# 2005 Project Inspection Report

Prepared for

## Clearwater River Watershed District

Wenck

April 2005

Wenck Associates, Inc.
1800 Pioneer Creek Ctr.
P.O. Box 249
Maple Plain, MN 55359-0249

(763) 479-4200
Fax (763) 479-4242
E-mail: wenckmp@wenck.com

Wenck

April 13, 2005

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

Re: 2005 Project Inspection Report
Wenck File #0002-72

Dear Mr. Brunsell:

This 2005 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, Kevin Wittrock and Liz Stout between March 25 and April 6, 2005. 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 Watkins, Annandale, and Kingston Wetland Treatment Systems 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 $17,500, plus 30 hours for Kevin Wittrock to perform minor maintenance items.

Sincerely,

WENCK ASSOCIATES, INC.

Norman C. Wenck, P.E.
Chairman

Attachments
c: CRWD Board of Managers
Merle Anderson, Administrator

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# Tables

**Table 1**
**Clearwater River Watershed District**
**Annual Project Inspection**
**April 2005**

| Project | Maintenance | | | Estimated Cost |
|---|---|---|---|---|
| | Required | Optional | No Action Now | |
| Watkins Wetland Treatment System (south) (see Figure 1 and Photos 1 and 2). | | | | |
| 1. West side (Channel A) washout south of pipe outlet | ✓ | | | $3500 |
| 2. East side (Channel B) flowing normal, channel ports open. | | | ✓ | |
| 3. East side water quality monitoring for phosphorus before and after wetland. | ✓ | | | $980 |
| Upper Watkins Wetland Isolation Project (north) (see Figure 2). | | | | |
| Closer inspection needed at a later date. | | | | |
| Annandale Wetland Treatment System (see Figure 3 and Photos 3 and 4). | | | | |
| 1. Washout of berm north of Hemlock Street | ✓ | | | $3500 |
| 2. Fence needs repair and tightening | ✓ | | | Kevin 24 hrs. |
| School Section Lake Outlet Project (see Photo 5). | | | | |
| 1. Outlet structure and culverts in good condition. | | | ✓ | |
| 2. Downstream culvert and structures in good condition. | | | ✓ | |
| Pleasant Lake Outlet Project (see Photo 6). | | | | |
| 1. Outlet structure in good condition. | | | ✓ | |
| Kingston Wetland Treatment System (see Figure 4 and Photos 7 and 8). | | | | |
| 1. Ditches and channel ports open. | | | ✓ | |
| 2. Washout in berm south of first overflow. | ✓ | | | $7000 |
| Aerator Buildings (see Photo 9). | | | | |
| 1. Lake Augusta – replace downspout. | ✓ | | | Kevin, 1 hr plus materials |
| 2. Lake Marie no maintenance needed. | | | ✓ | |

**Table 1**
**Clearwater River Watershed District**
**Annual Project Inspection**
**May 2004**

| Project | Maintenance | | | Estimated Cost |
|---|---|---|---|---|
| | Required | Optional | No Action Now | |
| Lake Augusta Erosion Control Project (see Figure 5 and Photos 10 and 11). | | | | |
| 1. Sedimentation basin in good condition. | | | ✓ | |
| 2. West drop inlet structure is in good condition. | | | ✓ | |
| 3. Clean out sediment above south box | ✓ | | | $2500 |
| 4. Install two rock check dams above south box. (20'x3'x2') | | ✓ | | Consider community service sentence-to –serve manpower. Plus materials |
| Clear Lake Sedimentation Basin (south) (see Photo 12, 13, and 18). | | | | |
| 1. Sedimentation basin in good condition. | | | ✓ | |
| Clear Lake (northeast) Wetland Outlet Structure (see Photo 14). | | | | |
| 1. Outlet structure in good condition. | | | ✓ | |
| Hidden River Sewage Treatment Facility (see Photo 15). | | | | |
| 1. Treatment facility in good condition. | | | ✓ | |
| 2. Remove debris along driveway and south fence | ✓ | | | Kevin, 1 hr |
| 3. Inspect screens, filters, manholes, and mains. | ✓ | | | Bill, 2 hr |
| 4. Schedule tank pumping | ✓ | | | Merle 1hr |
| Rest A While Sewage Treatment Facility (see Photos 16 and 17). | | | | |
| 1. Treatment facility in good condition. | | | ✓ | |
| 2. East Sediment Basin Erosion has been corrected. | | | ✓ | |
| 3. West Sediment Basin small gully screen and filter cleaning. | ✓ | | | Kevin, 4 hours |

## SEWER SYSTEM MAINTENANCE

**Hidden River 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. 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.

