Albemarle-Pamlico National Estuary Program

Public Involvement Office

MEMORANDUM

TO: Neuse River Basin Regional Council Members

FROM: Joan Giordano, Outreach Coordinator

SUBJ: Next meeting - February 15, 2002

DATE: January 31, 2002

Hi Folks,

Enclosed is the agenda for our next regularly scheduled meeting being held on **February 15, 2002.** As you can see, we'll convene at **10:00AM** at the **Wayne Center** in Goldsboro and plan to adjourn by noon. Thanks to Norman Ricks for arranging our meeting place.

As you requested at our last meeting, we will address two concerns about which you have expressed substantial interest. The first, a status report pertaining to our demonstration project, "Monitoring the Mouth of Beard's & Crabtree Creeks", will be presented by John Riley, the Lower Neuse Riverkeeper.

The second issue of concern, erosion and sedimentation control with respect to the NC Department of Transportation's standards, will be presented by David Ward, North Carolina's Sediment Specialist and Ricky Peed, Assistant Regional Engineer for the Washington regional office. Of course, both presentations will allow time for questions and answers.

Thank you for your continued participation and commitment to protecting the natural resources of the Neuse River Basin and all of eastern North Carolina. I look forward to seeing you on February 15th and please drive safely.

NCDENR

DIVISION OF WATER QUALITY DWQ

N.C. DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WATER QUALITY
943 WASHINGTON SQUARE MALL WASHINGTON, NORTH CAROLINA 27889 • PHONE: (252) 946-6481 EXT. 269 • FAX: (252) 975-3716
http://h2o.enr.state.nc.us/nep

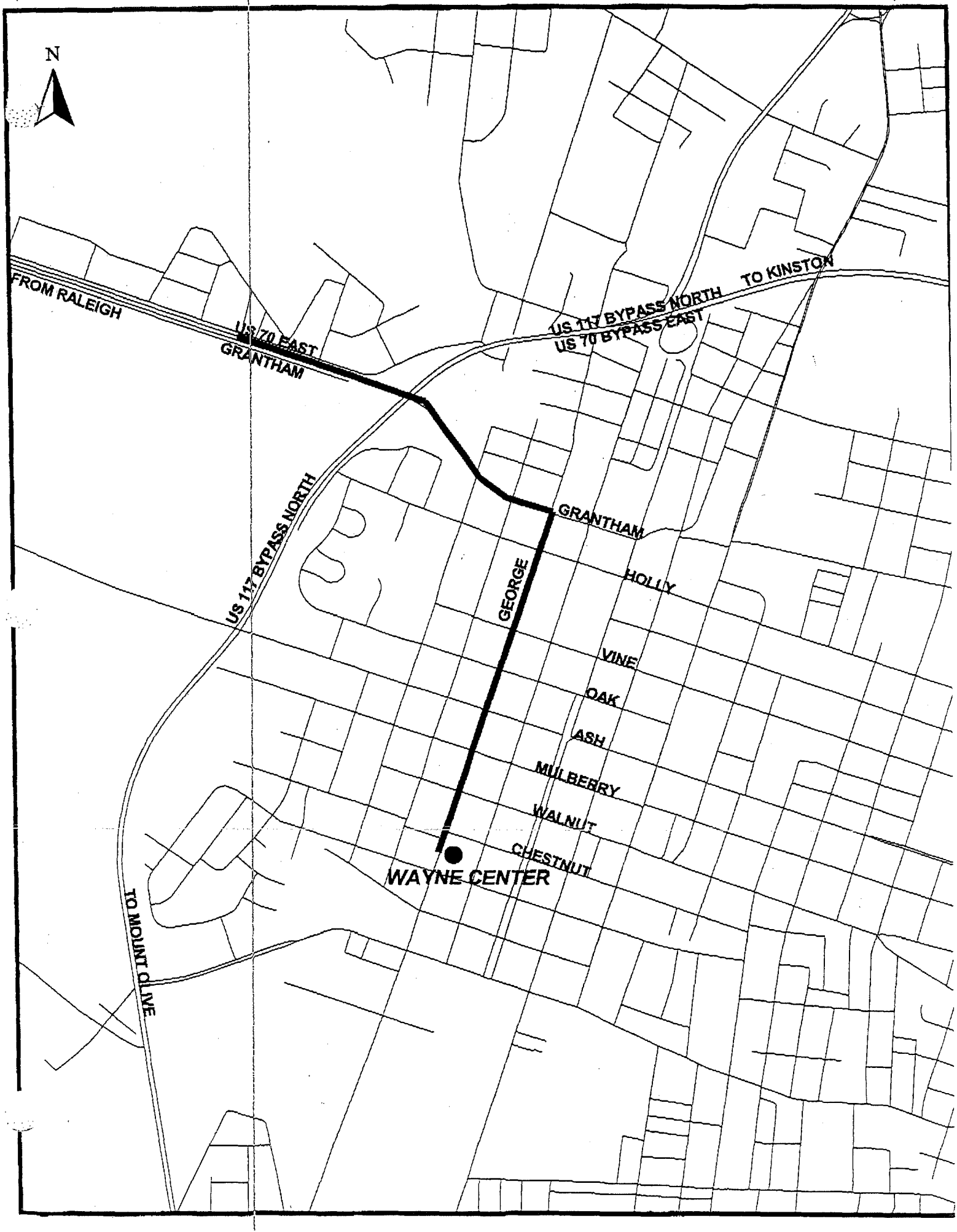
THE ALBEMARLE-PAMLICO NATIONAL ESTUARY PROGRAM

Neuse River Basin Regional Council

The Wayne Center
208 West Chestnut Street
Goldsboro, North Carolina
February 15, 2002

AGENDA

10:00am	Welcome and Call to Order	Andy McLawhorn, Chair
10:05	Roll Call	Joan Giordano, APNEP
10:15	Consideration of Minutes from 11/30/01 meeting	Chairman McLawhorn
10:20	Nominating Committee Report	Norman Ricks, Chair Nominating Committee
10:45	Status Demo Project: "Monitoring the Mouth of Beard's & Crabtree Creeks"	John Riley, Lower Neuse Riverkeeper & Bill Olah, NRF Volunteer
11:15	Erosion & Sedimentation Control-NCDOT Standards	David Ward & Richard Peed NC Div. Land Quality
11:45	Plans for Next Meeting	All
12:00	Adjourn	


N
FROM RALEIGH
US 70 EAST
GRANTHAM
US 117 BYPASS NORTH
US 70 BYPASS EAST
TO KINSTON
US 117 BYPASS NORTH
GRANTHAM
GEORGE
HOLLY
VINE
OAK
ASH
MULBERRY
WALNUT
CHESTNUT
WAYNE CENTER
TO MOUNT OLIVE

David Ward
State Sediment Specialist
D.V. LAND RESOURCES
1612 MSC
Raleigh, NC 27699-1612

Richard Peed
Assistant Region Engineer
WARO Region

Subject: Re: Neuse River Basin Regional Council Meeting
Date: Wed, 9 Jan 2002 15:43:51 -0500
From: "John Riley" <riverkeeper@neuseriver.org>
To: Joan Giordano <Joan.Giordano@ncmail.net>

added to mailing list 1/10/02 (BS)

Ms. Giordano-

Sounds great, I'll be there!
My mailing address:
Neuse River Foundation
220 S. Front St.
New Bern, NC 28561

Thanks for the invitation! I'm not sure what I might be able to contribute, but I'm willing to participate in any way I can.

-John

---------- Original Message ----------
From: Joan Giordano <Joan.Giordano@ncmail.net>
Date: Wed, 09 Jan 2002 12:37:48 -0500

>Hi Mr. Riely:
>I'll let you know the location of our next meeting - but most likely it
>will be held at the Wayne Center in Goldsboro. We usually begin at
>10:00am. Because I've not heard back from the committee member
>responsible for "booking" us, I can't be more specific. The date
>however, February 15th, is concrete! If you'll reply to this e- mail
>with your mailing address, I'll make sure you receive a meeting notice.
>
>The Neuse River Basin Regional Council is one of 5 Regional Councils to
>come out of the Albemarle-Pamlico Estuarine Study (APES) when it
>commenced the program's implementation phase in 1995. The program is
>now known as the Albemarle-Pamlico National Estuary Program (APNEP) and
>is one of 28 such programs across the US.
>
>The Neuse RC was the first to be established (principally because of
>Beverly Perdue's insistence) and the other 4 (Pasquotank, Chowan,
>Raonoke and Tar-Pamlico) followed thereafter. The primary responsibility
>of the Regional Councils is to assist in the implementation of

Albemarle-Pamlico National Estuary Program

Public Involvement Office

MEMORANDUM

TO: Neuse River Basin Regional Council Members

FROM: Betty Sandow, Public Outreach Assistant

SUBJ: Minutes of February 15, 2002 Meeting

DATE: March 8, 2002

Hi folks,

Enclosed are the minutes from our last meeting held on February 15, 2002 at the Wayne Center in Goldsboro. Thanks to Norman Ricks for arranging our meeting place for this meeting and also for the next meeting in April.

As indicated in the minutes, our next scheduled meeting will be held on April 26, 2002. Please make every effort to attend. A reminder notice and agenda for this meeting will be mailed as the meeting time draws closer.

Thank you for your continued commitment to protecting the beautiful and valuable natural resources of eastern North Carolina. We look forward to seeing you again on April 26.

NCDENR

DIVISION OF WATER QUALITY DWQ

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NEUSE RIVER BASIN REGIONAL COUNCIL

The Wayne Center
W. Chestnut Street
Goldsboro, NC
February 15, 2002

MINUTES

In the absence of Chairman Andy McLawhorn, the meeting was called to order by Bill Ritchie. Because several members were unable to attend (they sent notice of this through Norman Ricks' secretary) a quorum was not present. Consequently the minutes from the previous meeting weren't considered, approval tabled until the next meeting.

Joan Giordano drew the group's attention to a flyer announcing a Volunteer Water Quality Monitoring Workshop being sponsored by the EPA and coordinated by The Ocean Conservancy and APNEP. She urged those who were involved in water quality sampling to attend and she distributed registration forms.

Bill Ritchie reported on the slate of officers the Nominating Committee developed. Subject to approval, the slate consists of Norman Ricks and Bill Ritchie as Co-Chairs and Joan Giordano as Secretary. The slate will be voted upon at the next meeting. Mr. Ritchie also asked those present to check on the status of members from their respective counties in order to fill existing vacancies and replace non-participatory members.

Mr. Ritchie then introduced John Riley, the Lower Neuse Riverkeeper, and asked for an update on the demonstration project "Mouth of Creek Water Quality Monitoring Comparison for Crabtree Creek and Beard's Creek." Mr. Riley reported that data have been collected for the project from Crabtree Creek (Wake Co.) for the past 15 months and from Beard's Creek (Pamlico Co.) for the past 20 months. He further reported that there were 58 sample days involved on Crabtree Creek and 72 sample days on Beard's Creek. Mr. Riley thanked the NRBRC for the opportunity to engage in the project and stated that the report being given was an interim one because

sampling is on going. He then introduced Bill Olah, a Neuse River Foundation volunteer monitor.

Mr. Olah outlined the sampling regime and parameters that are used in the project. He explained the data analysis and graphs included in the interim report (See Attachment A) and answered many questions from the group.

The next agenda item was a presentation by Ricky Peed and David Ward, staff from the Division of Land Quality. Dealing with sedimentation and erosion pollution control, the presentation explained the Sedimentation Pollution Control Act of 1973 (See Attachment B). This issue of sedimentation pollution has been of interest to the NRBRC for some time. Following the presentation, questions and answers ensued with Mr. Peed urging the group to contact him at his office (DENR's Washington Regional Office) should they have further questions or need clarification on anything he covered. He also gave the agency's toll-free number **1-800-STOPMUD**, for use in reporting violations.

Joan Giordano then called on Cam McNutt, basinwide planner within the Basinwide and Estuary Planning Unit (BEP) in Raleigh, whose job responsibilities include updating the Neuse River Basinwide Water Quality Management Plan. Mr. McNutt reported that the updated Neuse Plan was expected to go to the Environmental Management Commission (EMC) at the March meeting and public review workshops probably would occur in May.

During the Public Comment portion of the agenda, Bill Ritchie mentioned he had learned the Governor was planning to rescind a portion of the Clean Water Management Trust Fund's funding (along with other sources) in order to help balance the state budget. Mr. Ritchie felt this would have a deleterious effect on CWMTF projects already in progress, and might have a chilling effect on future grant applications. He proposed the NRBRC Chair write a letter to the Governor urging him to reconsider using CWMTF money for budget balancing purposes. He agreed to write the letter for Chairman McLawhorn's signature. Much discussion ensued with some members in disagreement citing that the state budget had to be balanced; the money needed to come form somewhere; and if not the CWMTF, then it might be taken from funding earmarked for counties which were already being tapped.

