Engineers Report

Cedar, Albion, Swartout, Henshaw Improvement Project Project No. 06-1

Prepared for

Clearwater River Watershed District

August 2006

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Cedar, Albion, Swartout, Henshaw Improvement Project
Project No. 06-1

Wenck File #0002-95

Prepared for:

CLEARWATER RIVER WATERSHED DISTRICT
P.O. Box 481
Annandale, Minnesota 55302

August 2006

Prepared by:

WENCK ASSOCIATES, INC.
1800 Pioneer Creek Center
P.O. Box 249
Maple Plain, Minnesota 55359-0249
(763) 479-4200

ENGINEERS REPORT

for

CEDAR, ALBION, SWARTOUT, HENSHAW IMPROVEMENT PROJECT NO. 06-1

PREPARED FOR: Clearwater River Watershed District
P.O. Box 481
Annandale, Minnesota 55302

BOARD OF MANAGERS: Marvin Brunsell, Chairperson
Dennis Loewen, Vice-Chairperson
Mark Kampa, Secretary
Robert Schiefelbein, Treasurer
Jerry Risberg, Public Relations & Information

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Wenck File #0002-95

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly registered Professional Engineer under the laws of the State of Minnesota.

Date: 8-9-06

Norman C. Wenck, P.E. Registration No: 8946

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1.0 Introduction

1.1 PROJECT LOCATION

Cedar Lake and its subwatershed are located in the southeast portion of the Clearwater River Watershed District (CRWD) between Annandale and Maple Lake, MN. Figure 1 shows the location of the subwatershed within the District and Figure 2 shows the details of the Cedar Lake subwatershed.

1.2 BACKGROUND

The Board of Managers of the CRWD began evaluation of Cedar Lake in 1993 and Cedar Lake's upper watershed lakes of Swartout, Henshaw and Albion in 1996, 1995, and 1996 respectively. The District accelerated its evaluation of the water quality in 2003 when noticeable deterioration of Cedar Lake's water quality occurred. Excerpts from the CRWD 2004 Water Quality Monitoring Report (Appendix A) and the CRWD 2005 Water Quality Monitoring Report (Appendix B) are provided to show monitoring results. Appendix C is an August 10, 2005 memorandum dealing mainly with carp traps and Appendix D describes the evaluation of the technology that applies to the Cedar Lake subwatershed.

2.0 Project Need

The Clearwater River Watershed District's Comprehensive Plan dated June 2003, and approved by BWSR on July 23, 2003 has a Policy to maintain or improve water quality in all lakes within the watershed (p. 58) and a Goal of surface water quality improvement systems – protect surface water quality downstream (page 76) that apply to the Cedar Lake watershed improvements. The water quality impacts that are described in Appendices A, B, C and D define the need for actions to be considered to reverse the trends and improve the water quality in Cedar Lake as well as the upper watershed Lakes of Albion, Swartout, and Henshaw.

The Cedar Lake Conservation Club petitioned the District on July 12, 2006 to develop and implement measures designed to reduce the phosphorous loading and carp population in Cedar Lake (Appendix E). The Board of Managers, at their July 12, 2006 regular meeting, received the petition and ordered an Engineer's Report for this project as shown in Appendix F. A public information meeting is scheduled for August 23, 2006 and a public hearing on this project is scheduled for October 11, 2006.

3.0 Alternative Solutions Considered

3.1 GENERAL

The CRWD conducted a special monitoring project from 2004 to 2005 to study the potential causes for increasing nutrient levels in Cedar Lake observed starting in Fall 2003, and persisting high nutrient levels in Swartout, Albion and Henshaw Lakes. Available data was analyzed, including data collected during the scope of the study, historical lake data, and data available from other sources such as the MPCA, the Minnesota DNR and the University of Minnesota.

The District identified the specific cause and identified feasible methods to reduce nutrient loading to Cedar Lake and reduce phosphorus concentrations in upper watershed lakes through the data collection, data analysis, and a nutrient balance.

In-lake water quality was used to predict the total annual phosphorus load to Cedar Lake. Based on characteristics of the lake and surrounding watershed, a total phosphorus load of 1,000 pounds per year is predicted to yield in-lake phosphorus concentrations observed prior to 2003 and thus maintain water quality in Cedar Lake. This information, coupled with supplemental monitoring data collected in 2004 and 2005, indicated that presently 2,000 to 3,000 pounds of phosphorus per year were entering Cedar Lake through the southeast inlet alone, about 96 % of the total phosphorus load to Cedar Lake under current conditions.

The primary phosphorus source to Cedar Lake is caused by high phosphorus concentrations in upper watershed lakes. To reduce the phosphorus concentrations in Cedar Lake it will be necessary to reduce the nutrient load from upper watershed lakes. This finding also rules out other causes for the increasing nutrient levels in Cedar Lake such as individual septic systems for lakeshore homes, internal loading in Cedar Lake exacerbated by carp or curly leaf pondweed within the lake, or other point sources.

The nutrient balance in Swartout Lake showed a small amount of phosphorus and sediment coming into the lake from the outside watershed relative to the internal loading in Swartout Lake. Internal loading to Swartout Lake is about 76% of the load to the lake. Internal loading for Albion and Henshaw Lakes represent about 91% and 95% respectively of the phosphorus loads to each lake. A reduction of in-lake phosphorus concentrations in Swartout Lake will require addressing both internal and external phosphorus loading.

3.2 ALTERNATIVES CONSIDERED

Sixteen alternatives were evaluated to reduce phosphorus loading to Cedar Lake, and reduce phosphorus concentrations in the upper watershed lakes:

1. Eliminate ISTS discharges to Cedar Lake through grants to homeowners or installation of a regional treatment facility.

   Data showed that potential point source loading to Cedar Lake from ISTS was low, while the cost of implementing this option was high.

2. Aggressive curly leaf pondweed control in the southern portion of Cedar Lake.

   Data showed that internal loading to Cedar Lake though exacerbated by curly leaf pond weed, was not a significant portion of the nutrient load to Cedar Lake. Further, a 2005 macrophyte study by the Minnesota DNR showed that the extent of curly leaf pond weed in Cedar Lake is small. (Figure 3)

3. Removal of Cormorants on Swartout Lake

   Based on a water foul survey conducted by the University of Minnesota in 2004, removing the cormorants from Swarout Lake would result in only a maximum of 1% phosphorus load reduction to Swartout Lake.

4. Carp population reduction through Rotenone, physical harvesting

   Carp population reduction in the upper watershed lakes would reduce the internal loading in Swartout Lake between 15 and 40 %, which in turn would likely reduce the phosphorus loading to Cedar Lake as well.

   Management of the carp population would be an ongoing task with annual activities necessary to maintain reduced loads and would require installation of migration barriers to prevent repopulation of upstream lakes by the carp that over winter in Cedar Lake.

   However, there was no interest by residents in actively managing the carp populations in any of the upstream lakes through chemical means, or through lake draw downs.

5. Fish migration barriers between Albion and Swartout, and Henshaw and Swartout Lakes

   Fish migration barriers used in conjunction with fish population management techniques such as lake drawdown to induce winter kill, harvesting, or chemical treatment, will likely result in a significant reduction in the internal loading in upstream watershed lakes, and a decrease in nutrient loading to watershed lakes.

   Short of active management of carp populations, the shallow upstream lakes will likely experience a winter fish kill at some point in the future given their depth. The installation of fish migration barriers coupled with a natural winter fish kill would likely have a

positive effect on in lake water quality. Figures 4 through 8 show the results of a survey of channel elevations between Henshaw, Swartout, and Cedar Lakes. This survey was conducted to determine the feasibility of physical barriers.

6. Install fish barriers between Hwy 55 and Cedar Lake, and Swartout Lake outlet at CR 6 to prevent upstream migration.

   This option would prevent carp repopulation of upper watershed lakes, and in conjunction with natural or aided carp population management would reduce nutrient loadings in Swartout Lake. Figures 4 through 8 show the results of the survey conducted to ascertain the feasibility of fish barriers at these locations.

7. Treat Swartout wetland outlet to remove phosphorus from the water before it enters Cedar Lake.

   Directly treating the primary source of nutrients to Cedar Lake would dramatically reduce phosphorus loading to Cedar Lake and improve water quality therein. It is the surest and the quickest way to return Cedar Lake to its pre 2004 water quality of 0.23 mg/ L average summer total phosphorus. This solution, however, does not address the cause of the high nutrient loading in the upper watershed.

8. Increase residence time on wetland between Swartout and Highway 55 to increase sediment removal and reduce nutrient loads to Cedar Lake.

   This option would raise the outlet elevation of the Highway 55 wetland, and allow for greater suspended nutrient settling. It might also allow for greater uptake of nutrients in the wetland. However, the size of the wetland and the high dissolved component to the phosphorus load indicate this option has a low probability of success, a high level of uncertainty, and a high cost.

9. Watershed best management practices.

   A reduction in the external and internal phosphorus load to Swartout Lake is necessary to reduce in-lake phosphorus concentrations. Watershed best management practices can be implemented on the portion of the upper watershed that is a direct tributary to Swartout Lake and costs are generally low. Figure 9 shows the recommended extent for initial implementation of watershed BMPs.

10. Buffer tile lines, ditches and streams in upper watershed.

    A reduction in the external and internal phosphorus load to Swartout Lake is necessary to reduce in-lake phosphorus concentrations. Buffer strips can be easily and cost effectively implemented on the portion of the upper watershed that is a direct tributary to Swartout Lake. Figure 9 shows the recommended extent for initial implementation of ditch and tile line buffer strips.

11. Lake shore management in Cedar, Swartout, Albion and Henshaw Lakes

    Managing lakeshore plants and habitat can have a positive ecological impact on lakes that will work synergistically with other measures to reduce phosphorus concentrations. This option will have a greater impact on shallow lakes where lakeshore habitat plays a larger role in water quality. This option is best implemented by lake associations. The Minnesota DNR's manual *Lakescaping for Wildlife and Water Quality* should be used as a guide for residents.

12. Ecological management of Henshaw, Albion and Swartout Lakes to induce a shift in lake ecosystems from algal/ carp dominance to macrophyte dominance

    This option would entail reducing carp populations in upper watershed lakes, and preventing future upstream migration of carp from Cedar Lake to the shallow upstream

lakes. Temporary lake drawdowns would be used to induce winter fish kills and stimulate submergent and emergent plant communities in the lakes.

13. Isolate Swartout Lake and redirect outflow downstream of Cedar Lake

    This option was rejected due to potential impacts to downstream water bodies.

14. Isolate wetland between Highway 55 and Swartout Lake and re-direct outflow downstream

    This option was rejected due to potential impacts to downstream water bodies.

15. Install wetland treatment system in the Highway 55 Wetland.

    This option might have allowed for more residence time and greater settling for suspended nutrients, and perhaps greater uptake of nutrients in the wetland. However, the size of the wetland and the high dissolved component to the phosphorus load showed this option to be less effective with a high cost.

16. Install sedimentation basins to reduce external nutrient and sediment load to Swartout Lake.

    Installing sediment basins in the watershed that is a direct tributary to Swartout Lake is an important component of addressing nutrient concentrations in Swartout Lake. This option has the potential to reduce the loading to Swartout Lake by 1 to 10%.

3.3 SOLUTION AND SEQUENCING

Table 1 shows the proposed schedule and sequencing for the Cedar, Albion, Swartout, Henshaw Improvement project. The individual tasks are listed below.

1. Install fish barriers in winter 2007 to prevent upstream migration of carp at the Cedar Lake inlet at Highway 55, the Swartout Lake outlet at CR 6, and Henshaw Lake outlet. It is critical to install the fish barriers as soon as possible, since the drought conditions in CRWD might induce a winter fish kill on the shallow upper watershed lakes.
2. Once fish barriers are in, carp harvesting should be implemented in the winter of 2006-2007. In years without natural fish kills, harvesting of carp should be implemented annually.
3. Install sedimentation basins in the watershed upstream of Swartout Lake to reduce external loading to Swartout Lake during winter 2007-2008.
4. Buffer the drainage ditch tributary to Swartout Lake that crosses CR 37 and runs between CR 6 and Iresfeld Ave NW, and all the tile lines tributary to the drainage ditch. This work will begin during spring 2007 and continue in cooperation with the SWCD, with a completion goal of 2009.
5. Characterize seasonal outflow chemistry for the Highway 55 wetland through bench testing during the spring and summer of 2007 to design a phosphorus removal system to treat inflow to Cedar Lake from the upper watershed lakes.
6. Construction of phosphorus removal system during the fall and winter of 2007-2008.

4.0 Project Compatibility with State and Federal Law

4.1 WATERSHED DISTRICT AUTHORITY

The Clearwater River Watershed District's authority to take action on the implementation of this project is found in the Minnesota Watershed Act as taken from the Minnesota Statutes chapter 103D.335, manager's powers and duties.

4.2 CONTENT OF THE ENGINEER'S REPORT

This report is prepared in accordance with the Minnesota Statute 103D.711 Engineer's Report, under the Minnesota Watershed Act.

4.3 CONFORMANCE WITH COMPREHENSIVE PLAN

The Clearwater River Watershed District requires projects undertaken under its jurisdiction to be consistent with its plan. This project is consistent with the overall plan, as specifically addressed on page 58, Policies and page 76 Goals, and allows the District to provide for improved surface water quality.

4.4 OTHER REQUIREMENTS

Permits may be required from the Minnesota Pollution Control Agency and the Minnesota Department of Natural Resources. Permit applications will be prepared, sent to the Departments and permits received prior to the onset of construction activities.

5.0 Economic Consideration and Benefits

5.1 EXISTING AND ANTICIPATED BENEFITS

A 1,500 to 3,000 lb reduction in phosphorus load to Cedar Lake will result in reduced phosphorus concentrations in Cedar Lake and fewer algae blooms.

Ecological management of Swartout Lake including carp population management, carp migration prevention, and watershed load reduction will reduce phosphorus concentrations in Swartout Lake, and in turn reduce phosphorus loading to Cedar Lake.

Water clarity will increase in both lakes, and the frequency of algal blooms will be reduced.

5.2 ESTIMATED COSTS

Table 2 presents the estimated project costs of the recommended projects; Table 3 presents the estimated annual operation and maintenance costs of the projects.

6.0 Easements, Right-of-Way, Property Ownership

6.1 PRELIMINARY EASEMENT REQUIREMENTS

The properties affected by this project are under the ownership of the parties listed in Appendix G. It will be necessary to obtain permanent access and construction easements as required to assure the right to enter, improve, maintain and operate from the access areas identified.

6.2 EASEMENT ACQUISITION

The easements necessary to enter, construct, and maintain the project could be acquired through direct negotiation with affected property owners.

7.0 Environmental Assessment

The environmental effects of the project were assessed by completing an Environmental Assessment Worksheet (EAW) made available by the Environmental Quality Board. The EAW is included in Appendix H.

8.0 Financing

Financing for the project will be obtained by assessing benefited property owners. It is anticipated that the benefited properties shall be assessed based on a per lot basis. A listing of potentially benefited property owners, their addresses and tax parcel number(s) is shown in Appendix I. Appendix J presents the Board of Managers draft project formula for assessing units of benefit. Table 4 summarizes the estimated units of benefits.

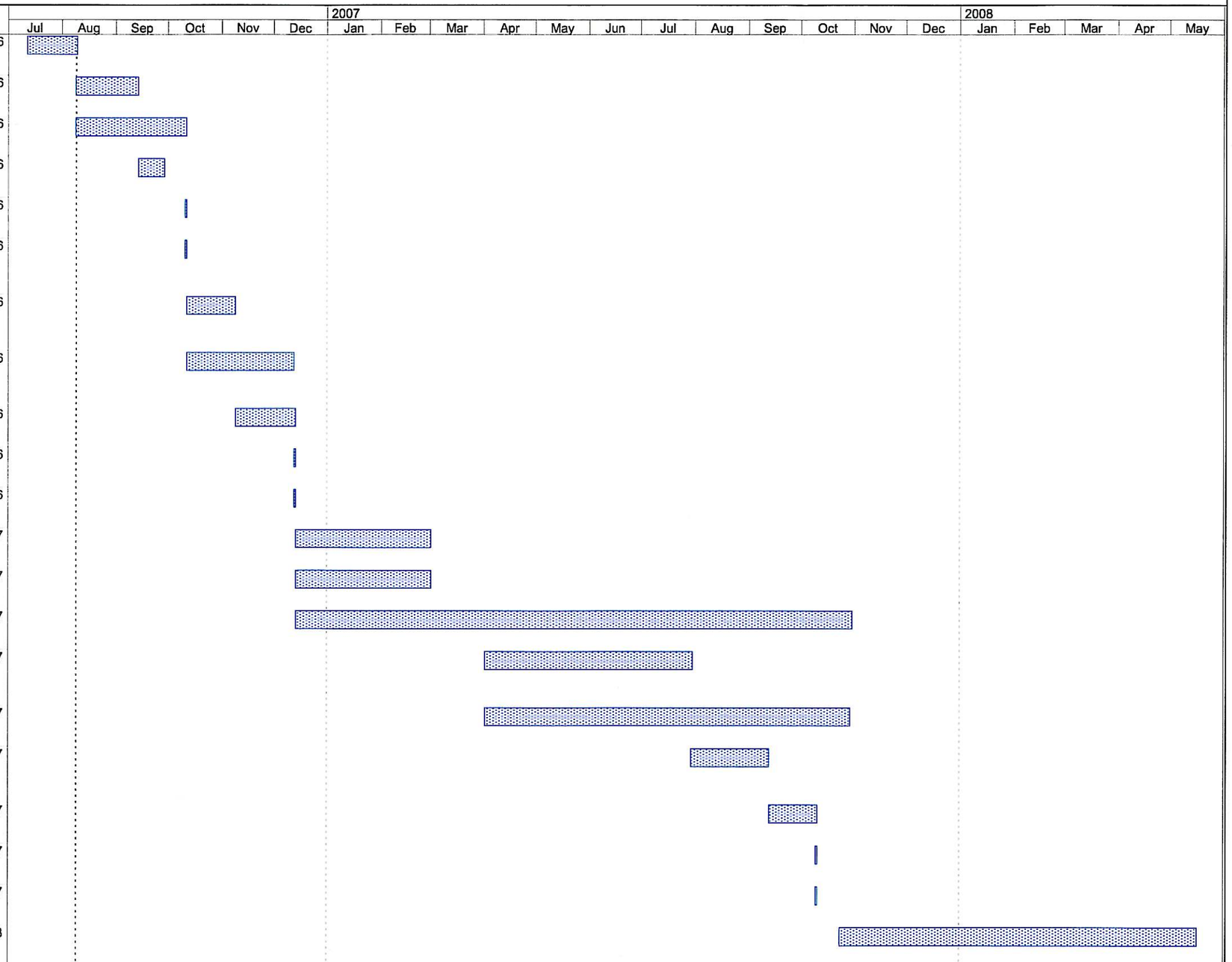
9.0 Final Recommendation

The recommended solution for reducing the phosphorous loading and carp population in Cedar, Albion, Swartout, and Henshaw Lakes consists of carp barriers, sedimentation basins, watershed BMPs and a phosphorus removal treatment system. The recommended project has been shown to be feasible and in the interest of the public; therefore, it is recommended that the project be approved and implemented as soon as practical.

Tables

Table 1
Cedar, Albion, Swartout, Henshaw Improvement Project
Proposed Schedule

ID	Task Name	Duration	Start	Finish
1	Prepare Engineers Report	21 days	Wed 7/12/06	Wed 8/9/06
2	Prepare Appraisers Report	26 days	Wed 8/9/06	Wed 9/13/06
3	DNR & BSWR Review	46 days	Wed 8/9/06	Wed 10/11/06
4	Public Notice	11 days	Thu 9/14/06	Thu 9/28/06
5	Public Hearing	1 day	Wed 10/11/06	Wed 10/11/06
6	Reject Project or Order Plans & Specs, Permitting, Easments, and Adopt Assessment Roll	1 day	Wed 10/11/06	Wed 10/11/06
7	Prepare Final Construction Documents for Fish Barriers, Carp Harvest	20 days	Thu 10/12/06	Wed 11/8/06
8	Acquire Easements & Permits for Carp Harvest and Fish Barriers	44 days	Thu 10/12/06	Tue 12/12/06
9	Call for Bids	25 days	Thu 11/9/06	Wed 12/13/06
10	Receive Bids	1 day	Wed 12/13/06	Wed 12/13/06
11	Award Contract	1 day	Wed 12/13/06	Wed 12/13/06
12	Construction of Fish Barriers	56 days	Thu 12/14/06	Thu 3/1/07
13	Harvest Carp	56 days	Thu 12/14/06	Thu 3/1/07
14	Implement Watershed BMPs	229 days	Thu 12/14/06	Tue 10/30/07
15	Bench Testing for Phosphorus Removal System	86 days	Mon 4/2/07	Mon 7/30/07
16	Acquire Easements	151 days	Mon 4/2/07	Mon 10/29/07
17	Prepare Final Construction Documents for Phosphorus Removal System and Sedimentation Ponds	33 days	Mon 7/30/07	Wed 9/12/07
18	Call for Bids	20 days	Thu 9/13/07	Wed 10/10/07
19	Receive Bids	1 day	Wed 10/10/07	Wed 10/10/07
20	Award Contract	1 day	Wed 10/10/07	Wed 10/10/07
21	Construction	148 days	Wed 10/24/07	Fri 5/16/08



Project: Project Schedule Table 1
Date: Wed 8/9/06

Task
Split
Progress
Milestone
Summary
Project Summary
External Tasks
External Milestone
Deadline

Table 2

Cedar, Albion, Henshaw, Swartout Improvement Project

Project Cost Estimate

1. Carp Barriers at Cedar Southwest Inlet, Hwy 55, CR 6 and Henshaw Outlet

Item	Cost
Four Barriers (Installed)	$48,000
Easements	$4,000
Contingency	$11,000
Permitting/ Legal/ Administrative/ Engineering	$13,000
Total	**$76,000**

2. Carp Seining in Swartout, Albion, Henshaw

Item	Cost
Swartout	$5,000
Albion	$5,000
Henshaw	$5,000
Permitting, Access, Administration	$3,000
Total	**$18,000**

3. Three Sedimentation Basins

Item	Cost
Excavation	$80,000
Site Restoration	$3,000
Outlet Structures	$18,000
Land, Easements	$6,000
Contingency	$25,000
Permitting/ Legal/ Administrative/ Engineering	$26,000
Total	**$158,000**

4. Best Management Practices

Item	Cost
Replace Tile Inlets	$20,000
Buffer Tile Inlets (100 x 50'x50')	$10,000
Ditch and Stream Buffer Strips (20,000 lf x 50' wide)	$8,000
Administration	$5,000
Total	**$43,000**

Table 2

Cedar, Albion, Henshaw, Swartout Improvement Project

Project Cost Estimate

5. Phosphorus Removal System

Item	Cost
Excavation and disposal at settling pond	$ 120,000
Landscaping, restoration, access road	$ 60,000
Diversion channel, fish trap and structures.	$ 25,000
Control building, electrical service, dosing/control equipment, flow measurement devices and structures	$ 75,000
Land, Easements	$ 5,000
Contingency	$ 75,000
Permitting, Legal, Admin, and Engineering	$ 85,000
Estimated Project Cost	**$ 445,000**

Estimated Project Cost: $ 740,000

Table 3

Cedar, Albion, Henshaw, Swartout Improvement Project

Annual Operation and Maintenance Cost Estimate

1. Carp Barriers at Cedar Southwest Inlet, Hwy 55, CR 6 and Henshaw Outlet

Item	Cost
Cedar- Assumed by Lake Association	$ -
Henshaw	$ 1,000
Swartout	$ 1,000
Total	**$ 2,000**

2. Carp Seining in Swartout, Albion, Henshaw

Item	Cost
Annual	**$9,000**

3. Three Sedimentation Basins

Item	Cost
Pond excavation, transport and disposal	$13,000
Inspection and Administration	$1,000
Total	**$14,000**

4. Best Management Practices

Item	Cost
Annual Cost After First Year	**$20,000**

5. Phosphorus Removal System

Item	Cost
Electric energy	$ 4,000
Dosing Chemicals	$ 13,000
Pond excavation, transport and disposal	$ 13,000
Administration	$ 5,000
Operation costs	**$ 35,000**

Estimated Total Annual O&M Cost: $ 80,000

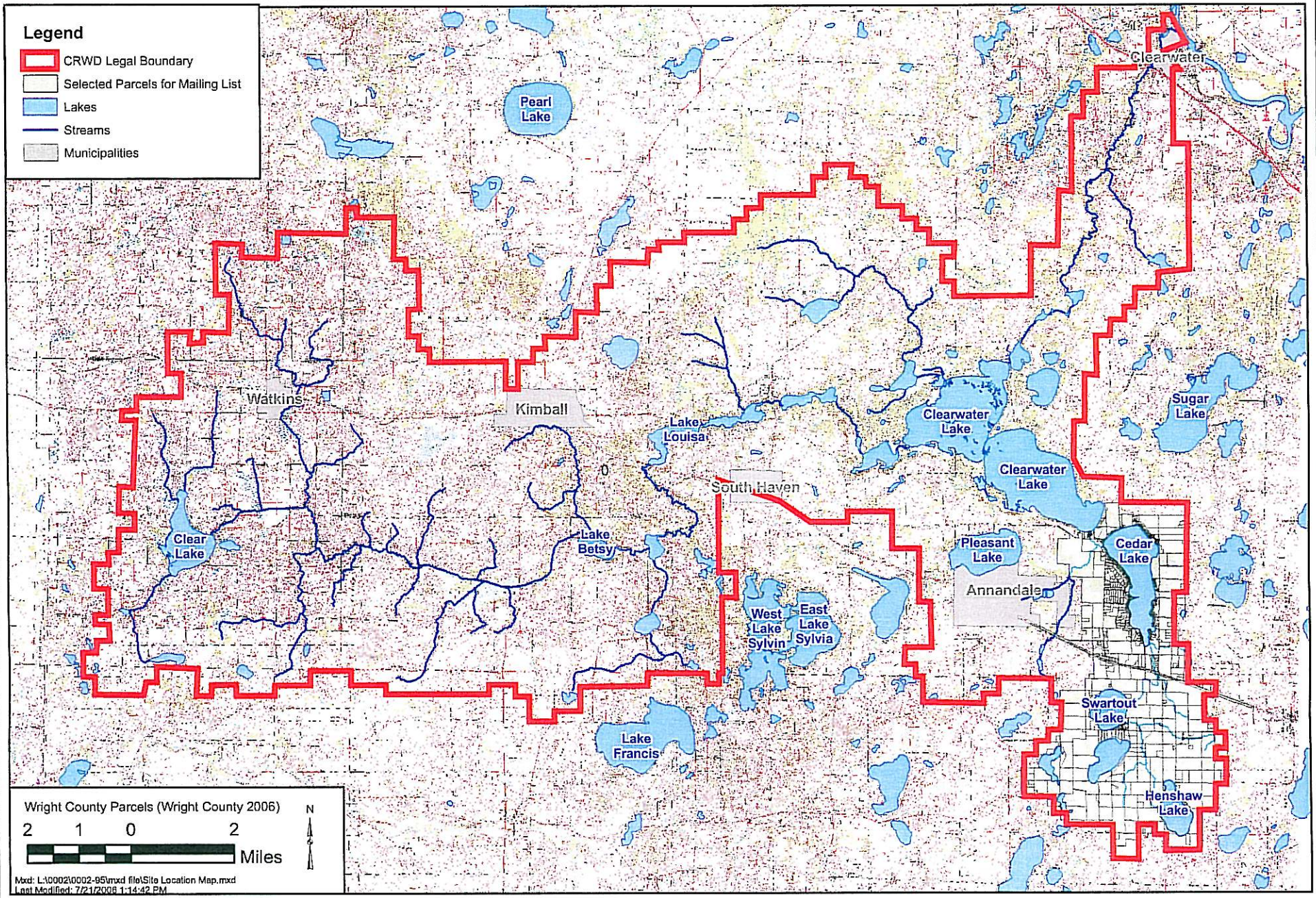
Table 4

Cedar, Albion, Henshaw, Swartout Improvement Project

Summary of Potential Benefited Units

Category	Estimated Number of Properties	Proposed Units of Benefit	Estimated Number of Units
Cedar Lakeshore Property	268	1	268
Cedar Agricultural	7	0.5	3.5
Cedar First Tier	114	0.5	57
Cedar Second & Third Tier	98	0.25	24.5
Cedar Prairie Properties	8	0.125	1
Swartout Lakeshore Property	28	0.33	9.24
Swartout Agricultural	6	0.17	1.02
Swartout First Tier	11	0.17	1.87
Swartout Second & Third Tier	2	0.08	0.16
Estimated Total Number of Benefited Units:			366

