

# **Great Bay Coast Watch and Dover Stormwater Investigation for Potential Pollution Sources in Dover, NH December, 2004 Final Report**



Submitted by: B Sharon Meeker and Ann S. Reid  
New Hampshire Sea Grant Extension  
University of New Hampshire, Durham, N.H. 03824  
Edited by: Karen Diamond  
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## Table of Contents

Great Bay Coast Watch and Dover Stormwater Investigation for Potential Pollution Sources in Dover, NH December, 2004 Final Report..... 1

Table of Contents..... 1

Goals and Objectives..... 3

Methods and Accomplishments ..... 3

Recommendations ..... 6

Appendixes ..... 7

## List of Figures

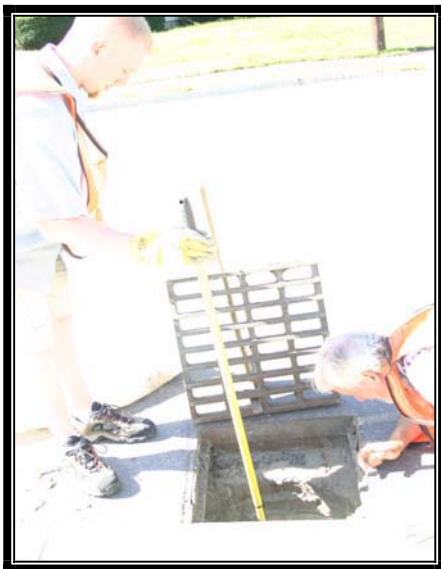
Figure 1 A Dover City Employee and GBCW Volunteer (Nate Hazen) working together..... 1

Figure 2 Dover Site 1, Cochecho River behind the Dover Mounted Police horse pasture ..... 2

Figure 3 City of Dover Employee opening a Storm Drain for Volunteers ..... 4

Figure 4 A positive plate of fecal coliform colonies from a Dover Site..... 5

Figure 5 GBCW Volunteers from 2003. From the left: Lydia Scott, Nate Hazen, Eileen Williams, and Ann Smith. .... 5



**Figure 1 A Dover City Employee and GBCW Volunteer (Nate Hazen) working together.**



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## **Introduction**

### **The Great Bay Coast Watch Mission Statement:**

The Great Bay Coast Watch (GBCW) is citizen volunteers, working within the UNH Cooperative Extension/NH Sea Grant Program, protecting the long-term health and natural resources of New Hampshire's coastal waters and estuarine systems through monitoring and education projects.

The GBCW volunteer estuarine monitoring program was established in 1989 and is supported in part by the University of New Hampshire Cooperative Extension and New Hampshire Sea Grant. It includes teachers, students, and local citizens with a diversity of backgrounds. Volunteers participate in a variety of training programs that enable them to monitor water quality parameters in Great Bay and coastal areas, sample for marine phytoplankton and conduct shoreline surveys and habitat assessments.



In 2001, GBCW began work, with funding from the United States Environmental Protection Agency (EPA) through New Hampshire Department of Environmental Services (NHDES), to assist the City of Dover, NH in identifying its illicit storm water connections using fecal coliform as an indicator species. The completion of the Quality Assurance Project Plan (QAPP) was a long and involved process which required the use of a majority of the grant resources. Sampling was begun in 2003; however, a lack of dry days during the work week and between regular sampling times prevented the sampling cycle from being completed in 2003. By the end of October 2004, monitoring results indicated that continued monitoring

would not reveal new information. In all, fifty-seven sites were visited. With out counting Quality Assurance/Quality Control (QAQC) replicate samples, twenty-eight samples were processed in 2003 and twenty-five samples have been processed in 2004. In total, sixty samples were taken, including the QAQC replicate samples.

## **Goals and Objectives**

The purpose of this project was to screen sites located at Dover's storm drain discharges for high levels of fecal coliform and obtain other pertinent water quality data. This data will be provided to the City of Dover staff to use to assess their storm drain system better and remove illicit connections.

Specific goals for GBCW and the City of Dover were:

- Recruit volunteers for the project.
- Organize a planning meeting with the City of Dover and NHDES to determine sample sites and parameters to be measured.
- Prepare and submit for approval by EPA a Quality Assurance Project Plan (QAPP), which must be approved by EPA prior to the commencement of sampling.
- Generate maps for the use in identifying storm drain discharges in the field.
- Coordinate and conduct training sessions for the volunteers with the assistance of NHDES and the City of Dover.
- Screen sites and collect samples when sufficient flow is detected. Samples will be brought to the GBCW lab for analysis.
- Submit a final report documenting all work performed on the project including and water quality data collected.

## **Methods and Accomplishments**

### Recruit volunteers for the project:

Volunteers were recruited for this project from GBCW volunteers as well as from Dover events and advertising. Recruitment and training continued throughout the project.

### Organize a planning meeting with the City of Dover and NHDES to determine sample sites and parameters to be measured:

Several planning meetings have been conducted between GBCW and the City of Dover. After each sampling, results were calculated and the next set of sites was chosen by consensus between Dover and GBCW. Potential dates were



selected, city employees and GBCW volunteers were notified, and GBCW leaders followed weather reports to prepare for sampling.

Prepare and submit for approval by EPA a Quality Assurance Project Plan (QAPP) which must be approved by EPA prior to the commencement of sampling:

The QAPP was accepted on 10/2/02. The City of Dover provided the printing and publication of the QAPP. Copies were provided to the NHDES, the City of Dover, NH, and to the GBCW group leaders upon its acceptance. Due to the size of the QAPP, it has not been included in this document. Copies may be provided upon request (Hard copies may require a nominal fee).

Generate maps for the use in identifying storm drain discharges in the field:

The City of Dover provided color maps as needed for the GBCW volunteers. Copies were provided in usable field size and in Adobe PDF files. See Appendix F for all 8.5 by 11 inch maps.



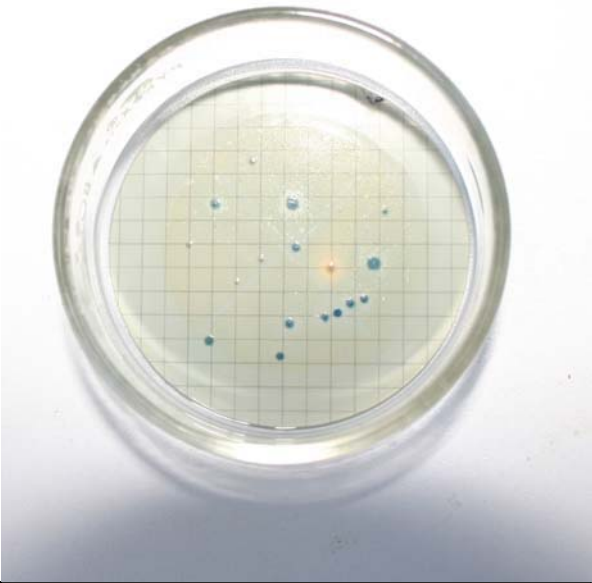
**Figure 3 City of Dover Employee opening a Storm Drain for Volunteers**

Coordinate and conduct training sessions for the volunteers with the assistance of NHDES and the City of Dover:

After initial training, Nate Hazen (the Quality Assurance Officer) has continued training sessions for all participating volunteers as needed. Training sessions were planned to take place a few days before sampling, so the knowledge and practice of the procedures were fresh in the minds of volunteers.

Screen sites and collect samples when sufficient flow is detected:

Five areas in Dover were identified as having potential impacts. The outlets were in the areas of Henry Law Park, Sixth Street, Fourth Street, Bellamy River at Sawyer Mills, and Chestnut Street. Therefore; these were the designations for the site areas.



**Figure 4 A positive plate of fecal coliform colonies from a Dover Site.**

Four areas of sites from 2003 required continued sampling in 2004. Those sites (Bellamy River, Henry Law, Sixth Street, and Chestnut Street) were re-sampled in 2003 and related locations were sampled in 2004.

The Bellamy River sites were “clean” when sampled in August 2004. When the area was checked again to confirm the results, the outlet pipe was covered in poison ivy, and the remaining storm drain had no flow. As a result, there was no confirmation sample taken. At this time, it appears that this site has been cleaned up; however, the City of Dover may wish to confirm this at a later date.

GBCW was able to show that there is an illicit connection problem in the Henry Law area; however, the source

has not been identified. This area will require a different form of testing to pinpoint the source of the illicit flow.

Due to some Capital Improvements Projects being completed in Dover, some of the Sixth Street sites chosen were no longer available to sample. The sites that were sampled in this area showed reduced contamination from 2003, and in 2004 one storm drain was located with a probable illicit connection. The Berry Brook portion of the Sixth Street area shows high bacterial contamination. GBCW was successful in pinpointing the area in which the bacterial contamination began.

