

# ENVIRONMENTAL ASSESSMENT WORKSHEET

**Note to preparers:** This form and EAW Guidelines are available at <http://www.eqb.state.mn.us>. 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** *NMCWD Eden Prairie Lakes Water Quality Improvement Project, NW and SW Anderson Lakes Drawdown*

2. **Proposer**

Contact person *Bob Obermeyer (Barr Engineering)*  
Title *Principal Engineer*  
Address *4700 West 77<sup>th</sup> Street*  
City, state, ZIP *Minneapolis, MN 55435*  
Phone *(952) 832-2857*  
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3. **RGU** *Nine Mile Creek Watershed District*

Contact person *Kevin Bigalke*  
Title *District Administrator*  
Address *7710 Computer Ave*  
City, state, ZIP *Edina, MN 55435*  
Phone *952-835-2078*  
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4. **Reason for EAW preparation** (check one)

EIS scoping      Mandatory EAW      Citizen petition      RGU discretion  
 Proposer volunteered

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

5. **Project location** County *Hennepin*      City/Township *Eden Prairie*

Sections *13 and 24*, Township *116*, Range *22*  
Section *14E*, Township *116*, Range *22*  
Section *18W*, Township *116*, Range *21*

**Attach each of the following to the EAW:**

- County map showing the general location of the project;
- 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*.

*The project involves a drawdown of the water level in Southwest and Northwest Anderson Lakes and winter freeze to control non-native aquatic vegetation such as curlyleaf pondweed (*Potamogeton crispus*), and consolidation of the lake sediment, thus reducing the internal phosphorus load. As an option, chemical treatment to control curlyleaf pondweed can be considered. Following the control of curlyleaf pondweed, an alum treatment would be completed to control the release of phosphorus into the water column from the lake bottom sediment. The project location is shown on Figures 1 and 2.*

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 drawdown would commence in the early fall 2007 and continue until a majority of the lake has been pumped dry. Excluding precipitation that may occur, it is estimated that a total of approximately 293 million gallons will be pumped from Northwest and Southwest Anderson Lakes. A weir structure will be constructed on the upstream end of the culvert connecting Southeast and Southwest Anderson Lakes. This will minimize potential impacts on the level of Southeast Anderson Lake. For the isolated pockets within Northwest and Southwest Anderson that cannot be totally drawdown, chemical treatment of those areas will take place to eliminate the curlyleaf pondweed. The effectiveness of the drawdown will depend on climatic conditions. If a wet fall occurs, it may require more than one season to complete an effective drawdown.*

*If the chemical option is chosen, the lakes will be treated with Endothall in the spring of each year for 3 to 4 years. This will be determined based on monitoring. An estimated application rate will be 1.0 ppm or 100 gallons per treatment of Southwest Anderson Lake and 110 gallons per treatment for Northwest Anderson Lake.*

*The city of Eden Prairie and the Three Rivers Park District have stated their preference to the drawdown option for the control of curlyleaf pondweed.*

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 purpose of the project is to improve the water quality of Anderson Lakes by controlling curlyleaf pondweed. The density of curlyleaf pondweed in NW Anderson Lake has increased from approximately 34 acres of coverage in 2004 to approximately 54 acres in 2006. Recent curlyleaf pondweed density in SW Anderson Lake has increased from approximately 5 acres in 2004 to approximately 50 acres in 2006. Figures 3 and 4 show the coverage and relative densities of curlyleaf pondweed in Northwest and Southwest Anderson Lakes: respectively. Curlyleaf pondweed is an invasive plant, which often out-competes native vegetation early in the growing season and in midsummer dies off: creating a sudden loss of habitat and release of nutrients into the water that can produce algal blooms and create turbid water conditions.*

*The control of curlyleaf pondweed will reduce the release of phosphorus from Anderson Lakes to Nine Mile Creek. Phosphorus contributes to Nine Mile Creek being listed as impaired waters by the Minnesota Pollution Control Agency. As an option to the drawdown, chemical treatment of the lake with Endothall would be chosen to control curlyleaf pondweed. The Endothall treatment would be in the spring of the year for 3 to 4 years determined by monitoring the effectiveness. In addition, with the chemical treatment, the lake would be treated with alum, aluminum sulfate, to prevent sediment phosphorus release into the lakes water column. The alum treatment would be undertaken after the curlyleaf pondweed was controlled.*

*The proposed lake drawdown project is a portion of a water quality improvement project petitioned by the City of Eden Prairie and will be carried out by the Nine Mile Creek Watershed District. Beneficiaries include residents adjacent to the Anderson Lakes as well as the citizens within the city of Eden Prairie and the Nine Mile Creek Watershed District.*

d. Are future stages of this development including development on any outlots planned or likely to happen?  Yes  No

If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.

e. Is this project a subsequent stage of an earlier project?  Yes  No

If yes, briefly describe the past development, timeline and any past environmental review.