It was decided because a quorum was not present, and the issue needed to go before the membership, a draft letter (See Attachment C) should be included with the transmittal of the meeting minutes, so all members would be aware of the proposal. It was further decided that if any member had grave concern with the proposed letter (which will be voted upon at the next meeting) they should contact the following to voice their opinion:

Chairman McLawhorn, (252) 746-7030, or e-mail: aydenrec@ayden.com
Bill Ritchie, (252) 633-2396, or e-mail: ritchiewh@always-online.com
Joan Giordano, (252) 946-6481, ext. 269, or e-mail: joan.giordano@ncmail.net

The next meeting was scheduled for April 26, 2002 at the Wayne Center in Goldsboro, beginning at 10:00am. Thanks to Norman Ricks for arranging it!

There being no further business, the meeting was adjourned.

ATTENDANCE

NEUSE RIVER BASIN REGIONAL COUNCIL

The Wayne Center
208 West Chestnut Street
Goldsboro, North Carolina
February 15, 2002

	NAME	AFFILIATION
1.	[illegible]	ARRC DWQ
2.	JOHN RILEY	NEUSE RIVER FOUNDATION
3.	WILLIAM W. OCAH	"
4.	Gary McNett	NC DWQ Basinwide Planning
5.	Sondra Spock Riggs	Jones County Commissioner NRB
6.	Kelly Griffin	Wayne County
7.	BILL RITCHIE	AT LARGE (CRAVEN COUNTY)
8.	RICHARD REED	NCDENR/LQS
9.	DAVID WARD	" "
10.	Margaret Holton	Orange County
11.	Lynn Holton	" " (visitor)
12.	Charles Allmen	Wilson (City)
13.		
14.		
15.		
16.		

Attachment A

Neuse River Basin
Mouth of Creek Water Quality Monitoring Comparison for Crabtree Creek in Wake County and Beard Creek in Pamlico County, North Carolina

Project Conducted by:
Neuse River Foundation, Inc.

Presented by:
William Olah
Volunteer Creek Monitor

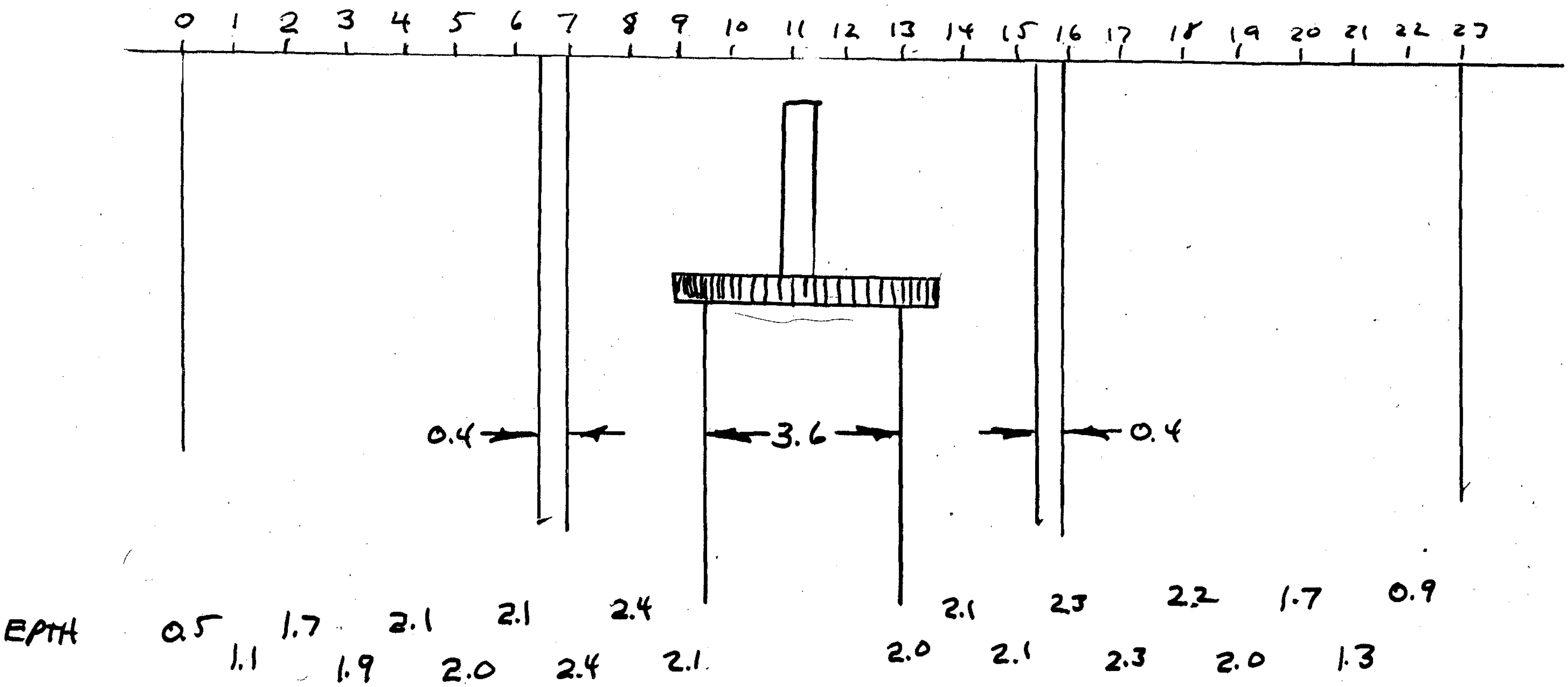
John Riley
Lower Neuse Riverkeeper

February 15, 2002

on-going

NOTE:
1. ALL MEASUREMENTS IN METERS
2. DATUM EVEN WITH BOTTOM OF RING GEAR

5/5/00
W. OLAH



18.6 M OPEN DISTANCE

34.4 M^2 DATUM AREA

Beard's Creek Bridge

2/5/02 JB

NRF Non Point Source Polution Measurement Project

Date: 9/24/01

Collectors Name: WILLIAM OLAH

Collection Time: 0826

Collection Location: RT 1005 BRIDGE BEAVER CREEK

Air Temperature: 22 °C

Water Temperature: 24.5 °C

Sedimentation: (Crabtree Creek Only)

ph Measurement: 7.3

Disolved Oxygen: 6.50 mg/L

Conductivity: 18.64 ms

Flow Direction: UP STREAM O

Flow Velocity: 0.4 MI/MIM

Distance + / - From Datum: + 0.04

Flow Volume: 14.0 M3/MIM

Laboratory Results

	AMOUNT	LOADING
pH3 Ammonia:	< 0.1 mg/L	- 1.4 g/MIM
Total Nitrogen TKN:	0.08 mg/L	- 1.12 g/MIM
Nitrate (NO3): Nitrite (NO2):	0.27 ~~3.78~~ mg/L	- 3.78 g/MIM
Total Nitrogen:	0.35 mg/L	- 4.90 g/MIM
Phosphorus:	0.33 mg/L	- 4.62 g/MIM
Fecal:	4	

Signature: William H. Olah

Law & Company, Inc.

Chain of Custody Record

Page ____ of ____

☐ Wilmington, NC	☒ Bridgeton, NC	☐ Columbia, SC	☐ Spartanburg, SC
1711 Castle St.	402 B Street	110 Queen Parkway	119 Diversco Drive
Wilmington NC 28403	Bridgeton, NC 28519	Columbia, SC 29169	Spartanburg, SC 29307
910-762-7082	252-636-6389	803-739-2805	864-579-7711

Program Area

☐ Drinking Water ☐ RCRA
☐ Waste Water ☐ Soil / Sludge
☐ Ground Water ☐ NPDES

P.O. # _____ **Turnaround:** ☐Standard ☐ 48 Hr. ☐24 Hr.
Quote #: _____ **Project #:** _____
Contact: _____ **Project ID:** _____

Customer Name, Address, Telephone, & Fax

Reporting
William W. Olah
455 Bennett Neck Rd
Grantsboro, NC 28529
252-249-0287

Billing
NRF

Sample analysis required (X) – Use comments area to specify specific compounds or methods. Specify preservation code in small upper boxes and Glass (G) or Plastic (P) in lower small box.

Preservatives
A: Cool to 4°C D: 1:1 HCl
B: HNO_3 pH<2 E: NaOH pH>12
C: H_2SO_4 pH<2 F: Sodium Thios.

Sampler Signature:
Print Name: W. Olah

Sample Identification	Containers per Sample	Grab Date/Time	Composite Start Date/Time	Composite Stop Date/Time	NH_3-N	TKN	NO_2	NO_3	TP	Fecal	NO_3/NO_2	TN	Laboratory Sample ID #	Field Temperature / Sample Comments
Beards Creek HWY 5 Bridge		9/24/01 AM/PM 0826	AM/PM	AM/PM	X	X			X	X	X	X	BND 6618	
		AM/PM	AM/PM	AM/PM										
		AM/PM	AM/PM	AM/PM										
		AM/PM	AM/PM	AM/PM										
		AM/PM	AM/PM	AM/PM										

Received On Ice
Cool, 4°C
H_2SO_4 pH<2

Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Relinquished By:	Date:	Time:
William W. Olah	9/24/01	0920	Cheryl O.K.	9/24/01	9:20			
Received By:	Date:	Time:	Relinquished By:	Date:	Time:	Received By:	Date:	Time:
SUBCONTRACT WORK – LABORATORY NAME			Relinquished By:	Date:	Time:	Received By:	Date:	Time:

LAW & COMPANY, INC.
Analytical & Consulting Chemist since 1903
408 B Street
PO Box 989
Bridgeton, NC 28519

Analytical Report

Report Date: 10/18/01

Client: William W. Olah
Neuse River Foundation
455 Bennet Neck Rd.
Grantsboro, NC 28529

Collected By: W. OLAH
Collect Date: 09/24/01
Collect Time: 08:26
Project Code: NRFNBEX
PO #:

Sample #: BN06618
Location: Neuse River Fnd. 1005 Bridge

Submit Date: 09/24/01
Submit Time: 09:20

Sample Results

Sample_ID					BN06618
Analyte	**Result**	**Units**	**MDL**	**Method**	**Lab ID**
Coliform, Fecal by Mem. Filter	4	Col/100ml	1	SM-9222D	N2
Ammonia, as N by Electrode	<0.1	mg/L	0.1	SM-4500NH3F	N1
Nitrate-Nitrite, by Cd Reduction	0.27	mg/L	.01	SM-4500NO3E	N1
Total Kjeldahl Nitrogen	0.08	mg/L	.05	SM-4500NB	N1
Nitrogen, Total by Calculation	0.08	mg/L	---	CALC	N1
Phosphorus, Total	0.33	mg/L	.01	SM-4500PE	N1

Signed: Debbie LaValle
Debbie Lavalle – Laboratory Supervisor

9/24/01

VOLUME = AREA ± DEVIATION × FLOW

$V = (34.4\ m^2 + 0.7\ m^2) \times 0.4\ m/min$

$V = 35.1\ m^2 \times 0.4\ m/min$

$V = -14.0\ m^3/min$

AMOUNT

NH_4	< 0.1 mg/L	< 0.1 g/m³
NO_2NO_3	0.27 mg/L	= 0.27 g/m³
TKN	0.08 mg/L	= 0.08 g/m³
TOTAL N	0.35 mg/L	= 0.35 g/m³
P	0.33 mg/L	= 0.33 g/m³