Figures



CLEARWATER RIVER WATERSHED DISTRICT

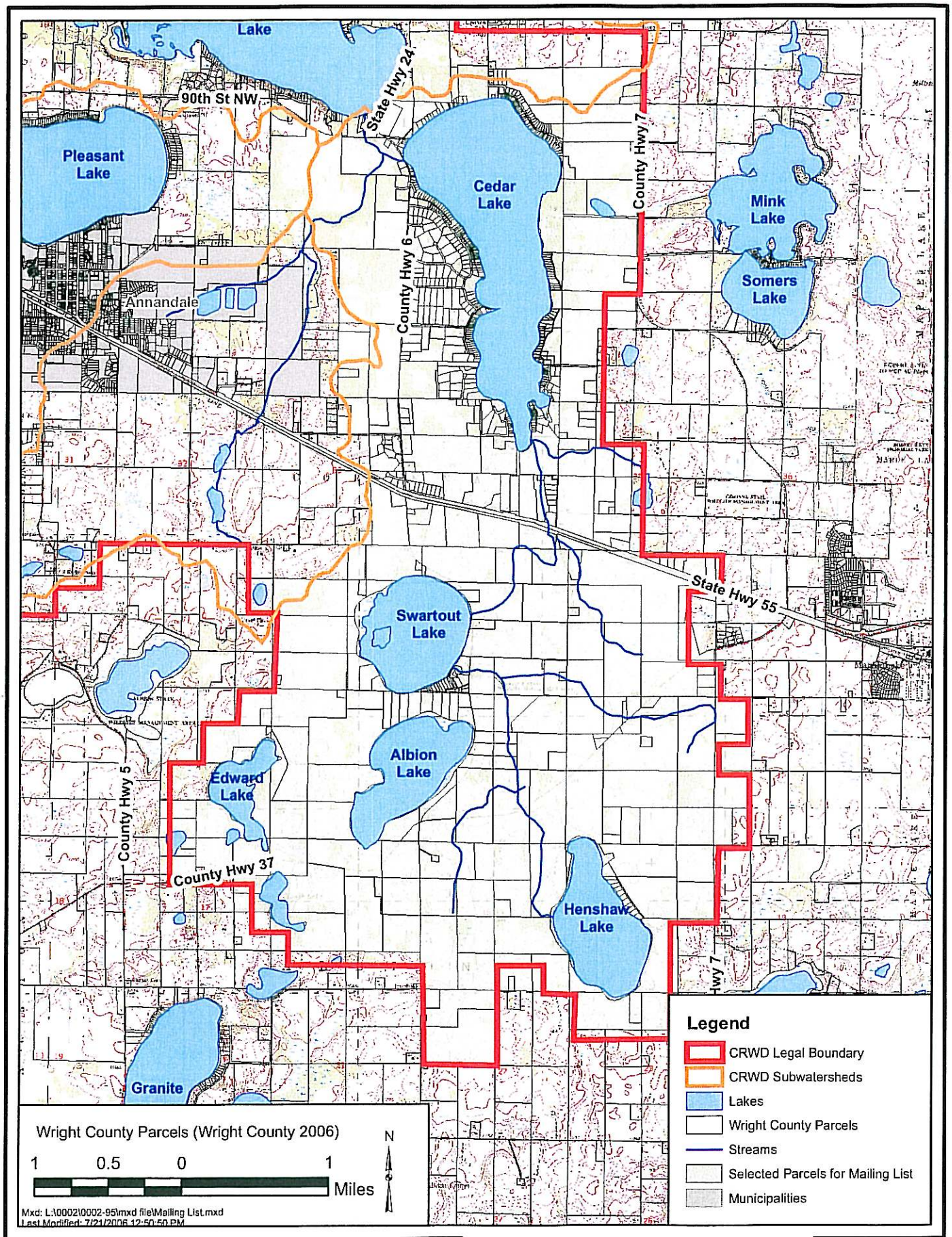
Cedar Lake Subwatershed Site Location Map

Wenck

Wenck Associates, Inc. 1800 Pioneer Creek Center
Environmental Engineers Maple Plain, MN 55359-0429

AUG 2006

Figure 1



CLEARWATER RIVER WATERSHED DISTRICT

Cedar Lake Subwatershed

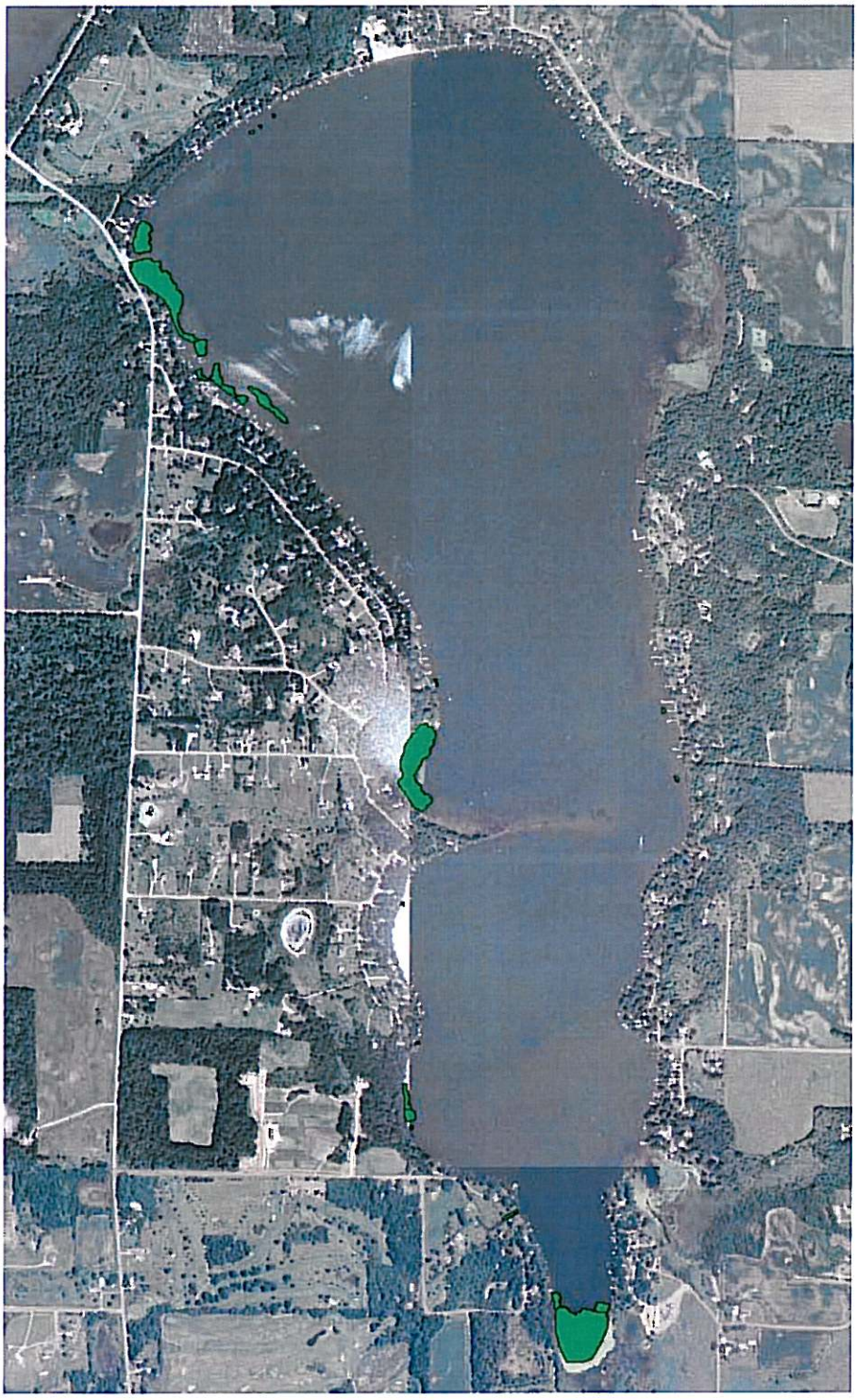
Wenck

Wenck Associates, Inc. 1800 Pioneer Creek Center
Environmental Engineers Maple Plain, MN 55359-0429

AUG 2006

Figure 2

Cedar Lake (86-227)
Curled Pondweed 6/12/2006



Curled Pondweed
near surface

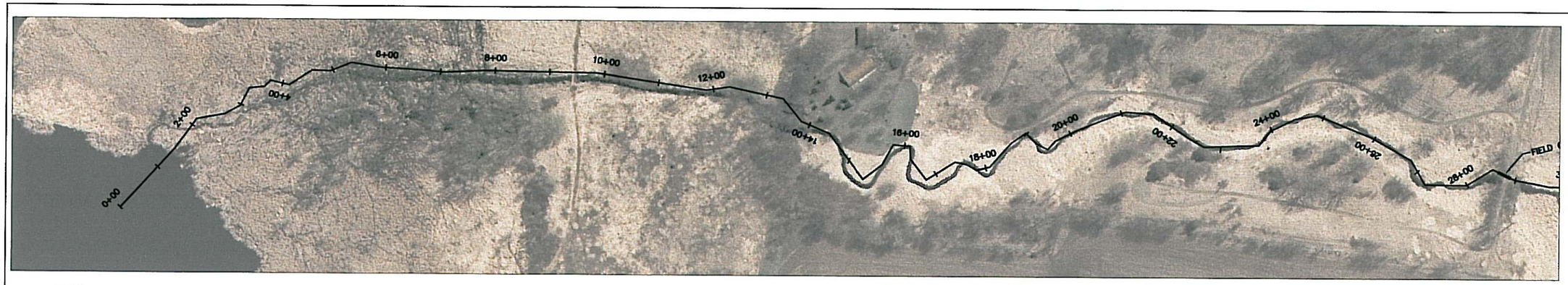
Total area = 15.0 acres
Lake area = 837 acres
Curled pondweed = 1.8%

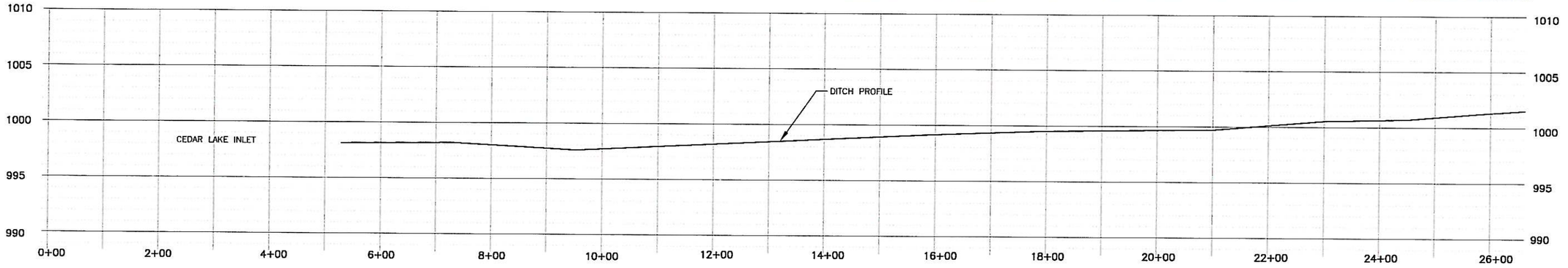
N

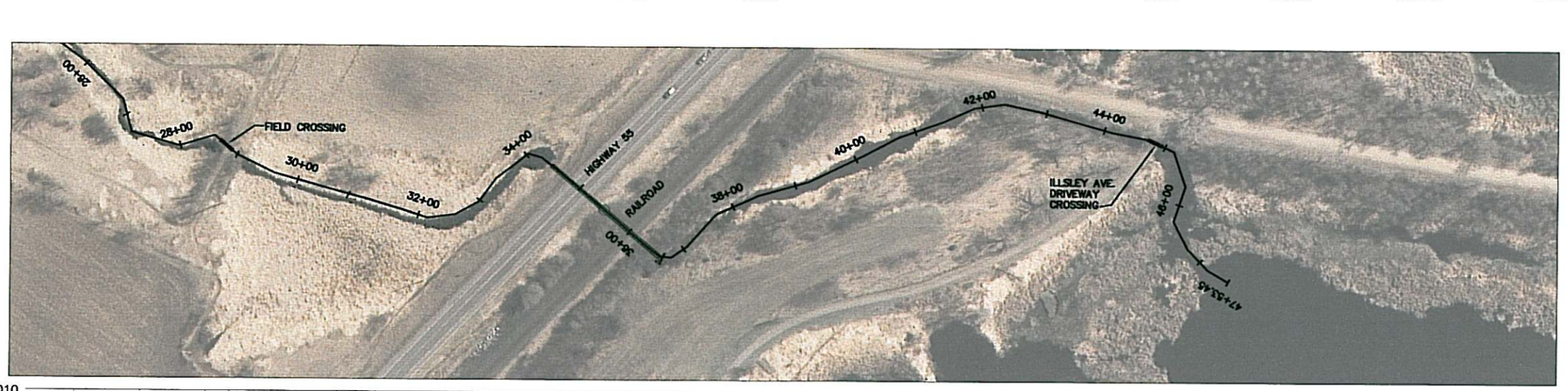
0.5 0 0.5 1 1.5 Miles

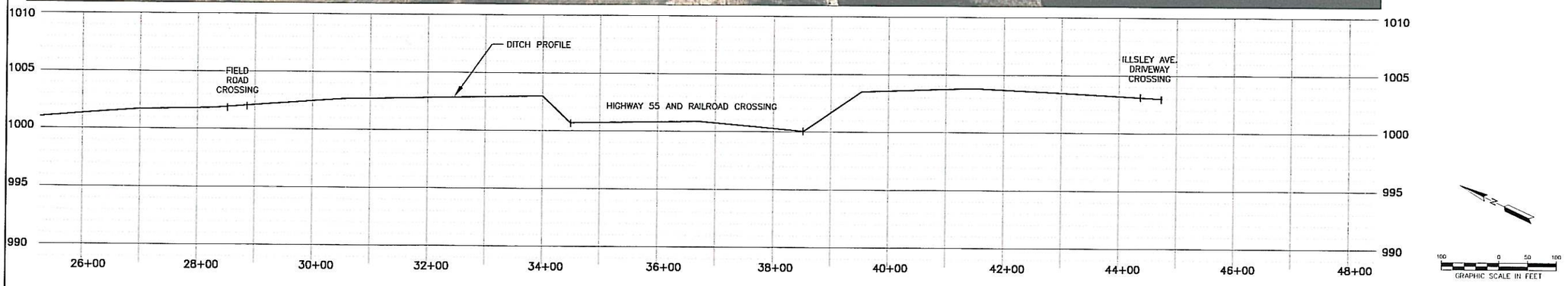
Source: MN DNR T:\0002\Cedar Curly Leaf lp06.ppt

CLEARWATER RIVER WATERSHED DISTRICT	Wenck Associates, Inc. Environmental Engineers 1800 Pioneer Creek Center Maple Plain, MN 55359	August 2006
Minnesota DNR Curly Leaf Pondweed Survey for Cedar Lake		Figure 3









REVISIONS DATE

DWN JVB DSGN APP'D

SHEET TITLE
DITCH PROFILE

DATE: DECEMBER 2005

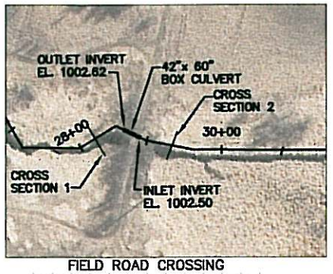
CLEARWATER RIVER WATERSHED DISTRICT

PROJECT
SITE SURVEY

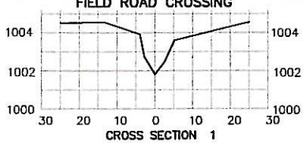
Wenck
Wenck Associates, Inc.
Environmental Engineers
1800 Pioneer Creek Center (763) 479-4200
Maple Plain, MN 55359 Fax: (763) 479-4242

SHEET NO.
FIGURE 4

FILE NAME: N:/0002/09/ANNANDALE DITCH/DWG/PLAN SHEET/ENDSOFILES



FIELD ROAD CROSSING



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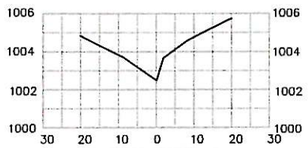

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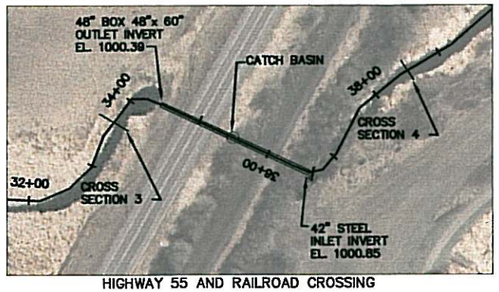
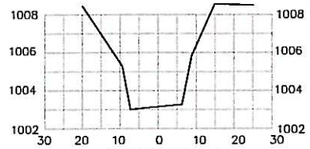


HIGHWAY 55 AND RAILROAD CROSSING



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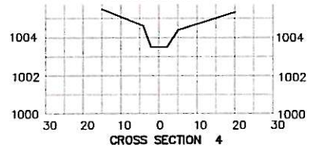

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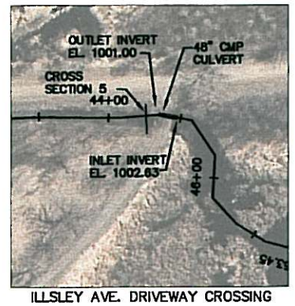
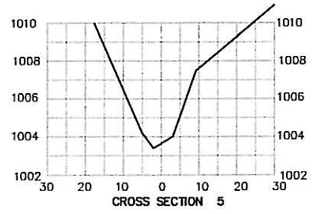
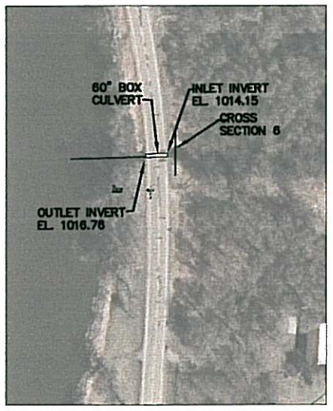


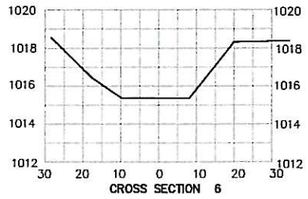
ILLSLEY AVE. DRIVEWAY CROSSING



CROSS SECTION 5



SWARTOUT LAKE OUTLET AND ROAD CROSSING



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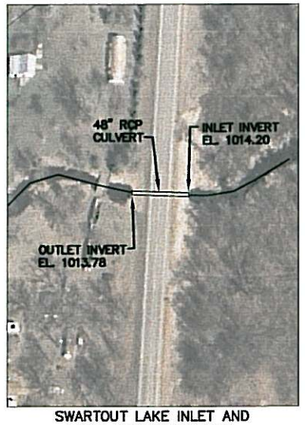
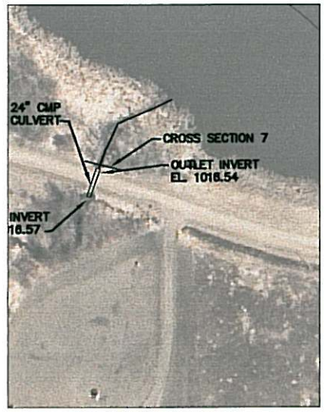


SWARTOUT LAKE INLET AND
ROAD CROSSING (EAST)



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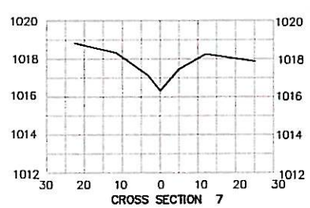
ROAD CROSSING (SOUTH)



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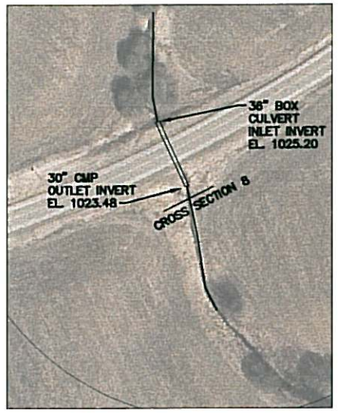
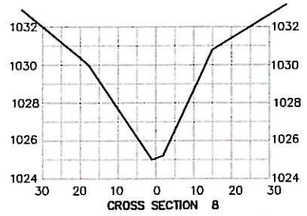
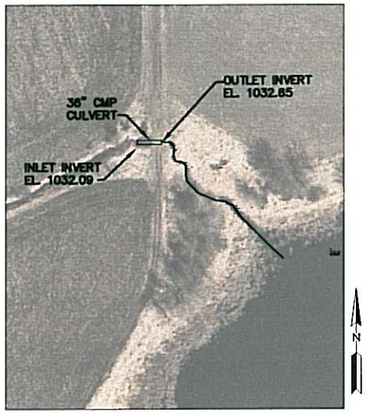


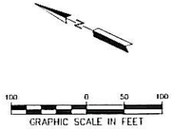
CO. RD. 37 CROSSING
NORTH-WEST OF HENSHAW



CROSS SECTION 8



HENSHAW LAKE OUTLET
AND FIELD ROAD CROSSING



REVISIONS DATE

DWN JVB DSGN APP'D

SHEET TITLE
CROSS SECTION LOCATIONS
AND CULVERT CROSSINGS

DATE: DECEMBER 2005

CLEARWATER RIVER WATERSHED DISTRICT

PROJECT

SITE SURVEY

Wenck
Wenck Associates, Inc.
Environmental Engineers
1800 Pioneer Creek Center (763) 479-4200
Maple Plain, MN 55359 Fax: (763) 479-4242

SHEET NO
FIGURE 5

FILE NAME: M:/0002/80/ANNANDALE DITCH/DWG/PLAN SHEETS/CROSS

CLEARWATER RIVER WATERSHED DISTRICT

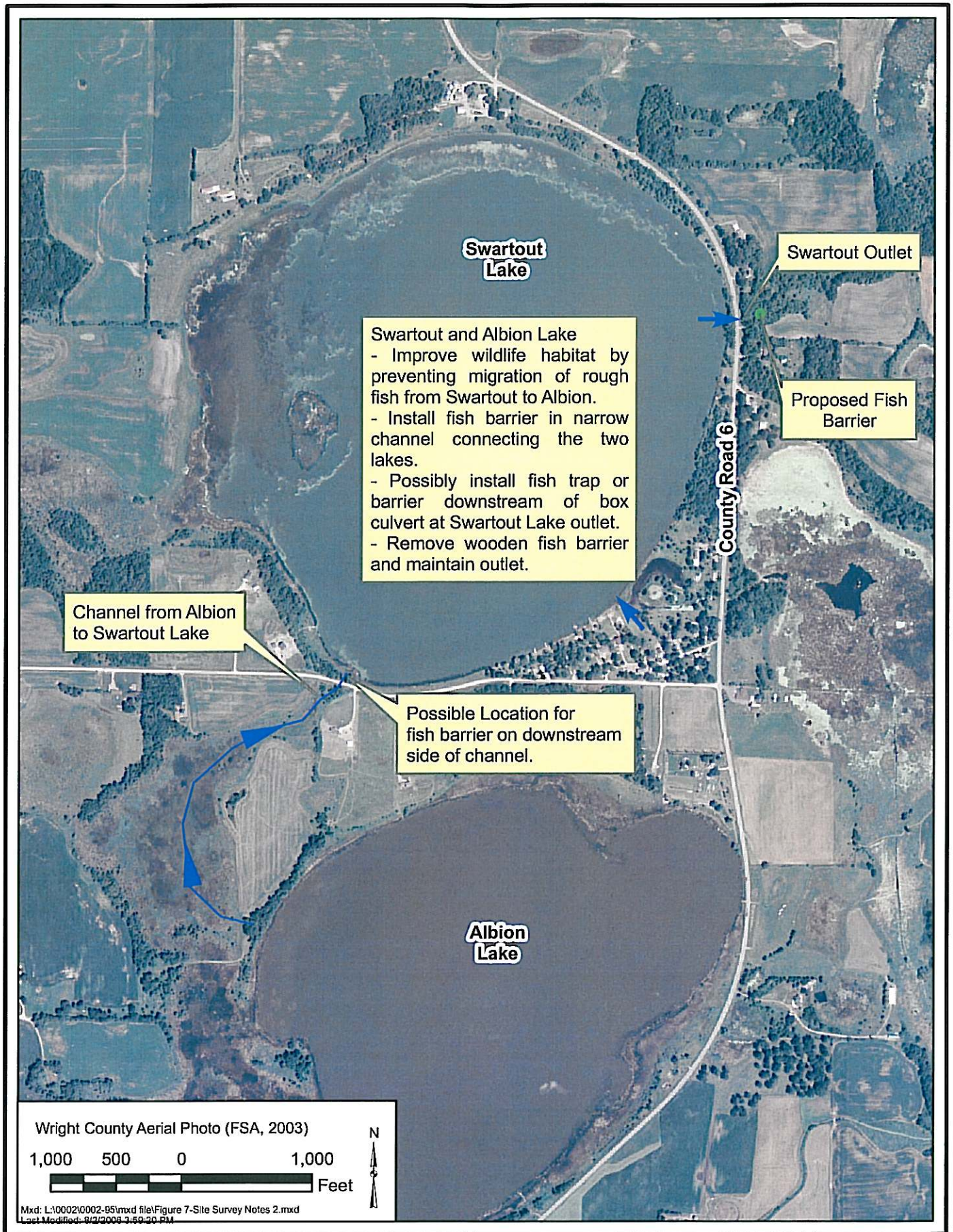
Site Survey Notes 1

Wenck

Wenck Associates, Inc. 1800 Pioneer Creek Center
Environmental Engineers Maple Plain, MN 55359-0429