**7. Project magnitude data**

Total project acreage **290 acres**

Number of residential units: **None**

Commercial, industrial or institutional building area (gross floor space): total square feet: **None**

Indicate areas of specific uses (in square feet): **None**

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.

<u>Unit of government</u>	<u>Type of application</u>	<u>Status</u>
<i>Minnesota Department of Natural Resources</i>	<i>Work in Protected Waters Permit (Water Appropriation)</i>	<i>To Be Submitted</i>
<i>Minnesota Department of Natural Resources</i>	<i>Aquatic Plant Management Permit</i>	<i>To Be Submitted</i>
<i>Three Rivers Park District</i>	<i>Temporary Encroachment Permit Approval for Chemical Treatment</i>	<i>To Be Submitted</i>

- 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.

*Within the Southwest Anderson lakes watershed, 200 acres is open space, 1.0 acres is commercial, 3.0 acres is highway, 26 acres is high density residential housing, and 107 acres is single family residential housing.*

*Within the Northwest Anderson lakes watershed, 198 acres is open space, 63 acres is commercial, 30 acres is highway, 33 acres is high density residential housing, and 52 acres is single family residential housing.*

*The Three Rivers Park District owns and operates the open space area riparian to Northwest and Southwest Anderson lakes. Three Rivers Park District manages this lake system as a wildlife habitat and aesthetic viewing facility.*

*The existing and proposed land use will remain unchanged. The Nine Mile Creek Watershed District has had meetings with the adjacent property owners to inform them of the project, receive feedback, and to address their concerns.*

*There are no nearby hazardous liquid or gas pipelines.*

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

<u>Cover Type</u>	<u>Before</u>	<u>After</u>
<i>Types 1-8 wetlands</i>	<i>10 acres</i>	<i>10 acres</i>
<i>Open water lake</i>	<i>290 acres</i>	<i>290 acres</i>
<i>Total</i>	<i>300 acres</i>	<i>300 acres</i>

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.

*The fish currently in the Northwest and Southwest Anderson Lakes will be eliminated by the drawdown. However, the lake system is not currently stocked or managed as a fishery management lake by the Minnesota Department of Natural Resources. Wildlife may be temporarily displaced by the drawdown. It is anticipated that wildlife habitat will be improved as a result of the project.*

*If the chemical option is undertaken, this option will not have an impact on the fish and wildlife within the lake system.*

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  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.

*The Minnesota Department of Natural Resources, through the Minnesota Natural Heritage database, has not identified any rare plant or animal species or other significant natural features that will be impaired by the proposed project. Anderson Lakes has been identified as a Regionally Significant Ecological Area.*

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?  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: *NW and SW Anderson Lakes encompass 290 acres in size and are a Minnesota Department of Natural Resources (MN DNR) Public Water (DNR# 27-62P).*

*The lakes are not stocked for fish by the Minnesota Department of Natural Resources. For the drawdown, any fish in the lakes will be eliminated. Because the drawdown will be under taken in fall and early winter and for a period of approximately one month, other wildlife will find temporary habitat and then likely return in time. Based on normal yearly precipitation, the lake level will return to its normal elevation of 839 M.S.L. within 1 ½ to 2 years.*

Describe alternatives considered and proposed mitigation measures to minimize impacts.

*The chemical treatment option should not have an impact on the fish and wildlife within the lake system. See narrative for Item #6 for additional details on the chemical treatment option.*

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  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.