LOADING = AMOUNT × VOLUME

$NH_4 = -14.0\ m^3/min \times < 0.1\ g/m^3 = \leq 1.4\ g/min$

$NO_2NO_3 = -14.0\ m^3/min \times 0.27\ g/m^3 = -3.78\ g/min$

$TKN = -14.0\ m^3/min \times 0.08\ g/m^3 = -1.12\ g/min$

$TOTAL\ N = -14.0\ m^3/min \times 0.35\ g/m^3 = -4.90\ g/min$

$P = -14.0\ m^3/min \times 0.33\ g/m^3 = -4.62\ g/min$

Beard Creek 5/8/[illegible]0 - 2/26/2001

Date	Time	Sample Taken By	Air Temp (C)	Water Temp (C)	pH	DO mg/L	Conduct ms	Flow Dir. from N	Flow Vel. m/min	Flow Vol. m^3/min	NH3 Conc. mg/L	NH3 Load g/min	TKN Conc mg/L	TKN Load g/min	NO3/NO2 Conc. mg/L	NO3/NO2 Load g/min	Total N Conc. mg/L	Total N Load g/min	P Conc. mg/L	P Load g/min	Fecal CFU/100 mL
05/08/00	0804	Olah	17.0	20.0	7.6	6.8	0.70	None	0.0	0.00	< 0.10	0.00	1.50	0.00	1.60	0.00	3.10	0.00	0.09	0.00	114
05/15/00	0801	Olah	18.5	23.5	7.7	5.0	2.80	180	4.3	184.47	< 0.10	239.80	1.30	3191.30	16.00	2951.52	17.30	3191.30	0.26	47.96	> 1917
05/22/00	0732	Olah	21.0	24.5	7.9	4.0	5.40	180	3.8	142.9	0.20	28.58	1.20	171.48	0.48	68.59	1.68	192.29	0.12	68.59	335
06/05/00	0802	Olah	21.0	22.5	7.8	4.5	5.10	180	4.8	174	<.1	<17.4	0.40	69.60	0.11	19.14	0.51	88.40	0.02	3.40	480
06/12/00	0759	Olah	26.5	26.0	7.9	7.1	4.30	180	1.2	36.14	0.10	4.64	0.40	18.57	2.30	106.76	2.73	98.66	0.01	0.46	460
06/19/00	0750	Olah	29.5	29.0	6.9	5.7	8.10	180	0.8	23.35	<.1	<2.34	0.90	21.02	2.90	67.72	3.80	88.73	0.10	2.34	210
06/26/00	0608	Olah	25.0	28.0	7.8	7.0	9.00	180	0.6	18.41	<.1	1.84	1.80	33.14	5.90	108.62	7.60	139.92	0.20	3.68	530
07/03/00	0720	Olah	18.5	25.5	7.7	5.3	14.30	180	0.8	27.52	0.20	5.50	2.20	60.50	0.27	7.43	2.47	67.97	0.10	2.75	>4000
07/10/00	0654	Olah	25.0	25.0	7.9	5.5	7.10	0	0.8	-23.04	<.1	<-2.3	0.49	-11.29	0.75	-17.28	1.24	-28.57	0.05	-1.15	530
07/17/00	0657	Olah	22.5	28.0	7.4	3.3	15.80	180	5.6	197.8	0.10	19.78	2.80	553.80	2.10	415.20	4.90	968.20	1.30	257.10	>740
07/24/00	0648	Olah	24.0	26.0	7.4	3.4	14.80	None	0	0	0.10	0.00	1.90	0.00	3.40	0.00	6.30	0.00	0.34	0.00	>830
07/31/00	0638	Olah	26.0	25.5	7.7	4.2	3.80	180	6.1	209.8	0.10	20.98	3.20	671.40	2.30	482.50	5.50	1154.00	0.10	20.98	500
8/7/00	0648	Olah	26.0	25.5	5.9	4.9	0.20	180	1.4	44.5	0.30	13.35	0.54	24.03	2.70	120.15	3.24	144.18	0.03	1.34	600
8/14/00	0637	Olah	21.0	26.0	7.6	2.0	2.00	180	1.68	58.8	<.1	5.88	3.00	176.40	0.55	32.34	3.55	208.70	0.10	5.88	>730
8/21/00	0642	Olah	16.5	19.5	7.5	2.1	14.26	180	3.8	145.5	0.30	13.70	0.54	78.60	0.01	1.46	0.55	80.00	0.05	7.28	>850
8/28/00	0647	Olah	22.0	23.0	7.1	5.2	1.70	180	15.6	546.0	0.30	163.80	0.40	218.40	0.05	27.30	0.45	245.70	0.02	10.92	530
9/18/00	0710	Olah	19.0	21.5	7.7	4.5	6.70	180	8.8	320.0	<.1	32.00	0.30	96.00	1.90	608.00	2.20	704.00	0.01	3.20	140
9/25/00	900	Olah	28	24	7.4	5	0.1	180	0.4	13.9	0.04	5.56	0.61	8.5	0.015	0.71	0.662	9.2	0.022	0.31	>4200
10/1/00	708	Olah	18	19.5	7.6	4.4	3.2	180	8.4	311	0.07	21.8	0.57	177.3	0.0058	1.89	0.5758	179.15	0.028	8.71	4200
10/10/00	950	Olah	11	16	7.8	4.8	8	180	12.8	473.6	0.027	12.8	0.536	253.8	0.0016	0.76	0.5377	254.7	0.041	19.4	>2350
10/16/00	719	Olah	10	17	8.1	7	9.7	0	0.6	-20.6	0.037	-0.76	0.72	-14.8	0	0	0.72	-14.8	0.048	-0.99	>5700
10/23/00	629	Olah	11	17	7.8		9.6	180	8.8	325.6	0.049	16	0.63	205	0.0064	2.1	0.6365	207	0.054	17.6	>1400
10/30/00	632	Olah	2	16.1	6.62	4.88	14.39	0	0.6	-22.4	0.05	-1.12	0.514	-11.5	0	0	0.514	-11.59	0.037	-0.63	>33600
11/6/00	753	Olah	4	16	6.37	6	14.06	180	0.24	8.8	0.019	0.167	0.43	3.79	0.0012	0.01	0.4322	3.8	0.019	0.167	92
11/13/00	704	Olah	2	13.3	6.36	5.77	13.73	180	0.4	14.7	0.063	0.94	0.51	7.51	0	0	0.511	7.51	0.015	0.22	<1
11/20/00	940	Olah	4	9.5	6.7	6.55	7.5	180	0.2	7	*	*	*	*	0.0034	0.024	0.0034	0.024	0.321	0.22	<1
11/27/00	645	Olah	9	12.2	6.7	6.6	0.24	180	1.3	47.2	0.065	3.19	0.621	29.3	0.25	11.8	0.872	41.1	0.074	3.49	<1
12/11/00	702	Olah	5	7.1	7.1	9.3	11.26	180	8.4	275	0.035	9.9	0.312	86.1	0.067	18.4	0.38	104.5	0.01	2.75	388
12/19/00	1003	Olah	2.5	11.5	6.3	9.42	4.9	180	4	153	0.076	11.8	0.39	59.8	0.057	8.7	0.448	68.5	0.033	5.05	<1
1/30/2001	822	Olah	17	9.7	6.92	9.83	5.01	180	1.4	51.8	0.3	15.54	0.8	41.4	0.03	1.55	0.83	43	0.01	0.52	6
2/5/2001	717	Olah	6.5	8.7	6.91	9.03	2.92	180	16.8	477.1	<.1	47.7	0.45	214.7	0.16	76.3	0.61	291	0.08	38.2	450
2/12/2001	753	Olah	4.5	9.5	7.5	7.8	12.2	180	6.8	248.9	0.1	24.89	0.98	243.9	0.01	2.49	0.99	246.4	0.03	7.47	9
2/19/2001	707	Olah	-4	6.9	7.4	9.28	1.55	180	4.2	140	<.1	14	0.83	116.1	0.64	89.5	1.47	205.6	0.04	5.6	28
2/26/2001	703	Olah	18.5	11.9	6.9	8.9	0.85	180	0.4	12.7	0.1	1.27	0.6	7.62	0.15	1.91	0.75	9.5	0.05	0.64	80

Beard Creek 3/12/2001 - 1/21/2002

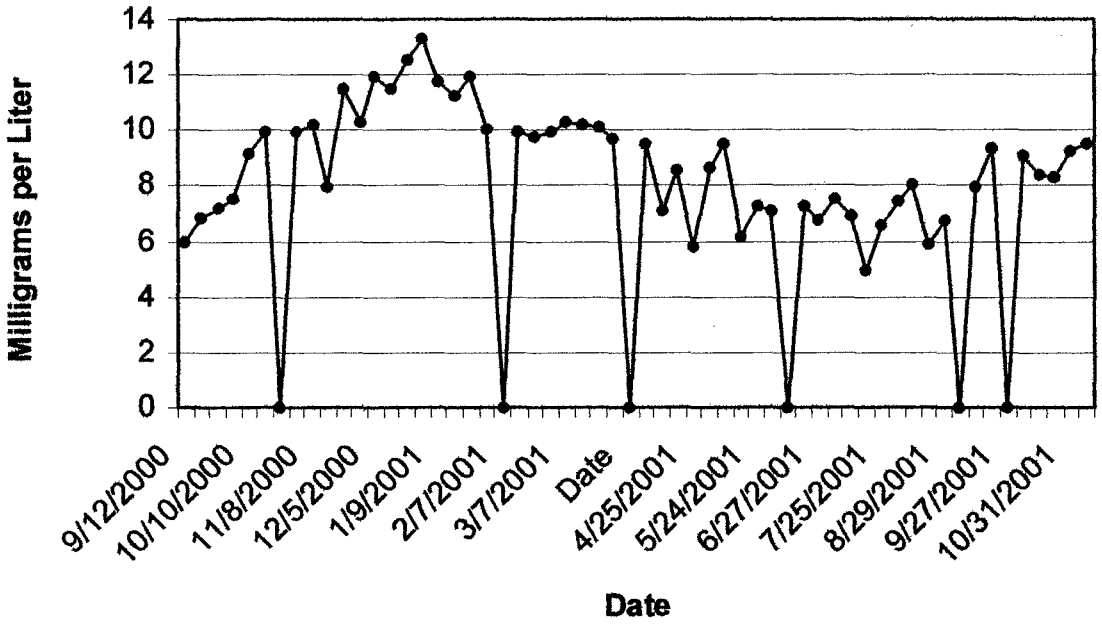
Date	Time	Sample Taken By	Air Temp (C)	Water Temp (C)	pH	DO mg/L	Conduct ms	Flow Dir. from N	Flow Vel. m/min	Flow Vol. m^3/min	NH3 Conc. mg/L	NH3 Load g/min	TKN Conc mg/L	TKN Load g/min	NO3/NO2 Conc. mg/L	NO3/NO2 Load g/min	Total N Conc. mg/L	Total N Load g/min	P Conc. mg/L	P Load g/min	Fecal CFU/100 mL
3/12/2001	642	Olah	6	10	7.2	9.6	1.5	180	5.2	182	0.1	18.2	0.87	158.3	0.34	61.9	1.21	220.2	0.12	21.8	<1
3/19/2001	655	Olah	0	15.1	8.4	9.77	11.6	NONE	0	0	<.1	0	0.8	0	0.62	0	1.42	0	0.15	0	14
3/26/2001	649	Olah	4.5	8.5	7.2	8.58	1.86	180	4.4	151.2	<.1	<15.1	0.36	54.4	0.02	3.02	0.38	57.5	0.02	3.02	55
4/2/2001	755	Olah	7	12.5	7.4	0	3.3	180	6.4	220.2	<.1	22.02	0.51	112.3	2.1	462.4	2.61	574.7	0.04	8.81	20
4/9/2001	809	Olah	18	20.5	6.86	7.56	2.18	0	0.8	-28.2	0.2	-5.64	0.81	-22.8	0.71	-20	1.51	-42.6	0.09	-2.54	8
4/23/2001	1206	Olah	26.5	21.8	7.19	8.05	3.53	0	1.2	-38.6	0.2	-7.72	0.87	-33.6	0.04	-1.54	0.87	-35.1	<.01	-0.39	15
4/30/2001	828	Olah	10.5	17.1	6.75	7.69	8.92	180	1.6	53	<.1	5.3	0.08	42.4	1.6	84.8	2.4	127.2	0.11	5.83	28
5/8/2001	755	Olah	15.5		6.7	4.82	11.4	180	7.2	262.1	0.19	49.8	1	262.1	0.02	5.24	1.02	267.3	0.02	5.24	60
5/14/2001	829	Olah	12.5	22.8	6.5		8.84	180	0.32	11	<0.1	1.1	0.8	8.8	0.93	10.23	1.73	19.09	0.41	4.5	36
6/4/2001	759	Olah	20	23.7	6.26	3.8	3.1	0	1.2	-36.6	<0.1	-3.66	0.58	-21.23	1	-36.6	1.6	-58.56	1.39	-50.87	320
6/11/2001	714	Olah	19.5	27.9	6.53	2.48	2.56	180	2.4	82.6	<0.1	8.26	0.58	47.9	0.02	1.65	0.59	48.73	0.02	1.65	17
6/18/2001	731	Olah	18.5	26.8	6.38	1.93	12.01	180	4.4	149.7	<0.1	<14.97	0.9	134.7	0.24	35.93	1.1	164.7	<0.01	<1.50	80
6/25/2001	647	Olah	20	27.5	6.65	3.8	12.16	180	1.6	59.5	<0.1	5.95	0.7	41.6	0.27	16.09	0.97	57.5	0.02	1.19	230
7/2/2001	619	Olah	21.5	30.7	6.63	0.18	16.54	180	2.4	58.5	<0.1	5.88	0.33	19.4	0.4	23.5	0.73	42.9	0.02	1.18	3
7/9/2001	654	Olah	21	26	6.63		11.8	180	2	62.8	0.1	6.2	0.15	9.3	0.08	4.96	0.23	14.39	0.05	3.1	5
7/23/2001	821	Olah	22.5					180	4.8	170	<0.1	<17.04	2	340.8	0.03	5.11	2.03	34.59	0.02	3.41	13
7/30/2001	758	Olah	21	25.4	6.49	3.88	11.37	180	4.8	168.5	<0.1	16.85	1.7	286.5	0.41	69.09	2.11	355.5	0.23	38.76	480
8/7/2001	822	Olah	25.5	28.7	6.99	2.66	13.55	0	0.8	26.2	<0.1	-26.2	1.7	-44.54	0.64	-16.77	2.34	-61.31	0.03	-0.79	4
8/13/2001	822	Olah	25	30.7	6.3	2.91	13.56	180	0.4	12.3	<0.1	1.23	1.2	14.89	0.02	0.25	1.2	14.8	0.38	4.67	5
8/27/2001	824	Olah	21	27.7	6.23	0.93	16.88	180	1.6	55	<0.1	<5.50	0.39	21.59	<0.01	<0.55	0.39	21.5	<0.1	<5.50	50
9/4/2001	825	Olah	23	27	7	0.64	9.11	180	4	137.6	<0.1	<13.8	<0.05	<6.88	<0.01	<1.38	<0.05	<6.88	0.05	6.68	40
9/10/2001	736	Olah	22	27.8	6.76	0.8	9.06	180	3.6	125.3	<0.1	<12.5	<0.05	<6.27	0.11	13.8	0.11	13.8	0.03	3.76	8
9/17/2001	818	Olah	18	22.3	7.16	4.49	18.22	180	4.8	202.6	<0.1	<20.3	).19	38.5	0.03	6.08	0.22	44.6	<0.01	2.03	260
9/24/2001	826	Olah	22	24.5	7.3	6.5	18.64	0	0.4	14	<0.1	-1.49	0.08	-1.12	0.27	-3.78	0.35	-4.9	0.33	-4.62	4
10/1/2001	857	Olah	9.5	18.8	6.74	3.68	21.91	0	4	150.8	<0.1	-15.08	0.68	-102.5	0.07	-10.56	0.75	113.1	0.05	-7.54	17
10/8/2001	845	Olah	9	21.4	7.14	4.35	27.2	180	0.6	24	0.11	2.64	1.85	44.4	0.05	1.2	1.9	45.6	0.05	1.2	22
10/22/2001	757	Olah	17.5	18.1	6.89	5.31	25	180	0.4	13.8	<.1	1.38	0.37	5.11	0.02	0.28	0.39	5.38	0.02	0.28	8
10/29/2001	758	Olah	3	13.7	6.77	5.85	25.62	180	4	140.4	<.1	<14.04	0.37	<51.95	<.1	<14.04	0.38	53.35	0.05	7.02	210
11/5/2001	848	Olah	11	15.7	6.98	5.77	25.51	180	0.4	13	<.1	<1.30	0.49	6.37	<.01	<.13	0.49	6.37	0.03	0.39	51
11/12/2001	910	Olah	7	12.7	6.82	6.33	25.79	180	4.8	168	0.6	100.8	0.74	124.39	0.01	1.68	0.75	126	0.05	8.4	34
11/20/2001	803	Olah	17.5	13.9	7.19	7.58	26	0	1.2	-39	0.05	-1.95	0.74	-26.9	0.05	-1.95	0.79	-30.8	0.03	-1.17	0
11/26/2001	828	Olah	19.5	15.8	7.22	7.97	13.6	180	1	33.7	<.1	3.37	0.74	24.9	0.07	2.36	0.81	27.3	<.01	<.34	220
12/3/2001	854	Olah	10.5	16.6	7.17	5.68	24.34	180	8	308	<.1	<30.8	0.49	150.9	<.01	<3.08	0.49	150.99	<.01	<3.08	350
12/10/2001	831	Olah	8	14.9	7.5	7.31	24.9	180	2.4	90.9	<.1	0.09	<.05	4.54	0.08	7.27	0.13	11.82	0.04	3.64	400
12/17/2001	801	Olah	11.5		7.19	6.02	26.13	180	0.8	27.5	<.1	<2.75	<.05	<1.38	0.04	1.1	0.09	2.48	<.01	0.28	800
1/8/2002	824	Olah	11.5	7.13	7.24	7.8	23.51	0	4.8	-130.6	0.14	-18.3	0.99	-129.3	0.11	-14.4	1.1	143.7	0.07	-9.14	2000
1/14/2002	924	Olah	4.5	10.2	7.74	9.72	23.45	0	0.5	-15	<.1	-1.5	0.04	-11.5	0.04	-0.6	0.78	-12.1	0.03	-0.5	49
1/21/2002	834	Olah	11	11.5	7.45	7.07	24.1	180	0.8	26	<.1	2.6	0.43	11.1	0.06	1.59	0.49	12.6	0.03	0.8	200

