



Board of Commissioners

606 5th Ave. SW, Room #131

Roseau, MN 56751

Phone: 218-463-4248

Fax: 218-463-3252

AGENDA

Tuesday October 27, 2009, 8:30 a.m.

Notice is hereby given that the Board of Commissioners of Roseau County will meet in session on October 27, 2009 at 8:30 am in the Roseau County Courthouse, Room 110, Roseau, MN, at which time the following matters will come before the Board:

8:30 Call to Order

1. Presentation of Colors
2. Approve Agenda

8:45 Consent Agenda

1. Approve Proceedings
2. Approve AMC Voting Delegates
3. Approve MN Dept of Public Safety Homeland Security and Emergency Management Sub-Grant Agreement for Federal Assistance Public Assistance Program
4. Approve Employers Association Preferred Membership
5. Approve MCIT Voting Delegates and Alternates
6. Approve Request for Proposal - Quote for Dedicated Fiber
7. Approve Bills

9:00 Comments and Announcements

9:15 Treasurer Diane Gregerson

1. Approve Unclaimed Property List for Submission

9:30 Committee Reports

10:00 Highway Department

1. 2010 Ditch Budgets and Levies
2. Approve Final Payout on Spruce Valley Unorganized Township Bridge Replacement

10:30 Break

10:45 Cynthia Madigan from U.S. Census Bureau

1. Establish Complete Count Committee
2. Identify Hard to Count Population in Roseau County

11:15 PUBLIC HEARING – Roseau County Water Plan

1. Water Plan Coordinator Janine Lovold
 - a. Review 2010 – 2019 Draft Roseau County Water Plan
 - b. Review Roseau County Water Plan Goals and Action Items

11:45 Discussion

1. One Woman 2010 Nomination
2. AMC District 3 Meeting Attendance
3. Award 2009-2010 Sidewalk Snow Removal Contracts
4. NWRD Public Service Representatives
5. Off-Road Vehicles on County and Township Roads

12:15 Future Agenda Items

12:30 Adjourn

To schedule an appointment with the Board, please contact the County Coordinator at 218-463-4248

County Coordinator's e-mail address: trish.klein@co.roseau.mn.us

Roseau County Home Page Address: <http://www.co.roseau.mn.us/>

District 1, Alan Johnston, Vice Chair - District 2, Jack Swanson, Chairman -
District 3, Orris Rasmussen - District 4, Russell Walker - District 5, Mark Foldesi

An Equal Opportunity Employer

ITEM # Consent 1

REQUEST FOR BOARD ACTION

* Required Fields



*Person Responsible for Request Klein, Trish	*Department Coordinator	*Board Meeting Date Oct 27 2009
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***Subject Title (As it will appear on the agenda):**
Approve Proceedings from the 10-6-09 Board Meeting

***Background (Provide sufficient detail of the subject):**
Please review carefully and advise of any changes.

***Financial Consideration:**

***Legal Consideration:**

***Other Consideration:**
None

***Resolution (Wording should reflect the intent of the Board vote):**
None

Coordinator's Office Use (Do Not Write Below)

Date Received:	Comments:
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Board Action:

Comm.	Motion (First)	Motion (Second)	Vote			Vote Result	
			Yes	No	Abstain		
Swanson						Passed	
Johnston							
Folds						Failed	
Rasmussen							
Walker						Tabled	

ATTEST: Teresa Klein, Board Clerk

PROCEEDINGS OF THE ROSEAU COUNTY BOARD OF COMMISSIONERS

October 6, 2009

The Board of Commissioners of Roseau County, Minnesota met in the Courthouse in the City of Roseau, Minnesota on Tuesday, October 6, 2009 at 8:30 a.m.

CALL TO ORDER

The meeting was called to order at 8:30 a.m. by County Board Chairman Jack Swanson. The Pledge of Allegiance was recited. Commissioners present were Mark Foldesi, Alan Johnston, Orris Rasmussen and Jack Swanson. Russell Walker was excused.

APPROVAL OF AGENDA

Approval of Manatron training and re-appointment of County Coordinator Trish Klein as Board Clerk were added to the Consent Agenda. A motion to approve the agenda was made by Commissioner Rasmussen, seconded by Commissioner Foldesi and carried unanimously.

COMMENTS AND ANNOUNCEMENTS

Commissioner Walker announced that the Law Enforcement TB checks on trucks hauling cattle have been running smoothly.

Commissioner Johnston acknowledged a letter from the MN Association of Wheat Growers regarding rural transportation infrastructure.

Coordinator Klein announced that meetings with all non-union employees have been scheduled.

CONSENT AGENDA

A motion to approve the consent agenda was made by Commissioner Johnston, seconded by Commissioner Rasmussen and carried unanimously.

The Board, by adoption of its consent agenda, approved proceedings from the September 29, 2009 Board Meeting.

The Board, by adoption of its consent agenda, approved a Joint Powers Agreement between Roseau County and the State of MN Bureau of Criminal Apprehension to enable Roseau County BCA agents to cover Stonegarden shifts.

The Board, by adoption of its consent agenda, approved the Roseau County Prevention Coalition Quarter 1 Fiscal Statistical Report.

The Board, by adoption of its consent agenda, authorized the Sheriff's Office to dispose of circuitry cabinets for the detention center project that were ordered in too large and were replaced. The Board requested the Sheriff's Office attempt one more time to find someone who might be able to use them before they are disposed of.

The Board by adoption of its consent agenda authorized a gravelling project in unorganized Pohlitz Township not to exceed \$5,000 and a culvert replacement and ditch cleaning project in unorganized Blooming Valley Township not to exceed \$5,000.

The Board, by adoption of its consent agenda, authorized the Board Chair to sign the Office of Justice Victim Services Program Grant in the amount of \$78,110.00 effective October 1, 2009 to September 31, 2010.

The Board, by adoption of its consent agenda, authorized Manitron-GRM tax system training to be provided by Marilyn Hallstrom in an amount not to exceed \$7,000 to be paid for with Land Records Technology "Modernization" Funds.

The Board, by adoption of its consent agenda, re-appointed County Coordinator Teresa Klein as Board Clerk.

Chair Swanson recessed the Board meeting at 9:00 am. The meeting reconvened at 9:55 am.

DISCUSSION

The Board discussed nomination of a candidate for the One Woman 2010 campaign. The matter was deferred to the next regularly scheduled Board meeting.

The Board reviewed the 2010 Budget and Levy. Commissioner Swanson identified items contributing to the increased budget including \$170,000 for the health insurance premium increase; the addition of a new \$150,000 line item for expenses related to sexually dangerous predators, \$425,000 wage increase which includes a 3.5% previously negotiated salary increase and step increases; and a \$50,000 increase in the election budget. These items alone account for \$795,000 of the \$820,000 negative budget. The Board is also on notice that Roseau County will be unallotted \$170,364 in County Program aid in 2010. Coordinator Klein and Commissioners Walker and Foldesi will be meeting with all employee groups to educate them regarding budget concerns and to request that employees agree to a wage freeze.

Upon motion carried, the Board adjourned the regular meeting at 10:45 a.m. The next regular meeting of the Board is scheduled for October 13, 2009 at 8:30 a.m.

Attest:

Date: _____

Teresa Klein, County Coordinator
Roseau County, Minnesota

Jack Swanson, Chairman
Board of County Commissioners
Roseau County, Minnesota

ITEM # Consent 2

REQUEST FOR BOARD ACTION

* Required Fields



*Person Responsible for Request Klein, Trish	*Department Coordinator	*Board Meeting Date Oct 27 2009
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***Subject Title (As it will appear on the agenda):**
Approve AMC Voting Delegates

***Background (Provide sufficient detail of the subject):**
AMC has requested confirmation of Roseau County's voting delegates. Attached is a current list of delegates.

***Financial Consideration:**

***Legal Consideration:**

***Other Consideration:**
None

***Resolution (Wording should reflect the intent of the Board vote):**
None

Coordinator's Office Use (Do Not Write Below)

Date Received:	Comments:
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Board Action:

Comm.	Motion (First)	Motion (Second)	Vote			Vote Result	
			Yes	No	Abstain		
Swanson						Passed	
Johnston							
Folds						Failed	
Rasmussen							
Walker						Tabled	

ATTEST: Teresa Klein, Board Clerk

TO: County Administrators
County Board Chairs

FROM: Laurie Klupacs
Member Services Manager

RE: AMC Voting Delegates
AMC Annual Conference

The Association of Minnesota Counties Annual Conference is nearing. A few important details need to be taken care of, most important of which are the designated voting delegates from each county. Our records show the following persons as voting delegates for your county:

1. Alan B. Johnston, Roseau County Commissioner
2. Jack Swanson, Roseau County Commissioner
3. Mark S. Foldesi, Roseau County Commissioner
4. Orris A. Rasmussen, Roseau County Commissioner
5. Russell Walker, Roseau County Commissioner
6. Brian Ketring, Roseau County Engineer
7. David Anderson, Roseau County Social Services Director
8. Trish Klein, Roseau County Coordinator

AMC Bylaws - ARTICLE VIII

ASSOCIATION DELEGATES AND DISTRICTS

Section 1. Association Delegates. Each member county shall be entitled to a number of delegates equal to three more than the number of persons on the board of county commissioners of the member county. Delegates shall be appointed annually by the county board from among the officials and employees of the county. Each delegate so appointed shall be eligible to vote at any meeting of the Association or to be elected an officer or director of the Association.

We would appreciate delegate confirmation no later than **Tuesday, November 10, 2009**. Please email me at lklupacs@mncounties.org, or fax the changes to 651-224-6540. If you do not respond by the deadline, we will assume that our records are correct and only those persons listed on this form will be eligible to vote at the AMC Annual Conference.

Don't forget to showcase your county by donating a gift from your county for the door prize drawing, which will take place on the final day of the conference.

Thank you for your timely response and I look forward to seeing you at the Hyatt Regency Minneapolis on December 7-9, 2009.

Association of Minnesota Counties
125 Charles Avenue
Saint Paul, MN 55103-2108
Main Line: 651-224-3344, Fax: 651-224-6540
www.mncounties.org

Laurie Klupacs
Membership/Administrative Services Manager
Office: 651.789.4329
Cell: 651.303.4835
Fax: 651.224.6540

ITEM # Consent 3

REQUEST FOR BOARD ACTION

* Required Fields



*Person Responsible for Request Nelson, Gracia	*Department Emergency Management	*Board Meeting Date Oct 27 2009
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***Subject Title (As it will appear on the agenda):**
Approve Sub-Grant Agreement for Federal Assistance Public Assistance Program

***Background (Provide sufficient detail of the subject):**
The State of Minnesota requires that each county receiving money through the FEMA Public Assistance program sign a Sub-Grant Agreement.

***Financial Consideration:**
The dollar amount that Roseau County will be receiving from the 2009 Spring Flood is \$1,259,730.54.

***Legal Consideration:**

***Other Consideration:**
None

***Resolution (Wording should reflect the intent of the Board vote):**
None

Coordinator's Office Use (Do Not Write Below)

Date Received:	Comments:
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Board Action:

Comm.	Motion (First)	Motion (Second)	Vote			Vote Result	
			Yes	No	Abstain		
Swanson						Passed	
Johnston							
Folds						Failed	
Rasmussen							
Walker						Tabled	

ATTEST: Teresa Klein, Board Clerk

STATE OF MINNESOTA
SUB-GRANT AGREEMENT FOR FEDERAL ASSISTANCE
PUBLIC ASSISTANCE PROGRAM

This Sub-Grant Agreement is between the State of Minnesota, acting through its Commissioner of Public Safety, Division of Homeland Security and Emergency Management, 444 Cedar Street, Suite 223, St. Paul, Minnesota 55101-6223 ("State") and ROSEAU (COUNTY), 606 5th Avenue SW, Roseau, MN 56751-0000 ("Sub-Grantee").

Recitals

- 1 The State is empowered to enter into this Sub-Grant Agreement under the authority contained in Minn. Stat. §299A.01, Subd 2 (4).
- 2 The State is empowered to receive, allocate and disburse federal aid monies made available through the Federal Emergency Management Agency (FEMA) under the provisions contained in:
 - (i) Chapter 12 of the Minnesota Statute;
 - (ii) Executive Order 04-04 and the FEMA-State Agreement designated as FEMA-1830-DR and amendments thereto; and
 - (iii) The Robert T. Stafford Disaster Relief and Emergency Assistance Act, U.S.C. §§5121-5206 (Stafford Act) in accordance with 44CRF §206.44.
- 3 Federal funds for this Sub-Grant Agreement are provided from FEMA-State Agreement FEMA 1830-DR.
- 4 State funds for this Sub-Grant Agreement were provided under Laws of Minnesota 2009, Chapter 93, Article 2, Section 3, for state and local match for federal disaster assistance.
- 5 Executive Order 04-04 is based on and applies to damage resulting from severe storms and flooding beginning on March 16, 2009, and ending on May 22, 2009, and reasonable expenses that were incurred in anticipation of and immediately preceding such event may be eligible for funds under such order.
- 6 The Sub-Grantee represents that it is duly qualified to receive funds under this Sub-Grant Agreement, and agrees to perform all services described in this Sub-Grant Agreement to the satisfaction of the State.