*The drawdown of the lakes will result in approximately 293 million gallons of lake water being pumped downstream. Southwest Anderson will be pumped to Northwest Anderson and Northwest Anderson will be pumped to the existing storm sewer outlet for the Anderson lakes system. The pumps will be placed on barges located at the low point within both lakes. The power supply generators, if used, will be located on high ground. It has not yet been determined if a temporary electrical supply will be "brought-in" for the pumps or generators will be used. Figure 5 shows the preliminary location of the pumps, power supply and outlet for the proposed drawdown.*

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?  Yes  No

If yes, identify the district and discuss project compatibility with district land use restrictions.

*The pumped outflow from Anderson lakes is limited to a maximum of 13 cfs, the capacity of the existing lake outlet storm sewer system. The storm sewer outlets to the South Fork of Nine Mile Creek downstream, east of T.H. 169. The pumping will be undertaken in the fall and early winter and will not have an impact on the floodplain of Nine Mile Creek.*

15. **Water surface use.** Will the project change the number or type of watercraft on any water body?  Yes  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:

acres \_\_\_\_\_ ; cubic yards \_\_\_\_\_. Describe any steep slopes or highly erodible soils and identify them on the site map. Describe any erosion and sedimentation control measures to be used during and after project construction.

*The intake for the pumps will be located a minimum of two feet above the lake bottom to minimize the potential of lake bottom sediments being pumped. The outflow from Northwest Anderson lakes will be pumped directly into the outlet storm sewer. There is no associated earthwork or land alteration as part of this project.*

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.

*Not applicable*

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.

*Pumped water will be discharged to the south fork of Nine Mile Creek. No adverse impacts are likely since this is the current receiving water.*

18. **Water quality: wastewaters**

a. Describe sources, composition and quantities of all sanitary, municipal and industrial wastewater produced or treated at the site.

*No sanitary, municipal, or industrial wastewater will be produced 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.

*Not applicable.*

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.

*Not applicable.*

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.

*Not applicable.*

19. **Geologic hazards and soil conditions**

a. Approximate depth (in feet) to ground water:    minimum    average  
to bedrock: *Ordovician; Prairie du Chien*    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.

*Not applicable.*

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.

*The on-site soils are classified in the Soil Survey of Hennepin County as: Water. The northwest portion of NW Anderson Lake is classified as Klossner muck.*

20. **Solid wastes, hazardous wastes, storage tanks**

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.

*No solid or hazardous wastes will be produced during project operation.*

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.

*If generators are used as the power supply for the pumps, they will be fueled with diesel fuel. The generators will be on high ground and the fuel will be delivered along a high ground access.*

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.

*No above or below ground tanks will be utilized to store petroleum products or other materials.*

21. **Traffic.** Parking spaces added: *Not applicable.*

Existing spaces (if project involves expansion): *Not applicable.*

Estimated total average daily traffic generated: *Not applicable.*

Estimated maximum peak hour traffic generated (if known) and time of occurrence: *Not applicable.*

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: *Not applicable.*

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.

*Not applicable*

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.

*There will be no stationary source air emissions.*

24. **Odors, noise and dust.** Will the project generate odors, noise or dust during construction or during operation?  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.)

*If an electrical power supply is "temporarily" brought in to run the pumps, there would be no noise. If generators are used, the noise level of the generators is approximately 80 decibels. This is below the level accepted for construction equipment, 90 decibels, in a residential area.*

25. **Nearby resources.** Are any of the following resources on or in proximity to the site?

Archaeological, historical or architectural resources?  Yes  No

*A house located at 8063 Ensign Road has been designated as an archaeological, historical or architectural resource. Neither the drawdown nor chemical treatment of the lake will have an impact on the structure.*

Prime or unique farmlands or land within an agricultural preserve?  Yes  No

Designated parks, recreation areas or trails?  Yes  No

***Three Rivers Park District owns and operates the open space riparian to Northwest and Southwest Anderson Lakes as a wildlife habitat and aesthetic viewing facility. The drawdown will have a temporary impact on the wildlife. The wildlife will find habitat in the area around Northwest and Southwest Anderson Lakes during the drawdown and return when the lake level is reestablished. The chemical treatment will not have an impact on the park system.***

Scenic views and vistas?  Yes  No

Other unique resources?  Yes  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  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  No. If yes, describe the plan, discuss its compatibility with the project and explain how any conflicts will be resolved. If no, explain.

***This project was recommended in the 2006 District Engineer's Report and is the outcome of Use Attainability Analyses (UAAs) dated January 2005 as prescribed by the 1996 Nine Mile Creek Watershed District Water Management Plan.***

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  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*).