The Chestnut Street site had inconclusive results in 2003. An area slightly upstream from the original site was sampled in August 2004 and showed no bacteria contamination.



**Figure 5 GBCW Volunteers from 2003. From the left: Lydia Scott, Nate Hazen, Eileen Williams, and Ann Smith.**

Submit a final report documenting all work performed on the project including the water Quality data collected.

The City of Dover now has the information it needs to target areas for cleanup efforts. The list of sites is provided in Appendix A, all results are provided in Appendix B, and flow calculations are provided in Appendix C with the cost per sample in Appendix D. Volunteer Time and Mileage is reported in Appendix E and a project completion letter from The City of Dover, NH is provided in Appendix G.

## **Recommendations**

Great Bay Coast Watch continues to provide a valuable trained and flexible workforce of volunteers who can accommodate variable sampling and sample processing. The City of Dover assisted GBCW with the identification of sites and mapping using their Geographic Information System (GIS).

GBCW would like to thank the City of Dover and the NHDES for working with our volunteer monitoring group. The City of Dover has provided GBCW with the support and flexibility needed to obtain meaningful results. The NHDES has extended this grant for three years to allow GBCW the time it needed to sample the area properly.

- GBCW will continue to have flexible volunteers trained and ready to provide field and laboratory work. For this project, sampling opportunities were often in conflict with regular GBCW activities due to weather. This caused the project to draw out over an extended period of time. Flexibility for scheduling must be built into programs that are weather dependent.
- Chris Nash, the NHDES Shellfish Program Manager, was very helpful in training the volunteers for collecting flow data at these sites. Chris and his assistants are recommended as instructors for future volunteer projects.
- GBCW has concluded its tasks in identifying Dover areas with illicit connections. Different techniques will need to be employed by the City of Dover to pinpoint exact locations in the remaining areas.
- Due to the extended time of this project, The City of Dover had been able to repair two areas before monitoring was completed. As a result, GBCW was able to demonstrate the impacts of the repair work. This was a positive, though unintended outcome of this project. Future projects may wish to incorporate monitoring before and after repair work into their plans.
- The City of Dover will be able to refer to these results as a successful model in the future. Working with a volunteer group made the monitoring both economical and educational, fulfilling some EPA Storm Water Phase II requirements.
- City administrators can use the results from volunteer monitoring groups to rely on in determining where funding resources are most effective. In this case, the sharing of resources benefited both groups.

## **Appendixes**

**Appendix A: Site Descriptions**

**Appendix B: Laboratory Results**

**Appendix C: Flow Results**

**Appendix D: Cost per Sample**

**Appendix E: Time and Mileage Report**

**Appendix F: Site Maps**

**Appendix G: Completion Letter**



# Appendix A

2003 Sites  
Site Locations: Map A Henry Law Park

GBWC Site # Map ID	City of Dover ID River	Pipe Description Latitude and Longitude	Location Description	Previous Data	
				Date	CTS/100ml
1*	CRT910 Cocheco	5' x 6' Concrete headwall, 4' deep. Low tide only 43°11.854N; 70°52.170W	Located behind the police horse pasture on Cocheco street. Go down to the river under the power lines. It is a 15"+ drop off. A rope and boots will be needed for stability and to get back up.	7/17/98 6/9/97	3,400 1,400
2*	CRT915 Cocheco	12" white PVC pipe. Low tide only 43°11.851N; 70°52.954W	Behind Cedar shingled duplex #69 and #70 Cocheco street. Continue walking the shore up stream from site 1. Need boots	6/23/1997	58
3	CRT950 Cocheco	5' brick outfall. Low tide only 43°11.509N; 70°52.107W	Upriver side of boat launch. Can walk on shoreline or use a long pole for testing	6/6/1997 8/18/98	1,900 891
5† Under Water	CRT2000 Cocheco	4' reinforced pipe flush with headwall. Lip was under water 43°11.650N; 70°52.221W	Line up with the Skateboard parking lot. Tie rope to tree and use it to stabilize the climb. Slope is slippery and steep. Brushy with no visible poison ivy	6/6/1997	1,700
7† Dry	Cocheco	Square opening in granite wall 43°11.360N; 70°52.190W	In the bow of the river, in front of the 1st picnic shelter (not the white PVC pipe). Looks dry		
8† Dry	Cocheco	2' rusted corrugated metal pipe 43°11.390N; 70°52.230W	Looks more like 4' pipe. Across sidewalk from gym, near the gate in the fencing		
9† Flowing	CRT8000 Cocheco	3' concrete pipe 8' above river in granite wall 43°11.697N; 70°52.361W	Approach from north side of gym by traffic bridge. Easy walk down to edge of river on mowed grass. If heavy flow the largest bucket will be too heavy for measuring. Need pole to get fecal water	6/6/97 7/17/98 5/18/99	>2,000 790 8,000
23	Cricket Brook into Cocheco	Raised Dome Iron Catch Basin 43°11.854N; 70°52.170W	Cricket Brook Apt Parking lot. Go east on Henry Law Avenue part way up the hill. Turn into the Cricket Brook Apartment parking lot. Go to the back of the right hand parking lot. The catch basin is less than 50 paces away toward the opening in the brush. Dark, will		

\*1. Most of these sites would be easily found and tested using a canoe

†2. These sites will be underwater except at low tide.

3. All of these sites should only be done at low tide only.

4. All these sites require boots

5. Sites 5 through 8 are easiest to reach by the tester going down the canoe ramp and backtracking

6. Sites 4,6,24 are not being tested

7. I did not actually go down to 1,2, or 3

## Appendix A

**Site Locations: Map B Fourth Street Bridge to Central Avenue Bridge**

GBWC Site # Map ID	City of Dover ID River	Pipe Description Latitude and Longitude	Location Description	Previous Data	
				Date	CTS/100ml
10* Flowing	CR4050 Cochecho	4' wide, flat bottom trough 43°11.650N; 70°52.221W	Up stream side of Central avenue bridge. Straight out from the low wall at the end of the walk way that goes behind the	6/5/1997	0.00
11* Flowing	CR4020 Cochecho	1' concrete pipe 43°11.460N; 70°52.360W	Behind the Cochecho Apartment building. Very steep slope down through brambles. No place to belay, follow roots	6/5/1997	0.00
12* Under Water	CR5000 Cochecho	4' cement headwall, 2 1/2' opening 43°11.800N; 70°52.620W	On North side of river right by the Chestnut Street bridge. Need rope for security and boots to stand in 10" - 12" of water while measuring, river is deep here too. Lip of pipe	6/5/1997	4.00
13*		Collapsed red cement pipe filled with garbage and mud 43°11.410N; 70°52.500W	<b>Missed</b> - Went down very steep, dangerous switch-back and couldn't find pipe. Found rope hanging from tree.		
14* Dust Dry		1 1/2' green plastic pipe inside cement trough (5' wide at the back, 6 1/2' wide at the 43°11.540N; 70°52.550W	Across Fourth Street bridge; left on Snows Ct down to fire hydrant at Prospect st. Pipe is on private property of fence line. Easier to go down privet side.		
15*		2' rusted corrugated metal pipe 43°11.550N; 70°52.530W	<b>Missed</b> - Went through from end of Third street. 40' drop off. Crushed pipe. Can get sample from seep but no flow		
25*		Pipe flows out onto land 43°12.048N; 70°52.910W†	On north side of 4th street, down slight incline. Pipe empties onto land		

\*1. All of these sites would be easily and safely found and tested using a canoe

2. Canoe can be removed on the north side of the river between the Chestnut and Central avenue bridges

†3. This site was changed to across the street. The old pipe is totally under water. The new pipe is on private property and needs a new GI

## Appendix A

**Site Locations: Map C Sixth Street and Station Street**

GBWC Site # Map ID	City of Dover River	Pipe Description Latitude and Longitude	Location Description	Previous Data	
				Date	CTS/100ml
16 Standin g	CR5505 Cochecho	Raised Dome Iron Catch Basin 43°12.131N; 70°52.904W	New townhouse construction. Go down dirt road by right side of buildings down to boulder. Catch basin is just off to the right of the boulder. There is a 4' pipe under water if you		
17 Flowing	Cochecho	Sample from upstream side of bridge, no pipe 43°12.120N; 70°52.540W	Across from Sixth Stree Station. Culvert bridge marked by traffic retaining rail. Measure from bridge. (Would be easier to go into brook to measure.) Yard has a St. Bernard		

**Site Locations: Map D Bellamy River Rte. 108 by Spaulding Turnpike**

GBWC Site # Map ID	City of Dover River	Pipe Description Latitude and Longitude	Location Description	Previous Data	
				Date	CTS/100ml
18 Dry	Bellamy	1 1/2' cement pipe 43°10.798N; 70°52.654W	Park on road by Sullivan Tire and walk back toward Spaulding entrance. Look for 2nd drain grid from light on the		
19 Wet	BR4001 Bellamy	2' cement pipe 43°10.470N; 70°52.400W	<b>Rope for safety, boots needed.</b> Second drain grid in road, across from Sullivan Tire. Steep slope about 25' to left of	7/17/1998	9,100.00
20 Under Water	Bellamy	1 3/4' cement pipe projects 2' out from slope 43°10.450N; 70°52.390W	<b>Rope for safety, boots needed.</b> Second drain grid in road, across from Sullivan Tire. Steep slope about 25' to left of service pipes going across river. Lip of pipe 2" under water.		
21 Wet	BR3000 Bellamy	1' cement pipe in free standing cement headwall 5' 43°10.731N; 70°52.475W	<b>Poison Ivy. Rope for security going up and down slope.</b> Between Sawyer Mills and the white additional block of apartments. Can scabble down slope, careful of poison	12/3/98 5/28/97	0 3
22 Dry	Bellamy	13 1/2" corrugated metal pipe 43°10.400N; 70°52.280W	<b>Poison Ivy.</b> On far side of white addition. Would need 2' plastic flashing to measure water if flowing.		