AUG 2006

Figure 6



CLEARWATER RIVER WATERSHED DISTRICT

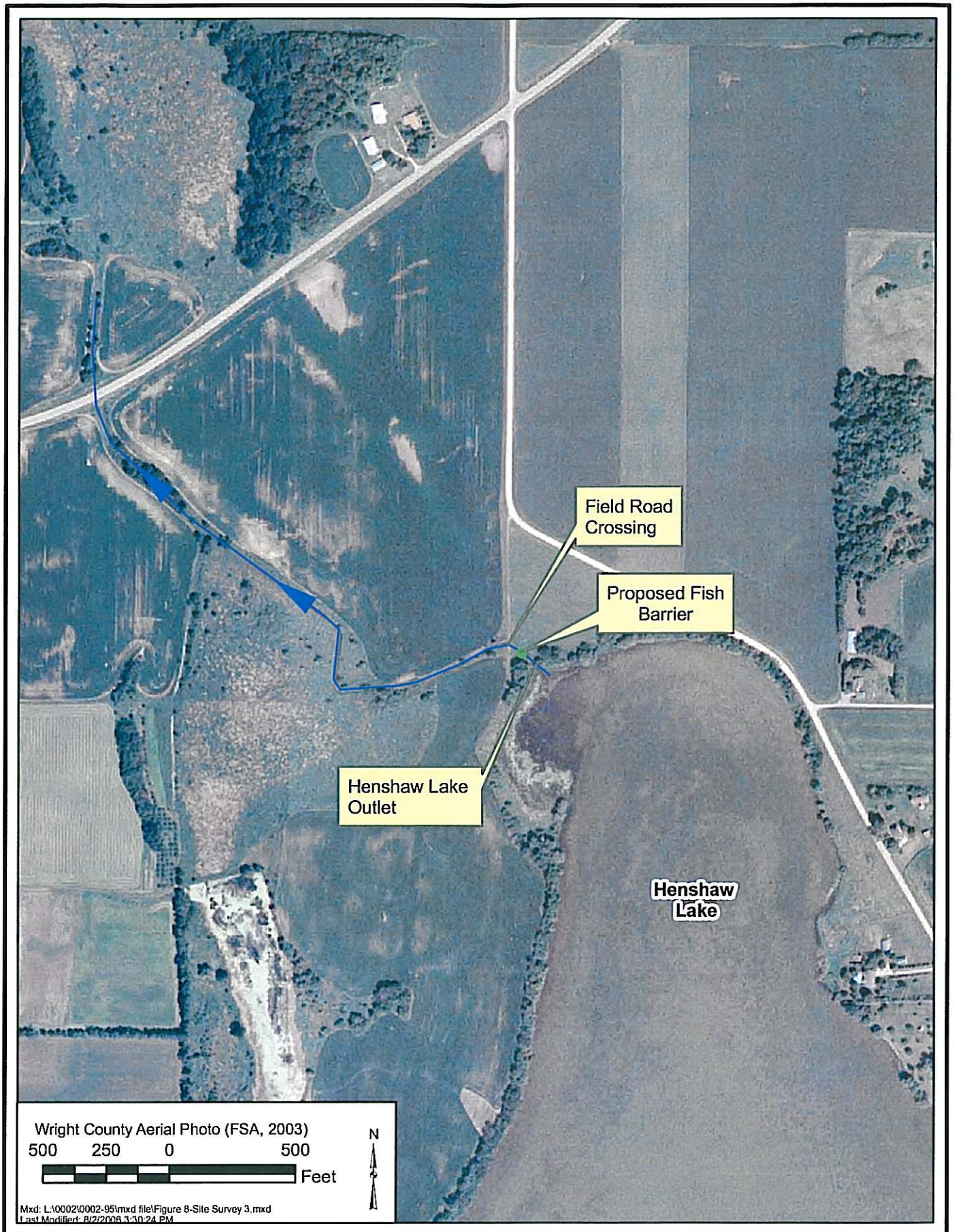
Site Survey Notes 2

Wenck

Wenck Associates, Inc. 1800 Pioneer Creek Center
Environmental Engineers Maple Plain, MN 55359-0429

AUG 2006

Figure 7



CLEARWATER RIVER WATERSHED DISTRICT

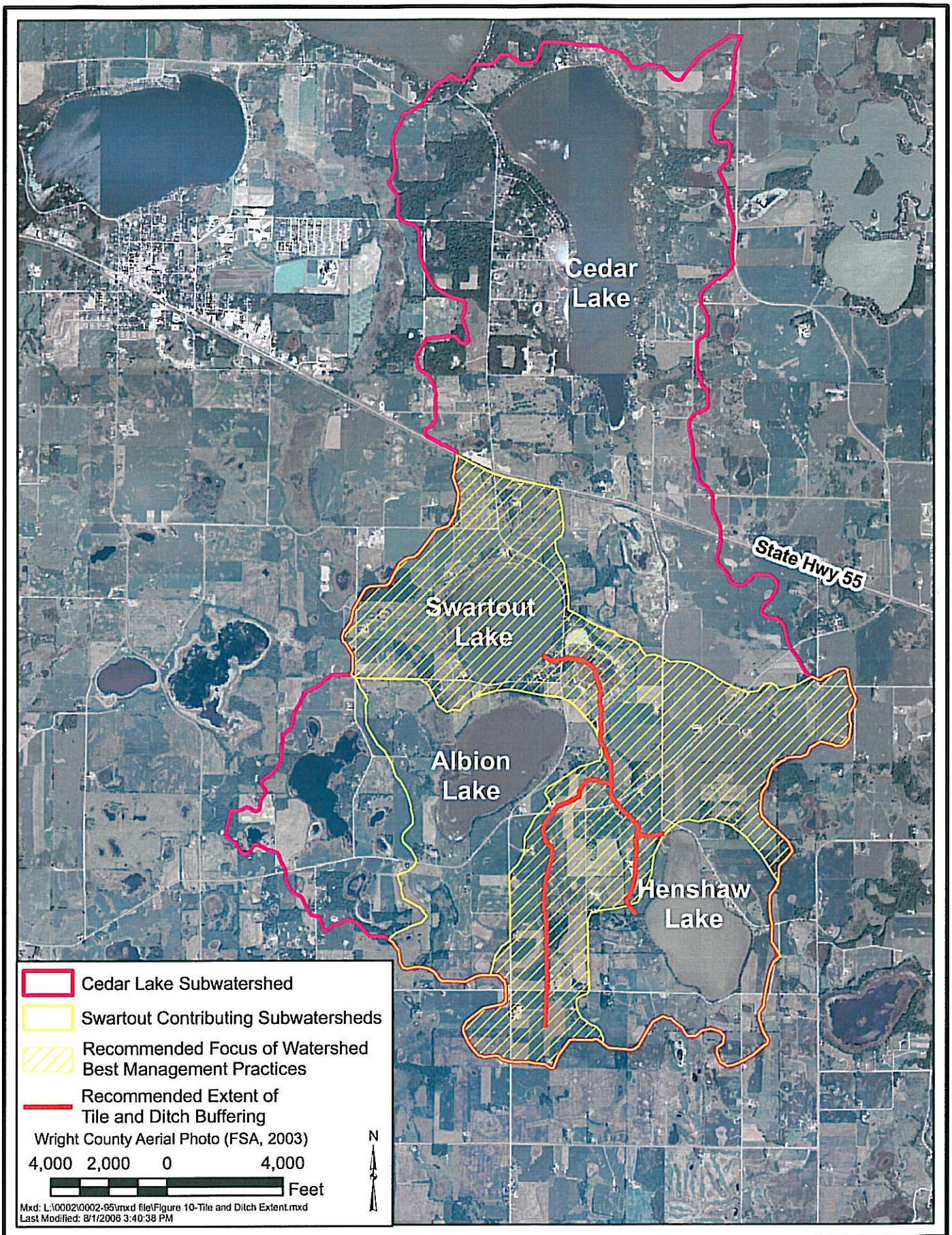
Site Survey Notes 3

Wenck

Wenck Associates, Inc. 1800 Pioneer Creek Center
Environmental Engineers Maple Plain, MN 55359-0429

AUG 2006

Figure 8



CLEARWATER RIVER WATERSHED DISTRICT

Recommended Focus of Watershed BMPs

Wenck

Wenck Associates, Inc. 1800 Pioneer Creek Center
Environmental Engineers Maple Plain, MN 55359-0429

AUG 2006

Figure 9

Appendix A

Excerpts from CRWD 2004 Water Quality Monitoring Report Dated Jan. 2005

4.1 CEDAR LAKE SPECIAL MONITORING

In addition to regular monitoring on Cedar Lake, a special synoptic survey was conducted in and around Cedar Lake during 2004 to ascertain the reason for relatively high TP concentrations observed in Cedar Lake during 2003. Inflows to and outflow from Cedar Lake were monitored along with regular stream monitoring stations. Results of the special monitoring are discussed in this section.

First, total phosphorus concentrations in the lake were within normal ranges (about 0.30 mg/L), except one reading of 0.55 mg/L in June. This high reading coincided with an algal bloom, which was observed by citizens, District, and Wenck staff.

Table 4.2 shows that singular high TP readings in 2003, and 2004 skewed the average value. The rest of the measured TP values were closer to the historical average of around 0.30 mg/L. This indicates that the water quality problem in Cedar Lake is episodic in nature.

Table 4.2 2003 and 2004 Total Phosphorus in Cedar Lake

Date	Total Phosphorus (mg/L)	Soluble Reactive Phosphorus (mg/L)	Chlorophyll-*a* (µg/L)	Secchi Depth (ft)
6/17/2003	0.033	<0.005	7	10.5
7/9/2003	0.028	<0.005	12	4.5
8/20/2003	0.033	<0.005	6	--
9/17/2003	**0.112**	<0.005	18	--
2003 Average	0.0515	<0.005	11	7.5
6/22/2004	**0.055**	<0.005	5.87	
7/20/2004	0.031	<0.005	1.07	
8/11/2004	0.025	<0.005	<0.200	8.5
9/16/2004	0.021	<0.005	2.14	
2004 Average:	0.033	<0.005	3	NA

The episodic nature of the high phosphorus readings, in combination with the low watershed loads observed during 2004 due to dry conditions might indicate internal loading. However, we would expect to see also high soluble reactive phosphorus (SRP) in these samples. SRP is below

detection limits and thereby a small fraction of the TP (below 4 to 10%) for all measurements. Low SRP coupled with low chlorophyll-*a* indicates that the phosphorus in the sample is particulate, which may indicate a non-representative sample, or some other, yet unidentified mechanism.

Large precipitation events occurred one to two weeks prior to the two sampling events during which the high TP was observed. If these events caused discharge from Swartout Lake, the discharge would have been high in TP concentration. The water may also have been warm enough, due to the shallow nature of Swartout Lake, to spread across the top of Cedar Lake, causing a briefly stratified layer of high TP concentration water at the top. These conditions may be suitable to cause algal blooms such as those observed in Cedar Lake. However, high SRP and chlorophyll-a concentrations would be expected in this case as well.

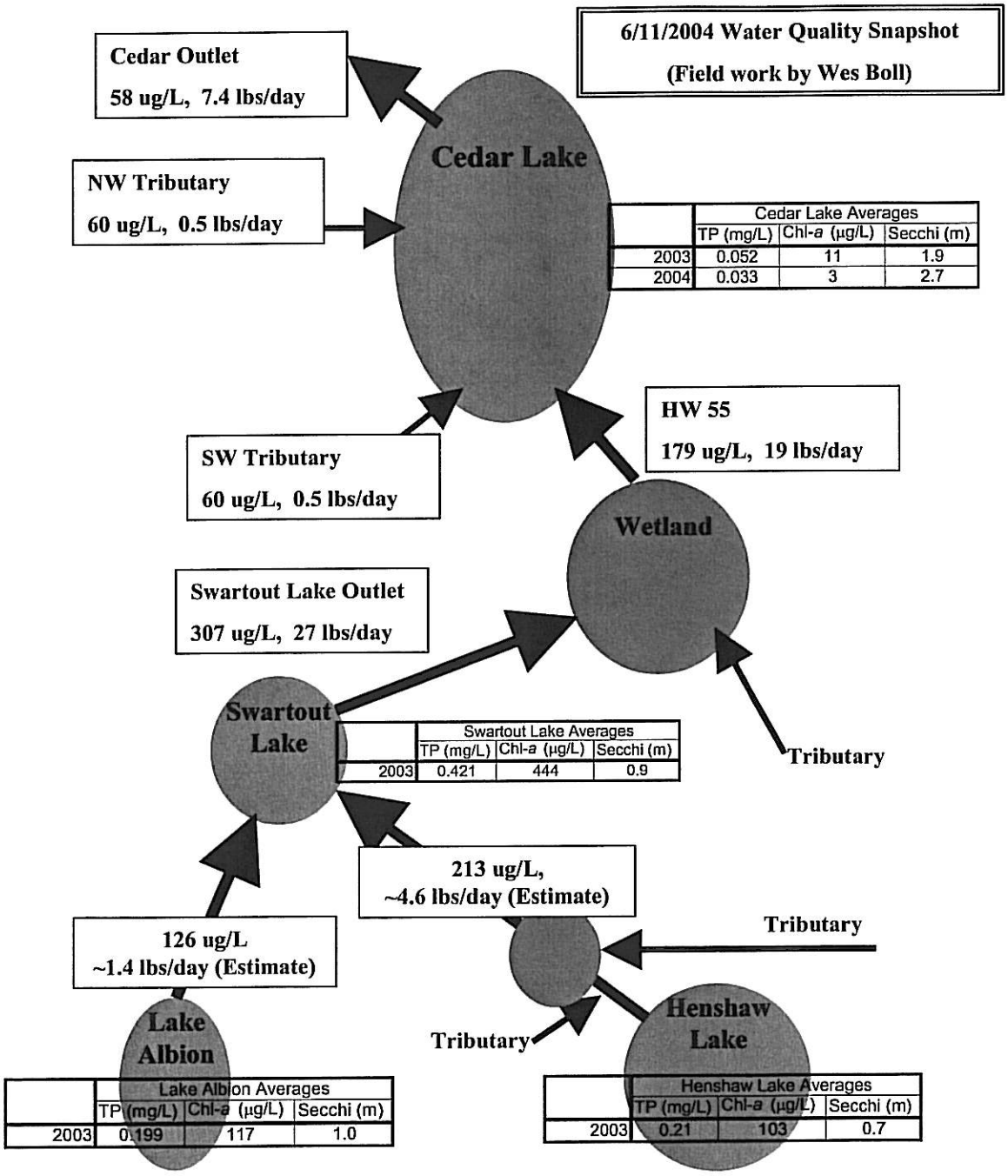
The synoptic surveys during 2004 showed high total phosphorus concentrations in discharge from Swartout Lake (0.307 mg/L). This was higher than observed at any other location during the synoptic survey. Total phosphorus in outflow from Henshaw Lake was also high, 0.213 mg/L. Total phosphorus concentrations in other tributaries to Cedar Lake were comparatively small. Loads were small due that fact, coupled with low flow during 2004. Many of the tributaries were not flowing for the majority of the year. Figure 4.5 shows the results of the synoptic survey. Results of Cedar Lake tributary monitoring are included as Appendix H.

The potential causes of algal blooms in Cedar Lake may include:

- Storm event loadings from Swartout Lake causing warm water to wash into Cedar Lake and float over the top of the lake.
- Internal loading.
- Wind effects causing thermocline tip.
- Watershed loading.

The data available does not support one cause.

Figure 4.5 Cedar Lake Water Quality Snapshot



5.0 Conclusions

1. Annual precipitation for 2004 was above normal. Annandale and Kimball stations were 2.6 and 2.8 inches, respectively above normal for the year, while Annandale was 5.02 inches above normal for the year.

2. Dry conditions late in 2003 contributed to lower runoff in 2004: 2.8 inches. This is over 5 inches below the 20-year average.

3. The Clearwater River phosphorus load was about 2,751 pounds at CR-28.2, significantly lower than previous years due primarily to lower flow conditions.

4. The water quality of Nixon, Otter, Pleasant, School Section, Clearwater, and Cedar Lakes was good, water quality in Lake Caroline was fair. Water quality in Lakes Marie, and Scott were poor.

5. Potential causes of episodic nuisance algal blooms in Cedar Lake include:
   a. Storm event driven discharge from Swartout Lake discharging warm water that floats on the surface of Cedar Lake causing an algal bloom.
   b. Wind effects that tip the thermocline and push water from the hypolimnion closer to the water surface.
   c. In-lake loading.
   d. Watershed runoff.

Appendix B

Excerpts from CRWD 2005 Water Quality Monitoring Report Dated Jan. 2006

Water quality observed in most lakes monitored during 2005 is within ranges seen in recent years. However, TP levels in Lake Albion and Clear Lake are higher than those observed in recent years, possibly indicating a decline in water quality for these lakes (Table 4.2).

Table 4.2 2004 Mean In-Lake Total Phosphorus, Chlorophyll-a, and Secchi Depth, and Historical Ranges

	Total Phosphorus µg/l		**Chlorophyll-*a* µg/l**		**Secchi Depth (meters)**	
Lake	2005 Mean	Historical Range Mean	2005 Mean	Historical Range Mean	2005 Mean (Citizen Reading)	Historical Range Mean
Weigand	31	35-61	3	5-12	3.4	1.7-3.0
Cedar	37	26-52	9	6-13.	2.2	1.1-3.0
Lake Betsy	140	120-700	20	5-170	1.1	0.8-2.4
Albion Lake	248	130-220	60	72-224	0.8	0.5-1.0
Swartout Lake	270	200-421	134	151-444	0.5	0.7-1.0
Henshaw Lake	281	150-295	144	53-238	0.5	0.4-0.9
Clear Lake	307	80-228	60	17-134	1.1	0.3-1.2

Figures showing historical lake data and trends are shown in Appendix D. Citizen Secchi depths are shown in Appendix E. Water quality lab reports are in Appendix F, and field notes are in Appendix G.

4.1 CEDAR LAKE SPECIAL MONITORING

Additional monitoring was conducted in the Cedar Lake subwatershed to quantify the nutrient budget. Results of the special monitoring are discussed in this section.

First, total phosphorus concentrations in the lake were within normal ranges (about 30 µg/L), except one reading of 56 µg/L in April. Table 4.2 shows that singular high TP readings 2003-2005 skewed the average values. The rest of the measured TP values were closer to the

historical average of around 30 µg/L. This indicates that the water quality is declining, and that the problem in Cedar Lake is episodic in nature.

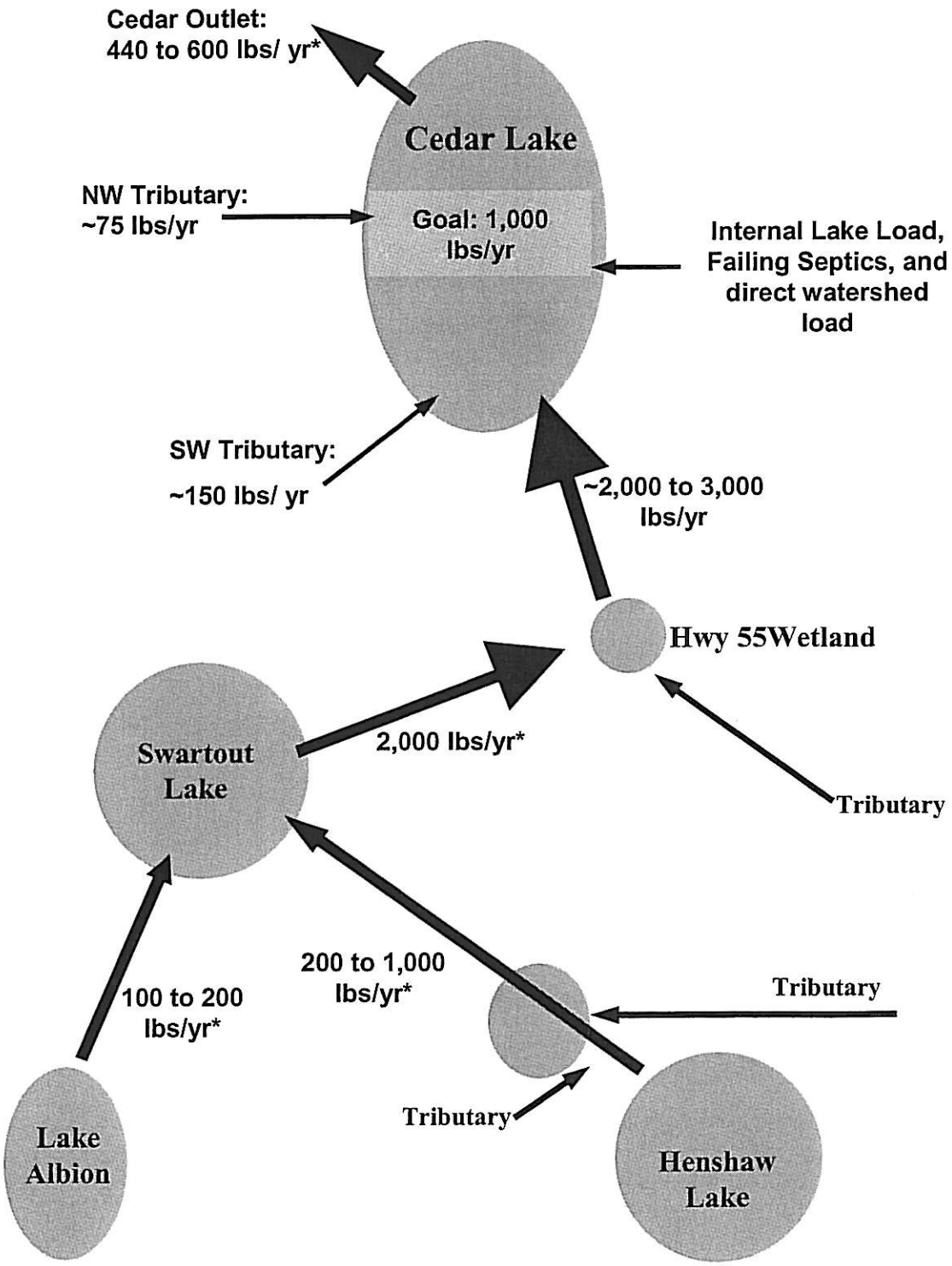
With the exception of one early spring reading in 2005, SRP values in Cedar Lake are below detection limits. The high early spring value is likely indicative of a small annual internal loading.

Table 4.3 2003 to 2005 Total Phosphorus in Cedar Lake

Date	Total Phosphorus (µg/L)	Soluble Reactive Phosphorus (µg/L)	Chlorophyll-*a* (µg/L)	Secchi Depth (ft)
6/17/2003	33	<5	7	10.5
7/9/2003	28	<5	12	4.5
8/20/2003	33	<5	6	--
9/17/2003	**112**	<5	18	--
2003 Average	52	<5	11	7.5
6/22/2004	**055**	<5	5.87	--
7/20/2004	31	<5	1.07	--
8/11/2004	25	<5	<0.200	8.5
9/16/2004	21	<5	2.14	--
2004 Average:	33	<5	3	NA
4/16/2005	**56**	20	10	--
5/25/2005	37	<5	5	14
7/5/2005	29	<5	8	7
8/4/2005	30	<5	14	8
9/8/2005	33	<5	6	--
2005 Average	37	8	9	--

Additional water quality monitoring better defined the nutrient balance for the Cedar Lake sub-watershed, and allowed the District to determine a nutrient loading goal for Cedar Lake of 1,000 lbs of TP annually to maintain an in-lake TP concentration of 20 µg/L. Presently, nutrient loading to Cedar Lake exceeds the goal by 1,200 to 2,200 lbs of TP annually. Figure 4.2 summarizes the results of the 2005 monitoring.

Figure 4.2 Nutrient Loading and Budget for the Cedar Lake Subwatershed



5.0 Conclusions

1. Annual precipitation for the Annandale station was 41.47 inches, 12.1 inches above normal for the year.

2. Continuous flow measurements recorded at CSAH 40 near Clearwater show that runoff over the watershed was 7.1 inches. This is comparable to runoff measured at CR 10.5 just upstream of CSAH 40 near Grass Lake in years with similar precipitation.

3. The Clearwater River phosphorus load was about 130 pounds at CR-10.5. This is low compared with historical averages. The upper watershed load was similar to those measured in previous years for similar runoff conditions.

4. The water quality of Cedar and Wiegand Lakes was good; water quality in Lake Betsy, Clear Lake, Lake Albion, Henshaw Lake, and Swartout Lake were poor. Total phosphorus concentrations in Lake Albion and Clear Lake exceed values previously measured, possibly indicating deterioration of water quality.

5. Water quality in Cedar Lake continues to decline. The nutrient balance for the watershed shows the cause to be high nutrient loads from shallow lakes in the upper watershed.

6. The Watkins wetland reduces suspended sediment load. The soluble phosphorus data is inconclusive.

7. After the 2005 MPCA and MDNR results are available, that data will be integrated with the results in this document.

Appendix C

August 10, 2005 Memorandum re: Cedar Lake Fish Traps

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

MEMORANDUM

TO: **Board of Managers**
Clearwater River Watershed District

FROM: **Norman C. Wenck, PE**
Engineer for the District

DATE: **August 10, 2005**

RE: **Cedar Lake Fish Traps and Other Treatments**

1. The Board, at its July 13, 2005 meeting, requested cost estimates to install fish traps and/or barriers in the Upper Cedar Lake Watershed. Wes Boll and Merle inspected several sites as shown on the enclosed Figure 1. More detailed photos of the sites are also enclosed for your information.

2. Discussions with DNR Fisheries indicate that carp removal would have a positive impact on the water quality of the lakes. We have estimated that it could be possible to harvest 10,000 pounds per year of carp which could reduce the phosphorus loading to Cedar Lake by 10 to 50% or 200 to 1,000 pounds of the estimated 2,100 pounds being discharged to Cedar Lake.

3. The estimated cost to install fish traps or barriers at various locations are given below:

   Fish Trap at existing location (Cedar Lake Inlet)
   Trap at 24 feet long — Estimated cost @ $19,000

   Fish Barrier at Illsey Ave. driveway
   Barrier at 24 feet long — Estimated cost @ $12,000

   Fish Trap at Swartout outlet
   Trap at 12 feet long — Estimated cost @ $10,000

   Fish Trap at Albion to Swartout channel
   Trap at 12 feet long — Estimated cost @ $10,000

   Fish Trap at Henshaw Lake outlet
   Trap at 12 feet long — Estimated cost @ $10,000

   These costs could change based on actual field conditions, property ownership, access issues and permitting issues.

4. Preliminary costs of other treatments:

   A. Copper Sulfate Treatment
   Cost $7 to $13 per acre and needs to be performed earlier in the year and would need to be repeated often.

   B. Curly leaf pondweed treatment cost is approximately $1,500/acre and may have to be treated 2 or 3 times to be effective. DNR allows treatment 15% of lattoral zone (315 acres on Cedar Lake) annually.

   C. Ferric chloride treatment of the Swartout wetland outlet, a Prior Lake project with a watershed of 5,653 acres, had a 2002 cost of $130,000 with an estimated annual cost of $8,000 to $10,000. The Cedar Lake watershed is 9,718 acres.

   D. Alum treatment of Spring Lake (580 ac.) has an estimated one time treatment cost of $500,000 to $550,000. Cedar Lake has an area of 837 acres. This lake has a contributing watershed of 12,700 acres. The treatment is expected to be effective for approximately 5 years and may have a difficult time getting permitted.

Area between Old Hwy 55 and Cedar Lake

Looking at Old Hwy 55 crossing from downstream side

T:/0002/General/7-15-05 album

Channel downstream of Old Hwy 55 stream crossing

Existing Fish trap structure on downstream side of Old Hwy 55

T:/0002/General/7-15-05 album

Looking downstream at existing fish trap structure

Channel directly upstream of Old Hwy 55 crossing

T:/0002/General/7-15-05 album

Channel directly downstream of Hwy 55

Wetland area between Hwy 55 and Old Hwy 55

T:/0002/General/7-15-05 album

Downstream end of culvert under Hwy 55

Channel downstream of Illsley Ave crossing.

T:/0002/General/7-15-05 album

Channel on downstream side of Illsley Ave crossing

Channel and wetland directly upstream of Illsley Ave driveway.

T:/0002/General/7-15-05 album

Channel downstream of Swartout outlet

Fish barrier structure at Swartout outlet.