Date	Time	Sample Taken By	Water Temp (C)	pH	DO mg/L	Redox	Conduct ms	Flow Vol. m^3/min	TSS mg/L	TSS Load g/min	NH3 Conc. mg/L	NH3 Load g/min	TKN Conc mg/L	TKN Load g/min	NO3/NO2 Conc. mg/L	NO3/NO2 Load g/min	Total N Conc. mg/L	Total N Load g/min	P Conc. mg/L	P Load g/min	SRP µg/L	Fecal CFU/100 mL
9/5/2000	1220		*	*	*	*	*	>720	48.1	>34632	0.138	>99.36	1.021	>735.12	0.36	>259.2	1389	>1000.08	0.144	>104.184	25.73	2600
9/12/2000	1320		23.57	7.13	5.98	619	0.1498	165	4.21	694.65	0.067	11.06	0.68	112.2	0.351	57.92	1032	170.28	0.115	19.02	43.98	390
9/20/2000	1230	JS	21.3	7.2	6.85	*	*	165	4.59	757.35	0.072	11.88	0.534	88.11	0.399	65.84	933.5	154.03	0.164	27.11	30.91	210
9/26/2000	1120	FH	20.1	7.27	7.21	585	0.0767	>1560	*	*	0.213	>332.28	0.853	>1330.6	0.353	>550.68	1207	>1882.92	0.204	>319.02	26.76	4900
10/4/2000	1330	FH	19.81	6.98	7.49	585	0.1341	165	3.97	655.05	0.048	7.92	0.438	72.27	0.561	92.56	1000	165.05	0.08	14.68	22.72	120
10/10/2000	1100	HB	11.56	7.4	9.15	608	0.175	90	2.15	193.5	0.056	5.04	0.348	31.32	0.522	46.98	870.9	78.38	0.079	7.13	21.7	250
10/17/2000	1215	HB	15.9	7.2	9.97	557	0.191	>84	3.37	>283	0.059	>4.96	0.791	>66.44	0.492	>41.33	1284	>107.87	0.044	>3.71	9.4	120
10/24/2000	1215	JS	*	*	*	*	*	>84	1.4	>117.6	*	*	0.455	>38.22	0.384	>32.26	840.1	>70.57	0.034	>2.93	9.5	56
10/31/2000	1550	FH	12.77	7.43	9.95	446	0.2028	>84	1.41	>118.4	0.045	>3.78	0.394	>33.10	0.227	>19.07	622.3	>65.5	0.037	>3.16	16.8	23
11/8/2000	1445	JS	15.51	7.86	10.18	428	0.2013	105	1	105	0.048	5.04	0.417	43.79	0.287	30.14	704	65.34	0.039	4.11	12.5	21
11/14/2000	1245	FH	12.63	7.43	7.92	439	0.1682	201	8	1608	0.053	10.65	0.453	91.05	0.177	35.58	630.7	141.5	0.053	10.77	3.8	390
11/21/2000	1410	JS	6.18	7.55	11.49	507	0.1471	141	*	*	0.064	9.02	0.394	55.55	0.338	47.66	732.5	103.28	0.047	6.66	14.3	430
11/28/2000	1345	JS	9.19	7.71	10.3	503	0.1195	>204	6	>1224	0.063	>12.85	0.514	>104.86	0.37	>75.48	864.8	>180.5	0.057	>11.79	12.4	210
12/5/2000	1215	JS	3.74	7.52	11.96	463	0.1579	120	2.3	276	0.107	12.84	0.437	52.44	0.575	69	1013	121.61	0.049	5.88	13.3	600
12/12/2000	1510	FH	9.02	11	11.52	120	0.167	90	2.3	207	0.091	8.19	0.452	40.68	0.68	61.2	1133	101.97	0.038	3.47	18.6	34
12/27/2000	1515	FH	3.26	7.13	12.55	658	0.1522	108	2.1	226.8	0.082	8.86	*	*	0.523	56.48	*	*	0.045	4.91	13.5	32
1/3/2001	1448	JS	1.45	7.9	13.34		0.1649	>51	3.38	>172.38	0.1078	>5.4978	0.43755	>22.3151	0.70556	>35.9836	1.144	>58.3496	0.0382	>1.9467	11.45	22
1/9/2001	1426	FH	4.96	7.18	11.78		0.1834	123	4.32	531.36	0.1404	17.26551	0.53427	65.71521	0.62142	76.43466	1.156	142.14987	0.0451	5.54853	15.75	160
1/16/2001	1319	JS	8.32	7.17	11.22		0.1819	>52.8	3.44	>181.63	0.1349	>7.12272	0.47611	>25.1386	0.39138	>20.6649	0.887	>45.8035	0.0468	>2.4699	9.88	40
1/24/2001	1001	LG	4.15	7.34	11.96		0.1325	138	5.85	807.30	0.1074	14.82396	0.44035	60.7683	0.3328	45.9264	0.773	106.6947	0.0451	6.22104	11.05	270
1/31/2001	846	MS	7.92	8.11	10.01		0.1319	168	6.49	1090.32	0.1484	24.9228	0.58024	97.48032	0.48554	81.57072	1.066	179.05104	0.0393	6.60408	10.70	170
2/7/2001		MS	*	*	*		*	>79.8	5.00	>399	0.0509	>4.06182	0.42269	>33.7307	0.32988	>26.3244	0.753	>60.055	0.0367	>2.9287	10.48	120
2/14/2001	931	MS	8.45	7.59	9.97		0.1422	183	7.80	1427.40	0.0576	10.54629	0.41433	75.82239	0.3686	67.4538	0.783	143.27619	0.0431	7.87815	9.54	370
2/21/2001	929	LG	10.78	7.85	9.75		0.1268	198	10.81	2140.38	0.0987	19.53864	0.54700	108.306	0.44076	87.27048	0.988	195.57648	0.0663	13.13334	11.06	78
2/28/2001	921	EP	10.84	7.8	9.95		0.1551	378	6.46	2441.88	0.0697	26.35416	0.49379	186.65262	0.36121	136.5374	0.855	323.19	0.0495	18.70344	13.55	52
3/7/2001	944	LG	7.42	7.51	10.3		0.1178	378	18.49	6989.22	0.1272	48.0816	0.66385	250.9353	0.36933	139.6067	1.033	390.54204	0.0723	27.32562	12.91	320
3/14/2001	1342	JS	14.65	7.67	10.23		0.1392	96	6.24	599.04	0.0585	5.61312	0.43597	41.85312	0.38474	36.93504	0.821	78.78816	0.0478	4.5888	15.50	98
3/21/2001	953	EP	9.81	7.21	10.07		0.0761	>2838	146.67	>416249.46	0.2383	>676.2954	0.95088	>2698.5974	0.27936	>792.8237	1.23	>3491.4211	0.1588	>450.7312	19.73	2200
3/28/2001	929	MS	8.94	7.49	9.65		0.1167	61.8	6.70	414.06	0.1019	6.298656	0.54845	33.89421	0.38722	23.9302	0.936	57.824406	0.077	4.757364	22.99	55

