

Old Woman Creek (OWC) NERR Site Water Quality Metadata
March through November 2000
Latest Update: March 16, 2001

1. Principal Investigator & contact persons:

Dr. David Klarer, Research Coordinator
E-mail: david.klarer@noaa.gov
Old Woman Creek SNP and NERR
2514 Cleveland Road East
Huron, Ohio 44839
Phone: (419) 433-4601

2. Entry verification:

The data were directly downloaded from the YSI PC6600 data loggers into the YSI Ecowatch for Windows program in the PC. The data were graphed and visually checked for any obvious outliers. Notes are made of any unusual data or faulty probes. The data is then exported as a .csv file into an Excel spreadsheet. The data files were edited to remove headers, footers, and spaces. The CDMO cdmomac3.xls macro was used to QA/QC the data. The macro automatically formatted the column widths to the correct number of decimal places based on YSI sensor specifications. It QA/QC's the data file for missing data points and filled all cells without data with periods. It also compiled a list of all data that fell outside the stated range of the different data logger probes. An explanation for the missing and the deleted data is included in this metadata sheet. The files were then transferred along with the associated metadata by disk to the CDMO. The files are archived at OWC. Dr. David Klarer is responsible for both data logger deployment and data management.

3. Research Objectives:

Measurements are taken every 15 minutes over approximately two-week periods at two sites within the Old Woman Creek estuary- one in the upper reaches at State Route 2 (SU) and the other near the mouth, just south of State Route 6 (WM). The

purpose of this monitoring program is to document the role of this Great Lakes estuary in the Lake Erie ecosystem, particularly the estuary's role in mitigating storm flow that passes through it.

4. Research methods:

The YSI monitoring program began on 1 March 2000 at both sites. Prior to deployment of the data loggers, a 4-inch diameter PVC pipe was bolted to a metal sign post that had been driven into the sediment. Each pipe had 4 rows of holes drilled into it spanning the area of the probe guard on the data logger so that the probes would have direct contact with the surrounding waters. Due to very low Lake Erie water levels, it was necessary to move both the data logger sites prior to deployment in 2000. At site SU the data logger was moved less than .5 meters into a deeper water area on 10 November 1999 and then the trap was subsequently lowered to a depth of 0.077 meters above the bottom. At site WM the data logger was moved less than 1 meter eastward and the trap was also lowered until it was 0.07 meters above the bottom. On 14 June 2000 between 07:30 and 07:45, this trap was subsequently raised .15 meters to try and diminish bottom effects on the turbidity. Dissolved oxygen, pH, temperature, turbidity, depth and specific conductance readings are taken when the instrument is pulled at each site. The data loggers are replaced in the field after a one, two, or three week deployment, depending on temperature and degree of fouling of the data loggers. The data is retrieved from each data logger and each data logger is recalibrated (according to the directions in the YSI Operations Manual) before being returned to the field. Conductivity, pH (2 point calibration), and turbidity (2 point calibration) are calibrated using commercial standards.

5. Site location and character:

Old Woman Creek National Estuarine Research Reserve is located on the southern shore of Lake Erie, slightly east of the city of Huron, Ohio (Latitude 41 22' N; longitude 82 31' W).

The data logger at the State Route 6 (WM) site (Latitude 41 23' 15N, Longitude 82 30' 50"W) is very close to the mouth of Old Woman Creek. In this portion of the Reserve, the creek is very shallow but extends over a large surface area.

This site frequently experiences influx of Lake Erie waters.

The data logger at the State Route 2 (SU) site (Latitude 41 21' 45N, Longitude 82 30' 25"W) is very near the southern boundary of the reserve. This site is in

the upper reaches of the estuary. The data logger is sited near a concrete piling of the eastbound Ohio State Route 2 bridge. At this site the creek is relatively deep and narrow. Although water direction and flow is influenced at this site by changes in Lake Erie water levels, this site doesn't have direct contact with Lake Erie waters.

6. Data collection periods:

Sampling at WM began on March 1, 2000 at 00:00:00. Sampling for 2000 ceased at

WM site on November 30, 2000 at 23:45:00. Sampling at SU began on March 1, 2000

at 00:00:00. Sampling ceased at SU site on November 30, 2000 at 23:45:00.

Sampling did not occur in January, February, or December due to ice. Specific

deployment dates are listed below.