T:/0002/General/7-15-05 album

Swartout Lake Inlet from Albion Lake

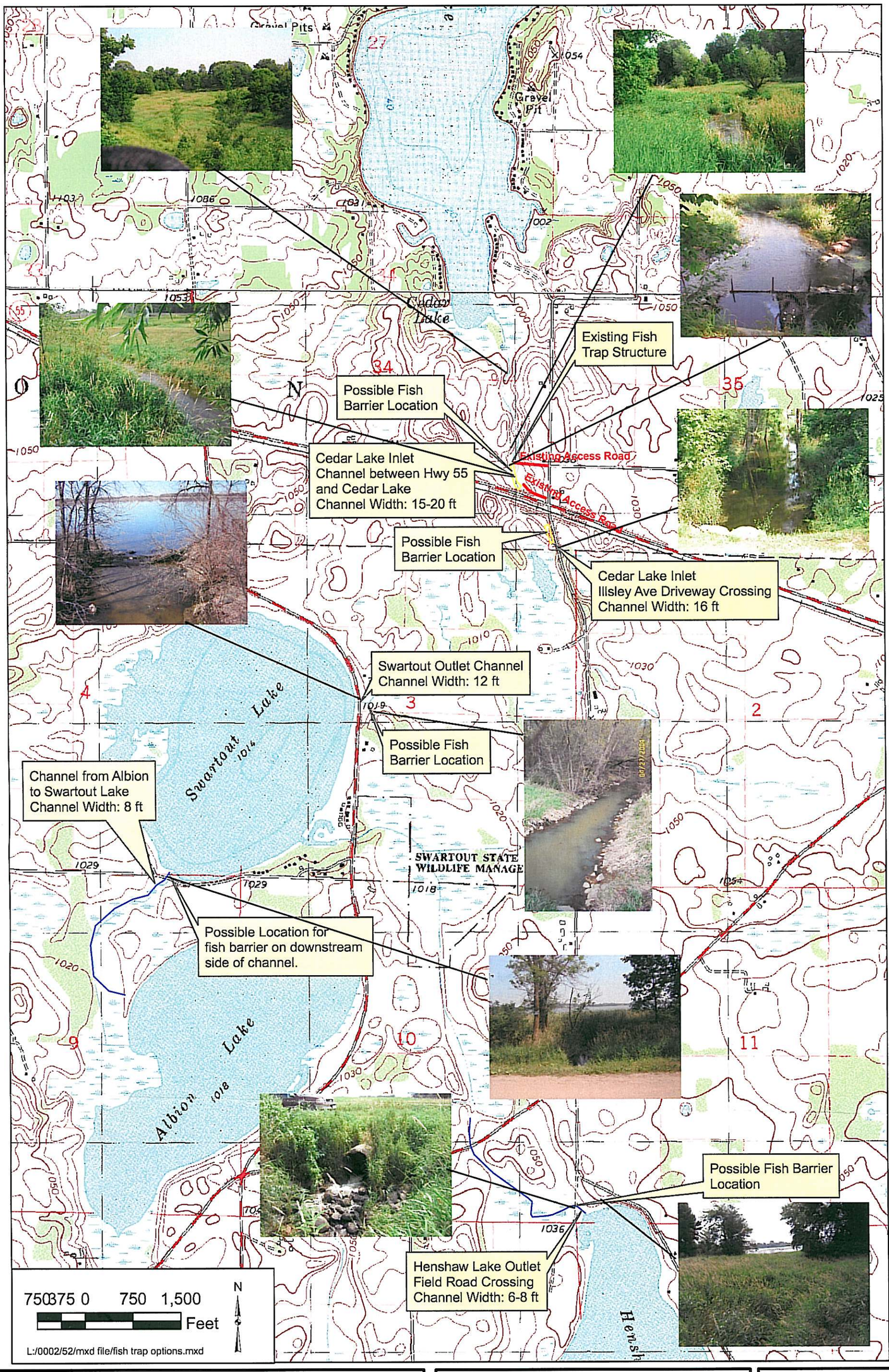
Channel from Albion Lake to Swartout Lake at road crossing, downstream side

Henshaw Lake outlet channel

Culvert under field road at Henshaw Lake outlet.

T:/0002/General/7-15-05 album

Henshaw Lake Outlet Channel crossing at field road



CRWD

Possible FIsh Barrier Locations

Wenck

Wenck Associates, Inc. 1800 Pioneer Creek Center
Environmental Engineers Maple Plain, MN 55359-0429

JULY 2005

Figure 1

Appendix D

October 11, 2005 Technical Memorandum re: Cedar Lake Supplemental Technology Evaluation

Technical Memorandum

1800 Pioneer Creek Center, Maple Plain, MN 55359
Phone: 763-479-4200 Fax: 763-479-4242

Wenck

To:	Marvin Brunsell, Chairperson Board of Managers Clearwater River Watershed District
From:	Norman C. Wenck, P.E. Engineer for the District
Date:	October 11, 2005
Subject:	Cedar Lake Supplemental Technology Evaluation Wenck File # 0002-52

The Cedar Lake Chain, located in Wright County south and west of the City of Annandale, is within the Clearwater River Watershed District. Cedar Lake, the downstream-most lake of the chain, is 726 acres with a maximum depth of 100-feet making it the largest and deepest lake in the chain. Upstream of Cedar Lake and south of Hwy 55 there is a 2-acre wetland (the Hwy 55 Wetland). Upstream of that is Swartout Lake, a 171-acre shallow lake. Lake Albion and Henshaw Lake, two other shallow small lakes drain to Swartout Lake.

Cedar Lake is used for fishing, swimming aesthetic enjoyment. It presently has excellent water quality, however, recently total phosphorus (TP) concentrations have increased in the lake. Swartout Lake is a small, shallow, hypereutrophic lake that provides excellent habitat for a wide variety of waterfowl, as evidenced by a 2004 University of Minnesota study. Swartout Lake has an average depth of 3 to 4 feet and a reported maximum depth of 11 feet. Lake Albion and Henshaw Lake are also small and shallow. Less is known about the uses of these lakes and the habitat they provide. Due to the poor water quality if these lakes, they are not likely used for swimming, however, they may also provide waterfowl habitat.

1.0 Background:

Long-term average total phosphorus concentrations in Cedar Lake are about 32 µg/L. However, monitoring since 2003 shows that single measurements of in lake surface TP concentrations can reach 112 µg/L. Increased TP concentrations in Cedar Lake combined with citizen concerns over nuisance algae blooms prompted the District to look more closely at the nutrient balance for the Cedar Lake Chain.

Inflows and outflows to Cedar Lake were sampled during 2004 and again in 2005. Figure 1 shows monitoring locations.

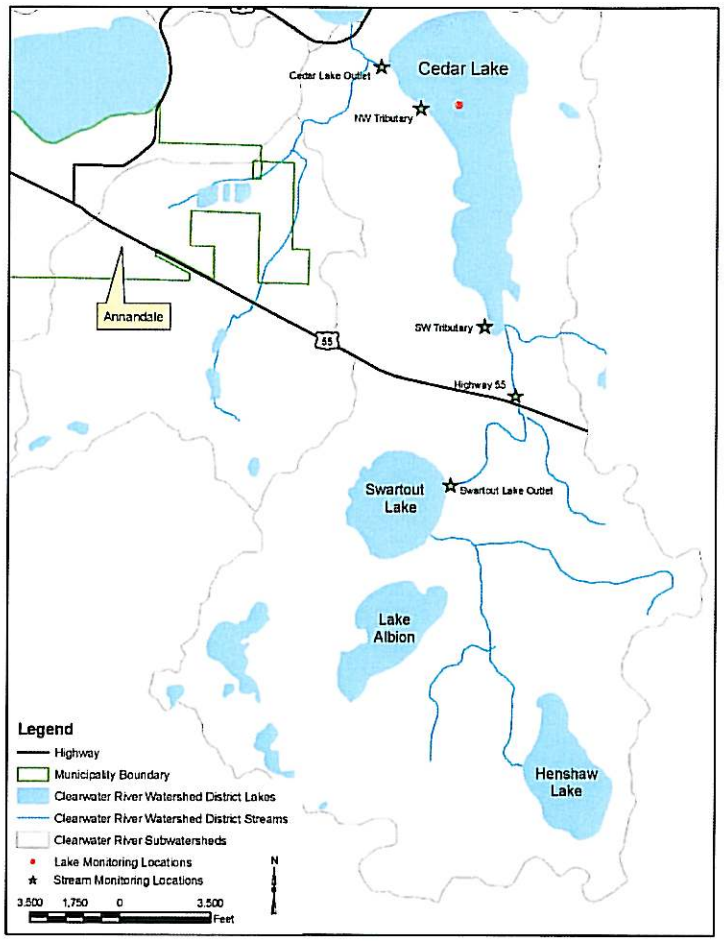


Figure 1 2004 Monitoring Locations edar Lake Area

Canfield-Bachman analysis shows that to reach the goal TP concentrations of 20 µg/L, the maximum annual internal and external TP load to the lake cannot exceed 1,000 lbs.

Based on water quality and flow data collected in 2004 and 2005, the estimated annual TP load to Cedar Lake from Swartout Lake and the intervening wetland alone is 2,000 to 3,000 pounds. Other external loads to Cedar Lake include two small tributaries on the southwest and northwest side of the lake, internal loading, loads from ISTS along the shore, and overland flow. TP loads from these sources are estimated to be small compared to loads from Swartout Lake (Figure 2).

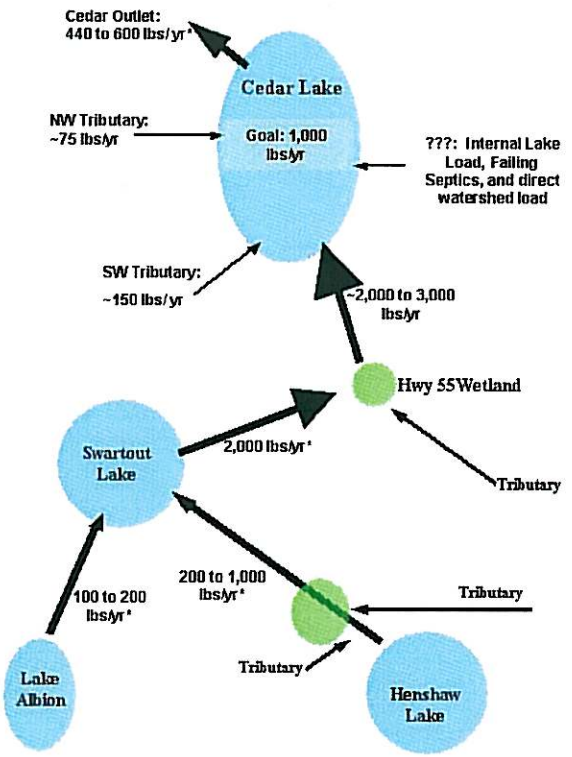


Figure 2. Cedar Chain of Lakes, Estimated Phosphorus Balance

Phosphorus load reduction alternatives to maintain water quality in Cedar Lake were identified. Attachment 1 identifies each alternative considered, and provides a cursory comparative cost/ benefit analysis.

Through the analysis presented in Attachment 1, two load reduction alternatives were identified for further study. These include:

- Rough fish management, including fish barriers, fish traps, and harvesting.
- Ferric chloride dosing to remove phosphorus from the Swartout Lake/ Hwy 55 Wetland outflow, (the major inflow and TP load to Cedar Lake).

A further limited analysis of the cost and feasibility of these alternatives is presented in Sections 2 and 3 of this technical memo. Results presented herein are intended for planning purposes only.

2.0 Rough Fish Management/ Habitat Management:

Rough fish populations in the Cedar Lake have not been quantified, however residents indicate that common carp are present.

A fish survey in Swartout Lake conducted by the Minnesota DNR in the fall of 2005 shows that rough fish such as common carp and bullheads are the dominate fish biomass. Residents report seeing carp in Albion and Henshaw Lakes as well.

A fall 2005 DNR fish survey in Swartout Lake showed that while rough fish like common carp and bullheads were the dominant biomass, the number of large carp present in Swartout was small. This might indicate a recent die out and repopulation due to a winterkill. A significant number of crappies are also present in Swartout, but no other significant game fish populations were found.

Based on the Canfield-Bachman estimation of the TP loading to Cedar Lake, the dominant lake loads are external and come from the upstream lakes and watershed. It can be inferred that the current population common carp in Cedar Lake does not significantly impact the water quality in Cedar Lake. Further, given the size and depth of Cedar Lake, eliminating rough fish in residence is not feasible.

Though the rough fish populations of Cedar Lake don't directly impact water quality, there is potential for the carp to migrate into the shallow upstream lakes and wetlands. Rough fish populations such as those observed in Swartout Lake have been shown to increase internal phosphorus loading in shallow lakes. Migrating rough fish may increase the internal loading in Swartout, and therefore increase the TP load to Cedar Lake from the upstream shallow lakes.

Therefore, control of rough fish that is directed towards improving water quality in Cedar Lake and maintaining habitat in the shallow upstream lakes should employ the following tactics, in order:

1. Eliminate rough fish migration from Cedar Lake to the shallow, upstream lakes and wetlands. This requires a barrier to upstream migration between Cedar Lake and the Hwy 55 Wetland. Effective management of the upstream rough fish populations can only be done once an effective barrier to upstream migration from Cedar Lake is in place.
2. To the extent practical, eradicate the rough fish population in the upstream shallow lakes through winter drawdown, electro-fishing, seining, or application of Rotenone (a pesticide). At a minimum, this means removing 10,000 lbs of rough fish from the upper shallow lakes per year. However, a larger scale draw down to facilitate a winterkill is preferable.
3. Prevent fish migration in the upper chain of lakes. Once a large scale rough fish kill is achieved, preventing migration of surviving fish between the upper lakes is also important.
4. Stock native fishes in upstream shallow lakes and manage these water bodies to improve habitat and water quality.

Rough fish management may yield an estimated reduction in effluent TP from Swartout of between 3 and 52% provided that 10,000 lbs of rough fish are extracted per year.

Table 1. Estimate of potential load reduction to Cedar Lake based on rough fish density

Potential Load Reduction to Cedar Lake by Rough Fish Removal in Swartout			
Range of Potential Carp Density in Swartout (lbs/ acre) (1)	500	271	90
Resulting Rough Fish Biomass in Swartout & Wetland (lbs)	86,500	46,314	15,438
Potential Load reduction to Cedar Lake based on 10,000 lb annual harvest (depending on what the actual internal load in Swartout is) (2 & 3)	3-9%*	6-17%	19-52%

Notes:

1. 500 lb/ acre is reasonable rough fish density in shallow MN lakes with water quality issues
2. Harvest more to increase removal
3. 11,000 lbs annual removal at Louisa

The calculations presented in Table 1 assumes the following:

1. Internal loading in Swartout Lake is the difference between the efflent load and the influent load from Lake Albion and Henshaw Lake. TP loads are based on monitoring data. Monitoring data for loads from Henshaw Lake and Lake Albion are limited, as such a range of values is calculated.
2. Internal loading in Swartout due to rough fish accounts for 90% of the internal load.
3. Rough fish density is estimate using Lamarra 1975, internal loading estimates, and lake area. These estimates yielded rough fish densities between 100 and 300 lbs/ acre. Paul Dietrich of the MN DNR indicated that shallow lakes with high TP concentrations can have rough fish densities of up to 500 lbs/ acre.
4. Rough fish removal is 10,000 lbs per year in the upper lakes.

Several options for fish barriers were reviewed including velocity tubes (hydraulic barriers), physical barriers with traps, and electrical barriers. They are listed along with capitol costs below:

Physical barriers and traps:

Physical barriers use metal bars, and vertical drops and can be designed to prevent fish from migrating up or downstream. A trap can be added to remove rough fish as well as prevent migration.

Physical barriers require frequent maintenance to remove debris caught on the structure. The structure might require daily maintenance in high flows. Such maintenance might be performed by the lake association.

Physical barriers are applicable to the upper watershed locations identified in Attachment A. A physical barrier with trap downstream of old Hwy 55 can prevent upstream migration into the shallow upper lakes and wetland. This option, coupled with rough fish removal in the upper lakes is the best option to decrease the phosphorus loads to Cedar Lake from Swartout Lake. Design, fabrication and installation of a physical barrier at Old Hwy 55 is estimated to cost $19,000.

If a ferric chloride dosing system is used, installation of an additional fish barrier between the Hwy 55 Wetland and the settling pond will also be required to exclude rough fish from the settling ponds.

Velocity tubes:

Velocity tubes can limit migration of rough fish upstream, but cannot limit migration of rough fish downstream. Velocity tubes are a one-way barrier. A consistent velocity of 8.4 ft/ sec is required to prevent migration of carp. To achieve this, the standard design requires a smooth-walled culvert installed at a 3% slope for 120 feet, or a 6% slope for 60 feet. Such grade changes are not commonly found.

Tail waters can limit the effectiveness' of velocity tubes, further, use of velocity tubes require extensive hydraulic analysis to prevent flooding. Once installed, velocity tubes require little maintenance.

Three locations that may provide sufficient vertical drop to install a velocity tube were identified. The Swartout Lake Outlet, the Swartout Lake inlet from Lake Albion, and the outlet of Henshaw Lake: A velocity tube or may be applicable in these location.

The cost of the velocity tube includes the hydraulic analysis, installation of the culvert, and restoration of the road. It would likely require modification to the existing outlet structures of each lake. The estimated cost for each velocity tube is $30,000 assuming that the design conditions can be met.

Electrical barriers:

Electrical barriers create an electric field using a short duration DC pulse to discourage fish from swimming upstream. Studies have shown they are highly effective, perhaps more-so than physical barriers or velocity tubes. Installation includes power source installation, back up generator, lining the existing culvert or structure with plastic, and installation of the electrical equipment. The equipment costs between $50,000 and $100,000

Other considerations for fish barriers include summer maintenance. This cost is not included and it is recommended that the barriers be installed only if the lake association agrees to perform the operation and maintenance.

3.0 Ferric Chloride Dosing:

The concentrated TP load to Cedar Lake from Swartout Lake and the Hwy 55 Wetland provides an opportunity for chemical treatment. A ferric chloride dosing system and settling pond constructed across between new and old Hwy 55 could provide 50 to 70% TP removal at normal flows.

Ferric chloride ($FeCl_3$) would be added to the Hwy 55 Wetland outflow. Flow would be diverted from the main channel into a settling pond downstream of old Hwy 55. The settling pond size is expected to require between 1.5 and 2 acres. The diversion would treat flows up to 10 cfs (this is the average summer flow based on existing data, higher peak flows can be used to size the treatment, this is a preliminary value). Higher flows would partially bypass the settling pond. The approximate locations are shown in Figure 3. Locations may change during final design.

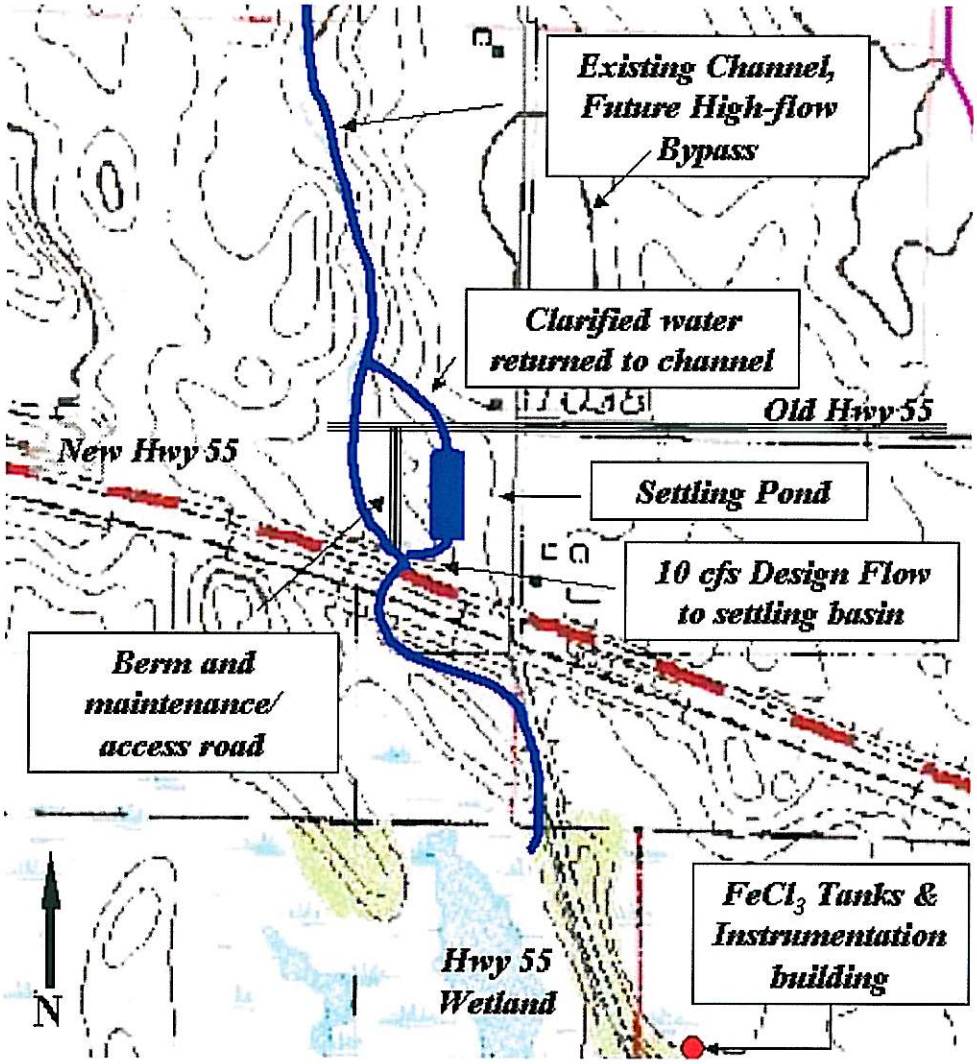


Figure 3. Ferric chloride details

Note the rough fish management should be completed prior to the ferric chloride dosing system being put online. Rough fish should be kept out of the settlement pond by installation of a barrier.

Maintenance will include dewatering the settlement pond, and excavating and disposal of the precipitate.

The following table shows the estimated cost to implement a Ferric Chloride dosing project.

Table 2. Ferric Chloride Dosing Cost Estimate

Ferric Chloride ($FeCl_3$) Dosing of Cedar Lake Inflow

Item	Cost
Capital Cost	
Excavation and disposal at settling pond	$ 120,000
Landscaping, restoration, access road	$ 60,000
Diversion channel, fish trap and structures.	$ 25,000
Control building, electrical service, dosing/control equipment, flow measurement devices and structures	$ 75,000
Permitting, Legal, Admin, and Engineering	$ 85,000
Land, Easements	$ 5,000
Estimated Project Cost	**$ 370,000**
Operation and Maintenance Cost	
Electric energy	$ 4,000
$FeCl_3$	$ 13,000
Pond excavation, transport and disposal	$ 13,000
Administration	$ 5,000
Operation costs	**$ 35,000**

The above estimate assumes the following:

1. The design flow rate is 10 cfs. This is based on an average annual runoff from the upstream watershed of 8-inches over five months.
2. The average influent concentration was assumed to be 300 μg/L TP. Concentrations range between 200 and 400 μg/L TP.
3. The size of the settlement pond and costs associated with disposal are preliminary estimates. Dosing requirements and settlement pond size requirements, as well as the volume of precipitate for disposal can be finalized through lab analysis including jar tests to determine dosing and removal rates, and settling column analysis to better size the sedimentation ponds.

Appendix E

Petition From Cedar Lake Conservation Club Presented to Clearwater River Watershed District Board of Managers on July 12, 2006

CEDAR LAKE CONSERVATION CLUB

June 30, 2006

Mr. Merle Anderson
Administrator
Clearwater River Watershed District
3147 South 15th Avenue
St. Cloud, Minnesota 56301

Re: Petition by the Cedar Lake Conservation Club

Dear Mr. Anderson:

On behalf of its members, the Cedar Lake Conservation Club hereby petitions the Clearwater River Watershed District to develop and implement measures designed to reduce the phosphorous loading and carp population in Cedar Lake. It is our understanding that these measures will consist of, at a minimum, a combination of fish traps, fish barriers, and a ferric chloride water treatment system, to be located between the south end of Cedar Lake and the three lakes immediately to the south of State Highway 55, all of which is contained within the Cedar Lake drainage area.

Based on the results of the studies performed by Wenck Associates over the past several years, it is our understanding that such measures will be conducive to the improvement of public health and welfare through the reduction in algae bloom and nuisance aquatic life which, in turn, will lead to a more enjoyable recreational experience at Cedar Lake.

Finally, we hereby acknowledge that, should the petition-related proceedings be dismissed, the Cedar Lake Conservation Club will be responsible for reimbursing the Clearwater River Watershed District for costs incurred, subject to the amount to be reimbursed being not greater than $3,000 over and above the $2,000 petition fee payment accompanying this petition.

Please feel free to contact the undersigned at 612/303-4504 if you have any questions.

Sincerely,

David C. Larsen
Board Member
Cedar Lake Conservation Club

Appendix F

Clearwater River Watershed District Board of Managers July 12, 2006 Meeting Minutes

Motion 06-07-3 Receiving Cedar Lake Area Petition

Motion 06-07-6 Ordering Engineers Report for the Cedar, Albion, Swartout and Henshaw Project

UNOFFICIAL MINUTES
Clearwater River Watershed District
Board of Managers Meeting
July 12, 2006 - 7:00pm
Annandale Middle School, Annandale, MN

Manager Brunsell called the regular meeting to order at 7:00pm. Manager's Marvin Brunsell, Bob Schiefelbein, Jerry Risberg, Dennis Loewen, and Mark Kampa were present. Others in attendance were Merle Anderson, Kelly Bergesch, Norm Wenck, Dave Larsen, and Stan Weinberger.

Motion #06-07-1: Schiefelbein, seconded by Loewen, made a motion to adopt the agenda. **All Managers voted aye.**

Motion #06-07-2: Schiefelbein, seconded by Risberg, made a motion to approve the Consent Agenda. **All Managers voted aye.**

David Larsen, resident of Cedar Lake, thanked the CRWD for developing and conducting the CRWD Citizenship Dinner held July 7, 2006. Mr. Larsen noted that over 125 people were in attendance and appreciated the information the CRWD provided regarding water quality and rough fish management in the Cedar Lake drainage area. Mr. Larsen presented the Board of Managers with a petition and a check in the amount of $2,000. The petition requests CRWD to develop and implement measures designed to reduce the phosphorus loading and carp population in Cedar Lake.

Attorney Stan Weinberger determined that the petition was in order and allows the CRWD jurisdiction to proceed.

Administrator Anderson outlined six possible activities to address the issues outlined in the petition.

1. Fish trap near Cedar Lake
2. Ferric chloride treatment
3. Construct sediment basins in wetlands
4. Install a number of fish barriers
5. Seining of lakes for rough fish
6. Fish barrier and temporary/permanent draw down of Henshaw Lake

Engineer Norm Wenck distributed a draft timeframe for the project. This timeframe will be finalized by the August 2006 CRWD regular meeting.

Attorney Stan Weinberger explained the appraisal process, including options for Manager consideration.

Dave Larsen left the meeting at 8:40pm.

Motion #06-07-3: Loewen, seconded by Kampa, made a motion to receive the Cedar Lake area petition. **All Managers voted aye.**

Motion #06-07-4: Risberg, seconded by Kampa, made a motion to instruct CRWD Administrator Merle Anderson to determine the number of property owners in the Cedar Lake project area and verify 10% of the signatures contained in the petition. Administrator Anderson to verify signatures numbers 1, 10, and 20 on each page of the petition. **All Managers voted aye.**

Motion #06-07-5: Schiefelbein, seconded by Loewen, made a motion to pay bills. **All Managers voted aye.**

Attorney Stan Weinberger explained water management districts and how watershed districts would establish them. It is his opinion that water management districts would not be an option for implementation of a project as a result of the petition that was received and accepted earlier in the meeting.

Attorney Stan Weinberger left the meeting at 8:55pm.

Kelly Bergesch noted that she had recently attended the CTAS training provided by the MN Association of Townships. Kelly explained that she feels that the CRWD is using CTAS properly.

Engineer Norm Wenck and Administrator Anderson distributed information and explained the current status of the Clean Water Legacy Act.

Engineer Norm Wenck indicated that the tour with owners of the potential sediment basin near Cedar Lake has not happened.

Kelly Bergesch left the meeting at 9:15pm.

Motion #06-07-6: Loewen, seconded by Risberg, made a motion to order the Engineer's Report for the Cedar, Albion, Swartout, Henshaw Project. **All Managers voted aye.**

Administrator Anderson presented the following:

1. Willow Creek stormwater management opportunities
2. Positive resident response to the Citizenship Dinner
3. CRWD Year End Activities Report
4. Wenck Associates Inc. memorandum "Phase II TMDL Update"
5. Wetland Replacement Plan by Canadian Pacific Railroad
6. Hidden River Septic Tank Pumping Reports are in the District Office

Manager's reports were given:

1. Manager Schiefelbein inquired as to the status of the CRWD funding request to the Upper Mississippi Source Water Protection Group.
2. Manager Kampa reported that the riser on the Lake Augusta Erosion Control Project has been fixed.
3. Manager Loewen presented Administrator Anderson with a Minnesota Revenue resource handbook.