1. Turn down Rte 108 by Sullivan Tire toward Sawyer Mills apts

## Appendix A

### August 2004 Sites

#### Site Locations: Map A Henry Law Park

GBWC Site #	City of Dover ID	Location Description
26	MH 1491	Manhole at intersecetion of Henry Law Ave and Paul St at #105
27	MH 1146	Manhole on Southwest corner of Silver Street at intersection with Central Avenue. Do after 9:00 AM and before 11:30.
28	CB 1147	South on Central Ave. Between #192 & #182.
29	MH 1353	Manhole at #6 Boyle street
30	MH 1314	Manhole in center of Court St at # 36
31	MH 1379	Manhole Union St across from #23
32	MH 1356	Manhole in front of #47 Court St
33	MH 1506	Manhole in front of #91 Court St.
34	SD 1420	Storm Drain in Cricket Brook Apartments parking lot by the frog pond closer to the street than the last stormdrain. Black cat hunts frogs there.

#### Site Locations: Map B Bellamy River

GBWC Site #	City of Dover ID	Location Description
35	SD 1003	Storm Drain in front of Garrison Mill apts in front of main building East end just west of MH 2049
36	MH 2049	Manhole on Charles Street by Garrison Mill apts in front of main building East end more Southerly of the 2 there

#### Site Locations: Map C Chestnut Street

GBWC Site #	City of Dover ID	Location Description
37	MH 2113	Manhole on East side of street in front of 'Curves'
38	SD 2088	Storm Drain on Second St on South East corner

#### Site Locations: Map D Sixth Street

GBWC Site #	City of Dover ID	Location Description
39	SD 616	Storm Drain on South West Corner of Grove and Sixth street on Grove across from #48 Sixth St
40	SD 542	Storm Drain on Sixth St on North side of street in front of building between #51 and # 59 across from SD 2472
41	SD 2472	Storm Drain on Sixth St on South side of street between #74 and # 76 across from SD 542
42	SD 479	Storm Drain on Sixth St on South side of street in front of #76A just East of SD 2474
43	Brook	Berry Brook just upstream of CB 475
44	Brook	North side of Hough Street on Berry brook between # 41 and #33 North of CB 541
45	MH 646	Manhole in center of intersection fo Hough and Grove Street

## Appendix A

### October 2004 Sites Site Locations: Map A Henry Law Park

GBWC Site #	City of Dover ID	Location Description
34	SD 1420	Storm Drain in Cricket Brook Apartments parking lot by the frog pond closer to the street than the last Stormdrain. Black cat hunts frogs there. Needs a Sodium Thiosulfate bag.
23	CB 1389	Raised Dome CB. 45 degree angle to the furthest right corner of the parking lot, in grassy area. Needs a 12' sampling pole and Sodium Thiosulfate bag.
46	SD 1266	Storm Drain in front of #11 Court Street .
32	MH 1356	Manhole in front of #49 + #51 Court Street. Not Sewer line, map is plotted incorrectly.
47	SD 1365	Manhole in front of #52 + #54 Court St.

### Site Locations: Map B Bellamy River

GBWC Site #	City of Dover ID	Location Description
21	DP	<b>Poison Ivy. Rope for security going up and down slope.</b> Between Sawyer Mills and the white additional block of apartments. Can scabble down slope, careful of poison ivy. Smells clean; bucket can get under pipe. Looks like about 4 - 5 liters/minute
52	MH1093	Between Sawyer Mills buildings, just north of site 21, in the center of
53	SD1128	At end of Sawyer Mills Building, across the street from Site 21, in the curb area.

### Site Locations: Map D Sixth Street

GBWC Site #	City of Dover ID	Location Description
45	MH 646	Manhole in center of intersection of Hough and Grove Street, South side.
48	MH 646N	Manhole in center of intersection of Hough and Grove Street, North side.
44	Brook	North side of Hough Street on Berry brook between # 41 and #33 North of CB 541
49	SD 563	Storm Drain to right of #40 Ash Street. Culvert runs under the road. If DP (outlet pipe into the culvert) is accessible, sample from the DP.
50	SD 1991	Corner of Ash and Horne Streets #48 Horne Street, in lawn. The DP is catty corner across intersection near the DP for SD 1992. If DP is accessible, sample from the DP.
51	SD 1992	Second Storm Drain to north of #31 Horne Street . Culvert opens straight back from the road. If DP is accessible, sample from the DP.



Appendix B

Date	Site	Time	Discharge	Dilution mL	Count	per 100 ml	Other Colonies
10/08/03	5	8:45	Storm Drain	0.01	0	0	
10/08/03	5	8:45	Storm Drain	0.1	0	0	
10/08/03	5	8:45	Storm Drain	1	2	200	
10/08/03	5	8:45	Storm Drain	10	15	150	2 Pink
10/08/03	9	9:10	Storm Drain	1	21	2100	1 Clear
10/08/03	9	9:10	Storm Drain	10	TNTC	TNTC	
10/08/03	9	9:10	Storm Drain	50	TNTC	TNTC	
10/08/03	23	9:41	Storm Drain	1	47	4700	7 Green
10/08/03	23	9:41	Storm Drain	10	TNTC	TNTC	
10/08/03	23	9:41	Storm Drain	50	TNTC	TNTC	
10/08/03	23 Dup	9:41	Storm Drain	10	TNTC	TNTC	
10/08/03	16	10:02	Storm Drain	1	2	200	
10/08/03	16	10:02	Storm Drain	10	45	450	
10/08/03	16	10:02	Storm Drain	50	TNTC	TNTC	
10/08/03	17	10:20	Storm Drain	1	2	200	
10/08/03	17	10:20	Storm Drain	10	11	110	
10/08/03	17	10:20	Storm Drain	50	36	72	1 Yellow
10/08/03	5 QAQC	8:45	Storm Drain	0.01	0	0	
10/08/03	5 QAQC	8:45	Storm Drain	0.2	1	500	
10/08/03	5 QAQC	8:45	Storm Drain	1	1	100	1 Pink
10/08/03	5 QAQC	8:45	Storm Drain	10	29	290	5 Clear
10/08/03	1	8:50	River + Storm Drain	1	0	0	
10/08/03	1 DUP	8:50	River + Storm Drain	1	5	500	
10/08/03	1	8:50	River + Storm Drain	10	0	0	1 Pink
10/08/03	1	8:50	River + Storm Drain	50	23	46	
10/08/03	2	9:00	Storm Drain	1	0	0	
10/08/03	2	9:00	Storm Drain	10	0	0	
10/08/03	2	9:00	Storm Drain	50	1	2	5 Pink
10/08/03	3	9:15	River + Storm Drain	1	0	0	
10/08/03	3	9:15	River + Storm Drain	10	4	40	