Site WM

Deployed

02/29/00, 13:15:52
03/21/00, 10:30:52
04/11/00, 08:45:52
04/12/00, 10:45:52
04/13/00, 08:30:52

Pulled

03/21/00, 10:00:52
04/11/00, 08:30:52
04/12/00, 10:15:52
04/13/00, 08:15:52
04/25/00, 08:15:52

04/25/00, 08:30:52
05/09/00, 07:45:52
05/23/00, 07:30:52
06/07/00, 07:30:52
06/20/00, 07:45:52
07/05/00, 06:45:52
07/11/00, 06:30:52
07/17/00, 06:45:52
08/01/00, 06:45:52
08/08/00, 06:45:52
08/22/00, 07:00:52
08/29/00, 06:45:52

05/09/00, 07:30:52
05/23/00, 07:15:52
06/07/00, 07:15:52
06/20/00, 07:30:52
07/05/00, 06:30:52
07/11/00, 06:15:52
07/17/00, 06:30:52
08/01/00, 06:00:52
08/08/00, 06:30:52
08/22/00, 06:45:52
08/29/00, 06:30:52
09/11/00, 08:15:52

09/11/00, 08:30:52	09/26/00, 07:30:52
09/26/00, 07:45:52	10/09/00, 08:15:52
10/09/00, 08:45:52	10/30/00, 08:45:52
10/30/00, 09:00:52	11/21/00, 08:45:52
11/21/00, 09:00:52	12/12/00, 16:45:52

Site SU

Deployed

02/29/00, 14:00:52
 03/21/00, 16:00:52
 04/11/00, 07:00:52
 04/12/00, 11:00:52
 04/25/00, 08:15:52
 05/09/00, 07:15:52
 05/23/00, 07:00:52
 06/07/00, 08:00:52
 06/20/00, 07:30:52
 07/05/00, 06:30:52
 07/11/00, 06:15:52
 07/17/00, 06:15:52
 08/01/00, 06:30:52
 08/08/00, 06:30:52
 08/22/00, 06:30:52
 08/29/00, 06:30:52
 09/11/00, 08:00:52
 09/26/00, 07:15:52
 10/09/00, 07:30:52
 10/30/00, 08:45:52
 11/21/00, 08:30:52

Pulled

03/21/00, 10:45:52
 04/11/00, 06:45:52
 04/12/00, 10:45:52
 04/25/00, 08:00:52
 05/09/00, 07:00:52
 05/23/00, 06:45:52
 06/07/00, 07:45:52
 06/20/00, 07:00:52
 07/05/00, 06:15:52
 07/11/00, 06:00:52
 07/17/00, 06:00:52
 08/01/00, 06:30:52
 08/08/00, 06:15:52
 08/22/00, 06:15:52
 08/29/00, 06:15:52
 09/11/00, 07:45:52
 09/26/00, 07:00:52
 10/09/00, 07:00:52
 10/30/00, 08:30:52
 11/21/00, 08:15:52
 12/04/00, 13:15:52

7. Distribution

NOAA/ERD retains the right to analyze, synthesize, and publish summaries of the NERRS System-wide Monitoring Program data. The OWC Research Coordinator (RC) retains the right to be fully credited for having collected and processed the data. Following academic courtesy standard, the RC and the NERR site where the data were collected will be contacted and fully acknowledged in any subsequent publications in which any part of the data are used.

The data set enclosed within this package/transmission is only as good as the quality assurance and quality control procedures outlined in the enclosed metadata reporting statement. The user bears all responsibility for its subsequent use/misuse in any further analyses or comparisons. The Federal government and the State of Ohio do not assume liability to the Recipient or third persons, nor will the Federal government or the State of Ohio reimburse or

indemnify the Recipient for its liability due to any losses resulting in any way from the use of this data.

NERR water quality data and metadata can be obtained from the Research Coordinator at the individual NERR site (please see section 1. Principal investigators and contact persons), from the Data Manager at the Centralized

Data Management Office (please see personnel directory under general information

link on CDMO homepage) an online at the CDMO homepage

<http://inlet.geol.sc.edu/cdmohome.html>. Data are available in text tab-delimited format, Microsoft Excel spreadsheet format and comma-delimited format

from the CDMO.

8. Associated projects: Samples for chemical analysis of the water are collected at each site every time the data loggers are changed. Samples for phytoplankton determination are collected at the same time at sites near the data logger deployment sites.

