

2006 Project Inspection Report

Prepared for
**Clearwater River
Watershed
District**



Wenck

April 2006





Wenck

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May 5, 2006

Mr. Marvin Brunsell, Chairperson
Clearwater River Watershed District
P O Box 481
Annandale, MN 55302

Re: 2006 Project Inspection Report
Wenck File # 0002-84

Dear Mr. Brunsell:

This 2006 Project Inspection Report was prepared for the Clearwater River Watershed District as part of the operation and maintenance activities for the District's Projects.

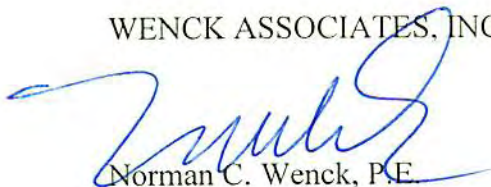
The District's projects were inspected by Merle Anderson, and Wes Boll, in late April and early May 2006. The attached Table 1 contains the inspection results and our recommendations of maintenance activities with estimated costs. The figures show where maintenance activities are required and the photographs show existing conditions for each project. Repair work at the Kingston Wetland Treatment Systems, Carp Trap, and Lake Augusta Erosion Control Project are recommended for this year.

Our recommendation is to solicit at least three quotes and complete the required maintenance work this summer or fall as weather permits.

The estimated contractor costs are \$20,000 for lake restoration projects, \$5,000 for the Clearwater Harbor Sewage Treatment System, \$2,000 for Hidden River Septic Tank Pumping, and 80 hours for Kevin Wittrock to perform minor maintenance items.

Sincerely,

WENCK ASSOCIATES, INC.



Norman C. Wenck, P.E.
Chairman

cc: CRWD Board of Managers
Merle Anderson, Administrator

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Photographs

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**Table 1
Clearwater River Watershed District
Annual Project Inspection
April 2006**

Project	Maintenance			Estimated Cost
	Required	Optional	No Action Now	
Upper Watkins Wetland Isolation Project (north) (See Figure 2 and Photos 1 and 2)				
1. Excellent condition.			✓	
Watkins Wetland Treatment System (south) (See Figure 1 and Photos 3,4,5,6,7,8)				
1. Snag in need of removal.	✓			Kevin - 4 hrs
2. East side (Channel B) good condition.			✓	
3. Overflows vegetated.			✓	
4. Tile inlet and outlet in good condition.			✓	
5. Ports in good condition			✓	
Clear Lake (northeast) Wetland Outlet Structure (See Photo 9)				
1. Outlet structure in good condition			✓	
Clear Lake Sedimentation Basin (south)				
1. Sedimentation basin in good condition.			✓	
Kingston Wetland Treatment System (See Figure 4 and Photos 10, 11, 12, 13)				
1. Remove sediment from channel in mouth of tributaries and other blockages from channel.	✓			\$4,000 Kevin – 16 hrs
2. Two washouts in berm.	✓			\$10,000
3. Ports in good condition.			✓	
School Section Lake Outlet Project (See Photo 14)				
1. Structures and culverts in good condition.			✓	
Carp Trap				
1. Needs coarse gravel in channel.	✓			\$1,000
Aerator Buildings (see Photos 15, 16)				
1. Lake Augusta – Good condition, no maintenance needed.			✓	
2. Lake Marie – Good condition, no maintenance needed			✓	

**Table 1
Clearwater River Watershed District
Annual Project Inspection
April 2006**

Project	Maintenance			Estimated Cost
	Required	Optional	No Action Now	
Lake Augusta Erosion Control Project (See Figure 5 and Photos 17, 18, 19)				
1. Outlet riser needs repairs and riprap.	✓			\$5,000
Lake Augusta Buffer				
1. Buffer in good condition.			✓	
Rest-a-While Sewer System (See Photo 20)				
1. System in good condition.			✓	
Hidden River Sewage Treatment System				
1. Expose manholes.	✓			By Homeowners
Clearwater Harbor Sewer System (See Photos 21, 22)				
1. Remove bale checks.	✓			Kevin - 4 hrs
2. Remove silt fence.	✓			Kevin - 4 hrs
3. Summer weed control.	✓			Kevin - 10 hrs
4. Drain field and sand filter in good condition.			✓	
Clearwater Harbor Sewer System - 14416 Beaverwood Rd (See Photo 23)				
1. Replace soil.	✓			\$5,000
2. Seed and erosion blanket or sod.	✓			
3. Repair seam in blacktop.	✓			
Clearwater Harbor Sewer System-Staging Area (See Photo 24)				
1. Trail and driveway	✓			
Pleasant Lake Outlet Project (See Photo 25)				
1. Manhole lock needs repair	✓			Kevin - 2 hrs
Annandale Wetland Treatment System (See Figure 3 and Photos 26, 27)				
1. Vegetation needs to be removed from channel near diversion structure and two ports.	✓			Kevin - 16 hrs
2. Fence needs repair and tightening	✓			Kevin - 24 hrs

SEWER SYSTEM MAINTENANCE

Hidden River Wastewater System

1. Individual septic tank pump out , based on sludge and scum depth, checked every two years.
2. Check inspection riser on drain field for broken or cracked pipes and caps.
3. Flush distribution lines in the sand filter.
4. Open control panel and check pump run lights at lift stations and treatment site.
5. Pull out pump effluent filters in dosing tank and clean
6. Check vegetation at treatment site, mow grass, and remove unwanted trees.
7. Open all manholes in the collection lines and look for signs of debris or plugging.