Appendix B

Date	Site	Comments	Processed by:	Examined By:	QAQC CHECKED:
10/08/03	5		KD	KD, BT	
10/08/03	5		KD	KD, BT	BT
10/08/03	5		KD	KD, BT	
10/08/03	5		KD	KD, BT	
10/08/03	9		KD	KD, BT	
10/08/03	9		KD	KD, BT	
10/08/03	9		KD	KD, BT	
10/08/03	23		KD	KD, BT	
10/08/03	23		KD	KD, BT	
10/08/03	23		KD	KD, BT	
10/08/03	23 Dup	DUP OK	KD	KD, BT	
10/08/03	16		KD	KD, BT	46, 8 Green, BT
10/08/03	16		KD	KD, BT	
10/08/03	16		AP, KD	KD, BT	
10/08/03	17		AP, KD	KD, BT	BT
10/08/03	17		AP, KD	KD, BT	BT
10/08/03	17		AP, KD	KD, BT	38, 1 Yellow, BT
10/08/03	5 QAQC		AP, KD	KD, BT	
10/08/03	5 QAQC		AP, KD	KD, BT	
10/08/03	5 QAQC		AP, KD	KD, BT	
10/08/03	5 QAQC		AP, KD	KD, BT	
10/08/03	1		AP, KD	KD, BT	
10/08/03	1 DUP	DUP OK	AP, KD	KD, BT	BT
10/08/03	1		AP, KD	KD, BT	
10/08/03	1		AP, KD	KD, BT	
10/08/03	2		AP, KD	KD, BT	
10/08/03	2		AP, KD	KD, BT	
10/08/03	2		AP, KD	KD, BT	
10/08/03	3		AP, KD	KD, BT	
10/08/03	3		AP, KD	KD, BT	

Appendix B

Date	Site	Time	Discharge	Dilution mL	Count	per 100 ml	Other Colonies
10/08/03	3	9:15	River + Storm Drain	50	36	72	2 Green
10/08/03	20	11:10	Storm Drain	1	0	0	
10/08/03	20	11:10	Storm Drain	1	0	0	
10/08/03	20	11:10	Storm Drain	10	2	20	1 Fungus
10/08/03	20	11:10	Storm Drain	50	9	18	3 Pink, 1 Mold
10/08/03	10	11:20	Storm Drain	1	0	0	
10/08/03	10	11:20	Storm Drain	10	0	0	
10/08/03	10	11:20	Storm Drain	50	2	4	4 Pink
10/08/03	21	11:30	Storm Drain	1	TNTC	TNTC	
10/08/03	21	11:30	Storm Drain	10	TNTC	TNTC	
10/08/03	21	11:30	Storm Drain	50	TNTC	TNTC	
10/08/03	11	11:35	Storm Drain	1	0	0	
10/08/03	11	11:35	Storm Drain	10	0	0	1 Pink
10/08/03	11 DUP	11:35	Storm Drain	10	0	0	
10/08/03	11	11:35	Storm Drain	50	0	0	
10/08/03	11 QAQC	11:40	Storm Drain	1	0	0	
10/08/03	11 QAQC	11:40	Storm Drain	10	1	10	
10/08/03	11 QAQC	11:40	Storm Drain	50	2	4	
10/08/03	12	11:45	River + Storm Drain	1	0	0	
10/08/03	12	11:45	River + Storm Drain	10	3	30	
10/08/03	12	11:45	River + Storm Drain	50	9	18	3 Pink, 3 Lt. Blue
10/08/03	EB I	NA	NA	0	0	0	
10/08/03	EB II	NA	NA	0	0	0	
10/08/03	MB I	NA	NA	0	0	0	
10/08/03	MB II	NA	NA	0	0	0	
10/08/03	SB I	NA	NA	0	0	0	
10/08/03	SB II	NA	NA	0	0	0	
10/14/03	1	10:10	Storm Drain	1		0	
10/14/03	1	10:10	Storm Drain	10		0	
10/14/03	1	10:10	Storm Drain	50		0	

Appendix B

Date	Site	Comments	Processed by:	Examined By:	QAQC CHECKED:
10/08/03	3		AP, KD	KD, BT	BT
10/08/03	20		AP, KD	KD, BT	
10/08/03	20	DUP OK	AP, KD	KD, BT	
10/08/03	20		AP, KD	KD, BT	
10/08/03	20		AP, KD	KD, BT	
10/08/03	10		AP, KD	KD, BT	
10/08/03	10		AP, KD	KD, BT	
10/08/03	10		AP, KD	KD, BT	
10/08/03	21		AP, KD	KD, BT	
10/08/03	21		AP, KD	KD, BT	
10/08/03	21		AP, KD	KD, BT	
10/08/03	11		AP, KD	KD, BT	
10/08/03	11		AP, KD	KD, BT	BT
10/08/03	11 DUP	DUP OK	AP, KD	KD, BT	
10/08/03	11		AP, KD	KD, BT	
10/08/03	11 QAQC		AP, KD	KD, BT	BT
10/08/03	11 QAQC		AP, KD	KD, BT	
10/08/03	11 QAQC		AP, KD	KD, BT	
10/08/03	12		AP, KD	KD, BT	
10/08/03	12		AP, KD	KD, BT	
10/08/03	12		AP, KD	KD, BT	
10/08/03	EB I		AP, KD	KD, BT	
10/08/03	EB II		AP, KD	KD, BT	
10/08/03	MB I		AP, KD	KD, BT	BT
10/08/03	MB II		AP, KD	KD, BT	
10/08/03	SB I		KD	KD, BT	
10/08/03	SB II		AP, KD	KD, BT	BT
10/14/03	1		KD	ES, KD	
10/14/03	1		KD	ES, KD	
10/14/03	1		KD	ES, KD	

Appendix B

Date	Site	Time	Discharge	Dilution mL	Count	per 100 ml	Other Colonies
10/14/03	2	10:25	Storm Drain	1		0	
10/14/03	2	10:25	Storm Drain	10		0	
10/14/03	2	10:25	Storm Drain	50		0	
10/14/03	3	10:45	Storm Drain	1		0	
10/14/03	3 Dup	10:45	Storm Drain	1		0	
10/14/03	3	10:45	Storm Drain	10		0	
10/14/03	3	10:45	Storm Drain	50		0	
10/14/03	EB I	NA	NA	0	0	0	
10/14/03	EB II	NA	NA	0	0	0	
10/14/03	MB I	NA	NA	0	0	0	
10/14/03	MB II	NA	NA	0	0	0	
10/14/03	SB I	NA	NA	0	0	0	
10/14/03	SB II	NA	NA	0	0	0	
08/25/04	SB I	NA	NA	100	0	0	
08/25/04	SB II	NA	NA	100	0	0	
08/25/04	35	9:07	Storm Drain	1	0	0	
08/25/04	35	9:07	Storm Drain	10	0	0	3 Black
08/25/04	35	9:07	Storm Drain	50	0	0	TNTC Black, TNTC Mold, 10 Lt. Blue
08/25/04	36	9:18	Man Hole	1	0	0	
08/25/04	36	9:18	Man Hole	10	0	0	
08/25/04	36	9:18	Man Hole	50	0	0	
08/25/04	34	10:30	Storm Drain	1	0	0	
08/25/04	34	10:30	Storm Drain	10	0	0	
08/25/04	34	10:30	Storm Drain	50	1	2	
08/25/04	34R	10:30	Storm Drain	1	0	0	
08/25/04	34R DUP	10:30	Storm Drain	1	0	0	
08/25/04	34R	10:30	Storm Drain	10	0	0	
08/25/04	34R	10:30	Storm Drain	50	0	0	
08/25/04	37	9:30	Man Hole	1	0	0	



Appendix B

<b>Date</b>	<b>Site</b>	<b>Comments</b>	<b>Processed by:</b>	<b>Examined By:</b>	<b>QAQC CHECKED:</b>
10/14/03	2		KD	ES, KD	
10/14/03	2		KD	ES, KD	
10/14/03	2		KD	ES, KD	
10/14/03	3		KD	ES, KD	
10/14/03	3 Dup		KD	ES, KD	
10/14/03	3		KD	ES, KD	
10/14/03	3		KD	ES, KD	
10/14/03	EB I		KD	ES, KD	
10/14/03	EB II		KD	ES, KD	
10/14/03	MB I		KD	ES, KD	
10/14/03	MB II		KD	ES, KD	
10/14/03	SB I		KD	ES, KD	
10/14/03	SB II		KD	ES, KD	
08/25/04	SB I		KD	KD	
08/25/04	SB II		KD	KD	
08/25/04	35		KD	KD	
08/25/04	35		KD	KD	AR
08/25/04	35		KD	KD	
08/25/04	36		KD	KD	
08/25/04	36		KD	KD	
08/25/04	36		KD	KD	
08/25/04	34		KD	KD	
08/25/04	34		KD	KD	AR
08/25/04	34		KD	KD	
08/25/04	34R		KD	KD	
08/25/04	34R DUP		KD	KD	
08/25/04	34R		KD	KD	
08/25/04	34R		KD	KD	
08/25/04	37		KD	KD	