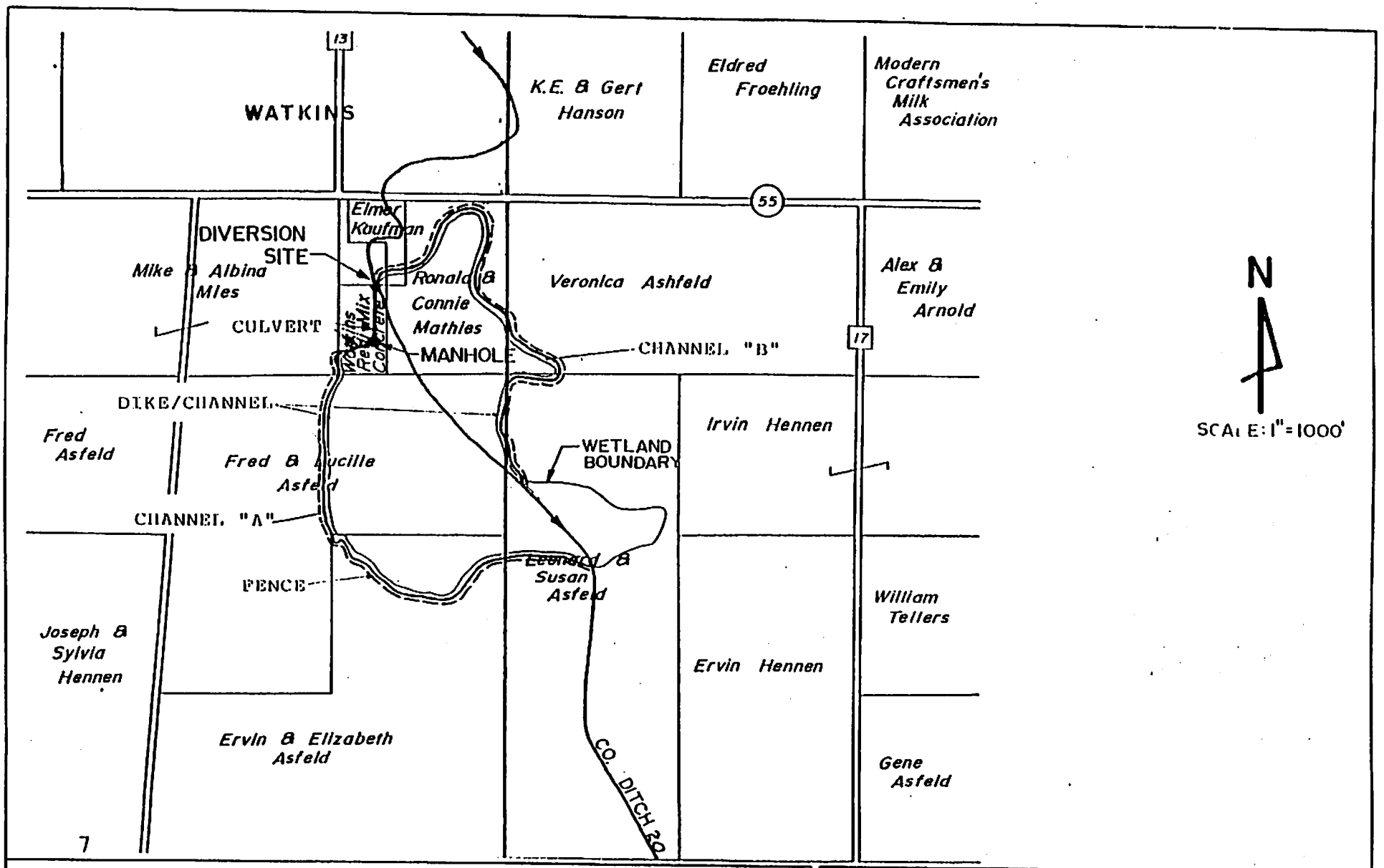
**Restawhile Wastewater Treatment System**

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 or plugging.