Crabtree Creek 4/4/2001 - 11/7/2001

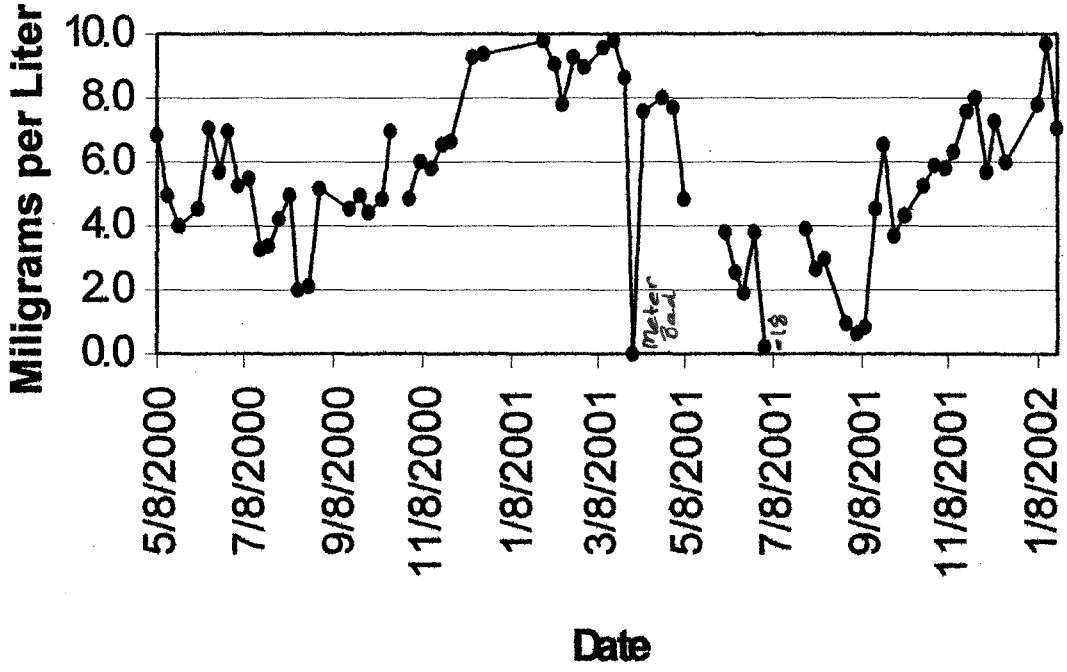
Date	Time	Sample Taken By	Water Temp (C)	pH	DO mg/L	Redox	Conduct ms	Flow Vol. m^3/min	TSS mg/L	TSS Load g/min	NH3 Conc. mg/L	NH3 Load g/min	TKN Conc mg/L	TKN Load g/min	NO3/NO2 Conc. mg/L	NO3/NO2 Load g/min	Total N Conc. mg/L	Total N Load g/min	P Conc. mg/L	P Load g/min	SRP µg/L	Fecal CFU/100 mL
4/4/2001	751	MS	11.52	7.53	9.51		0.0706	21	35.90	753.90	0.1410	2.96121	0.75772	15.91212	0.28818	6.05178	1.046	21.9639	B		30.80	240
4/11/2001	849	MS	21.47	7.18	7.09		0.1198	>126	9.00	>1134	0.0909	>11.4534	0.75772	>95.4727	0.33999	>42.8387	1.098	>138.3115	0.0724	>9.1186	27.26	80
4/18/2001	846	MS	10.46	6.69	8.54		0.161	78	4.10	319.80	0.0719	5.6043	0.41961	32.72958	0.29572	23.06616	0.715	55.79574	0.0425	3.31188	15.20	94
4/25/2001	928	EP	17.85	6.86	5.77		0.1179	48	23.30	1118.40	0.2437	11.69856	2.47392	118.74816	0.48582	23.31936	2.96	142.06752	0.1383	6.63792	9.39	600
5/2/2001	1437	FH	20.64	7.89	8.67		0.18	153	7.00	1071.00	0.0673	10.2969	0.46031	70.42743	0.5153	78.8409	0.976	149.26833	0.0596	9.11574	10.57	120
5/9/2001	1401	JS	19.32	7.53	9.47		0.1855	108	1.70	183.60	0.0821	8.86896	0.41342	44.64936	0.34247	36.98676	0.756	81.63612	0.0444	4.79412	15.32	46
5/16/2001	1146	FH	18.48	7.2	6.17		0.0947	312	24.52	7650.24	0.0605	18.87912	0.76794	239.59728	0.44366	138.4219	1.212	378.0192	0.1299	40.5288	13.29	1000
5/24/2001	1348	JS	22.66	7.59	7.27		0.1414	156	8.48	1322.88	0.1029	16.0524	0.59731	93.18036	0.36763	57.35028	0.965	150.53064	0.095	14.82468	23.30	550
5/30/2001	1207	FH	21.11	7.48	7.09		0.135	138	6.88	949.44	0.1007	13.89108	0.54935	75.8103	0.4257	58.7466	0.975	134.5569	0.0817	11.27046	28.24	191
6/6/2001	*	JS	*	*	*	*	*	>153	16.86	>2579.58	0.1065	>16.2945	0.68172	>104.3032	0.5716	>87.4548	1.253	>191.758	0.1352	>20.6795	60.78	210
6/13/2001	1309	FH	25.81	8.12	7.26	394	0.1707	132	2.4	316.80	0.0391	5.1612	0.46160	60.9312	0.5053	66.6996	0.967	127.6572	0.1301	17.1666	87.73	52
6/27/2001	1242	FH	26.47	7.72	6.77	614	0.117	198	16.47	3261.06	0.0682	13.49568	0.60444	119.67912	0.48106	95.24988	1.086	214.929	0.0877	17.3547	34.53	600
7/6/2001	1320	JS	25.86	6.77	7.48	413	0.0857	132	7.95	1049.4	0.0698	9.207	0.5745	75.834	0.2800	36.963	0.855	112.797	0.1035	13.659	38.12	7600
7/11/2001	1339	FH	27.6	7.15	6.92	602	0.1116	126	21.21	2672.46	0.0763	9.611	0.6609	83.272	0.3120	39.311	0.973	122.583	0.1325	16.689	32.70	150
7/18/2001	831	JS	26.84	6.98	4.92	462	0.172	78	2.16	168.48	0.0612	4.774	0.4051	31.595	0.3444	26.865	0.749	58.459	0.1001	7.811	52.75	80
7/25/2001	1127	FH	25.7	6.76	6.56	498	0.1814	114	2.18	248.52	0.0878	10.008	0.5684	64.8	0.4966	56.608	1.065	121.408	0.1083	12.346	63.54	600
8/1/2001	1226	JS	24.32	6.75	7.42	409	0.1077	132	9.79	1292.28	0.0574	7.582	0.6766	89.311	0.3117	41.139	0.988	130.45	0.1816	23.974	107.68	270
8/8/2001	1432	FH	28.12	7.55	8.02	560	0.1813	174	2.04	354.96	0.0640	11.127	0.4412	76.764	0.3379	58.798	0.779	135.652	0.2918	50.766	246.58	52
8/15/2001	1026	JS	26.74	7.25	5.91	544	0.0888	>333	23.85	>7942.05	0.0864	>28.761	0.7922	>263.789	0.2181	>72.621	1.01	>336.41	0.1293	>43.05	24.49	375
8/29/2001	1113	JS	24.8	6.93	6.73	460	0.1148	126	53.36	6723.36	0.1597	20.127	0.7637	96.224	0.6015	75.789	1.365	172.013	0.2079	26.194	72.09	7700
9/5/2001	*	FH	*	*	*	*	*	108	6.82	736.56	0.0647	6.99	0.6161	66.536	0.4154	44.859	1.031	111.394	0.1698	18.342	104.85	240
9/12/2001	1217	JS	22.96	6.97	7.97	418	0.1601	90	2.60	234	0.0711	6.395	0.4752	42.766	0.3513	31.616	0.826	74.382	0.1522	13.694	81.34	500
9/19/2001	1314	FH	20.33	7.23	9.32	486	0.2163	108	1.15	124.2	0.0600	6.475	0.4485	48.438	0.3890	42.012	0.838	90.45	0.1317	14.22	52.31	74
9/27/2001	*	JS	*	*	*	*	*	>40.8	2.69	>109.752	0.0850	>3.468	0.5182	>21.143	0.2899	>11.83	0.808	>32.972	0.1004	>4.095	55.96	590
10/4/2001	1130	FH	17.81	7.14	9.06	428	0.2265	6	1.97	11.82	0.1244	0.747	0.4583	2.75	0.2937	1.762	0.752	4.512	0.5172	3.103	289.48	68
10/17/2001	1438	FH	16.15	6.96	8.36	488	0.1151	102	9.38	956.76	0.1133	11.551	0.6400	65.282	0.3018	30.783	0.942	96.065	0.2291	23.372	113.72	
10/25/2001	1253	JS	20.45	7.29	8.26	524	0.1785	84	1.10	92.4	0.1102	9.258	0.4553	38.241	0.2868	24.09	0.742	62.331	0.3187	26.767	180.61	56
10/31/2001	1430	FH	12.83	7.02	9.21	441	0.1242	84	7.89	662.76	0.1007	8.462	0.6942	58.315	0.1449	12.172	0.839	70.486	0.3094	25.989	157.63	191
11/7/2001	1315	JS	13.44	7.26	9.49	417	0.1653	>78	6.80	>530.4	0.1125	>8.778	0.6194	>48.309	0.0858	>6.692	0.705	>55.002	0.2818	>21.983	119.27	98