Appendix B

Date	Site	Time	Discharge	Dilution mL	Count	per 100 ml	Other Colonies
08/25/04	37	9:30	Man Hole	10	0	0	
08/25/04	37	9:30	Man Hole	50	0	0	1 Orange
08/25/04	38	9:50	Storm Drain	1	0	0	
08/25/04	38	9:50	Storm Drain	10	0	0	
08/25/04	38	9:50	Storm Drain	50	6	12	6 Mold
08/25/04	MB I	NA	NA	100	0	0	
08/25/04	MB II	NA	NA	100	0	0	
08/25/04	39	10:10	Storm Drain	1	0	0	
08/25/04	39	10:10	Storm Drain	10	0	0	1 Orange
08/25/04	39 DUP	10:10	Storm Drain	10	1	10	1 Orange
08/25/04	39	10:10	Storm Drain	50	0	0	
08/25/04	40	10:25	Storm Drain	1	0	0	
08/25/04	40	10:25	Storm Drain	10	1	10	2 Clear
08/25/04	40	10:25	Storm Drain	50	0	0	1 Clear
08/25/04	41	10:35	Storm Drain	1	0	0	
08/25/04	41	10:35	Storm Drain	10	0	0	
08/25/04	41	10:35	Storm Drain	50	2	4	
08/25/04	42	10:55	Storm Drain	1	0	0	
08/25/04	42	10:55	Storm Drain	10	0	0	
08/25/04	42	10:55	Storm Drain	50	1	2	
08/25/04	42 DUP	10:55	Storm Drain	50	9	18	1 Pink, 1 Clear
08/25/04	42 QAQC	10:55	Storm Drain	1	0	0	
08/25/04	42 QAQC	10:55	Storm Drain	10	0	0	
08/25/04	42 QAQC	10:55	Storm Drain	50	8	16	
08/25/04	43	11:05	Brook	1	1	100	
08/25/04	43	11:05	Brook	10	3	30	
08/25/04	43	11:05	Brook	50	17	34	4 Clear/Blue, 2
08/25/04	30	11:10	Man Hole	1	5	500	
08/25/04	30	11:10	Man Hole	10	10	100	10 Green
08/25/04	30	11:10	Man Hole	50	TNTC	TNTC	1 Mold

Appendix B

<b>Date</b>	<b>Site</b>	<b>Comments</b>	<b>Processed by:</b>	<b>Examined By:</b>	<b>QAQC CHECKED:</b>
08/25/04	37		KD	KD	
08/25/04	37		KD	KD	
08/25/04	38		KD	KD	
08/25/04	38		KD	KD	
08/25/04	38		KD	KD	
08/25/04	MB I		KD	KD	
08/25/04	MB II		KD	KD	
08/25/04	39		KD	KD	
08/25/04	39		KD	KD	
08/25/04	39 DUP		KD	KD	
08/25/04	39		KD	KD	
08/25/04	40		KD	KD	
08/25/04	40		KD	KD	AR
08/25/04	40		KD	KD	
08/25/04	41		KD	KD	
08/25/04	41		KD	KD	
08/25/04	41		KD	KD	
08/25/04	42		KD	KD	
08/25/04	42		KD	KD	
08/25/04	42		KD	KD	AR
08/25/04	42 DUP		KD	KD	
08/25/04	42 QAQC		KD	KD	
08/25/04	42 QAQC		KD	KD	
08/25/04	42 QAQC		KD	KD	AR
08/25/04	43		KD	KD	
08/25/04	43		KD	KD	AR
08/25/04	43		KD	KD	
08/25/04	30		KD	KD	
08/25/04	30		KD	KD	
08/25/04	30		KD	KD	

Appendix B

Date	Site	Time	Discharge	Dilution mL	Count	per 100 ml	Other Colonies
08/25/04	43 QAQC	11:15	Brook	1	0	0	
08/25/04	43 QAQC	11:15	Brook	10	3	30	
08/25/04	43 QAQC	11:15	Brook	50	17	34	1 Green
08/25/04	3 QAQC DU	11:15	Brook	50	35	70	1 Green
08/25/04	31U	11:28	Man Hole	1	0	0	
08/25/04	31U	11:28	Man Hole	10	3	30	
08/25/04	31U	11:28	Man Hole	50	8	16	2 Clear
08/25/04	31L	11:30	Man Hole	1	1	100	
08/25/04	31L	11:30	Man Hole	10	2	20	1 Pink, 2 Clear/Blue
08/25/04	31L	11:30	Man Hole	50	9	18	1 Clear
08/25/04	44	11:32	Brook	1	1	100	
08/25/04	44	11:32	Brook	10	5	50	4 Green
08/25/04	44 DUP	11:32	Brook	10	4	40	
08/25/04	44	11:32	Brook	50	25	50	2 Yellow
08/25/04	32	12:02	Sewer +Storm Drain	0.1	3	3000	2 Pink, 1 Clear
08/25/04	32	12:02	Sewer +Storm Drain	1	42	4200	5 Yellow
08/25/04	32	12:02	Sewer +Storm Drain	10	TNTC	TNTC	
08/25/04	45	12:05	Man Hole	1	11	1100	
08/25/04	45	12:05	Man Hole	10	TNTC	TNTC	2 Yellow
08/25/04	45	12:05	Man Hole	50	TNTC	TNTC	
08/25/04	45 DUP	12:05	Man Hole	50	TNTC	TNTC	
08/25/04	EB I	NA	NA	100	0	0	
08/25/04	EB II	NA	NA	100	0	0	
10/05/04	SB I	NA	NA	100	0	0	
10/05/04	SB II	NA	NA	100	0	0	
10/05/04	45	9:31	Storm Drain	0.1	0	0	
10/05/04	45	9:31	Storm Drain	1	0	0	
10/05/04	45	9:31	Storm Drain	10	0	0	
10/05/04	48	9:15	Storm Drain	0.1	0	0	
10/05/04	48	9:15	Storm Drain	1	0	0	

Appendix B

<b>Date</b>	<b>Site</b>	<b>Comments</b>	<b>Processed by:</b>	<b>Examined By:</b>	<b>QAQC CHECKED:</b>
08/25/04	43 QAQC		KD	KD	
08/25/04	43 QAQC		KD	KD	
08/25/04	43 QAQC		KD	KD	
08/25/04	3 QAQC DU		KD	KD	
08/25/04	31U		KD	KD	
08/25/04	31U		KD	KD	AR
08/25/04	31U		KD	KD	
08/25/04	31L		KD	KD	
08/25/04	31L		KD	KD	
08/25/04	31L		KD	KD	
08/25/04	44		KD	KD	
08/25/04	44		KD	KD	
08/25/04	44 DUP		KD	KD	AR
08/25/04	44		KD	KD	
08/25/04	32		KD	KD	
08/25/04	32		KD	KD	
08/25/04	32		KD	KD	
08/25/04	45		KD	KD	
08/25/04	45		KD	KD	
08/25/04	45		KD	KD	
08/25/04	45 DUP		KD	KD	
08/25/04	EB I		KD	KD	
08/25/04	EB II		KD	KD	
10/05/04	SB I		KD	KD	
10/05/04	SB II		KD	KD	
10/05/04	45		KD	KD	
10/05/04	45		KD	KD	
10/05/04	45		KD	KD	
10/05/04	48		KD	KD	
10/05/04	48		KD	KD	



Appendix B

Date	Site	Time	Discharge	Dilution mL	Count	per 100 ml	Other Colonies
10/05/04	48	9:15	Storm Drain	10	0	0	
10/05/04	44	9:50	Culvert	1	0	0	
10/05/04	44	9:50	Culvert	10	0	0	
10/05/04	44	9:50	Culvert	50	1	2	
10/05/04	51	10:05	Culvert	1	0	0	
10/05/04	51 DUP	10:05	Culvert	1	0	0	
10/05/04	51	10:05	Culvert	10	0	0	
10/05/04	51	10:05	Culvert	50	0	0	
10/05/04	49	10:35	Culvert	1	0	0	
10/05/04	49	10:35	Culvert	10	0	0	
10/05/04	49	10:35	Culvert	50	1	2	
10/05/04	23	10:55	Brook	1	9	900	
10/05/04	23	10:55	Brook	10	TNTC	TNTC	2 Yellow
10/05/04	23	10:55	Brook	50	TNTC	TNTC	
10/05/04	23 QAQC	11:02	Brook	1	1	100	
10/05/04	23 QAQC	11:02	Brook	10	2	20	1 Green
10/05/04	23 QAQC	11:02	Brook	10	0	0	
10/05/04	MB I	NA	NA	100	0	0	
10/05/04	MB II	NA	NA	100	0	0	

Appendix B

Date	Site	Comments	Processed by:	Examined By:	QAQC CHECKED:
10/05/04	48		KD	KD	
10/05/04	44		KD	KD	
10/05/04	44		KD	KD	
10/05/04	44		KD	KD	AR
10/05/04	51		KD	KD	
10/05/04	51 DUP		KD	KD	
10/05/04	51		KD	KD	
10/05/04	51		KD	KD	
10/05/04	49		KD	KD	
10/05/04	49		KD	KD	
10/05/04	49		KD	KD	AR
10/05/04	23	Looked like Toilet Tissue in it	KD	KD	
10/05/04	23	Looked like Toilet Tissue in it	KD	KD	
10/05/04	23	Looked like Toilet Tissue in it	KD	KD	
10/05/04	23 QAQC	with Sodium Thiosulfate, Toilet Tissue not present	KD	KD	
10/05/04	23 QAQC	with Sodium Thiosulfate, Toilet Tissue not present	KD	KD	
10/05/04	23 QAQC	with Sodium Thiosulfate, Toilet Tissue not present	KD	KD	
10/05/04	MB I		KD	KD	
10/05/04	MB II		KD	KD	