Rest-a-While Wastewater Treatment System

1. Individual septic tank pump out, based on sludge and scum depth, checked every two years.
2. Check inspection riser on drain field for broken or cracked pipes and caps.
3. Check aerator for proper operation.
4. Open control panel and check pump run lights at lift stations and treatment site.
5. Pull out pump effluent filters in dosing tank and clean.
6. Check vegetation at treatment site, mow grass, and remove unwanted trees.
7. Open all manholes in the collection lines and look for signs of debris or plugging.
8. Check access road for erosion. Crushed rock may need to be applied.
9. Check sediment basins for depth to sediment and erosion.

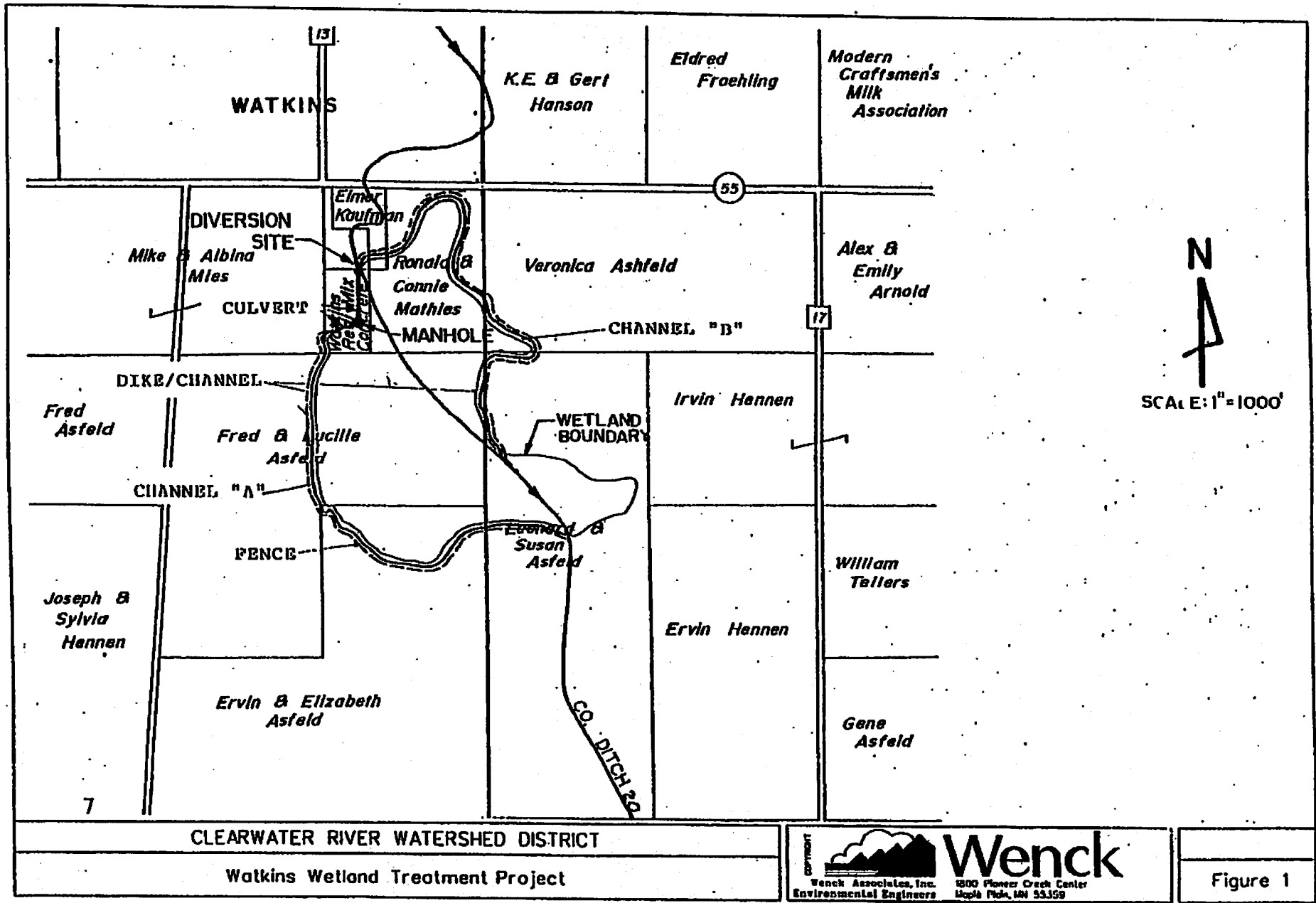
Clearwater Harbor Wastewater Treatment System

1. Check community septic tank monthly. Pump as needed.
2. Check inspection riser on drain field for broken or cracked pipes and caps.
3. Flush distribution lines in the sand filter.
4. Open control panel and check pump run lights at lift stations and treatment site.
5. Pull out pump effluent filters in dosing tank and clean.
6. Check vegetation at treatment site, mow grass, and remove unwanted trees.
7. Open all manholes in the collection lines and look for signs of debris plugging.