Crabtree Creek Dissolved Oxygen

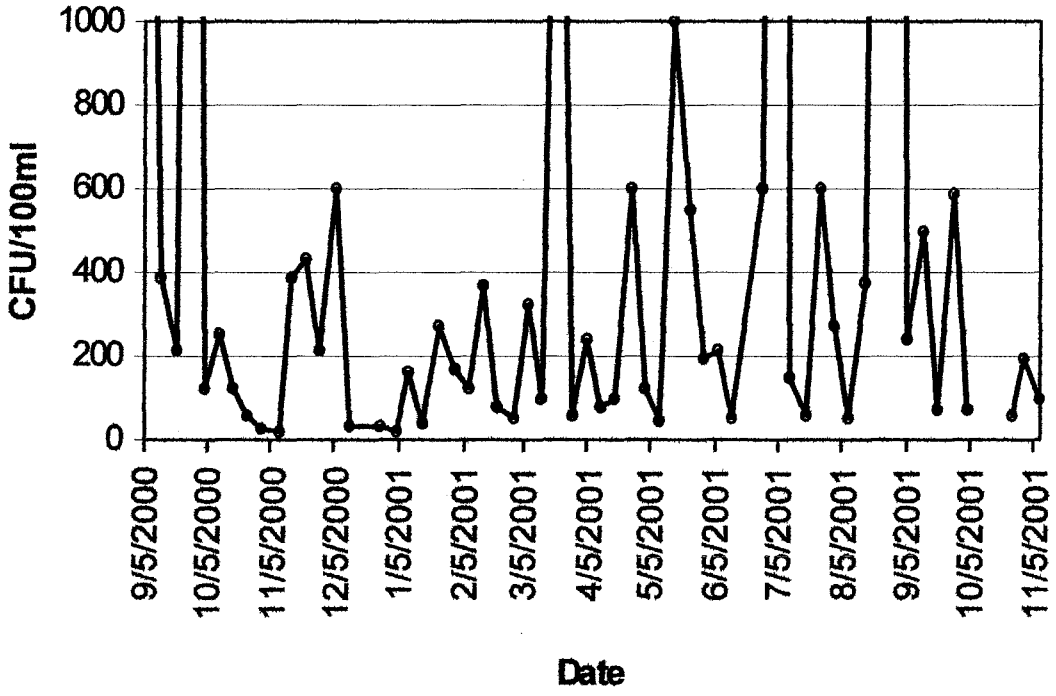


Not zero

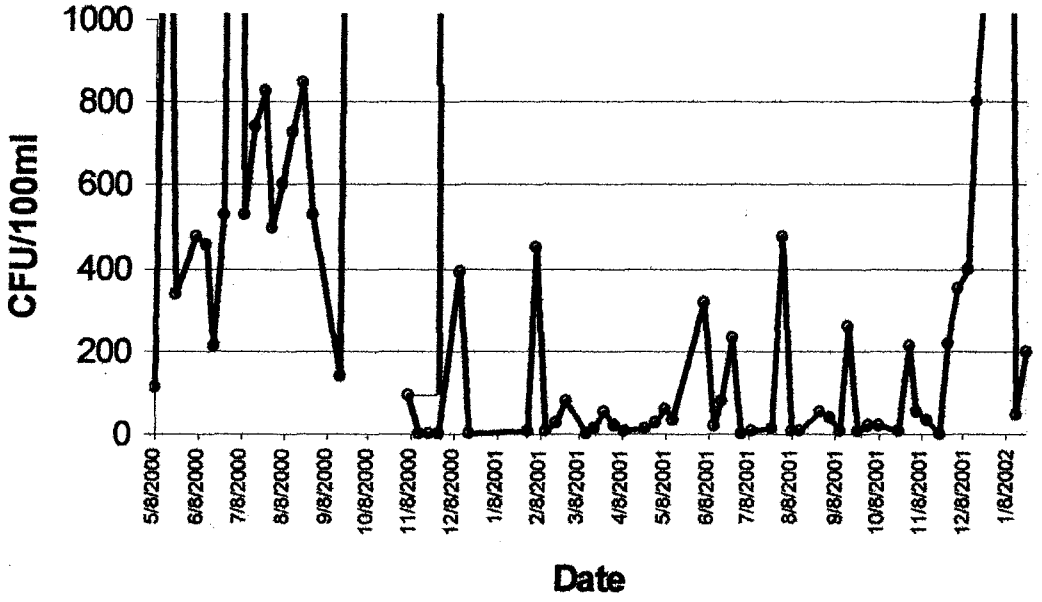
Beard Creek Dissolved Oxygen



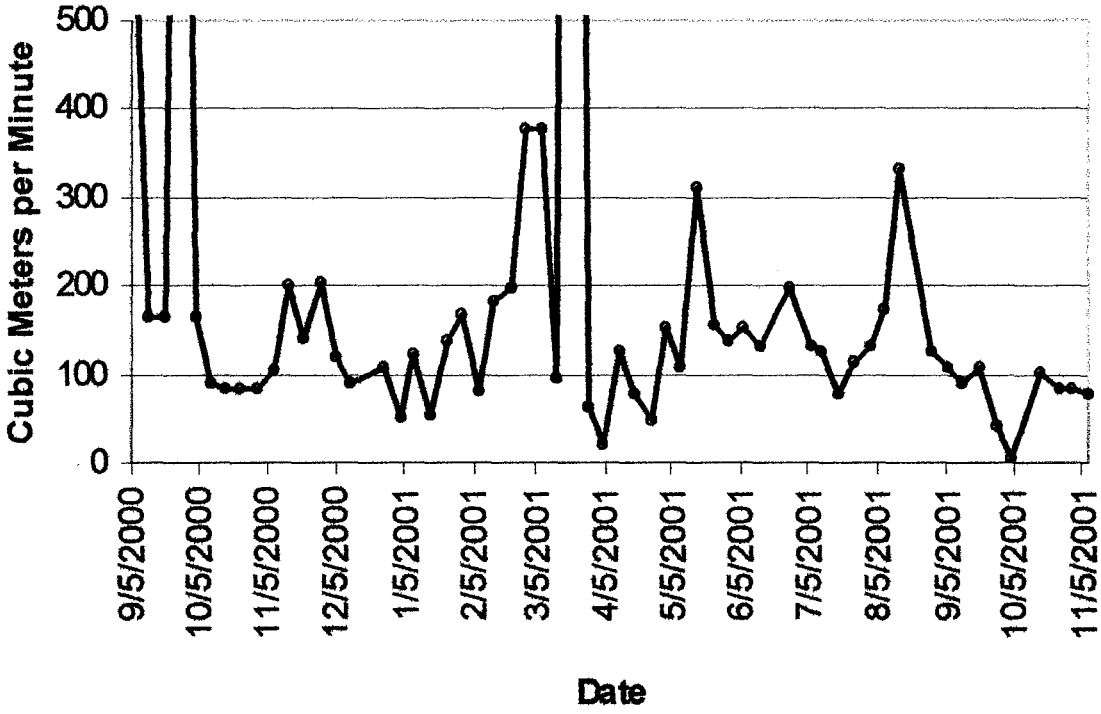
Crabtree Creek Fecal Coliform

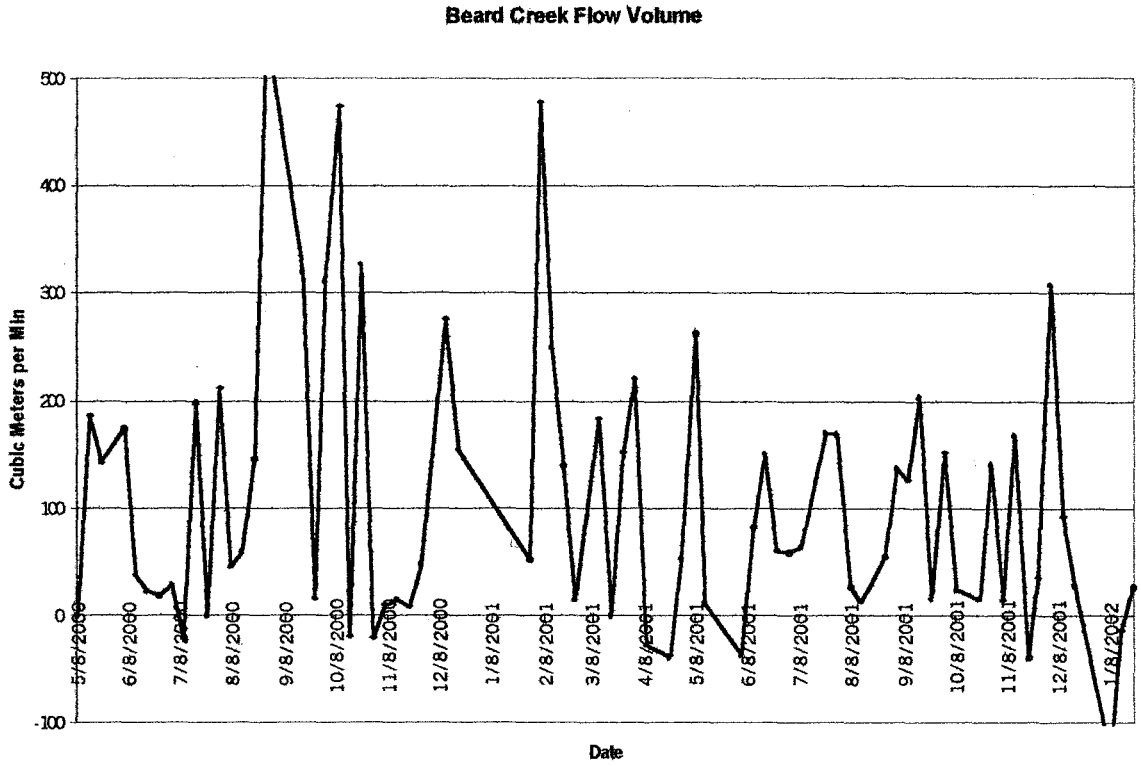


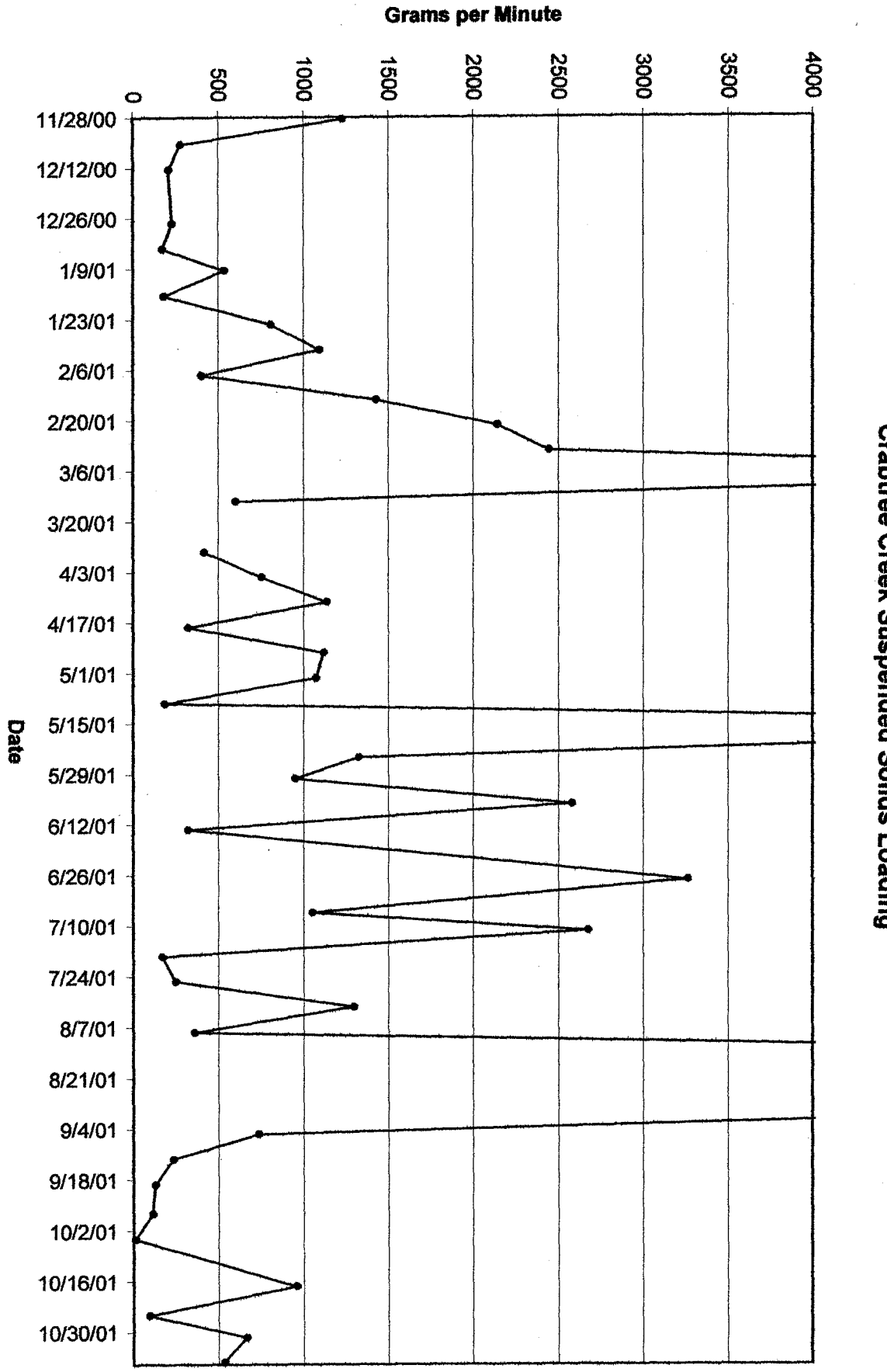
Beard Creek Fecal Coliform



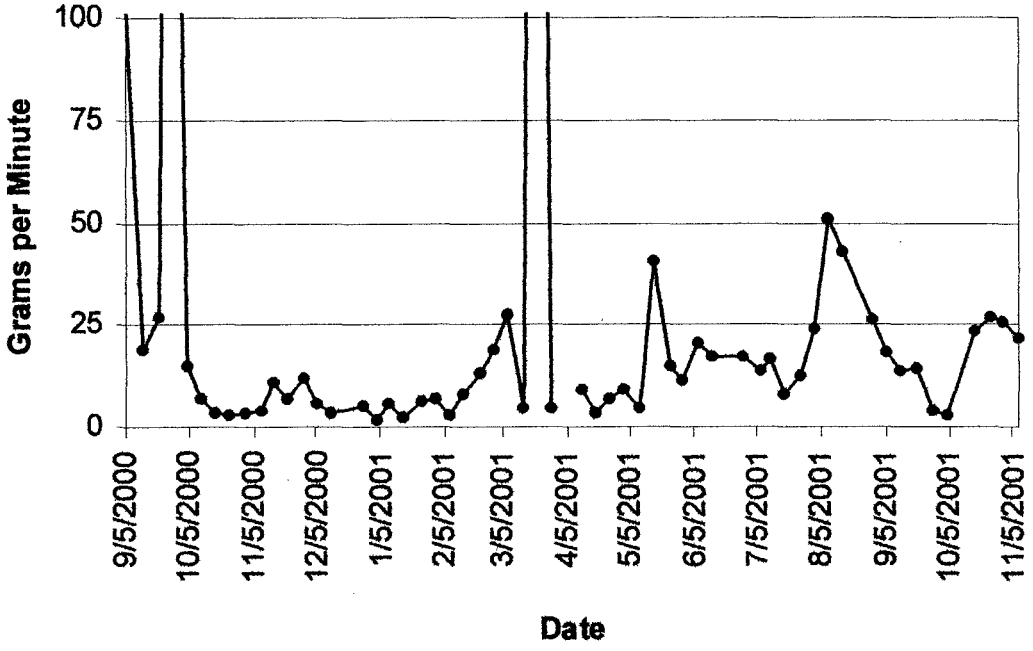
Crabtree Creek Flow Volume



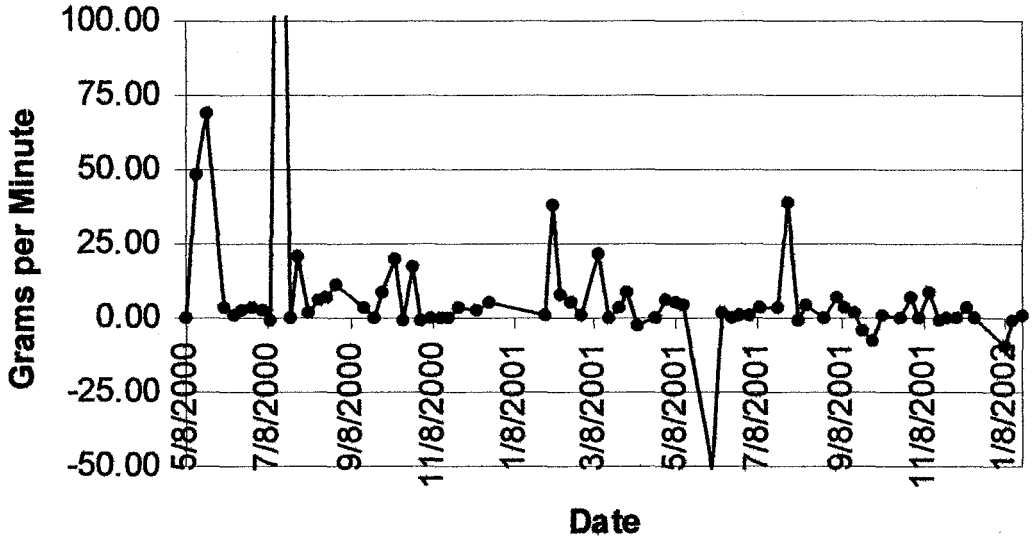



Grams per Minute
0
500
1000
1500
2000
2500
3000
3500
4000
Date
11/28/00
12/12/00
12/26/00
1/9/01
1/23/01
2/6/01
2/20/01
3/6/01
3/20/01
4/3/01
4/17/01
5/1/01
5/15/01
5/29/01
6/12/01
6/26/01
7/10/01
7/24/01
8/7/01
8/21/01
9/4/01
9/18/01
10/2/01
10/16/01
10/30/01
Crabtree Creek Suspended Solids Loading