Sub-Grant Agreement

1 Term of Sub-Grant Agreement

- 1.1 **Effective date:** March 16, 2009, or the date the State obtains all required signatures under Minnesota Statutes Section 16C.05, subdivision 2, whichever is later. Once this Sub-Grant Agreement is fully executed, the Sub-Grantee may claim reimbursement for expenditures incurred pursuant to Clause 4.2 of this Sub-Grant Agreement. Reimbursements will only be made for those expenditures made according to the terms of this Sub-Grant Agreement.
- 1.2 **Expiration date:** September 15, 2010, or until all obligations have been satisfactorily fulfilled, whichever occurs first.
- 1.3 **Survival of Terms.** The following clauses survive the expiration or cancellation of this Sub-Grant Agreement:
 - (i) 8. Liability;
 - (ii) 9. State Audits;
 - (iii) 10. Government Data Practices;
 - (iv) 12. Publicity and Endorsement;
 - (v) 13. Governing Law, Jurisdiction, and Venue; and
 - (vi) 15. Data Disclosure.

2 Sub-Grantee's Duties The Sub-Grantee, who is not a state employee, makes the following representations and acknowledgements, and shall comply with the following provisions:

- 2.1 Comply with all aspects of the Public Assistance Program FEMA - 1830 - DR Applicant's Guide revised 04/09 ("Applicant's Guide") which is incorporated by reference and made part of this Sub-Grant Agreement.
- 2.2 Comply with the Federal and State Assurances, attached hereto as **Exhibit I**, and incorporated into this Sub-Grant Agreement by reference.
- 2.3 Carry out the work described on each eligible worksheet(s) that FEMA approves and the State provides to the Sub-Grantee in support of its request for federal and state funds ("Project Worksheets") which such worksheet(s) are incorporated by reference and made a part of this Sub-Grant Agreement. Original Project Worksheets will be kept

on file by the State with the State's copy of the Sub-Grant Agreement located at 444 Cedar Street, Suite 223, St. Paul, Minnesota 55101-6223.

- 2.4 Assure that funds provided and allocated through this Sub-Grant Agreement will be used for work delineated in the applicable Project Worksheets and as approved by FEMA and directed by the State.
- 2.5 Be responsible for keeping records that fully disclose the amount and disposition of project funds, with accounting procedures utilized by the Sub-Grantee that will provide for accurate and timely recording of the receipt of funds and expenditures.
- 2.6 Sub-Grantees receiving federal funds over \$100,000.00 must complete and return the Certification For Contracts, Grants, Loans, and Cooperative Agreements attached hereto as **Exhibit II** and incorporated into this Sub-Grant Agreement by reference.

3 Time

The Sub-Grantee must comply with all the time requirements described in this Sub-Grant Agreement. In the performance of this Sub-Grant Agreement, time is of the essence.

4 Consideration and Payment

4.1 **Consideration.** The State will pay for all services performed by the Sub-Grantee under this Sub-Grant Agreement as follows:

- (1) **Compensation.** The State shall reimburse the Sub-Grantee an amount not to exceed \$1,259,730.54 as the Total State Obligation according to the breakdown of costs shown below.

Item	Amount
Federal Share (75%)-	\$ 944,797.94
State Share (25%)	\$ 314,932.60
General Fund	\$ 314,932.60
General Obligation Bond	\$0.00
Sub-Grantee Share (0%)	\$0.00
Total of Sub-Grant Agreement	\$1,259,730.54
Total State Obligation	\$1,259,730.54

If the Minnesota Legislature does not appropriate the "State Share" shown above, the Sub-Grantee will be responsible for this amount and an amendment to this Sub-Grant Agreement will be required to reflect the decrease in the State's obligation and the increase to the Sub-Grantee's Matching Requirement under this Sub-Grant Agreement.

- (2) **Matching Requirements.** (If Applicable.) Sub-Grantee certifies that the following matching requirement, for the Sub-Grant Agreement, will be met by the Sub-Grantee: \$0,000.00.
- (3) **Total Obligation.** The total obligation of the State for all compensation and reimbursements to the Sub-Grantee under this Sub-Grant Agreement will not exceed \$1,259,730.54.

4.2 Payment

- (1) **Invoices.** The State will promptly pay the Sub-Grantee after the Sub-Grantee presents an itemized invoice for the services actually performed and the State's Authorized Representative accepts the invoiced services. Invoices must be submitted timely and according to the following schedule:
 - a. **Small Projects.** For Small Projects, as such term is used in Applicant's Guide, the State will pay the following amounts as soon as practicable after federal and state approval of funding and the execution of this Sub-Grant Agreement:
 - (i) All of the Federal Share shown in Section 4.1(1); and
 - (ii) 90 % of the State Share shown in Section 4.1(1) only for Categories A and B, as such terms are used

in Applicant's Guide.

Failure to complete a project may require that the Sub-Grantee refund to the State the federal and state payment.

The State will pay the remaining 10 % of the State Share shown in Section 4.1(1) for Categories A and B, as such terms are used in the Applicant's Guide, and the eligible and documented share of Categories C through G, as such terms are used in the Applicant's Guide, once the project is completed and the Sub-Grantee has provided the required cost documentation of the Sub-Grantee's costs.

The Sub-Grantee must retain all documentation in support of its costs as identified on the approved eligible Project Worksheets and make such documentation available for review upon request by state or federal agencies pursuant to Clause 9 of this Sub-Grant Agreement.

- b. **Large Projects.** For Large Projects, as such term is used in Applicant's Guide, the State will reimburse the Sub-Grantee for all expenses it incurred for the approved work that it performed after such work has been completed, a Project Completion Report, as such term is used in Applicant's Guide, is delivered to the State, the State and FEMA have approved the payment of the claim.

The Project Completion and Certification Report is a condition of eligibility of the federal and state funds. The Project Completion and Certification Report and all required documentation in support of its costs must be returned to the State within 60 days of project completion.

The State will make partial payments of federal and state funds to the Sub-Grantee for expenditures already incurred on Large Projects if the Sub-Grantee submits a Request for Partial Payment Form, as such term is used in Applicant's Guide, and all required documentation in support of its costs including proof of payment. Partial payments prior to closeout will **not** exceed 90% of the federal and state share of the project as shown in Clause 4.1 (1) of this Sub-Grant Agreement.

- (2) **Incident period.** Reimbursement will not be made on any expenditure made by the Sub-Grantee prior to the dates specified in the FEMA-State Agreement FEMA-1830-DR and amendments thereto. The specified incident period is March 16, 2009 and ending on May 22, 2009 and reasonable expenses which were incurred in anticipation of and immediately preceding such event may be eligible.
- (3) **Time limits.** The Sub-Grantee has 6 months from March 16, 2009, the disaster declaration date in the FEMA State Agreement to complete work for projects in Categories A and B, as such terms are used in the Applicant's Guide, and 18 months to complete work for projects in Categories C through G, as such terms are used in Applicant's Guide. Exceptions to this time limit may be granted for certain projects and the request must be submitted to the State in writing in accordance with the process specified in the Applicant's Guide..
- (4) **Federal funds.** (Where applicable, if blank this section does not apply) Payments under this Sub-Grant Agreement will be made from federal funds obtained by the State through CFDA number 97.036 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act. The Sub-Grantee is responsible for compliance with all federal requirements imposed on these funds and accepts full financial responsibility for any requirements imposed by the Sub-Grantee's failure to comply with federal requirements.
- (5) **Federal audit requirements.** The Sub-Grantee will comply with the Single Audit Amendments of 1966 and Office of Management and Budget Circular A-133. Federal Audit Requirements **Exhibit III**, is attached and incorporated into this Sub-Grant Agreement.

5 Conditions of Payment

All services provided by the Sub-Grantee under this Sub-Grant Agreement must be performed to the State's satisfaction, as determined at the sole discretion of the State's Authorized Representative and in accordance with

all applicable federal, state, and local laws, ordinances, rules, and regulations. The Sub-Grantee will not receive payment for work found by the State to be unsatisfactory or performed in violation of federal, state, or local law.

6 Authorized Representative

The State's Authorized Representative is Bill Hirte, Public Assistance Recovery Manager, 444 Cedar Street, St. Paul, Minnesota 55101-6223, Bill.Hirte@state.mn.us 651-201-7431, or his/her successor, and has the responsibility to monitor the Sub-Grantee's performance and the authority to accept the services provided under this Sub-Grant Agreement. If the services are satisfactory, the State's Authorized Representative will certify acceptance on each invoice submitted for payment.

The Sub-Grantee's Authorized Representative is Gracia Nelson, Roseau County Emergency Manager, 606 5th Avenue SW, Roseau, MN 56751-0000, gracia.nelson@co.roseau.mn.us, 218-463-3375. If the Sub-Grantee's Authorized Representative changes at any time during this Sub-Grant Agreement, the Sub-Grantee must immediately notify the State.

7 Assignment, Amendments, Waiver, and Sub-Grant Agreement Complete

7.1 Assignment. The Sub-Grantee may neither assign nor transfer any rights or obligations under this Sub-Grant Agreement without the prior consent of the State and a fully executed Assignment Agreement, executed and approved by the same parties who executed and approved this Sub-Grant Agreement, or their successors in office.

7.2 Amendments. Any amendment to this Sub-Grant Agreement must be in writing and will not be effective until it has been executed and approved by the same parties who executed and approved the original Sub-Grant Agreement, or their successors in office.

7.3 Waiver. If the State fails to enforce any provision of this Sub-Grant Agreement, that failure does not waive the provision or its right to enforce it.

7.4 Sub-Grant Agreement Complete. This Sub-Grant Agreement contains all negotiations and agreements between the State and the Sub-Grantee. No other understanding regarding this Sub-Grant Agreement, whether written or oral, may be used to bind either party.

8 Liability

The Sub-Grantee must indemnify, save, and hold the State, its agents, and employees harmless from any claims or causes of action, including attorney's fees incurred by the State, arising from the performance of this Sub-Grant Agreement by the Sub-Grantee or the Sub-Grantee's agents or employees. This clause will not be construed to bar any legal remedies the Sub-Grantee may have for the State's failure to fulfill its obligations under this Sub-Grant Agreement.

9 State Audits

Under Minn. Stat. §16C.05, subd. 5, the Sub-Grantee's books, records, documents, and accounting procedures and practices relevant to this Sub-Grant Agreement are subject to examination by the State and/or the State Auditor or Legislative Auditor, as appropriate, for a minimum of six years from the end of this Sub-Grant Agreement.

10 Government Data Practices

The Sub-Grantee and State must comply with the Minnesota Government Data Practices Act, contained in Chapter 13 of the Minnesota Statutes, as it applies to all data provided by the State under this Sub-Grant Agreement, and as it applies to all data created, collected, received, stored, used, maintained, or disseminated by the Sub-Grantee under this Sub-Grant Agreement. The civil remedies of Minn. Stat. §13.08 apply to the release of the data referred to in this clause by either the Sub-Grantee or the State.

11 Workers' Compensation

The Sub-Grantee certifies that it is in compliance with Minn. Stat. §176.181, subd. 2, pertaining to workers' compensation insurance coverage. The Sub-Grantee's employees and agents will not be considered State employees. Any claims that may arise under the Minnesota Workers' Compensation Act on behalf of these employees and any claims made by any third party as a consequence of any act or omission on the part of these

employees are in no way the State's obligation or responsibility.

12 Publicity and Endorsement

- 12.1 **Publicity.** Any publicity regarding the subject matter of this Sub-Grant Agreement must identify the State as the sponsoring agency and must acknowledge FEMA financial support by grant number FEMA 11830-DR and must state that the publication does not constitute an endorsement by FEMA or reflect FEMA views.
- 12.2 **Endorsement.** The Sub-Grantee must not claim that the State and/or FEMA endorse its products or services.

13 Governing Law, Jurisdiction, and Venue

Minnesota law, without regard to its choice-of-law provisions, governs this Sub-Grant Agreement. Venue for all legal proceedings out of this Sub-Grant Agreement, or its breach, must be in the appropriate state or federal court with competent jurisdiction in Ramsey County, Minnesota.