Hidden River Pumping Schedule

<u>PARCEL ID #</u>	<u>ADDRESS</u>	<u>DATE TANK INSTALLED</u>	<u>PERMIT #</u>	<u>BLOCK</u>	<u>LOT</u>	<u>DATE TO BE PUMPED</u>			
19.10722.560	14656 Hidden River Dr.	8/1/2003	19-18458	5	2			05	
19.10722.565	14687 Hidden River Dr.	NO RECORDS FOUND	-----	Outlot A					
19.10722.558	14688 Hidden River Dr.	9/23/2004	19-19331	5	1				06
19.10722.556	14714 Hidden River Dr.	NO RECORDS FOUND	-----	4	5				
19.10722.554	14736 Hidden River Dr.	9/12/2003	19-18397	4	4			05	
19.10722.552	14758 Hidden River Dr.	NO RECORDS FOUND	-----	4	3				
19.10722.550	14782 Hidden River Dr.	NO RECORDS FOUND	-----	4	2				
19.10722.520	14791 Hidden River Dr.	11/5/2003	19-18717	2	7				06
19.10722.548	14804 Hidden River Dr.	9/9/2003	19-18580	4	1				06
19.10722.518	14825 Hidden River Dr.	10/30/2001	19-17222	2	6	04			06
19.10722.546	14826 Hidden River Dr.	NO RECORDS FOUND	-----	3	13				
19.10722.544	14848 Hidden River Dr.	NO RECORDS FOUND	-----	3	12				
19.10722.516	14863 Hidden River Dr.	10/7/2002	19-17999	2	5			05	
19.10722.542	14872 Hidden River Dr.	11/16/2004	19-19513	3	10				06
19.10722.540	14894 Hidden River Dr.	NO RECORDS FOUND	-----	3	10				
19.10722.538	14916 Hidden River Dr.	NO RECORDS FOUND	-----	3	9				
19.10722.514	14917 Hidden River Dr.	12/15/2000	19-16679	2	4	03		05	
19.10722.536	14938 Hidden River Dr.	8/3/2005	19-20008	3	8				
19.10722.534	14962 Hidden River Dr.	NO RECORDS FOUND	-----	3	7				
19.10722.532	14984 Hidden River Dr.	NO RECORDS FOUND	-----	3	6				
19.10722.512	15015 Hidden River Dr.	NO RECORDS FOUND	-----	2	3				
19.10722.530	15016 Hidden River Dr.	NO RECORDS FOUND	-----	3	5				
19.10722.528	15028 Hidden River Dr.	8/19/2002	19-17670	3	4			05	
19.10722.526	15042 Hidden River Dr.	9/25/2003	19-18739	3	3				06
19.10722.510	15057 Hidden River Dr.	9/10/2003	19-18744	2	2				06
19.10722.524	15074 Hidden River Dr.	12/21/2001	19-17522	3	2	04			06
19.10722.508	15085 Hidden River Dr.	10/10/2003	19-18676	2	1				06
19.10722.522	15096 Hidden River Dr.	11/19/2002	19-18169	3	1			05	
19.10722.506	15112 Hidden River Dr.	8/10/2005	19-19439	1	4				
19.10722.504	15144 Hidden River Dr.	5/20/2002	19-17451	1	3			05	
19.10722.502	15176 Hidden River Dr.	4/3/2001	19-16793	1	2	03		05	
19.10722.500	15198 Hidden River Dr.	10/19/2001	19-17223	1	1	04			06