Motion #06-07-7: Schiefelbein, seconded by Kampa, made a motion to adjourn the meeting. **All Managers voted aye.**

THESE MINUTES ARE AVAILABLE AT: www.crwd.org
CRWD AUDIT REPORTS ARE AVAILABLE AT THE ANNANDALE PUBLIC LIBRARY

Manager, Marvin Brunsell

Secretary, Mark Kampa

Appendix G

List of Properties That May Require Permanent and/or Construction Easements

Appendix G
Table 1

Cedar, Albion, Henshaw, Swartout Improvement Project

List of Properties that May Require Permanent and/or Construction Easements

Properties Impacted by Fish Barriers

PID	Taxpayer Name	Taxpayer Address	Taxpayer Address	Taxpayer City	Taxpayer ZIP	Property House	Property Street	Property ZIP	Property City
201000032400	MERLE A & PATRICIA A MAROHN	5644 COUNTY ROAD 6 NW		ANNANDALE	55302	5598	COUNTY ROAD 6	55302	ANNANDALE
201000151100	JAMES T & CAROL A GOELZ	8254 COUNTY ROAD 7 NW		MAPLE LAKE	55358				
206000344103	JULIE A MEYER	6471 ILLSLEY AVE NW		MAPLE LAKE	55358	6471	ILLSLEY	55358	MAPLE LAKE
206R	Highway 55 Right of Way (MNDOT)								

Properties Impacted by Sedimentation Basins

PID	Taxpayer Name	Taxpayer Address	Taxpayer Address	Taxpayer City	Taxpayer ZIP	Property House	Property Street	Property ZIP	Property City
201000103400	EUGENE W & JUDY A WARNER	8730 COUNTY ROAD 37 N		ANNANDALE	55302	8730	COUNTY ROAD 37	55302	ANNANDALE
201023000060	STATE OF MINNESOTA - DOT	3725 12TH ST N		ST CLOUD	56303				

Properties Impacted by Phosphorus Removal

PID	Taxpayer Name	Taxpayer Address	Taxpayer Address	Taxpayer City	Taxpayer ZIP	Property House	Property Street	Property ZIP	Property City
206113000001	No Information on the Wright County Assessors Database								
206113002010	PETER S & MARIA A DUBAY	229 4TH ST N		DELANO	55328				
206113003010	JOEL A KOSHENINA	8242 STATE HWY 55 NW		ANNANDALE	55302	8242	STATE HWY 55	55302	ANNANDALE

Properties Impacted by Rough Fish Removal

PID	Taxpayer Name	Taxpayer Address	Taxpayer Address	Taxpayer City	Taxpayer ZIP	Property House	Property Street	Property ZIP	Property City
TO BE DETERMINED									

Appendix H

Environmental Assessment Worksheet

Revised 2/05

ENVIRONMENTAL ASSESSMENT WORKSHEET

Note to preparers: This form is available at http://www.eqb.state.mn.us. *EAW Guidelines* will be available in Spring 1999 at the web site. The Environmental Assessment Worksheet provides information about a project that may have the potential for significant environmental effects. The EAW is prepared by the Responsible Governmental Unit or its agents to determine whether an Environmental Impact Statement should be prepared. The project proposer must supply any reasonably accessible data for — but should not complete — the final worksheet. If a complete answer does not fit in the space allotted, attach additional sheets as necessary. The complete question as well as the answer must be included if the EAW is prepared electronically.

Note to reviewers: Comments must be submitted to the RGU during the 30-day comment period following notice of the EAW in the *EQB Monitor*. Comments should address the accuracy and completeness of information, potential impacts that warrant further investigation and the need for an EIS.

1. **Project title:** Cedar, Albion, Swartout, Henshaw Improvement Project

2. **Proposer** Clearwater River Watershed District
   Contact person Merle Anderson
   Title District Administrator
   Address PO Box 481
   City, state, ZIP Annandale MN 55302
   Phone 320-202-0554
   Fax 320-251-6146
   E-mail merleanderson@cloudnet.com

3. **RGU** Same as Proposer
   Contact person Same
   Title Same
   Address Same
   City, state, ZIP Same
   Phone Same
   Fax Same
   E-mail Same

4. **Reason for EAW preparation** (check one)
   EIS scoping Mandatory EAW Citizen petition RGU discretion
   Proposer volunteered **X**

   If EAW or EIS is mandatory give EQB rule category subpart number and subpart name

5. **Project location** County **Wright County** City/Township **Corina Township**
   various
   ¼ ¼ Section Township Range

   Attach each of the following to the EAW:
   - County map showing the general location of the project; **see Figures 1 and 2 in Engineers Report**
   - U.S. Geological Survey 7.5 minute, 1:24,000 scale map indicating project boundaries (photocopy acceptable);
   - Site plan showing all significant project and natural features.

6. **Description**

   a. Provide a project summary of 50 words or less to be published in the *EQB Monitor*. **See Engineers Report**

   b. Give a complete description of the proposed project and related new construction. Attach additional sheets as necessary. Emphasize construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes. Include modifications to existing equipment or industrial processes and significant demolition, removal or remodeling of existing structures. Indicate the timing and duration of construction activities.

The project entails several components. The first phase of the project is to install fish migration barriers at the locations shown on Figure 12 of the Engineer's Report. Fish barriers will be installed in Fall of 2006 to take advantage of drought conditions in summer 2006 that may lead to a natural winter kill in the shallow upper watershed lakes. The second phase of the project entails harvesting carp and bullheads from Swartout Lake, Henshaw Lake, and Albion Lake. The harvesting will occur only if the winter kill does not occur. The third phase of the project entails installing settling basins in the watershed directly tributary to Swartout Lake (figure x Engineers Report). Watershed best management practices that include buffering drainage ditches and tile inlets will also be implemented starting in 2007 with a completion goal of 2009 (figure x Engineers Report). Finally, if the previously described measures do not result in a significant improvement in water quality in Cedar Lake, a water treatment system will be installed north of Highway 55. The treatment system will use alum or ferric chloride to remove phosphorus from the water prior to discharge into Cedar Lake. This system will include flow measurement and a settling basin. Construction of this system will occur during winter of 2008.

c. Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.

The Clearwater River Watershed District's Comprehensive Plan dated June 2003, and approved by BRWR on July 23, 2003 has a policy to maintain or improve water quality in all lakes within the watershed (p. 58) and a goal of surface water quality improvement systems – protect surface water quality downstream (page 76) that apply to the Cedar Lake watershed improvements. The water quality impacts that are described in Appendices A, B, C and D define the need for actions to be considered to reverse the trends and improve the water quality in Cedar Lake as well as the upper watershed Lakes of Albion, Swartout, and Henshaw.

The Cedar Lake Conservation Club petitioned the District on July 12, 2006 to develop and implement measures designed to reduce the phosphorous loading and carp population in Cedar Lake (Appendix E). The Board of Managers, at their July 12, 2006 regular meeting, ordered an Engineer's Report for this project as shown in the resolution in Appendix F. A public information meeting is scheduled for September 13, 2006 and a public hearing on this project is scheduled for November 8, 2006.

The primary benefited parties will be the lakeshore residents of the improved lakes, with secondary benefits going to users of these lakes and surrounding property owners from increased property values due to reduced in-lake phosphorus concentrations.

d. Are future stages of this development including development on any outlots planned or likely to happen? X Yes __No
If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.

A potential future stage of the project entails the construction of a water quality treatment system at Highway 55 to remove phosphorus from the upper watershed discharge before it enters Cedar Lake.

e. Is this project a subsequent stage of an earlier project? __Yes X No
If yes, briefly describe the past development, timeline and any past environmental review.

7. **Project magnitude data**
Total project acreage **3.1 acres land, rough fish harvesting on 3 shall lakes totaling 806 acres.**
Number of residential units: unattached **0** attached **0** maximum units per building **0**
Commercial, industrial or institutional building area (gross floor space): total square feet **None**

Indicate areas of specific uses (in square feet): **N/A**
Office Manufacturing

Retail	Other industrial
Warehouse	Institutional
Light industrial	Agricultural
Other commercial (specify)	
Building height	If over 2 stories, compare to heights of nearby buildings

8. **Permits and approvals required.** List all known local, state and federal permits, approvals and financial assistance for the project. Include modifications of any existing permits, governmental review of plans and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment Financing and infrastructure.

Unit of government	Type of application	Status
MPCA	**NPDES for Construction & Water Treatment System and Sedimentation Basins**	**In progress**
MDNR	**Working in State Waters**	**In progress**
MDNR	**Rough Fish Harvest**	**In progress**

9. **Land use.** Describe current and recent past land use and development on the site and on adjacent lands. Discuss project compatibility with adjacent and nearby land uses. Indicate whether any potential conflicts involve environmental matters. Identify any potential environmental hazards due to past site uses, such as soil contamination or abandoned storage tanks, or proximity to nearby hazardous liquid or gas pipelines.

Approximately 3.1 acres of land will be converted from existing agriculture, fallow or drainage ditch to Sedimentation ponds.

10. **Cover types.** Estimate the acreage of the site with each of the following cover types before and after development:

Before	**After**	**Before**	**After**
Types 1-8 wetlands		Lawn/landscaping	
Wooded/forest		Impervious surfaces	
Brush/Grassland		Other (describe)	water 3.1
Cropland	3.1		
	TOTAL		

If **Before** and **After** totals are not equal, explain why:

11. **Fish, wildlife and ecologically sensitive resources**
a. Identify fish and wildlife resources and habitats on or near the site and describe how they would be affected by the project. Describe any measures to be taken to minimize or avoid impacts. **See Engineers Report**

b. Are any state-listed (endangered, threatened or special concern) species, rare plant communities or other sensitive ecological resources such as native prairie habitat, colonial waterbird nesting colonies or regionally rare plant communities on or near the site? __Yes **X** No
If yes, describe the resource and how it would be affected by the project. Indicate if a site survey of the resources has been conducted and describe the results. If the DNR Natural Heritage and Nongame Research program has been contacted give the correspondence reference number: . Describe measures to minimize or avoid adverse impacts.

12. **Physical impacts on water resources.** Will the project involve the physical or hydrologic alteration — dredging, filling, stream diversion, outfall structure, diking, and impoundment — of any surface waters such as a lake, pond, wetland, stream or drainage ditch? **X** Yes __No
If yes, identify water resource affected and give the DNR Protected Waters Inventory number(s) if the water resources affected are on the PWI: . Describe alternatives considered and proposed

mitigation measures to minimize impacts.

13. **Water use.** Will the project involve installation or abandonment of any water wells, connection to or changes in any public water supply or appropriation of any ground or surface water (including dewatering)? __Yes **X** No
If yes, as applicable, give location and purpose of any new wells; public supply affected, changes to be made, and water quantities to be used; the source, duration, quantity and purpose of any appropriations; and unique well numbers and DNR appropriation permit numbers, if known. Identify any existing and new wells on the site map. If there are no wells known on site, explain methodology used to determine.

14. **Water-related land use management district.** Does any part of the project involve a shoreland zoning district, a delineated 100-year flood plain, or a state or federally designated wild or scenic river land use district? **X** Yes __No
If yes, identify the district and discuss project compatibility with district land use restrictions.

15. **Water surface use.** Will the project change the number or type of watercraft on any water body? __Yes **X** No
If yes, indicate the current and projected watercraft usage and discuss any potential overcrowding or conflicts with other uses.

16. **Erosion and sedimentation.** Give the acreage to be graded or excavated and the cubic yards of soil to be moved:3.1 acres, and 36,200 cubic yards Describe any steep slopes or highly erodible soils and identify them on the site map. **None.** Describe any erosion and sedimentation control measures to be used during and after project construction.

Standard erosion control and site stabilization will be implemented in accordance with NPDES Construction permit guidelines. The measures will be approved under the required NPDES permit application.

17. **Water quality: surface water runoff**
a. Compare the quantity and quality of site runoff before and after the project. Describe permanent controls to manage or treat runoff. Describe any stormwater pollution prevention plans. **See Engineers Report**

b. Identify routes and receiving water bodies for runoff from the site; include major downstream water bodies as well as the immediate receiving waters. Estimate impact runoff on the quality of receiving waters.

18. **Water quality: wastewaters N/A**
a. Describe sources, composition and quantities of all sanitary, municipal and industrial wastewater produced or treated at the site.

b. Describe waste treatment methods or pollution prevention efforts and give estimates of composition after treatment. Identify receiving waters, including major downstream water bodies, and estimate the discharge impact on the quality of receiving waters. If the project involves on-site sewage systems, discuss the suitability of site conditions for such systems.

c. If wastes will be discharged into a publicly owned treatment facility, identify the facility, describe any pretreatment provisions and discuss the facility's ability to handle the volume and composition of wastes, identifying any improvements necessary.

d. If the project requires disposal of liquid animal manure, describe disposal technique and location and discuss capacity to handle the volume and composition of manure. Identify any improvements necessary. Describe any required setbacks for land disposal systems.

19. **Geologic hazards and soil conditions Varies**
a. Approximate depth (in feet) to ground water: minimum average
to bedrock: minimum average
Describe any of the following geologic site hazards to ground water and also identify them on the site map: sinkholes, shallow limestone formations or karst conditions. Describe measures to avoid or minimize environmental problems due to any of these hazards. **None**

b. Describe the soils on the site, giving NRCS (SCS) classifications, if known. Discuss soil granularity and potential for groundwater contamination from wastes or chemicals spread or spilled onto the soils. Discuss any mitigation measures to prevent such contamination.

Soils – Lester, Hayden, Peat Association: deep, medium textured and moderately fine textured soils on rolling uplands. NRCS classification of B soils.

20. **Solid wastes, hazardous wastes, storage tanks N/A**
a. Describe types, amounts and compositions of solid or hazardous wastes, including solid animal manure, sludge and ash, produced during construction and operation. Identify method and location of disposal. For projects generating municipal solid waste, indicate if there is a source separation plan; describe how the project will be modified for recycling. If hazardous waste is generated, indicate if there is a hazardous waste minimization plan and routine hazardous waste reduction assessments.

b. Identify any toxic or hazardous materials to be used or present at the site and identify measures to be used to prevent them from contaminating groundwater. If the use of toxic or hazardous materials will lead to a regulated waste, discharge or emission, discuss any alternatives considered to minimize or eliminate the waste, discharge or emission.

c. Indicate the number, location, size and use of any above or below ground tanks to store petroleum products or other materials, except water. Describe any emergency response containment plans.

21. **Traffic.** Parking spaces added . Existing spaces (if project involves expansion) .
Estimated total average daily traffic generated . Estimated maximum peak hour traffic generated (if known) and time of occurrence
. Provide an estimate of the impact on traffic congestion on affected roads and describe any traffic improvements necessary. If the project is within the Twin Cities metropolitan area, discuss its impact on the regional transportation system.

None

22. **Vehicle-related air emissions.** Estimate the effect of the project's traffic generation on air quality, including carbon monoxide levels. Discuss the effect of traffic improvements or other mitigation measures on air quality impacts. Note: If the project involves 500 or more parking spaces, consult *EAW Guidelines* about whether a detailed air quality analysis is needed.

None

23. **Stationary source air emissions.** Describe the type, sources, quantities and compositions of any emissions from stationary sources of air emissions such as boilers, exhaust stacks or fugitive dust sources. Include any hazardous air pollutants (consult *EAW Guidelines* for a listing) and any greenhouse gases (such as carbon dioxide, methane, nitrous oxide) and ozone-depleting chemicals (chloro-fluorocarbons, hydrofluorocarbons, perfluorocarbons or sulfur hexafluoride). Also describe any proposed pollution prevention techniques and proposed air pollution control devices. Describe the impacts on air quality.

None

24. **Odors, noise and dust.** Will the project generate odors, noise or dust during construction or during operation? _X_ Yes __No
If yes, describe sources, characteristics, duration, quantities or intensity and any proposed measures to mitigate adverse impacts. Also identify locations of nearby sensitive receptors and estimate impacts on them. Discuss potential impacts on human health or quality of life. (Note: fugitive dust generated by operations may be discussed at item 23 instead of here.)

Standard construction noise and dust from excavation to last 20 to 60 days.

25. **Nearby resources.** Are any of the following resources on or in proximity to the site?
Archaeological, historical or architectural resources? __Yes X No
Prime or unique farmlands or land within an agricultural preserve? __Yes X No
Designated parks, recreation areas or trails? __Yes X No
Scenic views and vistas? __Yes X No
Other unique resources? __Yes X No
If yes, describe the resource and identify any project-related impacts on the resource. Describe any measures to minimize or avoid adverse impacts.

26. **Visual impacts.** Will the project create adverse visual impacts during construction or operation? Such as glare from intense lights, lights visible in wilderness areas and large visible plumes from cooling towers or exhaust stacks? __Yes X No
If yes, explain.

27. **Compatibility with plans and land use regulations.** Is the project subject to an adopted local comprehensive plan, land use plan or regulation, or other applicable land use, water, or resource management plan of a local, regional, state or federal agency?
__Yes X No. If yes, describe the plan, discuss its compatibility with the project and explain how any conflicts will be resolved. If no, explain.

28. **Impact on infrastructure and public services.** Will new or expanded utilities, roads, other infrastructure or public services be required to serve the project? __Yes X No. If yes, describe the new or additional infrastructure or services needed. (Note: any infrastructure that is a connected action with respect to the project must be assessed in the EAW; see *EAW Guidelines* for details.)

29. **Cumulative impacts.** Minnesota Rule part 4410.1700, subpart 7, item B requires that the RGU consider the "cumulative potential effects of related or anticipated future projects" when determining the need for an environmental impact statement. Identify any past, present or reasonably foreseeable future projects that may interact with the project described in this EAW in such a way as to cause cumulative impacts. Describe the nature of the cumulative impacts and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to cumulative impacts *(or discuss each cumulative impact under appropriate item(s) elsewhere on this form).*
Not Applicable

30. **Other potential environmental impacts.** If the project may cause any adverse environmental impacts not addressed by items 1 to 28, identify and discuss them here, along with any proposed mitigation.
Not Applicable

31. **Summary of issues.** *Do not complete this section if the EAW is being done for EIS scoping; instead, address relevant issues in the draft Scoping Decision document, which must accompany the EAW.* List any impacts and issues identified above that may require further investigation before the project is begun. Discuss any alternatives or mitigative measures that have been or may be considered for these impacts and issues, including those that have been or may be ordered as permit conditions.

RGU CERTIFICATION. The Environmental Quality Board will only accept **SIGNED** Environmental Assessment Worksheets for public notice in the EQB Monitor.

I hereby certify that:

- The information contained in this document is accurate and complete to the best of my knowledge.
- The EAW describes the complete project; there are no other projects, stages or components other than those described in this document, which are related to the project as connected actions or phased actions, as defined at Minnesota Rules, parts 4410.0200, subparts 9b and 60, respectively.
- Copies of this EAW are being sent to the entire EQB distribution list.

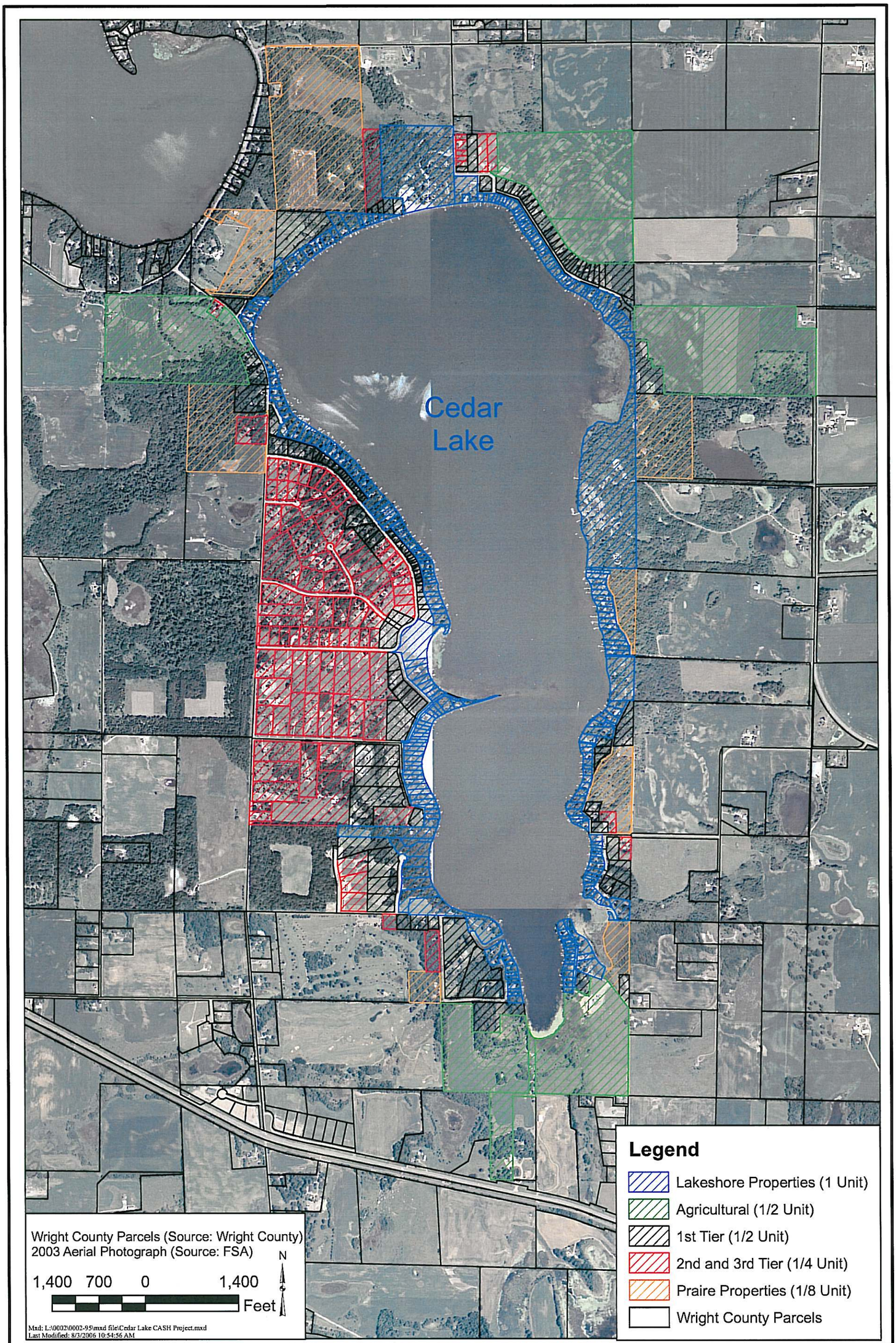
Signature Date

Title Chairperson
Board of Managers
Clearwater River Watershed District

Environmental Assessment Worksheet was prepared by the staff of the Environmental Quality Board at the Administration Department. For additional information, worksheets or for *EAW Guidelines*, contact: Environmental Quality Board, 658 Cedar St., St. Paul, MN 55155, 651-296-8253, or http://www.eqb.state.mn.us

Appendix I

List of Potentially Benefited Properties



CLEARWATER RIVER WATERSHED DISTRICT

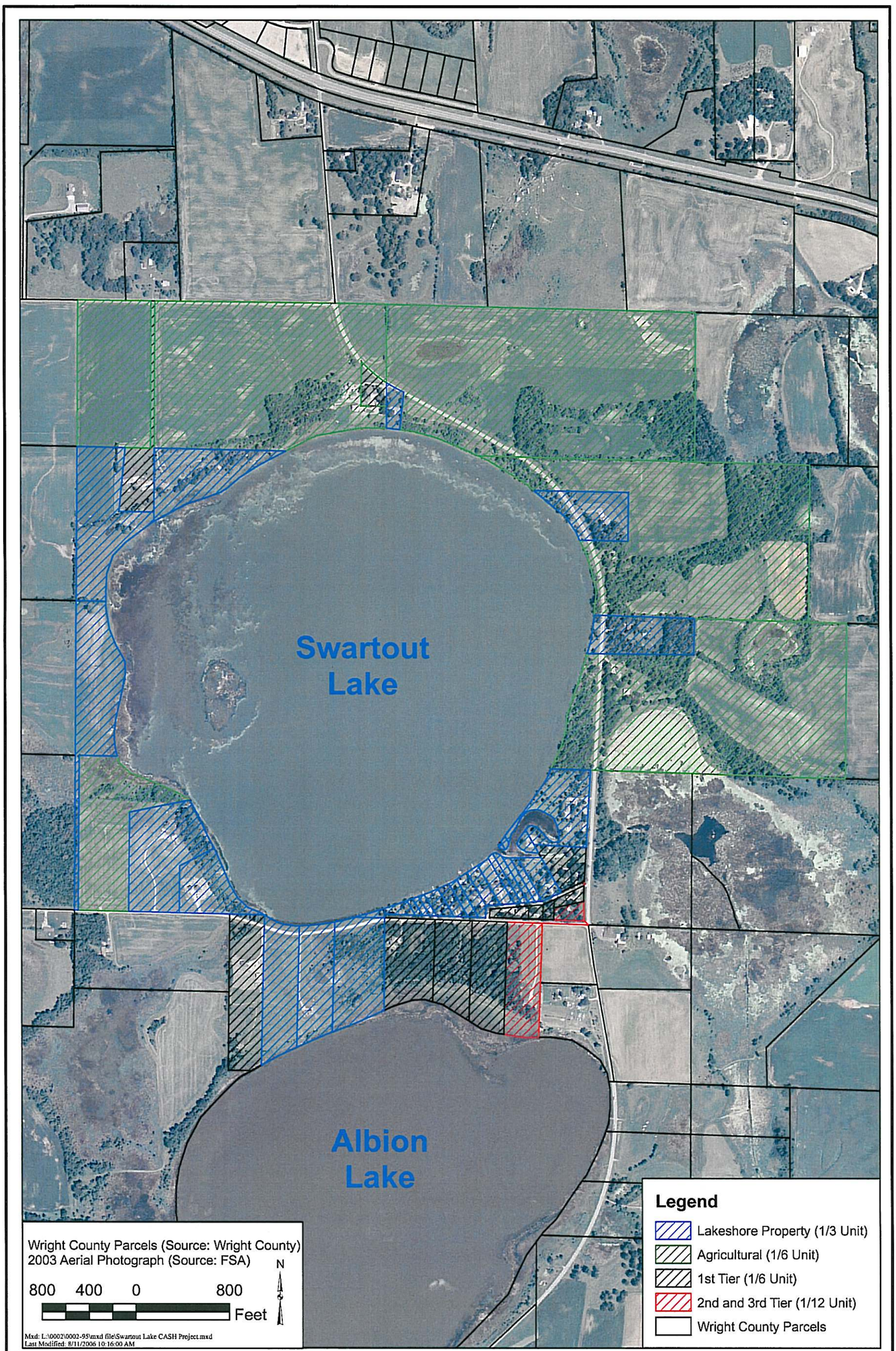
Potentially Benefited Property Owners

Wenck

Wenck Associates, Inc. 1800 Pioneer Creek Center
Environmental Engineers Maple Plain, MN 55359-0429

AUG 2006

Appendix I
Figure 1



CLEARWATER RIVER WATERSHED DISTRICT

Potentially Benefited Property Owners

Wenck

Wenck Associates, Inc. 1800 Pioneer Creek Center
Environmental Engineers Maple Plain, MN 55359-0429

AUG 2006

Appendix I
Figure 2

Appendix I
Table 1

Cedar, Albion, Henshaw, Swartout Improvement Project

List of Potentially Benefited Properties (Cedar Lake)