***No cumulative impacts are expected.***

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.

***No other environmental impacts are expected.***

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:**

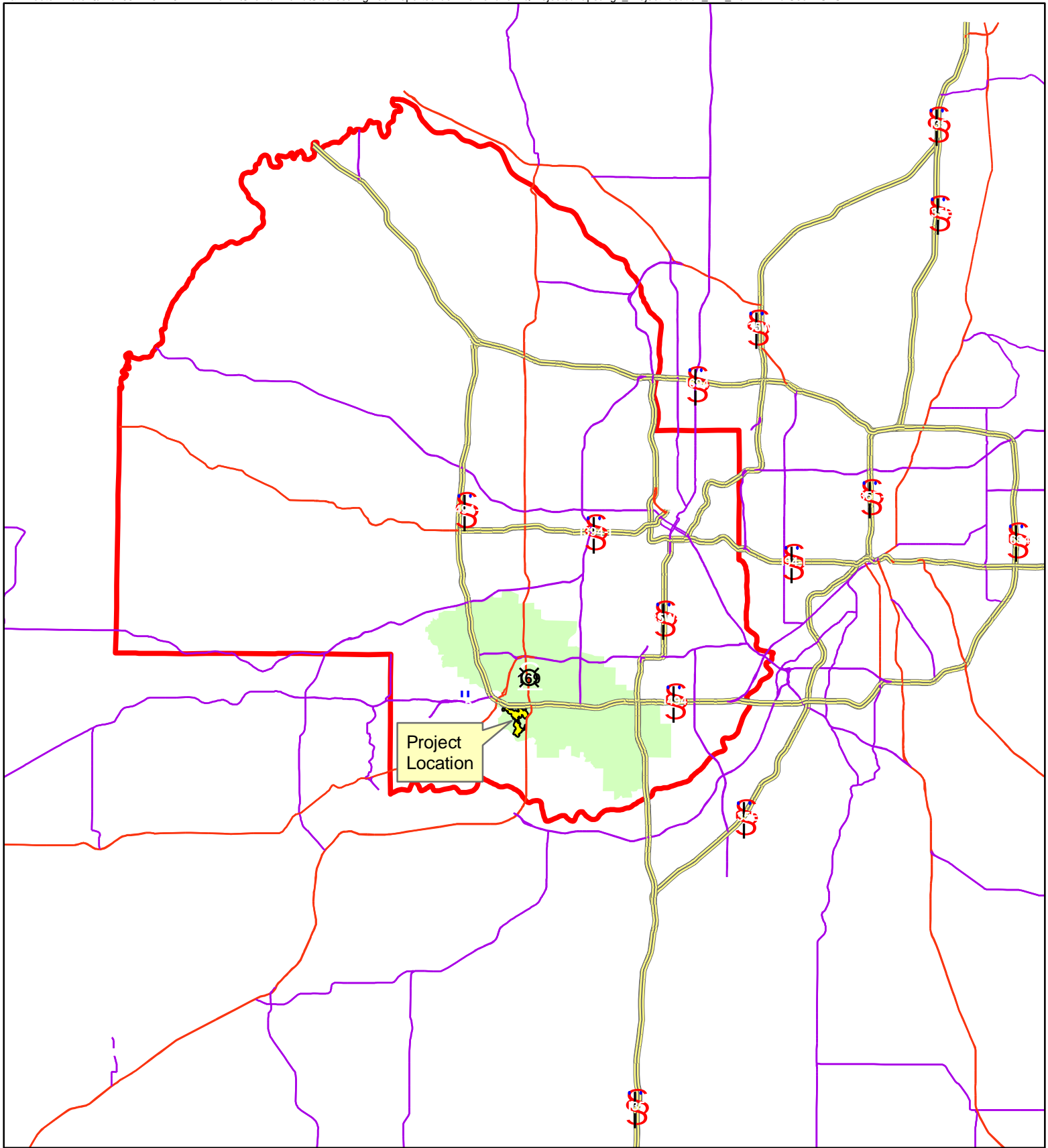
- The information contained in this document is accurate and complete to the best of my knowledge.
- The EAW describes the complete project; there are no other projects, stages or components other than those described in this document, which are related to the project as connected actions or phased actions, 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 K D Bette