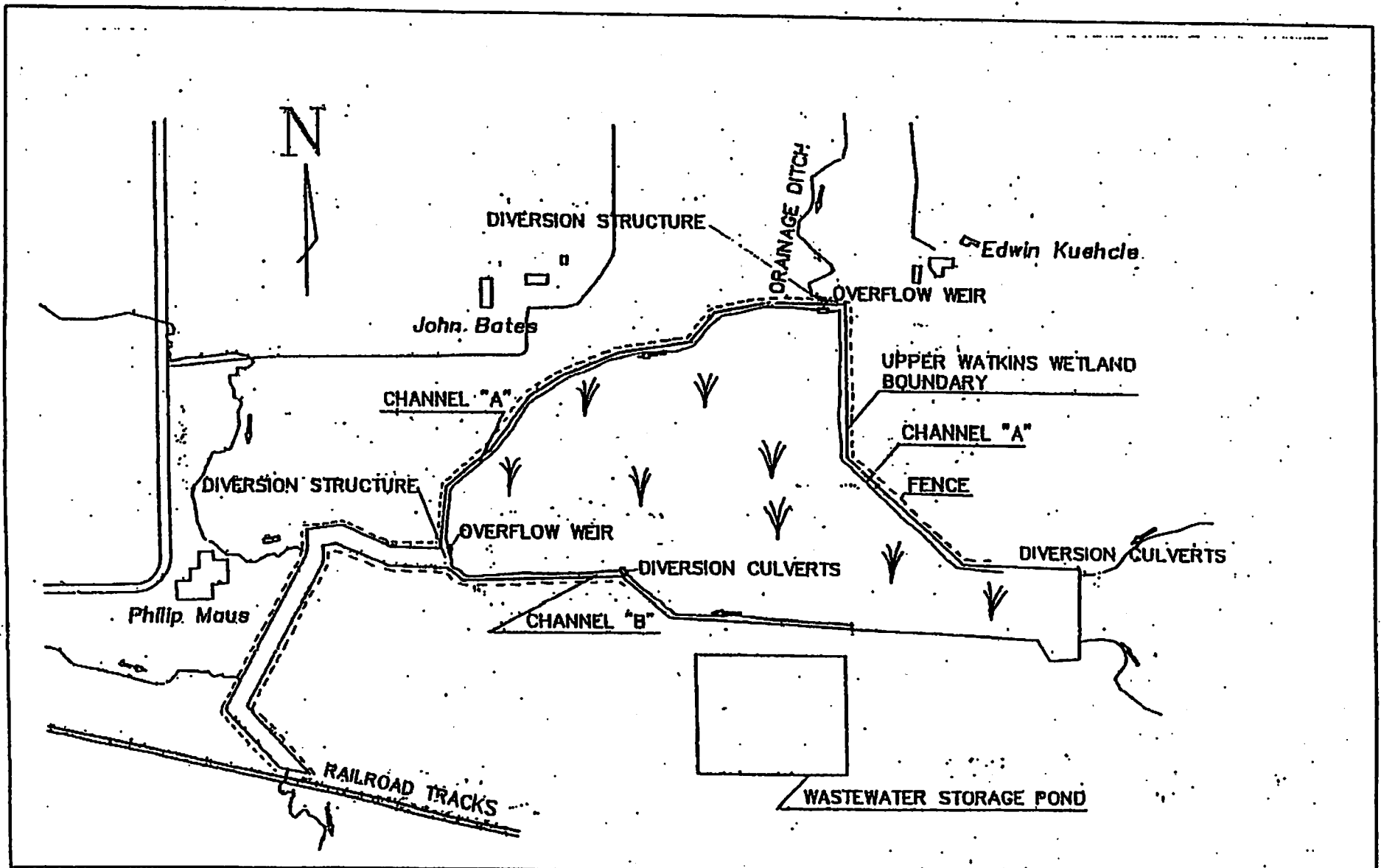
Figures



N
 SCALE: 1" = 1000'

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 Environmental Engineers
 1800 Pioneer Creek Center
 Maple Park, MN 55359

