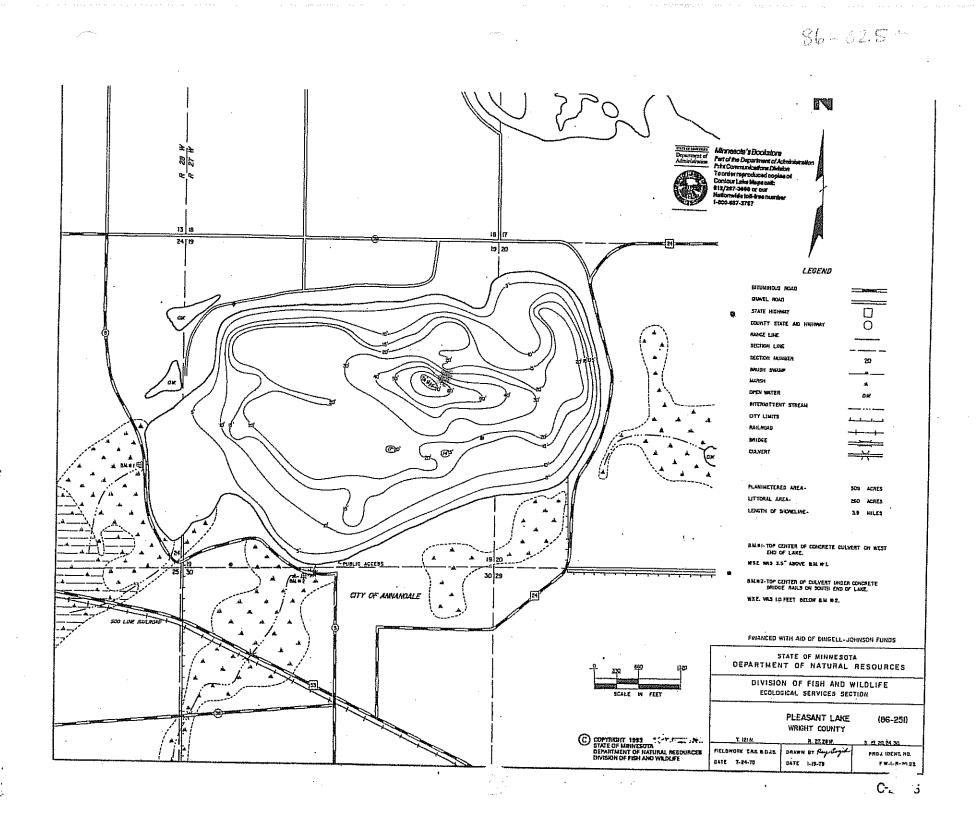
Line	2007	1	Secchi	1				
#	Date	Time	(nearest 1/2 ft)	*B	PC -	RS	Color of	Other
Ex.	5/20				(1 5)	(1 5)	Water	Notes
		10:15 (i.m.)	5.5 ft		2	3	Green	Breezy, Temp: 70 F
1	5/17	5.00 p.m.	<u>55</u> ft		17	1	Clear	Ener - 907
2	\$ 195	1,90 a.m. 1,90 p.m.	₿≦ ft		1		Carlo U.S.	Brock, - 90° F
3	19712	1/1800 (a.m.)	S, S ft		. 1	1 194	Clean	44-5- 200
4	4/9	a.m.	-9.25 ft.		1	jî de	Clea ~	Land and - PE
5	2/15	a.m.	ft		1	278	Maga-	Light Range The
6	3220	a.m.	1.0 ft		2	R.	- Haded to an a	-7-1- 870
7	8/2		<i>50</i> ft			2	Statt Gran	12 E - 750
8	File.	Gill pm	5,5 ft		<u> </u>	æ	Lefer is in	City Bennya - 200
9	124	9:00 (i.m.) p.m.	ft ft		2		Flight Corres	M.1 1500
10	4/2-	12:00 (a.m.)	ft ft		0.53	diget .		Caller - 7897
11	the los	1/22 a.m.	ft		they a	21.22 21.22	dille.	and a second second
12	9/24	272 (a.m.) p.m.	-7 ft		24		Suffer 1 Zu	
13	10/2	//. 30 p.m.	6,75 ft		**		Gold- Frogs	Calul-20°E
14.		а.т. р.т.	ft			/	<u>- Anter Jeruces</u>	<u>a and and and an Literat from</u>
15		a.m. p.m.	ft					
16 🛸	.,	a.m. p.m.	ft					· · · · · · · · · · · · · · · · · · ·
17		a.m. p.m.	ft					
18 -		a.m. p.m.	ft				·····	
19		a.m. p.m.	ft					
20		a.m, p.m.	ft					
21		a.m. p.m.	ft					
22		a.m. p.m.	ft					
23		a.m. p.m.	fì					
24		a.m.	ft		· · · · · · · · · · · · · · · · · · ·			
25	<u> </u>	p.m. a.m. p.m.	ft					······································

At the end of your sampling season, please return the top page of this form by November 10, 2007



Minnesota Pollution Control Agency

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MPCA Citizen Lake-Monitoring Program 2007 Secchi Data Sheet



Annandale, MN 55302

Jim Peterson

Box 21

86-0251

Lake	4							
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Site # Office Use	D	опс	n ii	rite	in t	hīs s	pace.	

- Use a separate data sheet for EACH site.
- If disk is on lake bottom, mark B next to Secchi.
- PC = Physical Condition; RC = Recreational Suitability
- Record carefully: 6 ft & 9 in is 6.75 ft NOT 6.9 ft.
- For NEW sites, send in your marked lake map.

Lake Name: <u>PleasanT</u>	County:	Wright	,
Location of Lake: miles	of		
Phone: (320)-274 - 5043 = summe	r; (<u>N/A_</u>)	= winter.	
Is this the same sampling site YOU monitored	d last year? <u>ا</u> ع	Lake depth at sampling site: //	<u>+</u> ft.

Line	2007		Secchi		PC	RS	Color of	Other
#	Date	Time	(nearest 1/2 ft)	*B	(1 5)	(1 5)	Water	Notes
Ex.	5/20	10:15 (a.m.)	5.5 ft		2	3	Green	Breezy, Temp: 70 F
1	5/9	4:45 a.m.	10.5 ft		2	1	Hue-clear	Calm, Sunny 80°
2	5/19	1:00 a.m.	10.5 ft		2	2	blue-clear	Calm Sunny Breezy, Sun 65° Calm, Sun 83° Calm, Sun 80°
3	5/27	3:30 0.00)	12.5 ft		2	2	bluechar	Breezy, Sun 65
4	6/10	1:30 mm	10 ^{ft}		2	2	bly e-clear	Culm Sun 83°
5	6/16	11:45 a.m.	11-5 ft		2	2	blue	Calm, Sun 80°
6	7/1	2:25 a.m.	10 ^{ft}		a .	2	blue	Breezy, Sun 80
7	7/6	7:15 a.m.	9 ft		2	2	blue/Green	Calm, Sun 90° humi
8	7/16	5:30 p.m.	7.5 ft		2	<u>2</u>		Colm, cloudy humi
9	7/22	7', 30 (p.m)	6.5 ft		2	2	1	Colm, Syn humid 83
10	8/1	3:00 am.	4.5 ft		a	2		Breezy, Sun, humid 9
11	s/ia	2:00 (n.m.)	4-5 ft		2	a		Breezy Cloudy 740
12	8/2.5	6:30 p.m.	4.5 ft		3	3	Green/weeds	
13	8/30	11:00 (L.M.)	ft		3	3		Calm Storm 70°
14	9/3	10:30 🕮	4 ft		3		Green	Colm Sunn 75°
15	9/22	3:300 m.	6.5 ft		2	3	Green/ the	Calm Synny 78
16	10/7	3:00	6.5 ft		2	2	Greendelear	Calm, PSunny 800
17	10/17	10:00	8.5 ft		2	2	Green/cltar	Calm, Cloudy 53
18		a.m. p.ni	ft					
19		a.m. p.m.	ft					
20		1.m. p.m.	ft					
21		a.m. p.m.	ft					
22		и.т. р.п.	ft					
23		a.m. p.m.	ft					
24		a.m. p.m.	ft					<u> </u>
. 25		a.m. p.m.	ft					

At the end of your sampling season, please return the top page of this form by November 10, 2007

Minnesota Pollution Control Agency

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2007 Water Quality Laboratory Reports and Data



REPORT OF: WATER ANALYSIS

PROJECT:		WD NNESOTA				DATE:	June 5, 2007	
REPORTED TO	AT 180 PO	NCK ASSOCI FN: REBECCA 0 PIONEER C BOX 249 PLE PLAINS,	A KLUCKHO REEK CTR	HN				
LABORATORY	Y NO: 98-5	6760						
Date Received:	0 4-1	.9-07						
Date Sampled:	04-1	8-07						
Authorization:	04-1	.9-07						
	SCE01	SCE03	SSW01	SSW02	SSW03			Date
<u>Parameter</u>	<u>07-1635</u>	<u>07-1636</u>	<u>07-1637</u>	<u>07-1638</u>	<u>07-1639</u>	<u>MDL</u>	Method*	<u>Analyzed</u>
T-Phosphorus	0.041	0.054	0.218	0.112	0.071	0.01	4500:B.5&E	05-11
O-Phosphorus	< 0.005	0.0063	< 0.005	0.048	0.010	0.005	4500-P:E	04-19
TSS	9.00	<4.00	43.0	<4.00	<4.00	4.0	2540D	04-20
VSS	5.00	<4.00	25.0	<4.00	<4.00	4.0	2540 D&E	04-20
	SHE01	SDD01	SSW04	FD1				Date
Parameter	<u>07-1640</u>	<u>07-1641</u>	<u>07-1642</u>	<u>07-1643</u>	3	MDL	Method	Analyzed
T-Phosphorus	0.148	0.054	0.227	0.245		0.01	4500:B.5&E	05-11
O-Phosphorus	< 0.005	0.043	0.0055	0.0063		0.005	4500-P:E	04-19
TSS	10.0	<4.00	12.0	13.0		4.0	2540D	04-20
VSS	9.00	<4.00	12.0	13.0			2540 D&E	04-20

MDL - Method Detection Limit

All results are in milligrams per liter.

Standard Methods of Water & Wastewater 18th Edition, 1992

LABORATORY QUALITY CONTROL

ACCURACY DATA

PRECISION DATA

		Matrix Spike	Matrix Spike Duplicate	Standard	Relative Percent
Parameter	<u>Sample #</u>	Percent Recovery	Percent Recovery	Percent Recovery	Difference
T. Phosphorus	07-1636	93%	95%		2.3%
O-Phosphorus	07-1635	95%	97%		1.6%
TSS	07-1639			an an an	0.0%
VSS	07-1639				0.0%

The samples were consumed in the analyses. If you have any questions or comments concerning this report, please feel free to contact us.

TETRA TECH Vidginia VerMulm Manager

R:data\wpfiles\dth\2006\wenck\6760crwd-015

d--1/

Dan T. Hanson Chemistry Manager

SAMPLE RECEIPT CHECKLIST

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CLIENT NAME	: Wrac	6
PROJECT:	CRH	D
LABORATORY	NUMBER:	9852760

4/15/07 DATE RECEIVED:___ CARRIER:

CHECKLIST COMPLETED BY: DIF

YES
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nalyst)

			A /							<u> </u>							Nº 6964	
		AIN OF REC					1800	WENC Pionee Maple Pho FA	r Cree Plain,)ne: (7	k Ctr.	– P.O. 5359-02 9-4200	Box 24	19			FIELD CO	ORDINATOR BCL	
PROJ. NO.	2-	108		PROJ. I	XAME 2WD-51	Cenans				<u>(</u> ,	_						REMARKS	
sampler. A			Zoll	7 7 			MPLE MA	ATRIX		On the	155	V55				Turi	nalyses, Detection Limits. around Time, Preservation, C, Run/Hold, Previous Dat	a)
Sample	Date	Time	Сотр.	Grab	Sample Descr	iption Soil	Water	Other							-	5000	H- L'Apressinied H- H-SO4	
1635	<u>4 (é/c7</u>			X	ISCEL	<u></u>	X		X	×	×	X					Ha-04	
1636 1637		10:35			SCEO. SSUVO	5												
1638		11:00			551.003 551.003 551.003								<u> </u>					···
1639		11:20 12:05	1		SSW03													
1640 1641 1642 1643		11:35			SHEØJ SDØJ													
1472		17:30			551004				<u> </u>									
643	/				FD				<u> </u>	/								
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Relinquished	la I	nature) I	Date 4/18/07	Time 14. 30	Relinquished by:	(Signature)		Relinqui	shed by:	(Signature	 :)		Date	Time	Reling	uished by: (Sig	gnature)	
Relinquished	by: (Sig	iature)	Date	Time	Received for Labo			Date		Time		ling/Rece		1	ـــــــــــــــــــــــــــــــــــــ			
					DISTRIBU	TION: Origir	al Accor	mpanies	Shipme	nt; Cop	y to Coc	ordinato	r Field	Files		11910-	7 /000	



Tetra Tech 601 East 48th Street North Sioux Falls, South Dakota 57104-0698 (605) 332-5371 Fax: (605) 332-۶

REPORT OF: WATER ANALYSIS

PROJECT: CRWD **DATE:** June 22, 2007 **MINNESOTA REPORTED TO:** WENCK ASSOCIATES, INC. ATTN: REBECCA KLUCKHOHN 1800 PIONEER CREEK CTR PO BOX 249 MAPLE PLAINS, MN 55359 LABORATORY NO: 98-56760 Date Received: 05-18-07 Date Sampled: 05-17-07 Authorization: 05-18-07 SSW04 SCE01 SCE03 SSW03 SSW02 Date Parameter 07-2270 07-2271 07-2272 07-2273 07-2274 MDL Method^{*} Analyzed **T-Phosphorus** 0.334 0.018 0.306 0.024 0.415 0.01 4500:B.5&E 06-05 **O-Phosphorus** 0.181 00057 0.006 0.020 0.146 0.005 4500-P:E 05-18 TSS 26.5 7.00 39.0 < 4.0011.0 4.0 2540D 05-18 VSS 15.0 < 4.00 11.0 <4.00 7.00 2540 D&E 4.0 05-18 SSW01 SDD01 SHE01 FD Date Parameter 07-2275 <u>07-2276</u> 07-2277 07-2278 MDL Method* Analyzed **T-Phosphorus** 0.259 0.405 0.279 0.353 0.01 4500:B.5&E 06-05)-Phosphorus 0.022 0.067 0.011 0.115 0.005 4500-P:E 05-18 TSS 67.0 6.00 29.0 10.0 4.0 2540D 05-18 VSS 38.0 < 4.00 23.0 5.00 2540 D&E ---05-18

MDL - Method Detection Limit

All results are in milligrams per liter.

* Standard Methods of Water & Wastewater 18th Edition, 1992

LABORATORY QUALITY CONTROL

ACCURACY DATA

PRECISION DATA

<u>Parameter</u> T. Phosphorus	<u>Sample #</u> 07-2278	Matrix Spike Percent Recovery 101%	Matrix Spike Duplicate <u>Percent Recovery</u> 104%	Standard Percent Recovery	Relative Percent <u>Difference</u> 1.3%
O-Phosphorus	07-2270	97%	90%	17 M 49	3.1%
TSS	07-2270				3.8%
VSS	07-2270				0.0%

The samples were consumed in the analyses. If you have any questions or comments concerning this report, please feel free to contact us.

TETRA TECH Virginia VerMuln Manager

R:data mpfiles/dth/wenck/2007/6760crwd-004

Dan T. Hanson Chemistry Manager

CLIENT NAME: Wenck PROJECT: <u>Georgeonete</u> LABORATORY NUMBER: <u>985</u> , 760 CHECKLIST	DATE RECEIVED: 5/18/67 CARRIER: Fels
CHERALES I COMPPLETED BY:	YES 13. $f_{col}F_{lozen}$ Blue ice present? 14. Container temperature? Z . E C 15. All samples recieved within holding time? PRESERVATION: 16. pH check performed by:
at contacted for any reason? YESNO_X	

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															<u>N</u> Q 72.3
			/en				1800	Pionee	r Cree		- P.O .]	Box 24	9	-	FIELD COORDINATOR
C	CHAI	IN OF (RECO	CUSTC)RD	DY				Pho	ne: (7	MN 55 63) 479 3) 479-	-4200	49			AIRBILL NO.
PROJ. NO.				PROJ. N										1	DEMADUO
0007		W		(reiventer				-						REMARKS (Analyses, Detection Limits,
SAMPLERS (Sig	gnature Inter	12	N			SAN	IPLE MA	TRIX	2	20	17.1	2			Turnaround Time, Preservation, QA/QC, Run/Hold, Previous Data)
Sample		_													
57)ate 7.07	Time	Comp.	Grab	Sample Description	Soil	Water	Other	<u> </u>		ļ		ļ		
2270 34		1330		<u> </u>	SSWOLY	ļ	X		X	×	×	X	L		
2271		5520			SCEOI							1			
2272		10:10			SCEOS										
2273		1030			SSW03										
2274		6-15			SSW02										
2275		1130			SSWOL										
2276		1700			50001							++	-		-
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2278 51	1			×	FD		K		×	×	X	<u> </u>	<u> </u>		
								<u> </u>		-	<u> </u>		<u> </u>	+	
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						1						<u> </u>			-
								<u> </u>							
								<u> </u>		-					
Relinquished by:	: (Sign	ature)	Date 5/17/07	Time 14D5	Relinquished by: (Signa	Lure)	L	Relinqu	lished by:	(Signatu	l re)	1	Date	Time	Relinquished by: (Signature)
Relinquished by:	: (Sign	ature)	Date	Time	Received for Laboratory	by: (Signa	ture)	Date 5/19	k7	Time OGU		pling/Rec	eipt Com	inents	ut

.

DISTRIBUTION: Original Accompanies Shipment; Copy to Coordinator Field Files



Tetra Tech 601 East 48th Street North Sioux Falls, South Dakota 57104-0698 (605) 332-5371 Fax: (605) 332-8488

REPORT OF: WATER ANALYSIS

PROJECT:	CR	WD						
		<u>NNESOTA</u>				DATE: Ju	ly 11, 2007	
REPORTED T	AT 180 PO MA	ENCK ASSOC TN: REBECC 00 PIONEER C BOX 249 PLE PLAINS	A KLUCKI REEK CTF	łOHN ₹				
LABORATOR		56760				a.t		
Date Received:		05-07						
Date Sampled:		04-07						
Authorization:	06-0)5-07						
<u>Parameter</u> T-Phosphorus O-Phosphorus TSS VSS	SCE03 07-2649 0.183 0.011 5.00 <4.00	SSW02 <u>07-2650</u> ≭ 2.61 0.416 172 135	SSW03 07-2651 0.157 0.060 5.00 <4.00	SDD01 07-2652 0.173 0.127 4.00 <4.00	SHE01 07-2653 0.256 0.011 37.0 29.5	<u>MDL</u> 0.01 0.005 4.0 4.0	<u>Method</u> * 4500:B.5&E 4500-P:E 2540D 2540 D&E	Date <u>Analyzed</u> 06-25 06-05 06-07 06-02
Parameter [*] -Phosphorus J-Phosphorus TSS VSS	SSW04 <u>07-2654</u> 0.781 0.493 7.00 6.00	SCE0 <u>07-265</u> 0.035 < 0.00 7.00 5.00	<u>5</u>	FD1 07-2656 0.043 < 0.005 9.00 5.00	<u>MDL</u> 0.01 0.005 4.0	4500: 450 25	ethod :B.5&E 0-P:E 40D) D&E	Date <u>Analyzed</u> 06-25 06-05 06-07 06-02

MDL - Method Detection Limit

All results are in milligrams per liter.

*Standard Methods of Water & Wastewater 18th Edition, 1992

LABORATORY QUALITY CONTROL

ACCURACY DATA

PRECISION DATA

<u>Parameter</u> T. Phosphorus O-Phosphorus TSS VSS	<u>Sample #</u> 07-2649 07-2649 07-2653 07-2653	Matrix Spike <u>Percent Recovery</u> 97% 95%	Matrix Spike Duplicate <u>Percent Recovery</u> 93% 97% 	Standard <u>Percent Recovery</u> 	Relative Percent <u>Difference</u> 4.7% 1.4% 0.0% 3.4%
---	---	---	---	---	---

The samples were consumed in the analyses. If you have any questions or comments concerning this report, please feel free to contact us.

TETRA TECH

VerMulm inginia Manager

R:data/wpfilds/dth/wenck/2007/6760crwd-009

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Dan T. Hanson Chemistry Manager

<u>SAMPLE</u>	RECEIPT	CHECKL	IST
---------------	---------	--------	-----

DATE RECEIVED: 6/5/07 CARRIER: Falx

CHECKLIST COMPLETED BY:_____D/+

Contacted by?

Additional Comments:

Regarding?

	YES NO		YES	
1. Shipping container in good condition?	¥ —	13. Ics/Frozen Blue Ice present?	Ť	-
 Custody seals present on shipping container? Condition: Interty Declaration 	<u> </u>	 14. Container temperature? <u>1.6</u> 15. All samples recieved within holding time? 	X	
Condition: Intact Broken Chain of custody present?	X	PRESERVATION: 16. pH check performed by: DH-		
5. Chain of custody signed when relinquised and recieved?	<u>→</u>	17. Metals bottle(s) pH < 2?		
). Chain of custody agrees with sample labels?	×	18. Nutrient bottle(s) pH < 27	<u> </u>	
7. Custody seals on sample bottles?	<u> </u>	19. Cyanida bottle(s) pH > 12?	<u></u>	
I. Condition: Intact Broken		20. Oil & Grease bottle(s) pH < 2?		
. Samples in proper container/bottle?	<u>x</u> _	21. DRO/418.1 bottle(s) pH < 2?		
0. Samples intact?	×	22. Fnenolics hottle(s) pH < 2?	·····	
1. VOA vials have zero headspace?	N/A	23. Volatiles (VOA) pH < 27 (checked by analyst)		
2. Trip Blank recieved?	_/~			
lient contacted for any reason? YES	NOK			
erson contacted?	1			
ate contacted?				



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	1126 North New Ulm, N Phone: (507) 354	M <i>TORIES, Im</i> Front Street MN 56073	<i>c.</i>			Ch	alı	nc)f	Cu	ISt	od	y∣	Re	eCo	ord		age		_0f	
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				T		<u> </u>		T	B	ottle	э Ту	pe				· · · · · · · · · · · · · · · · · · ·		A	nalys	sis	
Lab Number	Sample ID	Sample Type (Food, Soil,	Date	Time	VOC Vials	600 ml unpres.	1000 ml unpres.	500 ml HNO3	1000 ml HNO3	500 ml H2SO4	1000 ml H2SO4	ile plastic	Amber H2SO4	500 ml NaOH	red? Y or N	other: Suff	TP	', Of	? TS	sis S,VSS	
	SCE03	Water, Etc.)	Sampled	Sampled	Ŝ		ê	500	1000	20	100	Ster	Amb	500 r	Filter	Other Diffe		Analys	cic Do	quired	
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6/5/07 Please submit the top two copies with your samples. We will return the completed original with users to

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Tetra Tech 601 East 48th Street North Sioux Falls, South Dakota 57104-0698 (605) 332-5371 Fax: (605) 332-

REPORT OF: WATER ANALYSIS

PROJECT:		WD NNESOTA				DATE: Ju	ly 25, 2007	
REPORTED 1	AT 180 PO MA	NCK ASSOC FN: WES BC 0 PIONEER BOX 249 PLE PLAINS	OLL CREEK CTH	ર				
LABORATOR	Y NO: 98-5	6760						
Date Received:		9-07						
Date Sampled:		8-07			•			
Authorization:		8-07						
Parameter T-Phosphorus O-Phosphorus TSS VSS	SCE01 07-3055 0.062 0.014 13.0 5.00	SSW04 07-3056 1.21 0.276 9.00 4.00	SCE03 07-3057 0.217 0.0046 20.0 8.00	SSW02 07-3058 1.00 0.448 60.0 45.0	SSW03 07-3059 0.666 0.118 158 39.0	<u>MDL</u> 0.01 0.005 4.0 4.0	<u>Method</u> 4500:B.5&E 4500-P:E 2540D 2540 D&E	Date Analyzed 07-06 06-19 06-22 06-22
Parameter T-Phosphorus D-Phosphorus TSS VSS	SDD01 07-3060 0.538 0.411 <4.00 <4.00	SHE(<u>07-30</u> 0.68 0.03 95.0 45.0	<u>61</u> 1 1	FD1 07-3062 0.053 < 0.005 6.00 4.00	<u>MDL</u> 0.01 0.005 4.0	4500 450 25	ethod" :B.5&E 0-P:E i40D) D&E	Date <u>Analyzed</u> 07-06 06-19 06-22 06-22

MDL - Method Detection Limit

All results are in milligrams per liter.

* Standard Methods of Water & Wastewater 18th Edition, 1992

LABORATORY QUALITY CONTROL

ACCURACY DATA

PRECISION DATA

<u>Parameter</u> T. Phosphorus O-Phosphorus TSS	<u>Sample #</u> 07-3011 07-3055 07-3061	Matrix Spike <u>Percent Recovery</u> 103% 97%	Matrix Spike Duplicate Percent Recovery 90% 96%	Standard Percent Recovery	Relative Percent <u>Difference</u> 13% 0.8%
VSS			****	-	2.1%
6CC V	07-3061				4.4%

The samples were consumed in the analyses. If you have any questions or comments concerning this report, please feel free to contact us.

TETRA TECH Virginia VerMulm Ą Manager

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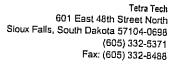
Dan T. Hanson Chemistry Manager

	CEIPT CHECKLIST
CLIENT NAME: <u>heach</u> PROJECT: <u>Clearwater</u> LABORATORY NUMBER: <u>9</u> 257.70 CHECKLIST COMPLETED BY: <u>Alf</u>	DATE RECEIVED: 6/15/07 CARRIER: 5/05
YES NO 1. Shipping container in good condition? Yes 2. Custody seals present on shipping container? Yes 2. Custody seals present on shipping container? Yes 3. Condition: Infact	YES 13 conference of the fee present? 14. Container temperature? 0.2 (15. All samples recieved within holding time? 15. All samples recieved within holding time? 16. pH check performed by: 0 (17) 17. Metals bottle(s) pH < 2? 18. Nutrient bottle(s) pH < 2? 19. Cyanida bottle(s) pH < 2? 20. Oil & Grease bottle(s) pH < 2? 21. DRO/418.1 bottle(s) pH < 2? 22. Fhenolics bottle(s) pH < 2? 23. Volatiles (VOA) pH < 2? (checked by analyst)
ent contacted for any reason? YESNO on contacted? contacted? acted by? rding?	
ional Comments:	

Contact Name was 32 (Company was 32 (Mailing Address City, State, Zip Telephone #		labserv Phone: 9 Project IE	ers and sar ices@bra 52-995-2600	- SER npling inquires: unintertec.c) Fax: 952-995 2 Contrological Controlog	om -2601		Time Rush (Rush /	Charge Quote ntact dress	es Auth	orized	? (Projec	Yes _		- p Comps	αηγ				
<u>E-mail</u>	Fax #				()	Ž	Tel	ephor					Fax					······	-
Special Instructions and/or Specific Reg (method, limit of detection, petrofund, reporting units)	ulatory Req	uirements			Number of Containers	Metals Field Filtered Y/N				(E	A inter an '	NALY: X' in the	SIS RE	OUE:	STED	equest)			
CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Numb	Aetals F		Ŕ,	3/~	/ 5/~	55/		/ /			/ /	FC	OR LAB	
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REPORT OF: WATER ANALYSIS

		11	EI OKI OF: 1	WALEK ANAL	1818		
PROJECT:		WD <u>NNESOTA</u>			DATI	E: July 3, 2007	
REPORTED T	AT 180 PO	NCK ASSOCIA IN: REBECCA I 0 PIONEER CRE BOX 249 PLE PLAINS, M	KLUCKHOHN EEK CTR				
LABORATOR		6760					
Date Received:		.6-07					
Date Sampled:		.5-07					
Digestion Date:	06-0	4-07					
<u>Parameter</u> T-Phosphorus O-Phosphorus Total Nitrogen Chlorophyll A Iron	LCE01T 07-2458 0.018 <0.005 0.949 147	LCE01B 07-2459 0.056 0.039 0.14	LSW01T 07-2460 0.254 0.0078 1.61 8.01	LSW01B 07-2461 0.350 0.0070 0.90	<u>MDL</u> 0.01 0.005 0.01 0.2 0.03	<u>Method</u> * 4500:B.5&E 4500-P:E 4500-NO ₃ :E 10200H 3111B	Date <u>Analyzed</u> 06-21 05-26 06-12 05-31 06-05
Parameter T-Phosphorus Phosphorus Jtal Nitrogen Chlorophyll A Iron	LAL01T 07-2462 0.112 0.0078 2.39 34.2	LAL01B 07-2463 0.110 0.011 0.25	LHE01T 07-2464 0.193 <0.005 1.33 107	LHE01B 07-2465 0.191 < 0.005 0.32	<u>MDL</u> 0.01 0.005 0.01 0.2 0.03	<u>Method</u> * 4500:B.5&E 4500-P:E 4500-NO ₃ :E 10200H 3111B	Date <u>Analyzed</u> 06-21 05-18 05-18 05-18 06-05

MDL - Method Detection Limit

All results are in milligrams per liter.

Standard Methods of Water & Wastewater 18th Edition, 1992

LABORATORY QUALITY CONTROL

ACCURACY DATA

PRECISION DATA

<u>Parameter</u> T. Phosphorus O-Phosphorus	<u>Sample #</u> 07-2461 07-2458	Matrix Spike <u>Percent Recovery</u> 103% 96%	Matrix Spike Duplicate <u>Percent Recovery</u> 94% 97%	Standard Percent Recovery	Relative Percent <u>Difference</u> 9.5%
Total Nitrogen	07-2295	98%	97% 103%		0.8%
Chlorophyll A Iron	07-2458				2.2% 1.4%
11011	07-2463	94%	96%		1.4%

The samples were consumed in the analyses. If you have any questions or comments concerning this report, please feel free to contact us.

TETRA TECH inia VerMulm lanager

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Dan T. Hanson Chemistry Manager

WB. . INVER

SAMPLE RECEIPT CHECKLIST

CLIENT NAME	Wench	
PROJECT:	CRND	
LABORATORY	NUMBER: 925	(760

DATE RECEIVED: 5/26/07 CARRIER: Fed.

CHECKLIST COMPLETED BY: <u>DH</u>

	YES NO	· YES
. Shipping container in good condition?	<u>× </u>	13 Ice/Brozen Blue Ice present?
. Custody seals present on shipping container?		14. Container temperature? 3,19
3. Condition: Intact Broken	— ×	15. All samples recieved within holding time?
4. Chain of custody present?	<u>×</u> _	16. pH check performed by:
5. Chain of custody signed when relinquised and recieved?	$\mathbf{\dot{\mathbf{x}}}$	17. Metals bottle(s) pH < 27
6. Chain of custody agrees with sample labels?	<u> </u>	18. Nutrient bottle(s) pH < 27
/. Custody seals on sample bottles?	X	19. Cyanide bottle(a) pH > 12?
E. Condition: Intact Broken		20. Oil & Grease bottle(s) pH < 2?
9. Samples in proper container/bottle?	λ —	21. DRO/418.1 bottle(s) pH < 2?
0. Samples intact?	≻ _	22. Phenolics bottle(s) pH < 27
I. VOA vials hava zero headspace?	AL	23. Volatiles (VOA) pH < 2? (checked by analyst)
2. Trip Blank recieved?	' A	
ient contacted for any reason? YES	NO X	
rson contacted?		
te contacted?		
ntacted by?		
garding?		

Wenc		WENG		<u> </u>		<u>Nº</u> 7370
CHAIN OF CUSTODY RECORD		1800 Pionec Maple Pho	CK ASSOCIATE er Creek Ctr. – I e Plain, MN 5535 one: (763) 479-4 AX: (763) 479-42	P.O. Box 249 9-0249 200		FIELD COORDINATOR W BOLL AIRBILL NO. 955 (9 0962 3550
PROJ. NO. 0007-108	RWD-Lakes					
SAMPLERS (Signature)		SAMPLE MATRIX	A GI	Chlor-A Total To		<u>REMARKS</u> (Analyses, Detection Limits, Turnaround Time, Preservation, QA/QC, Run/Hold, Previous Data)
1.D. Date Time Comp. Gra 2458 - 1/34/17 0555	ab Sample Description	Soil Water Other				BECOME Unpreserved BESOME Hasay DESOME HAND DIL Amber
2455 1 0415 X	- L-CEOIB		XX. XX	X X X		A,B,D
2460 1075 X 2461 1075 X	C LSWOIT		XX	× x x		A, B, D
2462 125 X 2463 1135 X	E LALOIT	X	XX	XX	<u> </u>	A, B, C A, B, D
2464 V 1210 ×	- LHEOIT		XX XX)		<u> </u>	A, B, C A, B, D
2445 GPAUT (770 ×	LHEOIB	X	XX	X		A,B,C
Relinquished by: (Signature) Date Time	Relinquished by: (Signature	e) Relinquis	shed by: (Signature)	Date	Time Reling	uished by: (Signature)
Refinquished by: (Signature) Date Time	Received for Laboratory by:	(Signature) Date	Time	Sampling/Receipt Comr	nents	ursheu by: (Signature)
	DISTRIBUTION: (Original Accompanies	Shipment; Copy to	Coordinator Field	Files	

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TETRA TECH, INC.

REPORT OF: WATER ANALYSIS

PROJECT: CRWD MINNESOTA				DATE: August 14, 2007								
REPORTED TO	ATT 1800 PO I	NCK ASSOCIAT N: REBECCA & PIONEER CRE BOX 249 PLE PLAINS, M	LUCKHOHN EEK CTR	·								
LABORATORY				·····								
Date Received:	06-3											
Date Sampled:	06-29											
Digestion Date:	07-12	2-07										
	LCE01T	LCE01B	LSW01T	LSW01B			Date					
Parameter	<u>07-3362</u>	<u>07-3363</u>	<u>07-3364</u>	<u>07-3365</u>	MDL	Method*	Analyzed					
T-Phosphorus	0.045	0.158	0.358	0.391	0.01	4500:B.5&E	07-23					
O-Phosphorus	< 0.005	0.121	0.017	0.014	0.005	4500-P:E	06-30					
Total Nitrogen	1.13		4.37		0.01	4500-NO3:E	07-17					
Chlorophyll A	11.2		264		0.2	10200H	07-06					
Iron	~~=	0.08		0.69	0.03	3111B	07-18					
	T AT 0177		1.1150100	TITTO								
Parameter	LAL01T	LAL01B	LHE01T	LHE01B	1 (1) 7	*	Date					
T-Phosphorus	<u>07-3366</u> 0.252	<u>07-3367</u> 0.230	$\frac{07-3368}{0.422}$	07-3369	$\frac{MDL}{0.01}$	Method [*]	Analyzed					
-Phosphorus	0.136	0.137	< 0.005	0.395 <0.005	$0.01 \\ 0.005$	4500:B.5&E	07-23					
1 otal Nitrogen	3.11	0.107	6.76	< 0.005	0.005	4500-P:E	06-30					
Chlorophyll A	4.27		262	****	0.01	4500-NO₃:E 10200H	07-17					
Iron		0.54	202	0.47	0.2	3111B	07-06 07-18					
		0.01		V.77	0.05	J11D	07-10					

MDL - Method Detection Limit

All results are in milligrams per liter.