Date 7/6/07

Title District Administrator

**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>

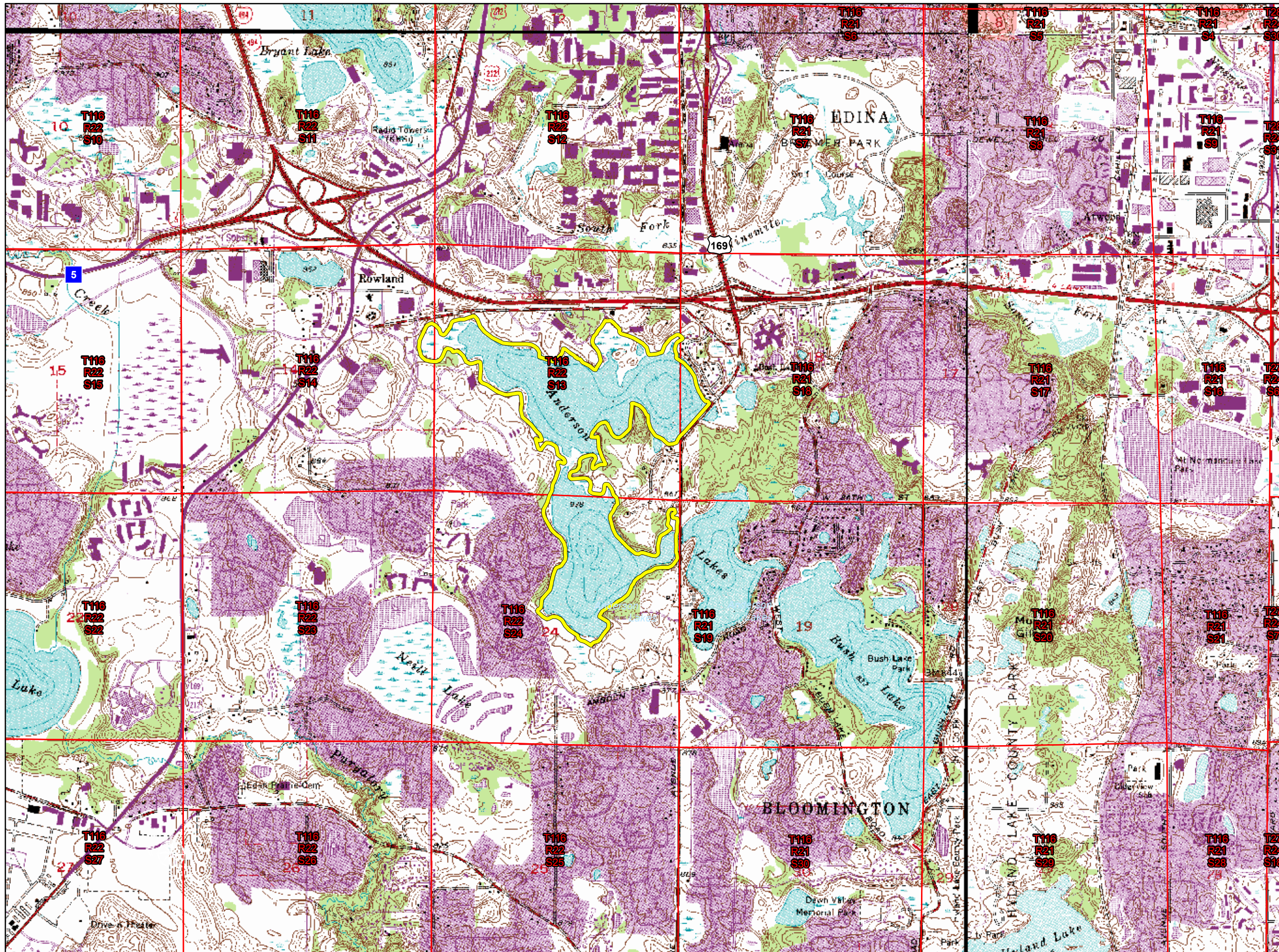


-  Project Location
-  Hennepin County
-  Nine Mile Creek Watershed District

30,000 15,000 0 30,000 Feet

Figure 1

PROJECT LOCATION MAP  
NW and SW Anderson Lakes  
Eden Prairie Lakes Water Quality  
Improvement Project  
Eden Prairie, MN