# Figures




CLEARWATER RIVER WATERSHED DISTRICT

Watkins Wetland Treatment Project

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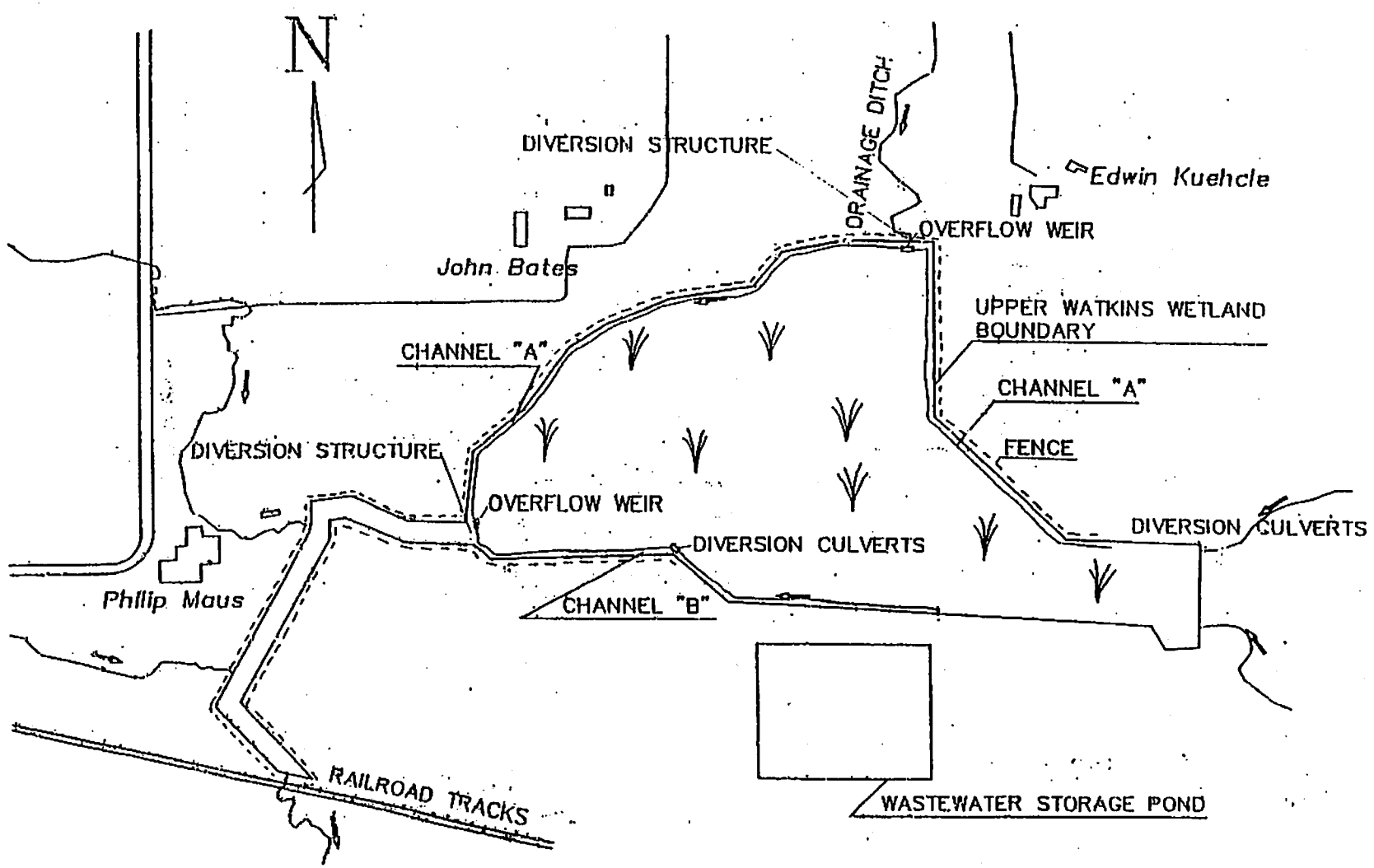
Figure 1