* Standard Methods of Water & Wastewater 18th Edition, 1992

LABORATORY QUALITY CONTROL

ACCURACY DATA

PRECISION DATA

Parameter T. Phosphorus O-Phosphorus Total Nitrogen Chlorophyll A	Sample # 07-3357 07-3362 07-3362 07-3364	Matrix Spike <u>Percent Recovery</u> 97% 97% 98%	Matrix Spike Duplicate <u>Percent Recovery</u> 104% 95% 103%	Standard <u>Percent Recovery</u> 	Relative Percent <u>Difference</u> 6.8% 2.4% 2.3% 6.1%
Iron	07-3363	94%	94%		$6.1\% \\ 0.0\%$

The samples were consumed in the analyses. If you have any questions or comments concerning this report, please feel free to contact us.

TETRA TECH ^vuginia VerMulm Manager

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Dan T. Hanson Chemistry Manager

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CLIENT NAME: <u>CRWD</u> PROJECT:	DATE RECEIVED: 6/30/c	57
LABORATORY NUMBER: <u>985</u> 746 CHECKLIST COMPLETED BY: <u>017</u>		
YES NO	YES	-
2. Custody seals present on shipping	13 Ice/Frozen Blue Ice present?	-
containse?	15. All samples recieved within holding time?	-
. Condition: Intect Broken /		:
. Chain of custody present?	16. pH check performed by:	
Chain of custody signed when milinquised and recieved?	17. Metals boule(s) pH < 27	
Chain of custody agrees with sample labels?	18. Nutrient bottle(0) pH < 27	
Custody scale on sample bottles?	19. Cyanida bonis(a) pH > 12?	
Condition: IntectBroken	20. Oil & Greaze bottle(a) pH < 27	
Samples in proper container/bottle?	21. DRO/418.1 bottle(s) pH < 27	
Samples intact?	22. Fhencelics bottle(s) pH < 27	
VOA vials have zero headspace?	23. Volatiles (VOA) pH < 2? (checked by analyst)	
Trip Blank recieved?		
nt contacted for any reason? YESNO		
on contacted?		
contacted?		
cted by?		
ding?		
onal Comments:		

(a maala ahaa ahaa ahaa ahaa ahaa ahaa ah			Nº 7.J1
CHAIN OF CUSTOR	DDY	1800 Pioneer Maple F Phon	X ASSOCIATES, INC. Creek Ctr. – P.O. Box 2 Plain, MN 55359-0249 ne: (763) 479-4200 X: (763) 479-4242	49	FIELD, COORDINATOR MBOLL AIRBILL NO.
PROJ. NO. (2002 - 108) SAMPLERS (Signature) Westing Boll	CRWD-L	SAMPLEMATRIX	CHOP OP A	TotalFe	REMARKS (Analyses, Detection Limits. Turnaround Time, Preservation, QA/QC, Run/Hold, Previous Data)
Sample Time Comp. 1.D. Date Time Comp. 3362 9/29/17 9:00 Image: Comp.	Grab Sample Descriptio	tion Soil Water Other	XXXX		B250mL H2504 D260mL HNO, D1LGlass Amber
3363 9:15 3364 10:30	LCEOIB LSWOIT			X	ABD ABC ABD
3345 10:45 3346 11:10	LSWOIB LALOIT		× × × × ×	X	ABO ABD
3367 11:20 3368 11:50 3369 - 12:00	LALØIB LHEØIT		X X X X X X X	X	ABC
	- LHEOR		× ×		ABQ
Relinquished by: (Signature) Date	Time Relinquished by: (Signature)	Signature) Relinquist	ied by: (Signature)	Date Time	Relinquished by: (Signature)
Relinquished by: (Signature) Date	Time Received for Laborate	atory by: (Signature) Date	07 1419	ccipt Comments	

DISTRIBUTION: Original Accompanies Shipment; Copy to Coordinator Field Files



Tetra Tech 601 East 48th Street North Sioux Falls, South Dakota 57104-0698 (605) 332-5371 Fax: (605) 332-8488

REPORT OF: WATER ANALYSIS

PROJECT:	CRW <u>MIN</u>	'D <u>NESOTA</u>			DATE	: August 14, 2007	
REPORTED TO	ATT 1800 PO B	ICK ASSOCIAT N: REBECCA K PIONEER CRE OX 249 LE PLAINS, M	LUCKHOHN EK CTR				
LABORATORY	NO: 98-56	760			, <u>, , , , , , , , , , , , , , , , , , </u>		······································
Date Received:	07-28	-07					
Date Sampled:	07-27	-07					
Digestion Date:	08-09	-07					
	LCE01T	LCE01B	LSW01T	LSW01B			Date
Parameter	07-4015	07-4016	07-4017	07-4018	MDL	Method [*]	Analyzed
T-Phosphorus	0.020	0.150	0.184	0.211	0.01	4500:B.5&E	08-03
O-Phosphorus	0.0061	0.129	0.0053	0.0053	0.005	4500-P:E	07-28
Total Nitrogen	1.15		3.13		0.01	4500-NO ₃ :E	08-10
Chlorophyll A	8.54		130		0.2	10200H	08-05
Iron		0.12		0.18	0.03	3111B	08-14
	LAL01T	LAL01B	LHE01T	LHE01B			Date
Parameter	07-4019	07-4020	07-4021	07-4022	<u>MDL</u>	Method*	Analyzed
Phosphorus	0.263	0.242	0.493	0.476	0.01	4500:B.5&E	08-03
-Phosphorus	0.032	0.035	0.0061	< 0.005	0.005	4500-P:E	07-28
Total Nitrogen	4.10		7.66		0.01	4500-NO3:E	07-28
Chlorophyll A	238		342		0.2	10200H	08-05
Iron		0.41		0.53	0.03	3111B	08-14

MDL - Method Detection Limit

All results are in milligrams per liter.

* Standard Methods of Water & Wastewater 18th Edition, 1992

LABORATORY QUALITY CONTROL

ACCURACY DATA

PRECISION DATA

<u>Parameter</u> T. Phosphorus	<u>Sample #</u> 07-4020	Matrix Spike <u>Percent Recovery</u> 102%	Matrix Spike Duplicate <u>Percent Recovery</u> 110%	Standard <u>Percent Recovery</u>	Relative Percent <u>Difference</u> 10%
O-Phosphorus	07-4015	98%	94%		6.6%
Total Nitrogen	07-4015	99%	92 %		3.7%
Chlorophyll A Iron	07-4017 07-4147	106%	102 %		0.0% 3.8%
		10070	102 //		5.070

The samples were consumed in the analyses. If you have any questions or comments concerning this report, please feel free to contact us.

TETRA TECH

ia VerMulm . 2 Manager <u>ح</u>A R:datawpfiles\dth\wenck/2007/6760crwd-016

Dan T. Hanson Chemistry Manager

SAMPLE RECEIPT CHECKLIST

LABORATORY NUMBER: CHECKLIST COMPLETED BY:	<u>1015-4027</u>	
 Shipping container in good condition? Custody seals present on shipping container? Condition: Intact Broken Chain of custody present? Chain of custody signed when relinquised and recieved? Chain of custody agrees with sample labels? Custody seals on sample bottles? Condition: Intact/ Broken Samples in proper container/bottle? Samples intact? VOA vials have zero headspace? Trip Blank recieved? 	YES NO X X X X X X Y X X X X X X X X X X X X X	YE 13. Ice/Frozen Biue Ice present? 14. Container temperature? 4.02 15. All samples recieved within holding time? PRESERVATION: 16. pH check performed by: 17. Metals bottle(s) pH < 2? 18. Nutrient bottle(s) pH < 2? 19. Cyanide bottle(s) pH > 12? 20. Oil & Grease bottle(s) pH < 2? 21. DRO/418.1 bottle(s) pH < 2? 22. Phenolics bottle(s) pH < 2? 23. Volatiles (VOA) pH < 2? (checked by analyst)
ent contacted for any reason? YES son contacted? e contacted? tacted by? arding? arding? itional Comments: Coolor Not Salacay pelicery	at FeliEx wat maded	For pickup on Siturday Am on Falty labol TRATECH, INC.

TETRA TECH

REPORT OF: WATER ANALYSIS

PROJECT:	CRV <u>MIN</u>	VD NESOTA			DATE	: October 31, 2007	7
REPORTED T	ATT 1800 PO E	NCK ASSOCIAT N: REBECCA I PIONEER CRE BOX 249 PLE PLAINS, M	KLUCKHOHN EEK CTR				
LABORATOR Date Received: Date Sampled: Digestion Date:	Y NO: 98-56 08-24 08-24 08-29	5-07 1-07				A	
<u>Parameter</u> Chlorophyll A T-Phosphorus O-Phosphorus Total Nitrogen Iron	LCE01T 07-4727 13.9 0.031 0.0057 1.11	LCE01B 07-4728 0.159 0.139 0.044	LSW01T 07-4729 269 0.251 0.024 1.45	LSW01B 07-4730 0.238 0.0089 0.109	<u>MDL</u> 0.2 0.01 0.005 0.01 0.03	<u>Method</u> * 10200H 4500:B.5&E 4500-P:E 4500-NO ₃ :E 3111B	Date <u>Analyzed</u> 09-09 09-22 08-25 09-21 09-05
Parameter Chlorophyll A ['] -Phosphorus J-Phosphorus Total Nitrogen Iron	LAL01T 07-4731 40.1 0.116 0.016 2.30	LAL01B 07-4732 0.115 0.029 0.354	LHE01T 07-4733 401 0.450 0.011 7.25	LHE01B 07-4734 0.467 0.024 0.346	<u>MDL</u> 0.2 0.01 0.005 0.01 0.03	<u>Method</u> * 10200H 4500:B.5&E 4500-P:E 4500-NO ₃ :E 3111B	Date <u>Analyzed</u> 09-09 09-22 08-25 09-21 09-05

MDL - Method Detection Limit

All results are in milligrams per liter.

* Standard Methods of Water & Wastewater 18th Edition, 1992

LABORATORY QUALITY CONTROL

ACCURACY DATA

PRECISION DATA

<u>Parameter</u> Chlorophyll A	Sample #	Matrix Spike Percent Recovery	Matrix Spike Duplicate Percent Recovery	Standard Percent Recovery	Relative Percent Difference
	07-4679		tal ing age		0.0%
T. Phosphorus	07-4796	93%	99 <i>%</i>		6.1%
O-Phosphorus	07-4728	94 %	99 <i>%</i>		2.1%
Total Nitrogen	07-4186	90%	102%		1.9%
Iron	07-4728	108%	108%		0.0%

The samples were consumed in the analyses. If you have any questions or comments concerning this report, please feel free to contact us.

TETRA TECH Virginia VerMulm Manager

R:data\wptiles\dth\wenck/2007/6760crwd-020

Dan T. Hanson Chemistry Manager

SAMPLE RECEIPT CHECKLIST

CLIENT NAME: CRub PROJECT: Labor LABORATORY NUMBER: 935674 CHECKLIST	DATE RECEIVED: <u>8/25/37</u> CARRIER: <u>Fed</u>
COMPLETED BY: DIF YES Shipping container in good condition? Y . Custody seals present on shipping container? Y . Condition: Intact Broken Y . Chain of custody signed when relinquised and recieved? Y . Chain of custody agrees with sample labels? Y . Chain of custody agrees with sample labels? Y . Custody seals on sample bottles? Y . Condition: Intact Broken Y . Samples in proper container/bottle? Y . Samples intact? Y . VOA vials have zero headspace? X	NO YES 13. $ke/Frozen Blue Ice present?$ 14. Container temperature? 3.1'(15. All samples recieved within holding time? PRESERVATION: 16. pH check performed by: 17. Metals bottle(s) pH < 2? 18. Nutrient bottle(s) pH < 2? 19. Cyanide bottle(s) pH < 2? 20. Oil & Grease bottle(s) pH < 2? 21. DRO/418.1 bottle(s) pH < 2? 22. Phenolics bottle(s) pH < 2? 23. Volatiles (VOA) pH < 2? (checked by analyst)
Trip Blank recieved?	<u>1</u>
e contacted?	
arding?	
litional Comments:	TETRA TECH, INC.

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	HAIN OF REC	CUST	TODY Maple Plain, MN 55359-0249 Phone: (763) 479-4200				1800 Pioneer Creek Ctr. – P.O. Box 249 Maple Plain, MN 55359-0249						FIELD COORDINATOR		
proj. no. 0002 -	-108		proj. n C. R	WO Lak	DC							5 12	J	<u> </u>	REMARKS
SAMPLERS (Sign		Bol	e l			MPLE MA	ATRIX		00	1/1	Thbr.a	1/40			(Analyses, Detection Limits, Turnatound Time, Preservation, QA/QC, Run/Hold, Previous Data)
Sample I.D. Da	te Time	Comp.	Grab	Sample Description	Soil	Water	Other								BILL Amber B 500 m L Unpreserved B 250 m L 14350 B 250 m L 14350
4727 921,	· · · · · · · · · · · · · · · · · · ·		X	LCEDIT		X		X	X	X	X				ABC
4728	<u>8:45</u> 9:45			I CEOIB				×	X			X			BOD
4729	9:50			LSWOIT				X		X	×	X		-	ABO
				LSW				- X-	×				-		BOD
4731	10:30			LALOIT				X	X	X	X				ABO
4732	11:00			LALDIB		-		X	X			X			BCD
4754	11:10			LHEOIB				X	×	<u>×</u>	X				ABO
									<u> </u>			<u> </u>			BOD
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Relinquished by:	(Signature)	Date 9/24/07	Time 15:00	Relinquished by: (Sigr	ature)		Relinqui	ished by:	(Signatur	e)		Date	Time	Relinc	uished by: (Signature)
Relinquished by:	(Signature)	Date	Time	Received for Laborator			Date 3/25/	(J)	Time 1430		oling/Rec			L	
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Tetra Tech 601 East 48th Street North Sioux Falls, South Dakota 57104-0698 (605) 332-Fax: (605) 332-

REPORT OF: WATER ANALYSIS

PROJECT:		CRWD <u>MINNESOTA</u>	011 11	AILA ANAL I		June 15, 2007	
REPORTED TO	1 1 F N	WENCK ASSOCIAT ATTN: REBECCA F 800 PIONEER CRE 20 BOX 249 1APLE PLAINS, M	LUCKHOHN EK CTR				·
LABORATORY Date Received:		8-56760 5-02-07					· · · · · · · · · · · · · · · · · · ·
Date Sampled:	0.	5-01-07					
Authorization:	0:	5-02-07					
<u>Parameter</u> T-Phosphorus O-Phosphorus TSS	WR02 07-1895 0.041 <0.005 9.00	0.034	UN1N <u>07-1897</u> 0.055 <0.005 9.00	CR28.2 07-1898 0.105 0.054 11.0	<u>MDL</u> 0.01 0.005	<u>Method</u> * 4500:B.5&E 4500-P:E	Date <u>Analyzed</u> 05-25 05-02
MDL - Method De All results are in n Standard Methods	nilligram	Limit s per liter. r & Wastewater 18 th	Edition, 1992	LITY CONTRO	4.0	2540D	05-04
			CCURACY D			PRECIS	ΙΟΝ ΠΑΤΑ

				PI	RECISION DATA
<u>Parameter</u> T. Phosphorus O-Phosphorus TSS	<u>Sample #</u> 07-1904 07-1890 07-1895	Matrix Spike <u>Percent Recovery</u> 100% 95%	Matrix Spike Duplicate <u>Percent Recovery</u> 97% 96%	Standard <u>Percent Recovery</u> 	Relative Percent

The samples were consumed in the analyses. If you have any questions or comments concerning this report, please feel free to contact us.

TETRA TECH

Virginia VerMulm QA Manager

R:data\wpfiles\dth\2006\wenck\6760crwd-002

Dan T. Hanson

Chemistry Manager

CLIENT NAME: Worch PROJECT: LABORATORY NUMBER: 58 50760	DATE RECEIVED: 5/2/27 CARRIER: speede
CHECKLIST COMPLETED BY: b// YES NO 1. Shipping container in good condition? Y 2. Custody seals present on shipping container? Y 3. Condition: Intact Broken 4. Chain of custody present? Y 5. Condition: Intact Broken 6. Chain of custody present? Y 7. Chain of custody signed when relinquised and recieved? Y 7. Chain of custody signed when relinquised and recieved? Y 7. Chain of custody series with sample labels? Y 7. Condition: Intact Broken Samples in proper container/bottle? Y Samples in proper container/bottle? Y YOA vials have zero headispace? M/M Trip Blank recieved? M/M	YES 13. Leaf-Frozen Blue Ice present? 14. Container temperature? 2.7 15. All samples recieved within holding time? PRESERVATION: 16. pH check performed by: $0/4$ 17. Metals bottle(s) pH < 2? 18. Nutrient bottle(s) pH < 2? 19. Cyanide bottle(s) pH < 2? 20. Oil & Grease bottle(s) pH < 2? 21. DRO/418.1 bottle(s) pH < 2? 22. Phenolics bottle(s) pH < 2? 23. Volatiles (VOA) pH < 27 (checked by analyst)
ent contacted for any reason? YESNOX	

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CHAIN OF CUSTODY RECORD				WENCK ASSOCIATES, INC. 1800 Pioneer Creek Ctr. – P.O. Box 249 Maple Plain, MN 55359-0249 Phone: (763) 479-4200 FAX: (763) 479-4242								FIELD COORDINATOR <u>NORM WERCK</u> AIRBILL NO.					
ROJ. NO.	S (Signatu	ne) (Jutto		rme RW,	<i>D</i> .	SAM	IPLE MA	TRIX	Prototo	Scluble Reactive	Forul Total	501135				<u>REMARKS</u> (Analyses, Detection Limits, Turnaround Time, Preservation, QA/QC, Run/Hold, Previous Data)
Sample I.D.	Date	Time	Comm	Carb													•
	5107		Comp.	Grab	WR0	Description	Soil	Water	Other						-	<u> .</u>	
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DISTRIBUTION: Original Accompanies Shipment; Copy to Coordinator Field Files

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REPORT OF: WATER ANALYSIS

PROJECT:	CRWI <u>MINN</u>) <u>ESOTA</u>			DATE: J	une 22, 2007	
REPORTED T	ATTN 1800 F PO BC	CK ASSOCIAT : REBECCA K PIONEER CRE DX 249 E PLAINS, MI	LUCKHOH EK CTR				
LABORATOR	Y NO: 98-567	60	·			•	
Date Received:	05-24-0	07					
Date Sampled:	05-22-0						
Authorization:	05-24-0	07	•				
<u>Parameter</u> T-Phosphorus O-Phosphorus TSS	Union In <u>07-2418</u> 0.070 0.055 <4.00	Union Out <u>07-2419</u> 0.038 <0.005 12.8	CR 28.2 <u>07-2420</u> 0.193 0.068 36.0		<u>MDL</u> 0.01 0.005 4.0	<u>Method</u> 4500:B.5& 4500-P:E 2540D	E 06-05
MDL - Method I	Detection Limit						
All results are in	milligrams per	liter.					
*Standard Metho	ds of Water &						
		LABOI	RATORY (QUALITY CONTROL	 		
		A	CCURAC	<u>Y DATA</u>		PRI	<u>ECISION DATA</u>
<u>Parameter</u> T. Phosphorus O-Phosphorus	<u>Sample #</u> 07-2278 07-2407	Matrix <u>Percent R</u> 102 969	ecovery %	Matrix Spike Duplicat Percent Recovery 90% 98%		ndard <u>Recovery</u>	Relative Percent <u>Difference</u> 13%

The samples were consumed in the analyses. If you have any questions or comments concerning this report, please feel free to contact us.

96%

TETRA TECH Vir inia VerMulm QA Manager

TSS

R:data wpiles/dth/2006/wenck/6760crwd-003

07-2411

Dan T. Hanson Chemistry Manager

98%

SAMPLE RECEIPT CHECKLIST

CLIENT	NAME	wear	le
PROJEC	ľ:		
LABORA	TORY	NUMBER:_	9856760

DATE RECEIVED:	5/2407
CARRIER:	2 reelee

CHECKLIST COMPLETED BY:______

	YES NO	YES	NO
1. Shipping container in good condition?	<u>× </u>	13. (Ice/Freizen Blue Ice present?	
2. Custody seals present on shipping container?		14. Container temperature? 3.7 (
3. Condition: Intact Broken	- 7	15. All samples recieved within holding time?	X
		PRESERVATION: SRM	acts F
4. Chain of custody present?	<u> </u>	16. pH check performed by:	40/00
Chain of custody signed when relinquised and recieved?	\succ	17. Metais bottle(s) pH < 27	, .
6. Chain of custody agrees with sample labels?	$\overline{\xi}$	18. Nutrient bottle(s) pH < 2?	
7. Custody seals on sample bottles?	<u> </u>	19. Cyanida bottle(s) pH > 12?	
8. Condition: Intact Broken		20. Oil & Grease bottle(s) pH < 2?	
9. Samples in proper container/bottle?	\sim	21. DRO/418.1 bottle(s) pH < 2?	
0. Samples intact?	$\overline{\mathbf{x}}$ –	22. Fhenolics bottle(s) pH < 2?	•
. VOA vials have zero headspace?	$\frac{1}{ \lambda }$	23. Volatiles (VOA) pH < 2? (checked by analyst)	
2. Trip Blank recieved?	- IR		
lient contacted for any reason? YES	_ NO_ <u>X</u>		
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ite contacted?			
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ditional Comments:			
		ETRA TECH, INC.	

t A	ي مع ^{ر (}			•		Stre	<i>₩</i> ₩	5	1									№ 7157
							WENCK ASSOCIATES, INC. 1800 Pioneer Creek Ctr. – P.O. Box 249 Maple Plain, MN 55359-0249 Phone: (763) 479-4200 FAX: (763) 479-4242						9			FIELD COORDINATOR MUMM 1. Jenck AIRBILL NO.		
	1	S (Signatu	re) () at	C	RWD		SAM	IPLE MA	TRIX	Phosphor Phosphor	Sulution Reactive	Trial al					<u>REMARKS</u> (Analyses, Detection Limits, Turnaround Time, Preservation, QA/QC, Run/Hold, Previous Data)
	Sample I.D.	Date	Time	Comp.	Grab	Sample Desci		Soil	Water	Other								
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	3		1200			CR28		1		: ->	/							2419 2420
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	Relinquished	l by: (Sig	nature)	Date 522	Time ろいし	Relinquished by	: (Signatu	ire)		Relinqui	shed by:	(Signature	:)		Date	Time		uished by: (Signature)
	Relinquished		nature)	Date	Time	Received for La	1			Date 5 /2;	di m	Time			eipt Com		I	

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Tetra Tech 601 East 48th Street North Sioux Falls, South Dakota 57104-0698 (605) 332-5231 Fax: (605) 332

REPORT OF: WATER ANALYSIS

PROJECT:	CRWD <u>MINNESOTA</u>			DATE: July 2, 2	2007
REPORTED TO:	WENCK ASSO ATTN: REBEC 1800 PIONEER PO BOX 249 MAPLE PLAIN	CA KLUCKHOHN CREEK CTR			
LABORATORY NO	: 98-56760				
Date Received:	05-31-07				
Date Sampled:	05-30-07				
~	nion Outlet 07-2576	Union Inlet 07-2577	MDI	λ.σ	Date

Parameter	07-2576	07-2577	<u>MDL</u>	<u>Method</u> "	<u>Analyzed</u>
T-Phosphorus	0.043	0.103	0.01	4500:B.5&E	06-21
O-Phosphorus	0.022	0.078	0.005	4500-P:E	05-31
TSS	7.00	<4.00	4.0	2540D	06-01

MDL - Method Detection Limit All results are in milligrams per liter. Standard Methods of Water & Wastewater 18th Edition, 1992

LABORATORY QUALITY CONTROL

ACCURACY DATA PRECISION DATA Matrix Spike Matrix Spike Duplicate Standard Relative Percent Parameter Sample # Percent Recovery Percent Recovery Percent Recovery Difference T. Phosphorus 07-2576 101% 100% 1.5% **O-Phosphorus** 07-2572 94% 97% ----1.6% TSS 07-2572 ----____ 0.0%

The samples were consumed in the analyses. If you have any questions or comments concerning this report, please feel free to contact us.

TETRA TECH

Virginia VerMulm/m# Virginia VerMulm QA Manager

R:data\wpfiles\dth\wenck/2007/6760crwd-006

Dan T. Hanson Chemistry Manager

-

SAMPLE RECEIPT CHECKLIST

CLIENT NAME: <u><u>heach</u> PROJECT: <u>LABORATORY NUMBER: 9</u> CHECKLIST COMPLETED BY: <u><u>O</u></u></u>	······	DATE RECEIVED: CARRIER:	5/3//07 2010 UP
Shipping container in good condition? Custody seals present on shipping container? Condition: IntactBroken Chain of custody present? Chain of custody signed when relinquised and recieved? Chain of custody agrees with sample labels? Custody seals on sample bottles? Custody seals on sample bottles? Condition: IntactBroken Samples in proper container/bottle? Samples intact? VOA vials have zero headspace? Trip Blank recieved?		 12. Ice/Frozen Blue Ice present? 14. Container temperature?	
ent contacted for any reason? YESi on contacted? s contacted? tacted by? urding? tional Comments:			

	LABORA 1126 North F New Ulm, M Phone: (507) 354-1	N-56073	• •	N.,			8	1 0	of C	ີບຣ	stc)dy	R	ec	ord		ge(_of	
Toll Fr	ee: (800) 782-3557	Eav: (507) 250 0	890							₩c	ork	Orc	ier	#		<u>,,,,,</u>			
Company	Name and Address; MLK ASSociates			<u></u>	Ac	cou	int #	ŧ:		L	· · · · · · · · · · · · · · · · · · ·		··		Pl	опе #:			
l B M	Name and Address: MLK [ASSERIES OU plum CRK CM Nople plain MN	tr.				nta	le.	3	bo	/1		• • • • • • • • • • • • • • • • • • •			Fa	IX #: For faxed	report check b		
Billing Ad	dress (indicate if differen	t from above):		·····		me <i>i</i> ل، د	of S しん	am Cl	pler	hey	re.				E-	mail: For e-mai	l report check b		
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	Jampie	Information	1	1	ļ,	r		·	Bo	ottle	Ту	ре					Analys	is	-
Lab Number 2574	Sample ID	Sample Type (Food, Soil, Water, Etc.)	Date Sampled		VOC Vials	500 ml unpres.	1000 ml unpres.	500 ml HNO3	1000 ml HNO3	500 ml H2SO4	1000 ml H2SO4	Sterile plastic	Amber h2504			Port lacing	Analysis Re	quired	
2577	union outlet	water	3/30/07 5/30/07	2:20pm 2:45pm		۱ ۱									\ 		SRP, TS SRP, TS		
Comments	:															PENSPE PAPER CO	DEAVALE TUBLISHING CO., NE	W ULM KH1 1806 762 35121 N	1749
	Fransferred by:	Date:	Time:	Sample Co	ondi	tior	1:			Rece	aive	₫/by			T	Dete			
1. Mick 2.	christensen	5.30.07	3:35,2		ĊĊ			\subset	R	2	1	<u>– – – – – – – – – – – – – – – – – – – </u>	•		57	Date:	Time:	Temp:	

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Please submit the top two copies with your samples. We will return the completed original with your results

Tetra Tech 601 East 48th Street North Sioux Falls, South Dakota 57104-0698 (605) 332-5371 Fax: (605) 332-8488

REPORT OF: WATER ANALYSIS

PROJECT:	CRW <u>MINN</u>	D <u>IESOTA</u>		DATE:	DATE: July 11, 2007				
REPORTED TO	ATTN 1800 I PO BO	CK ASSOCIATE N: REBECCA KL PIONEER CREE OX 249 LE PLAINS, MN	UCKHOHN K CTR						
LABORATORY	NO: 98-56	760							
Date Received:	06-06-	-07	A						
Date Sampled:	06-05-	·07 Reanalyze	d						
Se	chool Section	Clearwater East	Otter	Augusta			Date		
<u>Parameter</u> T-Phosphorus O-Phosphorus Chlorophyll A	07-2696 0.022 <0.005 <0.2	07-2697 (0.019) <0.005 <0.2	07-2698 0.013 <0.005 <0.2	07-2699 0.031 <0.005 20.3	<u>MDL</u> 0.01 0.005 0.2	<u>Method[*]</u> 4500:B.5&E 4500-P:E 10200H	<u>Analyzed</u> 06-25 06-07 06-19		

MDL - Method Detection Limit

All results are in milligrams per liter.

Standard Methods of Water & Wastewater 18th Edition, 1992

LABORATORY QUALITY CONTROL

ACCURACY DATA PRECISION DATA - 1 Matrix Spike Matrix Spike Duplicate Standard Relative Percent Parameter Sample # Percent Recovery Percent Recovery Difference Percent Recovery T. Phosphorus 07-2696 101% 100% 1.2% ----O-Phosphorus 07-2696 94% 96% 2,4% ---Chlorophyll A 07-2609 --------• 0.0% ---

The samples were consumed in the analyses. If you have any questions or comments concerning this report, please feel free to contact us.

TETRA TECH

Virginia VerMulm QA Manager

R:data\wpfiles\dth\wenck/2007/6760crwd-008

Dan T. Hanson Chemistry Manager



Tetra Tech 601 East 48th Street North Sioux Falls, South Dakota 57104-0698 (605) 332-5221 Fax: (605) 332-

REPORT OF: WATER ANALYSIS

PROJECT:		CRWD <u>MINNESOT.</u>			DATE: July 11, 2007						
REPORTED T	0:	WENCK AS ATTN: REB 1800 PIONE PO BOX 249 MAPLE PLA	ECCA KLI ER CREEF	UCKHOHN K CTR		REISSUE					
LABORATORY	Y NO:	98-56760									
Date Received: 06-06-07											
Date Sampled:		06-05-07									
5	School S	ection Clearwa	iter East	Otter	Augusta				Date		
Parameter	<u>07-26</u>	<u>96 07-2</u>	2697	07-2698	07-2699	MD	L	Method	Analyzed		
T-Phosphorus	0.02	2 0.0)19	0.013	0.031	0.0		500:B.5&E	06-25		
O-Phosphorus	< 0.0	05 < 0.	.005	< 0.005	< 0.005	0.00		4500-P:E	06-07		
				< 0.2	20.3	0.2		10200H	06-19		
MDL - Method E All results are in Standard Method	milligra	ms per liter.	ater 18 th Ec	lition, 1992							

LABORATORY QUALITY CONTROL

		<u>F</u>	PRECISION DA		
<u>Parameter</u> T. Phosphorus O-Phosphorus Chlorophyll A	<u>Sample #</u> 07-2696 07-2696 07-2609	Matrix Spike <u>Percent Recovery</u> 101% 94%	Matrix Spike Duplicate <u>Percent Recovery</u> 100% 96%	Standard Percent Recovery 	Relative Percent <u>Difference</u> 1.2% 2.4% 0.0%

The samples were consumed in the analyses. If you have any questions or comments concerning this report, please feel free to contact us.

TETRA TECH Virginia VerMulr QA Mahager

R:data\wpfffes\dth\wenck/2007/6760crwd-008

chol Dan T. Hanson

Chemistry Manager



Tetra Tech 601 East 48th Street North Sioux Falls, South Dakota 57104-0698 (605) 332-5371 Fax: (605) 332-8488

REPORT OF: WATER ANALYSIS

PROJECT:		WD NNESOTA	DATE: July 11, 2007				
REPORTED TO: WENCK ASSOCIATES, INC. ATTN: REBECCA KLUCKHOHN 1800 PIONEER CREEK CTR PO BOX 249 MAPLE PLAINS, MN 55359							
LABORATORY		56760			<u>, , , , , , , , , , , , , , , , , , , </u>		<u></u>
Date Received:)7-07						
Date Sampled:	06-)6-07					
	7						
<u>Parameter</u> T-Phosphorus O-Phosphorus Chlorophyll A	Louis <u>07-2788</u> 0.019 <0.005 6.41	Union <u>07-2789</u> 0.022 0.0061 9.61	Betsy <u>07-2790</u> 0.248 0.079 4.27	Pleasant <u>07-2791</u> 0.045 0.0061 <0.2	<u>MDL</u> 0.01 0.005 0.2	<u>Method</u> 4500:B.5&E 4500-P:E 10200H	Date <u>Analyzed</u> 06-29 06-07 06-19

MDL - Method Detection Limit

All results are in milligrams per liter.

* Standard Methods of Water & Wastewater 18th Edition, 1992

LABORATORY QUALITY CONTROL

ACCURACY DATA PRECISION DATA Matrix Spike Matrix Spike Duplicate Standard Relative Percent Parameter Sample # Percent Recovery Percent Recovery Percent Recovery Difference T. Phosphorus 07-2789 91% 91% 0.5% ---O-Phosphorus 07-2788 95% 99% ----3.9% Chlorophyll A 07-2703 ---------2.3%

The samples were consumed in the analyses. If you have any questions or comments concerning this report, please feel free to contact us.

TETRA TECH Virginia VerMulm QA Manager R:data\wpfiles\dth\wenck/2007/6760crwd-007

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Dan T. Hanson

Chemistry Manager

SAMPLE RECEIPT CHECKLIST

CLIENT NAME: PROJECT: LABORATORY NUMBER CHECKLIST COMPLETED BY:	The second s	DATE RECEIVED: CARRIER:	<u>1-0)</u> <u>le</u>
 Shipping container in good condition? Custody seals present on shipping container? Condition: Intact Broken Condition: Intact Broken Chain of custody present? Chain of custody signed when relinquised and recieved? Chain of custody agrees with sample labels? Custody seals on sample bottles? Condition: Intact Broken Samples in proper container/bottle? Samples intact? VOA vials have zero headspace? Trip Blank recieved? 	YES NO <u>Y</u> <u>Y</u> <u>Y</u> <u>Y</u> <u>Y</u> <u>Y</u> <u>Y</u> <u>Y</u>	 13. Ice/Frozen Blue Ice present? 14. Container temperature? Y.Y.Y. 15. All samples recieved within holding time? PRESERVATION: 16. pH check performed by:	YES X -X - - - - - - - - - - - - -
lient contacted for any reason? YES			

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₩ - 1			M V					1800	Pionee	K ASS r Creel Plain, l	c Ctr. –	- P.O. I	3ox 24	9			FIELD COORDINATOR Norm Wenck
	-	/	REC		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				Pho	one: (76 X; (76.	53) <mark>47</mark> 9	-4200 4242					AIRBILL NO.
	PROJ. NO.	تر			PRÔJ, N	RWD				Phon	16 116 - C.	A H		teres rate angle			REMARKS (Analyses, Detection Limits,
	SAMPLER	S (Signatı	Vatt			4 <u>-</u>	SAN	IPLE MA	TRIX	Phos.	Selver	Chio P		19 (B) (1) (1)			Turnaround Time, Preservation, QA/QC, Run/Hold, Previous Data)
~ 1	Sample I.D.	Date	Time	Comp.	Grab	Sample Description	Soil	Water	Other								78**
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	Relinquished	d by: (Sig	nature)	Date	Time	Received for Laboratory	by: (Signat	urc)	Date // 7/1	67	Time 200	Sampi	ling/Rece		ments	L <u>, , , , , , , , , , , , , , , , , , , </u>	

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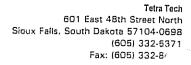
DISTRIBUTION: Original Accompanies Shipment; Copy to Coordinator Field Files

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TETRA TECH, INC.