Project Boundary

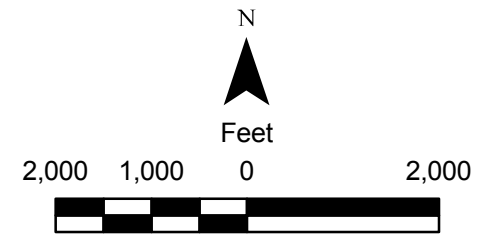


Figure 2  
 NW AND SW ANDERSON LAKES  
 PROJECT BOUNDARY MAP  
 Eden Prairie Lakes Water Quality  
 Improvement Project  
 Eden Prairie, MN

# Recent Curlyleaf Pondweed Density in NW Anderson Lake

June 15, 2004

June 8, 2006

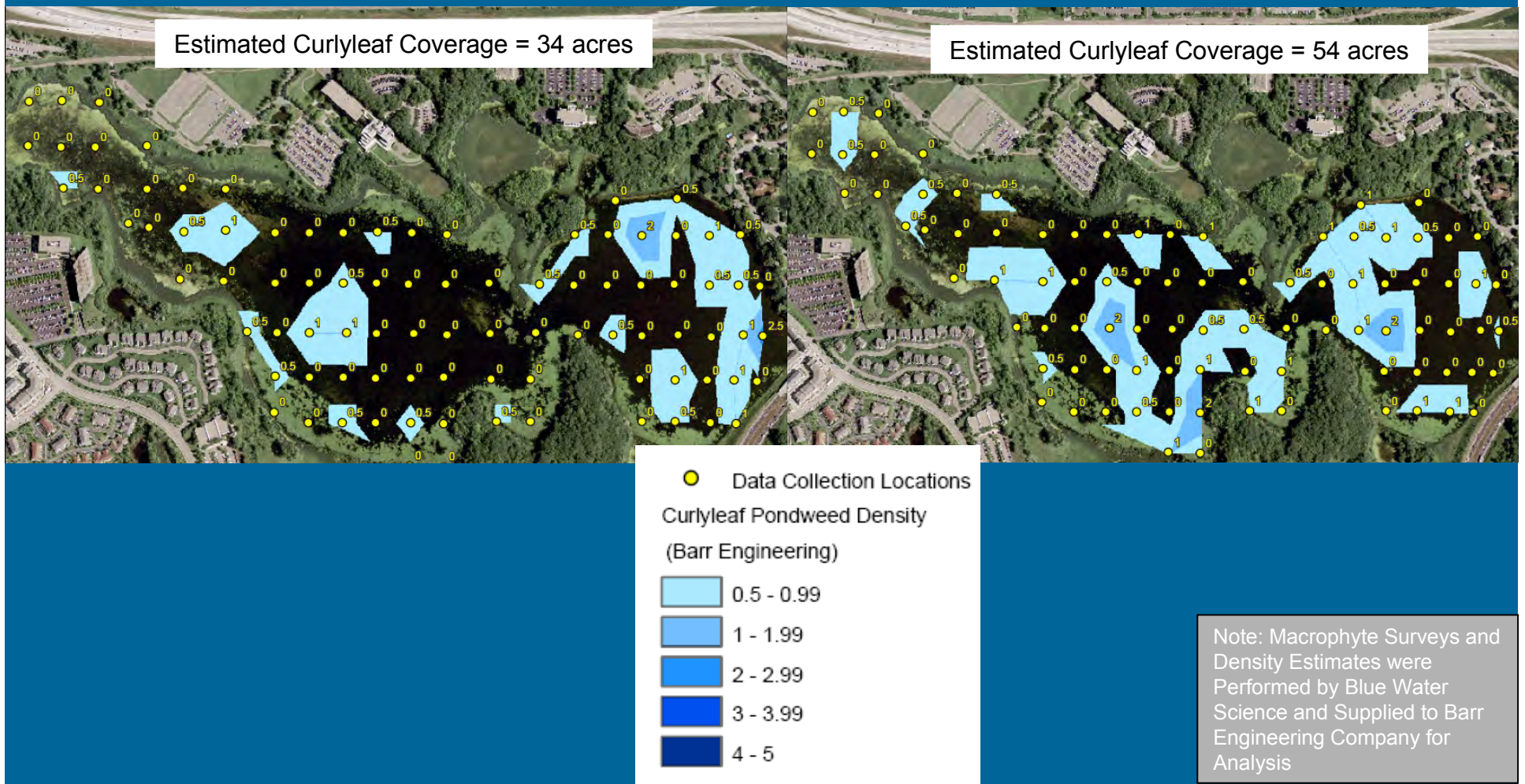


Figure 3

# Recent Curlyleaf Pondweed Density in SW Anderson Lake

June 18, 2004