14 Termination

- 14.1 **Termination by the State.** The State may cancel this Sub-Grant Agreement at any time, with or without cause, upon 30 days' written notice to the Sub-Grantee. Upon termination, the Sub-Grantee will be entitled to payment for services satisfactorily performed prior to the termination date.
- 14.2 **Termination by the Sub-Grantee.** The Sub-Grantee may request termination upon 30 day's written notice to the State's Authorized Agent. Upon termination, the Sub-Grantee is entitled to payment for services actually performed and agrees to return any unused funds to the State.
- 14.3 **Termination for Insufficient Funding.** The State may immediately terminate this Sub-Grant Agreement if it does not obtain funding from the Minnesota Legislature, or other funding source; or if funding cannot be continued at a level sufficient to allow for the payment of the services covered here. Termination must be by written or fax notice to the Sub-Grantee. The State is not obligated to pay for any services that are provided after notice and effective date of termination. However, the Sub-Grantee will be entitled to payment, for services satisfactorily performed prior to the termination date to the extent that funds are available. The State will not be assessed any penalty if the Sub-Grant Agreement is terminated because of the decision of the Minnesota Legislature, or other funding source, not to appropriate funds. The State must provide the Sub-Grantee notice of the lack of funding within a reasonable time of the State receiving that notice.
- 14.4 **Termination for Failure to Comply.** The State may cancel this Sub-Grant Agreement immediately if the State finds that there has been a failure to comply with the provisions of this grant, that reasonable progress has not been made, or that the purpose for which the funds were granted have not been or will not be fulfilled. The State may take action to protect the interests of the State of Minnesota, including the refusal to disburse additional funds and requiring the return of all or part of the funds already disbursed.
- 14.5 **Termination notice.** Notice by either the State or the Sub-Grantee must be made in writing to the other party and include the reasons for the termination, the termination effective date and, if a partial termination, the portion of the project to be terminated. As per CFR 44, Part 13.43 (a)(1)(2)(3)(4) and CFR 44 Part 13.44 (a)(b) regarding partial terminations, if the State determines that the remaining portion of the award will not accomplish the purposes for which the award was made then the State may choose to terminate the award in its entirety.

15 Data Disclosure

Under Minn. Stat. §270C.65, and other applicable law, the Sub-Grantee consents to disclosure of its social security number, federal employer tax identification number, and/or Minnesota tax identification number, already provided to the State, to federal and state tax agencies and state personnel involved in the payment of state obligations. These identification numbers may be used in the enforcement of federal and state tax laws which could result in action requiring the Sub-Grantee to file state tax returns and pay delinquent state tax liabilities, if any, or pay other state liabilities.

i. ENCUMBRANCE VERIFICATION

Individual certifies that funds have been encumbered as required by Minn. Stat. §§ 16A.15 and 16C.05.

3. STATE AGENCY

Governor's Authorized Representative or Alternate Governor's Authorized Representative.

Signed: _____

By: _____

(with delegated authority)

Date: _____

Title: _____

Sub-Grant Agreement No. 2000-14002

Date: _____

2. SUB-GRANTEE

The Sub-Grantee certifies that the appropriate person(s) have executed the Sub-Grant Agreement on behalf of the Sub-Grantee as required by applicable articles, bylaws, resolutions, or ordinances.

By: _____

Title: _____

Date: _____

By: *Diana Nelson*

Title: *Director, Basileu City HSEnd*

Date: *10-19-09*

Distribution:

DPS/FAS

Sub-Grantee

State's Authorized Representative (copy)

FEDERAL AND STATE ASSURANCES

(Note: Certain of these assurances may not be applicable to your project or program.)

All of the terms contained herein shall have the same definition as is used for such term in the Sub-Grant Agreement to which this document is an Exhibit.

SUB-GRANTEE certifies that the SUB-GRANTEE has the legal authority to apply for federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-federal share of project costs) to ensure proper planning, management and completion of the project described in this Sub-grant Agreement.

SUB-GRANTEE will give FEMA, the Comptroller General of the United States, and the STATE, through their authorized representatives, access to and the right to examine all records, books, papers or documents related to the assistance; and will establish a proper account system in accordance with generally accepted accounting standards or agency directives.

SUB-GRANTEE will not dispose of, modify the use of, or change the terms of the real property title, or other interest in the site and facilities without permission and instructions from the awarding agency.

SUB-GRANTEE will record the Federal interest in the title of real property in accordance with awarding agency directives and will include a covenant in the title of real property acquired in whole or in part with Federal assistance funds to assure non-discrimination during the useful life the project.

SUB-GRANTEE shall be responsible for keeping records that fully disclose the amount and disposition of project funds. The accounting procedures utilized by the SUB-GRANTEE shall provide for the accurate and timely recording of the receipt of funds and expenditures.

SUB-GRANTEE will comply with the requirements of FEMA in regard to the drafting, review, and approval of construction plans and specifications.

SUB-GRANTEE will provide and maintain competent and adequate engineering supervision at the construction site to ensure that the work is completed and conforms to the approved plans and specifications and will furnish progress reports and such other information as may be required by the assistance awarding agency or State.

SUB-GRANTEE will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.

SUB-GRANTEE will establish safeguards to prohibit SUB-GRANTEE's employees from using their positions for any purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.

SUB-GRANTEE will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§ 4728-4763) relating to prescribed standards for merit systems for programs funded under one of the nineteen statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).

SUB-GRANTEE will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§ 4801 et seq.) which prohibits the use of lead based paint in construction or rehabilitation of residence structures.

SUB-GRANTEE will comply with all federal statutes relating to non-discrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color, or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§ 1681-1683, and 1685-1686) which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794) which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975 as amended (42 U.S.C. §§ 6101-6107) which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to non-discrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as

amended, relating to non-discrimination on the basis of alcohol abuse or alcoholism; (g) §§ 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. 290 dd-3 and 290 ee-3), as amended relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. § 3601 et seq.), as amended relating to non-discrimination in the sale, rental or financing of housing; (i) any other non-discrimination provisions in the specific statute(s) under which application for federal assistance is being made, and (j) the requirements on any other non-discrimination Statute(s) which may apply to the Sub-grant Agreement.

SUB-GRANTEE will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provides for fair and equitable treatment of persons displaced or whose property is acquired as a result of federal and federally assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of federal participation in purchases. For acquisition/relocation projects funded as a result of the FEMA-1830-DR presidential disaster declaration, the purchase of any real property under a qualified buy-out program shall not constitute the making of Federal financial assistance available to pay all or part of the cost of a program or project resulting in the acquisition of real property or in any owner of real property being a displaced person (within the meaning of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970).

SUB-GRANTEE will comply with the provisions of the Hatch Act (5 U.S.C. §§ 1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with federal funds and with the Certification Regarding Lobbying, contained in EXHIBIT IV, hereby attached and incorporated and made part of this Sub-grant Agreement and SUB-GRANTEE has filed with the State the certification contained in EXHIBIT IV.

If identified on the eligible Project Worksheet incorporated by reference into the SUB-GRANTEE'S copy of this Sub-grant Agreement and on file by the STATE, the SUB-GRANTEE will comply with the flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234), 44 CFR part 206, subpart I, which requires SUB-GRANTEE in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.

SUB-GRANTEE will comply with environmental standards or requirements which may be prescribed pursuant to the following: (a) institution environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved state management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) compliance with all applicable standards, orders, or requirements issued under section 306 of the Clear Air Act (42 U.S.C. 1857(g)).

SUB-GRANTEE will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§ 1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.

SUB-GRANTEE will assist the STATE in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470), EO 11593 (identification and preservation of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. 469a-1 et seq.).

SUB-GRANTEE will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133 "Audits of States, Local Governments, and Non-Profit Organizations."

SUB-GRANTEE will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

SUB-GRANTEE will comply with the minimum wage and maximum hour provisions of the Federal Fair Labor Standards Act (29U.S.C.201), as they apply to employees of institutions of higher education, hospitals, and other non-profit organizations.

SUB-GRANTEE will comply, as applicable, with the provisions of the Copeland "Anti-Kickback" Act (18 U.S.C. 874), and the Contract Work Hours and Safety Standards Act (40 U.S. 327-330) regarding labor standards for federally assisted construction sub-agreements, as supplemented by Department of Labor Regulations.

SUB-GRANTEE will comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (P.L. 94-163).

FEDERAL AUDIT REQUIREMENTS**1. For subrecipients that are state or local governments, non-profit organizations, or Indian tribes**

If the grantee expends total federal assistance of \$500,000 or more per year, the grantee agrees to obtain either a single audit or a program-specific audit made for the fiscal year in accordance with the terms of the Single Audit Act Amendments of 1996.

Audits shall be made annually unless the state or local government has, by January 1, 1987, a constitutional or statutory requirement for less frequent audits. For those governments, the federal cognizant agency shall permit biennial audits, covering both years, if the government so requests. It shall also honor requests for biennial audits by governments that have an administrative policy calling for audits less frequent than annual, but only audits prior to 1987 or administrative policies in place prior to January 1, 1987.

For subrecipients that are institutions of higher education or hospitals

If the grantee expends total direct and indirect federal assistance of \$500,000 or more per year, the grantee agrees to obtain a financial and compliance audit made in accordance with OMB Circular A-110 "Requirements for Grants and Agreements with Universities, Hospitals and Other Nonprofit Organizations" as applicable. The audit shall cover either the entire organization or all federal funds of the organization.

The audit must determine whether the subrecipient spent federal assistance funds in accordance with applicable laws and regulations.

2. The audit shall be made by an independent auditor. An independent auditor is a state or local government auditor or a public accountant who meets the independence standards specified in the General Accounting Office's "Standards for Audit of Governmental Organizations, Programs, Activities, and Functions."
3. The audit report shall state that the audit was performed in accordance with the provisions of OMB Circular A-133 (or A-110 as applicable).

The reporting requirements for audit reports shall be in accordance with the American Institute of Certified Public Accounts' (AICPA) audit guide, "Audits of State and Local Governmental Units," issued in 1986. The federal government has approved the use of the audit guide.

In addition to the audit report, the recipient shall provide comments on the findings and recommendations in the report, including a plan for corrective action taken or planned and comments on the status of corrective action taken on prior findings. If corrective action is not necessary, a statement describing the reason it is not should accompany the audit report.

4. The grantee agrees that the grantor, the Legislative Auditor, the State Auditor, and any independent auditor designated by the grantor shall have such access to grantee's records and financial statements as may be necessary for the grantor to comply with the Single Audit Act Amendments of 1996 and OMB Circular A-133.
5. Grantees of federal financial assistance from subrecipients are also required to comply with the Single Audit Act and OMB Circular A-133.
6. The Statement of Expenditures form can be used for the schedule of federal assistance.
7. The grantee agrees to retain documentation to support the schedule of federal assistance for at least four years.

8. Required audit reports must be filed with the State Auditor's Office, Single Audit Division, and with federal and state agencies providing federal assistance, and the Department of Public Safety within nine months of the grantee's fiscal year end.

OMB Circular A-133 requires recipients of more than \$500,000 in federal funds to submit one copy of the audit report within 30 days after issuance to the central clearinghouse at the following address:

Bureau of the Census
Data Preparation Division
1201 East 10th Street
Jeffersonville, Indiana 47132

Attn: Single Audit Clearinghouse

The Department of Public Safety's audit report should be addressed to:

Minnesota Department of Public Safety
Office of Fiscal and Administrative Services
444 Cedar Street
Suite 126, Town Square
St. Paul, MN 55101-5126

ITEM # Consent 4

REQUEST FOR BOARD ACTION

* Required Fields



*Person Responsible for Request Klein, Trish	*Department Coordinator	*Board Meeting Date Oct 27 2009
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***Subject Title (As it will appear on the agenda):**
Approve Annual Membership with Employers Association Inc.

***Background (Provide sufficient detail of the subject):**
This is the annual membership fee for the Human Resource support services Employers Association provides the county.

***Financial Consideration:**
\$965.00

***Legal Consideration:**

***Other Consideration:**
None

***Resolution (Wording should reflect the intent of the Board vote):**
None

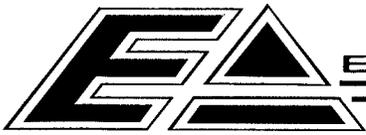
Coordinator's Office Use (Do Not Write Below)

Date Received:	Comments:
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Board Action:

Comm.	Motion (First)	Motion (Second)	Vote			Vote Result	
			Yes	No	Abstain		
Swanson						Passed	
Johnston							
Folds						Failed	
Rasmussen							
Walker						Tabled	

ATTEST: Teresa Klein, Board Clerk



EMPLOYERS ASSOCIATION INC.

Invoice No. 198080

9805 45th Ave. N. Plymouth, MN 55442 Business: (763) 253-9100 Fax: (763) 559-6508

RECEIVED

OCT 19 2009

INVOICE

Bill To:

Roseau County
Trish Klein
606 5th Ave SW Room 131
Roseau MN 56751-1477
USA

Member No. 00714424
TIN 41-1298531
Invoice Date 10/15/2009
Terms Net15
Due Date 10/30/2009 PO No.

Office Use Only	Quantity	Description	Unit Price	TOTAL
4000-1-10-000	1	Preferred Membership	\$965.00	\$965.00
			Balance Due	\$965.00

To pay by Credit Card either call Accounts Receivable or complete the following and mail or fax to Accounts Receivable at Employers Association, Inc.

(circle one) Visa MasterCard Amex Credit Card # : _____

Print Cardholder Name: _____ Authorized Signature: _____

Exp. Date: _____ Card Security Code: _____

Address and Zip Code of Card Holder: _____

ITEM # Consent 5

REQUEST FOR BOARD ACTION

* Required Fields



*Person Responsible for Request Klein, Trish	*Department Coordinator	*Board Meeting Date Oct 27 2009
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***Subject Title (As it will appear on the agenda):**
Approve MCIT Voting Delegate and Alternates

***Background (Provide sufficient detail of the subject):**
MCIT has requested confirmation of Roseau County's voting delegate and alternate.