REPORT OF: WATER ANALYSIS

PROJECT:	CRWD <u>MINNESOTA</u>	DATE: July 11, 2007	
REPORTED TO:	WENCK ASSOCIATES, INC. ATTN: REBECCA KLUCKHOHN 1800 PIONEER CREEK CTR PO BOX 249 MAPLE PLAINS, MN 55359		
LABORATORY NO:	98-56760	NAMANANAN INTANA MANANA MANANAN INTANA MANANANA MANANANA MANANANA MANANANA MANANA MANANA MANANA MANANA MANANA M	
Date Received:	06-06-07		
Date Sampled:	06-05-07		
Parameter07-26T-Phosphorus0.02O-Phosphorus< 0.02	$\begin{array}{c} 22 \\ 0.05 \\ .2 \\ 0.12 \\ 0.2 \\ 0.2 \end{array} \left(\begin{array}{c} 0.0070 \\ < 0.005 \\ < 0.2 \\ \hline 0.03 \\ < 0.005 \\ \hline 0.03 \\ < 0.005 \\ \hline 0.03 \\ \hline 0$	99 MDL Method* 1 0.01 4500:B.5&E 05 0.005 4500-P:E 0.2 10200H	Date <u>Analyzed</u> 06-25 06-07 06-19

		ACCURAC	<u>CY DATA</u>	Ī	PRECISION DAT
Parameter	<u>Sample #</u>	Matrix Spike <u>Percent Recovery</u>	Matrix Spike Duplicate Percent Recovery	Standard <u>Percent</u> Recovery	Relative Percent Difference
T. Phosphorus	07-2696	101%	100%		1.2%
O-Phosphorus	07-2696	94%	96%		2.4%
Chlorophyll A	07-2609			* ***	0.0%

ACCURACY DATA

The samples were consumed in the analyses. If you have any questions or comments concerning this report, please feel free to contact us.

TETRA TECH Virginia VerMulm Manager QA

R:data\wpfiles\dth\wenck/2007/6760crwd-008

Th 0

Dan T. Hanson Chemistry Manager

SAMPLE RECEIPT CHECKLIST

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LABORATORY NUMBER: 2964(-269	DATE RECEIVED: 10-10-7 CARRIER: <u>(rev. lee</u>					
CHECKLIST COMPLETED BY:						
YE9 NO Shipping container in good condition? X Custody seals present on shipping container? X Condition: Intact Broken X Chain of custody present? X Chain of custody signed when relinquised and recisved? X Chain of custody signed when relinquised and recisved? X Chain of custody signed when relinquised and recisved? X Chain of custody seals on sample labels? X Custody seals on sample bottles? X Condition: Intact Broken X Samples in proper container/bottle? X Samples intact? X VOA vials have zero headspace? M Trip Blank recisved? X	YES 13. Ice/Frozen Blue Ice present? 14. Container temperature? 15. All samples recieved within holding time? PRESERVATION: 16. pH check performed by: 17. Metals bottle(s) pH < 2? 18. Nutrient bottle(s) pH < 2? 19. Cyanide bottle(s) pH < 2? 20. Oll & Grease bottle(s) pH < 2? 21. DRO/418.1 bottle(s) pH < 2? 22. Fhenolics bottle(s) pH < 2? 23. Volatiles (VOA) pH < 2? (checked by analyst)					
nt contacted for any reason? YESNO{						
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	PROJ. NO.		ļic)	wat		AME <u>RWP</u>)	SAM	PLE MA	TRIX	Phos Mor	Suluble Reactive	Chierophy A	-				<u>REMARKS</u> (Analyses, Detection Limits, Turnaround Time, Preservation, QA/QC, Run/Hold, Previous Data)
	Sample I.D.	Date	Time	Comp.	Grab	Sample Descript	inn	Soil	117-4	04	1		1					
ι (Λ		6/5/0	11200	Comp.		School Seuti		2011	Water	Other								
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	13		250			Otter	<u> </u>	3.1										
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	Relinquishe	d by: (Si	gnature)	Date	Time	Received for Labor	atory by:	(Signat	ure)	Date	07	Time 1201) Sam	oling/Rec	eipt Com	ments	1.,,,,,,,,,	

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DISTRIBUTION: Original Accompanies Shipment; Copy to Coordinator Field Files

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TETRA TECH, INC.



Tetra Tech 601 East 48th Street North Sioux Falls, South Dakota 57104-0698 (605) 332-5371 Fax: (605) 332-8488

REPORT OF: WATER ANALYSIS

PROJECT:	CRWD <u>MINNESOTA</u>			DATE: August 13, 20	007
REPORTED TO:	WENCK ASSC ATTN: WES B 1800 PIONEER PO BOX 249 MAPLE PLAIN	CREEK CTR			
LABORATORY NO): 98-56760	•••••••••••••••••••••••••••••••••••••••			·····
Date Received:	07-27-07				
Date Sampled:	07-26-07				
	Jnion Outlet <u>07-4010</u> 0.038 0.0082 5.00	Union Inlet 07-4011 0.392 0.013 43	<u>MDL</u> 0.01 0.005 4.0	<u>Method</u> " 4500:B.5&E 4500-P:E 2540D	Date <u>Analyzed</u> 08-02 07-27 07-27

MDL - Method Detection Limit All results are in milligrams per liter. Standard Methods of Water & Wastewater 18th Edition, 1992

LABORATORY QUALITY CONTROL

		ACCURAC	<u>CY DATA</u>	<u>PI</u>	RECISION DATA
Parameter	Sample #	Matrix Spike Percent Recovery	Matrix Spike Duplicate Percent Recovery	Standard <u>Percent Recovery</u>	Relative Percent Difference
T. Phosphorus	07-3369	96%	97%		1.3%
O-Phosphorus	07-4008	97%	98%		0.9%
TSS	07-3998				4.0%

The samples were consumed in the analyses. If you have any questions or comments concerning this report, please feel free to contact us.

TETRA TECH Virginia VerMulm QA Manager R:data/wafiles/dth/wenck/2007/6760crwd-011

Dan T. Hanson Chemistry Manager

SAMPLE RECEIPT CHECKLIST

CHECKLIST COMPLETED BY:		
YES NO	YES	i
Shipping container in good condition?	13. Ice/Frozen Blue Ice present?	
Condition: Intact Broken	15. All samples recieved within holding time?	-
Chain of custody present?	PRESERVATION:	
Chain of custody signed when	17. Metals bottle(s) pH < 2?	1
Chain of custody agrees with sample labels?	18. Nutrient bottle(s) $pH < 2?$	_
Sustody seels on sample bettjes?	19. Cyanide bottle(s) $pH > 12?$	
Condition: IntactBroken	20. Oil & Grease bottle(s) pH < 2? $-$	
Samples in proper container/bottle?	21. DRO/418.1 bottle(s) pH < 2?	
Samples intact?	22. Phenolics bottle(s) $pH < 2?$	
VOA vials have zero headspace?	23. Volatiles (VOA) pH < 2? (checked by analyst) X	
Trip Blank recieved?	· · · ·	
t contacted for any reason? YES NO		
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onal Comments:		• <u> </u>

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Tetra Tech 601 East 48th Street North Sioux Falls, South Dakota 57104-0698 (605) 332-5371 Fax: (605) 332-8488

REPORT OF: WATER ANALYSIS

PROJECT:	CRWD <u>MINNESOTA</u>			DAJ	E: August 14, 200	7
REPORTED TO:	ATTN: REBE 1800 PIONEE PO BOX 249	OCIATES, INC. CCA KLUCKHO R CREEK CTR NS, MN 55359				
LABORATORY NO	: 98-56760					••••••••••••••••••••••••••••••••••••••
Date Received:	06-29-07					
Date Sampled:	06-28-07					
Authorization:	06-29-07					
<u>Parameter</u> T-Phosphorus O-Phosphorus TSS	PLEASANT 07-3357 0.038 <0.005 3.74	UNION 07-3358 0.071 < 0.005 3.20	BETSY 07-3359 0.518 0.338 9.61	<u>MDL</u> 0.01 0.005 4.0	<u>Method</u> 4500:B.5&E 4500-P:E 2540D	Date <u>Analyzed</u> 07-23 06-29 07-06
MDL - Method Detec All results are in milli Standard Methods of	grams per liter.	ater 18 th Edition,	. 1992			

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ACCURACY DATA

LABORATORY QUALITY CONTROL

PRECISION DATA

Parameter	Sample #	Matrix Spike Percent Recovery	Matrix Spike Duplicate Percent Recovery	Standard Percent Recovery	Relative Percent Difference
T. Phosphorus	07-3357	97%	104%		6.8%
O-Phosphorus	07-3357	95%	94 %		1.0%
TSS	07-3364				6.1%

The samples were consumed in the analyses. If you have any questions or comments concerning this report, please feel free to contact us.

TETRA TECH 🦯

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unia VerMulm QA Manager

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Dan T. Hanson

Chemistry Manager

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	<u>SAMPLE RE</u>	CEIFT CHUCKLIST	
CLIENT NAME: PROJECT: LABORATORY NUMBER CHECKLIST COMPLETED BY:		DATE RECEIVED: 4/ CARRIER: 5/200	24/07
 Shipping container in good condition? Custody seals present on shipping container? Condition: IntectBroken Chain of custody present? Chain of custody signed when relinquised and recieved? Chain of custody agrees with samples labels? Custody seals on sample bottles? Condition: IntectBroken Samples in proper container/bottle? Samples intect? VOA vials have zero headepace? Trip Blank recieved? 	$\frac{YES}{} = \frac{NO}{}$	 (a) Prozen Blue ice present? (4. Container temperature? 2.7% (5. All samples recieved within holding time? PRESERVATION: (6. pH check performed by:	Y ESS
Client contacted for any reason? YES erson contacted? hats contacted? ontacted by? garding? ditional Comments:		TRA TECH, INC.	

984 4		2000 - 100 -			Lake									№ 7164		
• •	СНА	WENCK ASSOCIATES, INC. 1800 Pioneer Creek Ctr. – P.O. Box 249 Maple Plain, MN 55359-0249 Phone: (763) 479-4200 FAX: (763) 479-4243-									FIELD COORDINATOR <u>Morm</u> Wenck AIRBILL NO.					
PROJ. NO.	AMPLERS (Signature)					UD. Josephy O.U.							<u>REMARKS</u> (Analyses, Detection Limits, Turnaround Time, Preservation, QA/QC, Run/Hold, Previous Data)			
+ m=		fu canan	· leru	etter	<u></u>	SAN	1PLE MA	TRIX	40	N C	20			·		Qruqe, Rubrind, Previous Data)
Sample I.D.	Date	Time	Comp.	Grab	Sample Description	Soil	Water	Other								
	628	800			PLCasenT			1	T Samanana			5			••••••••••••••••••••••••••••••••••••••	3357
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Relinquished by: (Signature) Date Time Received for Laboratory t				ıy: (Signa	ture)	Date	al.	Time 1030		ling/Rec	eipt Com	ments	I			
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TETRA TECH, INC.

Tetra Tech 601 East 48th Street North Sieux Falls, South Dakota 57104-0698 (605) 332-5371 Fax: (605) 332-84

REPORT OF: WATER ANALYSIS

PROJECT:	CRWD <u>MINNESOTA</u>	DATE: August 14, 2007
REPORTED TO:	WENCK ASSOCIATES, INC. ATTN: REBECCA KLUCKHOHN 1800 PIONEER CREEK CTR PO BOX 249 MAPLE PLAINS, MN 55359	
LABORATORY NO:	98-56760	anna an
Date Received:	06-28-07	
Date Sampled:	06-27-07	

	School Section	Louisu	Clearwater East	Otter	Augusta			Date
Parameter	<u>07-3324</u>	07-3325	07-3326	07-3327	07-3328	MDL	Method*	Analyzed
T-Phosphorus	0.029	0.095	0.042	0.034	0.049	0.01	4500:B.5&E	07-23
O-Phosphorus	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.005	4500-P:E	06-28
Chlorophyll A	< 0.2	78.0	8.01	< 0.2	20.3	0.2	10200H	07-06

MDL - Method Detection Limit

All results are in milligrams per liter.

Standard Methods of Water & Wastewater 18th Edition, 1992

LABORATORY QUALITY CONTROL

	ACCURACY DATA									
Parameter	Sample #	Matrix Spike Percent Recovery	Matrix Spike Duplicate Percent Recovery	Standard Percent Recovery	Relative Percen. Difference					
T. Phosphorus	07-3321	99%	102%		1.9%					
O-Phosphorus	07-3321	94%	96%		0.3%					
Chlorophyll A	07-3289	+	rry bland	W	0.0%					

The samples were consumed in the analyses. If you have any questions or comments concerning this report, please feel free to contact us.

TETRA TECH

Virginia VerMulm QA Manager

R:data\wpffles\dth\wenck/2007/6760crwd-013

Dan T. Hanson Chemistry Manager

CLIENT NAME: (A.4. PROJECT: 91851-710 LABORATORY NUMBER		(-3328	DATE RECEIVED: <u>1.28</u> CARRIER: <u>Spec</u>	1.57 A
CHECKLIST COMPLETED BY:	D			
••••••••••••••••••••••••••••••••••••••	YES	NO		YES
I. Shipping container in good condition?	<u>_X_</u>		13. Ics/Frozen Blue Ice present?	<u>X</u>
 Custody scals present on shipping container? 	ý.		14. Container temperature? 4.0/	
3. Condition: Intect Broken		<u></u>	15. All samples recieved within holding time?	Ľ
and the second	V		PELSER VATIONA	1
4. Chain of custody present?	<u>×</u>		16. pH check performed by:)
 Chain of custody signed when relinquised and recieved? 	X		17. Metala bottle(s) pH < 2?	jer.
. Chain of custody agrees with sample labels?	$\overline{\lambda}$		18. Nutrient bottle(s) pH < 2?	<u> </u>
Custody seels on sample bottles?	•	<u>~</u>	19. Cyanids bottls(s) pH > 12?	4
. Condition: IntectBroken			20. Oli & Greass bottle(s) pH < 27	
Samples in proper container/boule?	<u>X</u>		21. DRO/418.1 bottle(s) pH < 27	
Samples intact?	X		22. Financia bottle(a) pH < 27	
VOA vials have zero headspace?	<u>MR</u>		23. Volatiles (VOA) pH < 27 (checked by analyst)	-+-/-
Trip Black recieved?	<u></u>	<u>Y</u>		V
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CHAIN OF CUSTODY RECORD							WENCK ASSOCIATES, INC. 1800 Pioneer Creek Ctr. – P.O. Box 249 Maple Plain, MN 55359-0249 Phone: (763) 479-4200 FAX: (763) 479-4242							24.	FIELD COORDINATOR Norm Wenck AIRBILL NO.		
PROJ. NO SAMPLEI	····	ature		- We	PROJ. N	AMERUD	SAM	ÍPLE MA	TRIX	Phosphor	Solubit Reactive	Chloroph Moroph	**************************************	- - -			<u>REMARKS</u> (Analyses, Detection Limits, Turnaround Time, Preservation, QA/QC, Run/Hold, Previous Data)
Sample I.D.	Date		Time	Comp.	∦ Grab	Sample Description	Soil	Water	Other							1	· · · · · · · · · · · · · · · · · · ·
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Relinquish	ed by: (Sign	ature)	Date	Tine	Received for Laboratory H	77	ture)	Date 6/28/	lon :	Time 117L		ling/Reco	eipt Com	i ments	F	· · · · · · · · · · · · · · · · · · ·

DISTRIBUTION: Original Accompanies Shipment; Copy to Coordinator Field Files

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TETRA TECH, INC.

Tetra Tech 601 East 48th Street North Sioux Falls, South Dakota 57104-0698 (605) 332-5371 Fax: (605) 332-8488

REPORT OF: WATER ANALYSIS

PROJECT:	CRWD MINNESO1	<u>'A</u>		DATE: August 14, 2007						
REPORTED TO:	ATTN: REE 1800 PIONE PO BOX 249	WENCK ASSOCIATES, INC. ATTN: REBECCA KLUCKHOHN 1800 PIONEER CREEK CTR PO BOX 249 MAPLE PLAINS, MN 55359								
LABORATORY NO:		······································								
Date Received:	06-28-07									
Date Sampled:	06-26-07									
Authorization:	06-28-07									
Parameter	CR28.2	UNION1N	WRO.2			Date				
	07-3321	07-3322	07-3323	\underline{MDL}	Method*	Analyzed				
T-Phoenhome	0.761									
T-Phosphorus O-Phosphorus	0.761 0.533	0.175 0.061	0.136 0.051	0.01 0.005	4500:B.5&E 4500-P:E	07-23 06-28				

* Standard Methods of Water & Wastewater 18th Edition, 1992

LABORATORY QUALITY CONTROL

ACCURACY DATA

PRECISION DATA

Parameter	Sample #	Matrix Spike Percent Recovery	Matrix Spike Duplicate Percent Recovery	Standard Percent Recovery	Relative Percent Difference
T. Phosphorus	07-3321	99%	102 %		1.9%
O-Phosphorus	07-3321	94%	96%		0.3%
TSS	07-3305				3.1%

The samples were consumed in the analyses. If you have any questions or comments concerning this report, please feel free to contact us.

TETRA TECH Virginia VerMulm QA Manager

R:data\wpfries\dth\2006\wenck\6760crwd-012

Dan T. Hanson Chemistry Manager

SAMPLE RECEIPT CHECKLIST

LABORATORY NUMBER CHECKLIST COMPLETED BY:	<u> </u>		-
Shipping container in good condition? Custody seals present on shipping container? Condition: IntectBroken Chain of custody present? Chain of custody signed when relinquised and recieved? Chain of custody agrees with sample labels? Custody seals on sample bottles? Condition: intectBroken Samples in proper container/bottle? Samples intect? VOA vials have zero headspace? Trip Blank recieved?	YES NO 	YES 13. Ice/Frozen Blue Ice present? 14. Container temperature? 15. All samples recieved within holding time? 16. pH check performed by: 17. Metals bottle(s) pH < 27 18. Nutrient bottle(s) pH < 27 19. Cyanida bottle(s) pH < 27 20. Oll & Grease bottle(s) pH < 27 21. DRO/418.1 bottle(s) pH < 27 22. Fhemolics bottle(s) pH < 27 23. Volatiles (VOA) pH < 27 (checked by analyst)	NO X X X X X X X X X X X X X X X X X X X
ent contacted for any reason? YES on contacted? contacted? acted by? rding? ional Comments:			

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		CHAIN OF CUSTODY RECORD							1800 Pioneer Creek Ctr. – P.O. Box 249 Manle Plain MN 55359 0240								FIELD COORDINATOR Norm Wichck AIRBILL NO.	
	PROJ. NO. SAMPLERS		re)		PROJ. N	CK	'ω <u>κ</u>	2			otel he phon	1UDIE FOCIUNE	sperid +	•				<u>REMARKS</u> (Analyses, Detection Limits, Turnaround Time, Preservation, QA/QC, Run/Hold, Previous Data)
	Sample I.D.	Date	Time	Comp.	Grab	Sample Des	cription	SAM Soil	PLE MA	TRIX Other	1-0	<u>SK</u>	4-55		 	and the second s		
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	Relinquishe	d by: (Sig	gnature)	Date	Time	Received for L		7		Date 6/27	\sim	Time 1/30	Samp	ling/Rec	eipt Comr	nents		

DISTRIBUTION: Original Accompanies Shipment; Copy to Coordinator Field Files

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TETRA	TETRATECH, INC. REPORT OF: WATER ANALYSIS											
PROJECT:		DATE: August 17, 2001										
REPORTED TO:	WENCK AN ATTN: KEN PO BOX 24 MAPLE PL	NT TORVE 9		Jaca	č_							
LABORATORY NO:	9856760				<u></u>							
Date Received:	08-02-07											
Date Sampled:	08-01-07		18									
Authorization:	08-01-07	Batan	Checky Checky	1 with 21/3107 mail Visitue	0.0°3 ^	ÿŀ						
Parameter		Betsy	Union 07 41 40	Pleasant	M	N #	Date					
Total Phosphorus		<u>07-4148</u> 0.148	07-4149	<u>07-4150</u> 0.031	<u>MDL</u> 0.01	Method [*]	Analyzed					
Soluble Reactive Phosph	107115	0.033	< 0.005	< 0.031	0.01	4500 PB5&E	08-03					
Chlorophyll A		208	4.81	12.3	0.003	4500-PE 10200H	08-02 08-05					

MDL - Method Detection Limit

Il results are in milligrams per liter. "Standard Methods for the Examination of Water and Wastewater", 18th edition 1992.

LABORATORY QUALITY CONTROL

		ACCURAC	<u>F</u>	PRECISION DATA		
<u>Parameter</u> T. Phosphorus	<u>Sample #</u> 07-4149	Matrix Spike <u>Percent Recovery</u> 98 <i>%</i>	Matrix Spike Duplicate <u>Percent Recovery</u> 101 %	Standard Percent Recovery	Relative Percent <u>Difference</u> 3.7%	
Soluble Reactive Phosphorus	07-4128	93 %	96%		1.9%	
Chlorophyll A	07-4148				1.0%	

The samples were consumed in the analyses. If you have any questions or comments concerning this report, please feel free to contact us.

MAXIM TECHNOLOGIES, INC.

Vir VerMülm 1 Manager

G:data\wpfiles\dth\2001\6179WNK16

Dan T. Hanson Chemistry Manager

SAMPLE RE	CEIPT CHECKLIST	
CLIENT NAME: <u>CLWN</u> PROJECT: <u>LABORATORY NUMBER: 935</u> 6.740 CHECKLIST COMPLETED BY: <u>NK</u>	DATE RECEIVED: <u>8/2</u> CARRIER: <u>9/2</u>	lun ce
YES NO 1. Shipping container in good condition? 2. Custody seals present on shipping container? 3. Condition: IntactBroken 4. Chain of custody present? 5. Chain of custody signed when relinquised and recieved? 6. Chain of custody agrees with sample labels? Custody seals on sample bottles? 8. Condition: IntactBroken 9. Samples in proper container/bottle? 1. VOA vials have zero headspace? 4. Trip Blank recieved?	 13 Lee/Fozen Blue Ice present? 14. Container temperature? <u>5.2</u> ¹ 15. All samples recieved within holding time? PRESERVATION: 16. pH check performed by: <u>M</u> 17. Metals bottle(s) pH < 2? 18. Nutrient bottle(s) pH < 2? 19. Cyanide bottle(s) pH > 12? 20. Oil & Grease bottle(s) pH < 2? 21. DRO/418.1 bottle(s) pH < 2? 22. Phenolics bottle(s) pH < 2? 23. Volatiles (VOA) pH < 2? (checked by analyst) 	YES N
	A TECH, INC.	

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ż	CHA	AIN OF RECO		ODY		Maple Plain, MN 55359-0249 Phone: (763) 479-4200 FAX: (763) 479-4242					AIRBILL NO.						
PROJ. NO.				PROJ. NAME CRUD			1010/11/201						REMARKS (Analyses, Detection Limits,	_			
SAMPLER:	S (Signatu	ire)	watt	Z		SAN	1PLE MA	TRIX	Phase Phase	200 280 280	P % 02	*		:	Turnaround Time, Preservation, QA/QC, Run/Hold, Previous Data)		
Sample	Date	Time	Comp.	Grab	Sample Description	Soil	Water	Other	(							×.	
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Relinquishe	d by: (Si	gnature)	Date	Time	Received for Laboratory		iture)	Date	107	Time				ми	-		

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TETRA TECH, INC.

Tetra Tech 601 East 48th Street North Sioux Falls, South Dakota 57104-0698 (605) 332-5371 Fax: (605) 332-8488

### **REPORT OF: WATER ANALYSIS**

PROJECT:	CRWD <u>MINNESOTA</u>	DATE: September 6, 2007
REPORTED TO:	WENCK ASSOCIATES, INC. ATTN: REBECCA KLUCKHOHN 1800 PIONEER CREEK CTR PO BOX 249 MAPLE PLAINS, MN 55359	
LABORATORY NO:	98-56760	
Date Received:	08-01-07	
Date Sampled:	07-31-07	

	School		Clearwater					
	Section	Lauisa	East	Otter	Augusta			Data
<u>Parameter</u>	<u>07-4093</u>	07-4094	07-4095	07-4096	07-4097	MDL	Mathed*	Date
Total Phosphorus	0.033	0.079	0.020	0.013	0.018	0.005	Method [*]	Analyzed
Soluable Reactive	< 0.005	< 0.005	< 0.005	< 0.005	0.0066	0.005	4500-P-B.5&E	08-02
Phosphorus			<0.005	<0.005	0.0000	0.005	4500-PE	08-01
Chlorphyll A	5.87	114	4.27	<0.0	6.04			
-morphyn n	2.07	114	4.27	< 0.2	6.94	0.20	10200H	08-05

### MDL - Method Detection Limit

All results are in milligrams per liter.

'Standard Methods of Water & Wastewater 18th Edition, 1992

### LABORATORY QUALITY CONTROL

		ACCURAC	CY DATA	PRECISION DATA			
<u>Parameter</u> Total Phosphorus Soluable Reactive Phosphorus	<u>Sample #</u> 07-4020 07-4092	Matrix Spike <u>Percent Recovery</u> 102 <i>%</i> 93 <i>%</i>	Matrix Spike Duplicate <u>Percent Recovery</u> 103 <i>%</i> 96%	Standard <u>Percent Recovery</u> 	Relative Percent <u>Difference</u> 0.9% 2.6%		
Chlorphyll A	07-4087				· 0.0%		

The samples were consumed in the analyses. If you have any questions or comments concerning this report, please feel free to contact us.

TETRA TECH Virginia VerMulm QA lànager R:data\wprifes\dth\wenck/2007/6760crwd-018

Dan T. Hanson

Chemistry Manager

## SAMPLE RECEIPT CHECKLIST

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LABORATORY NUMBER: <u>7256</u> 760 CHECKLIST COMPLETED BY:	CARRIER: <u>5 plede</u>
YES NO  1. Shipping container in good condition?  2. Custody seals present on shipping container?  3. Condition: IntactBroken  4. Chain of custody present?  5. Chain of custody signed when relinquised and recieved?  6. Chain of custody agrees with sample labels?  Custody seals on sample bottles?  9. Condition: IntactBroken	YES 13. the Frozen Blue Ice present? 14. Container temperature? $4/4$ 15. All samples recieved within holding time? PRESERVATION: 16. pH check performed by: $4$ 17. Metals bottle(s) pH < 2? 18. Nutrient bottle(s) pH < 2? 19. Cyanide bottle(s) pH < 2? 20. Oil & Grease bottle(s) pH < 2? 21. DRO/418.1 bottle(s) pH < 2? 22. Phenolics bottle(s) pH < 2? 23. Volatiles (VOA) pH < 2? (checked by analyst)
ient contacted for any reason? YESNO rson contacted?	

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•		IN OF RECO	CUST	ODY			1800	Pionee Maple Pho	r Cree Plain, ne: (7	k Ctr. –		ox 249				FIELD COORDINATOR <i>IVOVM</i> <u>LENCE</u> AIRBILL NO.
PROJ. NO. SAMPLERS	S (Signatu	rc)		PROJ. N	CRWD	)			0104420	1)ble actie e						<u>REMARKS</u> (Analyses, Detection Limits, Turnaround Time, Preservation, QA/QC, Run/Hold, Previous Data)
Sample		<u> </u>		<u> </u>		SAN	IPLE MA	TRIX	25	80	10				-	
I.D.	Date	Time	Comp.	Grab	Sample Description	Soil	Water	Other					•			
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## TETRA TECH, INC.

Tetra Tech 601 East 48th Street North Sioux Falls, South Dakota 57104-0698 (605) 332-537* Fax: (605) 332-8

### **REPORT OF: WATER ANALYSIS**

PROJECT:		CRWD <u>MINNESOTA</u>			DATI	E: September 14	, 2007
REPORTED 1	ГО:	WENCK ASSOCIA ATTN: WES BOLI 1800 PIONEER CR PO BOX 249 MAPLE PLAINS, 1	EEK CTR				
LABORATOR	RY NO:	98-56760	1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 1971 - 19				
Date Received:		08-30-07					
Date Sampled:		08-29-07					
Parameter	CR28. 07-483	<u>9</u> <u>07-4840</u>	Union Outlet <u>07-4841</u>	WR0.2 07-4842	<u>MDL</u>	Method	Date <u>Analyzed</u>
T-Phosphorus	0.431		0.013	0.127	0.01	4500:B.5&E	09-07
O-Phosphorus	0.301	0.081	< 0.005	0.084	0.005	4500-P:E	08-30
Total Suspended							
Solids	10.0	<4.0	<4.0	<4.0	4.0	2540D	08-31

MDL - Method Detection Limit

All results are in milligrams per liter.

*Standard Methods of Water & Wastewater 18th Edition, 1992

### LABORATORY QUALITY CONTROL

		ACCURA	<u>CY DATA</u>	<u>PI</u>	RECISION DATA
-		Matrix Spike	Matrix Spike Duplicate	Standard	Relative Percent
<u>Parameter</u>	<u>Sample #</u>	Percent Recovery	Percent Recovery	Percent Recovery	Difference
T. Phosphorus	07-4839	100%	102%		1.7%
O-Phosphorus	07-4836	101%	93%	<b>-</b>	7.2%
TSS	07-4793				5.2%

The samples were consumed in the analyses. If you have any questions or comments concerning this report, please feel free to contact us.

**TETRA TECH** Virdinia VerMulm QA Mahager

R:data\wpfiles\dth\wenck/2007/6760crwd-019

Dan T. Hanson Chemistry Manager



**TETRA TECH** 

Tetra Tech 601 East 48th Street North Sioux Falls, South Dakota 57104-0698 (605) 332-5371 Fax: (605) 332-8488

### **REPORT OF: WATER ANALYSIS**

PROJECT:	CRWD <u>MINNESOTA</u>	DATE: November 5, 2007
REPORTED TO:	WENCK ASSOCIATES, INC. ATTN: REBECCA KLUCKHOHN 1800 PIONEER CREEK CTR PO BOX 249 MAPLE PLAINS, MN 55359	
LABORATORY NO:	98-56760	······
Date Received:	09-14-07	
Date Sampled:	09-13-07	

	Betsy	Union	Pleasant			Date
<u>Parameter</u>	<u>07-5244</u>	<u>07-5245</u>	07-5246	MDL	Method*	Analyzed
T-Phosphorus	0.456	0.044	0.042	0.01	4500:B.5&E	10-08
O-Phosphorus	0.090	< 0.005	< 0.005	0.005	4500-P:E	09-14
Chlorophyll A	59.6	9.61	21.9	0.2	10200H	09-30

MDL - Method Detection Limit

All results are in milligrams per liter.

* Standard Methods of Water & Wastewater 18th Edition, 1992

LABORATORY QUALITY CONTROL

### ACCURACY DATA

#### PRECISION DATA

Parameter	Sample #	Matrix Spike Percent Recovery	Matrix Spike Duplicate Percent Recovery	Standard Percent Recovery	Relative Percent Difference
T. Phosphorus	07-5183	97%	103%		5.8%
O-Phosphorus	07-5231	97%	100%		3.3%
Chlorophyll A	07-5326				2.1%

The samples were consumed in the analyses. If you have any questions or comments concerning this report, please feel free to contact us.

TETRA TECH

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Virginia VerMuln QA Manager

R:data\wpfiles\dth\wenck/2007/6760crwd-022

Dan T. Hanson

Chemistry Manager

### SAMPLE RECEIPT CHECKLIST

CLIENT NAME: (LW)	)
<b>PROJECT:</b> 7856760	
LABORATORY NUMBER:	5244-5246

CHECKLIST

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DATE RECEIVED:	9-14.07
CARRIER:	be dee

<ol> <li>Shipping container in good condition?</li> <li>Custody seals present on shipping container?</li> <li>Condition: IntactBroken</li> <li>Chain of custody present?</li> <li>Chain of custody signed when relinquised and recieved?         <ul> <li>Chain of custody agrees with sample labels?</li> <li>Custody seals on sample bottles?</li> <li>Condition: IntactBroken</li> <li>Samples in proper container/bottle?</li> </ul> </li> </ol>	YES NO <u>Y</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u> <u>X</u>	<ul> <li>13. Ice/Frozen Blue Ice present?</li> <li>14. Container temperature?</li></ul>	$\frac{YES}{X}$
. VOA vials have zero headspace? . Trip Blank recieved? 		23. Volatiles (VOA) pH < 2? (checked by analyst)	
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** ** ***					Lake	San	np"		·······			• ·		`.			Nº 7-1
		IN OF RECO	CUSTO					1800 1	Pionee Maple Pho	K ASS r Creel Plain, 1 ne: (76	t Ctr MN 55 53) 479	- P.O. 1 359-02 -4200	3ox 249	)			FIELD COORDINATOR Norm Lenck AIRBILL NO.
PROJ. NO. SAMPLER	S (Signaty				CRW.	<i>в</i>			FA	X: (76: 1/2 2/0	1561e uttor	1.0 raph					<u>REMARKS</u> (Analyses, Detection Limits, Turnaround Time, Preservation, QA/QC, Run/Hold, Previous Data)
Sample	<u></u>			$\overline{1}$	<i>د</i>		SAM	IPLE MA	TRIX	1- 6	Sol	CY'					
I.D.	Date	Time	Comp.	Grab	Sample Descri	otion	Soil	Water	Other								
1 0	<u>130</u>	21000			Betsy	,				Same and the second							5244
2	./	1100			UNIO	$\mathcal{D}$			·····				-				5246
3	V	1230			PLEASU	nt						·	-				5246
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Relinquishe	d by: (Sig - <u>la 1                                  </u>	· · · · · · · · · · · · · · · · · · ·	Date 913	Time 900	Relinquished by:	(Signature	:)	-	Relinqu	ished by:	(Signatur	e)		Date	Time	Relinq	uished by: (Signature)
Relinquishe			Date	Time	Received for Lab		(Signa	ture)	Date 9./19	1/17	Time	Sam	oling/Reco	eipt Com	ments		

DISTRIBUTION: Original Accompanies Shipment; Copy to Coordinator Field Files

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**TETRA TECH** 



#### Tetra Tech 601 East 48th Street North Sloux Falls, South Dakota 57104-0698 (605) 332 °371 Fax: (605) 31 8

### **REPORT OF: WATER ANALYSIS**

PROJECT:		CRWD <u>MINNESOTA</u>				DATE: Nov	ember 5, 2007	
REPORTED T		ATTN: REBE	R CREEK CTF	IOHN R				
LABORATOR Date Received: Date Sampled:	Y NO:	98-56760 09-07-07 09-06-07						
<u>Parameter</u> T-Phosphorus O-Phosphorus Chlorophyll A MDL - Method E	Schoo Sectio <u>07-504</u> 0.047 < 0.00 6.94 Detection	n Louisa <u>19</u> 07-5050 7 0.123 05 < 0.005 119	Clearwater East <u>07-5051</u> 0.030 <0.005 11.2	Otter <u>07-5052</u> 0.020 <0.005 <0.2	Augusta <u>07-5053</u> 0.027 <0.005 20.3	<u>MDL</u> 0.01 0.005 0.2	<u>Method</u> * 4500:B.5&E 4500-P:E 10200H	Date <u>Analyzed</u> 10-02 09-07 09-09

All results are in milligrams per liter.

*Standard Methods of Water & Wastewater 18th Edition, 1992

LABORATORY QUALITY CONTROL

### ACCURACY DATA

### PRECISION DALA

ParameterSample #T. Phosphorus07-5041O-Phosphorus07-5052Chlorophyll A07-5018	Matrix Spike <u>Percent Recovery</u> 99% 92%	Matrix Spike Duplicate <u>Percent Recovery</u> 94% 97%	Standard Percent Recovery	Relative Percent <u>Difference</u> 5.8% 5.2% 0.0%
------------------------------------------------------------------------------	-------------------------------------------------------	-----------------------------------------------------------------	------------------------------	---------------------------------------------------------------

The samples were consumed in the analyses. If you have any questions or comments concerning this report, please feel free to contact us.