Figure 1



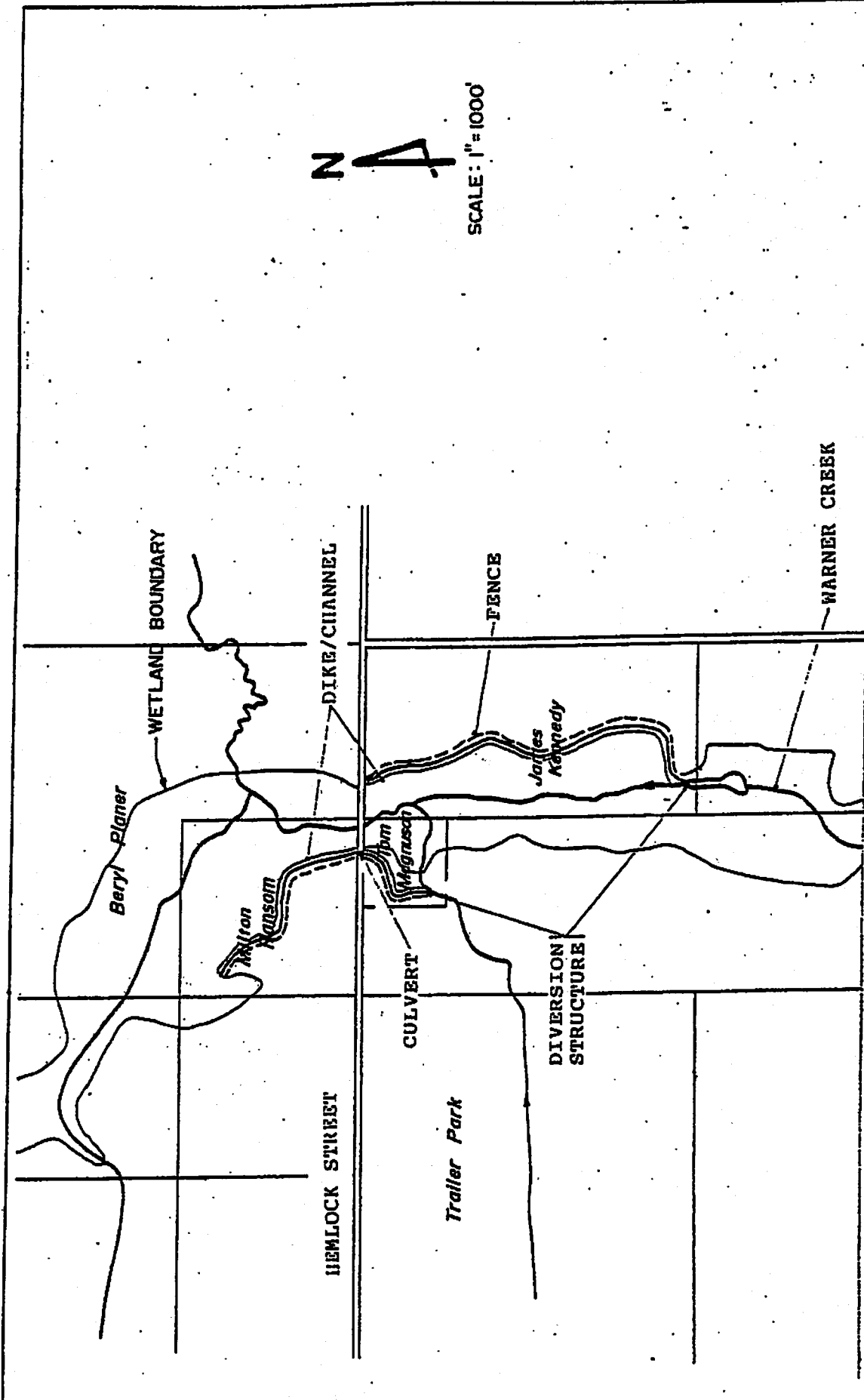
CLEARWATER RIVER WATERSHED DISTRICT

Upper Watkins Wetland Isolation Project



Wenck
 Wenck Associates, Inc. 1600 Pioneer Creek Center
 Environmental Engineers Maple Plain, MN 55359