***Financial Consideration:**

***Legal Consideration:**

***Other Consideration:**
None

***Resolution (Wording should reflect the intent of the Board vote):**
None

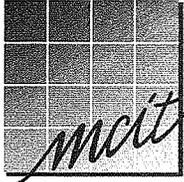
Coordinator's Office Use (Do Not Write Below)

Date Received:	Comments:
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Board Action:

Comm.	Motion (First)	Motion (Second)	Vote			Vote Result	
			Yes	No	Abstain		
Swanson						Passed	
Johnston							
Folds						Failed	
Rasmussen							
Walker						Tabled	

ATTEST: Teresa Klein, Board Clerk



MINNESOTA COUNTIES INSURANCE TRUST

100 Empire Drive
Suite 100
St. Paul, MN 55103-1885

651.209.6400
866.547.6516
FAX: 651.209.6495

BOARD OF DIRECTORS

Dennis Hegberg
Trust Chair
Commissioner
Washington County

Sharon K. Anderson
Vice Chair
Auditor/Treasurer
Cass County

Charles Naplin
Secretary/Treasurer
Commissioner
Pennington County

Scott Sanders
Commissioner
Watonwan County

Tom Shea
Commissioner
Steele County

Graylen Carlson
Commissioner
Lac qui Parle County

Felix Schmiesing
Commissioner
Sherburne County

Melvin Ruppert
Administrator
Nobles County

John Hoscheid
Auditor/Purchasing
Agent, Lake of the
Woods County

October 16, 2009

RE: VOTING DELEGATES AND ALTERNATES

Dear: Anne Granitz

The 2009 Annual Meeting of the Minnesota Counties Insurance Trust will be held on:

Monday, December 7, 2009 at 1:00 p.m.
(Registration to begin at 12:30.)

Room: Regency Room (2nd Floor)
Hyatt Regency Hotel
Minneapolis, Minnesota

An election will be held for one seat on the MCIT Board of Directors. The MCIT Bylaws provide for the designation of official voting delegates and alternates. Our records indicate that your voting delegate and alternate are as follows:

Delegate: Anne Granitz

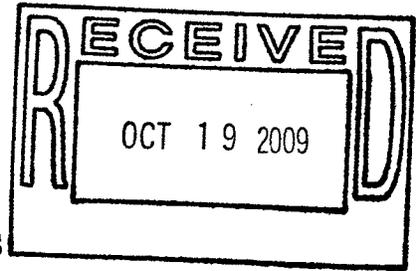
Alternate: Russ Walker

IF THIS IS CORRECT, YOU NEED NOT RESPOND TO THIS LETTER. If this is incorrect or if you wish to change your voting delegate and alternate, please complete the enclosed designation form. The form should be signed and returned to MCIT by **November 20, 2009**. The form can be faxed to 651.209.6496 or email to rsykes@mcit.org. Thank you for your attention to this matter.

Sincerely,

Robyn M. Sykes
Executive Director

cc: County Administrator, Coordinator, Auditors or Auditor/Treasurer



ITEM # Consent 6

REQUEST FOR BOARD ACTION

* Required Fields



*Person Responsible for Request Nelson, Gracia	*Department Emergency Management	*Board Meeting Date Oct 23 2009
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***Subject Title (As it will appear on the agenda):**
Request for Proposal for Quote for Dedicated Fiber be advertised

***Background (Provide sufficient detail of the subject):**
Emergency Management is requesting board approval to advertise a Request for Proposal for Quote for Dedicated Fiber. This is for a minimum of 12 fibers to be installed underground from the Roseau County Courthouse, Sjoberg's Cable TV tower west to Section 20, Jadis Township and continuing on to a point of intersection # 308 and # 11. The fiber will tie Roseau Communications in with the MnDOT Tower.

The f
The cost will be covered by 911 funds.

***Legal Consideration:**

***Other Consideration:**

***Resolution (Wording should reflect the intent of the Board vote):**

Coordinator's Office Use (Do Not Write Below)

Date Received:	Comments:

Board Action:

Comm.	Motion (First)	Motion (Second)	Vote			Vote Result
			Yes	No	Abstain	
Swanson						Passed
Johnston						
Folds						Failed
Rasmussen						
Walker						Tabled

ATTEST: Teresa Klein, Board Clerk

ROSEAU COUNTY

2009

QUOTE FOR DEDICATED FIBER

REQUEST FOR PROPOSAL

(RFP)

OCTOBER 6, 2009

REQUEST FOR PROPOSAL

Quote for Dedicated Fiber

PROJECT OVERVIEW:

Roseau County wishes to enter in and partner with others in the install and operation of fiber from the Roseau County Courthouse to Sjoberg Cable TV Tower and west approximately 7 miles with multiple required access points. Provided fiber will be single mode, dark fiber with terminations as agreed to in the MOU. Roseau County has received a Northern Border Counties grant to assist in financing said project to include tying in the Roseau County Courthouse to the Mn Department of Transportation microwave at the tower site located in Jadis Township Section # 20. Further use of fiber will be used for the sole purpose of governmental entities located in Roseau County. This project will include a non-competitive clause binding on Roseau County. Roseau County further looks for the on-going repair and maintenance of this fiber as part of this RFP.

DETAILS:

- Minimum of 12 fibers to be installed underground. Shall be fiber from the Roseau County Courthouse, Sjoberg's Cable TV tower west to Section 20, Jadis Township and continuing on to a point of intersection # 308 and # 11.
- Single-mode fiber
- Location: Roseau County Courthouse to Sjoberg's cable TV tower (Roseau County Translator Building) approximately at the corner of the NW quarter of the NE Quarter, Section 20, Jadis Township located along Mn Highway # 11 and continuing on to the intersection of # 308.
- Required Access Points shall be:
 1. intersection of # 308 and # 11 in Ross Township,
 2. intersection of Highway # 89 and Highway # 11 in Ross Township,
 3. the access point located in section 20 of Jadis Township,
 4. the Roseau County Translator building located at Sjobergs Cable TV Tower in Jadis Township,
 5. # 310 intersection of Highway 11 and # 89,
 6. City of Roseau 2nd Street NW and Highway # 89,
 7. Center Street West and # 89,
 8. railroad access and Highway # 89, and
 9. 6th Street SW and #89
 10. end access is the Roseau County Courthouse.
 11. The quote shall supply all work, install and materials on mutually agreed terms.

Upon acceptance of quote, detailed Memorandum of Understanding (MOU)will include:

- Non compete clause by Roseau County
- Major repairs to fiber
- On-going minor maintenance

- Gopher One call requirements
- End of life of fiber.

Roseau County has the right to accept or reject all quotes and negotiate modifications to meet the requirements of Roseau County,

PROPOSALS DUE

The original proposal with proposal bond are due at the Roseau County Emergency Management office located in Roseau County Courthouse, Roseau, Mn no later than 4:30 p.m. Central Standard Time on

_____.

Actual opening of proposals shall be at _____ p.m. _____ 2009, Roseau County Board Room, Roseau County Courthouse, Roseau, Mn.

QUESTIONS

All questions should be referred in writing to:

Emergency Manager Gracia C. Nelson
Roseau County Courthouse
606 5th Ave SW
Roseau, Mn 56751
TEL: 218-463-3375
Fax: 218-463-3252

QUOTE BINDING 90 DAYS

Unless otherwise specified, all formal proposals submitted shall be binding for ninety (90) calendar days following the proposal opening date.

POSTPONEMENT AND REJECTION OF RFP'S

Roseau County shall have the right to postpone the proposal opening for its own convenience, or to reject any or all proposals not accompanied by any required proposal security or by other required data. The County reserves the right to reject any and all Request for Proposal which is in any way incomplete or irregular.

SUCCESSFUL VENDOR SELECTION

Proposals will be evaluated by a committee selected by the county for conformance to the RFP's requirements. Preference will be given to those vendors providing demonstrated capability and experience in the design and implementation of similar systems.

Finalists may be invited to an interview. Selection of the successful vendor will be followed by contract negotiations. The committee's final recommendations will be based upon an analysis of offering, not just the lowest price as indicated.

TERMS AND CONDITIONS OF AWARD

The terms and conditions for contract award imposed herein shall govern in all cases and conflicting terms or conditions submitted by the responder of the RFP may constitute sufficient grounds for rejection of the bid.

CONTRACT AWARD

The contract for the entire project as listed for furnishing all equipment and installation as specified, will be to the responder to the RFP deemed most advantageous as determined by an objective evaluation criteria. The review committee reserves the following rights in addition to those accorded the committee by policy and statutory laws:

- a) The right to negotiate with one or more vendors to arrive at a final selection;
- b) The right to negotiate all proposal elements to ensure the best possible consideration be afforded to all components required and all parties concerned including the right to approve or disapprove subcontractors after the award;
- c) The right to reject any and all proposals to consider alternatives, to waive any minor irregularities and technicalities, and to re-solicit proposals;
- d) The right to award the contract to a vendor who is not the lowest cost vendor. The selection of the awarded vendor will be made dependent on the availability of funds. The committee reserves the right to accept or reject any and all proposals. Final approval shall be subject to action of Roseau County.

ITEM # 9:15 Appt.

REQUEST FOR BOARD ACTION

* Required Fields



*Person Responsible for Request ▼	*Department ▼	*Board Meeting Date		
		Oct ▼	27 ▼	2009 ▼

***Subject Title (As it will appear on the agenda):**
Treasurer Diane Gregerson

***Background (Provide sufficient detail of the subject):**
Diane will be here to ask for you to approve the Unclaimed Property List for Submission. This List is attached for your review.

***Financial Consideration:**

***Legal Consideration:**

***Other Consideration:**
None

***Resolution (Wording should reflect the intent of the Board vote):**
None

Coordinator's Office Use (Do Not Write Below)

Date Received:	Comments:

Board Action:

Comm.	Motion (First)	Motion (Second)	Vote			Vote Result
			Yes	No	Abstain	
Swanson						Passed
Johnston						
Folds						Failed
Rasmussen						
Walker						Tabled

ATTEST: Teresa Klein, Board Clerk

Roseau County Treasurer

Date: October 27, 2009

To: Roseau County Board of Commissioners, Jack Swanson, Chairman

From: Diane M. Gregerson, Roseau County Treasurer

RE: Roseau County Unclaimed Property

Due to the Minnesota Uniform Disposition of Unclaimed Property Act (Minnesota Status 345.31 - 345.60), the following Roseau County warrants will be remitted to the State of Minnesota - Department of Commerce - Unclaimed Property Section:

<u>No.</u>	<u>Date</u>	<u>Amount</u>	<u>Payee</u>
95582	August 4, 2005	\$ 2.00	Tara Lynch
95590	August 4, 2005	\$ 2.00	Virginia Schrader
97868	April 7, 2006	\$ 2.00	Ralph O. & Virginia P. Lian
97872	April 7, 2006	\$ 1.50	Benjamin Reese
68838	April 21, 2006	\$ 65.00	Jake Borreson
98438	June 16, 2006	\$252.50	Robert Brandt
5441	September 27, 2005	\$ 1.64	Scott R. Janson
5459	October 12, 2005	\$ 1.20	Darcie L. Loewe
5553	January 5, 2006	\$ 1.28	Robert L. Craig
5605	March 15, 2006	\$ 1.43	Lisa Vogel
5633	April 12, 2006	\$ 2.60	Debra Diepenbrock
5652	April 26, 2006	\$ 15.00	Rachel Hamilton
	Total	\$348.15	

ITEM # 10:45 appt.

REQUEST FOR BOARD ACTION

* Required Fields



*Person Responsible for Request Klein, Trish	*Department Coordinator	*Board Meeting Date Oct 27 2009
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***Subject Title (As it will appear on the agenda):**
Cynthia Madigan from the U.S. Census Bureau

***Background (Provide sufficient detail of the subject):**
Cynthia Madigan will be here to explain the goals of the 2010 Census, establish a Complete Count Committee and identify the hard to count population in Roseau County.

***Financial Consideration:**

***Legal Consideration:**

***Other Consideration:**
None

***Resolution (Wording should reflect the intent of the Board vote):**
None

Coordinator's Office Use (Do Not Write Below)

Date Received:	Comments:
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Board Action:

Comm.	Motion (First)	Motion (Second)	Vote			Vote Result
			Yes	No	Abstain	
Swanson						Passed
Johnston						
Folds						Failed
Rasmussen						
Walker						Tabled

ATTEST: Teresa Klein, Board Clerk



IT'S IN OUR HANDS

2010 Census Partnership Agreement Form

The Census Bureau's partnership program combines the strengths of local governments, community-based organizations, faith-based organizations, schools, media, businesses and others, to ensure a complete and accurate 2010 Census. The Census Bureau will provide promotional materials, updates and data assistance to partners to assist in this effort. Together we can ensure the 2010 Census message is delivered to every corner of the nation.