TETRA TECH Virenia VerMulm **OA** Manager

R:data\wpfiles\dth\wenck/2007/6760crwd-021

Dan T. Hanson

Chemistry Manager

### SAMPLE RECEIPT CHECKLIST

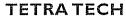
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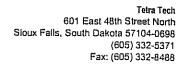
CLIENT NAME: <u>Wend</u> PROJECT: <u>LABORATORY NUMBER:</u>	 DATE RECEIVED: 9/7/47 CARRIER: 5 partie
CHECKLIST COMPLETED BY:	
<ol> <li>Shipping container in good condition?</li> <li>Custody seals present on shipping container?</li> <li>Condition: Intact Broken</li> <li>Chain of custody present?</li> <li>Chain of custody signed when relinquised and recieved?</li> <li>Chain of custody agrees with sample labels?</li> <li>Chain of custody agrees with sample labels?</li> <li>Custody seals on sample bottles?</li> <li>Condition: Intact Broken</li> <li>Samples in proper container/bottle?</li> <li>Samples intact?</li> <li>VOA visis have zero headspace?</li> <li>Trip Blank recieved?</li> </ol>	YES 13. $1 cel^{2}$ rozen Blue les present? 14. Container temperature? $1/2$ $7 c$ 15. All samples recieved within holding time? PRESERVATION: 16. pH check performed by: $D/A$ 17. Metals bottle(s) pH < 2? 18. Nutrient bottls(s) pH < 2? 19. Cyanide bottle(s) pH < 2? 20. Oil & Grease bottle(s) pH < 2? 21. DRO/418.1 bottle(s) pH < 2? 22. Phenolics bottle(s) pH < 2? 23. Volatiles (VOA) pH < 2? (checked by analyst)
ient contacted for any reason? YES; rson contacted? te contacted? ntacted by? garding?; tional Comments;	
tional Comments:	 TRA TECH, INC.

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PROJ. NO. SAMPLER	S (Signatu	ire) Tum		PROJ. N	CRWZ		1PLE MA	TRIX	Total Prosphur	Soluble Reactive	CNIOLOPHY	Bod	755	10	<u>REMARKS</u> (Analyses, Detection Limits, Turnaround Time, Preservation, QA/QC, Run/Hold, Previous Data)
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Relinquishe	d by: (Siį	inature)	Date	Time	Received for Laboratory b	ý: (Signal	-	Date 5/-7/	-	Time // 36	Sam	pling/Rec	cipt Com	ments	

DISTRIBUTION: Original Accompanies Shipment; Copy to Coordinator Field Files

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### **REPORT OF: WATER ANALYSIS**

PROJECT:	CRWE MINN	) ESOTA			DATE: Nove	mber 7, 2007	
REPORTED TO	ATTN 1800 P PO BO	K ASSOCIATES, REBECCA KLUG IONEER CREEK X 249 E PLAINS, MN 55	CKHOHN CTR				
LABORATORY	NO: 98-567	50	······································				······
Date Received:	10-03-0	)7					
Date Sampled:	10-02-0	)7					
	CR28.2	Union Inlet	Union Output	WR0.2			Date
Parameter	<u>07-5727</u>	07-5728	07-5729	07-5730	MDL	Method*	Analyzed
<b>T-Phosphorus</b>	0.379	0.277	0.046	0.132	0.01	4500:B.5&E	10-12
O-Phosphorus	0.193	0.011	0.0052	0.087	0.005	4500-P:E	10-03
Chlorophyll A	22.0	57.0	< 4.00	< 4.00	0.2	10200H	10-05

MDL - Method Detection Limit

All results are in milligrams per liter.

'Standard Methods of Water & Wastewater 18th Edition, 1992

LABORATORY QUALITY CONTROL

### ACCURACY DATA

#### PRECISION DATA

Parameter	Sample #	Matrix Spike Percent Recovery	Matrix Spike Duplicate Percent Recovery	Standard Percent Recovery	Relative Percent Difference
T. Phosphorus	07-5160	104%	107%	<u></u>	2.0%
O-Phosphorus	07-5128	91%	91%		0.0%
Chlorophyll A	07-5128				3.5%

The samples were consumed in the analyses. If you have any questions or comments concerning this report, please feel free to contact us.

**TETRA TECH** Virginia VerMuln QA Manager R:data\wpfiles\dth\wenck/2007/6760crwd-023

Dan T. Hanson

Chemistry Manager

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SAMPLER	.S (Signatu	re)				SAN	1PLE MA	TRIX	Pholo	2012	1000 ×					Turnaround Time, Preservation, QA/QC, Run/Hold, Previous Data)
Sample	Date	Time	Comp.	Grab	Sample Description	Soil	Water	Other	1							* ³ .
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Relinquish	ed by: (Si	gnature)	Date	Time	Received for Laborator	$l_{-}$	ature)	Date (0/3)	67	Time 12.3		pling/Rc	ceipt Com	ments	- '	

DISTRIBUTION: Original Accompanies Shipment; Copy to Coordinator Field Files

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# Appendix G

# **Field Notes and Measurements**

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Site Location: $\underline{School}$ Contract Colspan="2">Site Location: $\underline{School}$ Chain of Custody:         Comments:         Expected Depth (ft):         Measured Depth (ft):         Measured Depth (ft):         Secchi Disk (ft): $\underline{S + \underline{S}}$ Field Measurements         Field Measurements         Field Measurements         Field Measurements         Field Measurements         Temp (°C) Cond. (mS) D.O. (mg/l) Depth (m)         Sample ID Date and Time 23 · (         1 / 2.4       0.00         7.1       / 2.4         7.2.1       / 2.4         7.2.1       / 2.4         Secchi Disk (ft): $\underline{S + \underline{S} - $	
Chain of Custody:         Comments:         Site Coordinates:         Expected Depth (ft):         Measured Depth (ft):         Measured Depth (ft):       Measured Depth (ft):         Measured Depth (ft):       Measured Depth (ft):         Secchi Disk (ft): $\mathcal{F} : \mathcal{F} : F$	
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Expected Depth (ft): Measured Depth (ft): Measured Depth (ft): Weather:         Secchi Disk (ft): $\mathcal{S}$ $\mathcal{S}$ $\mathcal{P}$ $\mathcal{C}$ Field Measurements         Field Measurements         Field       Sample       Temp (°C)       Cond. (mS)       D.O. (mg/l)       Depth (m)         Sample ID       Date and Time $\mathcal{Q}$ $\mathcal{I}$ <th< td=""><td></td></th<>	
Expected Depth (ft): Measured Depth (ft): Measured Depth (ft): Weather:         Secchi Disk (ft): $\mathcal{S}$ $\mathcal{S}$ $\mathcal{P}$ $\mathcal{C}$ Field Measurements         Field Measurements         Field       Sample       Temp (°C)       Cond. (mS)       D.O. (mg/l)       Depth (m)         Sample ID       Date and Time $\mathcal{Q}$ $\mathcal{I}$ <th< td=""><td>1</td></th<>	1
Weather:           Secchi Disk (ft): $3 \cdot 5$ $70^{\circ}$ $SE \cdot 5^{\circ}$ $70^{\circ}$ 70^{\circ}	
Section Disk (iii).       Field Measurements         Field       Sample       Temp (°C)       Cond. (mS)       D.O. (mg/l)       Depth (m)         Sample ID       Date and Time       · · · · · · ·       / 2.9       / 2.9         /       · · · · · · · · · / 2.9       · · · · · · · · · / 2.9       · · · · · · · · · · · · · · · · · · ·	ł
Section Disk (iii).       Field Measurements         Field       Sample       Temp (°C)       Cond. (mS)       D.O. (mg/l)       Depth (m)         Sample ID       Date and Time       · · · · · · ·       / 2.9       / 2.9         /       · · · · · · · · · / 2.9       · · · · · · · · · / 2.9       · · · · · · · · · · · · · · · · · · ·	
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Date of Sampling Start Time:	6507			Site Location:	THE	ēp_	
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Sampler(s):		Chain of Custody:					
Comments:		Site Coordinates:					
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Secchi Disk (ft):	10'			1750	<u></u>		
		Field M	easurement	S		<i></i>	
Field	Sample	Temp (°C)	Cond. (mS)	D.O. (mg/l)	Depth (m)	pH (S.U.)	
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		<u> </u>			14.00		
		6 B 6 5 6 5		0,2'	15.00		
		60		0.2	10.00	1	
	<u> </u>	<u>65</u>				<u> </u>	
	<u> </u>	1				<u> </u>	
		<u>,</u>				<u> </u>	
		·····					
		<u> </u>			<u> </u>	<u></u>	
		<u></u>	 			<u> </u>	
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Date of Sampling Start Time:	6501			Site Location:	Augus	to	
Date of Camping	1100			1			
	<u> </u>						
End Time:	<del></del>	Site Description					
Sampler(s):							
			<u> </u>	Chain of Custod	y.		
Comments:	<u>"</u>	Site Coordinates:					
<u></u>							
·			Ex	pected Depth (ft	):		
		Measured Depth (ft):					
<u></u>			Weather:				
			75	<i>/0</i> .	4		
	=			- Uni	L ^o		
	-7 5		PS	wind			
Secchi Disk (ft):	5.4		•	•			
		Field M	easurement	s	· · · · · · · · · · · · · · · · · · ·		
Field	Sample	Temp (°C)	Cond. (mS)	D.O. (mg/l)	Depth (m)	pH (S.U.)	
Sample ID	Date and Time	22.2		17.5			
		11.9	-+ ,	16.5	0.50		
		211		12.8	1.00		
· · · · · · · · · · · · · · · · · · ·		19:2		8.1	2.00		
		16.4	ļ ,	5.5	3 00		
		133		42	4.00	·	
		112	F1 کې	<u> </u>	5.00	•	
		100		3.1	6.00	·	
		9.1	· · ·	0.5	7.00	· · · · · · · · · · · · · · · · · · ·	
		7.1	•	<u> </u>	8.00	·	
		71	•	05.5	9.00	· · · · · · · · · · · · · · · · · · ·	
		6.5		05	10.00	······································	
		65		0Z	11.00		
		6.5		02	12.00	<u> </u>	
		5_4		$0^{-2}$	13.00	· · · · · · · · · · · · · · · · · · ·	
		<u> </u>		02	14.00	<u> </u>	
· · · · · · · · · · · · · · · · · · ·		<u> </u>		61	15.00		
ļ		<u> </u>					
·	_	50 50 50 49	<u> </u>	0		<u> </u>	
		41		01			
		49		01			
		49	<u> </u>	01			
		<u> </u>	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	<u> </u>	
		<u></u>	<u></u>				
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Date of Sampling Start Time:	607			Site Location:	Loui	5Cl			
Start Time:	960								
End Time:	<u></u> feetingenee			Site Description					
Sampler(s):	<u> </u>								
Gampier(3).				Chain of Custor	ly:	LTT-75-U-20194			
Comments:			Site Coordinates:						
	······································			pected Depth (fl asured Depth (f					
			Weather:		<u>().</u>				
***				e					
······································			P.C	- • []	mole				
	11-		1. 4	· Wi	H H				
Secchi Disk (ft):	4.5		l l e	<u>^</u>					
1	·								
Field	Cample		easurement		Depth (m)				
Sample ID	Sample Date and Time	Temp (°C) 2 1.0	Cond. (mS)	D.O. (mg/l)	Depth (m)	pH (S.U.)			
	6607 800	20.2		10.5	0.50				
	Q1001 800	20.7		10.2	1.00				
		201		10:2	2.00				
		19.9		10.2	3.00				
		19:5		à K	4.00				
		19.5		95	5.00				
		<u>) 'X.</u> ~		9.7	6.00	<u> </u>			
		19.5		7.2	7.00				
		14.5		<u> </u>	8.00				
		16:0	•	<u> </u>	9.00	· · · · · · · · · · · · · · · · · · ·			
		15.5		1.5	10.00				
		15.4		1.3	11.00				
		14,2		0.5	12.00				
		1 140		0.5	13.00				
			- •		14.00				
ļ <u></u>					15.00				
ļ									
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				·····					
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Date of Sampling:	6607
Start Time:	800
End Time:	<u></u>
Sampler(s):	· · · · · · · · · · · · · · · · · · ·
Comments:	
·····	

Site Location:	Pleasant

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Site Description

Chain of Custody:

65°

Site Coordinates:

Expected Depth (ft): Measured Depth (ft):

CLoudy

Weather

Secchi Disk (ft): 10-5

		Field M	easurement	s		
Field	Sample	Temp (°C)	Cond. (mS)	D.O. (mg/l)	Depth (m)	pH (S.U.
Sample ID	Date and Time	20%		13.1		
1		205		130	0.50	
		20.5		1.30	1.00	
-		20.5		121	2.00	. <u>.</u>
`		19.9		120	3.00	
		19.5		12.0	4.00	
<u></u>		19.2		119	5.00	·
		190		11.9	6.00	· · ·
		185	·	10.5	7.00	
<u></u>		10.9	•	q .2	8.00	·
		169	· ·	9.0	9.00	
		165			10.00	
•		162		72	11.00	
		1 60		66	12.00	
		160		65	13.00	
		151		4.0	14.00	
		15.1		05	15.00	
		149		<u> </u>		
		140		Ŏ I		
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		130		01		
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Date of Sampli Start Time:	ng: 6607 900			Site Location	: <u>UN</u>	ION
End Time: Sampler(s):				Site Descriptio	חת	
Comments:				Chain of Custo	ody:	
			Site Coordina	ates:		
		~~ ~ ~	E M Weather:	xpected Depth ( leasured Depth (	ft): ft):	
		_		5°	•	
Secchi Disk (ft):	5.5	~	Le Le	5		
		Field M	leasurement	S	·····	······································
Field	Sample	Temp (°C)	Cond. (mS)	D.O. (mg/l)		
Sample ID	Date and Time	21.5		131	Depth (m)	pH (S.U.)
	6607 900	21.2		120	0.50	
		212			0.50	
		19.5		120	1.00	
	I	19:0		# 9.5	2.00	
······		192		95	3.00	i
		16.2		8.9.	4.00	
		15.4		- <u>z</u> [	5.00	
		122		61.	6.00	<u> </u>
		<u>4</u> ci		01.	7.00	
					8.00	
					9.00	<u> </u>
					10.00	
					11.00	
					12.00	<u> </u>
			<u> </u>		13.00	
					14.00	
			······································		15.00	
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<u></u>						
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Date of Sampling	1000 Kw			Site Location:	Bet.	54
Start Time:	1000					1
End Time:				Site Description	1	
Sampler(s):	Kus			1	· · · · · · · · · · · · · · · · · · ·	
	<u> </u>			Chain of Custor	dy:	
Comments:			Site Coordinal	tes:		
			E	vocated Denth /#	•	
<b>**</b> *****				xpected Depth (fi easured Depth (f		
	<u></u>		Weather:	casarea Depin (i	· · · · · · · · · · · · · · · · · · ·	
				1		
······	····		CLC	sudy		
Secchi Disk (ft):	3.5		65	6		
		Field M	easurement	S		
Field	Sample	Temp (°C)	Cond. (mS)	D.O. (mg/l)	Depth (m)	pH (S.U.)
Sample ID	Date and Time	19.5		12.0	<u> </u>	
3'	·	19.5		1 I.F	0.50	
		18.2	· · · · · · · · · · · · · · · · · · ·	10.2	1.00	
·		13.2	·	10.1	2.00	
·	<u> </u>	180		11.2	3.00	
		169	·	10.5	4.00	
		165	· · · · · · · · · · · · · · · · · · ·	9.2	5.00	•
	ļ	<u> </u>		4.5	6.00	•
		•			7.00	
		·	•	,	8.00	
		,		•	9.00	• • • • • • • • • • • • • • • • • • • •
					10.00	
					11.00	
·····					12.00	
			<u> </u>		13.00	
					14.00	
					15.00	
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Date of Sampling: $6207$ Site Location: $5chool SecTio$ Start Time: $800$ Site Description       Site Description         Sampler(s): $7cottottottottottottottottottottottottott$	Date of Sampling	62607			Site Location:	<u>School</u>	Sectio
Comments:         Site Coordinates:         Expected Depth (ft):         Measured Depth (ft):         Measured Depth (ft):       Measured Depth (ft):         Secchi Disk (ft):       Site Sonn eq (55)       Measurements         Field Measurements         Field Measurements         Field       Sample       Temp (°C)       Cond. (mS)       D.O. (mg/l)       Depth (m)       pH (S.U.)         Sample ID       Date and Time       Z / 5       I / C       0.50       0.50         Image: Colspan="2">Image: Colspan="2">Site Coord. (mS)       D.O. (mg/l)       Depth (m)       pH (S.U.)         Sample ID       Date and Time       Z / 5       I / C       0.50       0.50         Image: Colspan="2">Image: Colspan="2">Site Sond Image: Colspan="	Start Time:	800					
Comments:         Site Coordinates:         Expected Depth (ft):         Measured Depth (ft):         Measured Depth (ft):       Measured Depth (ft):         Secchi Disk (ft):       Site Sonn eq (55)       Measurements         Field Measurements         Field Measurements         Field       Sample       Temp (°C)       Cond. (mS)       D.O. (mg/l)       Depth (m)       pH (S.U.)         Sample ID       Date and Time       Z / 5       I / C       0.50       0.50         Image: Colspan="2">Image: Colspan="2">Site Coord. (mS)       D.O. (mg/l)       Depth (m)       pH (S.U.)         Sample ID       Date and Time       Z / 5       I / C       0.50       0.50         Image: Colspan="2">Image: Colspan="2">Site Sond Image: Colspan="	End Time:		-		Site Description	١	
One of observed.           Comments:         Site Coordinates:           Expected Depth (ft):           Measured Depth (ft):         Measured Depth (ft):           Weather:         Sonn eq           Secchi Disk (ft):         Site Site Site Site Site Site Site Site	Samplor/a):	2/2 White					
Site Coordinates:         Site Coordinates:       Expected Depth (ft):         Measured Depth (ft):       Measured Depth (ft):         Secchi Disk (ft):	oumpler(3).				Chain of Custor	dy:	
		<u> </u>		011-0			
	Comments:	B		Site Coordinat	es.		
	्र 						
	* <u></u>	· · ·	-	Ex	pected Depth (f	t);	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	<u>,,</u>		•				
Secchi Disk (ft): $3, 7$ Field Measurements         Field Measurements         Sample ID       Date and Time 21.5 $11.2$ 1 $270.73$ $215$ $11.2$ 2 $2.5$ $11.2$ $0.50$ 1 $2.70.73$ $215$ $11.2$ 2 $2.5$ $11.2$ $0.50$ 2 $2.5$ $11.2$ $0.50$ 2 $2.5$ $11.20$ $0.50$ 2 $2.5$ $11.00$ $0.50$ 2 $2.5$ $3.00$ $0.50$ 2 $2.5$ $3.00$ $0.50$ 2 $2.5$ $3.00$ $0.50$ $1.500$ $0.500$ $0.500$ $0.500$ $1.500$ $0.500$ $0.500$ $0.500$ $1.500$ $0.500$ $0.500$ $0.500$ $1.500$ $0.500$ $0.500$ $0.500$ $1.500$ $0.500$ $0.500$ $0.500$ $1.500$ $0.500$ $0.500$ $0.500$ $1.500$ $0.500$			-	Weather			
Secchi Disk (ft):         8 , 7           Field Measurements           Field         Sample         Temp (°C)         Cond. (mS)         D.O. (mg/l)         Depth (m)         pH (S.U.)           Sample ID         Date and Time         2 / 5         1 / 2         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -			-	Juppe	Y		
Secchi Disk (ft):         3 , 7           Field Measurements           Field         Sample         Temp (°C)         Cond. (mS)         D.O. (mg/l)         Depth (m)         pH (S.U.)           Sample ID         Date and Time         2 / 5         1 / 2         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -         -		·		120			
		\$ 5		60			
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Secchi Disk (ff):	0,1		L		· · · · · · · · · · · · · · · · · · ·	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	1						
Sample ID       Date and Time $215$ $11.0$ $0.50$ $20.2$ $3.9$ $3.9$ $3.00$ $20.2$ $3.9$ $3.00$ $218.9$ $3.00$ $3.00$ $11.0$ $3.00$ $3.00$ $11.0$ $3.00$ $3.00$ $20.2$ $3.9$ $3.00$ $20.2$ $3.9$ $3.00$ $20.2$ $3.9$ $3.00$ $20.2$ $3.9$ $3.00$ $18.9$ $3.00$ $10.00$ $11.0$ $11.00$ $11.00$ $11.00$ $11.00$ $12.00$		1					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$				Cond. (mS)	D.O. (mg/l)	Depth (m)	<u>pH (S.U.)</u>
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Sample ID		21)			0.50	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	ļ	GAR SAL	215	· ·	1.0		· · · · · · · · · · · · · · · · · · ·
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			· · · · · · · · · · · · · · · · · · ·	· · ·	<u> </u>		
4.00       .     5.00       .     5.00       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .     .       .		****	·		× 5		
6.00          7.00          8.00          9.00          10.00         11.00         12.00         13.00         14.00					i		
.     .     7.00       .     .     8.00       .     .       .     9.00       .     10.00       .     11.00       .     12.00       .     13.00       .     14.00					•	5.00	
.     .     8.00       .     .     9.00       .     .     9.00       .     .     10.00       .     .     11.00       .     .     12.00       .     .     13.00       .     .     14.00			· ·	· .	,	6.00	
9.00           10.00           11.00           12.00           13.00           14.00			· •	,		1	
10.00           11.00           12.00           13.00           14.00					• • •		
11.00           12.00           13.00           14.00	· ·			· · ·		1	<u> </u>
12.00           13.00           14.00							ļ
13.00 14.00							
14.00							ļ
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15.00						a construction of the second	
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Date of Sampli	ng: 62607	Site Location: Louisa
Start Time:	920	
End Time:	a	Site Description
Sampler(s):	Kei	
		Chain of Custody:
Comments:		Site Coordinates:
		Expected Depth (ft):
		Measured Depth (ft);
<u></u>		Weather:
		5 Jun -V
Secchi Disk (ft)	4.5	5000 - p 650
Secon Disk (ii)	/	
		Field Measurements
Field	Sampla	Temp (°C)   Cond (mS)   D O (mg/l)   Depth (m)   pH (S I

Field	Sample	Temp (⁰C)	Cond. (mS)	D.O. (mg/l)	Depth (m)	pH (S.U.
Sample ID	Date and Time	221		152		
2		221		151	0.50	
		215	•	149	1.00	
		211		145	2.00	
		210		145	3.00	
		162		51	4.00	
		151		42	5.00	
		135		4.0	6.00	
		121	-	$\phi$ . $\circ$	7.00	
		9.5		12	8.00	
		9.0		1.3	9.00	т.
		71		1.3	10.00	
		70		<u> </u>	11.00	
1.00		70		1.01	12.00	
					13.00	
					14.00	
					15.00	
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Date of Sampling	10 30			Site Location:	Clear	water E	<u>_</u> Ce
End Time:	<u> </u>			Site Descriptior	۱ <u> </u>		-
Sampler(s):	• • • • • • • • • • • • • • • • • • •			Chain of Custo	dy:		
Comments:			Site Coordinat	es:			
	·····			pected Depth (f			
· · · · · · · · · · · · · · · · · · ·			Weather	easured Depth () ب ت بورور ک	it).		
Secchi Disk (ft):	14.5		6	5° WIN	dy Fro	N.W.	
	<u> </u>	Tiold M	·····		¥≈v		
Field	Sample	Temp (°C)	easurement Cond. (mS)	s , D.O. (mg/l)	Depth (m)	pH (S.U.)	
Sample ID	Date and Time	240		13.8		PIT(0.00)	
3	10.90	24.1	ŧ.	ry 2	0.50		
		234		12.5	1.00		
		238		11.1	2.00		
		7.76	* 1	C1.41	3.00	· .	
		20.5		×1	4.00	·]	
		2.21	(	8.1	5.00		
		51.0	· · ·	K. 2	6.00	·	
		609		2.8	7.00	•	
		201	2	7.0	8.00	• •	
		# G . 5		1.1.	9.00		
		18.9	4	0.5	10.00		
		181		0.2	11.00		
······································		15.9	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	0.2	12.00		
		15.2		0.2	13.00		
· #		151		0.2	14.00		
					15.00		
	<u> </u>	/					
		·····				<u> </u>	
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Date of Sampling Start Time:	62807	7		Site Location:	Otten			
Start Time: End Time:	1140	Site Description						
Sampler(s):				Chain of Custor	ly:			
Comments:			Site Coordinat	es:				
				xpected Depth (fi easured Depth (f				
Secchi Disk (ft):	12'5		50,111 6 8 °	ey win From	dy 15 n N.W	rc 20		
		Field M	easurement					
Field	Sample	Temp (°C)	Cond. (mS)	5 D.O. (mg/l)	Depth (m)	pH (S.U.)		
Sample ID	Date and Time	22.1	00nd. (mo)		Deptit (iii)	pir (0.0.)		
		221		121	0.50			
		7.20		171	1.00			
		520		130	2.00			
·····	F	<u> 210</u>		171	3.00			
		20.5		109	4.00			
		194		104	5.00			
		195.		8.2_	6.00			
		195	, , , , , , , , , , , , , , , , , , ,	\$0	7.00			
		19.2		59	8.00	·		
		1.8 7		i-a	9.00	·		
		184		50	10.00			
		j '> [		21	11.00	L		
		152		20	12.00			
		131		1.(	13.00			
		149		05	14.00	 		
		1 4 5 1 4 5	•	00	15.00			
		j45		02				
ļ		14-		02				
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Date of Sampling Start Time:	62007			Site Location:	Augu	sta
End Time:	1245			Site Description	l	
Sampler(s):	KC)			Chain of Custor	iy:	
Comments:			Site Coordinat			<u> </u>
				pected Depth (f asured Depth (f	•	
·			Weather:			
-96-		•	9ر ر	nhreg 8° N	WINCY	_
Secchi Disk (ft):	5'		Q	<u>o N</u>	W 20	F25
	· · · · · · · · · · · · · · · · · · ·	Field M	easurement	S		
Field	Sample	Temp (°C)	Cond. (mS)	 D.O. (mg/l)	Depth (m)	pH (S.U.)
Sample ID	Date and Time	$\frac{1000}{2}$		17.5		
T				16.8	0.50	
		170		1/%	1.00	
		-520			2.00	
·····			•	103	3.00	
			· · · · ·	100	4.00	
		<u></u>	·	-1.25	5.00	· · · · · · · · · · · · · · · · · · ·
		200	•	12.0 Tuk V	6.00	
		145		<u> </u>		•
			•	<u> </u>	7.00	•
		1.61	,	7.0	8.00	· · · · · · · · · · · · · · · · · · ·
			· .	2.5	9.00	•
		151		7.5	10.00	
		148		1.4	11.00	
		148		1.5	12.00	
		139		1.0	13.00	
		135		0.6	14.00	
		115		05	15.00	
		118				
		118		0.5		
		11.5		0.5		
		112		05		
		104		05		<del></del>
		105		05		
		100		0.5		
		10.0		0.5		
		10.0		0.5	· · · · · · · · · · · · · · · · · · ·	
		10.0		0.5		

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Date of Sampling	<u>()/290</u> <u>800</u>	7		Site Location:	PLaus	ant
Start Time:	800					
End Time:				Site Description		
	Xu					
Sampler(s):	<u></u>			Chain of Custor	iy:	
Comments:			Site Coordinat	es:		
• • • • •						
<u></u>			Ex	pected Depth (fi	t):	
				easured Depth (f		
	<b>,</b>		101 a phia par		1.1.1.2 Rec.	
			0 50	nney 5	6	
·····			p 3	• –		
	1 -					
Secchi Disk (ft):	4.5					
		Field M	easurement	S		
Field	Sample	Temp (°C)	Cond. (mS)	D.O. (mg/l)	Depth (m)	pH (S.U.)
Sample ID	Date and Time	211	, , , , , , , , , , , , , , , , , , ,	12.5		
		711		132	0.50	-
hh		202		12.8	1.00	
		202		119	2.00	
		56.0	,	11.9	3.00	
		19.5		115	4.00	
		19-6		101	5.00	
		185		9.9	6.00	•
		180		50	7.00	•
		165	•	~ <i>b.</i> 3	8.00	
		160	•	12	9.00	
		152	Y	<u></u>	10.00	
		1.49		012	11.00	L
		135		02	12.00	
		1.35		02	13.00	
		1.28		02	14.00	
		1.28 12.8 125		02	15.00	
	<u> </u>	125		02		
		114		02		<u> </u>
	۲ <b>م ا</b> م	115	ļ	02		
<u></u>						
	<u> </u>				······	
		·····				<u> </u>
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			[		·····	
1			I		1	i

Σ. P.β. **3** β.β.β. I.Σ. ...

Date of Sampling Start Time:	g: 6/2905	7		Site Location:	UNI	010
End Time:	900			Site Description	)	
Sampler(s):	Kel-			Chain of Custor	dy:	
Comments:			Site Coordinat			
			Me	pected Depth (fi asured Depth (f	t):	
	9 r		501	nney 5	6	
Secchi Disk (ft):	_1.5				* <del>************************************</del>	
			easurement			
Field	Sample	Temp (°C)	Cond. (mS)	D.O. (mg/l)	Depth (m)	pH (S.U.)
Sample ID	Date and Time	210		125		
		21.2		1.2.5	0.50	
		211		122	1.00	
		200		119	2.00	
		19.5		115	3.00	
		198		84	4.00	
		1.3.2		4.5	5.00	Ì
		195		1.1	6.00	
		1.0.0		1.0	7.00	
		<u> </u>			8.00	
		· · · · · · · · · · · · · · · · · · ·	<u> </u>		9.00	
		*	· · · · ·		10.00	· · · ·
					11.00	
					12.00	
		n-w				
					13.00	
			[	•••••••••••••••••••••••••••••••••••••••	14.00	
		······································			15.00	ļ
· · · · · · · · · · · · · · · · · · ·			<u> </u>			
						<u> </u>
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·····	- <u> </u> jj	<u></u>	1			

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Date of Sampling	672907			Site Location:	Bets	4
Start Time: End Time:	1015			Site Description		
Sampler(s):	KW			Chain of Custor	iy: ,	
Comments:			Site Coordinat	es:		
			Me	pected Depth (ff asured Depth (f		
			Weather:			*
Secchi Disk (ft):	2.5					
		Field M	easurement	S		
Field	Sample	Temp (°C)	Cond. (mS)	D.O. (mg/l)	Depth (m)	pH (S.U.)
Sample ID	Date and Time	23.5		18.2		
(****)	1	<u>^ ~ ~ ^</u>			<u>ö 50</u>	

Field	Sample	Temp (°C)	Cond. (mS)	D.O. (mg/l)	Depth (m)	pH (S.U.)
Sample ID	Date and Time	23.5		18.2		
2		230		150	0.50	
		220		151	1.00	
		221		14.0	2.00	
		20.2	•	161	3.00	
		20.0	¢	9.2	4.00	-
		190		09	5.00	
		1 75		0.5	6.00	
		170	"	6.5	7.00	
			· /	•	8.00	·
		•		· · · · · · · · · · · · · · · · · · ·	9.00	·
					10.00	
					11.00	
					12.00	
					13.00	
					14.00	
					15.00	
		······································				
tanana ana ana ana ana ana ana ana ana a	·····	1				

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Site Location: Schoolsection
Site Description
Chain of Custody:
Site Coordinates:
Expected Depth (ft): Measured Depth (ft): Weather: Sunney
Sunney 85°

		Field M	easurement	S		
Field	Sample	Temp (°C)	Cond. (mS)	D.O(mg/l)	Depth (m)	pH (S.U.)
Sample ID	Date and Time	29.8		15.9		
	73107	27.2		142	0.50	-
· · · · · · · · · · · · · · · · · · ·		27.1		140	1.00	
		19.1		120	2.00	
		190		122	3.00	
					4.00	
					5.00	
ļ	-				6.00	
ļ					7.00	•
				· · · · ·	8.00	•
		<u>.</u>	. <u>.</u> .	•	9.00	,
					10.00	
					11.00	
				······	12.00	
		<u>_</u>			13.00	
					14.00	
					15.00	
		· · · · · · · · · · · · · · · · · · ·				
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Date of Sampling Start Time:	7 3107			Site Location:	Lau	İsA
End Time:	Kw			Site Descriptior	۱ <u></u>	
Sampler(s):	$n\omega$			Chain of Custo	dy:	
Comments:	• • • • • • • • • • • • • • • • • • • •		Site Coordinat	es:		.' Metro Nest
			Me	pected Depth (f easured Depth (i	t):	
			Weather: 5 4	inney		
Secchi Disk (ft):	2.5		8	onney 5 W	ind From	To 10 G.W.
		Field M	easurement	s		
Field Sample ID	Sample Date and Time	Temp (°C)	Cond. (mS)	D.O. (mg/l)	Depth (m)	pH (S.U.)
2		2.5.1	• • • • • • • • • • • • • • • • • • •	15.2	0.50	
		2.3.2	•	$-\frac{1}{5}$	2.00	· · · · ·
		201	· · · ·	1:2	<u>3.00</u> 4.00	
		158	•	1.2	5.00	
· · · · · · · · · · · · · · · · · · ·		131		1.0	6.00	
			· · · · · · · · · · · · · · · · · · ·	1.2	7.00	· , ,
		102	· .		8.00 9.00	•
		8.0	•		10.00	·····
· · · · · · · · · · · · · · · · · · ·					11.00	
		50		1.2	12.00	
		7.2		1 3	13.00	
					14.00	
					15.00	1.
	**************************************					
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S. h. S. & Barbart

Date of Sampling: 73107	Site Location: CLERP Water Easi
Start Time: (2,3°	
End Time:	Site Description
Sampler(s):	
	Chain of Custody:
Comments:	Site Coordinates:
	Expected Depth (ft):
	Measured Depth (ft):
	Weather:
Secchi Disk (ft): 5:5	

-	· · · · · · · · · · · · · · · · · · ·	Field M	easurement	s		••• , · · · · · · · · · · · · · · · · ·
Field	Sample	Temp (°C)	Cond. (mS)	D.O. (mg/l)	Depth (m)	pH (S.U.)
Sample ID	Date and Time	28.0		12.5		
3		26.5		132	0.50	
		265	,	13.8	1.00	
		24.1	·	13.5.	2.00	
		271		17.2	3.00	•
		24.5		72	4.00	,
		2.3.1	·	2.1	5.00	
		225	· · · · · · · · · · · · · · · · · · ·	0.8	6.00	-
		220	•	0.6	7.00	•
		215-	•	0,2	8.00	•
		N. 6. 5	•	0.6	9.00	
		19.2		05	10.00	
		17:5		0.6	11.00	
···· · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	_15.1		0.6	12.00	
		13.2		6.1	13.00	
		14.1		07	14.00	
·····		13.2		06	15.00	
		-				
	<u> </u>					
	1					

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Date of Sampling	: 73107			Site Location:	OTTer	<i>л</i>
Start Time: End Time:	130			Site Description		
Sampler(s):	Ka			Chain of Custoo	iy:	
Comments:	<u></u>	<u></u>	Site Coordinat		n Tank i i ayan ka	577 <b>7</b> 77600
	······································			kpected Depth (fl easured Depth (f		
			vveamer.			
Secchi Disk (ft):	5.5					
		Field M	easurement	ŝ		1
Field	Sample	Temp (°C)	Cond. (mS)	D.O. (mg/l)	Depth (m)	pH (S.U.)
Sample ID	Date and Time	24.9		11.8		
		275		11.9	0,50	
		56.5		115.5	1.00	•
		235	*	1.71	2.00	
<u></u>	1	19.5		12.2	3.00	
	n	ren.T		8.7	4.00	
·	·····	15,5		7.1	5.00	
		10.1		1.8	6.00	·
		9		1.4	7.00	
				1	8.00	
		- B- 2		1 3	9.00	
		<u> </u>	· · · · ·	1.3	10.00	·
	. 	12.8		1.3	11.00	
		$-\frac{\nu \cdot o}{2}$		1.2	12.00	
		10		1 2	13.00	
		1.0		1. 3	14.00	· · · · · · · · · · · · · · · · · · ·
		6.9		1.7	15.00	