Lakeshore Properties (1 Unit)									
PID	Taxpayer Name	Taxpayer Address	Taxpayer Address	Taxpayer City	Taxpayer ZIP	Property House	Property Street	Property ZIP	Property City
206000153406	WRIGHT COUNTY-SCHROEDER PA	1901 HIGHWAY 25 N		BUFFALO	55313	9201	IRELAND	55302	ANNANDALE
206000154300	GERALD L MUNDELL	1525 W SHORE DR		BUFFALO	55313	9074	IRELAND	55302	ANNANDALE
206000154301	DAVID W II & GAIL A FEEDER	5755 S LISBON WAY		AURORA	80015	9067	INGRAM	55302	ANNANDALE
206000154302	BRADLEY S MILLNER&	9088 IRELAND AVE NW		ANNANDALE	55302	9088	IRELAND	55302	ANNANDALE
206000211103	JEFFREY H & DIANA J KRAMM	8748 JASPER AVE NW		ANNANDALE	55302				
206000211401	KARIN E WEISS	8732 JASPER AVE NW	PO BOX 158	ANNANDALE	55302	8732	JASPER	55302	ANNANDALE
206000211402	JEFFREY H & DIANA J KRAMM	8748 JASPER AVE NW		ANNANDALE	55302	8748	JASPER	55302	ANNANDALE
206000211403	DEWEY T & JULIE A PETTIT	5716 UPTON AVE S		MPLS	55410	8744	JASPER	55302	ANNANDALE
206000211407	STATE OF MINNESOTA - DNR	500 LAFAYETTE RD		ST PAUL	55155				
206000221101	STEVEN OSTROM & P J P-OSTROM	12612 CEDAR LAKE RD		HOPKINS	55305	8791	INGRAM	55302	ANNANDALE
206000221102	DANIEL T & MARY J MOTZKO	10451 GREENBRIER RD #2		MINNETONKA	55305				
206000221104	CHARLES H GEISLER	8819 INGRAM AVE NW		ANNANDALE	55302				
206000221105	CHARLES H GEISLER	8819 INGRAM AVE NW		ANNANDALE	55302				
206000221400	COURAGE CENTER	3915 GOLDEN VALLEY RD		GOLDEN VALLEY	55422				
206000222100	DEAN L & KATHLEEN A NICHOLSON	10724 MORGAN AVE S		BLOOMINGTON	55431				
206000222101	RICHARD D OXENFORD	8975 IRESFELD AVE NW		ANNANDALE	55302				
206000222102	JON P OXENFORD		PO BOX 68	ANKENY	50021				
206000222103	RONALD J LINDER	22184 FAIRMONT RD		ST CLOUD	56301				
206000222104	ELLA M GEARDINK	9013 IRESFELD AVE NW		ANNANDALE	55302				
206000222201	CABAHA PARTNERSHIP	17059 HAMPTON CT		MINNETONKA	55345	8858	JASPER	55302	ANNANDALE
206000222202	GERALD A PAULSEN	5101 VERNON AVE S		EDINA	55436				
206000222203	DAVID L & SUSAN K NASH	718 19TH AVE SW		ROCHESTER	55902	8878	JASPER	55302	ANNANDALE
206000222204	PHYLLIS L JOHNSON	8940 JASPER AVE NW		ANNANDALE	55302	8940	JASPER	55302	ANNANDALE
206000222205	ARLAN L & JANET P DANIEL	4821 WESTMINSTER RD		MINNETONKA	55345	8952	JASPER	55302	ANNANDALE
206000222206	PHILLIP W&VIRGINIA L RADTKE	8914 JASPER AVE NW		ANNANDALE	55302	8914	JASPER	55302	ANNANDALE
206000222207	PAUL H SCHUTTE	8924 JASPER AVE NW		ANNANDALE	55302	8924	JASPER	55302	ANNANDALE
206000222208	BRUCE M & TROY DVORAK	19685 VINE ST		DEEPHAVEN	55331	8909	JASPER	55302	ANNANDALE
206000222209	ROBT & LORRAINE JOHNSON	8955 IRESFELD AVE NW		ANNANDALE	55302	8955	IRESFELD	55302	ANNANDALE
206000222211	RICHARD H & LYNN L WARDEN		PO BOX 236	ANNANDALE	55302	8943	IRESFELD	55302	ANNANDALE
206000222212	PATRICIA E PETRIE & J HUSBY	6641 UPTON AVE S		RICHFIELD	55423	8969	IRESFELD	55302	ANNANDALE
206000222213	JAMES & ANGELINE NEIL	1228 13TH AVE N		ST CLOUD	56301	8963	IRESFELD	55302	ANNANDALE
206000223200	COURTLAND E HOLMAN	12758 FOLIAGE CT		APPLE VALLEY	55124	8334	IRVINE	55302	ANNANDALE
206000223201	RICHARD T THEISEN	19075 COUNTY ROAD 44		CLEARWATER	55320	8338	IRVINE	55302	ANNANDALE
206000223202	MARK R & JULIE A CHRISTIAN	8482 COUNTY ROAD 6 NW		ANNANDALE	55302				
206000223203	STEVEN H & KATHRYN A LAMPI	1209 88TH AVE N		BROOKLYN PARK	55444	8330	IRVINE	55302	ANNANDALE
206000223204	MARK R & JULIE A CHRISTIAN	8482 COUNTY ROAD 6 NW		ANNANDALE	55302	8482	COUNTY ROAD 6	55302	ANNANDALE
206000224100	COURAGE CENTER	3915 GOLDEN VALLEY RD		GOLDEN VALLEY	55422	8046	83RD	55358	MAPLE LAKE
206000271100	CONSTANCE L BAKKEN REV TRUST	%PDS TAX SERVICES	PO BOX 13519	ARLINGTON	76094	7755	IMHOFF	55358	MAPLE LAKE
206000271102	KENNETH J & JANET A ZAHN	4320 MACKEY AVE S		ST LOUIS PARK	55424	7987	IMHOFF	55358	MAPLE LAKE
206000271103	J RANDAL COCHRANE	6940 80TH ST NW		MAPLE LAKE	55358				
206000271401	HAROLD CARPENTER	7537 IMHOFF AVE NW		MAPLE LAKE	55358	7537	IMHOFF	55358	MAPLE LAKE
206000271402	PAUL W SCHAFFER	10408 ZION AVE S		BLOOMINGTON	55435	7507	INGRAM	55358	MAPLE LAKE

Appendix I
Table 1

Cedar, Albion, Henshaw, Swartout Improvement Project

List of Potentially Benefited Properties (Cedar Lake)

Lakeshore Properties (1 Unit)									
PID	Taxpayer Name	Taxpayer Address	Taxpayer Address	Taxpayer City	Taxpayer ZIP	Property House	Property Street	Property ZIP	Property City
206000271403	WILLIAM T & BARBARA FAIRBANKS	2614 PARKVIEW CT		WHITE BEAR LAKE	55110				
206000271404	ILONA AALTO	7506 INGRAM AVE NW		MAPLE LAKE	55358				
206000272100	ROBTERT J & GERALDINE MINER	1630 LUELLA ST		ST PAUL	55119	7866	IRVINE	55302	ANNANDALE
206000272101	JUDY HALVERSON	200 MILDRED N		DEARBORN	48128	7916	IRVINE	55302	ANNANDALE
206000272102	RUTH M WESTHOFF REV TRUST	16050 38TH AVE N		PLYMOUTH	55446	7898	IRVINE	55302	ANNANDALE
206000272103	ROBTERT J & GERALDINE MINER	1630 LUELLA ST		ST PAUL	55119				
206000272104	SUSAN K & DAVID M LEVI	6170 S WHITE PL		CHANDLER	85249	7876	IRVINE	55302	ANNANDALE
206000272401	ROBERT A BRAULT & V REINKING	7622 ISAAK AVE NW		ANNANDALE	55302	7622	ISAAK	55302	ANNANDALE
206000272402	ORVILLE JONSRUD	16357 VICTORIA CURVE S		PRIOR LAKE	55372	7646	ISAAK	55302	ANNANDALE
206000272403	CARTER L & KOBIE L DIERS	7638 ISAAK AVE NW		ANNANDALE	55302	7638	ISAAK	55302	ANNANDALE
206000272404	H DAVID & CHERYL K WAGNER	7656 ISAAK AVE NW		ANNANDALE	55302	7656	ISAAK	55302	ANNANDALE
206000272411	RONALD M & LINDA R DIRCKS	7602 ISAAK AVE NW		ANNANDALE	55302				
206000273106	DEAN C SANBERG &	6136 SHERMAN CIR		EDINA	55436	7270	ISAAK	55302	ANNANDALE
206000273301	TERRY L &SUSAN E TOTENHAGEN	3174 LITTLE CROW DR		SHAKOPEE	55379	7315	ISAAK	55302	ANNANDALE
206000273401	MARIA M MAKI	8516 70TH ST NW		ANNANDALE	55302	8516	70TH	55302	ANNANDALE
206000274201	SHARON L HUIKKO	7298 ISAAK AVE NW		ANNANDALE	55302				
206000341101	WAYNE A MICHELS	1905 127TH LN NW		COON RAPIDS	55448	6799	INGRAM	55358	MAPLE LAKE
206000341103	GERALDINE WALL&								
206000341107	THOMAS A SEGNER LIVING TRUST	8096 67TH ST NW		MAPLE LAKE	55358	8096	67TH	55358	MAPLE LAKE
206021000010	STEVEN C & CHRISTINE D LONN	8947 INGRAM AVE NW		ANNANDALE	55302	8947	INGRAM	55302	ANNANDALE
206021000020	JAMES W & PATRICIA L DEARING	8937 INGRAM AVE NW		ANNANDALE	55302	8937	INGRAM	55302	ANNANDALE
206021000040	JODI L BOWDIN	8919 INGRAM AVE NW		ANNANDALE	55302	8919	INGRAM	55302	ANNANDALE
206021000060	JOEL G VOS	5320 PENN AVE N		BROOKLYN CENTER	55430	8907	INGRAM	55302	ANNANDALE
206021000070	RICHARD P SUDDENDORF	11500 62ND AVE N		PLYMOUTH	55442	8899	INGRAM	55302	ANNANDALE
206021000100	GEORGE E SUDDENDORF	7425 HAROLD AVE N		GOLDEN VALLEY	55427	8879	INGRAM	55302	ANNANDALE
206021000120	ROBERT T & KAREN P LOHN		PO BOX 1181	GRAND MARAIS	55604	8857	INGRAM	55302	ANNANDALE
206021000140	RICHARD C & MEREDITH BAKER	8841 INGRAM AVE NW		ANNANDALE	55302	8841	INGRAM	55302	ANNANDALE
206021000160	MARILYN J MATHISON	8835 INGRAM AVE NW		ANNANDALE	55302	8835	INGRAM	55302	ANNANDALE
206022000010	TODD D & LYNN T JOHNSON	935 152ND AVE NE		HAM LAKE	55304	9065	INGRAM	55302	ANNANDALE
206022000020	HARPER LIVING TRUST	9061 INGRAM AVE NW		ANNANDALE	55302	9061	INGRAM	55302	ANNANDALE
206022000030	DEAN ROLANDO					9057	INGRAM	55302	ANNANDALE
206022000040	LORRAINE P HAMMERLUND	1604 ST CROIX CIR		MINNEAPOLIS	55422	9055	INGRAM	55302	ANNANDALE
206022000050	BRIAN P ANDERSON &	26836 107TH ST		ZIMMERMAN	55398	9051	INGRAM	55302	ANNANDALE
206022000070	JANICE V ALTMAN REV TRUST U/A	18100 39TH AVE N		PLYMOUTH	55446	9029	INGRAM	55302	ANNANDALE
206022000080	BRENDA L STEPP	8690 45TH ST NE		ST MICHAEL	55376	9019	INGRAM	55302	ANNANDALE
206022000090	B LASERE ERICKSON & L A LASERE	1626 SOUTH RD		KINGSTON	02881	9013	INGRAM	55302	ANNANDALE
206022000100	DAVID W & GYEN L WILSON	787 BELANGER AVE NW		BUFFALO	55313	9005	INGRAM	55302	ANNANDALE
206022000110	ROBERT G JR&JOANNE MILLIGAN	2313 50TH ST NE		BUFFALO	55313	8997	INGRAM	55302	ANNANDALE
206022000120	BRADFORD K&SANDRA K ARNTSOI	1709 SOUTHGATE DR		BUFFALO	55313	8989	INGRAM	55302	ANNANDALE
206022000130	RUBEN J VOLLRATH	8979 INGRAM AVE NW		ANNANDALE	55302	8979	INGRAM	55302	ANNANDALE
206022000140	DWIGHT B & LORI S GEISLER	9549 RUSSELL AVE S		BLOOMINGTON	55431	8965	INGRAM	55302	ANNANDALE
206022000160	LEE J THERNELL	3847 IDAHO AVE N		CRYSTAL	55427	8959	INGRAM	55302	ANNANDALE

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Table 1

Cedar, Albion, Henshaw, Swartout Improvement Project

List of Potentially Benefited Properties (Cedar Lake)

Lakeshore Properties (1 Unit)									
PID	Taxpayer Name	Taxpayer Address	Taxpayer Address	Taxpayer City	Taxpayer ZIP	Property House	Property Street	Property ZIP	Property City
206022000190	ROBERT A GEISLER &	16435 IRIS CT		LAKEVILLE	55044	8803	INGRAM	55302	ANNANDALE
206022000200	DANIEL T & MARY J MOTZKO	10451 GREENBRIER RD #2		MINNETONKA	55305	8799	INGRAM	55302	ANNANDALE
206022000210	DAVID LARSEN & C LANE LARSEN	1551 SHANNON DR		WOODBURY	55125	8811	INGRAM	55302	ANNANDALE
206022000220	KURT J & KRISTIE A MOLDENHAUE	8861 DEER RUN DR		VICTORIA	55386	8809	INGRAM	55302	ANNANDALE
206024000010	RICHARD D & DOROTHY L SORHEIN	405 1ST AVE NE		BUFFALO	55313	6772	INMAN	55302	ANNANDALE
206024000030	STANLEY M&CHARLOTTE A EHRKE	200 MAPLE ST S		LESTER PRAIRIE	55354	6780	INMAN	55302	ANNANDALE
206024000040	DEAN & CAROLYN CUSTER	6792 INMAN AVE NW		ANNANDALE	55302	6792	INMAN	55302	ANNANDALE
206024000050	TIMOTHY A & BETH A IVERSON	6810 INMAN AVE NW		ANNANDALE	55302	6810	INMAN	55302	ANNANDALE
206024000070	DAVID H & JUDY A F HANSON	12025 FLORIDA AVE		CHAMPLIN	55316	6820	INMAN	55302	ANNANDALE
206024000080	LESLIE A KREUTTER	26 10TH ST W APT 1809		ST PAUL	55102	6828	INMAN	55302	ANNANDALE
206024000090	DENNIS L&KATHRYNE M SMAAGAA	7287 PAULSEN DR		EDEN PRAIRIE	55346	6840	INMAN	55302	ANNANDALE
206024000110	RAJAN & ISHANI JHANJEE	7 COOPER AVE		EDINA	55436	6850	INMAN	55302	ANNANDALE
206024000121	BRUCE F&CATHLEEN L CAMPBELL	7201 BRISTOL CIR		EDINA	55435	8433	70TH	55302	ANNANDALE
206025000010	FRANCES E ULFERS REV TRT AGR	6862 INMAN AVE NW		ANNANDALE	55302	6862	INMAN	55302	ANNANDALE
206025000020	EARL R SR & JANET M DUFFY	6868 INMAN AVE NW		ANNANDALE	55302	6868	INMAN	55302	ANNANDALE
206025000030	CARMEN C & PAT CARUSO	4344 ALDRICH AVE S		MINNEAPOLIS	55409	6876	INMAN	55302	ANNANDALE
206025000050	JOSEPH P&ELIZABETH TRETTER	6880 INMAN AVE NW		ANNANDALE	55302	6880	INMAN	55302	ANNANDALE
206026001010	GERALD L MUNDELL	1525 WEST SHORE DR		BUFFALO	55313				
206026001020	GLADYS E ATKINS	8429 91ST ST NW		ANNANDALE	55302	8429	91ST	55302	ANNANDALE
206026001030	DOUGLAS J&CAROLYN CHALUPSK	355 SOUTH SHORE CIR	PO BOX 682	WINSTED	55395	8413	91ST	55302	ANNANDALE
206026001031	DAVID STEIN & KIRSTEN OHNSORG	2080 WATSON AVE		ST PAUL	55116	8395	91ST	55302	ANNANDALE
206027000010	JONATHAN M INGALLS	405 FRANKLIN AVE NW		WATERTOWN	55388	7500	ISAAK	55302	ANNANDALE
206027000020	THE FERIANCEK TRUST B	3124 65TH AVE N		BROOKLYN CENTER	55429	7508	ISAAK	55302	ANNANDALE
206027000030	ROBERT E & BETTY J MOODY	7520 ISAAC AVE NW		ANNANDALE	55302	7520	ISAAK	55302	ANNANDALE
206027000040	MARY E ANTIL	214 WEST MISSION RD		GREEN BAY	54301	7524	ISAAK	55302	ANNANDALE
206027000050	DANIEL F & JULIE M FLYNN	10535 49TH AVE N		PLYMOUTH	55442	7528	ISAAK	55302	ANNANDALE
206027000060	RICHARD A&JANET B BRUCHMANN	352 137TH LANE NW		ANDOVER	55304	7554	ISAAK	55302	ANNANDALE
206027000070	GLEN & NANCY SCHULTZ	7576 ISAAK AVE NW		ANNANDALE	55302	7576	ISAAK	55302	ANNANDALE
206027000090	ORVILLE J & JUDITH A MARTIN	157 13TH AVE N		S ST PAUL	55075	7590	ISAAK	55302	ANNANDALE
206027000100	RONALD M & LINDA R DIRCKS	7602 ISAAK AVE NW		ANNANDALE	55302	7602	ISAAK	55302	ANNANDALE
206027000110	RONALD M & LINDA R DIRCKS	7602 ISAAK AVE NW		ANNANDALE	55302				
206027000120	SUSAN G NORDBYE	1024 W 53RD ST		MINNEAPOLIS	55419	8503	76TH	55302	ANNANDALE
206027000150	WILLIAM R & MARY J HANKEE	15628 E CARDINAL CT		ROUNTAIN HILLS	85268	8461	76TH	55302	ANNANDALE
206027000180	WILLIAM R & MARY J HANKEE	15628 E CARDINAL CT		ROUNTAIN HILLS	85268				
206028002010	KARL E & MARY BETH LESLIE	12 LINDSAY CT		ST CLOUD	56301	8783	INGRAM	55302	ANNANDALE
206028002020	WILLIAM W PALLIES	8773 INGRAM AVE NW		ANNANDALE	55302	8773	INGRAM	55302	ANNANDALE
206028002030	COURAGE CENTER	3915 GOLDEN VALLEY RD		GOLDEN VALLEY	55422				
206028002040	COURAGE CENTER	3915 GOLDEN VALLEY RD		GOLDEN VALLEY	55422				
206028002060	COURAGE CENTER	3915 GOLDEN VALLEY RD		GOLDEN VALLEY	55422				
206028002070	COURAGE CENTER	3915 GOLDEN VALLEY RD		GOLDEN VALLEY	55422				
206028002080	COURAGE CENTER	3915 GOLDEN VALLEY RD		GOLDEN VALLEY	55422				
206032001010	DUANE C WOSJE REV TRT AGREE	1570 OREGON AVE N		GOLDEN VALLEY	55427	8083	72ND	55358	MAPLE LAKE

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Lakeshore Properties (1 Unit)									
PID	Taxpayer Name	Taxpayer Address	Taxpayer Address	Taxpayer City	Taxpayer ZIP	Property House	Property Street	Property ZIP	Property City
206032001030	WILLIAM J & CHRISTINE A PICHE	7217 IMHOFF AVE NW		MAPLE LAKE	55358	7217	IMHOFF	55358	MAPLE LAKE
206032001040	LARRY J & BARB THOMSEN	7209 IMHOFF AVE NW		MAPLE LAKE	55358	7209	IMHOFF	55358	MAPLE LAKE
206032001050	RONALD C BOLEEN &	3626 GRAND AVE		WHITE BEAR LAKE	55110	7199	IMHOFF	55358	MAPLE LAKE
206032001060	BARBARA S THOMSEN					7191	IMHOFF	55358	MAPLE LAKE
206032001070	TAMMY J NELSON	12401 66TH PL		MAPLE GROVE	55369	7185	IMHOFF	55358	MAPLE LAKE
206032002010	RICHARD H & FRANCINE M BARR	12150 HOLLY ST NW		COON RAPIDS	55448	7105	IMHOFF	55358	MAPLE LAKE
206032002020	JAMES A DOERFLER & P WALTER &	8207 2ND AVE S		BLOOMINGTON	55420	7101	IMHOFF	55358	MAPLE LAKE
206032002030	CHARLES K & GAIL K G WEST	7095 IMHOFF AVE NW		MAPLE LAKE	55358	7095	IMHOFF	55358	MAPLE LAKE
206032002050	FRANCES C MARTIN	7087 IMHOFF AVE NW		MAPLE LAKE	55358	7087	IMHOFF	55358	MAPLE LAKE
206032002060	DAVID H & KAY ARVER	980 KILBURN		ST PAUL	55103	7081	IMHOFF	55358	MAPLE LAKE
206033000070	ROYAL L BECKMAN	7155 IMHOFF AVE NW		MAPLE LAKE	55358				
206033000080	ROYAL L BECKMAN	7155 IMHOFF AVE NW		MAPLE LAKE	55358				
206033001010	RICHARD H & FRANCINE M BARR	12150 HOLLY ST NW		COON RAPIDS	55448				
206033001011	THOMAS F & SHARON B KNAUP	7139 IMHOFF AVE NW		MAPLE LAKE	55358				
206033001020	THOMAS F & SHARON B KNAUP	7139 IMHOFF AVE NW		MAPLE LAKE	55358	7139	IMHOFF	55358	MAPLE LAKE
206033001030	ROYAL L BECKMAN	7155 IMHOFF AVE NW		MAPLE LAKE	55358	7155	IMHOFF	55358	MAPLE LAKE
206033001040	ROGER F & DAVID W KRUESEL	922 3RD ST SW		FARIBAULT	55021	7179	IMHOFF	55358	MAPLE LAKE
206033002010	GARY M & JUDY M GOLDETSKY	4860 SARATOGA LN N		PLYMOUTH	55442	7060	IMHOFF	55358	MAPLE LAKE
206035000020	CEDAR ACRES ASSOC INC	8041 ISAAK AVE NW		ANNANDALE	55302				
206035001010	CURTIS V &JULIE A GUNNERSON	8152 ISAAK AVE NW		ANNANDALE	55302	8152	ISAAK	55302	ANNANDALE
206035001020	GERALD W ALTMAN REV TRUST U/	18100 39TH AVE N		PLYMOUTH	55446				
206035001030	STEVEN & SUSAN BLAINE	8130 ISAAK AVE NW		ANNANDALE	55302	8130	ISAAK	55302	ANNANDALE
206035001040	JOHN R & CHERYL L JACOBSON	8120 ISAAK AVE NW		ANNANDALE	55302	8120	ISAAK	55302	ANNANDALE
206035001050	JAMES A JACOBSON	8110 ISAAK AVE NW		ANNANDALE	55302	8110	ISAAK	55302	ANNANDALE
206035001060	WAYNE J & DARLENE J ABDELLA	8102 ISAAK AVE NW		ANNANDALE	55302	8102	ISAAK	55302	ANNANDALE
206035001061	JAMES R &BONITA K PALMQUIST	8100 IRVINE AVE NW		ANNANDALE	55302				
206040001010	MARK R & JULIE A CHRISTIAN	8482 COUNTY ROAD 6 NW		ANNANDALE	55302				
206040001020	TIMOTHY T & DEBRA L NABOURS	8510 COUNTY ROAD 6 NW		ANNANDALE	55302	8510	COUNTY ROAD 6	55302	ANNANDALE
206040001030	BONITA M KELLY	10621 15TH ST NE		ST MICHAEL	55376	8528	COUNTY ROAD 6	55302	ANNANDALE
206040001040	BONITA M KELLY	10621 15TH ST NE		ST MICHAEL	55376				
206040002010	LAKE HOME RENOVATIONS LLP	3280 NAVARRE LN		WAYZATA	55391	8346	IRVINE	55302	ANNANDALE
206040002020	LAKE HOME RENOVATIONS LLP	3280 NAVARRE LN		WAYZATA	55391				
206040002040	THOMAS S &CONSTANCE E STUHR	8986 84TH ST NW		ANNANDALE	55302	8986	84TH	55302	ANNANDALE
206040002050	JOHN P JR & MICHELLE MCALPIN	17225 MANOR RD		MINNETONKA	55345				
206040002060	PREVOST TRUST 11-19-96	140 HUNTERS PATH		ANNANDALE	55302				
206040002070	PREVOST TRUST 11-19-96	140 HUNTERS PATH		ANNANDALE	55302				
206040002090	KENNETH R & NANCY R OKSENDAH	8350 IRVINE AVE NW		ANNANDALE	55302	8350	IRVINE	55302	ANNANDALE
206044000010	CHERYL J FULLER	19038 CARSON ST		ELK RIVER	55330	7611	IMHOFF	55358	MAPLE LAKE
206044000020	DENNIS D & NADINE M JOPP	7591 IMHOFF AVE NW		MAPLE LAKE	55358	7591	IMHOFF	55358	MAPLE LAKE
206044000030	BRUCE A & SALLY A QUAM	2720 GROVE LN		MOUND	55364	7567	IMHOFF	55358	MAPLE LAKE
206044000040	WM A & RUTH G EMERSON	650 HELENE PL NE		FRIDLEY	55432	7557	IMHOFF	55358	MAPLE LAKE
206044000050	JOHN & VANGE LANNS	169 LINDEN DR		APPLE VALLEY	55124	7555	IMHOFF	55358	MAPLE LAKE

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Table 1

Cedar, Albion, Henshaw, Swartout Improvement Project

List of Potentially Benefited Properties (Cedar Lake)