There are many ways to get involved with the 2010 Census

(Please check activities in which you are interested in participating)

- Organize and/or serve on a Complete Count Committee.
- Identify job candidates, distribute and display recruiting materials.
- Provide space to test job applicants.
- Provide space to train new employees.
- Provide space for Be Counted sites and/or Questionnaire Assistance Centers.
- Encourage persons to return their questionnaire.
- Display/distribute 2010 Census promotional materials.
- Issue public endorsement for the 2010 Census and send endorsement to members or affiliates.
- Place 2010 Census articles in publications. Donate space for census advertisements.
- Air 2010 Census PSAs and B-Roll, and cover census events/programs.
- Provide speaking opportunities and exhibit space at conferences or trade shows.
- Sponsor community events to promote 2010 Census participation.
- Participate in a speakers' bureau for the 2010 Census
- Allow the Census Bureau to post your organization's name on the 2010 Census Web site.
- Provide link to the 2010 Census Web site from your organization's site.
- Use 2010 Census drop-in articles, messages and logos in newsletters, mailings, and other in-house communications (e-mail, Web site, etc.).
- Appoint a liaison to work with the Census Bureau.
- Provide volunteers for census promotional events.
- Put the 2010 Census on meeting agendas and/or allow presentations by Census Bureau staff.
- Use and distribute educational materials.
- Provide a translator/translate 2010 Census material
- Participate in 2010 Census kick-off meetings.
- Highlight key 2010 Census operational events in newsletters or other publications.
- Participate in Census Bureau-sponsored events.
- Other: _____

Name: _____

Title: _____

Organization: _____

Address: _____

Phone: _____

E-mail: _____

Signature: _____

Date: _____

Name: Cindy Madigan

Title: Partnership Specialist

Organization: U.S. Census Bureau

Address: 2001 N.E. 46th St. Kansas City, MO 64116

Phone: 218-207-9098

E-mail: cynthia.p.madigan@census.gov

Signature: _____

Date: _____

If you have any questions, please call the Partnership Department at (816) 298-9704

Thank you for becoming an official 2010 Census partner! We appreciate your support in ensuring the success of this great effort.



2010 CENSUS: IT'S IN OUR HANDS

What Elected Officials Need to Know about the 2010 Census

In 2010, the U.S. census will define who we are as a nation. Taken every 10 years, the census affects political representation and directs the allocation of billions of dollars in government funding. As an elected official, you work daily to secure the best interests of your constituents and to ignite positive change for your community. By becoming a 2010 Census partner, you can help ensure that everyone in your community is counted so that your community receives its fair share of important services and resources. **Achieving a complete and accurate 2010 Census is in our hands.**

The Census: A Snapshot

- ▲ The U.S. Constitution requires a national census once every 10 years.
- ▲ The census is a count of everyone residing in the United States: in all 50 states, Washington, D.C., Puerto Rico, U.S. Virgin Islands, Guam, the Commonwealth of the Northern Mariana Islands, and American Samoa. This includes people of all ages, races, ethnic groups, both citizens and non-citizens.
- ▲ The 2010 Census will create hundreds of thousands of temporary jobs across the nation.

It's in Our Hands: Your Community's Participation in the Census Matters

- ▲ Every year, more than \$300 billion in federal funds is awarded to states and communities based on census data. That's more than \$3 trillion over a 10-year period.
- ▲ Census data guide planning for new hospitals, schools and other services.
- ▲ Census data is used to determine the most need for additional social services, including who receives community development block grants and other grant programs essential to many communities.

Completing the 2010 Census Questionnaire: Simple and Safe

- ▲ The 2010 Census questionnaire asks only a few simple questions of each person—name, relationship, gender, age and date of birth, race, and whether the respondent owns or rents his or her home. This simple, short questionnaire takes just a few minutes to complete and return by mail.
- ▲ The Census Bureau does not release or share information that identifies individual respondents or their household for 72 years.

www.census.gov/2010census



2010 CENSUS: *Frequently Asked Questions*

Why should everyone participate in the 2010 Census?

The 2010 Census will shape the future of your community, define your voice in Congress and generate local employment opportunities for your constituents.

- ▲ Census information helps determine locations for schools, roads, hospitals, child-care and senior citizen centers, and more.
- ▲ Businesses use census data to locate supermarkets, shopping centers, new housing and other facilities.
- ▲ The census determines how many seats each state will have in the U.S. House of Representatives as well as the boundaries of legislative districts.
- ▲ Local communities use census data to gauge the financial health of the community and the future of vital social service programs. Census data inform a diverse range of local initiatives, such as justifying the need for an after-school program to designating urban revitalization areas.

How will the 2010 Census differ from previous census efforts?

In the last census, one in six households received a long questionnaire asking for detailed socioeconomic information. In 2010, every residence will receive a short questionnaire that is simple and fast to complete and return. More detailed information will be collected annually from a small percentage of the population through the American Community Survey.

Will the information the Census Bureau collects remain confidential?

Yes. Every Census Bureau worker takes an oath for life to protect the confidentiality of census responses. Violation would result in a jail term of up to five years and/or fine of up to \$250,000. By law, the Census Bureau cannot share an individual's answers with anyone, including welfare and immigration agencies.

Why are elected officials important partners in the 2010 Census campaign?

More than 140,000 organizations supported Census 2000, including state and local governments, community- and faith-based organizations, schools, media, businesses and others. By joining forces with partners, the Census Bureau has a far greater chance to reach every U.S. resident than by attempting this monumental task alone. As an elected official, you can communicate the importance and safety of completing the census questionnaire to constituents, including those isolated by language or geography. You can form a Complete Count Committee, hold town hall meetings, include census information in newsletters and Web sites, and provide space for the Census Bureau to test and train.

2010 Census Timeline: Key Dates

Fall 2008	Recruitment begins for local census jobs for early census operations.
Spring 2009	Census employees go door-to-door to update address list nationwide.
Fall 2009	Recruitment begins for census takers needed for peak workload in 2010.
February - March 2010	Census questionnaires are mailed or delivered to households.
April 1, 2010	Census Day
April - July 2010	Census takers visit households that did not return a questionnaire by mail.
December 2010	By law, Census Bureau delivers population counts to President for apportionment.
March 2011	By law, Census Bureau completes delivery of redistricting data to states.

For more information about the 2010 Census, please go to www.census.gov/2010census.

Complete Count Committee Guide

Issued November 2008

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IT'S IN OUR HANDS

www.census.gov/2010census

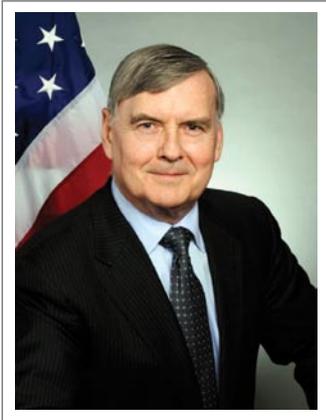
U S C E N S U S B U R E A U

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU

United States[®]
Census
2010

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*Message
From the Director
U.S. Census Bureau*

Every decade since 1790, the U.S. Census Bureau has conducted a constitutionally mandated census to determine the number of people living within the United States and our territories. These data are used by our nation's leaders to help make vital decisions on behalf of all residents, including reapportionment and redistricting. Census data also affect how more than \$300 billion in federal funds are distributed to tribal, state, and local governments each year.

One of the primary goals of the 2010 Census is to increase the national mailback response rate. This not only reduces the overall cost of the census, but it also increases the accuracy of these data as well. Tribal, state, and local governments, as well as community and business organizations can help us achieve this goal by bringing local knowledge and expertise to the process.

The Complete Count Committee is a major vehicle for planning and implementing local, targeted efforts that will uniquely address the special characteristics of your community. The role of the Complete Count Committee will be to plan and implement local outreach efforts to publicize the importance of the 2010 Census. The work of this committee will be innovative, exciting, and rewarding.

The 2010 Census Complete Count Committee Guide provides guidelines for the active involvement of government officials, community leaders, and businesses in promoting the 2010 Census to residents in your area. The guide suggests a structure for organizing a local campaign, provides examples of activities that may be implemented, and gives a timetable for these activities. If you have any questions about the guide or how to get started forming your own Complete Count Committee, please refer to the back of this guide for your local Census Bureau Regional Office or visit www.census.gov/2010Census.

Your participation in the 2010 Census program is voluntary. However, many government officials and community leaders understand that their participation is vital to help ensure an accurate and complete count of their community.

The Census Bureau is strongly committed to the most accurate and efficient census in 2010. With your help, we will ensure every resident is counted once—only once—and in the right place. We look forward to partnering with you to obtain an accurate count for your community.

Sincerely,

Steve H. Murdock



WHY DO WE TAKE THE CENSUS?

- The U.S. Constitution (Article I, Section 2) mandates a headcount every 10 years, of everyone residing in the United States: in all 50 states, Puerto Rico, and the Island Areas. This includes people of all ages, races, ethnic groups, citizens, and noncitizens. The first census was conducted in 1790 and has been carried out every 10 years since then.
- The next census occurs in 2010. The population totals from this census will determine the number of seats each state has in the House of Representatives. States also use the totals to redraw their legislative districts.
- The U.S. Census Bureau must submit state population totals to the President of the United States by December 31, 2010.
- The totals also affect funding in your community, and data collected in the census help inform decision makers how your community is changing. Approximately \$300 billion in federal funding is distributed to communities each year.

Will the 2010 Census be the same as 2000?

No, there are some important changes:

- 2010 Census will be short form only—just 10 easy questions.
- The long form is now part of the annual American Community Survey.
- Handheld computers with Global Positioning System will be used to check our address list in 2009.





HOW ARE CENSUS DATA USED?

Census data are widely and wisely used.

Determining congressional seats and federal funding is just a hint of the many important uses of census data. Take a look at examples below and refer to the appendix for even more uses of census data. (See Appendix A: 50 Ways Census Data Are Used.)

- The federal government uses population data to allocate funds in a number of areas:
 - ♦ Title 1 grants to educational agencies (school districts across the nation)
 - ♦ Head Start programs
 - ♦ Women, Infants, and Children (WIC) (food grants)
 - ♦ Public transportation
 - ♦ Road rehabilitation and construction
 - ♦ Programs for the elderly
 - ♦ Emergency food and shelter
 - ♦ Empowerment zones
- The data help the private sector as well as state and federal governments determine where jobs and job programs are needed.
- Census data help potential homeowners research property values, median income, and other demographic information about a particular community.
- Corporations use population data for market research to determine locations for commercial enterprises, such as food stores, pharmacies, and other essential services.



ARE CENSUS DATA REALLY CONFIDENTIAL?

- **ABSOLUTELY!**

- Your answers are protected by law (Title 13 of the U.S. Code, Section 9) and are strictly confidential. It is illegal for the Census Bureau, or its employees, to share your personal information with any other government agency—not law enforcement, IRS, Welfare, FBI, Immigration, etc.
- No court of law, not even the President of the United States, can access your individual responses.

1953—During the Truman administration, the White House had to undergo renovation. It was necessary to relocate the President until the renovation was completed. The Secret Service requested from the Census Bureau information on residents living in the proposed relocation area for the purpose of performing background checks. However, because census data are **ABSOLUTELY CONFIDENTIAL**, even to the President, the request was denied. President Truman spent his exile at Blair House.

- Census workers must pass security and employment reference checks and are highly motivated to protect your answers. All Census Bureau employees are subject to a **\$250,000 FINE AND/OR A 5-YEAR PRISON TERM** for disclosing any information that could identify a respondent or household.

1980—Armed with a search warrant authorizing them to seize census documents, four FBI agents entered the Census Bureau's Colorado Springs office. No confidential information was ever released because a census worker held off the agents until her superiors resolved the issue with the FBI.



WHAT IS A COMPLETE COUNT COMMITTEE (CCC)?

How Does a Complete Count Committee Work?

Now that you are familiar with what a census is and why we conduct a census every 10 years, you can appreciate how much work is required to count every resident living in the country. The Census Bureau cannot do this alone. We require the assistance of partners—individuals, groups, and organizations across the nation that can help us build awareness about the census, why it is important, and encourage their community to participate. One very effective way to accomplish this is through **Complete Count Committees**.

What Is a Complete Count Committee?

A **Complete Count Committee (CCC)** is a volunteer committee established by tribal, state, and local governments, and/or community leaders, to increase awareness about the census and motivate residents in the community to respond. The committees work best when they include a cross section of community representatives from government agencies, education, business, religious organizations, and the media. The CCC is charged with developing and implementing a plan designed to target the unique characteristics of their community.

Complete Count Committees (CCCs) come in different types and sizes, depending on how they are organized and where they are located. The following table gives you an idea of the types and sizes that are most common.

Type of CCC	Responsible Body	Size	Location
State	State government	Large	Statewide
Local	Local government (Regional, County, City, Town)	Large, Medium, or Small	Urban, Rural, or Suburban
Community	Community organization/leader	Large, Medium, or Small	Urban, Rural, or Suburban

Government-sponsored CCCs may have a state, regional, or local focus, and operate within the jurisdiction of their highest elected official(s). Local government CCCs may include more than one jurisdiction. Community-sponsored CCCs may be organized by a community group or a coalition of community groups. A CCC may also be assumed by or assigned to an existing committee or group such as a city planning board, a regional planning commission, or a local community committee.