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Date of Sampling	220			Site Location:	AUgus	sta
Start Time:	220				-	
End Time:				Site Description	1	
Sampler(s):	Xie					
Jampien(a).	<u>k</u>			Chain of Custor	dy:	
Comments:			Site Coordina	tes:		
<u></u>						
			Γ.		1.	
				xpected Depth (fi easured Depth (f		
			Weather		L).	
			Sun	わせみ		
	11-11		1	129 85°		
Secchi Disk (ft):	6'5"			<u> </u>		
		Field M	easurement	S		
Field	Sample	Temp (°C)	Cond. (mS)	D.O. (mg/l)	Depth (m)	pH (S.U.)
Sample ID	Date and Time					
5		26.1		122	0.50	
		-24	•	121	1.00	
		- 259	•	13.2	2.00	
				131	3.00	
		$-\frac{\sqrt{2}}{\sqrt{2}}$	<u> </u>	125	5.00	
		2.01		10.0	6.00	•
		195		2.2	7.00	•
		1444		2.2	8.00	
		185		22	9.00	
		180		1.9	10.00	
		152		19	11.00	
		141		1.9	12.00	
		140		<u> </u>	13.00	
		140		0	14.00 15.00	
		132 132		6.6	15.00	
		125		0.6 0.6	1 7	
		12.5		61	í á	
		12.5		<u> </u>	14	
		120		O (0	20	
		119 119 119 115		0.6	21	
		119		0.6	30	
		115		0.6 0.6	23	
		110		0.6	24	
	<u> </u>	113		0.6	24	

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Date of Sampling Start Time:	900 7/3	107		Site Location:	Bets	٢
End Time:				Site Description		
Sampler(s):	Kw			·	·····	
	<u></u>			Chain of Custoo	dy:	
Comments:	• <u>••••</u> •••		Site Coordina	tes:		
				xpected Depth (fi easured Depth (f		
			Weather:			
<u></u>	. <u></u>			nney		
4						
Secchi Disk (ft):	<u> ' "</u>		7	0		• • • • • • • • • • • • • • • • • • •
1	· · · · ·	F":_ I_I NA				
Field	Sample	Temp (°C)	easurement	.s D.O. (mg/l)	Depth (m)	pH (S.U.)
Sample ID	Date and Time	27.2		16.5		рн (5.0.)
Jampie in	Date and Thire	27.1		13.8	0.50	
		211		1.3	1.00	
		25		0.8	2.00	
		7.2.8		0.8	3.00	
		7.1.9		0.8	4.00	
		2.1.6	•	6.6	5.00	
	1	7.15	•	06	6.00	•
· · · · · · · · · · · · · · · · · · ·		18.0	•	0.6	7.00	
		OT F		6.6	8.00	•
					9.00	
					10.00	
					11.00	2
		· · · ·			12.00	
					13.00	
					14.00	
	-			· · · · ·	15.00	· · · · · ·
						· · · · · ·
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	1					
	1					
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Date of Sampling				Site Location:	UNIO	r N
Start Time: End Time:	10.30			Site Description	I	
Sampler(s):	•			Chain of Custor	dy:	
Comments:			Site Coordinat	es:		
Secchi Disk (ft):				pected Depth (f easured Depth (f ا ا مربع		
		Field M	easurement	S		
Field	Sample	Temp (°C)	Cond. (mS)	D.O. (mg/l)	Depth (m)	pH (S.U.)
Sample ID	Date and Time	22		115		
		221		11.2	0.50	•
		31.5		109	1.00	

:

Field	Sample	Temp (°C)	Cond. (mS)	D.O. (mg/l)	Depth (m)	pH (S.I
Sample ID	Date and Time	22		115		
		22.1		11.2	0.50	•
		215		109	1.00	
		-215		10.5	2.00	
		201		<u>'9.9</u>	3.00	
		<u>F 7.9</u>		1.2	4.00	
		151		<u> </u>	5.00	
· ·		135	•	0.8	6.00	
•		110		0.8	7.00	
					8.00	•
					9.00	
					10.00	
					11.00	•
					12.00	
					13.00	
					14.00	
		•			15.00	
	-					
				· · · · · · · · · · · · · · · · · · ·		
	1					— <u> </u>
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Date of Sampling	8107			Site Location:	Pleasa	of
Start Time: End Time:				Site Descriptior	۱ <u></u>	
Sampler(s):	<u> </u>			Chain of Custo	dy: •	
Comments:	1. 1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.		Site Coordinat		<u>L</u>	
				pected Depth (f		
				easured Depth (	ft):	
			Weather:	85°		
Secchi Disk (ft):	4.5		ι	85° Nindy	S.U.	15=20
	<b>I</b>		·····			
-			easurement		·, ·	
Field	Sample	Temp (°C)	Cond. (mS)	D.O. (mg/l)	Depth (m)	pH (S.U.)
Sample ID	Date and Time	76.8		13.6		
		76.8	•	13.6	0.50	i
		266	•	13.8	1.00	·
		365	· · · · · · · · · · · · · · · · · · ·	13.5	2.00	
		<u></u>		132	3,00	·
		249	·	2.2	4.00	·
		23.2	•	1.1	5.00	
		231	•	0.7	6.00	· · · · · · · · · · · · · · · · · · ·
		2.23		0.6	7.00	·
		215		6.6	8.00	·
		204		<u> </u>	9.00	
		192		06	10.00	l
		16.8	-	06	11.00	
		147		C C	12.00	
		14.5-			13.00	
		14.2		06	14.00	
		185		06	15.00	
		192		05		
		131		05		
		132		05		
·····		<u> </u>				
				[_]		
				<u> </u>	<u> </u>	
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Date of Sampling Start Time:	<u>9507</u>	Site Location: School Sectio					
Start Time: End Time:				Site Descriptior	I		
Sampler(s):	KU			Chain of Custo	dy:	•	
Comments:			Site Coordinate	es:		ле З	
				pected Depth (f			
				asured Depth (i	<u>(t):</u>		
			Weather:				
			813	J			
Secchi Disk (ft):	4.5		50	NNel			
		Field M	easurement	( S		<u></u>	
Field	Sample	Temp (°C)	Cond. (mS)	D.O. (mg/l)	Depth (m)	pH (S.U.)	
Sample ID	Date and Time	25.1		12.2			
í		250		12.1	0.50		
		722		115	1.00		
• •		19.9		8.5	2.00		
		19.2	· · · · · · · · · · · · · · · · · · ·	84	3.00		
		19.6		8.2	4.00	· · · ·	
			· ·	•	5.00	•	
·		•	· · ·	· · · · · · · · · · · · · · · · · · ·	6.00 7.00	•	
· · · · · · · · · · · · · · · · · · ·		1	· · ·	••.	8.00		
• • • • • •		•	· · · · · · · · · · · · · · · · · · ·	*	9.00	•	
· ••• ·		•		• • • • • • • • • • • • • • • • • • • •	10.00	1	
				- 10	11.00		
					12.00		
· · · · · · · · · · · · · · · · · · ·					13.00		
					14.00		
			4	· · · ·	15.00		
			· · · · · · · · · · · · · · · · · · ·	10 W.T.			
			· · · · · · · · · · · · · · · · · · ·	······			
<u>, , , , , , , , , , , , , , , , , , , </u>		· · · · · · · · · · · · · · · · · · ·					
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Date of Sampling Start Time:	9507			Site Location:	< زن ہے ـــــــــــــــــــــــــــــــــــ	a	
End Time:				Site Description			
Sampler(s):	Ke			Chain of Custoc	ly:		
Comments:			Site Coordinat	es'			
Commenta.							
·····							
			Ex	pected Depth (ft	):		
		Measured Depth (ft):					
<u></u>	<u>.,<del>,</del></u>	Weather					
	<u></u>		61	ndy 8	· 2 °		
				7 0	$\sim$	:	
Secchi Disk (ft):	.5					10-00-00	
				·			
		Field Me	easurement	s			
Field	Sample	Temp (°C)	Cond. (mS)	D.O. (mg/l)	Depth (m)	pH (S.U.)	
Sample ID	Date and Time	26.1	<b>`</b>	112	· · · · · · · · · · · · · · · · · · ·	·····	
		26.1		11.2	0.50		
		255		709	1.00		
		71.4		108	2.00		
		19.Z	· ·	10.0	3.00		
	1	14.1		5.2	4.00		
		12.2		1.8	5.00		
		11.9		1.5	6.00	•	
		10.5	•	1.5	7.00		
		10.4		1.2	8.00	-	
		10.4		1.1	9.00		
		102		1.1	10.00		
		9.9		1.0	11.00		
		98		1.6	12.00		
		•			13.00		
					14.00		

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		Field Me	easurement	S		
Field	Sample	Temp (°C)	Cond. (mS)	D.O. (mg/l)	Depth (m)	pH (S.U.)
Sample ID	Date and Time	26.1		11.2		
<u></u>		24.1		11.2	0.50	
· · · · · · · · · · · · · · · · · · ·		259		109	1,00	
		754		108	2.00	
		219.Z		10.0	3,00	<u> </u>
		14.1		5.2	4.00	•
		122	. <u>.</u>	1.8	5.00	•
		119	<u> </u>	1.5	6.00	
		10.5		1.5	7.00	•
		10.4	·	<u> </u>	8.00	
		10.4			9.00	
		102		<u> </u>	10.00	
		99		1.0	11.00	
		·98 _		1.6	12.00	
					13.00	
					14.00	
					15.00	
					<u> </u>	

Date of Samplin Start Time:	<u>9507</u>			Site Location:	CLEURI	water Ea
End Time:	10 30			Site Description	1	
Sampler(s):	Kw			Chain of Custor	dy:	
Comments:			Site Coordinat		· · ·	
	· · · · · · · · ·					
				pected Depth (fi asured Depth (f		
	· · · · · · · · · · · · · · · · · · ·		Weather:	Vinde	820	)
	۲ '			windy Sunney		
Secchi Disk (ft):	<u> </u>					
		Field M	easurement	S	·····	
Field	Sample	Temp (°C)	Cond. (mS)	D.O. (mg/l)	Depth (m)	pH (S.U.)
Sample ID	Date and Time	25	ļ	15:1		
<u>8</u> 3	9507	249	·	14.9	0.50	
	-	24.9	· ·	14.8	1.00	
		24.1		<u>'   ' 4 · 2</u>	2.00	· .
		728		11.8	3.00	
		52.2	·	<u> </u>	4.00	· · · ·
		21.9		7.2	5.00	
		21.9		( ł	6.00	4.4
		2.1.5		4.2	7.00	•
		7.1.2		3.8	8.00	
		50.0		1,3	9.00	
		19.2		1.1	10.00	
		11.2		1.1	11.00	
an , un ,		16 3			12.00	
		11.9		0.9	13.00	
		14.9		6.9	14.00	
<u> </u>		125		6.9	15.00	
		-Sing	· · · · · · · · · · · · · · · · · · ·	<u>p. 0</u>		
		111-2		0.9		
		· · · · · · · · · · · · · · · · · · ·				
						······
				<u> </u>		<u> </u>
<u> </u>				<u></u>		
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· Martin Mart

Date of Sampling				Site Location:	Offer	•
Start Time: End Time:	1130			Site Description	1. 	<del>42 24 2.2.</del>
Sampler(s):	Ju			Chain of Custor	iy:	
Comments:	· · · · · · · · · · · · · · · · · · ·		Site Coordinat	les:		
				kpected Depth (ft easured Depth (f		
Secchi Disk (ft):	62					
		Field Me	easurement	S		
Field	Sample	Temp (°C)	Cond. (mS)	D.O. (mg/l)	Depth (m)	pH (S.U.)
Sample ID	Date and Time	24.1		12.8		
4		239		1.2.8	0.50	·
		22.8	,	122	1.00	
		73.1		126	2.00	
		222		12,5	3.00	
		1.7.1	· .	i.i.	4.00	
ļ		13.4	•	1.5	5.00	·
		<u> </u>	·	1 /	6.00	
		10.2		1.1	7.00	· · · · · · · · · · · · · · · · · · ·

R					
	22.8		122	1.00	
	731	•	126	2.00	
	72.2		195	3.00	
	17.1	•	11.1	4.00	
	134	•	1.3	5.00	
	11.5		1	6.00	
	10.2	•	1.1	7.00	
	9.5		<i>1</i> .0	8.00	
	61		7.0	9.00	
	88		10	10.00	
	8.2		0.9	11.00	
	80		08	12.00	
	79			13.00	
	79		08	14.00	
	7.01		09	15.00	
	78		CQ		
	78		08		

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Date of Sampling	9/5/07			Site Location:	Augu	1570
Start Time:	11				0	
End Time:	· <u>·····</u> ······························			Site Description	١	
Sampler(s):	·				·	
				Chain of Custo	dy:	
Comments:			Site Coordinat	tes:		
	· <u>······</u> ·					
· · ·						
				xpected Depth (f		
. <u> </u>				easured Depth (f	<u>(t):</u>	
	······································		Weather:			
			_	. Ac	~ 0 0	
			UI UI	поч Ѕиппер	32	
Secchi Disk (ft):	6.5		-	Sunney		
	1	Field M	easurement	'S		<u> </u>
Field	Sample	Temp (°C)	Cond. (mS)	D.O. (mg/l)	Depth (m)	pH (S.U.)
Sample ID	Date and Time	255		15.2		
	1	255		155	0.50	
		252	,	15.2	1.00	
		252		150	2.00	
		225		150	3.00	4
		2.22		150	4.00	· .
		219	<u> </u>	15.0	5.00	
		21.9	•	, 148	6.00	
		181		95	7.00	
		179		2.9	8.00	
		152		2.5	9.00	a
		1.50		1.2	10.00	
		149		0.5	11.00	
		145		0.2	12.00	
		14.5		<u> </u>	13.00	
		121		0.2	14.00	
		11.5		0.2	15.00	

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4400 90 90 88 88 8.8

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Date of Sampling Start Time: End Time: Sampler(s):	95/07			Site Location: Site Description Chain of Custoo		<u>n</u> T
		Vini 82-78-18 Linner-Lane			· y ·	
Comments:			Site Coordinate	95.		
			Ex	pected Depth (fi	i):	
			Me	asured Depth (f		
			Weather:	\$0°		
Secchi Disk (ft):	7.2					
	• • • • • • • • • • • • • • • • • • •	Field M	easurement			
Field	Sample	Temp (°C)	Cond. (mS)	D.O. (mg/l)	Depth (m)	pH (S.U.)
Sample ID	Date and Time	258		14.2		
		758			0.50	
		2,55		13.9	1.00	,
		25.4		139	2.00	,
		25.5	-	135	3.00	
		242		121	4.00	
		2.0.2		121	5.00	
		2.15		12.0	6.00	
		20.2		11.9	7.00	•
		1 8.1		115	8.00	
		1.52		5.2	9.00	
		141		3.3	10.00	
		14.2		11	11.00	
		122		05	12.00	
		12.2		05	13.00	
		119		015	14.00	
		11.9		0.5	15.00	
}		11.4		0.5		
		1/3		0,5		
		<u></u>		<i>y</i>		
		<u> </u>				
· · · · · · · · · · · · · · · · · · ·	<u> </u>					
<u>}</u>						
······································			<u></u>			

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Date of Sampling Start Time:	9/5/07			Site Location:	Bets	γ
End Time:	<u></u>			Site Description		
	······································			0.10 2 000.1p.10.1		
Sampler(s):				Chain of Custor	iy:	
Comments:	<u></u>		Site Coordinat	es:		
			Me	pected Depth (fl asured Depth (f		
			Weather:			
Secchi Disk (ft):	2.5		80	SUNA	vey	
		Field M	easurement	S		
Field	Sample	Temp (°C)	Cond. (mS)	 D.O. (mg/l)	Depth (m)	pH (S.U.)
Sample ID	Date and Time	201		172		1
I		258		16.5	0.50	
		25.5		16,44	1.00	
		24-9-		9.1	2.00	
		245		72	3.00	
		21.8		Yol	4.00	
		21.0		0.5	5.00	
		186		0.2	6.00	
		182		0.Z	7.00	
		. 170		0.2	8,00	•
					9.00	
		· · · · · · · · · · · · · · · · · · ·			10.00	
· · · · · · · · · · · · · · · · · · ·					11.00	
					12.00	
······································					13.00	
					14.00	
· · · · · · · · · · · · · · · · · · ·					15.00	
		<b>-</b> -				
		· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·		
		<del>70 7641</del>				
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Date of Sampling	9/5/07	)		Site Location:	UNIO	N			
Start Time:									
End Time:		Site Description							
Sampler(s):	<u> </u>				•••				
Gempler(b).			Chain of Custody:						
Comments:	<u></u>	Site Coordinates:							
	· · · · · ·		E	(pasted Dapth (fi	<i>.</i>				
	·····	Expected Depth (ft): Measured Depth (ft):							
·······			Weather:		<i>(</i> ].				
	ttt		vi du lor.						
. <u></u>			~	1° Sunt	1 C - P				
			- 4	1	1				
Secchi Disk (ft):									
	······								
		Field M	easurement	S					
Field	Sample	Temp (°C)	Cond. (mS)	D.O. (mg/l)	Depth (m)	pH (S.U.)			
Sample ID	Date and Time	241	,	14.1					
<u> </u>		2.40		140	0.50				
		2 39		14.0	1.00	· · · · ·			
		238	-	11.3	2.00				
		20.0		10.5	3.00	<u>`</u>			
			· ·	<u>KI</u>	4.00				
		6.9	· ·		5.00	•			
		142		0.3	6.00				
		14.1		0.13	7.00	•			
	· · · · · · · · · · · · · · · · · · ·	۰		•	8.00	*			
		4	· · · · · · · · · · · · · · · · · · ·		9.00	•			
					10.00				
					11.00				
					12.00				
	· · · · · · · · · · · · · · · · · · ·		1		13.00				
	1				14.00				
					15.00	·			
·									
·····									
	<u> </u>		<u> </u>						

Date of Sampling: 5/25/07 Start Time: 1200	Site Location: HEngha Lala
End Time: 1725 Sampler(s): TCAM	Site Description Ltt =0
	Chain of Custody:
Comments: <u>eater is</u> <u>a re en vola Alane</u> <u>con-e c. bondangels maceringhytes</u> <u>inan chang, Guilt looks</u> <u>filine conty (not conte</u>	Site Coordinates: $\frac{\sqrt{5}}{9\sqrt{62.790}}$ Expected Depth (ft): $\sqrt{-9}$ Measured Depth (ft): $7.0$
Secchi Disk (ft): 0.75ff	Weather: 9-my, groupe clares

		Field N	leasurements	5		
Field	Sample	Temp (°C)	Cond. (uS/cm)	D.O. (mg/l)	Depth (m)	pH (S.U.)
Sample ID	Date and Time			1		· · · ·
1205	5/25/07	16.56	140	\$79/.81.6	0.50	4.06
• -		16.40	129	-7021/29.V	1.00	0.01
		15.52	136	6.971.70,7	15 200	05.76
		15.951	155	6.77/65.2	203:00	5.96
				,	4.00	•
		•		1	5.00	· ·
		+		•	6.00	
		ě		•	7.00	
		e		•	8.00	
<del></del>		•	e e		9.00	•
					10.00	
					11.00	
					12.00	
					13.00	
		· · · · · · · · · · · · · · · · · · ·			14.00	
					15.00	
	Den Con T/a	Da/108/Dat	1.2007 Monia	orina Data		·····
	Enternet Services	WB_	-7/12/07	0.5.1		······································
	na v na se Mente Setteriti	WB	1/16/AZ			
·····						

	HEØI
Start Time: 11:35	lenshaw Lk
End Time: Site Description	Pushaw 1k
Sampler(s): WB Chain of Custody:	
Comments: Site Coordinates:	
-Water is very	
Green with algge	
	6.6
Measured Deput (II).	<u>ψ</u> ,ψ
- thick beds of Weather: 75°, Sunny	
sage Donaveed on 10, Junity	
shoreline fringe (2150 ft) Calm	
Secchi Disk (ft): 0.5 Calm	
Field Measurements	
Field Sample Temp (°C) Cond. (mS) D.O. (mg/l) De	pth (ft) pH (S.U.)
Sample ID Date and Time	
LHEOT 11:50 23.96 .239 6.97	0.5 9.1/
72:05 .242 4.03	1.0 8.96
2203 242 4 04	
	2.0/.5 6.9.9/
LIFEOIB 12:00 22:02 .243 3.55	2020 8.84 1
	3.02.0 B . 84 4.0
	4.0 . 5.0 .
LIFEOIB 12:00 22:02 .243 3.55	2.0     3.0     3.4       4.0     .       5.0     .       6.0     .       7.0     .
LIFEOIB 12:00 22:02 .243 3.55	2.0     3.0     3.4       4.0     .       5.0     .       6.0     .       7.0     .
	2.0     3.0     3.44       4.0     .       5.0     .       6.0     .       7.0     .       8.0     .
	3.0     3.0     3.4       4.0     .       5.0     .       6.0     .       7.0     .       8.0     .       9.0     .
$   \begin{array}{c cccccccccccccccccccccccccccccccccc$	3.0     3.0     3.4       4.0     .       5.0     .       6.0     .       7.0     .       8.0     .       9.0     .       10.0     .
$   \begin{array}{c cccccccccccccccccccccccccccccccccc$	3.0     3.0     3.4       4.0     .       5.0     .       6.0     .       7.0     .       8.0     .       9.0     .
$   \begin{array}{c cccccccccccccccccccccccccccccccccc$	202.0     B     B44       4.0     .       5.0     .       6.0     .       7.0     .       8.0     .       9.0     .       10.0     .
$   \begin{array}{c cccccccccccccccccccccccccccccccccc$	3.0     3.0     3.4       4.0     .       5.0     .       6.0     .       7.0     .       8.0     .       9.0     .       10.0     .       12     .
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	3.0     3.0     3.4       4.0     .       5.0     .       6.0     .       7.0     .       8.0     .       9.0     .       10.0     .       11.0     .       12     .       13     .
$   \begin{array}{c cccccccccccccccccccccccccccccccccc$	3.0     3.0     3.4       4.0     .       5.0     .       6.0     .       7.0     .       8.0     .       9.0     .       10.0     .       11.0     .       12     .       13     .       14     .
$     \begin{array}{c cccccccccccccccccccccccccccccccc$	3.0     3.0     3.4       4.0     .       5.0     .       6.0     .       7.0     .       8.0     .       9.0     .       10.0     .       11.0     .       12     .       13     .       14     .
$     \begin{array}{c cccccccccccccccccccccccccccccccc$	3.0     3.0     3.4       4.0     .       5.0     .       6.0     .       7.0     .       8.0     .       9.0     .       10.0     .       11.0     .       12     .       13     .       14     .
$     \begin{array}{c cccccccccccccccccccccccccccccccc$	3.0     3.0     3.4       4.0     .       5.0     .       6.0     .       7.0     .       8.0     .       9.0     .       10.0     .       11.0     .       12     .       13     .       14     .
$     \begin{array}{c cccccccccccccccccccccccccccccccc$	3.0     3.0     3.4       4.0     .       5.0     .       6.0     .       7.0     .       8.0     .       9.0     .       10.0     .       11.0     .       12     .       13     .       14     .
$     \begin{array}{c cccccccccccccccccccccccccccccccc$	3.0     3.0     3.4       4.0     .       5.0     .       6.0     .       7.0     .       8.0     .       9.0     .       10.0     .       11.0     .       12     .       13     .       14     .
$     \begin{array}{c cccccccccccccccccccccccccccccccc$	3.0     3.0     3.4       4.0     .       5.0     .       6.0     .       7.0     .       8.0     .       9.0     .       10.0     .       11.0     .       12     .       13     .       14     .
$     \begin{array}{c cccccccccccccccccccccccccccccccc$	3.0     3.0     3.4       4.0     .       5.0     .       6.0     .       7.0     .       8.0     .       9.0     .       10.0     .       11.0     .       12     .       13     .       14     .

3TM

Date of Sampling	7/27/07
Start Time:	11 05
End Time:	- · ·
Sampler(s):	WB

Comments:
Water is very
areen
-mylch algal
- aquatic valoation
(gago pondulla)
abundant near shere

Secchi Disk (ft): ______5

Site Location: <u>LHEØI</u> Site Description<u>Henshaw</u>LK

Chain of Custody:

Site Coordinates:

Expected Depth (ft): Measured Depth (ft):

Weather: 75°, Sunny N wind 10-15mph

**Field Measurements** Field Sample Temp (°C) Cond. (uS/cm) D.O. (mg/l) Depth (m) pH (S.U.) Sample ID Date and Time 11:15 LHEMIT 0.50 1.00 1:20 HE O B 2001.5 3.00 2 4.00 5.00 6.00 7.00 8.00 9.00 10.00 11.00 12.00 13.00 14.00 Data a The set of the second s 15.00 mB 1017107 138-338 م الحر مرة الم أحر ال ^B 11/16/97 Į. Lean

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Date of Samplin Start Time: End Time: Sampler(s):	ng: 8/24/07 10:50 WB			Site Location: Site Descriptior Chain of Custo	Hene	81 shaw
A	13 green Igae sago Fondi bore 0.5	weld	Me Weather: 70	es: pected Depth (ft <u>asured Depth (ft</u> 2, 5unny V Wind B	):	рЦ
		Field	Veasurement	e		
Field Sample ID	Sample Date and Time	Temp (°C)	Cond. (uS/cm)		Depth (m)	pH (S.U.)
LHEDIT	8/24 11:00	20.54	.282	14.63	0.50	9.91
	((:10			13:08	-2.00/.5 3.00 4.00 5.00 6.00 7.00 8.00 9.00 10.00 11.00 12.00 13.00 14.00 15.00	9 .59 
				8 n/17/8,	<u>}</u>	

**---**-

Start Time:							
Hnd Lime	0530 0875 0120	y Ster			LCE	x 7	
End Time:	S. M. A	de la constance	1	Site Description		<u>y :</u>	
Sampler(s):	<u></u>	Chain of Custody:					
Comments:			Site Coordinat				
					353		
					765		
- ·			E	pected Depth (ft)	: 10077		
			Me	easured Depth (ft	): 96.4		
	·		Weather	my OSUE	What A	1.1	
					10/11 2	- Con-Br	
	A						
Secchi Disk (ft):	11.5						
		Field N	leasurement	S	· ·····		
Field	Sample	Temp (°C)	Cond. (uS/cm)	D.O. (mg/l)	Depth (m)	pH (	
Sample ID	Date and Time			,			
		16.13	2.6.10	9.24/04.22	, 0.50	CC-	
		<u>(h]]</u>	360	4.26/194.1	1.00	5.	
······································		<u> </u>	30.0	9.34 1.63.5	2.00	45.	
		174.19 6	360	9.14.1.93.4	3.00 4.00	5.0	
		16.05	3450	0.121.92.6	5.00	5.4	
		16.97	360	9.01/01.3	6.00	5.	
		10 VV	2,60	0-44/90.6	7.00	21	
		10-67	751	5. 68 / 57. 3	8.00	65.4	
		<u> </u>	382	Siler 157.1	9.00	<b>G</b> . 1	
salt de la seconda de la composición de		<u> </u>	366	5. 17/177.V	10.00	5.1	
		4.67 4.54	3655	G.m/71.3	11.00	2.	
WB-1	112/07	7.16	201-	5.16/.70.2	12.00 13.00	7.9	
INB	11116107	(A YY	Zacio	Brest /66.0	14.00	7.65	
The distance between the second second		1.65	36-7	7.75+/63.2	15.00	· ? . !.	
		(. CT T	36-7 36-7	7.72/62 01			
	<u> </u>	6.43	344	7.74/62.55	16.0	7.4	
		6.4 mg 6.27 6.27 6.32	2.6%	7.74/62.65 7.16/08.0 6.40/56.6 6.40/55.2 6.40/55.2	14.0 (9.0	7.7	
		(a. 3.7- 6. 266 (a. 7-7	- Cath	6.90/66.6	(9.0)	7.70	
<u> </u>		6.24	<u>6,674</u> 26-7	6.57.65.2	20.0	2.7	
······································		C. A.I		4.702 (SY.1	<u></u>	7.2	
	<u> </u>	6.76		6.00-164.0	220		
		10. 2-23	2459	6.72(154.3)	ZÝ U	7.7	
		(1.7.1 .7.1 .7.7 (0.27 (0.27)	3 6516	6.07/54.0 672/54.7 6.87/55.7	25.0	7.7	
		C. 19 C. 19 C. 19 C. 19 C. 19 C. 19 C. 19	268 268 249 249 249 267 267 267 267 367 366 366 366 366 369 369 369 369 369 369	7.07/54.6 6.76/54.4 6.76/54.4 6.76/54.6 6.70/54.1	14.0 20.0 20.0 20.0 20.0 20.0 20.0	7.2	
		r. 1 06	27856	Guesto 1,55.4	77.0 24.0 74.0 74.0 74.0	7.7	
		6.17	784	6.76/ 51.4	255.0	7.72	
		64.16	794	6.71/ 54.0	24.0	7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7	
	<del>*</del>	6.17	2,60	6.70 /54.1	2751.0	7.7:	

ł

	Date of Sampling	: 6/29/07	7		Site Location:	LCE	ØI
	Start Time:	8:40			Site Description	Cadaa	14
	End Time:	1.10			Site Description	equr	<u></u>
	Sampler(s):	_WB			Chain of Custor	ly:	
	Comments:			Site Coordinate	es:		~
	- higter is	5 green in				<b>E</b>	
	- Suspended	alcae in		Ex	pected Depth (fi	i):	~ ~ ~
-	water				asured Depth (f	t): <b>////3</b>	96
•	- curly lea	r shoreline		Weather:	10101		
	- Cying nea	7 June 110		70°, 54 Ca	nriy '		
	Secchi Disk (ft):	30		Ca	lm		
.*	Seconi Disk (II).						······································
			Field Me	easurements	5		
	Field	Sample	Temp (°C)	Cond. (mS)	D.O. (mg/l)	Depth (ft)	pH (S.U.)
	Sample ID	Date and Time	07 (7		8.58	0.5	0 40
	LCEØIT	6/29/07 9:00	12 52	- 301	<u> </u>	1.0	6 48
:			23 47	360	8 24	2.0	8.47
			23 45	.352	7.99	3.0	R.46
			23.43	.352	2.91	4.0	8.45
	· · · · · · · · · · · · · · · · · · ·		23.40	. 352	7 83	5.0	8 45
	· · · ·		23.30	. 354	7.40	6.0	8 42
			21.83	. 364	2.65	7.0	7.86
205			19 20	- 368	1.39	8.0	7.86
	na – aprije in spanja mora na spoločkova i 100 koločkov (1979)	na n	-16 86	.368	1.93	9.0	7.80
L. Santa	11/12	7/12/07	14.76	369	2.29	10.0	7.76
Lati Sir .	i//o		12.11	369	<u> </u>	11.0	7.78
e en e	1/05	11/16/01	10.12	370	2.89	12	7.67
		7 7	9.36	371	2,40	13	7.65
			7.63	370	<u>3.19</u> 2.79	14 15	12.68
			1.00	371 372 372	6 22		228
			- G' 90-	1270	2.30		756
			6.13	372 372 372 372 372	2.30 2.07 2.04	16	757
			6.62	3/2	210	19	2.58
			6.57	372 373	1.90	20	7.51
	<u> </u>		6,80 6.73 6.69 6.63 6.57 6.57 6.51 6.17	373	1.98 1.84 1.64	2	7.51
			6147	374	1.64	22	7.52
			6.43	374	1.57	23	7.50
			6.38	374	1.57	1678 190 190 190 190 190 190 190 190 190 190	7.49
			6.36	375	1.16	25	7,48
	· · · · · · · · · · · · · · · · · · ·		6.34	376	0.81	26	7.48
	_		6.3	377	1.16 0.81 0.67	07	7.58 7.56 7.55 7.55 7.55 7.55 7.55 7.55 7.55
			6.43 6.38 6.36 6.34 6.34 6.31 6.31	るウク	0.43	27 28 24 30	7.46
			CBO	377	10.42	24	
ку ² .	LCEOIB	6/24/07 1:15	6:30	373 374 374 374 375 376 377 377 377 377 377 378	0.38	30	7.46
							-

7:45 BTM

Date of Sampling: Start Time: End Time: Sampler(s):

Site Location:  $\underline{LCEO}$ 

Chain of Custody:

Site Coordinates:

wind nmt COULI and 0015+ reen G

3

Expected Depth (ft): 31m Measured Depth (ft): 25m Weather: N with o mph

Secchi Disk (ft):

Comments:

Field Measurements								
Field	Sample	Temp (°C)	Cond. (uS/cm)	D.O. (mg/l)	Depth (m)	pH (S.U.)		
Sample ID	Date and Time					<u>pri (0.0.)</u>		
LCEDIT	R:45	26.24	. 356	8.21	0.50	0.00		
		26.25	.356	8.17	1.00	8.89		
		26.24	356	8.18	2.00	8.93		
		26.24	357	R.17	3.00	8.83		
		26.22	356	VR 142	4.00	8.93		
		24.26	.362	6.59	5.00	8.61		
		23.74	. 364	5.01	6.00	Q.43		
		22.95	.362	2.17	7.00	\$ .07		
		2). (do	. 372	0.27	8.00	7.87		
		17.79	382	0.12	9.00	2.79		
		15.07	.386	0.07	10.00	7.75		
		12.49	598	0.03	11.00	772		
		12232011.1	8 390	0.03	12.00	7.71		
		<b>8</b> . 80	390	0.03	13.00	7.65		
		7.94	. 390	0.01	14.00	7.62		
		7.32	388	0.00	15.00	2.60		
		7.10	,389	O	16	7.59		
		6.97	. 389	Ö	17			
		Cal	.389	0	153	7.50 2.58		
		6.82	.389	<u>()</u>	19	7.50		
		6.79	390	$\dot{O}$	20	2.50		
		6.76	, 390	- 0.64	21	7.58		
		6,75	, 390	-0.04	22	7.5%		
		6.72	, 390	-0.07	23	7.50		
	<u></u>	6.71	.390	-0.08	24	7.50		
LCEOIR	8-35	6,64	;397	-0.0g	25	7.37		

WB 11/17/07

Date of Sampling	<u>g: 8/24/07</u>	7		Site Location:	_LCE	-01
Start Time: End Time:	WB			Site Description	<u> </u>	er Lk
Sampler(s):		-	······································	Chain of Custo	dy:	
	as slig has		Site Coordinates	5:		
grun t	-17+		Mea	ected Depth (ft asured Depth (ft		
			Weather: 65%	Sunny		
Secchi Disk (ft):	_5.0		5 -	nph Nc	vind	
	· · · · · · · · · · · · · · · · · · ·	Field N	leasurements			7.
Field	Sample	Temp (°C)	Cond. (uS/cm)	D.O. (mg/l)	Depth (m)	pH (S.U.)
Sample ID	Date and Time			· · · · · · · · · · · · · · · · · · ·		pii(0.0.)
LCEOIT	8/24/07 8:30	21.52	.345	8.5)	0.50	Bag
		21.52	345	B.50	1.00	8 29
		21.51	.345	8.52	2.00	8 9.9
		<u>al 52</u>	.346	8.50	3.00	P. Qq
······································		21.29	. 349	6.90	4.00	9.69
		-d-id-	<u> </u>	6.44	5.00	3.65
		21.20	. 350	6.33	6.00	8.62
		20.60	. 350	5.82	7.00 8.00	657
				7.0/	0.00	6.42