II. Physical Structure and Descriptors:

9. Sensor specifications, range of measurements, units, resolution, and accuracy:

YSI 6000 datalogger

Variable	Range of Measurements	Resolution	
Accuracy			
Date	1-12, 1-31, 00-99 (Mo,Day,Yr)	1 mo, 1 day, 1 yr	NA
Time	0-24, 0-60, 0-60 (Hr,Min,Sec)	1 hr, 1 min, 1 s	NA
Temp	-5 to 45 (c)	0.01 C	+/-
0.15C			
Sp COND	0-100 (mS/cm)	0.01mS/cm	+/-0.5%
Of			
reading + 0.001mS/Cm			
Salinity	0-70 Parts per thousand (ppt)	0.01 ppt	+/- 1%
of			
Reading or 0.1 ppt, (whichever is greater)			
DO	0-200 (% air saturation)	0.1% @air sat	+/-2%
@air			
Saturation			
DO	200-500 (% air saturation	0.1% @ air sat	+/- 6%
@			
Saturation			
DO	0-20 (mg/l)	0.01 mg/l	+/-
0.2mg/l			
DO	20-50 (mg/l)	0.01 mg/l	+/-
0.6mg/l			

Depth (shallow) 0.018m	0-9.1 (m)	0.001m	+/-
PH 0.2units	2-14 units	0.01 units	+/-
Turb reading	0-1500 NTU	0.1 NTU*	+/- 5% of or 2 NTU (whichever is greater)*

* for turbidity values of 0-1000 NTU

Data columns are separated by tabs. Each file contains a two line column header at the top of the page which identifies measurements and units for each column.

10. Coded variable indicator and variable code definitions:

SU- State Route 2 WM-State Route 6.
File definitions: YSI deployment site/month/year (e.g. SU0800 (State Route 2, August 2000))

11. Data anomalies

March 2000

WM: depth readings were zero or negative due to shallow water and depth probe being above water level. There is no indication from the other readings that any of the other probes were out of the water. The following depth readings were either zero or negative:

03/01/00 (05:00:52-12:30:52, 13:00:52-15:00:52, 16:00:52-22:30:52)
03/02/00 (06:15:52-07:15:52, 07:45:52-08:00:52, 08:30:52-11:00:52, 11:45:52-15:45:52, 21:00:52-23:30:52)
03/03/00 (01:30:52-03:30:52, 10:00:52-17:30:52, 20:15:52-23:30:52)
03/04/00 (00:00:52-00:30:52, 02:30:52-03:30:52; 04:00:52-04:30:52; 09:00:52-18:45:52)
03/05/00 (00:30:52-06:00:52, 06:30:52-08:00:52, 13:30:52-18:15:52)
03/07/00 (01:30:52-04:30:52, 05:00:52-05:45:52, 06:45:52-10:15:52, 12:15:52-21:30:52)
03/08/00 (00:00:52-10:15:52; 10:45:52; 11:15:52-13:30:52; 14:00:52, 14:45:52-16:45:52; 17:15:52-19:45:52, 21:30:52, 23:45:52)
03/09/00 (00:00:52-10:00:52; 13:00:52-22:00:52)
03/10/00 (13:00:52-13:15:52, 14:15:52-14:45:52)
03/12/00 (18:15:52-20:15:52)
03/13/00 (00:00:52-01:45:52; 18:00:52-22:00:52; 22:45:52-23:45:52)

03/14/00 (00:00:52-01:30:52; 02:15:52-03:30:52;04:00:52-04:30:52;
06:00:52-
06:45:52; 07:15:52-07:30:52; 10:00:52; 18:00:52; 19:00:52-19:45:52)
03/15/00 (17:45:52; 19:15:52; 19:45:52;21:00:52-23:00:52;23:45:52)
03/25/00 (07:00:52; 16:30:52-17:15:52; 18:15:52-20:30:52; 22:00:52;
23:00:52)
03/26/00 (06:45:52-12:45:52)
03/27/00 (14:30:52-15:00:52; 16:15:52-16:30:52; 17:00:52-17:45:52)
03/28/00 (22:30:52-23:45:52)
03/29/00 (01:00:52; 07:45:52-14:45:52)

The following turbidity levels were above 1500 NTU:

03/10/00 18:30:52
03/10/00 18:45:52
03/12/00 05:15:52
03/12/00 10:45:52

All data missing 03/01/00 (16:45:52-18:45:52) and (20:15:52-22:00:52) due to natural changes in water level due to wind causing the data logger to be partially or completely out of the water.