Once the CCC members have been identified, chairpersons may wish to divide the members into subcommittees based on the activities that the committee plans to undertake. For example, a media subcommittee may be formed to identify local officials and other persons of influence to record public service announcements (PSAs) and appear on local television and radio shows about the census. A second subcommittee might be on education, targeting the schools, colleges, and universities with promotional materials and ensuring that the Census in Schools materials are being used by schools across the state. Another may be a business subcommittee that targets businesses and encourages them to post census materials and sponsor local events. Other possible subcommittees may include a faith-based focus to reach religious groups in a community or a youth focus to target organizations providing services to children, such as Head Start or day care centers. The type of subcommittee created is really based on the needs of the community the CCC serves or the focus of committee outreach. Tailor subcommittees to meet the community needs. Examples of subcommittees and what they do are covered under “What is the subcommittee structure of a Complete Count Committee?” on page 15.

The common thread among all CCCs is that they are a team.

CCCs are a team:

- Charged with influencing members of their community to complete the 2010 Census questionnaire in a timely and accurate manner.

- Of community members that will lead their community in the promotion of a 2010 Census awareness campaign from now through October 2010.

Why Form a Complete Count Committee?

A **Complete Count Committee** should be formed to:

- Increase the response rate for residents mailing back their questionnaire through a focused, structured, neighbor-to-neighbor program.
- Utilize the local knowledge, expertise, and influence of each **Complete Count Committee** member to design and implement a census awareness campaign targeted to the community.
- Bring together a cross section of community members whose focus is 2010 Census awareness.

The CCC speaks the language of its community, therefore establishing an information highway that even the Internet cannot rival—neighbor informing neighbor.

The CCC makes sure each resident is aware of the importance of an accurate census count.

How Do You Organize a Complete Count Committee?

Based on the previous table, there are three types of Complete Count Committees, state government-sponsored, local government-sponsored, or community-sponsored. Let's take a look at each of these and review the differences between the committee types and sizes. Knowing what the differences are will help determine how to form your Complete Count Committee.

State Government Complete Count Committees

The Governor of the state, who appoints individuals to serve as members on the committee, typically creates state Complete Count Committees. The committee may be chaired by an individual designated by the Governor, such as the Governor's Liaison or staff from the State Data Center. State CCCs may be fairly large with anywhere from 20 to 100 members. The committee members should be representative of the residents of the state and have

the time and commitment needed for a successful committee. State CCCs typically have members from various state agencies, local government agencies, schools, churches, media, and community organizations. Tap groups or organizations that will best help you implement and achieve your goals. State CCCs may operate with or without a subcommittee structure. Examples of subcommittees and what they do are covered under “What is the subcommittee structure of a Complete Count Committee?” on page 15.

State CCCs often have a better understanding of the economic impact of a complete count and are highly motivated to develop a comprehensive outreach plan. They tend to have more resources (funds and/or staff) to support a CCC.

Examples of State Complete Count Committee Strategies

Several states organized Complete Count Committees in Census 2000, and we can look to them for best practices. The important thing to remember is to do the best you can with the resources you have. Here are some suggested strategies that worked well for them:

- Allocate state funds for implementation of the state CCC.
- Develop an action plan.
- Assign staff to work with the state CCC.
- Set clear, achievable goals and objectives.
- Identify targets (populations or areas) for aggressive outreach through—
 - ♦ direct community outreach—touching as many people as possible through swap meets, sports events, festivals, parades, etc.
 - ♦ strategic partnerships with counties, schools, state agencies, and community-based organizations.
 - ♦ a state media campaign with a catchy slogan. Example: California state CCC in 2000 used the slogan “California, You Count!”
- Coordinate activities with local CCCs throughout the state.
- Develop a state 2010 Census Web site with links to the Census Bureau Web site.
- Create promotional materials and items for populations or areas identified.
- Create events in key areas where none exist.

Sample Activities of State Complete Count Committees

2008–2009

- Allocate funds to conduct CCC outreach.
- Encourage local governments to form Complete Count Committees.
- Develop a list of barriers or concerns that might impede the progress of the 2010 Census in your state, such as pockets of populations speaking a language other than English, recent immigrants, and significant numbers of children under age 18. Explore ways/activities to address or overcome these barriers.
- Develop and implement activities to involve state government employees in 2010 Census awareness campaign.
- Include the 2010 Census logo and messages on letterhead, brochures, newsletters, and Web site.
- Display census information/materials in all state government buildings.
- Sponsor a contest to create a state slogan and/or mascot for promoting the 2010 Census.

January–March 2010

- Add census messages to meetings and correspondence.
- Implement major promotional events around mailout of questionnaires and nonresponse follow-up.
- Provide information on federally funded programs that have benefited the state.
- Saturate targeted areas with census information that is easy-to-read and understand.
- Change telephone hold messages in state offices to remind residents to complete and return their questionnaire immediately.

April 2010

- Have government employees answer the phones with a 2010 Census message.
- Change telephone hold messages in state offices to one that encourages residents to cooperate with the census workers that may come to their home if they don’t return their questionnaire.

May–July 2010

- Prepare final report of committee activities and provide a copy of your report to your regional census contact person.

Local or Tribal Government Complete Count Committees

Local Complete Count Committees are formed by the highest elected official in that jurisdiction, such as a mayor, county commissioner, tribal leader, or regional chairman. The highest elected official may appoint a chair of the CCC and may then appoint residents of the community to serve as members of the CCC. Members appointed could be representative of a cross section of the community, be willing and able to serve until the census is over, and help implement a creative outreach campaign in areas that may pose a challenge in 2010. Members could include persons from the areas of education, media, business, religion, and community groups. Most local government CCCs are small to medium size depending on the jurisdiction. A town may have a small committee with only 3–5 members, while a city CCC may be medium to large size with anywhere from 10 to more than 100 members, depending on the size of the city or tribe.

Both county and regional CCCs, since they cover a larger geography, tend to be larger in size with 20–50 members. The size and number of members depends on what works best for each jurisdiction and what will make the most effective and successful committee. Mayors, county commissioners, and heads of regional boards understand the importance of getting a complete and accurate census count and how census data impacts their communities. In previous censuses, experience has shown that local government CCCs are more productive with subcommittee structure.

Examples of subcommittees and what they do are covered under “What is the subcommittee structure of a Complete Count Committee?” on page 15.

Examples of Local and Tribal Complete Count Committee Strategies

Nationwide, there were 11,800 Complete Count Committees formed in Census 2000, and the majority of them were local government committees. Here are some suggested strategies that worked for them:

- Allocate funds for the CCC, and assign a staff person to work with the committee.

- Set clear, achievable goals and objectives.
- Identify areas of the community that you want to target, either a geographical area or a population group that might be hard to count.
- Use a “grassroots” approach, working with community-based organizations and groups who have direct contact with residents, especially those who may be hard to count.
- Create promotional materials and products customized for your area.
- Implement special events such as a Census Day “Be Counted” parade.

Sample Activities of Local Complete Count Committees

2008–2009

- Develop a list of barriers or concerns that might impede the progress of the 2010 Census in your local area, such as recent immigrants, non-English speaking groups, high crime areas, and communities with gated residents. Explore ways/activities to address or overcome those barriers.
- Create ways to dispel myths and alleviate fears about the privacy and confidentiality of census data.
- Place census messages in water bills, property tax bills, and other correspondence generated by the jurisdiction.
- Develop and implement activities to involve local government employees in 2010 Census awareness campaign.
- Encourage corporations to become official sponsors of your census activities.
- Have census banners, posters, and other signage placed in highly visible public locations.
- Include the 2010 Census logo and message on bus schedules, brochures, newsletters, and your local jurisdiction Web site.
- Sponsor a census booth at county fairs, carnivals, and festivals (especially cultural or ethnic celebrations).
- Sponsor a contest to design a sticker or poster promoting the 2010 Census.
- Have census information available during voter registration drives.

January–March 2010

- Add a census message to all meetings, events, and correspondence.
- Provide information on federally funded programs that have benefited the community.
- Plan a major promotional event around the mailout of census questionnaires.
- Saturate public access areas with easy-to-read and understandable census information customized for your community.
- Ask elected officials to encourage residents to complete and return questionnaires immediately.
- Place a census message on all municipal marquees urging residents to complete and return their questionnaires.

April 2010

- Place public service announcements in local media encouraging residents to cooperate with census workers.

Community Complete Count Committees

Community Complete Count Committees are often formed in areas that do not have a government CCC or areas that may require a more targeted outreach approach. Community CCCs may be formed by a community group/organization or a coalition of several organizations. For example, an organization in a predominantly elderly community may want to form a community CCC in order to build awareness among that population and encourage them to respond when questionnaires are delivered. A tenant's association may form a committee to educate tenants about the census and help those needing assistance in completing their questionnaire. Community CCCs identify their own chair and committee members. They may choose residents who are influential leaders or gatekeepers in the community to serve as members or others that will help accomplish the goals of the committee. Community CCCs are usually small to medium in size with anywhere from 5 to 25 members depending on the sponsoring organization(s) and the size of the community it represents.

Small committees may not need subcommittees, however, larger committees may find this structure helps them focus and work more effectively.

Examples of Community Complete Count Committee Strategies

A number of organizations formed community Complete Count Committees in Census 2000. Some examples of these organizations are Community Action groups, Hispanic Service Center, Delta Sigma Theta Sorority, and Human Development Commission. Here are some suggested strategies that worked for them:

- ♦ Set clear, achievable goals and objectives for your committee.
- ♦ Identify what your committee will focus on. Some examples include increasing the response rate in public housing communities among cultural/ethnic groups in your area or among students in colleges/universities, outreach and promotion to youth or elderly in the community, or a global approach if no other CCCs are in the area.
- ♦ Develop an action plan that will include activities, events, etc., which will support your efforts and help you meet your goals and objectives.
- ♦ Create promotional materials that appeal to your focus areas, if resources are available.
- ♦ Implement special events that will generate interest and participation in the census.

Sample Activities of Community Complete Count Committees

2008–2009

- Identify organizations in the community that can provide space for Questionnaire Assistance Centers and will serve as a Be Counted site. Pass this information on to your census contact person.
- Make a list of community-based organizations in your area. Hold a meeting with leaders of the organizations and solicit their help in creating a census awareness campaign targeted for community residents.
- Check the community calendar in your area for events. Contact event organizers to see if you can have a census table or pass out census materials to increase awareness.
- Plan and solicit sponsors for a "Census Day/Night Street Festival" in late 2009. Think of creative games or activities where census information can be incorporated.
- Develop a 2009 Census Activity Calendar, ask organizations to choose a month in which they will sponsor census activities or promote census awareness.

- Ask organizations to include a census article or message in all of their publications from April 2009 to August 2010.

January through March 2010

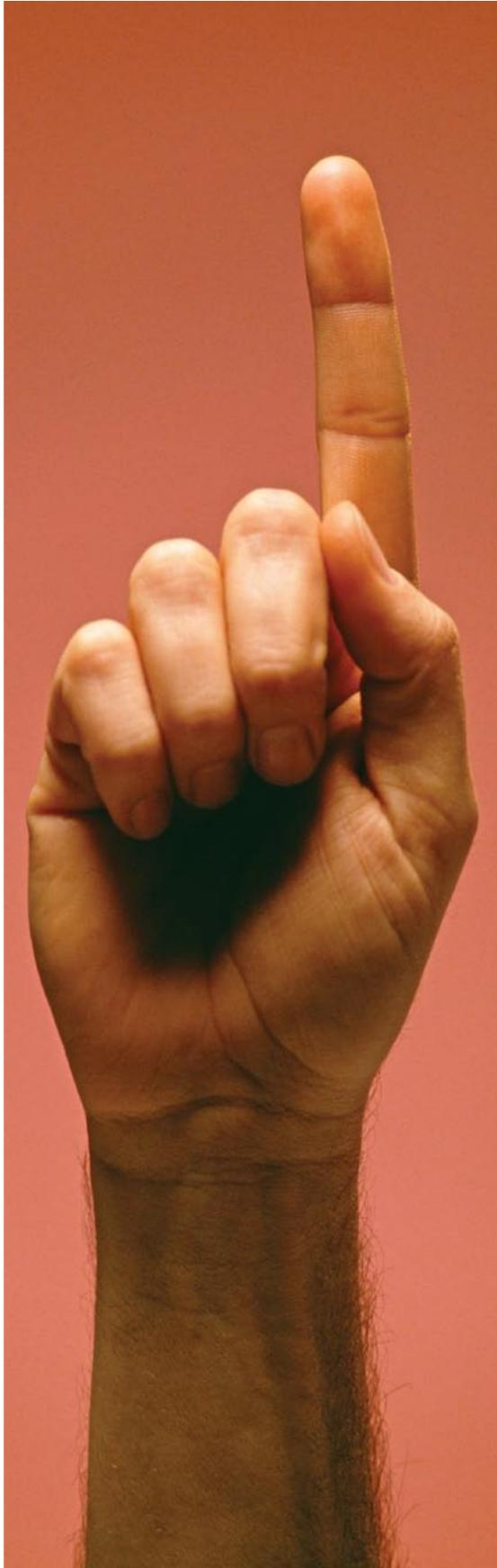
- Encourage organizations to include 2010 Census on the agenda of their meetings, workshops, or conferences.
- Distribute/post fliers announcing the delivery of the census questionnaire at busy locations in the community.
- Check with your census contact person about the locations of Questionnaire Assistance Centers and Be Counted sites in your community. Get signs from the contact person with the days and times the centers will be open. If signs are not available, make and post them as a committee project.
- Sponsor a “Little Miss/Mr. Census” contest and have the winners complete and mail a “symbolic” census questionnaire.