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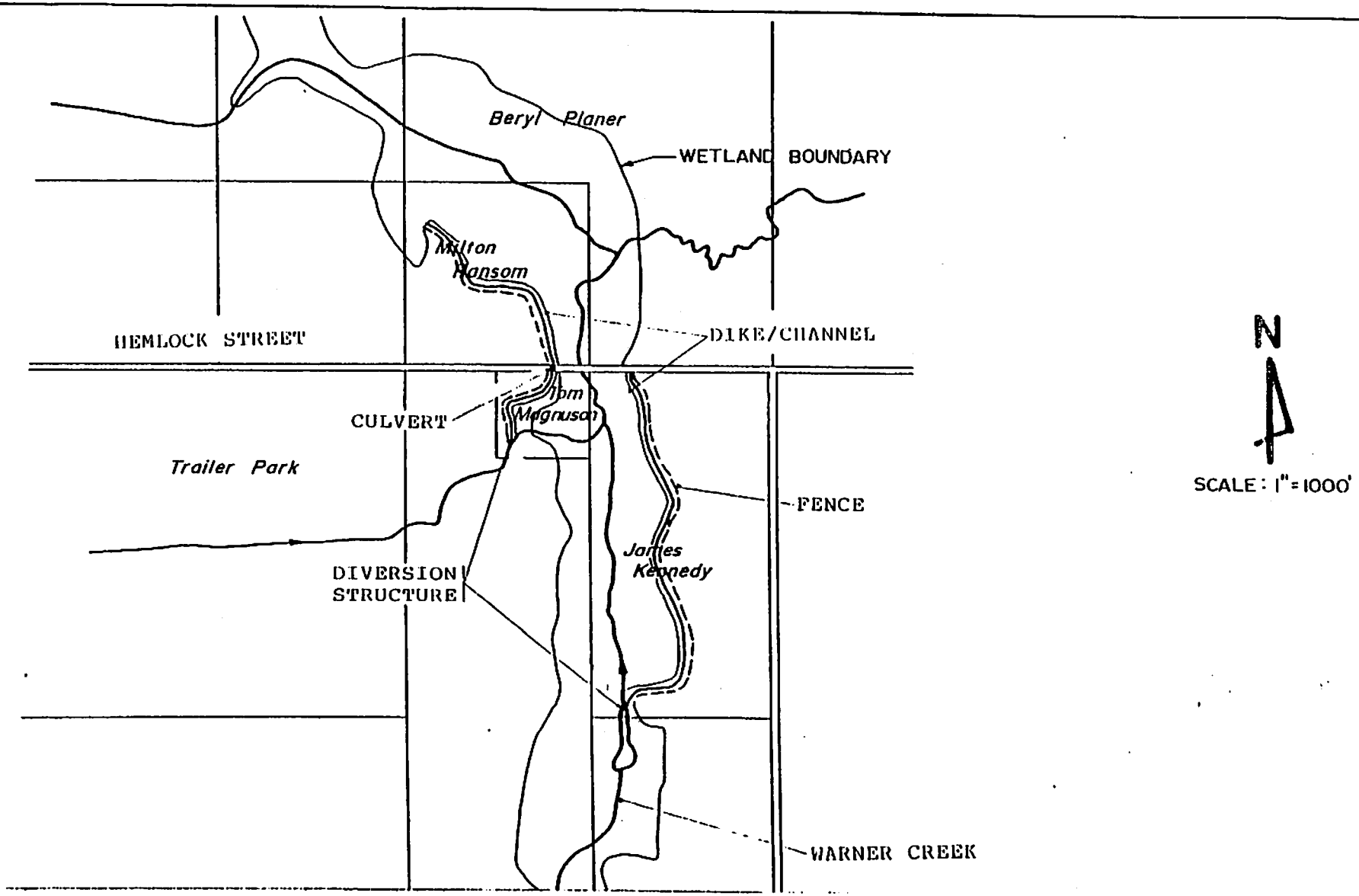
Upper Watkins Wetland Isolation Project