Appendix B

Date	Site	Time	Discharge	Dilution mL	Count	per 100 ml	Other Colonies
10/05/04	23 QAQC	11:02	Brook	50	25	50	1 Pink, 5 Green
10/05/04	34	11:15	Brook	1	0	0	
10/05/04	34	11:15	Brook	10	1	10	
10/05/04	34	11:15	Brook	50	0	0	
10/05/04	53	11:28	Storm Drain	1	0	0	
10/05/04	53	11:28	Storm Drain	10	0	0	
10/05/04	53	11:28	Storm Drain	50	0	0	
10/05/04	53 DUP	11:28	Storm Drain	50	1	2	
10/05/04	46	11:25	Storm Drain	1	0	0	
10/05/04	46	11:25	Storm Drain	10	5	50	1 Green
10/05/04	46	11:25	Storm Drain	50	19	38	7 Green
10/05/04	23	10:55	Brook	0.1	1	1000	
10/05/04	23 QAQC	11:02	Brook	0.1	0	0	
10/05/04	EB I	NA	NA	100	0	0	
10/05/04	EB II	NA	NA	100	0	0	

Appendix B

Date	Site	Comments	Processed by:	Examined By:	QAQC CHECKED:
10/05/04	23 QAQC	with Sodium Thiosulfate, Toilet Tissue not present	KD	KD	
10/05/04	34				
10/05/04	34				
10/05/04	34				
10/05/04	53				
10/05/04	53				
10/05/04	53				
10/05/04	53 DUP				
10/05/04	46				
10/05/04	46				
10/05/04	46	AR			
10/05/04	23				
10/05/04	23 QAQC	with Sodium Thiosulfate, Toilet Tissue not present	KD	KD	
10/05/04	EB I				
10/05/04	EB II				

### Appendix C

		Blue = Sites with >100 CFU/L		* = No Data
Date	Site	Result	Comments	CFU/Sec.
10/8/2003	1	46	River + Storm Drain	460/L
10/14/2003	1	110	Storm Drain, 38 hrs. dry, <0.10 inches rain previous 4 hrs.	1100
10/8/2003	2	2	River + Storm Drain	0.079
10/14/2003	2	6	Storm Drain, 38 hrs. dry, <0.10 inches rain previous 4 hrs.	1.38
10/8/2003	3	72	River + Storm Drain	
10/14/2003	3	60	Storm Drain, 38 hrs. dry, <0.10 inches rain previous 4 hrs.	776.91516
10/8/2003	5	150		283995
10/8/2003	5 QAQC	290	OK	549057
11/17/2003	5	3100		78232
10/8/2003	9	2100		6048
11/17/2003	9	100		3817
10/8/2003	10	4		0.64
10/8/2003	11	0		0
10/8/2003	11 QAQC	4	OK	0.56
10/8/2003	12	18	Water flowing in and out on a 2 min. alternating period.	180/L
11/17/2003	12	0	Water flowing in and out on a 2 min. alternating period.	0
10/8/2003	16	450		10485
11/17/2003	16	2200		2776
11/17/2003	16 QAQC	2800		3533
10/8/2003	17	72		18098
11/17/2003	17	8		1294
11/17/2003	17 QAQC	2		324
10/8/2003	20	18		180/L
10/8/2003	21	>6000		37200
11/17/2003	21	100		705
10/8/2003	23	4700		109510
11/17/2003	23	32000		121120



### Appendix C

		Blue = Sites with >100 CFU/L		* = No Data
Date	Site	Result	Comments	CFU/Sec.
08/25/04	26		Damp	
08/25/04	27		Could not Reach	
08/25/04	28		Could not Reach	
08/25/04	29		Dry	
08/25/04	30	100		20
08/25/04	32	4200		6720
08/25/04	33		Standing Water	
08/25/04	34	2		13072
08/25/04	35	0		0
08/25/04	36	0		0
08/25/04	37	0		0
08/25/04	38	12	Standing Water	0
08/25/04	39	0		0
08/25/04	40	0		0
08/25/04	41	4		3
08/25/04	42	18		68
08/25/04	43	34		55517
08/25/04	44	50		95250
08/25/04	45	1100		4169
08/25/04	31L	18		0.18
08/25/04	31U	16		1.28
08/25/04	34R	0		0
10/5/2004	48	0		0
10/5/2004	45	0		0
10/5/2004	44	2		158
10/5/2004	51	0		0
10/5/2004	50		Catchbasin gone	
10/5/2004	49	2		3
10/5/2004	23	900	Looks like a toilet flush was passing through.	900
10/5/2004	23 QAQC	20		20
10/5/2004	34	0		0
10/5/2004	46	38		19
10/5/2004	47		No Flow	
10/5/2004	32		No Flow	
10/5/2004	53	2	No Flow	0
10/5/2004	21		Poizon Ivy, not sampled	
10/5/2004	52		Could not find	

## Appendix D

Supply	Cost Each	# Used per Sample	Duplicate	Blank	Unit	Cost Each Sample	QAQC Cost	Total Cost	List Price
Whiripak	\$0.14	3	14.1	24	500	0.4194	5.3264	\$25.04	\$69.90
Pipette	\$0.37	1	14.1	24	200	0.3724	14.1865	\$31.69	\$74.47
Absorbant filter pa	\$0.14	3	14.1	24	1000	0.4230	5.3721	\$25.25	\$141.00
Membrane filter	\$0.42	3	14.1	24	800	1.2638	16.0496	\$75.45	\$337.00
Phosphate buffer	\$0.81	5	28.2	48	72	4.0278	61.3833	\$250.69	\$58.00
MFC broth	\$1.08	3	14.1	24	50	3.2460	41.2242	\$193.79	\$54.10
<b>Cost per Dish</b>	<b>\$2.96</b>								
							<b>Total</b>	<b>\$601.90</b>	
<b>Number of Samples</b>	<b>47</b>						<b>Avg. Sum per Sampling Day</b>		
<b>Number of Sampling Runs</b>	<b>4</b>							<b>\$150.47</b>	
<b>Hourly Pay</b>	<b>\$9.50</b>								
<b>FICA</b>	<b>0.798</b>								
<b>Average Hours Staff</b>	<b>9</b>								
<b>Cost/Sampling Day</b>	<b>\$92.68</b>						<b>Avg. Sum plus Staff Cost</b>	<b>\$243.16</b>	

# Time and Mileage Summary Report Final Report



From 1/1/2004 To 12/31/2004  
 UNIVERSITY of NEW HAMPSHIRE  
 COOPERATIVE EXTENSION



## Project *DES Dover Storm Drain*

Grant Number 13V016 Project Starts 3/1/2001 Project Ends 12/31/2004

**Report Time and Milage**

**Activity Attempted Bacteria Sampling**

	Time (min.)	Miles
Summary for 'Activity' = (3 detail records)		
<b>Sum</b>	<b>270</b>	<b>46</b>

**Activity Bacteria Sampling**

	Time (min.)	Miles
Summary for 'Activity' = (5 detail records)		
<b>Sum</b>	<b>1110</b>	<b>118</b>

**Activity Clerical Work**

	Time (min.)	Miles
Summary for 'Activity' = (1 detail record)		
<b>Sum</b>	<b>85</b>	<b>0</b>

**Activity Laboratory Counts**

	Time (min.)	Miles
Summary for 'Activity' = (1 detail record)		
<b>Sum</b>	<b>180</b>	<b>18</b>

**Activity Laboratory Processing**

	Time (min.)	Miles
Summary for 'Activity' = (2 detail records)		
<b>Sum</b>	<b>720</b>	<b>32</b>

**Activity Prep. Bacteria Sampling**

	Time (min.)	Miles
Summary for 'Activity' = (1 detail record)		
<b>Sum</b>	<b>60</b>	<b>6</b>

**Activity QA/QC Team**

	Time (min.)	Miles

## Appendix E

**Project** *DES Dover Storm Drain*

**Grant Number** 13V016      **Project Starts** 3/1/2001      **Project Ends** 12/31/2004

Summary for 'Activity' = (2 detail records)

**Sum**                      **330**                      **50**

**Activity** **Training**

Time (min.) Miles

Summary for 'Activity' = (1 detail record)