April 2010

- Encourage residents to complete and mailback their census questionnaires.
- Plan a Census Day event to motivate community response.
- Check with your census contact person about response rates for your community. If rates are low, plan special events or activities to motivate residents to respond.
- Remind residents if they don’t mailback their questionnaire a census worker may come to their home. Encourage residents to cooperate with census workers.

May 2010

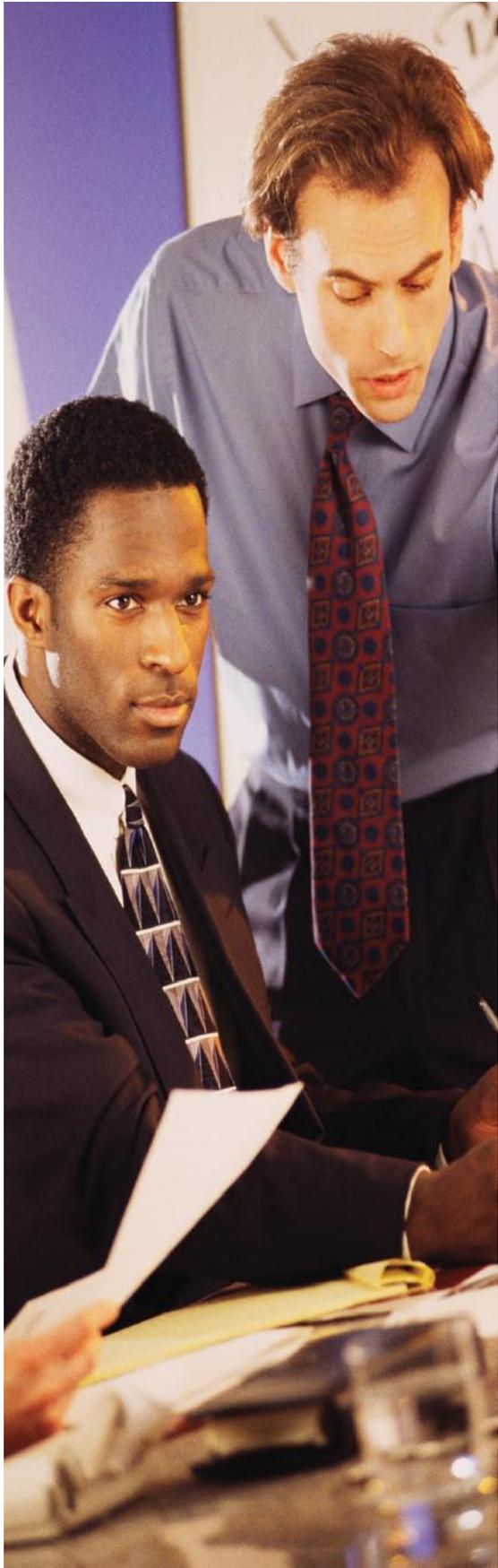
- Continue to encourage community residents to cooperate with census workers.
- Evaluate what worked best for your community and briefly report this information to your census liaison.
- Celebrate your success and thank all those involved in making it happen.



WHEN SHOULD A COMPLETE COUNT COMMITTEE ORGANIZE?

Get Organized RIGHT NOW!

- Although the 2010 Census questionnaires will not be delivered to households until mid-March of 2010, the census awareness campaign should start TODAY. Residents will begin to experience, by the end of 2008, some type of census operation such as address listing. These operations are necessary to verify the accuracy and location of each address in the United States.
- The immediate formulation of a **Complete Count Committee** will ensure that local residents are kept abreast of the various census operations before the information is nationally circulated.
- The more informed residents are about the 2010 Census operations, the better their understanding of the census process becomes, thus increasing their willingness to be a part of the successful enumeration in 2010.



WHAT IS THE SUBCOMMITTEE STRUCTURE OF A COMPLETE COUNT COMMITTEE?

The Structure

- The Census Bureau regional staff will serve as a liaison or an informational resource.
 - The operation of the Complete Count Committee flows from the highest elected official or community leader to the chairperson, the committee members, and/or to the community at large.
 - The highest elected official or community leader appoints a chairperson. The chairperson is the liaison or main source of contact between the Complete Count Committee and the Census Bureau.
 - The chairperson collaborates with the highest elected official or community leader to select subcommittee chairs.
 - The Complete Count Committee should involve every aspect of a local community in its subcommittee structure—government, education, faith-based, media, community-based organizations, business, and recruiting.
- The U.S. Census Bureau does not manage the Complete Count Committee.**

The following are examples of a typical subcommittee structure. Other subcommittees may be formed based on the focus of the CCC or the needs of the community. Examples of other subcommittee topics are migrant and seasonal farmworkers, children/youth services, immigrants, senior services, and the disabled community.

Government subcommittee—Assists in all activities between the Census Bureau and the local government, such as participation in decennial geography programs, free space

for Questionnaire Assistance Centers, and identifying other resources for CCC activities.

Education subcommittee—Facilitates census awareness for local schools from prekindergarten through twelfth grade, as well as postsecondary education institutions in the area. May also encourage school administrators, teachers, and students to use Census In Schools materials.

Faith-based subcommittee—Creates and coordinates activities and materials that can be used by any local faith-based institution in the promotion of the 2010 Census awareness and participation.

Media subcommittee—Creates and facilitates ways to get the census message to all community residents, using all available sources such as local newspapers, newsletters, fliers, local festivals, billboards, radio, and television.

Community-based organizations subcommittee—Collaborates with community organizations to inform residents of the importance of participating in the 2010 Census and the benefits derived from census data.

Business subcommittee—Creates and coordinates activities that involve businesses in census awareness, such as distribution of census information and census messages on packaging (grocery bags), and the inclusion of the census logo and message on sales promotion materials.

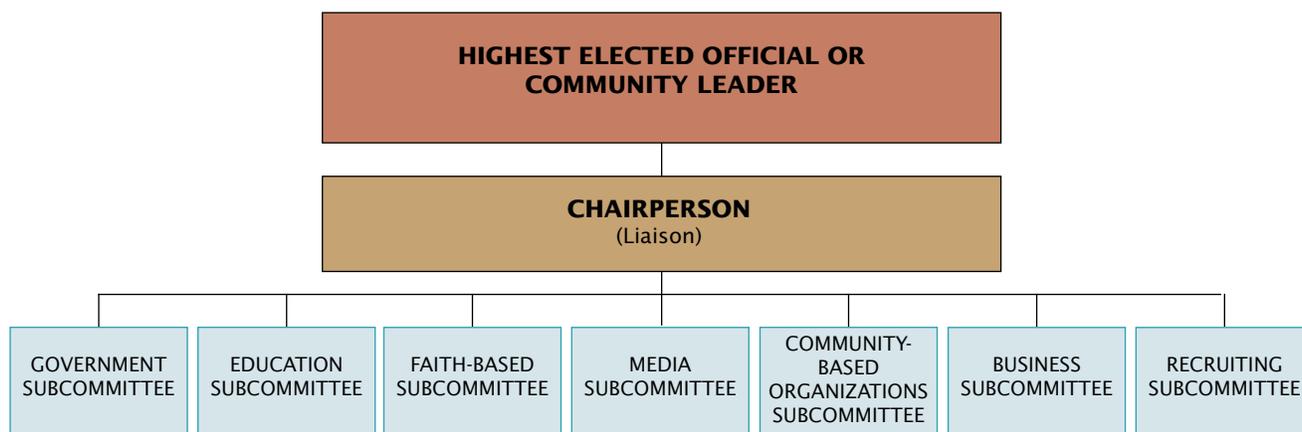
Recruiting subcommittee—Disseminates information about census job openings for the 2010 Census. Information will include the number of jobs available, types of jobs available, and the locations of testing and training sites.

The subcommittee chairpersons may recruit members for their respective teams. The ideal candidates for a **Complete Count Committee** are those community members who have expertise, influence, and experience in the area of the respective committee. Committees are more productive and successful if willing to invest time, resources, and energy in this project.

Figure 1 is a sample Complete Count Committee organizational chart. The organizational chart is a guide to assist in forming a CCC and implementing the CCC plan. Once discussion has started about the focus and goals of the committee, subcommittees and/or activities may be added to fit the customized plan.

Both the government-led and the community-led **Complete Count Committee** operation flows the same, from chairperson to committee and/or subcommittees and then to the community at large. The community CCC essentially functions the same as the governmental CCC.

Figure 1.
Sample Organizational Chart



Suggested Schedule for the Complete Count Committee

Now Through March 2010

Action Steps

2008 Summer and Fall

- Highest elected official or community leader meets with regional office partnership staff to discuss forming a partnership for the 2010 Census and the establishment of a Complete Count Committee.
- Highest elected official or community leader appoints the chairperson of the CCC.
- Highest elected official or community leader, with the assistance of the chairperson, appoints the subcommittee chairpersons (if necessary).
- Highest elected official or community leader holds a press conference to announce the formation of a CCC and the appointment of the chairperson.
- Official or community leader issues a proclamation/resolution stating that it will formulate a Complete Count Committee for the 2010 Census.

2008 Fall and Winter

- Hold first Complete Count Committee meeting:
 - ♦ Give an overview of the roles and responsibilities of a CCC.
 - ♦ Select a secretary to record minutes of meetings.
 - ♦ Establish committees (if necessary).
 - ♦ Develop a plan of action for 2010 Census awareness campaign to cover the period from now through October 2010.
 - ♦ Set a schedule for the CCC meetings as well as the subcommittees.

February–December 2009

- CCC members participate in census CCC training.
- Hold regularly scheduled meetings to report on tasks and subcommittee activities.
- Proceed with census awareness activities generated by each subcommittee.

- Evaluate the activities for effectiveness.
- Modify action plan as needed.
- Saturate community with at least one census awareness activity each month.

January 2010

- Hold monthly CCC and subcommittee meetings.
- Finalize plans for activities surrounding questionnaire delivery days and Census Day activities.
- Review task lists and subcommittee activity plans.
- Proceed with 2010 Census activities generated by subcommittees.
- Finalize plans for activities to encourage residents to complete and return census questionnaires.
- Develop and finalize plans for motivating residents who do not return their questionnaires to cooperate with census workers during non-response follow-up. Plan these activities for April 2010.

February 2010

- Hold regular CCC and subcommittee meetings.
- Review and modify, as needed, plans for questionnaire delivery and Census Day activities.
- Review and modify, as needed, plans for residents who do not respond.
- Finalize plans for all activities scheduled for March and April.
- Check with subcommittee chairs on the number and location of Questionnaire Assistance Centers and Be Counted Sites. Publicize the location, dates, and times of operations in the community.

March 2010 Countdown to Census Day

- Review and implement activities leading to Census Day—April 1, 2010.
- Finalize plans for all activities planned for the end of March and the month of April.
- Proceed with activities generated by subcommittees.
- Send press release highlighting 2010 Census activity schedule.
- Encourage community members to participate with census workers during address canvassing operations.

Census Day—April 1, 2010

April 2010

The time has come to act.

- Implement Census Day activities.
- Hold daily activities to encourage residents to complete questionnaires accurately and to return them quickly.
- Evaluate activities and make changes as necessary.
- Prepare to implement activities for residents that did not return their questionnaire.
- Implement activities to keep the census awareness and interest strong.

May–July 2010

Nonresponse follow-up

- Use all sources to encourage residents to cooperate with census workers.
- Continue to meet regularly to give and receive 2010 Census progress reports.
- Prepare summary report of CCC activities, operations, and member feedback.
- Celebrate the success of the 2010 Census enumeration and recognize the efforts of the CCC members.



SUMMARY: WHAT ARE THE BENEFITS OF A COMPLETE COUNT COMMITTEE (CCC)?

The CCC speaks the language of and knows the pulse of its community, therefore establishing an information highway that even the Internet cannot rival—neighbor informing neighbor.

The CCC will help ensure an accurate 2010 Census count.

The CCC gains valuable knowledge about the census process at the local level and develops a plan to impart that knowledge to each and every resident as only a neighbor and fellow stakeholder can do.

The CCC increases the participation ratio and the response rate by continuing awareness of the 2010 Census through July of 2010.