June 8, 2006

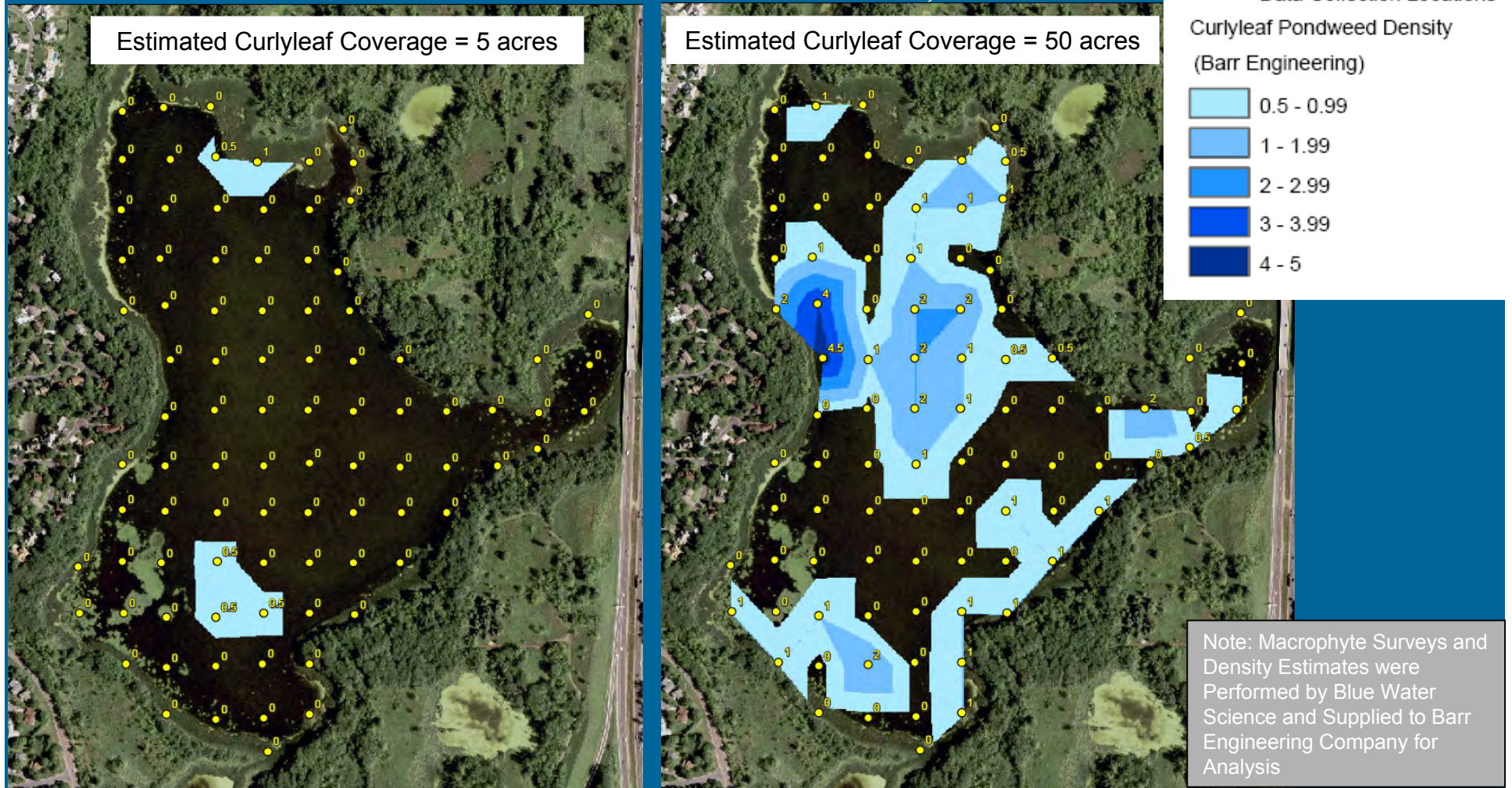


Figure 4

# ANDERSON LAKES DRAW DOWN PROPOSAL NINE MILE CREEK WATERSHED DISTRICT

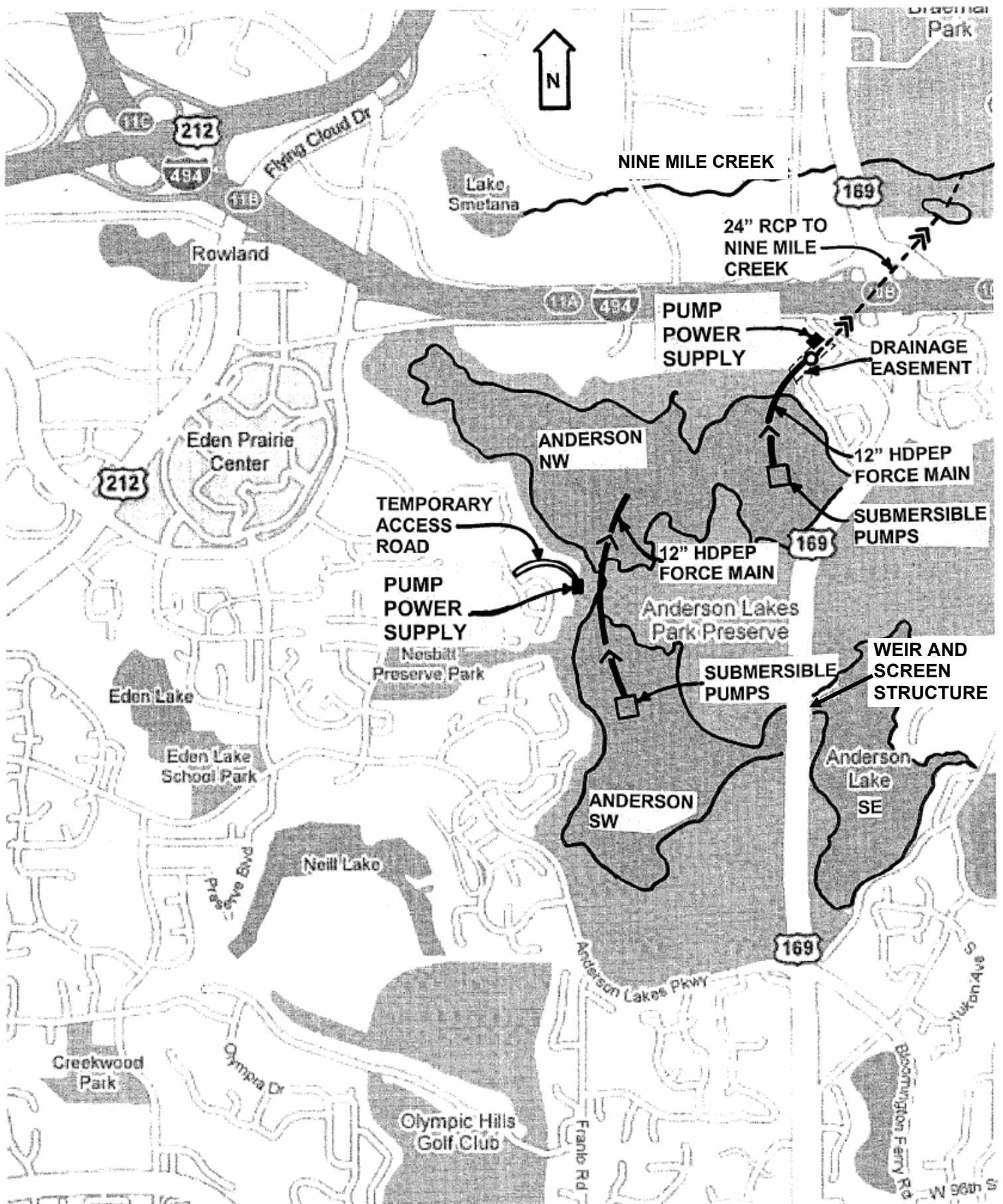


Figure 5