Figure 2

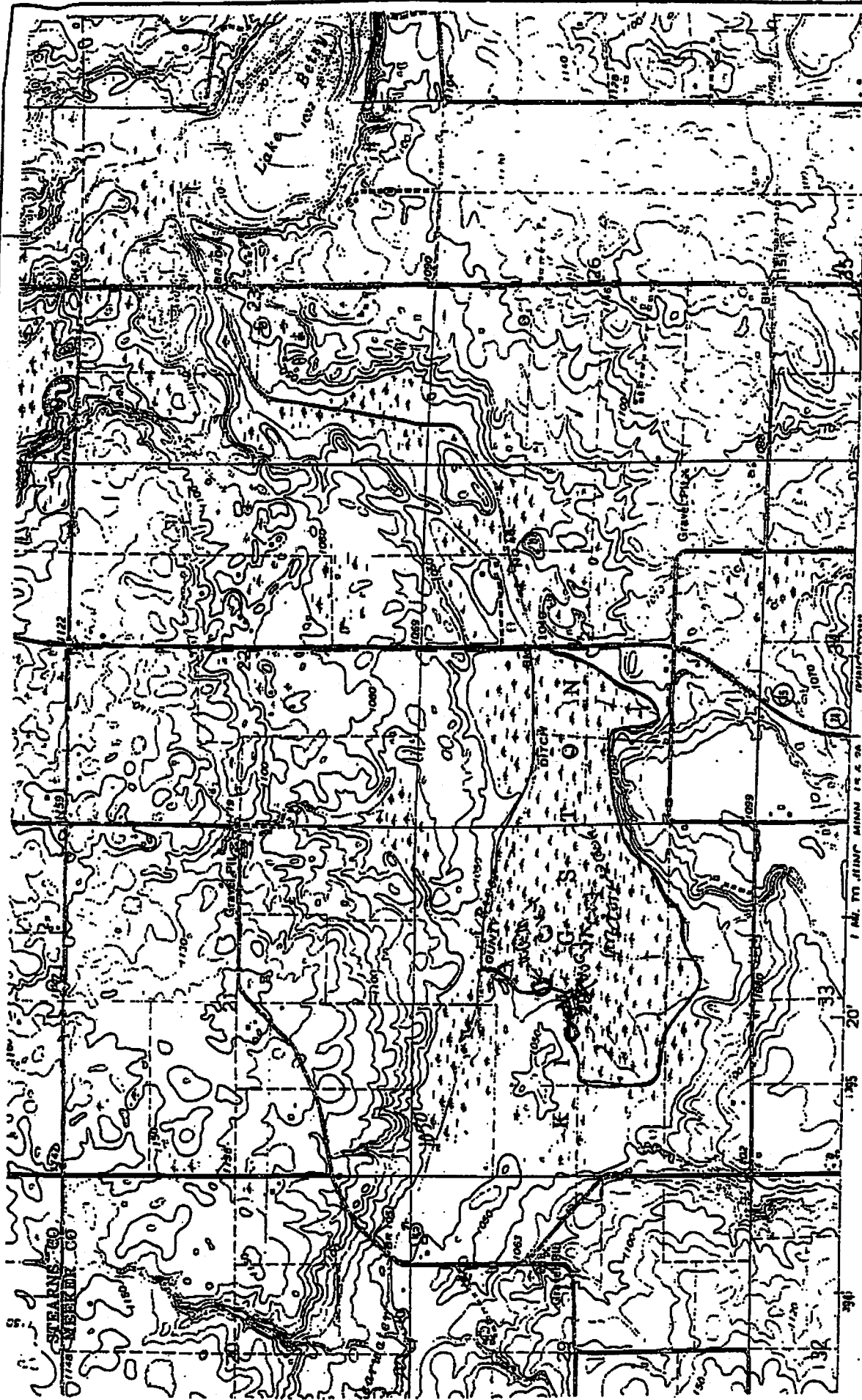


CLEARWATER RIVER WATERSHED DISTRICT

Annandale Wetland Treatment Project



Figure 3

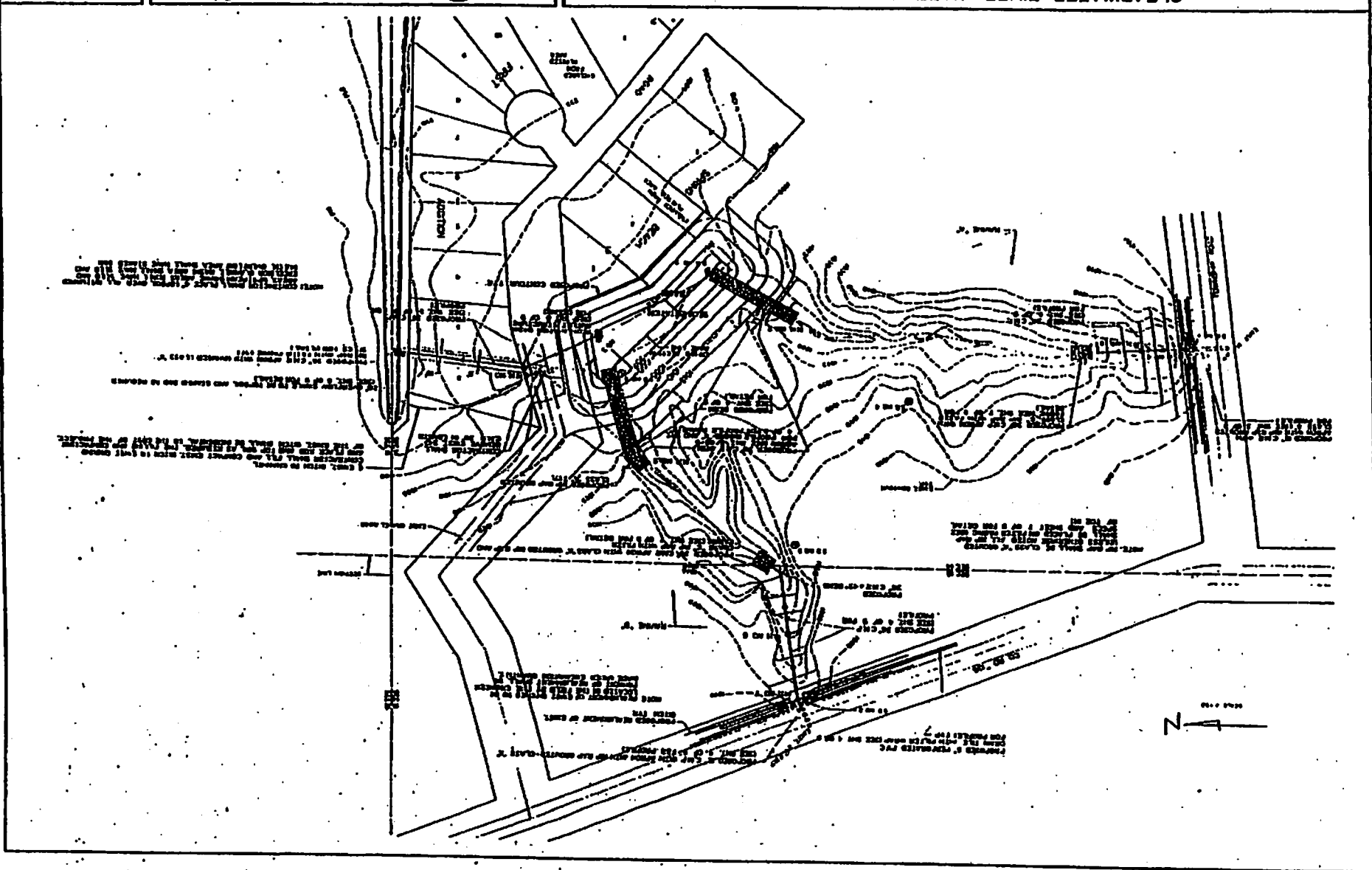


CLEARWATER RIVER WATERSHED DISTRICT

Kingston Wetland Treatment Project



Figure 4



Photographs



Photo 1

Upper Watkins Wetland (North)
Isolation Project



Photo 2

Upper Watkins Wetland (North)
Isolation Project



Photo 3
Watkins Wetland (South) Treatment
System



Photo 4