All data missing 03/09/00 (18:45:52-21:00:52) due to natural changes in water level due to wind causing the data logger to be partially or completely out of the water.

High specific conductivity and salinity from 03/13/00 (20:45:52) through 03/14/00 (21:15:52) is most likely due to an influx of road salt from the State

Route 6 Bridge that is due north of the site. Data was not deleted.

All data missing 03/29/00 (08:45:52) due to natural changes in water level due to wind causing the data logger to be partially or completely out of the water.

All data were missing on 03/21/00 (10:15:52) because of changing of the datalogger.

DO(%) and DO(mg/L) were deleted 03/26/00 (17:00:52) through 03/29/00 (08:30:52) due to low abnormal oxygen activity in the estuary - cause unknown.

SU: depth readings were zero or negative due to shallow water and depth probe being above water level. There is no indication from the other readings that any of the other probes were out of the water. The following depth readings were either zero or negative:

03/01/00 (00:00:52-19:00:52)
03/03/00 (14:45:52) through 03/06/00 (00:15:52)
03/07/00 (09:30:52) through 03/10/00 (07:00:52)
03/11/00 (03:30:52-19:30:52)
03/24/00 (17:00:52) through 03/31/00 (05:45:52)

All data were missing on 03/21/00 (11:00:52-15:45:52) due to changing the data logger

April 2000

WM: Water levels were zero or negative due to shallow water, indicating that the depth probe was above water level. There is no indication from the other readings that any of the other probes were out of the water. The following water

levels were zero or negative:

04/04/00 (23:00:52-23:30:52)
04/05/00 (02:45:52-03:00:52; 05:45:52-06:45:52; 09:45:52-10:00:52; 11:30:52)
04/06/00 (02:00:52-04:30:52; 06:00:52-07:00:52; 07:45:52; 08:15:52-11:00:52; 11:30:52- 14:30:52; 17:30:52)
04/09/00 (12:30:52-12:45:52)

The following turbidity readings were above 1500 NTU:

04/30/00 (10:30:52; 11:45:52-12:00:52; 16:15:52; 19:30:52-19:45:52; 20:30:52; 22:00:52; 22:30:52)

All data were missing on 4/12/00 (10:30:52) due to changing the data logger.

Salinity and Dissolved oxygen (mg/l) were missing from 04/12/00 (10:45:52)

through 04/13/00 (08:15:52) due to a programming error.

SU: Water levels were zero or negative due to shallow water. Indicating that the depth probe was above water level. There is no indication from the other readings that any of the other probes were out of the water. The following water

levels were zero or negative:

04/01/00 (11:00:52) through 04/04/00 (16:30:52)
04/05/00 (14:00:52) through 05/07/00 (20:15:52)
04/18/00 (18:15:52) through 04/20/00 (07:15:52)
04/26/00 (17:45:52) through 04/30/00 (05:30:52)
04/30/00 (13:00:52-23:45:52)

High turbidity from 04/07/00 (19:00:52) through 04/11/00 (07:00:52) is due to

passing of storm runoff. Data was not deleted.

All data were missing on 04/11/00 (07:15:52-08:15:52) due to changing the data logger.

Salinity and Dissolved oxygen (mg/l) were missing from 04/25/00 (08:15:52) through 04/30/00 (23:45:52) due to a programming error.

May 2000

WM: The following turbidity readings were above 1500 NTU:

05/01/00 (06:30:52; 10:30:52-11:15:52; 12:30:52; 13:30:52-13:45:52; 17:45:52-

18:00:52; 19:15:52; 21:15:52-21:30:52)

05/02/00 (01:15:52; 02:00:52; 03:45:52; 04:15:52; 06:15:52; 06:45:52; 08:00:52;

09:15:52- 09:45:52; 10:15:52; 12:30:52; 13:15:52; 13:45:52; 14:45:52-15:00:52;

15:45:52; 18:30:52; 22:15:52; 23:30:52)

05/03/00 (01:00:52; 11:30:00)

05/09/00 (00:30:52; 02:45:52)

The following turbidity readings were at or just below 0. This may be a result

of incorrect calibration of the zero standard or a contaminated zero standard.