			. 320	5.80	/.00	Q.57	
		20.68	. 355	4 67	8.00	8.42	ĺ
		19.68	. 367	3.19	9.00	8.42	
		14.51	.396	0.41	10.00	7.80	l
		11.97	.397	0.20	11.00	2.77	
		10.58	, 397	0.07	12.00	7.75	}
		9.15	.396	0.01	13.00	7.72	
· · · · · · · · · · · · · · · · · · ·		9.61 9.30 8.01	.397	0.01	14.00	7.70	'. [
		8.30	. 398	~0.03	15.00	710	
			, 39 9	-0.04	16	7.66	
		7.77	, 39 8 , 39 8 , 3 9 8	-0.04 -0.06	16	7.65	
		7.63	,398	-0.06	18 19 20	7.65	
		7,48	,398	-0.07	19	7.64	
		7.15	, 399	-0.06	_20_	7.63	
		7.15	. 399 . 399	- 0.08	21	1 land	
		210	. 399	-0.08	22	7.62	
		<i>4.06</i>	,398	-0.08	22	7.62 7.62	
		6,95	.398	-0.09	24	7101	
		6,95	• 399	- 0.11	24	7.62	
		6.94	, 398 , 398 , 399 , 399 , 399 , 399	-0.11 -0.11	26	7.62	)
,		6.93	,399	-0.11	2-0-7		·
LCEORB	Olnula our	1 GA		- 6 11	d 1	7.61	
	0/24/67 8:45	6.10	.399	-6.11	26 27 28	7.61	
	۴	( 0.0	4AA	-0.11	- 0		~
		4.00		-011	29	7.60 15	STAN
					1	1 PV 4	

Date of Sampling	1: 5/25/07	?		Site Location:	Albio	n laka
Start Time:	1110				,	1
End Time:	livo			Site Description	<u>LALC</u>	9
Sampler(s):	Jo HM			Chain of Custo	dv:	
Comments:	. / \		Site Coordinate	s: 45 13		
<u> </u>	Heyla weak			94 04.	· · ·	
- Plac t	TORE VOL	5	Evi	pected Depth (ft)		
THONLY VM	my G-harred	ree 1				
<u>Keasured Depth (ft):</u> 6.3 <u>Keasured Depth (ft):</u> 6.3 Weather: Suny, to partly clarly <u>Glight Breeze</u> , 6500						
	to an an cher	>	74	any, to pa	ry day	e
	7	a ^{ger}	6/15	ht Breeze	, Asai	È
	Di					
Secchi Disk (ft):	3.7644	-				
	······································	<b>F1</b> - 1 - 1 - 1 - 1	8	· · · · ·		
	Cample		leasurements			
Field Sample ID	Sample Date and Time	Temp (°C)	Cond. (uS/cm)	D.O. (mg/l)	Depth (m)	pH (S.U.)
	5/25/07 1/15	17.32	-399	965/101.1	0.50	(Freed
	26201 11-1	17.00	3966	9.73 100.7	1.00	\$.E] \$.57
		112.56	3905	9,51/101.0	the second se	5.5)
		16.70	VIV	5.74 50.7	2 -3.00	7.52
		11. 20 06	YIC		1-00220	= 7,68
		11.41		1 22/11.5	5.00	
		······································			6.00	
		•		•	7.00	
		·····		•	8.00	
		•	·	•	9.00	
					10.00	
		····			11.00	
					12.00	
					13.00	
					<u>    14.00    </u> 15.00	
	Barn Same					
	A LITER WALLAND	The description of the second s				
	Paparan in the	i. IN	al an tri alligatetti (calletti de a creitatettigoti y davat toolugar)			
	and the second sec	WB	7/12/07			
	Onterna .	1.10 .	11+++++++++++++++++++++++++++++++++++++	· · · · · · · · · · · · · · · · · · ·	·	
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		116101			
			a a transformed and the second			
					· · ·	

Date of Sampling	(,129/07			Site Location:	LALA	FJ	
Start Time:	10:55						-
				Site Description	Albion	<b>n</b> .	
End Time:				Sile Description		/	•
Sampler(s):	WB			Chain of Custor	iy:		
Comments:			Site Coordinate	95:			-
-Water i	5 clear.	-Daphn)	'q ,				
	uspended,	-Daphni very a	bundant				
alagev	ery abundar	n <i>†</i>	EX	pected Depth (f			
-beds of	- <u>agnatic</u>	ß	Me	asured Depth (f	<u>t): (ç. ()</u>		1
	ore cover		Weather: 7	0°, Sun,	11		
with fil	amentons al	gae	1	1. 1.1.0	- /		
Secchi Disk (ft):	5.8B			0°, Sun, wind 5	mph	- · · · · · · · · · · · · · · · · · · ·	
		Field M	easurement	s			]
Field	Sample	Temp (°C)	Cond. (mS)	D.O. (mg/l)	Depth (ft)	pH (S.U.)	
Sample ID	Date and Time						-
L ALOIT	11:10	23.87	.397	3.63	0.5	7.17	
•		23.58	.398	3.57	,1.0	1.68	-
		93.57	398	<u>2.5)</u>	-2:0-/.5	64	or-An
LALOIB	11:20	23.57	518	· d .4 1	4.0	160	15/10/
		· · ·	· · · · · · · · · · · · · · · · · · ·	•	5.0	· ·	
·		•	•	•	6.0	•	-
		·	· · · · · · · · · · · · · · · · · · ·		7.0		1
		· · · · · · · · · · · · · · · · · · ·		•	8.0	•	1
·····		•		•	9.0	•	]
					10.0		_
					11.0		_
					12		-
					13		4
L/ala	The first of the second	Internet for page the second			14 15		-
Litic	to the factories	WB 7h	ion		15		
	H 20 1 2 2 1 2 2 1 1 2 1 1 1 1 1 1 1 1 1	· · · · · · · · · · · · · · · · · · ·					-
	and the second sec	о мон тому сумбор и на обраните на обраните на обраните и се од					-
		····			<u> </u>		-
							-
							-1
				<u> </u>			1
				······································			1

Date of Sampling	7/27/07
Start Time:	10:25
End Time:	• -
Sampler(s)	IN/R

Comments:

Site Location: <u>LALD/</u>

Site Description Albron Lake

Chain of Custody:

Site Coordinates:

Expected Depth (ft): Measured Depth (ft): Weather: 750, 5unny N wind 10-15 mpg

Secchi Disk (ft): 1.75

	· ·					
Market N. A.		Field N	leasurements			
Field	Sample	Temp (°C)	Cond. (uS/cm)	D.O. (mg/l)	Depth (m)	pH (S.U.)
Sample ID	Date and Time			<u></u> ,		pii(0.0./
LALØIT	10:30	06.71	.349	11.09	0.50	9 21
7 1 1 10		26.64	. 350	10.91	1.00	9.75
5AL0115	10:38	26.48	.352	8.89	2.001.5	9.10
		265A	.353	9.89 9.57	1.75-3.00000	9.05
					4.00	
					5.00	
				•	6.00	· · · · · · · · · · · · · · · · · · ·
	· · · · · · · · · · · · · · · · · · ·	· · ·		•	7.00	
				-	8.00	,
:		2		•	9.00	
					10.00	
	-				11.00	
					12.00	
					13.00	
					14.00	
				•	15.00	
· · · · · · · · · · · · · · · · · · ·						
·						

NB 11/16/07

Date of Sampling	8/24/07
Start Time:	76:20
End Time:	10:45
Sampler(s):	WB

Comments: - Water is slightly green color - aquatic vegetation is not abundant

Site Location: ______ALOI Site Description Albion LK

Chain of Custody:

Site Coordinates:

Expected Depth (ft): Measured Depth (ft): Weather: 70°, Sunny N Wind Smph

Secchi Disk (ft): 3.5

		Field N	leasurements	)		
Field	Sample	Temp (°C)	Cond. (uS/cm)	D.O. (mg/l)	Depth (m)	pH (S.U.)
Sample ID	Date and Time					
LALOIT	10:30	20.53	. 296	8.84	0.50	9.22
LALOIB	0:35	20.16	. 297	8.20	1.00	-
		19.90	. 302	3.74	2.001,5	<u>9.15</u> 8.74
				•	3.00	
		•	•	•	4.00	
		•		•	5.00	•
		<u>.</u>		•	6.00	
		•			7.00	
	-	•		•	8.00	
		•		•	9.00	·
	,				10.00	
					11.00	
					12.00	
					13.00	
					14.00	
					15.00	
				•		
						· · · · · · · · · · · · · · · · · · ·

WB 11/16/07

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Date of Sampling Start Time: End Time: Sampler(s): Comments:	IUB of IUB of IUB of IUB of		Ex	Site Location: Site Description Chain of Custor es: 45 13.61 es: 45 04.4 pected Depth (ft)	1920 130 12 H	
Secchi Disk (ft):	(1.75++			reasered Depth (ft		o, leght
·		Field N	leasurements	5		
Field	Sample	Temp (°C)	Cond. (uS/cm)		Depth (m)	pH (S.U.)
Sample ID	Date and Time	<u> </u>				P.1 (0.0.)
1.5-01	5125/07	17.17	550	7.02/.73.0%	0.50	8.13
	4 8	17.09	-35-1	0.50/70.3	1.00	5.04
		16.72	351	G.15%62.9	2.00	7.9%
		16.52	2,55	5.1121/55.6	3.00	7.65
3.5 Mile	وب	16.55	354	5.16/153.1	-4-00->>	7.60
	*				5.00	
	 	•			6.00	
			· ·		7.00	
		•	· ·		8.00	
		1	·	•	9.00	
					10.00	
					11.00	
	Plan Same	Calify and a set of the second s	al Pringentility - (Schultz Hole) - Angel and Andre and Andre and		12.00	
		1440 -	110 100		13.00	
	I round Better	MB 7	112/07		14.00	
		11/25 11			15.00	
	DATOC L. CA.		1607			
		-	1 1 -			
	`			· · · ·		
						·
						· · · · · · · · · · · · · · · · · · ·

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Date of Sampling	<u>(129/07</u>	7		Site Lo	ocation:	LSW	Q]	<del></del> _
Start Time: End Time:	10:10			Site De	scription	LSWI Swar,	tout	4
Sampler(s):	WB			Chain d	of Custod	y:		
Comments:		·····	Site Coordinat					
- Water ;	5 Very gre	en						
-Policans	Very nume		Ex	pected	Depth (ft	); 1.0		
on island	4 144 2		Me		Depth (ft			I
			Weather:	Sun	nN			
· · · · · · · · · · · · · · · · · · ·			70°	1				
Secchi Disk (ft):	0.5			a   m	١			
Seconi Disk (n).		1				····		
		Field Me	easurement	S				
Field	Sample	Temp (°C)	Cond. (mS)	D.O.	(mg/l)	Depth (ft)	pH (S.	U.)
Sample ID	Date and Time	03 60	.326		67	0,5	(2.0	20
LSWOIT	Q6/29/07 10:30	23. 2007	.331	5	122	1.0	8	别
		23.01	. 331	5	46	21/21.5	9.1	32
· · · · · · · · · · · · · · · · · · ·		23.01	.332	5	. 64	MA Ə.O	Ð.	57
	EN.	13-5 27.23.		4	.62	418 2.5	8.	49
LSWAIB	10:44	22 972	.330	5	<u>. 0</u> A	-5:0 3.0	<u> </u>	52 1
			•		•	6.0 7.0	•	
			•		·	8.0	• •	· · · · ·
· · · · · · · · · · · · · · · · · · ·			•		•	9.0		·
		,	•		•	9.0 10.0	•	
			,			11.0		
		· · · · · · · · · · · · · · · · · · ·				12		
						13		
. <u></u>						14		
			• • • • • • • • • • • • • • • • • • •			14		
	1757. r	<u> </u>		y a y a gran tha 🗰 🛛 a de	(·	15		
	<u>)</u> . (43.	and Service	WB 71	2/07				
		CON PLANSAR	WE II,	16/07				
		· · · · · ·						
		·			·			
			·	l		I		

49 52 Borrom

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Date of Samplin Start Time:	9:45	7		Site Location: Site Description	LSh	201
End Time: Sampler(s):	WB	-		Site Description	Warte	ut Lake
· · · · ·		•• • • • • • • • • • • • • • • • • • •		Chain of Custo	dy:	
Comments:	<u> </u>		Site Coordinate	S:		
water	1Swery 0	reen				
alage	lot-oto	<u>/</u>	<b>E</b> 10	neated Danth (ff)	\.	
igue		-	Ma	pected Depth (ft asured Depth (ft	· ~ ~ // ~	n
		- -	Weather:		-7 <b>)</b>	
·		-	Sur	1ny, 13	0	
			Weather: Sul N			,
Secchi Disk (ft):	$\left  {}_{i} \right\rangle$			wind 10	-15 m	ph
<b></b>			L			
		Field N	leasurements	;		
Field	Sample	Temp (°C)	Cond. (uS/cm)	D.O. (mg/l)	Depth (m)	pH (S.U.)
Sample ID	Date and Time					
LCEOIT	10:00	25.81	316	7.88	0.50	9.40
		25 80	.316	7.82	1.00	9 4X
		25 77	.316	775	<del></del> 500),5	9.39
LCEOIB	10:05	25.19	.3/6	7.66	3.00 7 6	9.39
-020/B	10.05	<u> </u>	· 3/7	59	4.00-2.5	9.33
		23.56	· 5/ 8	1.50	5.00.3.0	9.37
			·		6.00	
		•	•	•	7.00-	
······································		·	· · ·		8.00-	· · · · · · · · · · · · · · · · · · ·
<b>-</b> , ,, <b></b> , , , , , , , , , , , , , , , , , , ,		•		· · · · · · · · · · · · · · · · · · ·	9.00	•
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WB 11/16/07

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Date of Sampling:	8/24/07
Start Time:	9:30
End Time:	-
Sampler(s):	WB

Comments:		
- Verv	Severe	a laap
plan		
- Water	is cover	red with
GNRO	algae	Sum
- 20 an	an when V	egetation
Subla	ernon	0

L SWØI Swartout Lake Site Location: Site Description Chain of Custody:

Site Coordinates:

Expected Depth (ft): 2,5 Measured Depth (ft): Weather: Ner: (65°, Sunny Nwind Smph

Secchi Disk (ft): 0.5

	<u> </u>	Field M	leasurements	;		
Field	Sample	Temp (°C)	Cond. (uS/cm)	D.O. (mg/l)	Depth (m)	pH (S.U.)
Sample ID	Date and Time					
LSWOIT	9:45	20.54	.309	11.16	0.50	9.65
		20.37	310	10.05	1.00	9.59
		20.35	.310	9.89	2.001,5	9.57
		20.32	. 311	9.37	<del>3.00</del> 📿	9.55
LEWOIB	9:50	20.24	3/2	6 95	4-96-2,9	
		+9.60	. 334	0.76	-5-00-3	8.69
		•	•	•	6.00	
		•	•		7.00	
		•		•	8.00	
		•		•	9.00	
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_lient:	С	RWD		Site	e Location:	WR	0.2	
Project No.:								<u> </u>
Date:	5/410	7			Weather:			
Sampler(s):	Kon h	MILLER:		Samp				
Start Time:				Sar	nple Time:			
End Time:		. ,						
Channel Conditions:			•	DTW Me	asurement:			
COC Number:							· ·	
	<b></b>					Notes:		
		Field Parameters					RM	13.2
Sample I.D.	1	Cond. (mS/cm)	<b>D.O.</b> (mg/l)	pH (	(S.U.)	 		
1 WR O.Z	119	<u></u>	13.5	1				
				1		1	<i>r</i>	
Citorea L	<b>*</b> .		Rated Flow	•		Gauged Flow	. 4.66	2 cfs
Stage n	t:		Rated Plow	·		Guigou i ion		
		S	itream Gau	ging Data				
Distance from		<u></u>	Velocity	Velo	eity 80%	Average		Discharge
initial Point (ft)	Width (ft)	Depth (ft)	(60% Depth)	20% Depth	Depth	Velocity (ft/sec)	Area (ťi ² )	(Q. IF sec)
	10'	o'd m		<u> </u>	<u> </u>	30		
0, (left side)	10	8 (4.67)	15	<u> </u>	 			
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4			120					
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5			23					
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6 7 7			23					
6 7 			23					
7 6 7 4 6			23 25 24 21 24					
6 7 			23			WB	7/12/0	7
6 7 			29 29 21 24			WB	7/12/0	7
6 7 			29 29 21 24			WB.	7/12/0	7

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	Client: Project No.: Date: Sampler(s): Start Time: End Time: Channel Conditions: COC Number:	Chit Chit	RWD D7 Datta	-	Site D Samp Sar	escription: Weather: les Taken: nple Time:	Yes	i~ No	V
		]	Field Parameters	<u></u>				3.6	
	Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	D.O. (mg/l)	pH (	S.U.)	V-		
2	CNION IN			11.1					
<u>ر پ</u>		:		Rated Flow	•		Gauged Flow		lcfs
			S	Stream Gaug	ging Data				
	Distance from Initial Point (ft)	Width (ft)	Depth (ft)	Velocity (60% Depth)	Velo 20% Depth	city 80% Depth	A verage Velocity (ft/sec)	Area (ft ² )	Discharge (Q. ft ¹ sec)
	U, (left side)	10'	2.5	1			30		
	2			2			<u></u>		
	4			15					
	4			3	<u> </u>				
	8			4					
	10			12					
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				<u> </u>			IAR.	17110t	£77
					ig Ag	147/13: 	VV B	<u>, nt. f. st. f. s. [-</u>	all farmer de commenter.
					4 1 2 <i>1</i>		i i i i i i i i i i i i i i i i i i i	er om her na star for det ind ind star et her star et det star et de star et de star et de star et de star et d	Al da 1991 V & angle da Angle da V
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Client:	C	RWD		Sit	e Location:	UIOr.	v o	T
Project No.:	<u></u>							
Date:	5/4/07	······································	_					
Sampler(s):	Fin 4	Jull 20	_	Sam		Yes		
Start Time:	F							
End Time:							n. ,	
Channel Conditions:				DTW Me	easurement:			
COC Number:								
						Notes:	<u></u>	
	]	Field Parameters				NAME AND A DESCRIPTION OF br>A DESCRIPTION OF A DESCRIPTIONO		
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	D.O. (mg/l)	) pH	(S.U.)		<u>BM 2</u>	2.6
BUIDN out	14.2		20+					
Stage H	t:		Rated Flow	·		Gauged Flow	<u>, 2.(</u>	29 cfs
, come a			Stream Gau	ging Data				
Distance from Initial Point (ft)	Width (ft)	Depth (ft)	Velocity (60% Depth)	Velc 20% Depth	ocity   80%   Depth	A verage Velocity (ft/sec)	Area (ft²)	Discharge (Q. ft ² (sec)
t, (left side)	4'	60	40			30		
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4			0					
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	Client:	C	RWD	_	Site	e Location:	CRE	25.2	••••
	Project No.:			_	Site D	escription:	·		
	Date:	5/4 0	7	_		Weather:	•		
	Sampler(s):		with		Samp	oles Taken:	Yes	No	
	Start Time:			_	Sai	nple Time:			
	End Time:			_		د. 		-1	
	Channel Conditions:	. ·		_	DTW Me	asurement:			
	COC Number:			_		<u> </u>	ور و و و و و و و و و و و و و و و و و و	Altern Burn Annual Pro-	
1. Nga						-	Notes:		······································
		. <u> </u>	ield Parameters					<u></u>	
*	Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)		pH	(S.U.)			
	4.CR28.2	1.3.9		13.2	<u> </u>			<u>.</u>	
		t:		Rated Flow	:		Gauged Flow	, 20.5	5 <u>3</u> cfs
1 7 1 4	·			Stream Gau	ging Data				unu
	Distance from Initial Point (ft)	Width (ft)	Depth (ft)	Velocity (60% Depth)	Velc 20% Depth	ocity 80% Depth	A verage Velocity (ft/sec)	Area (ft²)	Discharge (Q. ft ³ /sec)
	0, (left side) 🌾	20	弊',2	10			30		
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	3			15					
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	<i>i</i> . 7			8 17 19	() <u>(</u> ) ();;;;	- Soot	WB	7/17/	07
	Č 7 					- Storig	WB	7/17/	0
	C. 7 37 4]			8 17 19		sing of Paris Island	n an	7/12/	 0-7 
₩ ⁴ ĝ	Č 7 			8 17 19		sing of Paris Island	n an	-7/12/	 0-7 

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## Field Form: 2007 Stream Sampling

March 27, 2002

	•								
	Client:		CRWD	-	Si	te Location	: WR	0.2	
•	Project No.:			_	Site l	Description	• •		· · · · · · · · · · · · · · · · · · ·
•	Date:	<u>5R</u>	207			Weather	· ·		
	Sampler(s):	12 30		_	Sam	ples Taken	:Yes	No	
	Start Time:			_			•		
	End Time:			_	•				
n T	Channel Conditions:			_	DTW M	easurement	•		· · · · · · · · · · · · · · · · · · ·
	COC Number:			-					
				_			Notes:	BM	13.6
的错性性地	· · ·	- · · · · · · · · · · · · · · · · · · ·	Field Parameters						
*	Sample I.D.	Temp. ( ⁰ C)	1	D.O. (mg/l	) pH	(S.U.)	-		
	4	28.5	542	13.6	86	Ô			
									~
	Stage H		"स	Rated Flow			Gauged Flow	$\sim 2.1$	()cfs
					<u></u>		C	·	· · ·
			t _e S	stream Gau	ging Data				
	Distance from		- sag	Velocity	Velo	ocity ·	Average		Discharge
	Initial Point (ft)	Width (ft)	Deptĥ (ft)	(60%) Depth)	20% Depth	Depth	Velocity (ft/sec)	Area $(ti^2)$	(Q. ft ¹ sec)
		.5	6:0.5	10			30°		
	0, (left side)	, <u>)</u> i							
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	3					<u> </u>			
****	<u> </u>			$\frac{12}{12}$					
	2								
	6			18			· · · · · · · · · · · · · · · · · · ·		
			<u></u>	14	• · ·				· · · · · · · · · · · · · · · · · · ·
- - 	<u>ð</u>								
	- <u> </u>	;5		5					
A MARY SALES	· · · · · · · · · · · · · · · · · · ·		۵ ÷. 	n int Frank V kak		مىنىپەردەرىيەتورىيە ئوتۇسىيەتەتە ^ر			
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Client:	(	CRWD		Sit	e Location:	CRJ	28.2	7
Project No.:								
-			_	01001				
Date:	$\frac{\gamma}{\nu}$	207 - Cultur		Com				
Sampler(s):	<u>hen</u>	<u></u>				YesYes		
Start Time:		<del>ن</del>	-	Sa	mple Time:			
End Time:			-			. <u></u>		
Channel Conditions:	<b></b>		-	DIW M	easurement:			<u>,</u>
COC Number:			-					
						Notes:		
	1	Field Parameters			(2.14)		BIM_I	<b>4</b>
Sample I.D.		Cond. (mS/cm)		- <u></u>	(S.U.)		·	
3	21.2		11.5					
Stage Ht	t:		Rated Flow	/:		Gauged Flow	/:	
		c	Stream Gau	aina Data				
		••••••••••••••••••••••••••••••••••••••	1			·····	<del>1 1</del>	
Distance from Initial Point (ft)	Width (ft)	Depth (ft)	Velocity (60% Depth)	Velo 20% Depth	80% Depth	A verage Velócity (ft/scc)	Area (It ² )	Discharge (Q. ft ² /sec)
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0, (left side)		\$ 3.6						
0, (left side)								
0, (left side)			- I-a-a	st f	-low			
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0, (left side)	To	\$ 3.6 Weedy	- To ġ	et f	-10W			
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0, (left side)	- To	woedy		et / 5 7/	Flow Flow 12/07			
0, (left side)	To	Woedy	Tog	et / 5.7/	Flow Flow 12/07	· · · · · · · · · · · · · · · · · · ·		

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_lient:		CRWD			•	Un.			
Project No.:		~ <b>^</b>		Site I					
Date:	623	_07	· · ·						
Sampler(s):		· · · · · · · · · · · · · · · · · · ·				Yes No			
Start Time:	164	5		Sa	mple Time:	·			
End Time:	·					·		···· ··· ·	
Channel Conditions:	<del></del>			DTW Me	easurement:	······································	··· ··· ···		
COC Number:									
F						Notes:			
		Field Parameters		· · · · · · · · · · · · · · · · · · ·			BM 2	<i>.</i>	
Sample I.D.		Cond. (mS/cm	سعمت يصيب المعت		(S.U.)			<u></u>	
2	203	508	13.1	871	ĺ				
Stage H	t:		Rated Flow	/:		Gauged Flow	1.2	8	
and a state of the			Stream Gau	ging Data					
Distance from Initial Point (ft)	Width (ft)	Depth (ft)	Velocity (60% Depth)	Veic 20% Depth	beity 80% Depth -	A verage Velocity (ft/sec)	Area (ft ² )	Discharge (Q, ff^isec)	
0, (left side)	3'	5"	20			30			
0 MA 2		1	36						
H D			41			• • • • • • • • • • • • • • • • • • • •			
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Project No.:	Client:	C	RWD		Sit	e Location:	(1n)	[n]	IN	
Date: $f 2 3 0 7$ Weather:         Sampler(s):       Samples Taken:       Yes       No         Start Time:       /0.02 0       Samples Taken:       Yes       No         Start Time:       /0.02 0       Samples Taken:       Yes       No         Channel Conditions:       DTW Measurement:										
Sampler(s):       Yes       No         Start Tune: $1000$ Samples Taken:       Yes       No         End Time:	-	F73	07		Shei					
Start Time: $10000$ Sample Time:         End Time:       DTW Measurement:         Channel Conditions:       DTW Measurement:         COC Number:		520		-	6					
End Time: Channel Conditions: DTW Measurement: COC Number: Temp. $(^{\circ}C)$ Cond. (m5/cm) D.O. (mg/l) PH (S.U.) 1 20.0 7 2 2, 5 1 8 2 3 Stage H: Rated Flow: Gauged Flow: 1.70 c.f.s Stage H: Rated Flow: Gauged Flow: 1.70 c.f.s Stream Gauging Data Distance from Initial Point (ft) Depth (ft) Depth Depth Depth Velocity. (ft/sec) (1,111 Point (ft) Width (ft) Depth (ft) 20% B0% Opepth Depth Depth (ft) (ft/sec) 0, (left side) 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2										
Channel Conditions: $\Box$ DTW Measurement: $\Box$ COC Number: COC Number: $\Box$ Temp. ${}^{\circ}$ C) Cond. (mS/cm) D.O. (mg/l) pH (S.U.) 1 20.0 722 5.1 823 Stage H: Rated Flow: Gauged Flow: 1.70 c.f.s Stream Gauging Data Distance from Width (ft) Depth (ft) Velocity Velocity Openh Depth (ft)sec) 0, (left side) 1 10 7 7 1 (2.2) 1 30 (0, ft 'sec) 0, (left side) 1 10 7 7 1 (2.2) 1 30 (0, ft 'sec) 0, (left side) 1 10 7 7 1 (2.2) 1 30 (0, ft 'sec) 0, (left side) 1 10 7 1 (2.2) 1 30 (0, ft 'sec) 1 2 2 5 1 2 5 1 2 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 5 1		1000			Sa	mple Time:		· · · · · ·		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	End Time:	· · · · · · · · · · · · · · · · · · ·					<u> </u>			
Notes:         BM 41         Sample 1.D. Temp. $(^{\circ}C)$ Cond. (mS/cm) D.O. (mg/l) pH (S.U.)         1       20.0       72.2       5.1       82.3         Stage H:       Gauged Flow:       1.70 c.fs         Stage H:       Gauged Flow:       1.70 c.fs         Distance from       Width (ft)       Depth (ft)       Velocity       Average Velocity.       Distance from         Distance from       Width (ft)       Depth (ft)       Velocity       Average Velocity.       Average (10, 11')       Distance from         Distance from       Width (ft)       Depth (ft)       Velocity       Average Velocity.       Average (10, 11')       Distance from         0, (left side)       1       3.0       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       -       - <td>Channel Conditions:</td> <td></td> <td></td> <td></td> <td>DTW Me</td> <td>easurement:</td> <td></td> <td></td> <td></td>	Channel Conditions:				DTW Me	easurement:				
Field Parameters $\overrightarrow{BM}$ $\overrightarrow{I}$ Sample 1.D.       Temp. $\binom{0}{C}$ Cond. (mS/cm)       p. (mg/l)       pH (S.U.)         I $2O$ . $O$ $7$ $2$ $5$ . $I$ $8$ $2$ $3$ Stage H:       Gauged Flow:       I. 70 cfs         Stage H:       Gauged Flow:       I. 70 cfs         Distance from       Width (ft)       Depth (ft)       Velocity       A verage       Velocity         O, (left side) 1 $1$ $3$ $2$ $2$ $3$ $2$ $2$ $2$ $2$ $2$ $3$ $2$ $2$ $2$ $2$ $2$ $3$ $2$ $2$ $3$ $3$ $3$ $3$ $3$ $3$ $3$ 3       3 <th cols<="" td=""><td>COC Number:</td><td><u></u></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th>	<td>COC Number:</td> <td><u></u></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	COC Number:	<u></u>							
Sample 1.D.       Temp. ( $^{0}C$ )       Cond. (mS/cm)       D. 0. (mg/l)       pH (S.U.)         I       ZO.U       ZZZ       S.I       SZ3         Stage H:       Gauged Flow:       I.70 CFS         Stage H:       Gauged Flow:       I.70 CFS         Distance from Initial Point (ft)       Width (ft)       Depth (ft)       Velocity       Velocity       Average 20%       Average Velocity.       Distcharge (Q, ft'sec)         0. (left side)       1       30       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       2       3 <td< td=""><td>F</td><td>*******</td><td></td><td></td><td><u></u></td><td></td><td>Notes:</td><td></td><td></td></td<>	F	*******			<u></u>		Notes:			
I       20.0       72.2       5.1       82.3         Stage H:       Gauged Flow:       1.70 cfs         Stream Gauging Data         Distance from Initial Point (ft)       Width (ft)       Depth (ft)       Velocity (60% Depth)       Average 20% Depth       Average Velocity. (ft/sec)       Area (ft ² )       Discharge (Q, ft/sec)         0, (left side)       1       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0       3.0<			Field Parameters					BM	<u> </u>	
Stage Ht:       Gauged Flow: 1.70 cfs         Stream Gauging Data         Distance from Initial Point (ft)       Discharge (0, ft)       Discharge 20%       Stream Gauging Data         Distance from Initial Point (ft)       Width (ft)       Depth (ft)       Velocity (60%       Velocity Depth       Average Velocity (ft/sec)       Area (ft ² )       Discharge ((0, ft') sec)         0, (left side)       1       2       1       30       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1       1	Sample I.D.				in the second second			<b>N. 4 51 11 110101 11010</b>		
Stream Gauging Data       Distance from Initial Point (ft)     Width (ft)     Depth (ft)     Velocity (60% Depth)     Velocity 20% Depth     A verage Velocity. Depth     A rea (ft ² )     Discharge (Q, ft ² ) sec)       0, (left side)     1     2     1     30     1     30     1       3     2     1     30     1     1     1     1       4     2     1     30     1     1     1       5     3     2     1     1     1     1       6     7     1     1     1     1     1       7     1     1     1     1     1     1       9     1     1     1     1     1     1       9     1     1     1     1     1     1	1	20.0	722	5.1	82	. 3				
Stream Gauging Data       Distance from Initial Point (ft)     Width (ft)     Depth (ft)     Velocity (60% Depth)     Velocity 20% Depth     A verage Velocity. Depth     A rea (ft ² )     Discharge (Q, ft ² ) sec)       0, (left side)     1     2     1     30     1     30     1       3     2     1     30     1     1     1     1       4     2     1     30     1     1     1       5     3     2     1     1     1     1       6     7     1     1     1     1     1       7     1     1     1     1     1     1       9     1     1     1     1     1     1       9     1     1     1     1     1     1					,					
Stream Gauging DataDistance from Initial Point (ft)Width (ft)Depth (ft)Velocity (60%)Velocity 20%Average 80%Area (ft ² )Discharge ((), ft ² sec)0, (left side) 1121302213032242532621719110-010-0100101010101010111213 </td <td>Stage H</td> <td>t:</td> <td></td> <td>Rated Flow</td> <td></td> <td></td> <td>Gauged Flow</td> <td><u>, 1.7(</u></td> <td><u>) cfs</u></td>	Stage H	t:		Rated Flow			Gauged Flow	<u>, 1.7(</u>	<u>) cfs</u>	
Distance from Initial Point (ft)Width (ft)Depth (ft)Velocity (60% Depth)A verage 20% DepthA verage Velocity. (fr/sec)Discharge (Q, ft'sec)0, (left side)1130								-		
Distance from Initial Point (ft) Width (ft) Depth (ft) $(60\%)$ $(60\%)$ $Depth$ $Depth$ $Depth$ $Velocity. (ft/sec)$ $Area (ft^2)$ $(0, ft'/sec)$ 0, (left side) 1 1 0 ' 2 1 (22) 1 30			S	tream Gau	ging Data					
Initial Point (ft)Width (ft)Depth (ft) $(60\% Depth)$ $20\% Depth$ $Velocity (ft/sec)$ Area (ft²) $(Q, ft/sec)$ 0, (left side)1213022230322422322422536717191/210101010101010101010 <td>Distance from</td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td>Average</td> <td></td> <td>Discharge</td>	Distance from			-			Average		Discharge	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Width (fi)	Depth (ft)			1		Area (ll ⁺ )	(Q, ft (sec)	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			21 1/201		<u> </u>		1	 		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	· · · · · · · · · · · · · · · · · · ·	10	a (did)				30			
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7 1 8 1 9 1 10 0 1 10 16 7	3		and a summary of the	~3			: 		· · · · ·	
7 1 8 1 9 1 10 0 1 10 16 7	<u> </u>			2						
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$\frac{9}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$	(,			7						
$\frac{9}{10}$	7			/						
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I. I.P. D/ID/A-7	1/5								<u></u>	
1.10 7/10/07					fo es			·.		
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					10 (gr.	<u>na jeodi bat</u>	NVD /	11010		
							<u>.</u>	l		

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March 37, 2002

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Number of Street

Client:		CRWD	_	S	ite Location	: WRO	,2	
Project No.:			_	Site	Description			
Date:	6.25	67	_			··		
Sampler(s):			_	. Sar		:: <u>Ye</u> :		
Start Time:			_	S	ample Time	•		
End Time:			_					
Channel Conditions:			_	DTW M	leasurement	•		
COC Number:			_					
		164-14-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1				Notes:		
	]	Field Parameters					BK	7130
Sample I.D.		Cond. (mS/cm)	D.O. (mg/	l) pH	(S.U.)			
4	27.2		1m5	S .				1-10-10-1-1-10-10-10-10-10-10-10-10-10-1
		······································		Ā				
Stage H	[t:	Park	Rated Flov	v:		Gauged Flow	<u>. D.</u> 2	9.cfs
							U	
			Stream Gau <u>Rev S.</u>			. Time		
Distance from	Width (ft)	Depth (ft)	Velocity		ocity 60%	A Martiger		Discharge
Initial Point (ft)	width (It)	Depth (II)	- <del>(б0%</del> <del>Dept</del> h)	201% Treptil	84% Depth	V <del>elocity</del> ( <del>£43ee</del> )	Area (It ² )	(Q, ft [°] sec
0. (left side)	107,5	4" (,33	1			30 sec	,165	
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Ч		, 23	2				. <u>33</u> . <u>33</u> .33	
3	1	.33	32				.00	
<u></u> .		, 33	2				,73	
7		, 33 , 33 , 33 , 33 , 33 , 33 , 33 , 33	<u>~~</u>	<u> </u>			. <u>57</u> ,33 ,33 ,33	
ð	1	.33	12		<u> </u>		33	
G	ì	, 33					23	<u></u>
/0	.5	133	<u> </u>	· · · · · · · · · · · · · · · · · · ·			, <u>33</u> , <u>33</u>	······································
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				W	B 71	12/17	>>>====	
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Client:	(	CRWD					VOR	
Project No.:			-	Site				
Date:	<u></u>		-		Weather:	<u></u>		
Sampler(s):			-	San	ples Taken:	Ye	s <u>No</u>	
Start Time:			-	Sa	ample Time:			
End Time:		······································				••••••••••••••••••••••••••••••••••••••		
Channel Conditions:	<u>, , , , , , , , , , , , , , , , , , , </u>		-	DTW M	easurement:		· · · · ·	
COC Number:			_					
1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 -		• 				Notes		
		Field Parameters		<b>.</b>				
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	D.O. (mg/l)	) pH	(S.U.)			
*_ * _ * _ * * * * * * * * * * * * * *								
Stage H	[t:		Rated Flow	:		Gauged Flov		
_								
		S	stream Gau	ging Data	L .			
Distance from			Velocity		ocity 80%	Average		Discharge
Initial Point (ft)	Width (ft)	Depth (ft)	(60% Depth)	20% Depth	Depth	Velocity	Area (It ² )	(Q, ft ¹ sec)
		<u></u>		<u> </u>		(ft/sec)		
0, (left side)			·					
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Client:	C	RWD						I IN
Project No.:			_	Site I				
Date:	625	07						
Sampler(s):	Ka		_	Sam	ples Taken:	Yes	T No	
Start Time:	114	6		Sa	imple Time:	·		
End Time:		······································	_					
Channel Conditions:				DTW M	easurement:			
COC Number:			_					
	<u></u>					Notes:		
	]	Field Parameters				. 4	BM ip	94.0
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	) D.O. (mg/l	) pH	(S.U.)			F
2	24.5		5.2		10.10.7 · · · · · · · · · · · ·			
	*** * * * * * * * * *	<del>.</del>	-		<u> </u>	-		
Stage H	t:		Rated Flow	/:		Gauged Flow	/:	
-	<b></b>							
4			Stream Gau	ging Data				
Distance from			Velocity	j	ocity 80%	Average		Discharge
Initial Point (ft)	Width (ft)	Depth (ft)	(60% Depth)	20% Depth	Depth	Velocity (ft/sec)	Area (ft ² )	(Q, ft [%] /sec)
	ib	2	0	<u> </u>		1		
0, (left side)			$\bigcirc$			30		
1								
7		<del></del>	C					
			0					
<u>4</u> 5			4					
			$\overline{\mathcal{O}}$		<u> </u>			
G								
7		<u>1967-1971 - 1976-1946</u>	0	1		- 1	b = 1	040
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9			0		<u> </u>	an a	S An ang Socker To a scholard Basering output	with read this manufacture to a
<u> </u>			O					
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Field Form: 2007 Stream Sampling