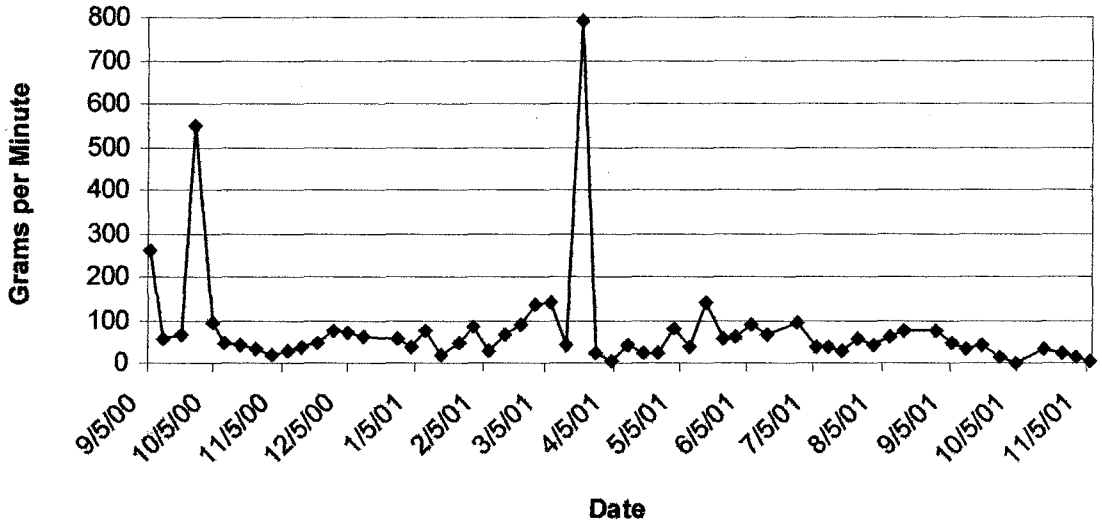
Crabtree Creek Phosphorous Loading



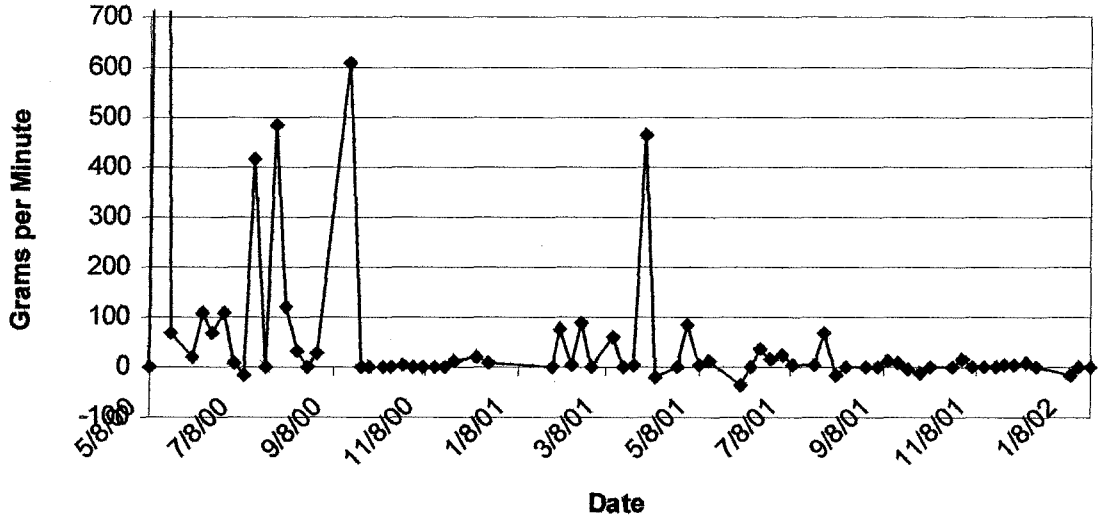
Beard Creek Phosphorous Loading



Crabtree Creek NO3/NO2 Loading

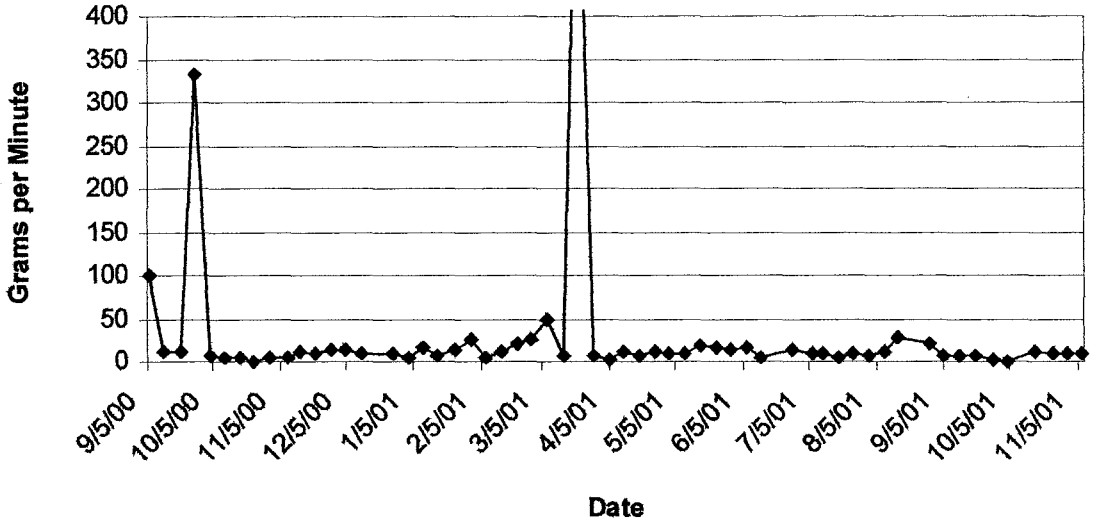


Beard Creek NO3/NO2 Loading

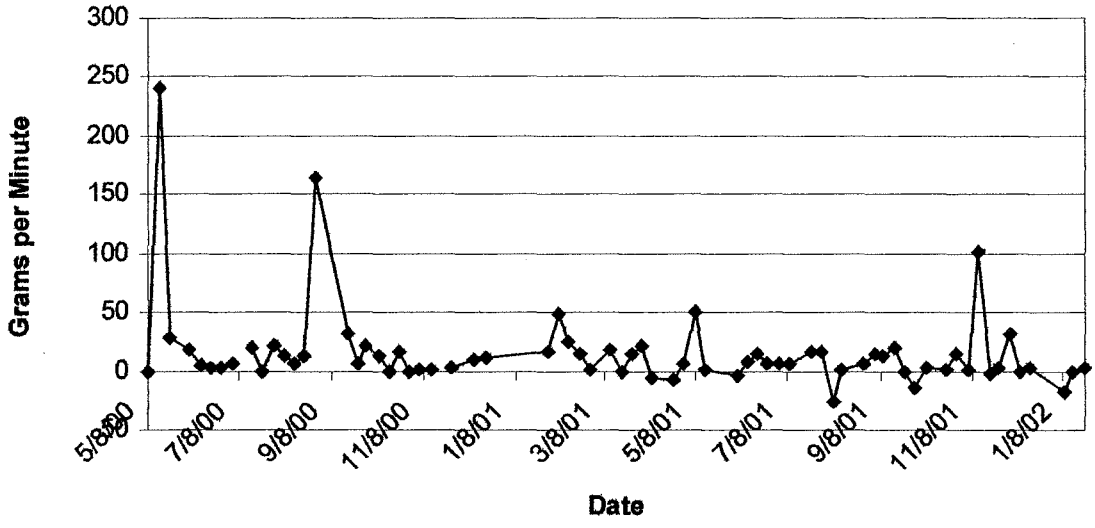


nitrate/nitrite

Crabtree Creek NH3 Loading

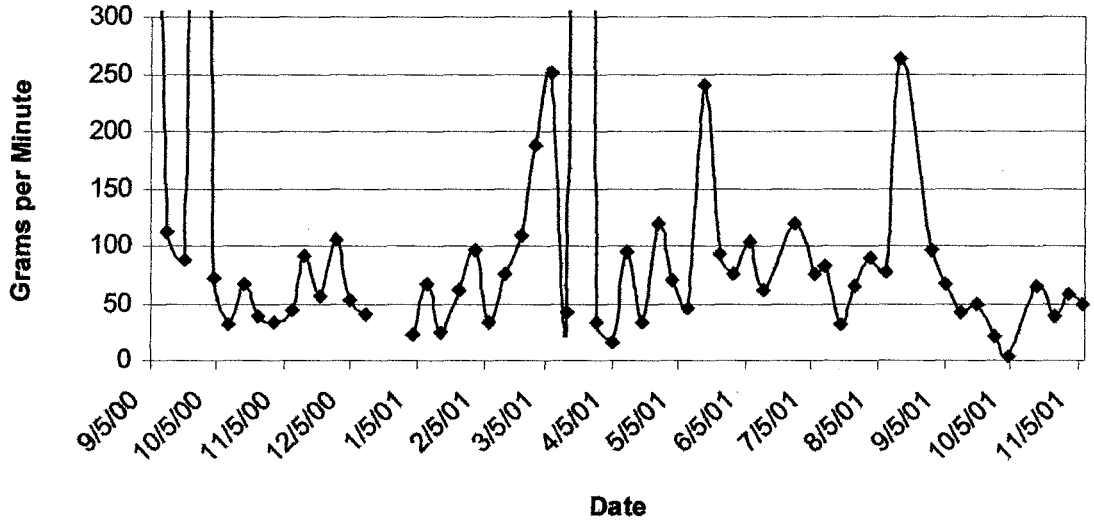


Beard Creek NH3 Loading

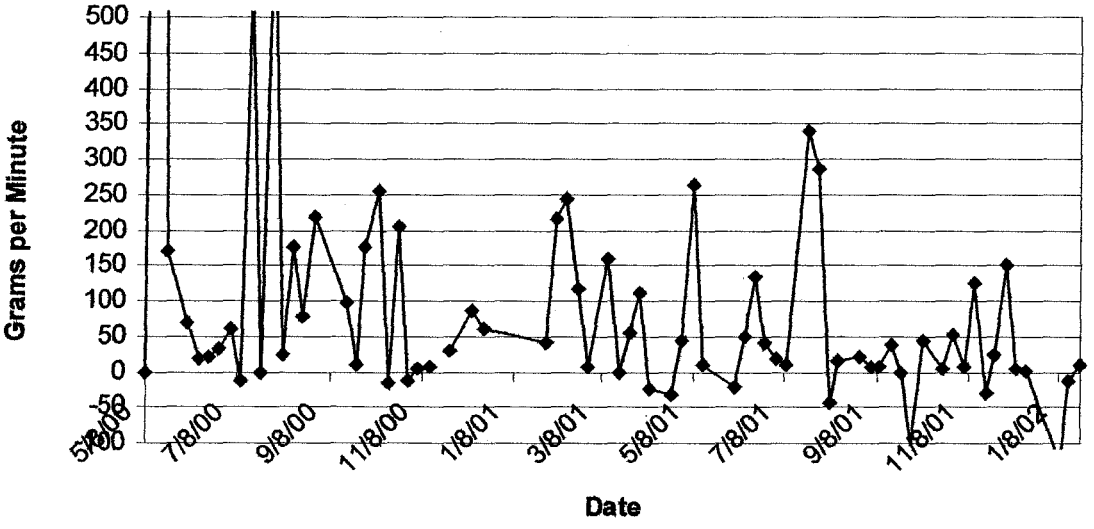


amonia

Crabtree Creek TKN Loading

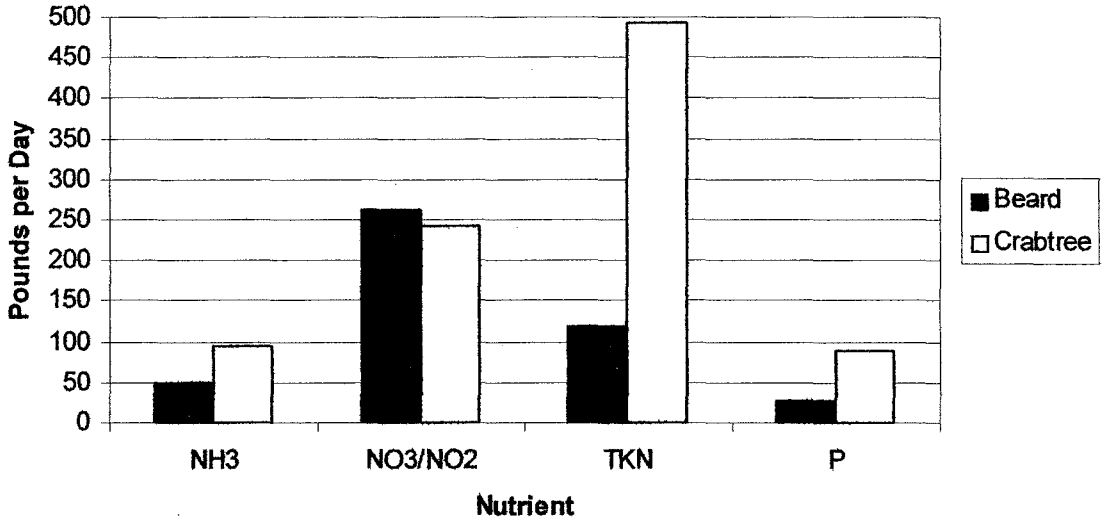


Beard Creek TKN Loading

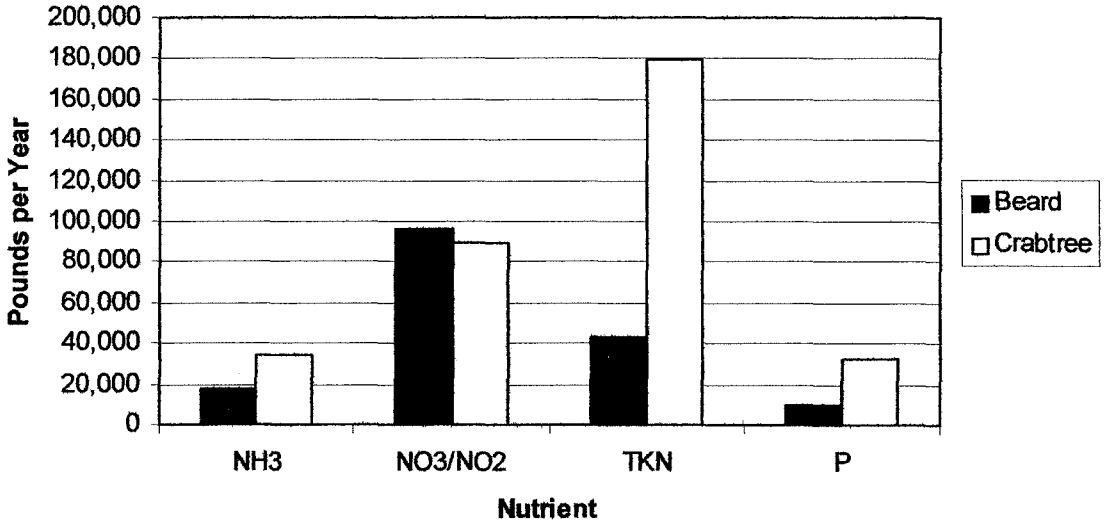


Total { Nitrate, Nitrite, Kjeldahl Nitrogen

Average Daily Loading



Average Annual Loading



SUMMARY

Average Daily Loading (Pounds per Day)

	NH3	NO3/NO2	TKN	P
Beard	48.59	262.24	118.84	27.06
Crabtree	95.16	243.23	492.5	89.22

Average Annual Loading (Pounds per year)

	NH3	NO3/NO2	TKN	P
Beard	17735.15	95717.6	43376.65	9876.9
Crabtree	34734.19	88778.95	179762.45	32564.52

Average Fecal Coliform Levels (CFU/100ml)
Beard 1002 per sample
Crabtree 645 per sample

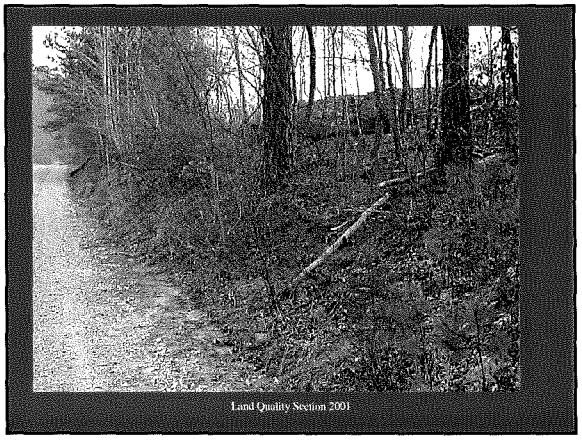
Average Flow Volumes (Cubic Meters per Minute)
Beard 104.66
Crabtree 213.28

Average Suspended Solids Loading: Crabtree
29,425.23 Pounds per Day
10,740,207.5 Pounds per Year

Attachment B

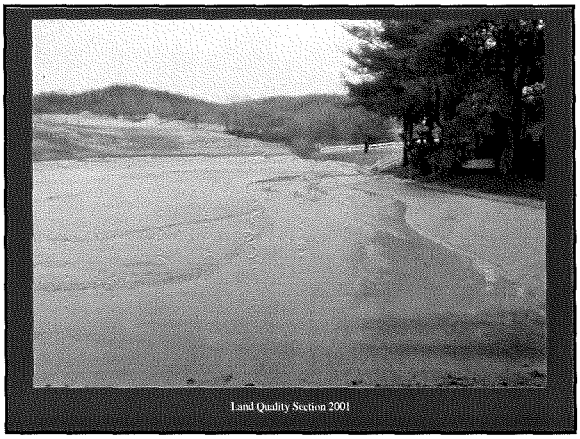
Sedimentation Pollution Control Act of 1973

Land Quality Section 2001



Land Quality Section 2001

Land Quality Section 2001



Land Quality Section 2001

"EROSION"

- ***The wearing away of land surface by the action of wind, water, gravity, or any combination thereof.***

Land Quality Section 2001

SPCA OF 1973

- *The Sedimentation Pollution Control Act of 1973 is a performance oriented law.*
- *Created to minimize the damage to our streams caused by development*
- *Recognizes the need for economical growth*

Land Quality Section 2001

Purpose of the Act

- **§113a-51 Preamble.**

…It is the purpose of this article to provide for the creation, administration and enforcement of a program and for the adoption of ***minimal mandatory standards which will permit development of this State to continue with the least detrimental effects from pollution by sedimentation…***

Land Quality Section 2001

HOW THE LAW WORKS

- *Requires erosion control measures be installed to protect adjacent property and watercourses*
- *Requires a plan for activities above a certain size*
- *Assesses civil penalties for non-compliance*

Land Quality Section 2001

THE SPCA AND THE LAND-DISTURBER

- *Land owner can always be held responsible*
- *Contractor can be held responsible*
- *Person in operational control can be held responsible*

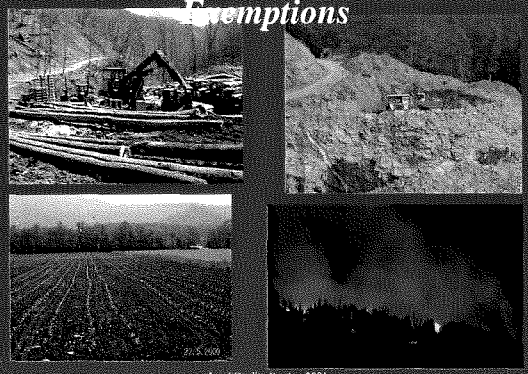
Land Quality Section 2001

What are the requirements?

- *You must keep the mud on your construction site*
- *You must keep the mud out of the stream and provide a buffer zone along the stream*
- *You must get a groundcover on the site*
- *Your slopes must be stable*
- *You must have a "Certificate of Plan Approval" or Local Government Permit if the activity affects the trigger acreage*

Land Quality Section 2001

Exemptions



Land Quality Section 2001

Minimal Mandatory Requirements

- *Provide a buffer zone along all watercourses which will stop the mud*
  - Standard buffer zone
    - Catch the mud in the first 25% of the buffer zone afforded
  - Trout buffer zone
    - 25 foot undisturbed buffer zone

Land Quality Section 2001

Minimal Mandatory Requirements, cont.

- *Erosion control measures must be installed as necessary*
- *Ground cover must be established within statutory time limits*

Land Quality Section 2001

Minimal Mandatory Requirements, cont.

- *If an acre or more is expected to be disturbed a Certificate of Plan Approval from the state is required*

or

- *If the trigger acreage for a local government ordinance is expected to be disturbed a permit from the local government is required*

Land Quality Section 2001

Minimal Mandatory Requirements, cont.

- *Slopes must be at an angle no greater than the angle which can be retained by a vegetative cover or other adequate erosion-control devices or structures.*