Wenck Associates, Inc.
Environmental Engineers

Wenck
1800 Pioneer Creek Center
Maple Plain, MN 55359

Figure 2

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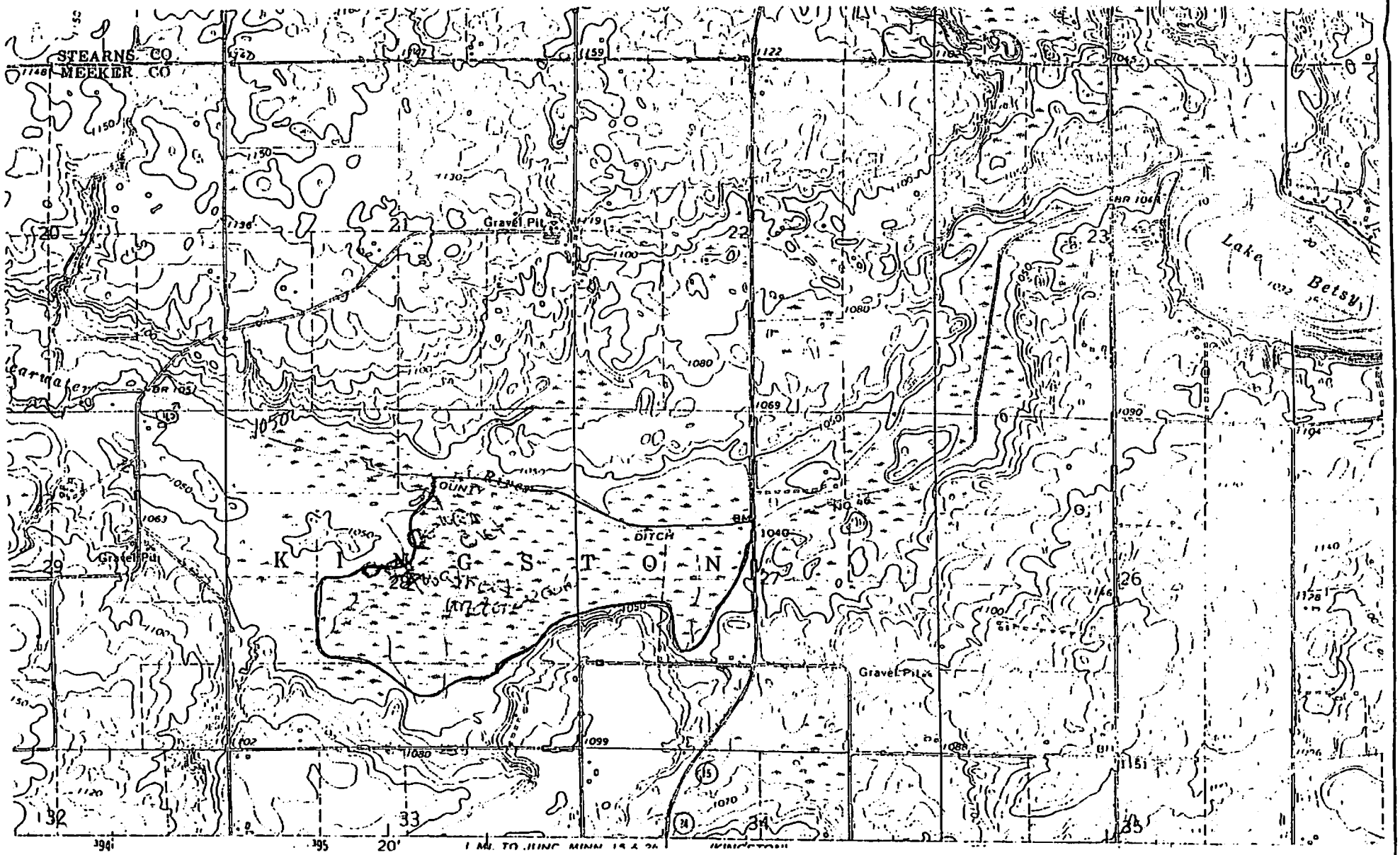
Annandale Wetland Treatment Project

Wenck Associates, Inc.
Environmental Engineers
1800 Pioneer Creek Center
Maple Plain, MN 55359

Figure 3

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Kingston Wetland Treatment Project