Lakeshore Properties (1 Unit)									
PID	Taxpayer Name	Taxpayer Address	Taxpayer Address	Taxpayer City	Taxpayer ZIP	Property House	Property Street	Property ZIP	Property City
206054000010	HELEN M HONMYHR	5905 MEROLD DR		EDINA	55436	8322	IRVINE	55302	ANNANDALE
206054000020	DEBRA S MYHRE	8316 IRVINE AVE NW		ANNANDALE	55302	8316	IRVINE	55302	ANNANDALE
206054000021	EBERT CHILDREN'S TRST 6/11/98	3616 WOODLAND TRL		EAGAN	55123	8310	IRVINE	55302	ANNANDALE
206054000030	RICHARD F & MARY B EBERT	3616 WOODLAND TRL		EAGAN	55123	8302	IRVINE	55302	ANNANDALE
206054000040	STEVEN B DEWALD	1828 ROSECREEK PKWY E		FARGO	58104	8290	IRVINE	55302	ANNANDALE
206054000050	STEVEN W & SANDRA A NIKLAUS	8260 ISAAK AVE NW		ANNANDALE	55302	8260	ISAAK	55302	ANNANDALE
206054000060	JESSE R & MARIE A HOWARD	8775 HUNTERS WAY		APPLE VALLEY	55124	8270	IRVINE	55302	ANNANDALE
206054000070	ARLENE J MARSHALL TRUST	8756 LUNSKI LN		EDEN PRAIRIE	55347	8254	IRVINE	55302	ANNANDALE
206054000080	DAVID E & SANDRA K WILLIAMS	4625 POLARIS LN N		PLYMOUTH	55446	8244	IRVINE	55302	ANNANDALE
206054000090	MARILYN J KROLL	10407 MORRIS RD		BLOOMINGTON	55437	8230	IRVINE	55302	ANNANDALE
206054000100	DONALD F & G AHSENMACHER	8198 ISAAK AVE NW		ANNANDALE	55302	8198	ISAAK	55302	ANNANDALE
206054000110	JOHN & C HENDERSON	1480 APPLEWOOD CT #20		ROSEVILLE	55113	8184	ISAAK	55302	ANNANDALE
206061000010	ROBERT I,JR&KATHERINE GRUYS	10461 HOLLISTER AVE NW		MAPLE LAKE	55358	7496	ISAAK	55302	ANNANDALE
206061000020	MICHAEL R HAEHN	4834 OAKLAND AVE S		MPLS	55417	7480	ISAAK	55302	ANNANDALE
206061000030	JOSEPH J LACKNER REV TR ETAL	7468 ISAAK AVE NW		ANNANDALE	55302	7468	ISAAK	55302	ANNANDALE
206061000040	JOSEPH J LACKNER REV TR ETAL	7468 ISAAK AVE NW		ANNANDALE	55302	7446	ISAAK	55302	ANNANDALE
206061000050	KAREN R PETERSON	8207 JOHNSON CIR		BLOOMINGTON	55437	7434	ISAAK	55302	ANNANDALE
206061000060	SCOTT W & KARN N ANDERSON	7420 ISAAK AVE NW		ANNANDALE	55302	7420	ISAAK	55302	ANNANDALE
206061000070	LYLA J & DANIEL T WEST	6925 45TH AVE N		CRYSTAL	55428	7410	ISAAK	55302	ANNANDALE
206065000011	JAMES S & DONNA M NEUTGENS	7271 INGRAM AVE NW		MAPLE LAKE	55358	7271	INGRAM	55358	MAPLE LAKE
206065000020	ALAN H & BEVERLY J GLASS	9609 VINCENT RD		BLOOMINGTON	55431	7289	INGRAM	55358	MAPLE LAKE
206065000040	LARRY P & KAREN A CHRISTEN	32037 NOVEMBER DR		ST JOSEPH	56374	7295	INGRAM	55358	MAPLE LAKE
206065000050	GONNELLA REV INT TR 6-16-92	9620 E CALDWELL DR		TUCSON	85747	7303	INGRAM	55358	MAPLE LAKE
206065000080	SHIRLEY I COOK	5837 WASHBURN AVE N		BROOKLYN CENTER	55430	7323	INGRAM	55358	MAPLE LAKE
206065000090	TIMOTHY J & MARY F NANTELL	41 GREENWAY GABLES		MINNEAPOLIS	55403	7339	INGRAM	55358	MAPLE LAKE
206065000110	ROBERT L & KATHLEEN R THOMPS	7359 INGRAM AVE NW		MAPLE LAKE	55358	7359	INGRAM	55358	MAPLE LAKE
206065000130	MELVIN D &ELEANOR DYKHUIZEN	7529 BRIGHTON AVE SE		DELANO	55328	7387	INGRAM	55358	MAPLE LAKE
206065000150	LARRY G & MELANIE D KRAMER	7403 INGRAM AVE NW		MAPLE LAKE	55358	7403	INGRAM	55358	MAPLE LAKE
206065000170	DONALD A WEISMANN	221 STAR ST E	PO BOX 354	MAPLE LAKE	55359	7425	INGRAM	55358	MAPLE LAKE
206065000190	VIOLET P PHILLIPS	8009 NOBLE AVE N		BROOKLYN PARK	55443	7433	INGRAM	55358	MAPLE LAKE
206065000200	VICTOR C &KATHLEEN BIRTHLER	4600 VINEWOOD LN N		PLYMOUTH	55442	7457	INGRAM	55358	MAPLE LAKE
206065000230	MARY ANN RUSSEL TRUST AGREE	7463 INGRAM AVE NW		MAPLE LAKE	55358	7463	INGRAM	55358	MAPLE LAKE
206065000250	WILLIAM T & BARBARA FAIRBANKS	2614 PARKVIEW CT		WHITE BEAR LAKE	55110	7493	INGRAM	55358	MAPLE LAKE
206068000010	ROBERT E & J SUE BURKE	7384 ISAAK AVE NW		ANNANDALE	55302	7392	ISAAK	55302	ANNANDALE
206068000020	ROBERT E & J SUE BURKE	7384 ISAAK AVE NW		ANNANDALE	55302	7384	ISAAK	55302	ANNANDALE
206068000030	WILLIAM J & DELORES BURKE	7364 ISAAK AVE NW		ANNANDALE	55302	7364	ISAAK	55302	ANNANDALE
206068000040	BERNARD A & DONITA K SIEG	8 6TH AVE NE		OSSEO	55369	7350	ISAAK	55302	ANNANDALE
206068000050	HARRY W JR & MARGARET HUNT	345 HIGHCROFT		WAYZATA	55391	7330	ISAAK	55302	ANNANDALE
206068000060	LEROY J & PENNY L WELCH	7322 ISAAK AVE NW		ANNANDALE	55302	7322	ISAAK	55302	ANNANDALE
206068000070	WILLIAM D & PAULA M DUPAY	90 66TH WAY NE		FRIDLEY	55432	7302	ISAAK	55302	ANNANDALE
206068000080	SHARON L HUIKKO	7298 ISAAK AVE NW		ANNANDALE	55302	7298	ISAAK	55302	ANNANDALE
206069000010	WRATKOWSKI FAMILY PTSH LLP	687 SULLIVAN DR		COLUMBIA HEIGHTS	55421	6977	INGRAM	55358	MAPLE LAKE

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Table 1

Cedar, Albion, Henshaw, Swartout Improvement Project

List of Potentially Benefited Properties (Cedar Lake)

Lakeshore Properties (1 Unit)									
PID	Taxpayer Name	Taxpayer Address	Taxpayer Address	Taxpayer City	Taxpayer ZIP	Property House	Property Street	Property ZIP	Property City
206069000011	GERALDINE WALL&					6980	INGRAM	55358	MAPLE LAKE
206069000020	DAVID J & JAN L USSET	3130 CARRIAGE DR		HAMEL	55340	6963	INGRAM	55358	MAPLE LAKE
206069000040	LARRY J MAY REV LIVING TRUST	5205 GROVE ST		EDINA	55436	6949	INGRAM	55358	MAPLE LAKE
206069000050	DONALD C & HOLLY A LINN	9067 ROSEWOOD LN N		MAPLE GROVE	55369	6941	INGRAM	55358	MAPLE LAKE
206069000060	DANIEL M & SEMRA N CONDON	9125 VINCENT AVE S		BLOOMINGTON	55431	6931	INGRAM	55358	MAPLE LAKE
206069000070	ROSS D & DEBORAH J POPE	12160 69TH AVE N		MAPLE GROVE	55369	6925	INGRAM	55358	MAPLE LAKE
206069000080	KRISTI L ANDERSEN	500 E GRANT ST APT 1204		MINNEAPOLIS	55404	6911	INGRAM	55358	MAPLE LAKE
206069000090	THOMAS R MOSLEY TR AGMT	9600 PORTLAND AVE S #3		BLOOMINGTON	55420	6897	INGRAM	55358	MAPLE LAKE
206069000100	JAMES L ANDERSON	6889 INGRAM AVE NW		MAPLE LAKE	55358	6889	INGRAM	55358	MAPLE LAKE
206069000110	ANTHONY P & JEAN D HOHOLIK	18130 27TH PL N		PLYMOUTH	55447	6879	INGRAM	55358	MAPLE LAKE
206069000120	TIMOTHY C BERNIER	6861 INGRAM AVE NW		MAPLE LAKE	55358	6861	INGRAM	55358	MAPLE LAKE
206069000140	DEAN A & CINDY BURRINGTON	5730 ANNAPOLIS LN N		PLYMOUTH	55446	6847	INGRAM	55358	MAPLE LAKE
206069000160	ALMA A EVENSON	6829 INGRAM AVE NW		MAPLE LAKE	55358	6829	INGRAM	55358	MAPLE LAKE
206069000180	KENNETH A & IONE UTECHT	5566 YATES AVE N		CRYSTAL	55429	6819	INGRAM	55358	MAPLE LAKE
206070001021	CHARLES A & M E THOMPSON	600 PARK ST E APT 108		ANNANDALE	55302	6938	INGRAM	55358	MAPLE LAKE
206070001040	MICHAEL G & THERESA M LARSON	6898 INGRAM AVE NW		MAPLE LAKE	55358	6898	INGRAM	55358	MAPLE LAKE
206075000010	JOHN M & GRETCHEN KITTOK	8016 IRVINE AVE NW		ANNANDALE	55302	8016	IRVINE	55302	ANNANDALE
206075000020	DONALD C & F A BADGER	8010 IRVINE AVE NW		ANNANDALE	55302	8010	IRVINE	55302	ANNANDALE
206075000030	JAMES P & GERALD A O'KEEFE &	1473 ARUNDEL ST		ST PAUL	55117	8006	IRVINE	55302	ANNANDALE
206075000040	DIANE E SALLS	8020 RAINBOW RD		LAKE TOMAHAWK	54539	7992	IRVINE	55302	ANNANDALE
206075000050	THOMAS A KAY	7978 IRVINE AVE NW		ANNANDALE	55302	7978	IRVINE	55302	ANNANDALE
206075000060	CATHLEEN L CAMPBELL ETAL	7201 BRISTOL CIR		MINNEAPOLIS	55435	7966	IRVINE	55302	ANNANDALE
206075000070	DAVID A & DANA E LINDHOLM	7958 IRVINE AVE NW		ANNANDALE	55302	7958	IRVINE	55302	ANNANDALE
206075000080	GARY M & KATHLEEN M MIRON	6800 SHINGLE CREEK DR		BROOKLYN PARK	55445	7950	IRVINE	55302	ANNANDALE
206075000090	DAN J GENDREAU &	2002 HIGHLAND PKY		ST PAUL	55116	7932	IRVINE	55302	ANNANDALE
206076000010	JAMES R &BONITA K PALMQUIST	8100 IRVINE AVE NW		ANNANDALE	55302	8100	IRVINE	55302	ANNANDALE
206076000020	ZYRLE D & GERMAINE ROSER	17220 90TH AVE N		MAPLE GROVE	55311	8086	IRVINE	55302	ANNANDALE
206076000040	BETTY A & WAYNE E TOBOLT	8070 IRVINE AVE NW		ANNANDALE	55302	8070	IRVINE	55302	ANNANDALE
206076000060	LAURENCE V TYSK	8054 IRVINE AVE NW		ANNANDALE	55302	8054	IRVINE	55302	ANNANDALE
206076000080	GREGORY J & CHARMAINE DUPPLE	12515 48TH AVE N		PLYMOUTH	55442	8042	IRVINE	55302	ANNANDALE
206076000100	MARVIN K &MAUREEN R GOERGEN	6364 BALSAM LN N		MAPLE GROVE	55369	8032	IRVINE	55302	ANNANDALE
206076000110	DONALD A & MARLYS M ENGER	8548 IRWIN RD		BLOOMINGTON	55437	8024	IRVINE	55302	ANNANDALE
206081001020	MARGARET L JOHNSON	7712 ISAAK AVE NW		ANNANDALE	55302	7712	ISAAK	55302	ANNANDALE
206081001030	RODNEY R GULLINGS	7690 ISAAK AVE NW		ANNANDALE	55302	7690	ISAAK	55302	ANNANDALE
206084000010	J RANDAL COCHRANE	6940 80TH ST NW		MAPLE LAKE	55358	7801	IMHOFF	55358	MAPLE LAKE
206084000020	KENNETH SAVIK &	5718 CAMBRIDGE ST		MINNEAPOLIS	55416	7809	IMHOFF	55358	MAPLE LAKE
206084000030	JOANNE M CROFT	3316 WENDHURST AVE		ST ANTHONY	55418	7817	IMHOFF	55358	MAPLE LAKE
206084000040	CONSTANCE L BAKKEN REV TRUS	%PDS TAX SERVICES	PO BOX 13519	ARLINGTON	76094	7825	IMHOFF	55358	MAPLE LAKE
206084000060	JAMES E & GRETCHEN T DOMIAN	2610 STILLWATER RD		MAPLEWOOD	55119	7841	IMHOFF	55358	MAPLE LAKE
206084000070	THOMAS E &ELIZABETH J GULLIFE	2635 TOLEDO AVE S		MINNEAPOLIS	55416	7851	IMHOFF	55358	MAPLE LAKE
206084000080	CONSTANCE L BAKKEN REV TRUS	%PDS TAX SERVICES	PO BOX 13519	ARLINGTON	76094	7871	IMHOFF	55358	MAPLE LAKE
206084000090	CONSTANCE L BAKKEN REV TRUS	%PDS TAX SERVICES	PO BOX 13519	ARLINGTON	76094	7885	IMHOFF	55358	MAPLE LAKE

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Table 1

Cedar, Albion, Henshaw, Swartout Improvement Project

List of Potentially Benefited Properties (Cedar Lake)

Lakeshore Properties (1 Unit)									
PID	Taxpayer Name	Taxpayer Address	Taxpayer Address	Taxpayer City	Taxpayer ZIP	Property House	Property Street	Property ZIP	Property City
206084000100	CONSTANCE L BAKKEN REV TRUS	%PDS TAX SERVICES	PO BOX 13519	ARLINGTON	76094	7903	IMHOFF	55358	MAPLE LAKE
206084000110	CONSTANCE L BAKKEN REV TRUS	%PDS TAX SERVICES	PO BOX 13519	ARLINGTON	76094	7919	IMHOFF	55358	MAPLE LAKE
206084000120	HANSEN FAMILY LAKE PROP GRP	3910 IDAHO AVE N		CRYSTAL	55427	7935	IMHOFF	55358	MAPLE LAKE
206084000130	FRANCIS TRUST 4-1-99	22550 OAK RIDGE DR		ROGERS	55374	7951	IMHOFF	55358	MAPLE LAKE
206084000140	WARREN B & C THOMPSON	3431 SHEPHERD HILLS DF		MINNEAPOLIS	55431	7963	IMHOFF	55358	MAPLE LAKE
206084000150	KENNETH P & KATHLEEN M KOTZE		PO BOX 304	CLEAR LAKE	55319	7975	IMHOFF	55358	MAPLE LAKE
206095002010	JERROLD J & JUDY C BOWDIN	8718 JASPER AVE NW		ANNANDALE	55302	8718	JASPER	55302	ANNANDALE
206095002020	GARY A & PAMELA J ZAHN	8704 JASPER AVE NW		ANNANDALE	55302	8704	JASPER	55302	ANNANDALE
206119000010	TERRY L &SUSAN E TOTENHAGEN	3174 LITTLE CROW DR		SHAKOPEE	55379				
206119001010	THOMAS H & JOANNE M LENNEMA	2214 RODEO RD		SARTELL	56377				
206119001020	CHRISTOPHER G QUINN&	117 PORTLAND AVE #605		MINNEAPOLIS	55401				
206119001030	PATRICK A & KATHRYN L THOMPS	7108 ISAAK AVE NW		ANNANDALE	55302	7108	ISAAK	55302	ANNANDALE
206119001040	DOUGLAS G & KAREN H MCELRATH	5026 BRUCE AVE		EDINA	55424				
206119001050	LAWRENCE B & DIANE L MAKI	11567 COTTONWOOD ST		COON RAPIDS	55448	7166	ISAAK	55302	ANNANDALE

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Table 1

Cedar, Albion, Henshaw, Swartout Improvement Project

List of Potentially Benefited Properties (Cedar Lake)

Agricultural Properties (1/2 Unit)									
PID	Taxpayer Name	Taxpayer Address	Taxpayer Address	Taxpayer City	Taxpayer ZIP	Property House	Property Street	Property ZIP	Property City
206000154400	JOHN R DEARING	7823 COUNTY ROAD 39 NW		ANNANDALE	55302	9110	INGRAM	55302	ANNANDALE
206000211300	NORMAN G & SHARON M PLANER	8804 STATE HWY 24 NW		ANNANDALE	55302	8804	STATE HWY 24	55302	ANNANDALE
206000221100	JOHN R DEARING	7823 COUNTY ROAD 39 NW		ANNANDALE	55302				
206000232400	ADAM J & SARAH M GOELZ	8408 COUNTY ROAD 7 NW		MAPLE LAKE	55358				
206000341100	KAPSEG INC	8096 67TH ST NW		MAPLE LAKE	55358				
206000344201	RONALD J & DIANNE L MARES	8344 STATE HWY 55 NW		ANNANDALE	55302				
206000344202	RONALD J & DIANNE L MARES	8344 STATE HWY 55 NW		ANNANDALE	55302				

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Table 1

Cedar, Albion, Henshaw, Swartout Improvement Project

List of Potentially Benefited Properties (Cedar Lake)

1st Tier Properties (1/2 Unit)									
PID	Taxpayer Name	Taxpayer Address	Taxpayer Address	Taxpayer City	Taxpayer ZIP	Property House	Property Street	Property ZIP	Property City
206000153400	RONALD J LINDER	22184 FAIRMONT RD		ST CLOUD	56301	9006	IRESFELD	55302	ANNANDALE
206000153401	ELLA M GEARDINK	9013 IRESFELD AVE NW		ANNANDALE	55302	9013	IRESFELD	55302	ANNANDALE
206000153403	DEAN L & KATHLEEN A NICHOLSON	10724 MORGAN AVE S		BLOOMINGTON	55431	8979	IRESFELD	55302	ANNANDALE
206000153404	JON P OXENFORD		PO BOX 68	ANKENY	50021	8987	IRESFELD	55302	ANNANDALE
206000153405	RICHARD D OXENFORD	8975 IRESFELD AVE NW		ANNANDALE	55302	8975	IRESFELD		ANNANDALE
206000154303	DANIEL L ROLLER	9110 INGRAM AVE NW		ANNANDALE	55302			55302	
206000211404	ROY E OWENS	8549 COUNTY ROAD 6 NW		ANNANDALE	55302	8549	COUNTY ROAD 6	55302	ANNANDALE
206000211405	RONALD C & DONNA J FORSMAN	8575 COUNTY ROAD 6 NW		ANNANDALE	55302	8575	COUNTY ROAD 6	55302	ANNANDALE
206000214102	DARREN BJORKLUND	8489 COUNTY RD 6 NW		ANNANDALE	55302	8489	COUNTY ROAD 6		ANNANDALE
206000221103	COURAGE CENTER	3915 GOLDEN VALLEY RD		GOLDEN VALLEY	55422				
206000222200	GAP HOLDINGS LLC	5101 VERNON AVE S		EDINA	55436			55302	
206000223400	ALAN L & LORI J GUCK	8137 ISAAK AVE NW		ANNANDALE	55302	8137	ISAAK		ANNANDALE
206000232300	COURAGE CENTER	3915 GOLDEN VALLEY RD		GOLDEN VALLEY	55422			55358	
206000271400	RICHARD R WHIRLEY&	7502 ILLSLEY AVE NW		MAPLE LAKE	55358	7502	ILLSLEY	55358	MAPLE LAKE
206000271405	ILONA AALTO	7506 INGRAM AVE NW		MAPLE LAKE	55358	7506	INGRAM	55302	MAPLE LAKE
206000272407	RONALD L & CAROL FREEMAN	7541 ISAAK AVE NW		ANNANDALE	55302	7541	ISAAK	55358	ANNANDALE
206000274101	EDWARD J WURM	8084 72ND ST NW		MAPLE LAKE	55358	8084	72ND	55358	MAPLE LAKE
206000274102	JAMES L PERDUE&					7294	INGRAM		MAPLE LAKE
206000274103	JUDITH E ANDERSON		PO BOX 1475	MINNETONKA	55345				
206000274104	HAROLD CARPENTER	7537 IMHOFF AVE NW		MAPLE LAKE	55358			55358	
206000274105	TROY R FEHN & KELLI J KORPELA	7328 INGRAM AVE NW		MAPLE LAKE	55358	7328	INGRAM	55358	MAPLE LAKE
206000341102	ORVILLE W & RITA PAUMEN	8002 67TH ST NW		MAPLE LAKE	55358	8002	67TH	55358	MAPLE LAKE
206000341105	DENNIS A & MARILYN A GROTH	8113 67TH ST NW		MAPLE LAKE	55358	8113	67TH		MAPLE LAKE
206000341201	RICHARD D & DOROTHY L SORHEIM	405 1ST AVE NE		BUFFALO	55313			55302	
206000342100	J WARREN & DOLORES HOGBERG	8545 70TH ST NW		ANNANDALE	55302	8545	70TH		ANNANDALE
206000342102	BURNELL & SUE BLOMQUIST	29405 NEAL AVE		LINDSTROM	55045			55302	
206000342203	ROBERT E & KAREN M JUDE	8525 70TH ST NW		ANNANDALE	55302	8525	70TH	55302	ANNANDALE
206023001010	RANDOLPH M & KAREN L PAURUS	8788 INGRAM AVE NW		ANNANDALE	55302	8788	INGRAM	55302	ANNANDALE
206023001020	MARK E & DIANE HANSEN	8794 INGRAM AVE NW		ANNANDALE	55302	8794	INGRAM	55302	ANNANDALE
206023001030	DARREN L FLYGARE	8810 INGRAM AVE NW		ANNANDALE	55302	8810	INGRAM	55302	ANNANDALE
206023001040	CHARLES H GEISLER & H ATKINS	8819 INGRAM AVE NW		ANNANDALE	55302	8818	INGRAM	55302	ANNANDALE
206023001050	LEE S & CYNTHIA S STOVER	3528 TEXAS AVE S		ST LOUIS PARK	55426	8824	INGRAM		ANNANDALE
206023001060	RICHARD C BAKER	8841 INGRAM AVE NW		ANNANDALE	55302				
206023001070	GERALD W ALTMAN REV TRUST U/A	18100 39TH AVE N		PLYMOUTH	55446			55302	
206023001080	GERALD W ALTMAN REV TRUST U/A	18100 39TH AVE N		PLYMOUTH	55446	8868	INGRAM		ANNANDALE
206023001090	GEORGE &ELEANORE SUDDENDORF	7425 HAROLD		MINNEAPOLIS	55427			55302	
206023001100	RUSSELL T STUHR&	8890 INGRAM AVE NW		ANNANDALE	55302	8890	INGRAM		ANNANDALE
206023001110	JAMES W & PATRICIA L DEARING	8937 INGRAM AVE NW		ANNANDALE	55302				
206023001120	GORDON O&RUTH-IRR TR MATSON	8718 JASPER AVE NW		ANNANDALE	55302				
206023001130	STEVEN C & CHRISTINE D LONN	8947 INGRAM AVE NW		ANNANDALE	55302				
206023001140	LEE J THERNELL	3847 IDAHO AVE N		CRYSTAL	55427			55302	

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Cedar, Albion, Henshaw, Swartout Improvement Project

List of Potentially Benefited Properties (Cedar Lake)

1st Tier Properties (1/2 Unit)									
PID	Taxpayer Name	Taxpayer Address	Taxpayer Address	Taxpayer City	Taxpayer ZIP	Property House	Property Street	Property ZIP	Property City
206023001170	JEFF & STEPHANIE EBERHARDT	9000 INGRAM AVE NW		ANNANDALE	55302	9000	INGRAM	55302	ANNANDALE
206023001180	JOHN F & MARY A ANDERSON	6270 VAN BUREN ST NE		FRIDLEY	55432	9020	INGRAM		ANNANDALE
206023001190	ROBERT OLSON REV LIV TRUST	19331 BALDWIN ST NW		ELK RIVER	55330			55302	
206023001200	EARL & VIRGINIA MURTAUGH	9050 INGRAM AVE NW		ANNANDALE	55302	9050	INGRAM	55302	ANNANDALE
206023001210	DEANNE R HARLEY					9052	INGRAM		ANNANDALE
206023001220	HARPER LIVING TRUST	9061 INGRAM AVE NW		ANNANDALE	55302				
206023001230	DAVID STEIN & KIRSTEN OHNSORG	2080 WATSON AVE		ST PAUL	55116			55302	
206024000122	EDDY & JEAN H SKOMOROH	6828 IRELAND AVE NW		ANNANDALE	55302	6828	IRELAND		ANNANDALE
206024000123	ALAN L & PAULETTE L NERHEIM	6929 IRELAND AVE NW		ANNANDALE	55302				
206024000124	FRANCES E ULFERS REV TRT AGREE	6862 INMAN AVE NW		ANNANDALE	55302				
206024000130	DEAN & CAROLYN CUSTER	6792 INMAN AVE NW		ANNANDALE	55302			55302	
206026002020	GERALD L MUNDELL	1525 WEST SHORE DR		BUFFALO	55313	9097	INGRAM	55302	ANNANDALE
206026003010	KENT D & KIMBERLY J ANDREWS	9149 IRELAND AVE NW		ANNANDALE	55302	9149	IRELAND		ANNANDALE
206033002020	ROYAL L BECKMAN	7155 IMHOFF AVE NW		MAPLE LAKE	55358			55358	
206033002030	BRADLEY D &PATRICIA C STEGEMAN	7070 IMHOFF AVE NW		MAPLE LAKE	55358	7070	IMHOFF		MAPLE LAKE
206033002040	ROYAL L BECKMAN	7155 IMHOFF AVE NW		MAPLE LAKE	55358				
206033002050	HARLEY & SUSAN HUGHES	8013 72ND ST NW		MAPLE LAKE	55358			55302	
206035000010	DUANE A & J C REZNECHEK	8300 ISAAK AVE NW		ANNANDALE	55302	8300	ISAAK	55302	ANNANDALE
206035000011	RANDALL A &SHELBY CLEVELAND	8294 ISAAK AVE NW		ANNANDALE	55302	8294	ISAAK	55302	ANNANDALE
206036001010	BRANDON S & TRACY L RAPINAC	8109 ISAAK AVE NW		ANNANDALE	55302	8109	ISAAK	55302	ANNANDALE
206036001020	VIRGINIA C HOWARD	8083 ISAAK AVE NW		ANNANDALE	55302	8083	ISAAK		ANNANDALE
206037								55302	
206037002030	GERALD L & JOANN M DALE	8640 79TH ST		ANNANDALE	55302	8640	79TH	55302	ANNANDALE
206037003020	DENNIS R &JEANNINE G DIRCKS	8660 78TH ST NW		ANNANDALE	55302	8660	78TH	55302	ANNANDALE
206040002081	ARTHUR N & KAREN L STAAF	8360 IRVINE AVE NW		ANNANDALE	55302	8360	IRVINE		ANNANDALE
206055001010	STEVEN W & SANDRA A NIKLAUS	8260 ISAAK AVE NW		ANNANDALE	55302				
206055001020	JESSE R & MARIE A HOWARD	8775 HUNTERS WAY		APPLE VALLEY	55124				
206055001030	ARLENE J MARSHALL TRUST	8756 LUNSKI LN		EDEN PRAIRIE	55347				
206055001040	DAVID E & SANDRA K WILLIAMS	4625 POLARIS LN N		PLYMOUTH	55446				
206055001050	DONALD E & G AHSENMACHER	8201 ISAAK AVE NW		ANNANDALE	55302				
206055001060	DONALD E & G AHSENMACHER	8201 ISAAK AVE NW		ANNANDALE	55302				
206055001070	JOHN & C HENDERSON	1480 APPLEWOOD CT #207		ROSEVILLE	55113				
206055001080	WILLIAM ARENDT &MARY E WELLS	8178 ISAAK AVE NW		ANNANDALE	55302				
206077001010	JAMES R &BONITA K PALMQUIST	8100 IRVINE AVE NW		ANNANDALE	55302				
206077001020	ZYRLE D & GERMAINE ROSER	17220 90TH AVE N		MAPLE GROVE	55311				
206077001030	BETTY A & WAYNE E TOBOLT	8070 IRVINE AVE NW		ANNANDALE	55302				
206077001040	LAURENCE V TYSK	8054 IRVINE AVE NW		ANNANDALE	55302				
206077001050	GREGORY J & CHARMAINE DUPPLER	12515 48TH AVE N		PLYMOUTH	55442				
206077001060	MARVIN K &MAUREEN R GOERGEN	6364 BALSAM LN N		MAPLE GROVE	55369				
206077001070	DONALD A & MARLYS M ENGER	8548 IRWIN RD		BLOOMINGTON	55437				
206077001080	JOHN M & GRETCHEN KITTOK	8016 IRVINE AVE NW		ANNANDALE	55302				