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March 27, 2002

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Client:	(	CRWD	-	Sit	e Location:	CRI	280	$\angle$
Project No.:			_	Site I	Description:		<u> </u>	
Date:	625	07	_		Weather:	SUDAL	1 85	0
Sampler(s):	Ke	/	_	Sam		Yes	~	
Start Time:		00	_	Sa	mple Time:			
End Time:			_					
Channel Conditions:	<u></u>		_	DTW Me	easurement:			
COC Number:			-					
						Notes:		
	T	Field Parameters						
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	of Immension		(S.U.)		BM	6.8
1	26.1		7.5	9.0	5			
Stage H	t:		Rated Flow Stream Gaug	ging Data		Gauged Flow	1.3	2cfs
Distance from Initial Point (ft)	Width (ft)	Depth (ft)	<del>Veinelly</del> - <del>(60%</del> Depth)	Velo 20% Denth	Depth	<u>Time</u> Velocity (Usec)	Areå (ft²)	Discharge (Q. ft ³ (sec)
0, (leti side)	20,5	3.2	0			30	1.6	
1	l	3.2	0				3.2	
2	a (	3.7			•		3.2	
3	1 I	3.2	1-2				3.2	
4	I	2 J	1'				3.2	
5	4 i	22	1				3.2	
6	E I		0				3,2	
7	41		0				3.2	
5	ġ ı	3.3 3.3	0,				3,2	
9	R.	3.2	12					
10	Mo I	3.2	2	· · · •			3.2 3.2	
11	AI		l				3.2	<del>an (1997 - 1997 - 1997 - 1997 - 199</del> 8)
12	Mari	3.2	15		- 4. "-)-2 e ar Hydrogram	18 7/10/07	3.2	
13		3,8	0		, and the second se	1 1 1 1 1 1 1	3.2	
f: 1118 Soft 2424 Ferrars Gauging Fo		3°7	0	· · · · · · · · · · · · · · · · · · ·		• ************************************	Blib	March 27, 2092

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lient:		CRWD	-			UNI		
Project No.:		<b>.</b>	-	Site I		<u></u>		
Date:	- 7 -	2607	-		Weather:		*****	
Sampler(s):	<u></u>		-	Sam	ples Taken:	Yes	<u> </u>	
Start Time:	-		-	Sa	mple Time:	<del></del>		
End Time:	******	, <u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	-				-	
Channel Conditions:	<b></b>		_	DTW Me	easurement:			····
COC Number:			_					
•			<u></u>	P)		Notes:		
		Field Parameters						
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	D.O. (mg/l]	) pH	(S.U.)			
UDION OUT								
1						9		
Stage H			Rated Flow	1		Gauged Flow		
~							*	na Ag _{ant} a mula Antonio
		S	stream Gau	ging Data				
Distance from			Velocity	Velo	<u> </u>	Average		Discharge
Initial Point (ft)	Width (ft)	Depth (ft)	(60% Depth)	20% Depth	80% Depth	Velocity	Area $(ft^2)$	(Q, ft ³⁾ sec.
<u>02</u>	20''	2'017	5	<u> </u>		(ft/sec)		
0. (left side)	<u>20</u>	$-\frac{2}{2}$				_30		<del></del>
1.67	<u> </u>	<u></u>	4					
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<b>Field Form:</b>	2007	Stream	Sampling
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Client:	C	RWD	_	Si	te Location:	UNIC	on 1	N
Project No.:	C)							·
Date:		209			Weather:	·		
Sampler(s):				Sam	ples Taken:	Yes	<u> </u>	
Start Time:			_	S٤	mple Time:			
End Time:								
Channel Conditions:				DTW M	easurement:			
COC Number:			_					
						Notes:		<u></u>
		Field Parameters						
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	D.O. (mg/l)	) pH	(S.U.)			
UNIONIN	271		1.1	1				
L	<u> </u>			<u></u>	<u> </u>			
-	:t:		Rated Flow	<i>r</i> ;		Gauged Flow		
0.4650.1						U		
			Stream Gau	ging Data	1			
Distance from			Velocity	Vel 20%	ocity 80%	Average	1	Discharge
Initial Point (ft)	Width (ft)	Depth (ft)	(60% Depth)	Depth	Depth	Velocity (ft/sec)	Area (ft ² )	(Q. ft ⁴ /sec)
0, (left side)	10'	1'5				· ·		
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2			6					<u> </u>
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1			0	-		<u></u>		
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7			0					
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Client:	С	RWD		Si	te Location:	CA	28	. 2
Project No.:			_					
Date:	820	07			Weather:			
Sampler(s):	KW			Sam	iples Taken:	Yes	No	
Start Time:	800			Sa	imple Time:			
End Time:						<u> </u>		
Channel Conditions:			<u> </u>	DTW M	easurement:			
COC Number:								
						Notes:	<u></u>	
	I	Field Parameters					BM	7'
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm	) D.O. (mg/l	pH	(S.U.)			
1	21.1		3.2					
			· · · · · · · · · · · · · · · · · · ·					
Stage H	t:		Rated Flow	/:	<b></b>	Gauged Flow	/:	
			Stream Gau	ging Data	l			
Distance from			Velocity	Vel-	ocity 80%	Average	, (p. ² ,	Discharge
Initial Point (ft)	Width (ft)	Depth (ft)	(60% Depth)	Depth	Depth	Velocity (ft/sec)	Area (It ² )	(Q, fÉisec)
0, (left side)	20'	3',	0	1		30		
1			6	<u> </u>				
2			1/2					
3			1					
4			0					
5			6					,
6			1			1		
7		1	2		1			
8		2 2 4	1-2					
9			1	<u> </u>				
10			0			•		
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# Field Form: 2007 Stream Sampling

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Client:	C	RWD	_	Sit	te Location:	UN	10R	IN
Project No.:	ØJ	· · · · · · · · · · · · · · · · · · ·		Site I	Description:			
Date:	82	907 0	_		Weather:	<u>.</u>		
Sampler(s):	KW		-	Sam	ples Taken:	Yes	- No	
Start Time:	9:0	0	-					
End Time:								
				DTW M	essurement:			
Channel Conditions:	<u> </u>		-	D1 0 101				<u></u>
COC Number:		. 14400000 a o	-			Motory		
						Notes:	<u></u>	
		Field Parameters		<u> </u>				
Sample I.D.		Cond. (mS/cm)	_/ <u></u>	······································	(S.U.)			
L2	19.9		4.0	<u> </u>				
Stage H	[t:		Rated Flow	•		Gauged Flow	/;	
х.								、
		5	Stream Gau	ging Data	1			
Distance from			Velocity		ocity	Average		Discharge
Initial Point (ft)	Width (ft)	Depth (ft)	(60%) Depth)	20% Depth	80% Depth	Velocity	Area (Ĩt ² )	(Q. It ^V sec)
			<u> </u>		<u> </u>	(ft/sec)	1	
0, (left side)	10'	2.8	$  \underline{o}  $	<u> </u>		30		
2			0					
24		- - -	n					
36			12					
4A			0					
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## Field Form: 2007 Stream Sampling

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Client:	C	RWD		Si	te Location:	UN	ion	out
Project No.:								
Date:	820	007						
Sampler(s):	KUI			Sair				
Start Time:	10.0	0						
End Time:	<u> </u>	· ···						
Channel Conditions:				DTW M	easurement:			
COC Number:			•					
			- 			Notes:		
		Field Parameters	<u>1997</u>				BM	285
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	<b>D.O.</b> (mg/l	) pH	(S.U.)			
3	21.2		11.5					
					<u> </u>	-		
Stage H	t:		Rated Flow	·:		Gauged Flow	/: <u></u>	
_								
		S	tream Gau	ging Data	۱ 			and Produces and the second state
Distance from			Velocity	Vel-	ocity 80%	Average		Discharge
Initial Point (ft)	Width (ft)	Depth (ft)	(60% Depth)	Depth	Depth	Velocity (ft/sec)	Area $(1)^2$	(Q. ft ^a sec)
	2'8''			<u> </u>		30		
0, (left side)	20	1 .08	12			<u> </u>		
2		3"2100	21			· · · · · · · · · · · · · · · · · · ·		
327		1"213						
2011		1 2010	//	<u>.</u>				
· · · · · · · · · · · · · · · · · · ·								
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····							<u> </u>	
U			······································					
<u>.</u>								
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1.018/06-292/Field Forms Cauging Form

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Client:	C	CRWD		Sit	e Location:	BUR	0.2	<u> </u>
Project No.:				Site I	Description:			
Date:	829	107			Weather:			
Sumpler(s):	Ku	>		Sam	ples Taken:	Yes	/ Nu	
Start Time:		00		Sa	mple Time:			
End Time:								
Channel Conditions:	•			DTW M	easurement:			
COC Number:								
						Notes:		
		Field Parameters					<b></b>	
Sample I.D.	<b>Temp.</b> ( ⁰ C)	Cond. (mS/cm)	<b>D.O.</b> (mg/l)	pH	(S.U.)			N
4	20.1		8.1					
	· · · · · · · · · · · · · · · · · · ·							
Stage H	t:		Rated Flow	•		Gauged Flow		
		S	tream Gau				·····	
Distance from			Velocity	Velo 20%	ocity 80%	Average	Area $(\tilde{\Pi}^2)$	Discharge
Initial Point (ft)	Width (ft)	Depth (ft)	(60% Depth)	Depth	Depth	Velocity (ft/sec)	- mica (iii )	(Q. ft ^{*/} sec)
K. (left side) 2	10'	6",5	K			30		
	<u> </u>	101.83						
6		101.93						
8								
10	<u></u>	7 1,58	0					
		UNder	~ Co	NSTI	octio	n		
					1			
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Field Form:	2007	Stream	Sampling
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Olient:		CRWD		Si	te Location:	WRO.	2	
Project No.:				Site I	Description;			
Date:	10/1	107			Weather:			
Sampler(s):			_	Sam	ples Taken:	Yes		
Start Time:	••••	- 140-46-04-00 mm		Sa	mple Time:			
End Time:	<u>.                                    </u>							
Channel Conditions:	TELESIN			DTW Me	easurement:			The second s
COC Number:			<del></del>					
100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100	4 - 10 - 10 - 10 - 10 - 10 - 10 - 10 - 1			···		Notes:		
		Field Parameters	-11					
Sample I.D.		Cond. (mS/cm)	<b>D.O.</b> (mg/l)	) pH	(S.U.)	9	·	······································
<u> </u>	14.1		12.2				<b>6</b> 91.0	
Stage H	It:		Rated Flow	/:		Gauged Flow	<u>د</u>	
ŗ	Flow		Stream Gau	ging Data				
Distance from Initial Point (ft)	Width (ft)	Depth (ft)	Velocity (60% Depth)	Velc 20% Depth -	ocity 80% Depth	A verage Velocity (ft/sec)	Area (ft ² )	Discharge (Q. ft ² sec)
0, (left side)								
						-		
1			i	-				· · · · · · · · · · · · · · · · · · ·
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lient:	C	RWD		Sit	e Location:	CR:	28:2	
Project No.:			_					·
Date:	10/016	7	_					
Sampler(s):	IKW	2****	_	Sam		Yes		
Start Time:	8:00	· · · · · · · · · · · · · · · · · · ·	-					
End Time:			ster.					
Channel Conditions:				DTW M	easurement:	:		
COC Number:			-					
			-			Notes:		
		Field Parameters					BM	7.5
Sample I.D.	1	Cond. (mS/cm)	<b>D.O.</b> (mg/l)	pН	(S.U.)			
	15.1	<u></u>	8.0					
L				1				<u>,</u>
Stage H	t:		Rated Flow	:		Gauged Flow	V:	
0.4201	L+			·		U		
			Stream Gau	ging Data				
Distance from			Velocity	Velo 20%	ocity 80%	- Average	1	Discharge
Initial Point (ft)	Width (ft)	Depth (ft)	(60%		0070	37.3 24	Area (ft ² )	
			( Depth)	Depth	Depth	Velocity (ft/sec)	rited (ite )	(Q, ff' sec)
	20'	25	Depth)		Depth	(ft/sec)		(Q, ff sec)
0. (left side)	20.	2.5			Depth			((), (f sec)
1	20'	2.5	ð		Depth			((), (f sec)
1 3	20.'	2.5	0 0		Depth			((), [[ sec)
1 3 3	20.'	2.5	0 0		Depth			((), ff sec)
1 3 3	20'	2.5	0 0 1/2 2		Depth			((), [[ sec)
1 3 3 7 7 7 7 9	20'	2.5	0 0 1/2 0		Depth			((), [[ sec)
1 3 3 7 4 9 41	20'	2.5	0 0 1/2 2		Depth			((), [[ sec)
1 3 3 7 4 9 41	20.	2.5	0 0 1/2 0 0					((), [[ sec)
1 3 3 7 7 7 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	20.	2.5	0 0 1/2 0 0 0 1 2/2		Depth			((), [[ sec)
1 3 3 7 4 9 4 1 7 3 7 5 17 7	20.	2.5	0 0 1/2 0 0		Depth			((), [[ sec)
1 3 3 7 4 9 4 1 7 3 7 5 7 7 7			0 0 1/2 2 0 0 0 1 2/2 3 1		Depth			((), ff sec)
1 3 3 7 7 7 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9		2.5	0 0 1/2 0 0 0 1 2/2		Depth			((), ff sec)

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Client:		CRWD		-	S	ite Location	Unio	n I	<u>ب</u>
Project No.:				_					
Date:	10/1/0- KW	7		_					
Sampler(s):	KW				San		:Yes		
Start Time:	• …								
End Time:				-					matattene -
Channel Conditions:				_	DTW M	leasurement	:		· · · · · · · · · · · · · · · · · · ·
COC Number:				_					
				-			Notes:		
		Field Pa	rameters						
Sample I.D.	Temp. ( ⁰ C)	Cond.	(mS/cm)	D.O. (mg/l)	) pH	I (S.U.)			
2	142			6.5				******	,
				<u></u>				~	
Stage H	t:			Rated Flow	/:		Gauged Flow	<u>, 0</u>	cfs
			S	Stream Gau	ging Data	a			
Distance from				Velocity	Vel 20%	ocity 80%	Average		Discharge
Initial Point (ft)	Width (ft)	Dep	oth (ft)	(60%) Depth)	Depth	Depth	Velocity (ft/sec)	Area (ft ² )	*(Q, ft ² sec)
() (laß aida)	10'	2	5				30	<u> </u>	
0, (left side)	10	_	<u>, J</u>	C					
B				0					
B				G				<u> </u>	
9 4			1	0					
4			-	0					
6				6		_	· · · · · · · · · · · · · · · · · · ·		
7			<u>.</u>	0					
8						1			
8				0			,		
9				-					
		- Response		0					
9				0					

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Client:		CRWD			Site Locati	on: UR	ion (	OJ
Project No.:				Si				
Date:	10/	1/07						
Sampler(s):	/			Si		en: Y		
Start Time:	·					-		
End Time:								<u></u>
Channel Conditions:	<u></u>			DTW I	Measuremer	nt:		· · · · · · · · · · · · · · · · · · ·
COC Number:							·····	·
1						Note	5:	
		Field Parameters	and the second s		······································			<u>, , , , , , , , , , , , , , , , , , , </u>
Sample I.D.	<b>Тетр.</b> ( ⁰ С	) Cond. (mS/cm)	D.O. (mg	/l) pf	ł (S.U.)		· · · · · · · · · · · · · · · · · · ·	
	16.2		12.1					
······································	<u></u>		<u></u>					
Stage H	lt:		Rated Flov	w:		Gauged Flov	V:	
						0	····	
	No	S	Stream Gai	iging Data	ı			
Distance from			Velocity	Vel	ocity 80%	Average		Discharge
Initial Point (ft)	Width (ft)	Depth (ft) C	(60% Depth)	Depth	Depth	Velocity	Area (fi ² )	$(Q, ft^{3}/sec)$
/ .0, (left side)	3.5	4 '0.3	<u> </u>	<u> </u>		(ft/sec) 30		
2		0.33	25					
3.5		N 22	19					
		<u>محمد و را ا</u>	<u> </u>			· ·		
	,							
					[			
				·····				
··· /	<u>_</u>							
						· · · · · ·		
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Client:		CRWD			Site Locatio	n: Union	- DATO	Æ
Project No.:	(	002-107		Sit	e Descriptio	n: Thirt	h of la	ke.
Date:	5.30,0	7				T: SUNNY E		
Sampler(s):	Tess	Nic		Sa		n: 🔨		n
Start Time:	]:3	2				: 0:4		
End Time:	_2:4	-			-	L		
Channel Conditions:	Flow	na		DTW N	Measuremen	t:3.°	74	
COC Number:	4	$\supset$						a side
					Fr	on mide Notes	le of c	in side
	T	Field Parameters	l 					444
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm	) <b>D.O.</b> (mg/	l) pł	I (S.U.)			
	20.97	704	4.69	7.	55			······································
Stage Ht			Rated Flow	v:		Gauged Flow	v: 1.7	
·			Stream Gau	iging Data	1			
Distance from Initial Point (ft)	Width (ft)	Depth (ft)	Velocity (60% Depth)	Vel 20% Depth	ocity 80% Depth	Average Velocity (fl/sec)	Area (ft ² )	Discharge (Q, ft ³ /sec)
0, (left side)								
								11

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Client:	CRWD Site Location				1: UNION	_outle	1		
Project No.:	0	002-107		Site Description: after of lake					
Date:	5.3	0.07	Weather: Dunny 60°						
Sampler(s):	_Jes	JNIC							
Start Time:	2:10	5		S	Sample Time	- <del>2:20</del>		-	
End Time:	2:2	5				······································			
Channel Conditions:		9		DTW N	leasurement	: 2.77	7		
COC Number:		1							
J						Notes:	l		
	<b>F</b>	Field Parameters							
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	<b>D.O.</b> (mg/	l) pF	I (S.U.)				
	23.35	500	8.61	8.3	37				
Stage H	t:		Rated Flow	v:		Gauged Flow	1:270		
N							·		
·	1		Stream Gau	ging Data	1				
Distance from	Width (ft)	Depth (ft)	Velocity (60%	Vel	ocity 80%	Average		Discharge	
Initial Point (ft)		Depth (It)	Depth)	Depth	Depth	Velocity (ft/sec)	Area (ft ² )	(Q, ft ³ /sec)	
0, (left side)									
								11	
1									
						•			

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. lient: Project No.: Date: Sampler(s): Start Time: End Time: Channel Conditions: COC Number:	CRWDSite Location:SSU0907-108Site Description:T1/S/144/19/07Weather:60%WB, NCSamples Taken:(Yes12:20Sample Time:12!3FlowingDTW Measurement:1.52Trans Notes:Notes:					Ave nny no no i 35.5 water	FD1 5 cm - is	
ar an rannon an	1	Field Parameters					brown	with
Sample I.D.	Temp. (°C)	Cond. (mS/cm)	D.O. (mg/l) 9.64	рн 7.6	(S.U.) <b>ፍ</b>	· · ·	Flogting	with duckweed gefation
Stage H	t:		Rated Flow			- Gauged Flow		
E			Stream Gaug			T	T	
Distance from Initial Point (ft)	Width (ft)	Depth (ft)	Velocity (60% Depth)	20% Depth	ocity 80% Depth	Average Velocity (ft/sec)	Area (ft ² )	Discharge (Q, ft ³ /sec)
0, (left side)								
	-							
			:					
	Data Set	eventuerites destructor de acourte engineer (2011) de destactorites (2011)	g gir namar 19					<u> </u>
	EDICTIC :	WB	7/12/	<u>n]</u>				
			, un un un un un un bistophister anno 1942	and francis is the state of the statements of	· ·	<u> </u>		

Client:		CRWD	_	S	ite Location	: 85WC	>4		
Project No.:	0	0002-107 Site Desc						to writed	
Date:	SSW 04	5/17/07	_		Weather	Survey 700			
Sampler(s):		2 	_	San	nples Taken	: Survey Zese : Yes No			
Start Time:	13:00		_			: 1330			
End Time:	13:35		_						
End Time: Channel Conditions:	flow		_	DTW M	easurement	: 2.06			
COC Number:	U		_	C	tent 90	0 T			
		· · · · · · · · · · · · · · · · · · ·					clen.	NO Canp	
		Field Parameters					1		
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	<b>D.O.</b> (mg/l	) pH	(S.U.)				
	17.71	444	6.91	7.5	4		_		
Stage H	t:		Rated Flow	/:		Gauged Flow	1.101	c45	
···		S	tream Gau	ging Data					
Distance from			Velocity	Velo 20%	ocity 80%	Average		Discharge	
Initial Point (ft)	Width (ft)	Depth (ft)	(60% Depth)	Depth	Depth	Velocity (ft/sec)	Area (ft ² )	(Q, ft ³ /sec)	
0, (left side)	<u> </u>		<u>.                                    </u>						
			<u> </u>						
							F		
				1					
	· · · · · · · · · · · · · · · · · · ·								
		Jana Sett			I a A				
		General Ky/Dat	WB	7/12	101				
		one je Byllow	 	وروب ،	and the second of the second second				
		<u>Manun , El 1996</u>	•				[		
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Client:	·	CRWD		S	ite Location	55wor	1	
Project No.:	0	002-107	Site Description:					
Date:	6.4.0	}			Weather	Surg 71	00	
Sampler(s):	NK		Samples Taken:			Ves No		
Start Time:	1200			Sample Time:				<u>.</u>
End Time:	1235	}	_					,
Channel Conditions:	flarin		_	DTW M	easurement:	2.09		
COC Number:	MR2	J	-	(	c- 72		C	L.E. c. a. l
		Field Parameters					Jone C	Lik weed
Sample I.D.	<u> </u>	Cond. (mS/cm)	D.O. (mg/l	) pH	(S.U.)		N VI C	ICID Seen
		623	1	<u></u>			_ <u></u>	IN SOM
Stage H	t:		Rated Flow			Gauged Flow	<u>, 2,24</u>	
			T T	Velo				
Distance from Initial Point (ft)	Width (ft)	Depth (ft)	Velocity (60% Depth)	20% Depth	80% Depth	Average Velocity (ft/sec)	Area (ft ² )	Discharge (Q, ft ³ /sec)
0, (left side)								
	Dan	1 * 2* 1 *						
		ar stylDate: M	IR 711	2197				
		i		<u>a. 10</u>				
	8 (3 - 14 / 14 ) 	i in the second		· · · · · · · · · · · · · · · · · · ·				
							<u></u>	
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	F							

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	Olient:		CRWD	<u> </u>	S	Site Location	n: <u>55600</u> 4	1	
$\mathcal{O}$	Project No.:		002-107	_	Site	Description	1:		
	Date:		07	_		Weathe	r: Paris 7	<i>2</i> °	
	/Sampler(s):	NK		_	Sar	nples Taker	n: 💽	s No	0
ĺ	Start Time:	1700	······	_	S	ample Time	: <u>12:00</u>		
	End Time:	1220		_					
	Channel Conditions:	flow		-	DTW M	leasurement	2.51		
	COC Number:			-	C	.90+	Notes	· la	
			Field Parameters			······································		104	we ut
	Sample I.D.	1	Cond. (mS/cm)	<b>D.O.</b> (mo/l	) nH	: (S.U.)	-	pretert	rain.
		2307	539	4.92	7.5			Robert	apra
1					<u> </u>	<u> </u>	<u>_</u>	- CTASAL	
	Stage Ht	•		Rated Flow			Gauged Flow		B
۰. آ			S	tream Gau	ging Data				
	Distance from Initial Point (ft)	Width (ft)	Depth (ft)	Velocity (60% Depth)	Velo 20% Depth	80%	Average Velocity (ft/sec)	Area (ft ² )	Discharge (Q, ft ³ /sec)
	0, (left side)								······································
		. Dair	(1) (1) (2) (2) (2) (2) (2) (2) (2) (2	- a de tra Tránse esta de secondo de como de co	4.04 size alter the strain 24 station (2004) 10 arrive 4000	ali anti ali anti anti			
			an Saithaire	WB	7/12	117			
			34 15 1414						
			and a second	• ۵۶ میروی به ۲۰۰۰ که وی میروی اور ۲۰۰۰ که وی میروی میرو میروی میروی می		-19-50			
- 11									
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lient:	C	RWD		Sit	e Location:	<u>500</u>	Ø[	
Project No.:			-	Site I	Description:	Drainag	e Ditch	on CORd 3
Date:	4/18	107			Weather:	55°, S	unoy	on CoRd 3,
Sampler(s):	WB	NC	_	Sam	ples Taken:			
Start Time:	11:30		_	Sa	mple Time:	_/[:3	5	-
End Time:			-			-		
	flowing		-	DTW Me	easurement: +op of	3.92	2	
COC Number:	<u> </u>	<u></u> ,	-		top of culvery	- downstr	ream	
			-			-	· · · ·	ert has
	]	Field Parameters					a lave	c of
Sample I.D.	1	Cond. (mS/cm)	<b>D.O.</b> (mg/l)	pH	(S.U.)		Siltle	soil) in
	8.49	977	15.74	7.8			ìt	
						° 90+	2.2	5
Stara -	lt:		Rated Flow	•		Gauged Flow	AND AND	Rcfs
Stage 1	III			·		downstra	A COMPANY OF THE OWNER.	
		S	Stream Gau	ging Data		ofchl		- <b>M</b>
Distance from			Velocity		peity	Average		Discharge
Initial Point (ft)	Width (ft)	Depth (ft)	(60%	20%	80%	1 1 1 1 ·	Area (ft ² )	. – 1
u		Ŧ	Denth)	Depth	Depth	Velocity		(Q, ft ³ /sec)
		DOW	Depth)	Depth	Depth	(ft/sec)		(Q, ft ² /sec)
0, (left side)		RYZR	Depth)	Depth	Depth	•		(Q, fi ² /sec)
0, (left side)		8.HA		Depth	Depth	•		(Q, fi ² /sec)
0, (left side)		B.HA		Depth	Depth	•		(Q, fi ² /sec)
0, (left side)		B.B.			Depth	•		(Q, fi ² /sec)
0, (left side)		B.B.			Depth	•		(Q, fi ² /sec)
0, (left side)		A.BA			Depth	•		(Q, fi ² /sec)
0, (left side)		Dan Sau				•		(Q, fi ⁻ /sec)
0, (left side)		Daw Sev Langed Sy			Depth	•		(Q, fi ⁻ /sec)
0, (left side)						•		(Q, ff ² /sec)
0, (left side)		tar ang ting				•		(Q, ff ⁻ /sec)
0, (left side)		tar ang ting				•		(Q, fi ⁻ /sec)
0, (left side)		tar ang ting				•		(Q, fi ⁻ /sec)
0, (left side)		tar ang ting				•		(Q, fi ⁻ /sec)

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		Field Form	n: 2007 s	Stream	دۇي Samplin	t Borfi Ig to g	' Nat p je jec (a	n c lun
Client:	C	CRWD	_	Si	te Location:	5000-1		
Project No.:	00	02-107	-	Site 1	Description:	off CR 3	17 / Saran	
Date:	5.17.0	7				Sunny Cost		
Sampler(s):				Sam		Ye	-1	
Start Time:	11:40		_	Sa	unple Time:	<u>R:30</u>		
End Time:	n:10		_					
Channel Conditions:				DTW M	easurement:	4.25		
COC Number:	1		_		dity.	<u>4.25</u> 924		
					<u></u>	Notes	Vin h	けて
		Field Parameters					Flowford	
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	<b>D.O.</b> (mg/l)	) pH	(S.U.)		to non	
	141.47	907	12.19	7,	81			
Distance from			Velocity	Velo		Average		Discharge
Distance from Initial Point (ft)	Width (ft)	Depth (ft)	(60% Depth)	20% Depth	80% Depth	Velocity (ft/sec)	Area (ft ² )	Discharge (Q, ft ³ /sec
0, (left side)								
						· · · · · · · · · · · · · · · · · · ·		
		Data Set:	n ministrantistaan waa aa ay a	-an-MTRADAM and chopse - spa	and Standard Standard Stranger			
		Entered By	Dise W	B 7	12-107	Provide -		<del></del>
		$\frac{1}{2} \left( \frac{1}{2} \left( \frac{1}{2} \right) \right) \left( \frac{1}{2} \right)$	Farrier					
		· · ·		n - Linger ( Lander of Parl Lander of Control of Contro	1 2494 - Amerikan Barr (1) Anguna na Simen Majura	темия ра.		

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Client:		CRWD	<u> </u>	S	ite Location	: <u>5002</u>	<u>-1</u>	
Project No .:	0	002-107		Site	Description	: prain F	s.1eh - c	= HWY 37 (:
Date:	6. 9.0	7				: sout		
Sampler(s):				San		: <u>(Ŷ</u> e		
Start Time:		1.0.1.1.1.0.000 1. <b>1.1</b> 01.1	_			: <u>1100</u>		
End Time:	1120							
Channel Conditions:	flocust		_	DTW M	leasurement	4.04	/	
COC Number:			_		c-68			
					-	Notes	: slow	-1.92
		Field Parameters	1				flou	- 1. TZ
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	<b>D.O.</b> (mg/l	) pH	(S.U.)		·····	
	1660	903	6.93	7.6	25			
Stage H	[t:		Rated Flow Stream Gau			Gauged Flow	w: <u> </u> ]24_	C H
Distance from			Velocity	Velo	ocity	Average		Dist
Initial Point (ft)	Width (ft)	Depth (ft)	(60% Depth)	20% Depth	80% Depth	Velocity (ft/sec)	Area (ft ² )	Discharge (Q, ft ³ /sec)
0, (left side)								
						· · · · · · · · · · · · · · · · · · ·		
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						·····		
		Dita Neti	ni si uni alfali sifati si di sot		المراجع			
		Letzad By/	W w	3 07	12107			
		( + 4- (t))[ ²⁰ − 4 ₁ ], (	<u>Arres</u>		-			
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Client:	· · · · · · · · · · · · · · · · · · ·	CRWD			Site Location	n: <u>-5000</u>		
Project No.:		002-107		Site	e Description	1:		
Date:	6-18.	st	_			r: Rain		
Sampler(s):	VIC		_	Sa	mples Taker	1: <u> </u>	es) N	0
Start Time:	<i>'</i>			(	Sample Time	: <u>1100</u>		······································
End Time:	1120					<b></b>		
Channel Conditions:	floren	<u> </u>		DTW N	Aeasurement	- 4.2	1	
COC Number:		·	<del></del>		C-BO			
						Notes	s: pelly	Ginan
		Field Parameters	-1				Clow	general general
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	<b>D.O.</b> (mg/	l) pE	I (S.U.)		helant	it. Flailes
	20.32	785	5.98	8,	17		_nelly	it. Flaiks
							\	2 0
Stage H	t:		Rated Flov	v:		Gauged Flow	w: <u>0583</u>	<u>.+</u>
		S	Stream Gau	ging Data	1			r.
Distance from	Width (ft)	Depth (ft)	Velocity (60%	Vel 20%	ocity- 80%	Average	4 (2)	Discharge
Initial Point (ft)		Depui (it)	Depth)	Depth	Depth	Velocity (ft/sec)	Area (ft ² )	(Q, ft ³ /sec)
0, (left side)				<u></u>				-
								-
						····, ···.		
					*	<u> </u>		
		***	······································			<u> </u>		······································
			Dec 3	ad s				· · · · · · · · · · · · · · · · · · ·
				<u>. 197</u>	11/0	-117	107	
	······					110		
	· · ·			ang sea ang sea	the second secon	ւ է ու յեսը, ու պետքի պայքել ֆեքսաստեղա ինքսա ենդան է շուպ։	& r	
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L	<u> </u>							

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lient:	C	CRWD	_	Si	te Location:	_SH <u>F</u>	ØI		_
Project No.:	COC	2-108	_	Site l	Description:	Henshow	rke Ontle	Stream-C	off
Date:	4/10	3/07	_		Weather:	- A & -			37
Sampler(s):	WB.N	lc i		Sam	ples Taken:	Yes	No No		_
Start Time:	12:àc	2		Sa	mple Time:	12:0	25		-
End Time:			_						
Channel Conditions:	Flowing		<b>.</b>	DTW M	easurement:	2.21			
COC Number:			-		-	trans:	45.5		
Farmer Million and the second state of the sec						Notes:	- Waf	ic is	-
2		Field Parameters	n				bron	en in	-
Sample I.D.	1	Cond. (mS/cm)	<b>D.O.</b> (mg/l)	) pH	(S.U.)		col	D(	-
	10.22	405	12.51	7.8	7		newc	ulvert in ntin cul	stallec
						*	Sedimer	ntincul	vert
Stage H	t:		Rated Flow	/:		Gauged Flov	0.705	<u>.                                    </u>	
		S	itream Gau	ging Data				······	_
Distance from			Velocity	Vel 20%	ocity 80%	Average		Discharge	a de la d
Initial Point (ft)	Width (ft)	Depth (ft)	(60% Depth)	Depth	Depth	Velocity (ft/sec)	Area (ft ² )	(Q, ft ³ /sec)	
0 (1 0 :1)									
0, (left side)	-					<del>.</del>		<del></del>	
· · · · · · · · · · · · · · · · · · ·				<u>                                      </u>		<u> </u>			
						<u></u>			
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······································		The or Store							
	· · · · · · · · · · · · · · · · · · ·	Date Set:,			10107	- San Angung A			
		Lawrent Rey	<u>1.5.952</u> ,	15_1	1/12/107				
		17 15 18 41 - 3 1 - 3 	and the second s	n ¹⁹ Martin Mag Washington, W. Julya Dalawa Jawa	and the set of the set	~~~		· · · · · · · · · · · · · · · · · · ·	
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Client:	C	RWD	_	Si	ite Location:	SHEL	>1	
Project No.:	000	)2-107	-	Site	Description:	CR37	- I whent	(Zne)
Date:	5.17.07	<b>n.</b>	_		Weather:	SUNNY	700	
Sampler(s):	<u>µ۱८</u>			San	nples Taken:	Yes	D No	······
Start Time:	1215					12		• • • • • • • • • • • • • • • • • • • •
End Time:	1245		_					
Channel Conditions:	Slowy		_	DTW M	leasurement:	2.41		
COC Number:					Cle	1- 90+		
		at an and a second s				Notes:	1.176 .	flow
	F	ield Parameters	- H	· · · · · · · · · · · · · · · · · · ·		-	Shalla	Pr-
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	<b>D.O.</b> (mg/l)		[ (S.U.)			
	K.27	482	8.36	7.4	<i>t5</i>			
Stage H	t:		Rated Flow	/:		Gauged Flow	N: 0.240	ects
	•		Stream Gau	ging Dat:	11			
Distance from Initial Point (ft)	Width (ft)	Depth (ft)	Velocity (60% Depth)	Vel 20% Depth	ocity 80% Depth	Average Velocity (ft/sec)	Area (ft ² )	Discharge (Q, ft ³ /sec)
0, (left side)				 		<u> </u>		
0, (len side)								
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		Dan Ser						
		Entersetty,	1	1B -	7/12/0-	7		
		CAUST .				· ····		
			/	<ul> <li>Promotion of the second /li></ul>	and a marine of the second second second	4 V T THOS		
		<u></u>						
· · · · · · · · · · · · · · · · · · ·			<u> </u>					
l								
			1	-				