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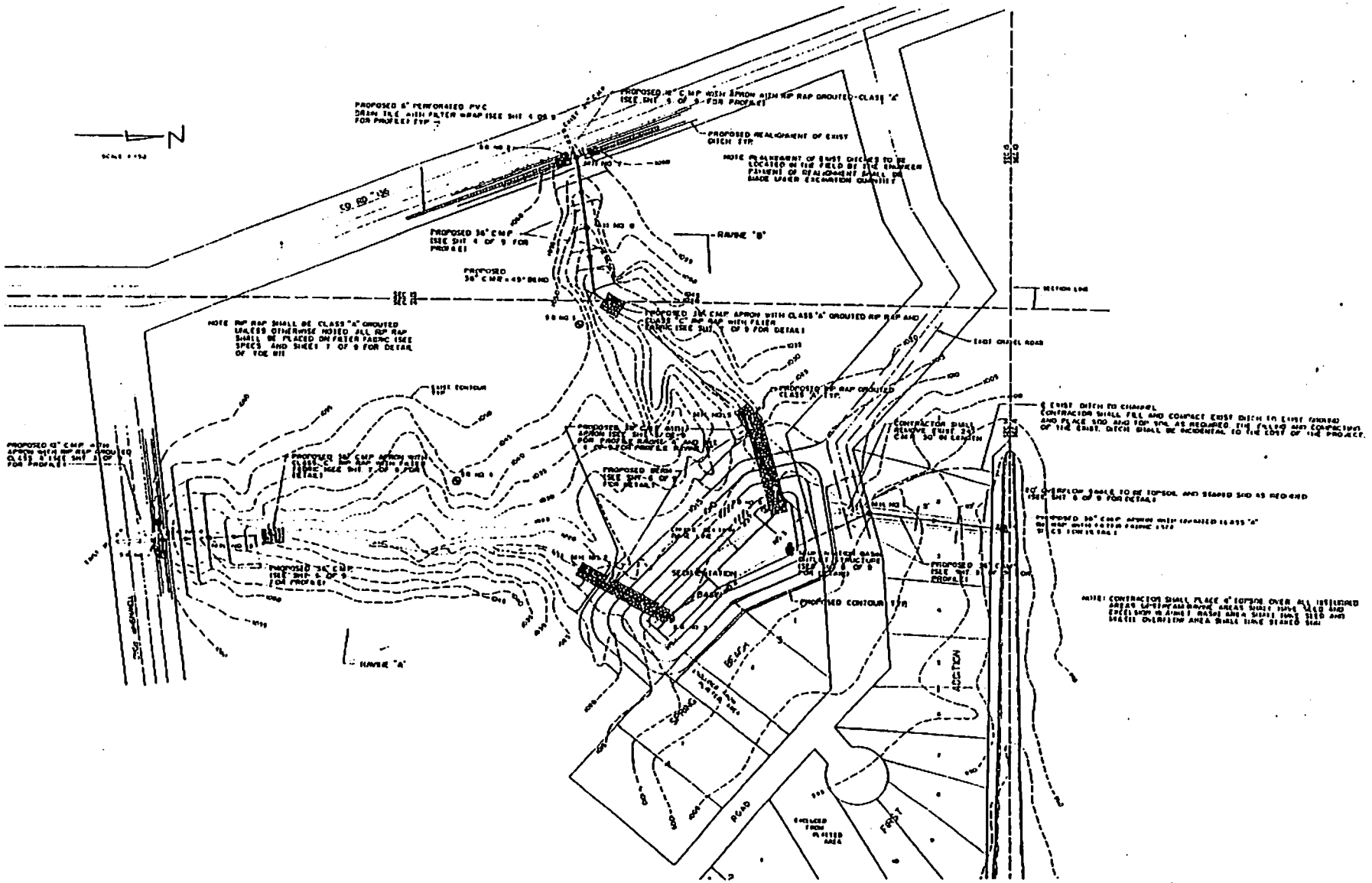
Environmental Engineers

1800 Pioneer Creek Center
Maple Plain, MN 55359

Figure 4

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Lake Augusta Erosion Control Project

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Maple Plain, MN 55359

Figure 5

# Photographs

Photo 1

Watkins Wetland Treatment System, west ditch

Photo 2

Watkins Wetland Treatment System, north ditch along Hwy 55


Photo 3

Annandale Wetland Treatment System, west ditch

Photo 4

Annandale Wetland Treatment System, overflow structure

Photo 5

School Section Lake Outlet Project

Photo 6

Pleasant Lake Outlet Project


Photo 7

Kingston Wetland Treatment System


Photo 8

Kingston Wetland Treatment System, southeast berm


Photo 9

Lake August Aerator Building

Photo 10

Lake August Erosion Control Project, control structure

Photo 11

Lake August Erosion Control Project,
area above south box

Photo 12

Clear Lake Sedimentation Basin

Photo 13

Clear Lake Sedimentation Basin, expansion

Photo 14

Clear Lake Wetland Outlet Structure (northeast)

Photo 15

Hidden River Sewage Treatment Facility

Photo 16

Rest A While Sewage Treatment Facility

Photo 17

Rest A While Sewage Treatment Facility, west sediment basin

Photo 18

Clear Lake Sedimentation Basin; farm field needs erosion control

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