05/23/00 (13:45:52-14:30:52; 15:15:52-15:30:52; 16:00:52-16:30:52; 18:15:52;

18:45:52; 19:15:52-19:45:52; 20:15:52; 21:15:52- 21:30:52; 22:00:52; 23:00:52-23:15:52; 23:45:52)

05/24/00 (00:00:52; 00:45:52; 01:45:52; 02:30:52; 03:15:52-03:30:52; 04:00:52;

05:00:52; 05:30:52-06:00:52; 06:30:52; 07:15:52; 07:30:52; 08:15:52; 09:15:52;

10:00:52; 11:00:52; 11:30:52-12:00:52; 12:30:52; 15:45:52-16:00:52; 16:45:52;

17:30:52; 20:00:52; 20:30:52; 21:15:52; 22:45:52; 23:15:52)

05/25/00 (01:00:52; 02:45:52-03:00:52; 04:15:52-04:30:52; 05:15:52; 06:15:52;

07:00:52; 08:00:52; 11:00:52; 12:00:52; 16:15:52; 17:00:52; 21:45:52)

05/27/00 (09:15:52; 15:00:52; 23:45:52)

05/28/00 (03:45:52; 06:00:52; 07:45:52; 12:00:52; 13:15:52-13:30:52)

05/29/00 (01:15:52; 11:45:52; 13:00:52; 14:15:52; 17:30:52-17:45:52; 19:00:52;

20:45:52; 21:30:52; 22:15:52-22:30:52; 23:00:52; 23:45:52)

05/30/00 (01:15:52-01:30:52; 02:00:52-02:15:52; 03:00:52; 03:45:52; 04:15:52-

04:30:52; 05:15:52; 05:45:52; 06:30:52; 07:00:52; 07:15:52; 09:30:52; 10:00:52-

10:15:52; 11:45:52-12:15:52; 12:45:52; 13:45:52; 14:15:52; 14:45:52; 15:15:52;

15:45:52; 16:15:52-16:45:52; 17:15:52; 18:00:52; 18:45:52; 19:15:52-19:30:52;

20:00:52; 21:15:52; 22:00:52; 22:45:52-23:15:52; 23:45:52)

05/31/00 (00:15:52; 00:45:52; 01:15:52-01:45:52; 02:15:52; 03:00:52;
04:45:52;
05:15:52; 06:00:52; 06:45:52; 07:15:52; 07:30:52)
All turbidity readings from 05/09/00 (07:45:52) through 05/23/00
(07:15:52) were
suspect since the probe could not be calibrated at the end of the
deployment.
This data was deleted.
All data are missing 05/25/00 (07:45:52-08:00:52) due to data logger
being out
of water - cause unknown.
High turbidity readings throughout the entire month due to biological
activity
(carp) in the estuary. Data was not deleted.

SU: Water levels were zero or negative due to shallow water, indicating
that the
depth probe was above water level. There is no indication from the other
readings that any of the other probes were out of the water. The
following water
levels were zero or negative:
05/01/00 (00:00:52-17:30:52)
05/06/00 (07:30:52-13:15:52)
05/06/00 (14:30:52) through 05/09/00 (21:45:52)
05/12/00 (09:15:52-13:45:52; 22:00:52-23:45:52)
05/13/00 (00:00:52-06:00:52; 09:15:52-09:45:52)
05/13/00 (10:15:52) through 05/14/00 (04:00:52)
05/14/00 (04:30:52-21:15:52)
05/15/00 (03:15:52) through 05/16/00 (20:00:52)
05/16/00 (21:00:52) through 05/17/00 (04:30:52)
05/17/00 (06:00:52) through 05/18/00 (16:00:52)
05/25/00 (09:30:52-12:15:52)

Salinity and Dissolved oxygen (mg/l) were missing from 05/01/00
(00:00:52)
through 05/09/00 (07:00:52) due to a programming error.
High turbidity readings on 05/02/00 13:15:52, 19:15:52, 21:00:52; 05/03/00
14:15:52; 05/04/00 14:45:52; and 05/10/00 12:45:52 due to biological
activity
(carp) in the estuary. Data was not deleted.