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1st Tier Properties (1/2 Unit)									
PID	Taxpayer Name	Taxpayer Address	Taxpayer Address	Taxpayer City	Taxpayer ZIP	Property House	Property Street	Property ZIP	Property City
206077001090	DONALD C & F A BADGER	8010 IRVINE AVE NW		ANNANDALE	55302				
206077001100	JAMES P & GERALD A O'KEEFE &	1473 ARUNDEL ST		ST PAUL	55117				
206077001110	TOWNSHIP OF CORINNA	9214 KILBURY AVE NW		ANNANDALE	55302				
206077001120	DIANE E SALLS	8020 RAINBOW RD		LAKE TOMAHAWK	54539				
206077001130	THOMAS A KAY	7978 IRVINE AVE NW		ANNANDALE	55302				
206077001140	CATHLEEN L LASERE CAMPBELL &	7201 BRISTOL CIR		MINNEAPOLIS	55435				
206077001150	DAVID A & DANA E LINDHOLM	7958 IRVINE AVE NW		ANNANDALE	55302				
206077001160	GARY M & KATHLEEN M MIRON	6800 SHINGLE CREEK DR		BROOKLYN PARK	55445				
206077001170	MARGARET M GENDREAU ESTATE	33 6TH ST S STE 4900		MINNEAPOLIS	55402				
206077001180	JUDY HALVERSON	200 MILDRED N		DEARBORN	48128				
206077001190	RUTH M WESTHOFF REV TRUST	16050 38TH AVE N		PLYMOUTH	55446				
206077001200	SUSAN K & DAVID M LEVI	6170 S WHITE PL		CHANDLER	85249				
206077001210	ROBTERT J & GERALDINE MINER	1630 LUELLA ST		ST PAUL	55119				
206082001010	ELLA M GEARDINK	9013 IRESFELD AVE NW		ANNANDALE	55302			55302	
206082001020	MITCHELL E &DENISE FLEMMING	7685 ISAAK AVE NW		ANNANDALE	55302	7685	ISAAK		ANNANDALE
206082001030	RONALD M & LINDA R DIRCKS	7602 ISAAK AVE NW		ANNANDALE	55302				
206082001040	RONALD M & LINDA R DIRCKS	7602 ISAAK AVE NW		ANNANDALE	55302				
206082001050	RONALD M & LINDA R DIRCKS	7602 ISAAK AVE NW		ANNANDALE	55302			55302	
206094000070	PETER N & JANICE K FLATTEN	7453 ISAAK AVE NW		ANNANDALE	55302	7453	ISAAK	55302	ANNANDALE
206094000080	JOHN E & ROSE O'FALLON	7409 ISAAK AVE NW		ANNANDALE	55302	7409	ISAAK	55302	ANNANDALE
206094000090	JOHN R & LYNDA A DINGMAN	7357 ISAAK AVE NW		ANNANDALE	55302	7357	ISAAK		ANNANDALE
206095001010	GAP HOLDINGS LLC	5101 VERNON AVE S		EDINA	55436				
206097001020	HELEN M HONMYHR	5905 MEROLD DR		EDINA	55436				
206097001030	DEBRA S MYHRE	8316 IRVINE AVE NW		ANNANDALE	55302				
206097001040	RICHARD F & MARY B EBERT	3616 WOODLAND TRL		EAGAN	55123				
206097001050	RICHARD F & MARY B EBERT	3616 WOODLAND TRL		EAGAN	55123				
206097001060	STEVEN B DEWALD	1828 ROSECREEK PKWY E		FARGO	58104				
206110000020	DEAN C SANBERG &	6136 SHERMAN CIR		EDINA	55436				
206119001060	LARRY T & JANET L HANCE	7827 BRADDOCK AVE NE		MONTICELLO	55362			55302	
206119001070	PATRICK R & KAREN M ATHMAN	7065 ISAAK AVE NW		ANNANDALE	55302	7065	ISAAK	55302	ANNANDALE
206119001080	JENNIFER J STRAND	8656 70TH ST NW		ANNANDALE	55302	8656	70TH		ANNANDALE
206119001120	MAKI DEVELOPMENT LLC	11567 COTTONWOOD ST NW		COON RAPIDS	55448				

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2nd and 3rd Tier Properties (1/4 Unit)									
PID	Taxpayer Name	Taxpayer Address	Taxpayer Address	Taxpayer City	Taxpayer ZIP	Property House	Property Street	Property ZIP	Property City
206000153402	PATRICIA E PETRIE & J HUSBY	6641 UPTON AVE S		RICHFIELD	55423				
206000154304	DANIEL J & CAROL J TONGEN	9104 INGRAM AVE NW		ANNANDALE	55302	9104	INGRAM	55302	ANNANDALE
206000154305	MARK A LATOUR	9100 INGRAM AVE NW		ANNANDALE	55302	9100	INGRAM	55302	ANNANDALE
206000211406	LOVAIL L JANKORD	12025 SUNSET TRL		PLYMOUTH	55441	8739	COUNTY ROAD 6	55302	ANNANDALE
206000214100	TODD T & CYNTHIA A HORSCH	8409 COUNTY ROAD 6 NW		ANNANDALE	55302	8409	COUNTY ROAD 6	55302	ANNANDALE
206000223300	DREW S & DONNA M JACOBSON	8132 COUNTY ROAD 6 NW		ANNANDALE	55302	8132	COUNTY ROAD 6	55302	ANNANDALE
206000271300	CRAIG A & CARMEN R BOJAN	8919 78TH ST NW		ANNANDALE	55302	8919	78TH	55302	ANNANDALE
206000272200	JOHN W & M A SCHROEDER	7824 COUNTY ROAD 6 NW	PO BOX 487	ANNANDALE	55302	7824	COUNTY ROAD 6	55302	ANNANDALE
206000272201	ROBERT R & GLORIA STEEL	7858 COUNTY ROAD 6 NW		ANNANDALE	55302	7858	COUNTY ROAD 6	55302	ANNANDALE
206000272300	JOHN D & JANE M BROWN	7688 COUNTY ROAD 6 NW		ANNANDALE	55302	7688	COUNTY ROAD 6	55302	ANNANDALE
206000272406	GREGORY D & KAREN R PICK	8719 78TH ST NW		ANNANDALE	55302	8719	78TH	55302	ANNANDALE
206000272408	DANIEL R MOSLEY & D MARQUETTE	8668 75TH ST NW		ANNANDALE	55302	8668	75TH	55302	ANNANDALE
206000272409	SCOTT D & CHRISTINA D FOBBE	8677 78TH ST NW		ANNANDALE	55302	8677	78TH	55302	ANNANDALE
206000273200	ALAN & KATHERINE JUDE	7300 COUNTY ROAD 6 NW		ANNANDALE	55302	7300	COUNTY ROAD 6	55302	ANNANDALE
206000273201	DALE & KATHRYN K ERDMANN	7276 COUNTY ROAD 6 NW		ANNANDALE	55302	7276	COUNTY ROAD 6	55302	ANNANDALE
206000274106	EDWARD J WURM	8084 72ND ST NW		MAPLE LAKE	55358				
206000342101	ALAN L & PAULETTE L NERHEIM	6929 IRELAND AVE NW		ANNANDALE	55302	6929	IRELAND	55302	ANNANDALE
206000342103	BURNELL & SUE BLOMQUIST	29405 NEAL AVE		LINDSTROM	55045				
206026003020	KENT D & KIMBERLY J ANDREWS	9149 IRELAND AVE NW		ANNANDALE	55302				
206026003030	RONALD A&BERNADETTE JOHNSON	9214 IRELAND AVE NW		ANNANDALE	55302				
206026003040	RONALD A&BERNADETTE JOHNSON	9214 IRELAND AVE NW		ANNANDALE	55302				
206026003050	RONALD A&BERNADETTE JOHNSON	9214 IRELAND AVE NW		ANNANDALE	55302	9214	IRELAND	55302	ANNANDALE
206026003070	HERBERT & BARBARA HUEBL	6449 49TH ST N		OAKDALE	55128	9230	IRELAND	55302	ANNANDALE
206033002060	HARLEY & SUSAN HUGHES	8013 72ND ST NW		MAPLE LAKE	55358	8013	72ND	55358	MAPLE LAKE
206036									
206036001030	KENNETH M & B J ROLFHUS	8063 ISAAK AVE NW		ANNANDALE	55302	8063	ISAAK	55302	ANNANDALE
206036001040	LLOYD D & R A WALBURN	8041 ISAAK AVE NW		ANNANDALE	55302	8041	ISAAK	55302	ANNANDALE
206036001050	ROBERT L & ANGELA M MARQUETTE	8019 ISAAK AVE NW		ANNANDALE	55302	8019	ISAAK	55302	ANNANDALE
206036001060	VINCENT F KITTOK	7991 ISAAK AVE NW		ANNANDALE	55302	7991	ISAAK	55302	ANNANDALE
206036001070	KATHLEEN KITTOK DAMMANN	7969 ISAAK AVE NW		ANNANDALE	55302	7969	ISAAK	55302	ANNANDALE
206036001080	MARY A STILES REV TRUST AGREE	7927 ISAAK AVE NW		ANNANDALE	55302	7927	ISAAK	55302	ANNANDALE
206036002010									
206036002020									
206036002030	HENRY W&PATRICIA NEUENFELDT	8930 78TH ST NW		ANNANDALE	55302	8930	78TH	55302	ANNANDALE
206036002040	PAUL J & ANGIE MANUEL	8908 78TH ST NW		ANNANDALE	55302	8908	78TH	55302	ANNANDALE
206036002050	STEPHEN L VOGELER	6638 COUNTY ROAD 35 W		MAPLE LAKE	55358				
206036002060	ROBERT & SANDRA LARSON	8838 78TH ST NW		ANNANDALE	55302	8838	78TH	55302	ANNANDALE
206036002070	JOSHUA A ILSTRUP	8820 78TH ST NW		ANNANDALE	55302	8820	78TH	55302	ANNANDALE

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2nd and 3rd Tier Properties (1/4 Unit)									
PID	Taxpayer Name	Taxpayer Address	Taxpayer Address	Taxpayer City	Taxpayer ZIP	Property House	Property Street	Property ZIP	Property City
206036002080	JOHN S & SHARON SCHMITZ	8800 78TH ST NW		ANNANDALE	55302	8800	78TH	55302	ANNANDALE
206036002090	RICHARD D & CAROL A SJODAHL	8768 78TH ST NW		ANNANDALE	55302	8768	78TH	55302	ANNANDALE
206036002100	DUANE A & LAURIE J ALBACHTEN	8744 78TH ST NW		ANNANDALE	55302	8744	78TH	55302	ANNANDALE
206036002110	ARLAN E LEE	8720 78TH ST NW		ANNANDALE	55302	8720	78TH	55302	ANNANDALE
206036002120	DENNIS R &JEANNINE G DIRCKS	8660 78TH ST NW		ANNANDALE	55302				
206037001010	RANDY A & LINDA A DAUBANTON	8223 ISAAK AVE NW		ANNANDALE	55302	8223	ISAAK	55302	ANNANDALE
206037001020	JAMES L & BARBARA L O'REILLEY	8201 ISAAK AVE NW		ANNANDALE	55302	8201	ISAAK	55302	ANNANDALE
206037001030	WILLIAM ARENDT &MARY E WELLS	8178 ISAAK AVE NW		ANNANDALE	55302				
206037002010	MARY A STILES REV TRUST AGREE	7927 ISAAK AVE NW		ANNANDALE	55302				
206037002020	WILLIAM N & RUTH M WESTHOFF	16050 38TH AVE N		PLYMOUTH	55446				
206038001010	JOSEPH R FERNANDEZ	8251 ISAAK AVE NW		ANNANDALE	55302	8251	ISAAK	55302	ANNANDALE
206038001020	THOMAS J ANDERSON &	8275 ISAAK AVE NW		ANNANDALE	55302	8275	ISAAK	55302	ANNANDALE
206038001030	JUNE H MATTILA	8283 ISAAK AVE NW		ANNANDALE	55302	8283	ISAAK	55302	ANNANDALE
206038001040	WAYNE K CLARK	8289 ISAAK AVE NW		ANNANDALE	55302	8289	ISAAK	55302	ANNANDALE
206038001051	THOMAS D MILLER &	8299 ISAAK AVE NW		ANNANDALE	55302	8299	ISAAK	55302	ANNANDALE
206038001060	JEFF T & PATTY MOONEY	8305 ISAAK AVE NW		ANNANDALE	55302	8305	ISAAK	55302	ANNANDALE
206038001070	CHRISTOPHER TUCHTENHAGEN&	8972 81ST ST NW		ANNANDALE	55302	8972	81ST	55302	ANNANDALE
206038001080	WILLIAM K &DEBRA J ERICKSON	8946 81ST ST NW		ANNANDALE	55302	8946	81ST	55302	ANNANDALE
206038001090	TOM & PAULA ADAMS	8930 81ST ST NW		ANNANDALE	55302	8930	81ST	55302	ANNANDALE
206038001100	BRIAN J & REBECCA L MARX	8900 81ST ST NW		ANNANDALE	55302	8900	81ST	55302	ANNANDALE
206038001110	DEBRA A GARTHE		PO BOX 813	ANNANDALE	55302	8909	81ST	55302	ANNANDALE
206038001120	DREW S & DONNA M JACOBSON	8132 COUNTY ROAD 6 NW		ANNANDALE	55302				
206038001130	RODNEY D&MARJORIE M NYSTROM	8926 79TH ST NW		ANNANDALE	55302	8926	79TH	55302	ANNANDALE
206038001140	PAUL A & JAMIE B MARSNIK	8858 79TH ST NW		ANNANDALE	55302	8858	79TH	55302	ANNANDALE
206038001150	ANNANDALE COUNTRYSIDE TRUST	1744 AVOCET LN		MOUND	55364	7963	ITEN	55302	ANNANDALE
206038001160	JAY W & JILL A BOWERS	8029 ITEN AVE NW		ANNANDALE	55302	8029	ITEN	55302	ANNANDALE
206038001170	THOMAS W & RHONDA M CONDON	8045 ITEN AVE NW		ANNANDALE	55302	8045	ITEN	55302	ANNANDALE
206038001180	RICHARD A & EVELYN G LAMBERGER	8056 ITEN AVE NW		ANNANDALE	55302	8056	ITEN	55302	ANNANDALE
206038001190	CATHERINE M BRUTGER	8028 ITEN AVE NW		ANNANDALE	55302	8028	ITEN	55302	ANNANDALE
206038001200	HARLAN W & MARY K BALL	7974 ITEN AVE NW		ANNANDALE	55302	7974	ITEN	55302	ANNANDALE
206038001210	ROBERT E & BARBARA A BITZER	7944 ITEN AVE NW		ANNANDALE	55302	7944	ITEN	55302	ANNANDALE
206038001220	STEVEN J & TERRI L WUOLLET	8716 79TH ST NW		ANNANDALE	55302	8716	79TH	55302	ANNANDALE
206038002010	STEVEN R & SHELLY A NELSON	8957 79TH ST NW		ANNANDALE	55302	8957	79TH	55302	ANNANDALE
206038002020	PETER J & JODI M NORGREN	8877 79TH ST NW		ANNANDALE	55302	8877	79TH	55302	ANNANDALE
206038002030	KEITH A & LORI L THOMPSON	8833 79TH ST NW		ANNANDALE	55302	8833	79TH	55302	ANNANDALE
206038002040	KENT POWELL	8787 79TH ST NW		ANNANDALE	55302	8787	79TH	55302	ANNANDALE
206038002050	JAMES T & ADELE A FOBBE	8741 79TH ST NW		ANNANDALE	55302	8741	79TH	55302	ANNANDALE
206038002060	JAMES P & DEBRA L ADAMS	8685 79TH ST NW		ANNANDALE	55302	8685	79TH	55302	ANNANDALE

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2nd and 3rd Tier Properties (1/4 Unit)									
PID	Taxpayer Name	Taxpayer Address	Taxpayer Address	Taxpayer City	Taxpayer ZIP	Property House	Property Street	Property ZIP	Property City
206094000010	EDWARD D & GAYLENE FRANK	8975 75TH ST NW		ANNANDALE	55302	8975	75TH	55302	ANNANDALE
206094000020	TIMOTHY A & LISA A JOHNSON	7404 COUNTY ROAD 6 NW		ANNANDALE	55302	7404	COUNTY ROAD 6	55302	ANNANDALE
206094000030	GORDON SENKYR & SHELLY PRIBYL	7334 COUNTY ROAD 6 NW		ANNANDALE	55302	7334	COUNTY ROAD 6	55302	ANNANDALE
206094000040	PAUL S & TERESA J LUKACH	8865 75TH ST NW		ANNANDALE	55302	8865	75TH	55302	ANNANDALE
206094000050	LORENE L LINDSTROM	8823 75TH ST NW		ANNANDALE	55302	8823	75TH	55302	ANNANDALE
206094000060	KEVIN J&CYNTHIA R KLOEPPNER	8821 75TH ST NW		ANNANDALE	55302	8821	75TH	55302	ANNANDALE
206101001010	GARY A PROVO	8773 78TH ST NW		ANNANDALE	55302	8773	78TH	55302	ANNANDALE
206101001020	JOSEPH P & MICHELLE L ADAMS	8795 78TH ST NW		ANNANDALE	55302	8795	78TH	55302	ANNANDALE
206101001030	ROBIN R RUPRECHT	8843 78TH ST NE		ANNANDALE	55302	8843	78TH	55302	ANNANDALE
206101001040	CHRISTOPHER G &MARY GELDERT	8897 78TH ST NW		ANNANDALE	55302	8897	78TH	55302	ANNANDALE
206101001050	JOHN A & NANCY A FLOISTAD	7606 COUNTY ROAD 6 NW		ANNANDALE	55302	7606	COUNTY ROAD 6	55302	ANNANDALE
206101001060	STEVEN J SMITH&	8966 75TH ST NW		ANNANDALE	55302	8966	75TH	55302	ANNANDALE
206101001070	JAMES A & ANN L PETROSKI	8946 75TH ST NW		ANNANDALE	55302	8946	75TH	55302	ANNANDALE
206101001080	KEVIN S WARNER	8896 75TH ST NW		ANNANDALE	55302	8896	75TH	55302	ANNANDALE
206101001090	RUSSELL A & DOLORES D ELDRED	8858 75TH ST NW		ANNANDALE	55302	8858	75TH	55302	ANNANDALE
206101001100	JEROME P KATKA	8818 75TH ST NW		ANNANDALE	55302	8818	75TH	55302	ANNANDALE
206101001110	DAVID R & JULIE A MANSK	8786 75TH ST NW		ANNANDALE	55302	8786	75TH	55302	ANNANDALE
206101001120	STEVEN L &SU LEE L HERRMANN	8744 75TH ST NW		ANNANDALE	55302	8744	75TH	55302	ANNANDALE
206110000010	TERRY L &SUSAN E TOTENHAGEN	3174 LITTLE CROW DR		SHAKOPEE	55379				
206119001090	DWAYNE A & TRACY L JONES	8722 70TH ST NW		ANNANDALE	55302	8722	70TH	55302	ANNANDALE
206119001100	TIMOTHY J & SHANNON L JUDE	7078 ITEN AVE NW		ANNANDALE	55302	7078	ITEN	55302	ANNANDALE
206119001110	H DAVID & CHERYL K WAGNER	7656 ISAAK AVE NW		ANNANDALE	55302				

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Table 1

Cedar, Albion, Henshaw, Swartout Improvement Project

List of Potentially Benefited Properties (Cedar Lake)

Prairie Properties (1/8 Unit)									
PID	Taxpayer Name	Taxpayer Address	Taxpayer Address	Taxpayer City	Taxpayer ZIP	Property House	Property Street	Property ZIP	Property City
206000152301	GLENN D HEBERLING LIVING TRUST	9534 STATE HWY 24 NW		ANNANDALE	55302				
206000211100	GAP HOLDINGS LLC	5101 VERNON AVE S		EDINA	55436				
206000214104	ROBERT N&CHARLOTTE SHADDUCK		PO BOX 250	ANNANDALE	55302				
206000233200	COURAGE CENTER	3915 GOLDEN VALLEY RD		GOLDEN VALLEY	55422				
206000271101	FRITZ H & INGEBORG H IBS	7921 COUNTY ROAD 7 NW		MAPLE LAKE	55358				
206000274100	RICHARD R WHIRLEY&	7502 ILLSLEY AVE NW		MAPLE LAKE	55358				
206000341106	KAPSEG INC	8096 67TH ST NW		MAPLE LAKE	55358				
206000342202	ROBERT W & JUDITH JENSEN	6775 IRELAND AVE NW		ANNANDALE	55302	6775	IRELAND	55302	ANNANDALE

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Table 1

Cedar, Albion, Henshaw, Swartout Improvement Project

List of Potentially Benefited Property Owners (Swartout Lake)

Lakeshore Properties (1/3 Unit)

PID	Taxpayer Name	Taxpayer Address	Taxpayer Address	Taxpayer City	Taxpayer ZIP	Property House	Property Street	Property ZIP	Property City
201000032201	RUBY WOLFF	5859 COUNTY ROAD 6 NW		ANNANDALE	55302	5859	COUNTY ROAD 6	55302	Annandale
201000032401	MERLE A & PATRICIA A MAROHN	5644 COUNTY ROAD 6 NW		ANNANDALE	55302	5644	COUNTY ROAD 6	55302	Annandale
201000033101	ROBERT D &BONNIE K MESSENBRINK	5478 COUNTY ROAD 6 NW		ANNANDALE	55302	5478	COUNTY ROAD 6	55302	Annandale
201000041300	ALLAN J WOLFF	5870A COUNTY ROAD 6 NW		ANNANDALE	55302				
201000041301	RUBY WOLFF	5859 COUNTY ROAD 6 NW		ANNANDALE	55302				
201000044200	LARRY E HOFFMAN	5286 KEATS AVE NW		ANNANDALE	55302				
201000044302	ARTHUR J & ROSEMARY B BAUER	18052 64TH AVE N		MAPLE GROVE	55311				
201000044303	KENNETH J & CONNIE M ROOT	9298 50TH ST NW		ANNANDALE	55302	9298	50TH	55302	Annandale
201000044304	ANTHONY D & REBECCA J ELLESTAD	9376 50TH ST NW		ANNANDALE	55302	9376	50TH	55302	Annandale
201000091101	ARTHUR J & ROSEMARY B BAUER	18052 64TH AVE N		MAPLE GROVE	55311	9031	50TH	55302	Annandale
201000091102	SCOTT M & TRACI L HEIDEBRINK	119 4TH ST W	PO BOX 563	MAPLE LAKE	55358				
201000091103	RICHARD H & MELISSA L RELLER		PO BOX 532	BUFFALO	55313	9125	50TH	55302	Annandale
201023001010	JOHN M & BETTY A LUDVIGSEN	8708 WYOMING AVE S		BLOOMINGTON	55438	5187	COUNTY ROAD 6	55302	Annandale
201023001100	CLARENCE L&PAULINE E AARVIG	9481 SARATOGA LN N		MAPLE GROVE	55369	8736	51ST	55302	Annandale
201023001130	RICHARD C DEMARS	8752 51ST ST NW		ANNANDALE	55302	8752	51ST	55302	Annandale
201023001140	CHADDRICK R ELLINGSON	8768 51ST ST NW		ANNANDALE	55302				
201023001150	CHADDRICK R ELLINGSON	8768 51ST ST NW		ANNANDALE	55302	8768	51ST	55302	Annandale
201023001160	KENNETH & C BISSENER	17815D 12TH AVE N		PLYMOUTH	55447	8780	51ST	55302	Annandale
201023001170	JEFFREY J &PATRICIA SHERMAN	8802 51ST ST NW		ANNANDALE	55302	8802	51ST	55302	Annandale
201023001190	JAMES M GELLERMAN	8824 51ST ST NW		ANNANDALE	55302	8824	51ST	55302	Annandale
201023001210	BARRY R FARBER	8838 50TH ST NW		ANNANDALE	55302	8838	50TH	55302	Annandale
201023001230	DONALD G & ANN M POSS LIV TR	4219 E PEARCE RD		PHOENIX	85044	8854	50TH	55302	Annandale
201023001240	STEPHEN V & CAROL A SYMALLA	8878 50TH ST NW		ANNANDALE	55302	8878	50TH	55302	Annandale
201023001260	WILLIAM G &MARLYS A WHEELER	9864 FENNER AVE SE		DELANO	55328	8906	50TH	55302	Annandale
201023001290	NANCY C OLSON	8922 50TH ST NW		ANNANDALE	55302	8922	50TH	55302	Annandale
201023001300	RONALD W TIMMERS		PO BOX 219	MAPLE LAKE	55358	8930	50TH	55302	Annandale
201023001310	RALPH & CAROL LOGEAIS	5913 YORK AVE N		MINNEAPOLIS	55429	8940	50TH	55302	Annandale
201023001320	RALPH & CAROL LOGEAIS	5913 YORK AVE N		MINNEAPOLIS	55429	8954	50TH	55302	Annandale

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Table 1

Cedar, Albion, Henshaw, Swartout Improvement Project

List of Potentially Benefited Property Owners (Swartout Lake)

Agricultural Properties (1/6 Unit)									
PID	Taxpayer Name	Taxpayer Address	Taxpayer Address	Taxpayer City	Taxpayer ZIP	Property House	Property Street	Property ZIP	Property City
201000032200	ALLAN J & COLLEEN D WOLFF	5807A COUNTY RD 6 NW		ANNANDALE	55302				
201000032400	MERLE A & PATRICIA A MAROHN	5644 COUNTY ROAD 6 NW		ANNANDALE	55302	5598	COUNTY ROAD 6	55302	ANNANDALE
201000033100	MARK D & JOELLE L ARLT	5402 COUNTY ROAD 6 NW		ANNANDALE	55302	5402	COUNTY ROAD 6	55302	ANNANDALE
201000041200	RUBY WOLFF	5859 COUNTY ROAD 6 NW		ANNANDALE	55302				
201000043100	ALLAN J WOLFF	5870A COUNTY ROAD 6 NW		ANNANDALE	55302				
201000044305	SHANE R WURM	2122 66TH ST NW		MAPLE LAKE	55358				

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Table 1

Cedar, Albion, Henshaw, Swartout Improvement Project

List of Potentially Benefited Property Owners (Swartout Lake)

1st Tier Properties (1/6 Unit)									
PID	Taxpayer Name	Taxpayer Address	Taxpayer Address	Taxpayer City	Taxpayer ZIP	Property House	Property Street	Property ZIP	Property City
201000041302	LAUREN L & BRENDA WOLFF	9375 60TH ST NW		ANNANDALE	55302	9375	60TH	55302	ANNANDALE
201000043101	ALLAN J WOLFF	5870A COUNTY ROAD 6 NW		ANNANDALE	55302	5870	COUNTY ROAD 6	55302	ANNANDALE
201000091104	MARK L & TERI M RASSATT	9199 50TH ST NW		ANNANDALE	55302				
201000102107	KEITH M OTTO&	10900 IMHOFF AVE NW		ANNANDALE	55302				
201000102108	PAUL & AMBER JORGENSEN	6633 EAGLE LAKE DR		OSSEO	55369	8811	50TH	55302	ANNANDALE
201000102110	JOY A KASKINEN	8971 50TH ST NW		ANNANDALE	55302	8971	50TH	55302	ANNANDALE
201023001060	JAMES M SUTTON & M A D-SUTTON	14101 68TH PL N		OSSEO	55311				
201023002010	RONALD & DANA WRIGHT	8776 50TH ST NW		ANNANDALE	55302	8776	50TH	55302	ANNANDALE
201023002030	GLENN DAVIDSON	8750 50TH ST NW		ANNANDALE	55302	8750	50TH	55302	ANNANDALE
201023002040	MICHAEL R CAMPBELL&	8734 50TH ST NW		ANNANDALE	55302	8734	50TH	55302	ANNANDALE
201023002050	PHILIP MOONEY&	6438 CRAIG AVE NW		MAPLE LAKE	55358	8703	51ST	55302	ANNANDALE

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Table 1

Cedar, Albion, Henshaw, Swartout Improvement Project

List of Potentially Benefited Property Owners (Swartout Lake)

2nd and Third Tier Properties (1/12 Unit)									
PID	Taxpayer Name	Taxpayer Address	Taxpayer Address	Taxpayer City	Taxpayer ZIP	Property House	Property Street	Property ZIP	Property City
201000102109	JOHN C & STACY L DIPETRILLO	8787 50TH ST NW		ANNANDALE	55302	8787	50TH	55302	ANNANDALE
201023002070	VERDEAN H TOBECK	8702 50TH ST NW		ANNANDALE	55302	8702	50TH	55302	ANNANDALE

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Proposed Draft Cedar, Albion, Swartout, and Henshaw Project Formula

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Cedar, Albion, Henshaw, Swartout Improvement Project

Modified Draft Cedar, Albion, Swartout, Henshaw Improvement Project

Classification	Units of Benefit
Cedar Lakeshore	1 unit of benefit
Cedar First Tier	1/2 unit of benefit
Cedar Second and Third Tier	1/4 unit of benefit
Cedar Prairie	1/8 unit of benefit
Cedar Agricultural	1/2 unit of benefit
Swartout Lakeshore	1/3 unit of benefit
Swartout First Tier	1/6 unit of benefit
Swartout Second and Third Tier	1/12 unit of benefit
Swartout Agricultural	1/6 unit of benefit