Client:	(	CRWD	<u> </u>	S	ite Location	: SHEC	> [	
Project No.:	· · · · · · · · · · · · · · · · · · ·	002-107				: Hushar la		L.
Date:	6.4.07					: Sun 7		
Sampler(s):	VIC			Sar		:		
Start Time:	1120			S	ample Time	: //30	· · · · · · · · · · · · · · · · · · ·	
End Time:	1145		_				· · · · · · · · · · · · · · · · · · ·	
Channel Conditions:	Clover			DTW M	leasurement	: 2.36		-
COC Number:				C.	75			
<b>1</b>						Notes:		,,
		Field Parameters				~	·	
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	<b>D.O.</b> (mg/l	) pH	(S.U.)		·	
	16.45	801	678	7.	51			
Stage H	t:		Rated Flow Stream Gau			Gauged Flow	/:	
Distance from			Velocity		ocity	Average		Discharge
Initial Point (ft)	Width (ft)	Depth (ft)	(60% Depth)	20% Depth	80% Depth	Velocity (ft/sec)	Area (ft ² )	(Q, ft ³ /sec)
0, (left side)								
-						· · · · · · · · · · · · · · · ·		
							· · · · · · · · · · · · · · · · · · ·	
					WB	7/12/0		
			the state of the s	<u>) (* 21. sr.</u>	<u>  WB</u>	4.0	<u> </u>	
			Barrier and	1	C	en en al y a recommendar ( y a la compara da para	·····	
[	:		 					
		••• • <u>•</u> •••••••						
L				<u> </u>	1			

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Client:		CRWD		S	ite Locatior	: <u>sheo</u>		
Project No.:	0	002-107		Site	Description	1: <u></u>		
Date:	6.18.	v7			Weather	: Pai	7a	
Sampler(s):	NIC			Sar	nples Taker	1: <u>(</u> Te	s No	
Start Time:				S	ample Time	: 1130		
End Time:	1150							
Channel Conditions:	flow		_	DTW M	leasurement	2.52		
COC Number:				C-	68			
						Notes	Braun	water
		Field Parameters	- <u>1</u>				<u></u> .	······································
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	<b>D.O.</b> (mg/l	) pH	( (S.U.)		<b>v</b>	
	20.14	821	6.02	8.02	· · ·			
Stage H	[t:		Rated Flow	/:		Gauged Flow		
		5	Stream Gau	ging Data	1			
Distance from Initial Point (ft)	Width (ft)	Depth (ft)	Velocity (60% Depth)	Vel 20% Depth	ocity- 80% Depth	Average Velocity (ft/sec)	Area (ft ² )	Discharge (Q, ft ³ /sec)
0, (left side)								
		<del></del>		:				
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		the second secon	n (he Messah Mersahammish Kus Maddacaraa	anta daga ji Mahimpi Manguna Mijaya aga yaka ku ya	مر محمد کارو محمد کرد. از محمد کارو کرد. او محمد م		·	
		Lucess (Sell	Mater W	B 7/1	2/01			
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iient:	C	RWD		Site	e Location:	5SW	Ø3	
Project No.:				Site D	escription:	Swartout	-Lk In	let from Albio
Date:	4/(B/1	17				60:		<u></u>
Sampler(s):	WB.A	K,		Sam	oles Taken:		<b>`</b>	
Start Time:	11:15			-	nple Time:	1110	0	,
End Time:	11:25	5						
Channel Conditions:	flowin			DTW Me	asurement:	0,30	$\mathbb{C}$	
COC Number:		)				Tans: 9		
		<u> </u>			6	Notes:		
	]	Field Parameters					-Water	is clear
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	<b>D.O.</b> (mg/l)	pH	(S.U.)			
	2.32	369	8.42	7.8	3			
					<u></u>		_	
Stage H	t:		Rated Flow	*		Gauged Flow	<u>0.33</u>	39 cfs
		S	tream Gau	ging Data				
	and the second sec			1			1	]
Distance from		Douth (ft)	Velocity	Velo		Average	$A = (\theta^2)$	Discharge
Distance from Initial Point (ft)	Width (ft)	Depth (ft)	Velocity (60% Depth)	Velo 20% Depth	city 80% Depth	A verage Velocity (ft/sec)	Area (ft ² )	Discharge (Q, ft ³ /sec)
Initial Point (ft)	Width (ft)	Depth (ft)	(60%	20%	80%	Velocity	Area (ft ² )	- 1
	Width (ft)	Depth (ft)	(60%	20%	80%	Velocity	Area (ft ² )	- 1
Initial Point (ft)	Width (ft)	Depth (ft)	(60%	20%	80%	Velocity	Area (ft ² )	- 1
Initial Point (ft)	Width (ft)	Depth (ft)	(60%	20%	80%	Velocity	Area (ft ² )	- 1
Initial Point (ft)	Width (ft)	Depth (ft)	(60%	20%	80%	Velocity	Area (ft ² )	- 1
Initial Point (ft)	Width (ft)	Depth (ft)	(60%	20%	80%	Velocity	Area (ft ² )	- 1
Initial Point (ft)	Width (ft)	Tiana Set:	(60% Depth)	20% Depth	80% Depth	Velocity	Area (ft ² )	- 1
Initial Point (ft)	Width (ft)		(60% Depth)	20% Depth	80% Depth	Velocity	Area (ft ² )	- 1
Initial Point (ft)	Width (ft)	Ficia Set: Lencial tex	(60% Depth)	20% Depth	80% Depth	Velocity	Area (ft ² )	- 1
Initial Point (ft)	Width (ft)	Ficia Set: Lencial tex	(60% Depth)	20% Depth	80% Depth	Velocity	Area (ft ² )	- 1
Initial Point (ft)	Width (ft)	Ficia Set: Lencial tex	(60% Depth)	20% Depth	80% Depth	Velocity	Area (ft ² )	- 1
Initial Point (ft)	Width (ft)	Ficia Set: Lencial tex	(60% Depth)	20% Depth	80% Depth	Velocity	Area (ft ² )	- 1
Initial Point (ft)	Width (ft)	Ficia Set: Lencial tex	(60% Depth)	20% Depth	80% Depth	Velocity	Area (ft ² )	- 1

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Client:	(	CRWD	_	Si	te Location:	SSWO	3	
Project No.:	00	)02-107	_	Site	Description:	2° colum	+15-	15 st.
Date:	5.17.07		_			SLNng		
Sampler(s):	Nic		_	Sam		Ye	-	
Start Time:	10:20	<del></del> .	-	Sa	imple Time:	10:30	· · · · ·	
End Time:	10:30		-					
Channel Conditions:	flow	- 107 M ( 1	, -	DTW M	easurement:	0.39		
COC Number:			_		chemby	- 207		
						Notes	clam	9-10-1
		Field Parameters					floury	and
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	<b>D.O.</b> (mg/l)	) pH	(S.U.)	ł	laire.	
	11.37	447	7.33	7.48	5			
Stage H	t:		Rated Flow	·		Gauged Flov	676	<u>F</u>
	x							
		S	stream Gau	ging Data				
Distance from			Velocity	Velc 20%	ocity 80%	Average		Discharge
Initial Point (ft)	Width (ft)	Depth (ft)	(60% Depth)	Depth	Depth	Velocity (ft/sec)	Area (ft ² )	(Q, ft ³ /sec)
0, (left side)	-							
		······································		<u>13</u>				
				<u> </u>				
·····								
		Data Sett						
				AB 7	112/07	2004-00/75		
			<u> </u>					
		Aligner fragerikeren. Nei der Literature			a - car a gan da san gira ya ka <b>san a</b> lan a			
			·	· · · · · · · · · · · · · · · · · · ·				
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				<u>.</u>				
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Client:		CRWD	_	Si	te Location	55403	3	
Project No.:	0	002-107	-	Site	Description	Swartark	Zulet -1	Albin orret
Date:	6.4.07	• 	-			Sung 72		
Sampler(s):	NIC		_	Sam				
Start Time:	1025		-	Sa	ample Time:	10 45		
End Time:	1045		-					
End Time: Channel Conditions:	Clowy		-	DTW M	easurement:	0.61		
COC Number:		·····	-		90t	Notes:	50 K	auto art
		Field Parameters					Dressed	Dulenier
Sample I.D.	T	Cond. (mS/cm)	<b>D.O.</b> (mg/l	) pH	(S.U.)			·
	16.00		8.54	7.4				
Stage H	t:		Rated Flow			Gauged Flow	<u>1.035</u> 2	<u>f</u>
Distance from Initial Point (ft)	Width (ft)	Depth (ft)	Velocity (60% Depth)	Velo 20% Depth	ocity 80% Depth	Average Velocity (ft/sec)	Area (ft ² )	Discharge (Q, ft ³ /sec)
0, (left side)								
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			1948 marine and any sector of the same	e Marine and the state				
			Uniter	VB 7	112107			
		The Alt In						
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Client:	(	CRWD	-	S	ne Location	: <u>&lt;</u> swa3		· · ·
Project No.:	00	002-107	-	Site	Description	•	····	
Date:	6 18.0	7-	_		Weather	: Ran	700	
Sampler(s):	NC		_	San	nples Taken	:	3 No	)
Start Time:	1035			S	ample Time	: 10 40		
End Time:	1050		_					
Channel Conditions:	-flow.mi	2	-	DTW M	[easurement	: <u>D.91</u>		
COC Number:			_		C	-90+		
						Notes	Law F	law, sam
		Field Parameters						
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	D.O. (mg/l	) pH	(S.U.)			duct weed
	23.02	641	5,32	7.9	<u> </u>			
								÷.
		S	stream Gau					
Distance from Initial Point (ft)	Width (ft)	S Depth (ft)	Velocity (60% Depth)		ocity- 80% Depth	Average Velocity (ft/sec)	Area (ft ² )	Discharge (Q, ft ³ /sec)
	Width (ft)		Velocity (60%	Velo 20%	ocity- 80%	Velocity	Area (ft ² )	
Initial Point (ft)	Width (ft)		Velocity (60%	Velo 20%	ocity- 80%	Velocity	Area (ft ² )	
Initial Point (ft)	Width (ft)	Depth (ft)	Velocity (60%	Velo 20%	ocity- 80%	Velocity	Area (ft ² )	
Initial Point (ft)	Width (ft)		Velocity (60% Depth)	Velo 20% Depth	ocity- 80%	Velocity	Area (ft ² )	
Initial Point (ft)	Width (ft)	Depth (ft)	Velocity (60% Depth)	Velo 20% Depth	Depth	Velocity	Area (ft ² )	
Initial Point (ft)	Width (ft)	Depth (ft)	Velocity (60% Depth)	Velo 20% Depth	Depth	Velocity	Area (ft ² )	
Initial Point (ft)	Width (ft)	Depth (ft)	Velocity (60% Depth)	Velo 20% Depth	Depth	Velocity	Area (ft ² )	Discharge (Q, ft ³ /sec)
Initial Point (ft)	Width (ft)	Depth (ft)	Velocity (60% Depth)	Velo 20% Depth	Depth	Velocity	Area (ft ² )	-

lient:	CRWD		Site Location: 58W02					
Project No.:				Site D	escription:	Swarto	nt In le	+5 <u>F</u>
Date:	4/18/07				Weather:	SUNNY 6	000	
Sampler(s):				Samp	oles Taken:	<u></u>	No	· · · · · · · · · · · · · · · · · · ·
Start Time:	10:5	3 5	Samples Taken: Sample Time:			<u> </u>	0	
End Time:	11:10							
Channel Conditions:		Blowly		DTW Me	asurement:	1.13		
COC Number:	J				Fr	anspar	ncy: 90	D+
						Notes:	- Water	~ is
	]	Field Parameters		<u> </u>		GNGPAR Notes:	clea	ir
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	<b>D.O.</b> (mg/l)	pH	(S.U.)			
	7.13	687	11.79	7.6	9			
Stage H	t:		Rated Flow			Gauged Flow	.0.73	3cfs
Distance from Initial Point (ft)	Width (ft)	Depth (ft)	Velocity (60% Depth)	Velo 20% Depth	city 80% Depth	Average Velocity (ft/sec)	Area (ft ² )	Discharge (Q, ft ³ /sec)
0, (left side)			1		Y			
	· · · ·				1			
		n herrin	ະດານມານການການນີ້ຄຳ 64% "			5 25 pt - 12 		
		Red Mary Prod	W	67	12-10			
		276 a						
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## Field Form: 2007 Stream Sampling

Llient:	(	CRWD	Site Location: SSUCZ					
Project No.:	00	002-107	-	Site	Description:	CH 6		
Date:	5.17.0	7	-		Weather:	Junio (	650	
Sampler(s):	NIS		-	San	nples Taken:	Junio (Yeš	<u>No</u>	
Start Time:	12:25		_	S	ample Time:	Leig 5		
End Time:	15 - C	2:55	_					
Channel Conditions:						0.51		
COC Number:			-	C	play: E	97-		
				~	- R	Notes:	Very SI	inu,
		Field Parameters					¥	
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	<b>D.O.</b> (mg/l		(S.U.)			
	1384	714	6.4Ft	7.	4.5		·····	
	·							
Stage H	t:		Rated Flow	': <u> </u>	<u>.</u> _	Gauged Flow	r: <u>0- 659</u>	E chy
·		5	Stream Gau	ging Data	n			
Distance from	Width (ft)	Denth (ft)	Velocity		ocity 80%	Average	$A_{\rm max}(\Phi^2)$	Discharge
Distance from Initial Point (ft)	Width (ft)	Depth (ft)	Velocity (60% Depth)	Vel 20% Depth	ocity 80% Depth	Average Velocity (ft/sec)	Area (ft ² )	Discharge (Q, ft ³ /sec)
Initial Point (ft)	Width (ft)	Depth (ft)	(60%	20%	80%	Velocity	Area (ft ² )	-
14	Width (ft)	Depth (ft)	(60%	20%	80%	Velocity	Area (ft ² )	-
Initial Point (ft)	Width (ft)	Depth (ft)	(60%	20%	80%	Velocity	Area (ft ² )	-
Initial Point (ft)	Width (ft)	Depth (ft)	(60%	20%	80%	Velocity	Area (ft ² )	-
Initial Point (ft)	Width (ft)	Depth (ft)	(60%	20%	80%	Velocity	Area (ft ² )	-
Initial Point (ft)	Width (ft)	Dura Ser:	(60% Depth)	20% Depth	80% Depth	Velocity	Area (ft ² )	-
Initial Point (ft)	Width (ft)	Dura Ser:	(60% Depth)	20% Depth	80% Depth	Velocity	Area (ft ² )	-
Initial Point (ft)	Width (ft)	Data Set: Enterted 89/	(60% Depth)	20% Depth	80% Depth	Velocity	Area (ft ² )	-
Initial Point (ft)	Width (ft)	Dura Ser:	(60% Depth)	20% Depth	80% Depth	Velocity	Area (ft ² )	-
Initial Point (ft)	Width (ft)	Data Set: Enterted 89/	(60% Depth)	20% Depth	80% Depth	Velocity	Area (ft ² )	-
Initial Point (ft)	Width (ft)	Data Set: Enterted 89/	(60% Depth)	20% Depth	80% Depth	Velocity	Area (ft ² )	-
Initial Point (ft)	Width (ft)	Data Set: Enterted 89/	(60% Depth)	20% Depth	80% Depth	Velocity	Area (ft ² )	-
Initial Point (ft)	Width (ft)	Data Set: Enterted 89/	(60% Depth)	20% Depth	80% Depth	Velocity	Area (ft ² )	-

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Client:	(	CRWD	-	Si	te Location:	<u></u>	<u> </u>		
Project No.:	0(	002-107	_	Site I	Description	·			
Date:	6.4.07	~	_		Weather:	Surg	73		
Sampler(s):	NIC		-	Sam	ples Taken:	Y	Yes No		
Start Time:	/000	······	_	Sa	mple Time:	1010			
End Time:			_						
Channel Conditions:	-	<b>F</b>		DTW M	easurement:	1.28			
COC Number:		<i>N</i>	_		c-70				
			-			Notes:	ver slo	لم	
		Field Parameters					ican -	Lulz Lulz	
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	<b>D.O.</b> (mg/l	) pH	(S.U.)		of out	Verge	
	17.73	678	6.78	7.4	12				
Land The second second to second the second s	n n sent ,	*****	<u> </u>	<u> </u>					
Stage H	t:		Rated Flow	:		Gauged Flow	1.1. cf	5	
						-		-	
		S	stream Gau	ging Data					
Distance from			Velocity	Velo		Average		Discharge	
Initial Point (ft)	Width (ft)	Depth (ft)	(60% Depth)	20% Depth	80% Depth	Velocity (ft/sec)	Area (ft ² )	(Q, ft ³ /sec)	
0, (left side)					<u> </u>				
		<u> </u>							
		t da Ser		 	, <u>, , , , , , , , , , , , , , , , , , </u>				
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		ter (enstel dørb	line in vvv	Dansandu	10101	Mara .			
		5 1 6 21 W - 1	9.9.4.4.4 						
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Client:	(	CRWD	Site Location: 35427					
Project No.:	0	002-107	-	Site	Description	• • •		
Date:	6.18.	07-	_		Weather	: Clocky	- Park	75
Sampler(s):	NIC	·	-	San	ples Taken	. <u>V</u> e	s) No	)
Start Time:	1020		-	Sa	ample Time	1020		····
End Time:	1035		-					•, •, •, ·, ·, ·, ·, ·, ·, ·, ·, ·, ·, ·, ·, ·,
Channel Conditions:	flowing	1	DTW Measurement: 1.20					
COC Number:	<u></u>		*		C- B			
						Notes:	lock 1	K Sutty
		Field Parameters	I				water	<u>, loto o f</u>
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	<b>D.O.</b> (mg/l]	) pH	(S.U.)		durt u	real.
- 	23.51	452	3.09	8.01	<u>Z</u>			
Stage Ht	;		Rated Flow tream Gau			Gauged Flow	т <u>. О.124</u>	. <u> </u>
Distance from Initial Point (ft)	Width (ft)	Depth (ft)	Velocity (60% Depth)	Velc 20% Depth	ocity~ 80% Depth	Average Velocity (ft/sec)	Area (ft ² )	Discharge (Q, ft ³ /sec)
0, (left side)								
		tua Ser. ".	المعلم معالم المعالي المعالي المعالم المعالي المعالي المعالي المعالي المعالي المعالي المعالي المعالي المعالي ا معالي المعالي ال	م در ۱۰۰۰ است. ۱۹۹۰ میروند میرو امور در ۲۰۰۰	- - 1994-1994 - Malant M. (1995) - 1995 - 1994 - 1994 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1995 - 1	** I:		
		Second Sec	Date: IN	1B7	112/0-	7		
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ient:	C	RWD	_	Sit	e Location:	SSU	Ø		
Project No.:	<u> </u>		_	Site I	Description:	Swarto	ut Lake	e Outlet	
Date:	4/18/	07			Weather:	50°,	Sunny	Ç.	
Sampler(s):	420	NIC	-	Sam		Yes	<u> </u>		
Start Time:	10:30		-	Sa	- mple Time:	10	:35		
End Time:			-						
Channel Conditions:	here f	lawing over	upir	DTW M	easurement:	45:3.	72	*%	of Market
COC Number;	<u></u>	<u>raing obs</u>	, ,			us: 3: ds:6.2	55		<i></i>
eoe namoer.	<u>,</u>	<u> </u>	-			Notes:	-Water	- 15	
Martin Contraction of		Field Parameters	<u></u>	·····	<u></u>		brown	n color	~
Sample I.D.		Cond. (mS/cm)	D.O. (mg/l)	) pH	(S.U.)	-	-very hi	9.5 cm	
	9,81	323	15.28		,9	Transp	arency:	9.5 cm	
							/		
Stage F	It:		Rated Flow	:		Gauged Flow	: <u>3.06</u>	0	
01050									
		S	Stream Gau	ging Data	L				
Distance from			Velocity	Vel 20%	ocity 80%	Average		Discharge	
Initial Point (ft)	Width (ft)	Depth (ft)	(60%) Depth)	Depth	Depth	Velocity (ft/sec)	Area (ft ² )	(Q, ft ³ /sec)	
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				<u> </u>			<u> </u>		<u>l</u> i

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Client:	CRWD		Site Location: <u>55001</u>						
Project No.:	00	)02-107	-	Site	Description:	CHG			
Date:	5.17.0	57	_		Weather:	Survey (	650		
Sampler(s):				Sam					
Start Time:				Sa	ample Time:	1133			
End Time:		1999-1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1				Clarity:	52		
Channel Conditions:				DTW M	leasurement:	3. 2.5	6.7	19	
COC Number:						l = Ki	G.79 Stream		
						Notes: Lisolical up			
		Field Parameters					Canone	n Lorkey	
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	<b>D.O.</b> (mg/l)	) pH	(S.U.)		Sectionant	Is aleas	
	17.27	346	10:29 8.54		1		· · · · · · · · · · · · · · · · · · ·		
Stage H	it:		Rated Flow	/:	1	Gauged Flow	,: 0.57	- 2 0 4 5	
						ų.		/	
		5	Stream Gau	ging Data	a				
Distance from Initial Point (ft)	Width (ft)	Depth (ft)	Velocity (60%	20%	ocity 80% Depth	Average Velocity	Area (ft ² )	Discharge (Q, ft ³ /sec)	
			Depth)	Depth	Берш	(ft/sec)			
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		Enclosed By	Date: M	1 <u>Б</u>	<u> [[]]]</u>	<u>p7</u>			
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Client:	(	CRWD	Site Location:			SSWOL			
Project No.:	0	002-107	_	Site Description:				<u></u>	
Date:	6-4.07		-		Weather	- Samp	700		
Sampler(s):	NIC	· · · · · · · · · · · · · · · · · · ·	_	Sar	nples Taken:		No No		
Start Time:	0950		-	Sample Time:					
End Time:			_						
Channel Conditions:	QRY -	vo flow	_	DTW M	leasurement:	DRY			
COC Number:			_		, e	5			
							DRY -	No flori	
		Field Parameters							
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	<b>D.O.</b> (mg/l)	) pH	I (S.U.)				
						-DRY			
				· · · · · · · · · · · · · · · · · · ·					
Stage H	t:		Rated Flow	<b>'</b> :		Gauged Flow	•		
v		Angele and an and an and an and an				0			
		S	Stream Gau	ging Data	ı				
Distance from			Velocity		ocity	Average		Discharge	
Initial Point (ft)	Width (ft)	Depth (ft)	(60% Depth)	20% Depth	80% Depth	Velocity	Area (ft ² )	$(Q, ft^3/sec)$	
						(ft/sec)			
0, (left side)		· · · · · · · · · · · · · · · · ·							
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			Altrades M	<u></u>	7/12/	<u>11</u>			
		s in provide	1255 - C	1	•				
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#### Field Form: 2007 Stream Sampling

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ient:	С	RWD		Sit	e Location:	SCEO	13	
Project No.:	0002-	108		Site D	Description:	SWC	edar Lk	Inlet
Date:		)7	-		Weather:	50°, 5	HANY	
Sampler(s):		NC		Sam		Yes		·
Start Time:	10:10	1.0	•	Sa	mple Time:	10:15	7	
			-			<u>_</u>		
End Time:	11 Intan f	lowing through	.h. r. hart	DTW Me	essurement:	2.10		
Channel Conditions:	Warg	lewing this	un calver		T	(ans: 90	)+	
COC Number:	. <u></u>		-		1			f de
					<u> </u>		-gauge	
		Field Parameters		-11	(811)		UTTE	nre
Sample I.D.		Cond. (mS/cm)	B.O.		(S.U.)		· · ·	
	131	281	<u>D.U.</u>	1.0	2		·	
							117	)
Stage H	[t:		Rated Flow			Gauged Flow		
		S	Stream Gau	ging Data				
			Velocity	Velo	ocity			Distant
Distance from Initial Point (ft)	Width (ft)	Depth (ft)	(60%) Depth)	20% Depth	80% Depth	A verage Velocity	Area $(ft^2)$	Discharge (Q, ft ³ /sec)
						(ft/sec)		
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lient:	(	CRWD	Site Location: SCE03					
Project No.:	00	002-107	-	Site	Description	Frelin !!	Ave at a	citizent
Date:	5.17.0	5	-		Weather	Sunny	70°	
Sampler(s):	NIC		-	Sam	nples Taken	Yes	No	
Start Time:	<u>948</u>		-	Sa	ample Time:	10:10		
End Time:	10:15		-			<u></u>		
Channel Conditions:			DTW Measurement: 2.18					
COC Number:	<u> </u>		_		clast.			
						Notes:	Slor,	<u>lcik</u> с. улт.
		Field Parameters				-	0f <19	cc gain
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	<b>D.O.</b> (mg/l)	) pH	(S.U.)		<u>- 2 6m</u>	<u>()</u>
	11.79	754	5-43	1.50				
Stage H	t:		Rated Flow			Gauged Flow	r <u>0,73</u>	<u>l efs</u>
Distance from			Velocity		ocity	Average		Discharge
Initial Point (ft)	Width (ft)	Depth (ft)	(60% Depth)	20% Depth	80% Depth	Velocity (ft/sec)	Area (ft ² )	(Q, ft ³ /sec)
0, (left side)								
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			1. 1977 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 199 		- Jungara - Land & State and Analysis	f maines		
		the state of the	<u> </u>	B ]	7/12/1	12		

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#### Field Form: 2007 Stream Sampling

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Client:		CRWD	Site Location:			56523		
Project No.:	00	)02-107	-	Site		:		
Date:	6.4.07		-		Weather	: Sur 60	-ò	
Sampler(s):			_	San	ıples Taken	:	No	
Start Time:			_			0930		
End Time:	0940		_			09	_	
Channel Conditions:				DTW M	easurement	2.05		
COC Number:		qot			5			
F								
		Field Parameters	<b>n</b>					
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	D.O. (mg/l]	) pH	(S.U.)			
	14.39	620	4.42 752					
Stage H	t:		Rated Flow			Gauged Flow	1.28 e	<u>P</u>
		_						
[ <del>]</del>	1	<u> </u>	Stream Gau			1	1	
Distance from	Width (ft)	Depth (ft)	Velocity (60%	20%	ocity 80%	Average	Area (ft ² )	Discharge
Initial Point (ft)	friddi (11)	D (p (1))	Depth)	Depth	Depth	Velocity (ft/sec)		(Q, ft ³ /sec)
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## Field Form: 2007 Stream Sampling

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	CRWD		Site Location: SCE=3					
Project No.:	0	002-107	_	Site	Description	1:		
Date:	6.18.07	۰ ۱	_		Weather	r: <u>Cloudy</u>	750	
Sampler(s):	NIL		_	Sar	nples Taker	1: <del>27</del> 6	is No	)
Start Time:								· · · · · · · · · · · · · · · · · · ·
End Time:	0950		-			11:15		
Channel Conditions:	flowing	<u>.</u>	~	DTW M	leasurement	2.26		
COC Number:		·	-		C-71			
-						Notes		
		Field Parameters	p				<u> </u>	A- celo el
Sample I.D.	Temp. ( ⁰ C)	James and the second	· · · · · · · · · · · · · · · · · · ·	- free sector - secto	(S.U.)		<u> </u>	H CELO EN
	20.62	003	- Cody	77:	~ [ <u>~</u>		· · · · · · · · · · · · · · · · · · ·	
Stage H	[t:		Rated Flov tream Gau			Gauged Flov	V: <u> </u>	<u>.</u>
Distance from			Velocity		ocity-	Average		Discharge
Initial Point (ft)	Width (ft)	Depth (ft)	(60% Depth)	20% Depth	80% Depth	Velocity (ft/sec)	Area (ft ² )	(Q, ft ³ /sec)
	Width (ft)	Depth (ft)	,	1	4	Velocity	Area (ft ² )	- 1
Initial Point (ft)	Width (ft)	Depth (ft)	,	1	4	Velocity	Area (ft ² )	- 1
Initial Point (ft)	Width (ft)	Depth (ft)	,	1	4	Velocity	Area (ft ² )	- 1
Initial Point (ft)	Width (ft)	Depth (ft)	,	1	4	Velocity	Area (ft ² )	- 1
Initial Point (ft)	Width (ft)	Depth (ft)	,	1	4	Velocity	Area (ft ² )	- 1
Initial Point (ft)	Width (ft)	Depth (ft)	,	1	4	Velocity	Area (ft ² )	- 1
Initial Point (ft)	Width (ft)		Depth)	Depth	Depth	Velocity	Area (ft ² )	- 1
Initial Point (ft)	Width (ft)		Depth)	Depth	Depth	Velocity	Area (ft ² )	- 1
Initial Point (ft)	Width (ft)	Lacaret isy	Depth)	Depth	Depth	Velocity	Area (ft ² )	- 1
Initial Point (ft)	Width (ft)	Lacaret isy	Depth)	Depth	Depth	Velocity	Area (ft ² )	- 1
Initial Point (ft)	Width (ft)	Lacaret isy	Depth)	Depth	Depth	Velocity	Area (ft ² )	- 1
Initial Point (ft)	Width (ft)	Lacaren 1877	Depth)	Depth	Depth	Velocity	Area (ft ² )	- 1
Initial Point (ft)	Width (ft)	Lacaren 1877	Depth)	Depth	Depth	Velocity	Area (ft ² )	- 1

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ent: Project No.: Date: Sampler(s): Start Time: End Time: Channel Conditions: COC Number:	4/18, W.B. N 9:45 10:00	rwD 107 1C ng over wir	-	Site Do Samp Sam	Location: _ escription: _ Weather: _ les Taken: _ nple Time: _ asurement: _	Cedar 50'i Yes 9150 ds: 6, Man	Sunny ) No 33 8:907	atlet eyes in
	F	ield Parameters					strea	;m
Sample I.D.	Temp. ( ⁰ C)	Cond. (#S/em)	<b>D.O.</b> (mg/l)	рН (	S.U.)		****	
	6.83	388	12.87	8. 3	37			
Stage H	t:		Rated Flow tream Gaug			Gauged Flow	/0.87	
Distance from Initial Point (ft)	Width (ft)	Depth (ft)	Velocity (60% Depth)	20% Depth	80% Depth	Average Velocity (ft/sec)	Area (ft ² )	Discharge (Q, ft ³ /sec)
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lient:	CRWD Site Location:			SCEOI				
Project No.:	0002-107		Site Description: 11:14 C-lue / E-1 Le					
Date:	5. 17.07	•	Weather: Sund 600					
Sampler(s):	IVIC							
Start Time:	9:00							
Channel Conditions:				DTW Me	easurement:	6.79		
COC Number:	<b>.</b>		_	Clarty	· 90+			د
						Notes:	Clean	5 low
	]	Field Parameters	-					-
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	<b>D.O.</b> (mg/l)	pH	(S.U.)			
	15.97	\$33	j1.02	5.5	3			
	<u>, , , , , , , , , , , , , , , , , , , </u>							
Stage H	t:		Rated Flow	•		Gauged Flow	33.	6
		S	stream Gau	ging Data				
Distance from			Velocity	Velo 20%	ocity 80%	Average	4 (C ² )	Discharge
Initial Point (ft)	Width (ft)	Depth (ft)	(60% Depth)	Depth	Depth	Velocity (ft/sec)	Area (ft ² )	(Q, ft ³ /sec)
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			Data S	a a a a a a a a a a a a a a a a a a a	ىمۇلىدىنى ئىسۇرىمۇن ۋار يۇرىيىتىن	маро — Словично Полого и и и и и и и и и и и и и и и и и и	na mara	
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Client:	CRWD		Site Location: SCEO 1						
Project No.:	0002-107		Site Description: ade lake a net land						
Date:	4.4.07		Weather: <u>Sung (00 °</u>						
Sampler(s):	NIC		N N						
Start Time:									
End Time:	0915	······				·····			
Channel Conditions:		<u>{-</u>		DTW Me	easurement:	<u></u> (e)			
COC Number:		N	-	cler	907				
				<u> </u>		Notes:	Secont	rain so	
		Field Parameters	<b>r</b>					ــــــــــــــــــــــــــــــــــــــ	
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	<b>D.O.</b> (mg/l)	pH	(S.U.)				
	19.70	404	8.38	8.3	1		<del></del>		
Stage H	t:		Rated Flow			Gauged Flow	r: <u>4.31</u> e	45	
		S	tream Gau			*	······································		
Distance from			Velocity	Velo	city			<b>T</b> . 1	
Initial Point (ft)	Width (ft)	Depth (ft)	(60% Depth)	20% Depth	80% Depth	Average Velocity (ft/sec)	Area (ft ² )	Discharge (Q, ft ³ /sec)	
	Width (ft)	Depth (ft)	(60%		80%	Velocity	Area (ft ² )	- 1	
Initial Point (ft)	Width (ft)	Depth (ft)	(60%		80%	Velocity	Area (ft ² )	- 1	
Initial Point (ft)	Width (ft)	Depth (ft)	(60%		80%	Velocity	Area (ft ² )	- 1	
Initial Point (ft)	Width (ft)	Depth (ft)	(60%		80%	Velocity	Area (ft ² )	- 1	
Initial Point (ft)	Width (ft)	Depth (ft)	(60% Depth)	Depth	80%	Velocity	Area (ft ² )	- 1	
Initial Point (ft)	Width (ft)	Depth (ft)	(60% Depth)	Depth	80% Depth	Velocity (ft/sec)		- 1	
Initial Point (ft)	Width (ft)	Depth (ft)	(60% Depth)	Depth	80% Depth	Velocity		- 1	
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Client:	CRWD			Site Location	SCEO (			
Project No.:	0	002-107		Site Description				
Date:	6.18.0	7		Weathe	r: clarely 75°			
Sampler(s):	NIC	·····	_		n: Yes No			
Start Time:	B:50			Sample Time	e: <u>0910</u>			
End Time:	0920		<u></u>					
Channel Conditions:	Flowing		-	DTW Measurement	t: 7.06			
COC Number:	······		_	C- 85				
-					Notes: 10m flow, Dead			
		Field Parameters			Caro present			
Sample I.D.	Temp. ( ⁰ C)	Cond. (mS/cm)	<b>D.O.</b> (mg/l)	pH (S.U.)				
	24.57	355	5.05	8.03				
Stage Ht:			Rated Flow:		Gauged Flow: C:SO7 cts			
		S	stream Gaug	ing Data				
Distance from			Velocity	Velocity-	Average Discharge			

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Distance from Initial Point (ft)	Width (ft)	Depth (ft)	Velocity (60% Depth)	Velc 20% Depth	ocity- 80% Depth	Average Velocity (ft/sec)	Area (ft ² )	Discharge (Q, ft ³ /sec)
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