**Sum**                      **150**                      **30**

**Summary for 'Project' = (16 detail records)**

**Time (Minutes)      Miles**

**Sum**    **2905**                      **300**

**Value** | **\$800.81**                      | **\$112.50** |

**Time (Minutes)**    **Miles**                      **Time Value : \$** 16.54

**Grand Total**    **2905.00**                      **300.00**                      **Mileage Value: \$** 0.375

**Total Value**    \$913.31

**Matching Funds**

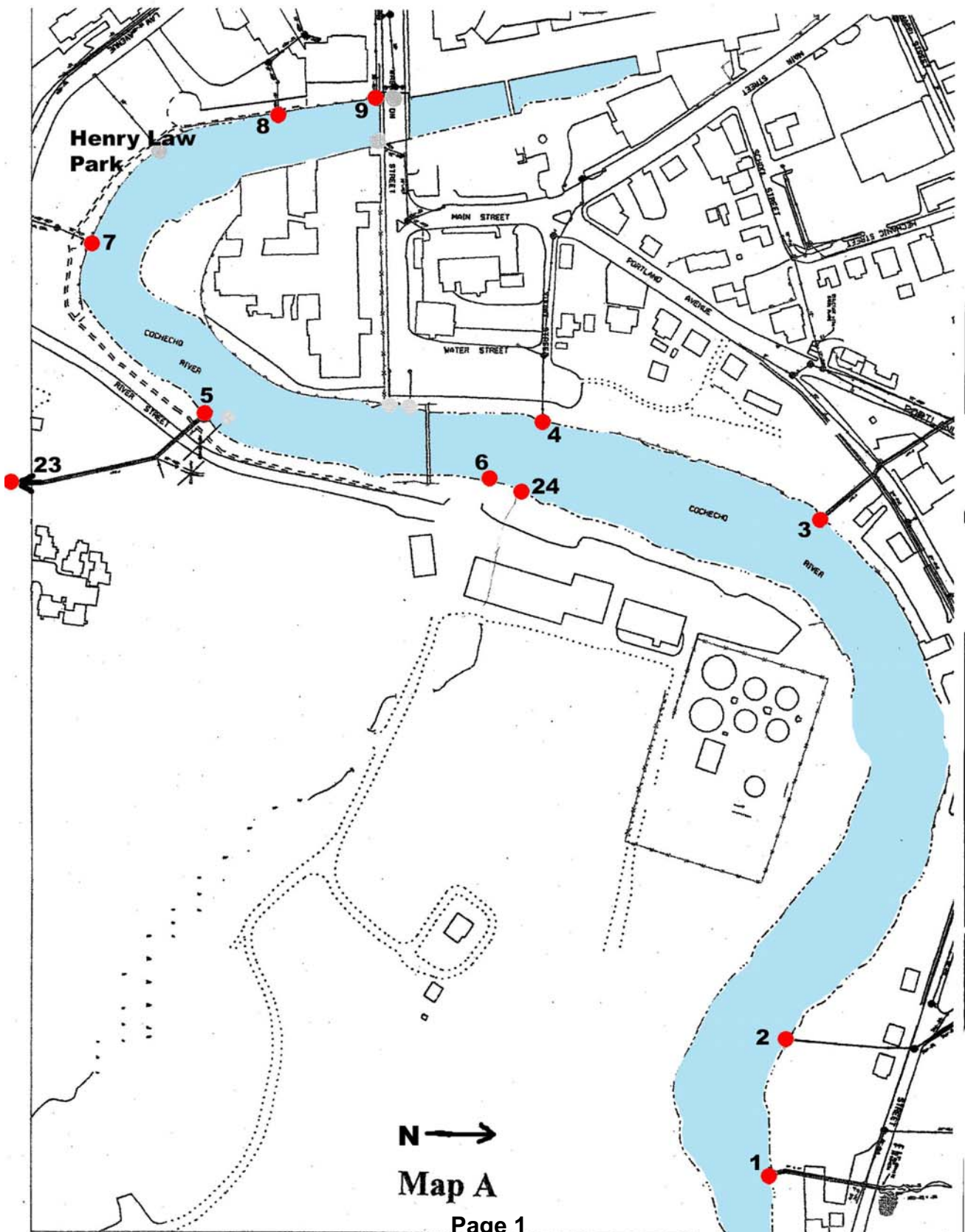
Source	Amount	Inkind Match	Comments
Match Value 2001	\$1,530.00		
Match Value 2002	\$776.25		
Match Value 2003	\$1,086.00		
<b>Total:</b>	<b>\$3,392.25</b>		