  - Cut slopes should be no steeper than **1½:1**
  - Fill slopes should be no steeper than **2:1**
  - Should be stabilized within **15 working days/30 calendar days** whichever is shorter

Land Quality Section 2001

Ground Cover Requirements

- ***15 Working Days/ 90 Calendar Days***

on

- ***15 Working Days/ 30 Calendar Days***

on

- ***15 Working Days/ 60 Calendar Days***

in

(Working days don't include Sat. & Sun.)

Land Quality Section 2001

Erosion Control Plans

- *Are required on sites affecting an acre or more*
- *Typically are drawn up by engineers and land surveyors.*
- ***Do not** have to be sealed by an engineer*
- *Homeowners can do their own*

Land Quality Section 2001

Certificate of Plan Approval

- *The certificate is issued after approval of the erosion control plan by Land Quality*
- *Some Local Governments have state approved ordinances to address erosion control. (A plan submitted to local government should not be submitted to the state)*

Land Quality Section 2001

Projects which must be submitted to the State

- *Any projects involving local, state or federal funds*
- *Projects by establishments with powers of eminent domain (Power & Light, Sewerage Districts, etc…)*

Land Quality Section 2001

Non-compliance

- *Civil penalty may be up to a maximum of $5000 per day per violation*
- *Criminal penalty is a Class 2 misdemeanor*
- *Stop work orders may be executed*
- *Injunctive relief may be sought*

Land Quality Section 2001

Building Permits

- *Building permits may be withheld until an erosion control plan for the site has been approved. (§153A-357,§160A-417)*

Land Quality Section 2001

For Additional Information

NCDENR, Land Quality Section
1612 Mail Service Center
Raleigh, NC 27699
(919) 733-4574
Or toll-free
1-866-STOPMUD
www.dlr.enr.state.nc.us

Attachment C

Date

DRAFT

The Honorable Michael F. Easley
Office of the Governor
116 West Jones Street
Raleigh, North Carolina 27603-8001

Dear Governor Easley:

The Neuse River Basin Regional Council (NRBRC) was established by Executive Order #75, as amended by Executive Order #118, dated 15 September 1997. The NRBRC, 1 of 5 Regional Councils corresponding to the 5 major river basins included in the Albemarle-Pamlico Estuarine Study (APES) (presently known as the Albemarle-Pamlico National Estuary Program (APNEP) region, is composed of representatives from the 17 counties included in the basin. Volunteers, members of the NRBRC represent local government and the following stake holder groups: agriculture, silviculture, conservation, environmental science, commercial fishing, business/industry, recreational fishing, tourism, Soil and Water Conversation Districts and at-large members. The NRBRC was created to advise and consult with local, state, and federal government agencies, as well as the general public and interest groups within the basin, on the implementation of the Albemarle-Pamlico Estuarine Study's Comprehensive and Conservation Management Plan (CCMP).

The NRBRC recognizes North Carolina's financial shortfall in the current budget and the need for intervening action. This letter is intended to address the budget issue as it pertains to the Clean Water Management Trust Fund (CWMTF). It is the NRBRC's understanding that the CWMTF's current funding is approximately 21 million dollars and that approximately 13 million of this has been, or is in the process of being, obligated. Failure to fully fund this important program will delay the clean up of the Neuse River basin and, while delay is not desirable, it is certainly understandable. It is the obligated portion of this fund that presents additional concern. There are CWMTF grant recipients who have incurred cost as the result of this state-sponsored program. Not to pay, or to delay payment of obligations already incurred, will likely have long-range chilling effects on future applicants; therefore, it is respectfully requested that this matter receive additional review and consideration.

Sincerely,

DRAFT

Andy McLawhorn, Chairman
Neuse River Basin Regional Council
Albemarle-Pamlico National Estuary Program