June 2000

WM: The following turbidity readings were above 1500 NTU:
06/01/00 (13:45:52; 05:15:52-05:30:52)
06/07/00 (08:00:52-09:00:52; 09:45:52; 10:45:52; 11:00:52; 11:30:52;
12:00:52;
12:45:52)
06/08/00 (04:45:52)
The following turbidity readings were at or just below 0. This may be a
result

of incorrect calibration of the zero standard or a contaminated zero standard.

06/07/00 (07:30:52; 15:45:52; 16:15:52; 16:45:52; 18:45:52; 19:15:52; 20:45:52;

22:15:52-22:45:52)

06/08/00 (01:00:52; 03:15:52-03:30:52; 06:30:52; 06:45:52; 07:15:52; 07:45:52;

08:45:52; 09:00:52; 09:15:52; 10:45:52; 11:00:52; 13:00:52-13:30:52; 15:15:52-

17:15:52; 19:00:52-19:30:52; 21:15:52; 21:30:52; 22:00:52; 23:00:52-23:15:52)

06/09/00 (01:00:52-01:15:52; 02:15:52-03:00:52; 04:15:52; 04:45:52; 05:15:52;

06:30:52-06:45:52; 08:15:52-08:30:52; 10:15:52; 11:30:52-12:30:52; 13:45:52-

14:45:52; 16:00:52-17:15:52; 18:30:52-19:00:52; 19:45:52; 20:15:52; 20:45:52-

22:15:52; 23:30:52)

06/10/00 (00:15:52-01:15:52; 02:15:52-03:00:52; 03:30:52; 04:15:52-05:15:52;

06:15:52; 07:00:52-08:15:52; 09:15:52-12:30:52; 13:15:52-13:30:52; 14:00:52-

16:15:52; 17:30:52-18:30:52; 19:00:52-20:30:52; 21:15:52-23:45:52)

06/11/00 (00:15:52-02:30:52; 03:15:52-05:45:52; 06:45:52-11:00:52; 11:30:52-

13:00:52; 14:15:52-14:45:52; 15:45:52-17:00:52; 18:15:52-19:15:52; 20:15:52-

21:15:52; 22:00:52-23:00:52)

06/12/00 (00:30:52-01:30:52; 02:15:52-03:30:52; 04:15:52-06:15:52; 07:15:52;

07:30:52; 08:45:52-09:15:52; 10:45:52; 11:15:52-11:45:52; 13:00:52-13:15:52;

14:30:52; 14:45:52; 15:15:52; 16:15:52; 16:30:52; 17:45:52-18:15:52; 20:15:52;

21:30:52-22:00:52; 22:45:52)

06/13/00 (01:00:52; 01:15:52; 02:45:52-03:15:52; 04:00:52; 04:15:52; 05:45:52;

06:00:52; 06:30:52; 07:00:52-07:45:52; 09:15:52-09:45:52; 11:00:52-11:15:52;

12:15:52; 13:00:52-14:15:52; 15:15:52-15:45:52; 16:15:52; 17:00:52; 17:30:52-

19:00:52; 20:15:52-21:15:52; 22:45:52; 23:15:52)

06/14/00 (01:00:52-01:15:52; 02:15:52-02:45:52; 03:15:52; 03:45:52-04:00:52;

05:30:52-05:45:52)

All the data from 06/20/00 (07:45:52) through 06/30/00 (23:45:52) are missing

due to a lightning strike near the data logger.

High turbidity readings throughout the entire month due to biological activity

(carp) in the estuary. Data was not deleted.

SU: The following turbidity readings were greater than 1500 NTU:

06/16/00 (17:45:52-18:15:52; 19:30:52; 20:15:52; 21:30:52-23:15:52)

06/16/00 (23:45:52) through 06/17/00 (02:30:52)
06/18/00 (13:30:52; 14:15:52)

Water levels were zero or negative due to shallow water, indicating that the depth probe was above water level. There is no indication from the other readings that any of the other probes were out of the water. The following water levels were zero or negative:
06/02/00 (04:45:52-10:30:52)
06/11/00 (03:45:52-08:15:52)
All the data on 06/20/00 (07:15:52) are missing due to changing the data logger.

July 2000

WM: All data from 07/01/00 (00:00:52) through 07/05/00 (06:30:52) missing due to lightning strike near the data logger.

SU: No missing or anomalous data during this month.