Watkins Wetland (South) Treatment
System



Photo 5
Watkins Wetland (South) Treatment
System



Photo 6
Watkins Wetland (South) Treatment
System



Photo 7
Watkins Wetland (South) Treatment
System



Photo 8
Watkins Wetland (South) Treatment
System

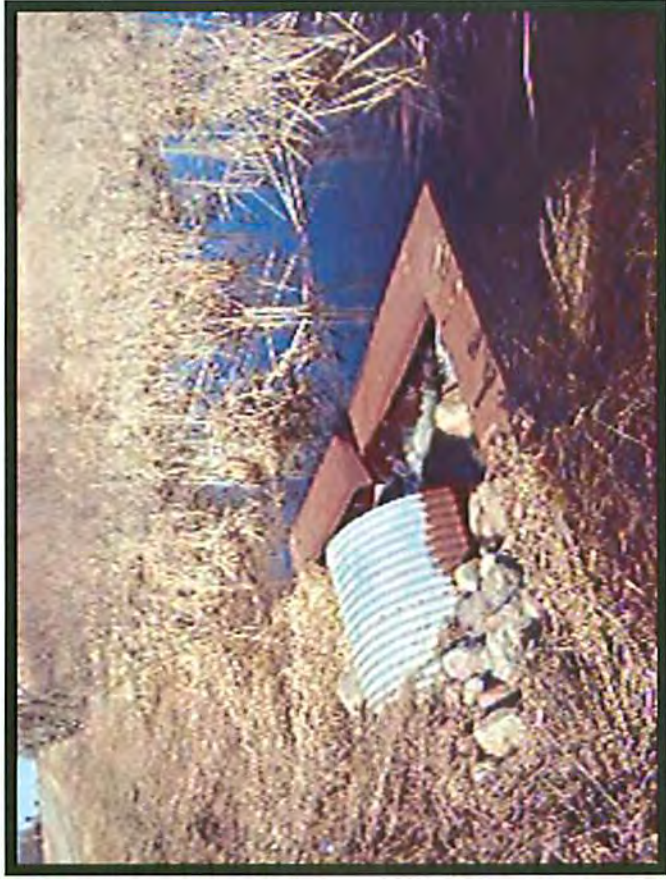


Photo 9
Clear Lake (Northeast) Wetland Outlet
Structure

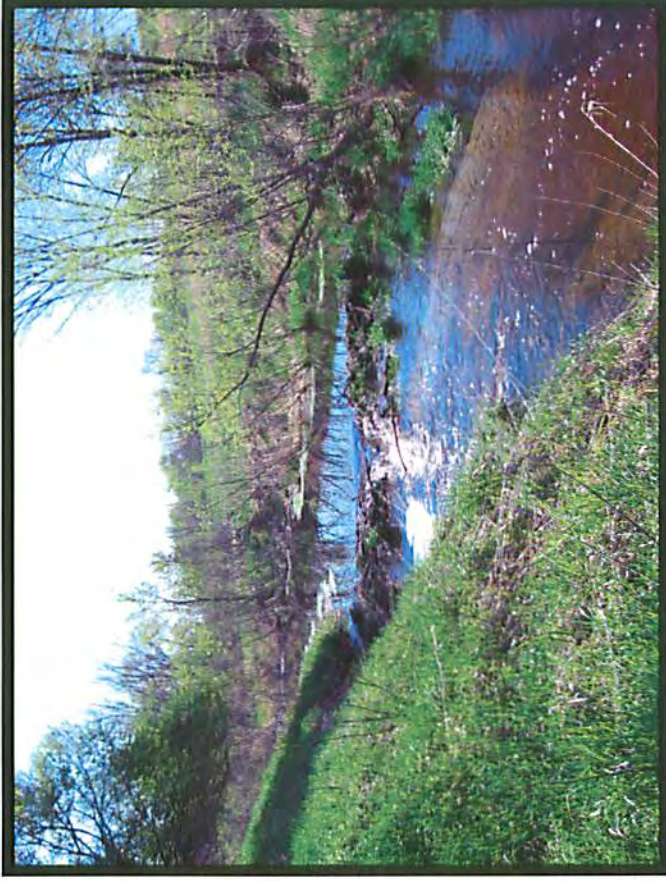


Photo 10
Kingston Wetland Treatment System
Channel Blockage (Beaver Dam)