**Donations**

Amount	Date Given	Comments	Contact ID
\$0.00		None	0
<b>Total:</b>	<b>\$0.00</b>		

**Grand Total Match: \$4,305.56**

Appendix F



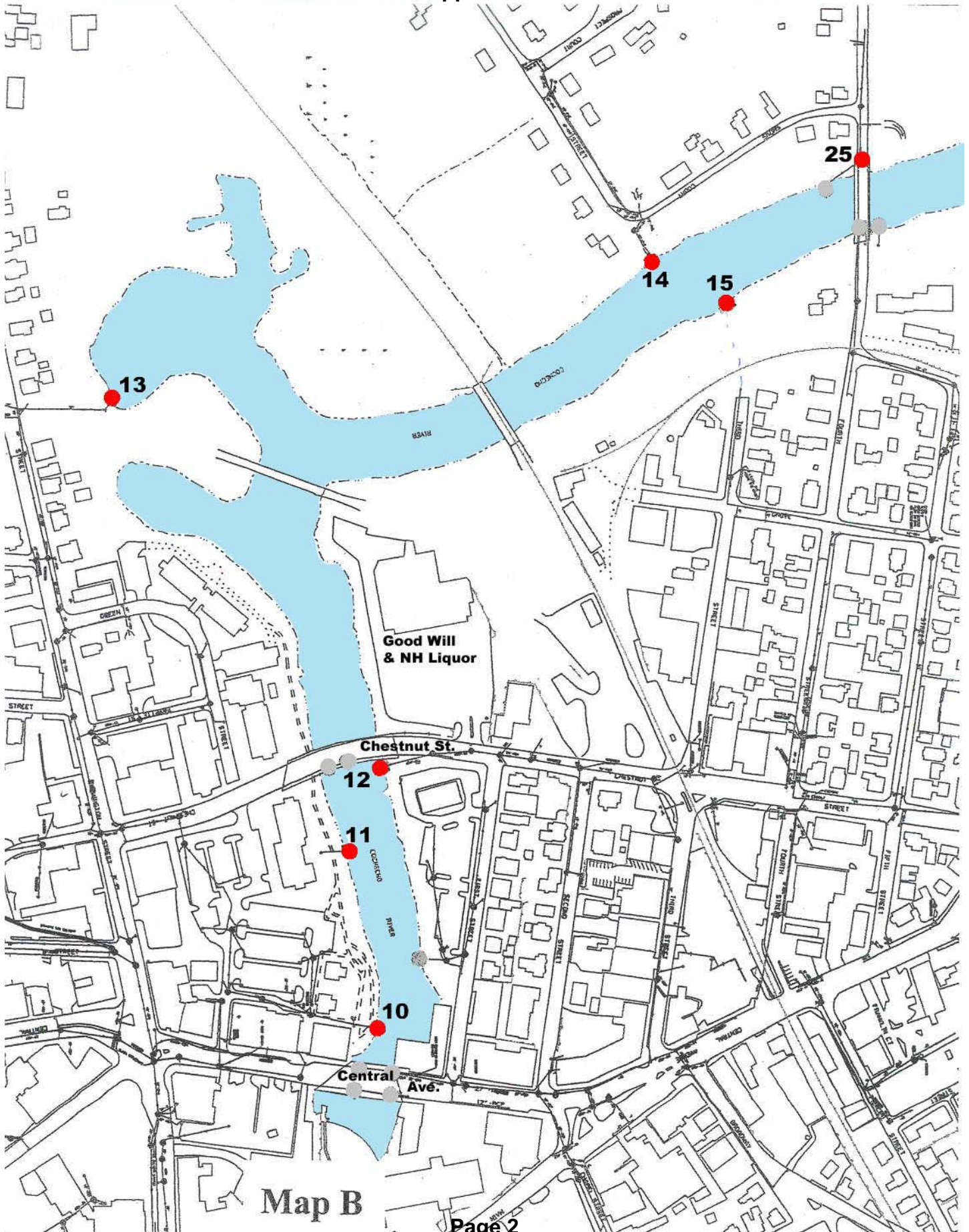
N →

Map A

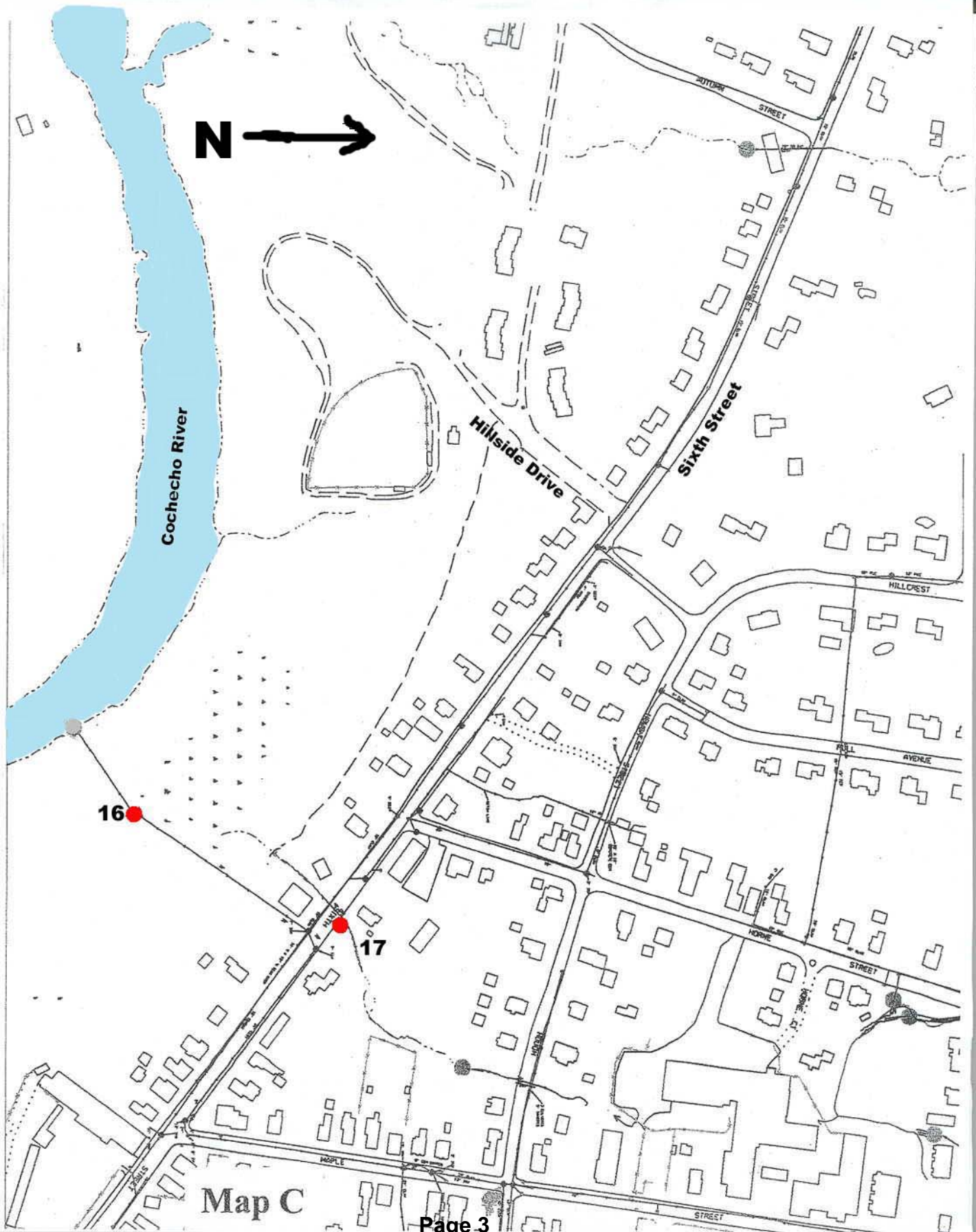
Page 1



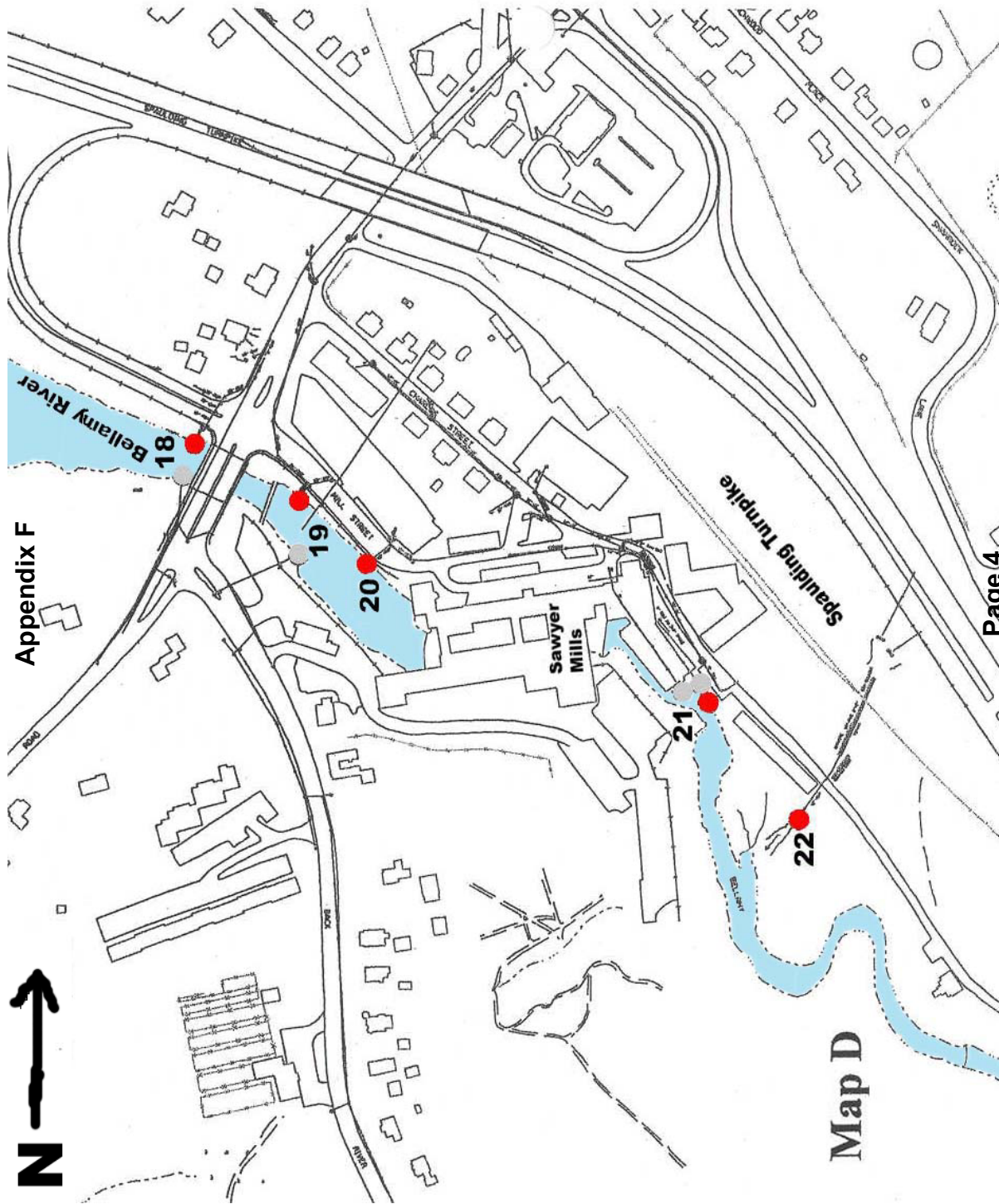
Appendix F



Appendix F









DEAN PESCHEL  
Environmental Projects Manager  
(603) 516-6094  
dean.peschel@ci.dover.nh.us



288 Central Avenue  
Dover, New Hampshire 03820-4169  
Fax: (603) 516-6477  
www.ci.dover.nh.us

## City of Dover, New Hampshire

COMMUNITY SERVICES DEPARTMENT  
ENVIRONMENTAL PROGRAMS DIVISION

December 14, 2004

Ann Reid  
Great Bay Coastal Watch  
UNH Kingman Farm  
Durham, NH 03824

Dear Ann:

The purpose of this letter is to confirm that the Dover Stormwater Sample Project that Great Bay Coastal Watch (GBCW) performed in Dover is completed. The City wishes to thank GBCW for its efforts in collecting and analyzing water samples from Dover's stormwater collection system. The goals of the project were to identify where potential cross connections from the sanitary sewer to the storm sewer may exist, develop a working relationship with local volunteers, to raise awareness in the community and educate the public about stormwater. The enthusiasm and dedication of the GBCW volunteers is most appreciated by the City of Dover. The City wishes to thank GBCW for participating in the project and NHDES for providing funding for the project.

Best Regards,

A handwritten signature in blue ink that reads "Dean Peschel".

Dean Peschel  
Environmental Project Manager