August 2000

WM: All data on 08/01/00 (06:15:52-06:30:52) missing due to changing the data logger.
High turbidity readings on 08/01/00 (16:00:52) and 08/17/00 (05:15:52) may be due to sediment build-up under the trap. Data was not deleted.

SU: The following turbidity readings were at or just below 0. This may be a result of incorrect calibration of the zero standard or a contaminated zero standard.
08/22/00 (06:45:52; 09:00:52; 09:30:52)

All data are missing 08/23/00 08:00:52 due to the data logger being out of water while technician working on the trap.

September 2000

WM: No missing or anomalous data during the month.

SU: The following turbidity readings were at or just below 0. This may be a result of incorrect calibration of the zero standard or a contaminated zero standard.
09/23/00 (17:30:52-18:15:52)

No missing data during this month.

October 2000

WM: All data on 10/09/00 (08:30:52) missing due to changing the data logger.

SU: All data on 10/09/00 (07:15:52) missing due to changing the data logger.

November 2000

WM: No missing or anomalous data during the month.

SU: The following turbidity readings were at or just below 0. This may be a result of incorrect calibration of the zero standard or a contaminated zero standard.

11/22/00 (17:45:52; 18:30:52; 19:00:52; 20:00:52-20:45:52; 21:15:52-23:15:52)

11/22/00 (23:45:52) through 11/24/00 (06:45:52)

11/24/00 (07:15:52) through 11/30/00 (23:45:52)

No missing data during this month.

12. Missing data:

Missing data are denoted by a period in the data set. Data are missing due to equipment failure when no probes deployed, maintenance/calibration of equipment, elimination of obvious outliers, or elimination of data due to calibration (both pre and post) problems. For more details on deleted data, see Anomalous Data Section (11). To find out more details about missing data, contact the Research Coordinator at the site submitting the data.

13. Post deployment information

End of Deployment Post-calibration Readings in Standard Solutions:
(Standard value is in parenthesis) Dissolved oxygen standard is 100%, unless noted.
Depth is always 0.0 meters.

Site WM				
Date	Sp. Cond.	DO (%)	pH	Turb
Depth				

07/17/00	(.311)	.335	99.0	(8.03)	8.10	(1.9)	1.9	
.001								
08/01/00	(.327)	.337	78.6	(8.02)	7.78	(0.0)	3.6*	
.002								
*note high turbidity may be due to interference of leech on wiper								
08/08/00	(.338)	.344	79.9	(8.04)	7.93	(0.0)	1.5	.000
08/22/00	(.313)	.318	84.8	(8.31)	8.20	(1.9)	4.2	.001
08/29/00	(.327)	.340	95.3	(8.00)	8.23	(0.0)	0.4	.000
09/11/00	(.318)	.318	95.4	(8.21)	7.98	(0.0)	0.0	.001
09/26/00	(.341)	.335	99.7	(8.38)	8.30	(0.0)	1.2	.001
10/09/00	(.334)	.330	97.3	(8.15)	8.13	(0.0)	0.7	.002
11/21/00	(.335)	.329	93.9	(8.34)	8.24	(0.0)	1.6	.001
12/12/00	(.303)	.295	114.1	(7.87)	7.67	(0.0)	0.8	.000

SU

07/17/00	(.310)	.344	85.5	(8.03)	8.25	(1.9)	1.9	-
.001								
08/01/00	(.327)	.324	77.8	(8.02)	7.95	(0.0)	0.7	
.001								
08/08/00	(.338)	.349	90.3	(8.04)	7.94	(0.0)	1.4	-
.001								
08/22/00	(.313)	.310	(81.4) 82.4	(8.31)	8.11	(0.0)	1.2	
.000								
08/29/00	(.327)	.341	100.9	(8.23)	7.98	(0.0)	0.4	
.000								
09/11/00	(.318)	.325	90.7	(8.22)	8.01	(0.0)	1.0	
.001								
09/26/00	(.341)	.345	99.9	(8.38)	8.32	(0.0)	-1.9	-
.008								
10/09/00	(.334)	.339	96.4	(8.15)	8.11	(0.0)	1.2	
.000								
10/30/00	(.317)	.324	103.2	(8.21)	8.13	(0.0)	1.4	-
.005								
11/21/00	(.335)	.339	98.6	(8.34)	8.05	(0.0)	1.8	
.001								

14. Other Remarks