Photo 11
Kingston Wetland Treatment System –
Sediment delta



Photo 12
Kingston Wetland Treatment System –
Berm washout



Photo 13

Kingston Wetland Treatment System –
Berm washout



Photo 14

School Section Lake Outlet Structures



Photo 15

Lake Augusta Aeration
Building



Photo 16

Lake Marie Aeration Building



Photo 17
Lake Augusta Erosion Control Project
- Outlet Structure

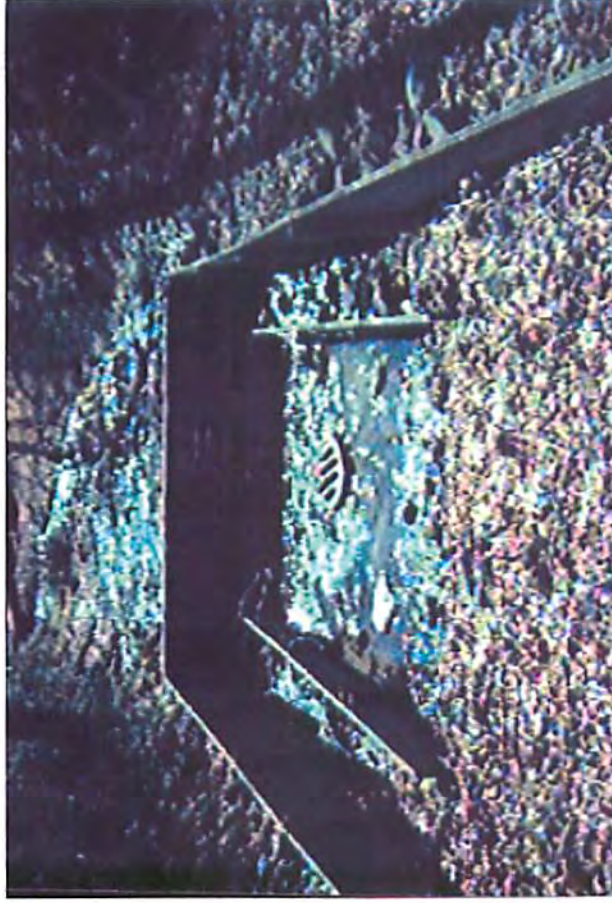


Photo 18
Lake Augusta Erosion Control Project
- Inlet Baffles



Photo 19
Lake Augusta Erosion Control Project
- Inlet Baffles



Photo 20
Rest-a-While Drainfield



Photo 21
Clearwater Harbor Wastewater
Collection and Treatment System
(Remove check dam)



Photo 22
Clearwater Harbor Wastewater
Collection and Treatment System
(Drainfield)



Photo 23
Clearwater Harbor Wastewater
Collection and Treatment System
(Blacktop Seam)



Photo 24
Clearwater Harbor Wastewater
Collection and Treatment System
(Erosion Repair)



Photo 25
Pleasant Lake Outlet Manhole



Photo 26
Annandale Wetland Treatment System
Outlet Structure

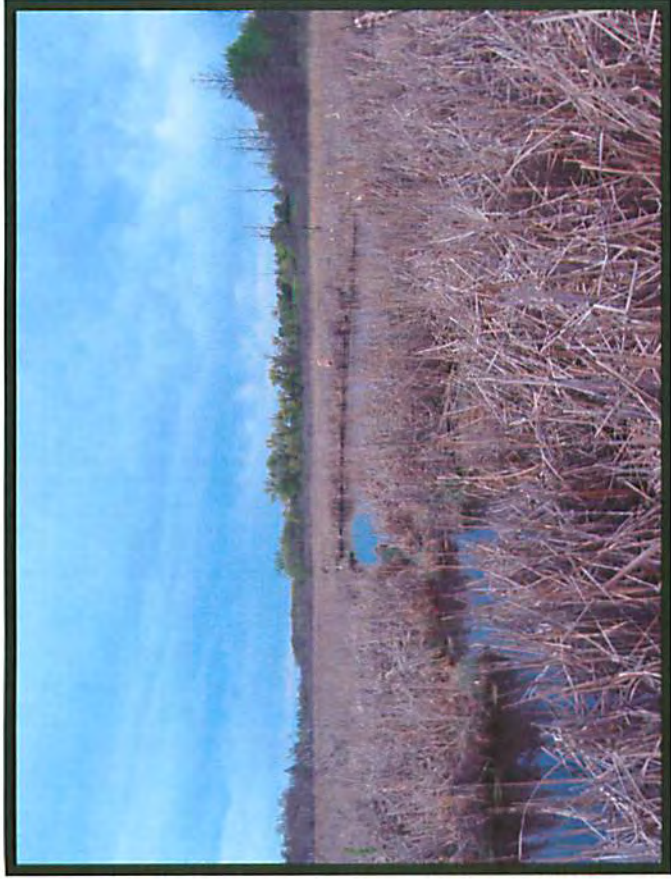


Photo 27
Annandale Wetland Treatment System
– Clogged channel



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