APPENDIX A:

50 Ways Census Data Are Used

- Decision making at all levels of government.
- Drawing federal, state, and local legislative districts.
- Attracting new businesses to state and local areas.
- Distributing over \$300 billion in federal funds and even more in state funds.
- Forecasting future transportation needs for all segments of the population.
- Planning for hospitals, nursing homes, clinics, and the location of other health services.
- Forecasting future housing needs for all segments of the population.
- Directing funds for services for people in poverty.
- Designing public safety strategies.
- Development of rural areas.
- Analyzing local trends.
- Estimating the number of people displaced by natural disasters.
- Developing assistance programs for American Indians and Alaska Natives.
- Creating maps to speed emergency services to households in need of assistance.
- Delivering goods and services to local markets.
- Designing facilities for people with disabilities, the elderly, or children.
- Planning future government services.
- Planning investments and evaluating financial risk.
- Publishing economic and statistical reports about the United States and its people.
- Facilitating scientific research.
- Developing “intelligent” maps for government and business.
- Providing proof of age, relationship, or residence certificates provided by the Census Bureau.
- Distributing medical research.
- Reapportioning seats in the House of Representatives.
- Planning and researching for media as backup for news stories.
- Providing evidence in litigation involving land use, voting rights, and equal opportunity.
- Drawing school district boundaries.
- Planning budgets for government at all levels.
- Spotting trends in the economic well-being of the nation.
- Planning for public transportation services.
- Planning health and educational services for people with disabilities.
- Establishing fair market rents and enforcing fair lending practices.
- Directing services to children and adults with limited English language proficiency.
- Planning urban land use.
- Planning outreach strategies.
- Understanding labor supply.
- Assessing the potential for spread of communicable diseases.
- Analyzing military potential.
- Making business decisions.
- Understanding consumer needs.
- Planning for congregations.
- Locating factory sites and distribution centers.
- Distributing catalogs and developing direct mail pieces.
- Setting a standard for creating both public and private sector surveys.
- Evaluating programs in different geographic areas.
- Providing genealogical research.
- Planning for school projects.
- Developing adult education programs.
- Researching historical subject areas.
- Determining areas eligible for housing assistance and rehabilitation loans.

APPENDIX B:

Understanding the Language of the 2010 Census

Glossary

The 2010 Census From A to Z

Advance Letter

A Census Bureau letter sent to alert households that the census questionnaire will be mailed or delivered to them soon.

American Community Survey (ACS)

A monthly sample household survey conducted by the Census Bureau to obtain information similar to the long-form census questionnaire. The ACS is sent to a small percentage of the U.S. population on a rotating basis. First tested in 1995, it will replace the long form for the 2010 Census. Since 2004, ACS has provided annual data for social and economic characteristics for many geographic entities and population groups.

Be Counted Site

The Be Counted program provides a means for people who believe they were not counted to be included in the 2010 Census. Special Be Counted census forms in five different languages—Spanish, Chinese, Korean, Vietnamese, and Russian, will be available at different locations in the community. Businesses and organizations may agree to be a Be Counted site by donating space to display a Be Counted box with forms in appropriate languages for their location. The Be Counted program runs for about 4 weeks in spring 2010.

Census

A complete enumeration of a population or business and commercial establishments, factories, farms, or governments in an area. (See decennial census.)

Census Bureau

An agency within the U.S. Department of Commerce and the country's preeminent statistical collection and dissemination agency. It publishes a wide variety of statistical data about people, housing, and the economy of the nation. The U.S. Census Bureau conducts approximately 200 annual surveys, conducts the decennial census of the United States population and housing, the quinquennial economic census, and the census of governments.

Census Day

The reference date for collection of information for a census. For the decennial census, this has been April 1 of the decade year (year ending with zero) since the 1930 census. April 1, 2010, is the reference date, Census Day, for the 2010 Census.

Census in Schools (CIS)

A national program component of the 2010 Census with an emphasis on kindergarten through eighth grade students in schools located in hard to count areas. The purpose of Census in Schools is to educate all of the nation's K–12 students about the importance of the 2010 Census.

Commitment

An agreement or pledge to carry out a particular task or activity that will in some way help the census achieve its goals.

Complete Count Committee (CCC)

A volunteer committee established by tribal, state, and local governments, and/or community organizations leaders to include a cross section of community leaders, including representatives from government agencies; education, business, and religious organizations; community agencies; minority organizations; and the media. The committees are charged with developing and implementing a 2010 Census outreach, promotion, recruiting, and enumeration assistance plan of action designed to target and address the needs of their communities.

Confidentiality

The guarantee made by law (Title 13, United States Code) to individuals who provide information to the Census Bureau, ensuring that the Census Bureau will not reveal information to others.

Decennial Census

The census of population and housing taken by the Census Bureau in each year ending in zero. Article 1, Section 2, of the U.S. Constitution requires that a census be taken every 10 years for the purpose of apportioning the U.S. House of Representatives. The first census of population was taken in 1790.

Early Local Census Offices (ELCO)

A temporary office opened to conduct early census operations such as check addresses and develop and refine the Master Address File for mailing census questionnaires.

Enumeration

The process of interviewing people and recording the information on census forms.

Enumerator

A Census Bureau employee who collects census information by visiting households during census field operations.

Governmental Unit (GU)

A geographic entity established by legal action for the purpose of implementing specified general- or special-purpose governmental functions. Most governmental units have legally established boundaries and names. GU officials (elected or appointed) have the power to carry out legally prescribed functions, provide services for the residents, and raise revenues. To meet Census Bureau criteria, a government must be an organized entity that, in addition to having governmental character, has sufficient discretion in the management of its own affairs to distinguish it as separate from the administrative structure of any other governmental unit. To have governmental character, an entity must exist as a legally organized entity and have legally defined responsibilities to its residents.

Hard to Count (HTC)

Groups or populations who have historically been undercounted and/or traditionally have not responded well to the decennial census questionnaire, such as ethnic/minority populations, renters, low-income, etc.

Hard to Enumerate (HTE)

An area for which the environment or population may present difficulties for enumeration.

Highest Elected Official (HEO)

The elected or appointed person who is the chief executive official of a governmental unit and is most responsible for the governmental activities of the governmental unit such as the governor of a state, chair of a county commission, or mayor of an incorporated place.

Household (HH)

A person or group of people who occupy a housing unit as their usual place of residence. The number of households equals the number of occupied housing units in a census.

Housing Unit (HU)

A house, townhouse, mobile home or trailer, apartment, group of rooms, or single room that is occupied as separate living quarters or, if vacant, is intended for occupancy as separate living quarters.

Local Census Office (LCO)

A temporary office established to oversee census operations in a specific area. These operations include address listing field work, local recruiting, and visiting living quarters to conduct the 2010 Census.

Mailout/Mailback (MO/MB)

A method of data collection in which the U.S. Postal Service delivers questionnaires to housing units, based on geocoded addresses (usually city-style mailing addresses) recorded in the Census Bureau's Master Address File. Residents are asked to complete and mail the questionnaires to a specified data capture center.

Mail Return Rate (MRR)

The total number of households returning a questionnaire by mail divided by the number of estimated housing units that received a questionnaire by mail or from a census enumerator (the only units that can return a questionnaire). This measure cannot be finalized until the enumeration is completed, and the final number of occupied housing units is determined.

Master Address File (MAF)

A Census Bureau computer file of every address and physical location, including their geographic locations, that will be used to conduct the next decennial census, as well as some ongoing surveys. This address file is updated throughout the decade and is supplemented by information provided by tribal, state, and local governments.

Nonresponse (NR)

A housing unit for which the Census Bureau does not have a completed questionnaire and from which the Census Bureau did not receive a telephone or Internet response.

Nonresponse Follow-up (NRFU)

A field operation designed to obtain a completed interview from households where a questionnaire was not returned. Enumerators will make personal visits to these households to obtain completed interviews. The enumerator will enter respondents' answers to interview questions or information about the status of the housing unit (for example, vacant or nonexistent). If all attempts to contact the residents of a household are unsuccessful, an enumerator will obtain as much information as possible about the household from a neighbor, building manager, or another reliable source.

Partner

A partner is a group or individual that commits to participate in some way with census activities.

Partnership

An agreement with tribal, state, and local governments, national organizations, and community groups (faith-based organizations, businesses, media, schools, etc.) that allows their active participation in various census activities.

Partnership Specialist

The Partnership Specialist takes a lead role in outreach and promotional efforts before and during census operations. Their main duties are increasing awareness and outreach in communities and gaining cooperation and participation from those communities.

Privacy Act

The Privacy Act of 1974 requires that each federal agency advise respondents of their rights. Specifically, every respondent must know under what law the information is being collected, how the information will be used, whether he or she must answer the questions, and the consequences of not answering the questions.

Questionnaire Assistance Center (QAC)

A center established by a local census office to assist people with completing their questionnaires. For Census 2000, the centers were established in community centers, large apartment buildings, churches, and so forth. The centers are staffed by Census Bureau employees. QAC's are open when census questionnaires are mailed, about 4 weeks from mid-March to mid-April 2010.

Regional Census Center (RCC)

One of 12 temporary Census Bureau offices established to manage census field office and local census office activities and to conduct geographic programs and support operations.

Regional Office (RO)

One of 12 permanent Census Bureau offices that direct and advise local census offices for the 2010 Census. The Regional Office also conducts one-time and ongoing Census Bureau surveys, such as the Current Population Survey (CPS), which is used to publish unemployment figures each month, and the American Community Survey (ACS), a nationwide survey designed to obtain information similar to long-form data and to provide communities a fresh, more current look at how they are changing.

Respondent

The person who answers the Census Bureau's questions about his or her living quarters and its occupants. The respondent is usually the member of the household who owns or rents the living quarters.

Title 13 (U.S. Code)

The law under which the Census Bureau operates. This law guarantees the confidentiality of census information and establishes penalties for disclosing this information. It also provides the authorization for conducting censuses in Puerto Rico and the Island Areas.

Value Added

Refers to any service or activity provided by partners that would ordinarily require payment such as room/space for testing or training, use of staff time, and use of other business resources.

Regional Office Contact List

If You Live Here	Call This Regional Office	Phone Number
ALABAMA	Atlanta	404-730-3832
ALASKA	Seattle	206-381-6200
ARIZONA	Denver	303-264-0202
ARKANSAS	Kansas City	913-551-6728
CALIFORNIA ¹	Los Angeles	818-267-1700
CALIFORNIA ¹	Seattle	206-381-6200
COLORADO	Denver	303-264-0202
CONNECTICUT	Boston	617-424-4501
DELAWARE	Philadelphia	215-717-1800
DISTRICT OF COLUMBIA	Philadelphia	215-717-1800
FLORIDA	Atlanta	404-730-3832
GEORGIA	Atlanta	404-730-3832
HAWAII	Los Angeles	818-267-1700
IDAHO	Seattle	206-381-6200
ILLINOIS	Chicago	630-288-9200
INDIANA	Chicago	630-288-9200
IOWA	Kansas City	913-551-6728
KANSAS	Kansas City	913-551-6728
KENTUCKY	Charlotte	704-424-6400
LOUISIANA	Dallas	214-253-4400
MAINE	Boston	617-424-4501
MARYLAND	Philadelphia	215-717-1800
MASSACHUSETTS	Boston	617-424-4501
MICHIGAN	Detroit	313-259-1158
MINNESOTA	Kansas City	913-551-6728
MISSISSIPPI	Dallas	214-253-4400
MISSOURI	Kansas City	913-551-6728
MONTANA	Denver	303-264-0202
NEBRASKA	Denver	303-264-0202
NEVADA	Denver	303-264-0202
NEW HAMPSHIRE	Boston	617-424-4501
NEW JERSEY ²	Philadelphia	215-717-1800
NEW JERSEY ²	New York	212-584-3400
NEW MEXICO	Denver	303-264-0202
NEW YORK ³	Boston	617-424-4501
NEW YORK ³	New York	212-584-3400
NORTH CAROLINA	Charlotte	704-424-6400
NORTH DAKOTA	Denver	303-264-0202
OHIO	Detroit	313-259-1158
OKLAHOMA	Kansas City	913-551-6728
OREGON	Seattle	206-381-6200
PENNSYLVANIA	Philadelphia	215-717-1800
RHODE ISLAND	Boston	617-424-4501
SOUTH CAROLINA	Charlotte	704-424-6400
SOUTH DAKOTA	Denver	303-264-0202
TENNESSEE	Charlotte	704-424-6400
TEXAS	Dallas	214-253-4400
UTAH	Denver	303-264-0202
VERMONT	Boston	617-424-4501
VIRGINIA	Charlotte	704-424-6400
WASHINGTON	Seattle	206-381-6200
WEST VIRGINIA	Detroit	313-259-1158
WISCONSIN	Chicago	630-288-9200
WYOMING	Denver	303-264-0202

Regional Office Contact List

Note: For more information, go to www.census.gov.

¹ The Los Angeles Regional Office covers Fresno, Imperial, Inyo, Kern, Kings, Los Angeles, Madera, Mariposa, Merced, Monterey, Orange, Riverside, San Benito, San Bernardino, San Diego, San Luis Obispo, Santa Barbara, Tulare, and Ventura counties. The remaining counties are covered by the Seattle Regional Office.

² The New York Regional Office covers Bergen, Essex, Hudson, Middlesex, Morris, Passaic, Somerset, Sussex, Union, and Warren counties in New Jersey. The remaining New Jersey counties are covered by the Philadelphia Regional Office.

³ The New York Regional Office covers Bronx, Kings, Nassau, New York, Queens, Richmond, Rockland, Suffolk, and Westchester counties. The Boston Regional Office covers the balance of New York State.

ITEM # PUBLIC HEARING
REQUEST FOR BOARD ACTION
 * Required Fields



*Person Responsible for Request Klein, Trish	*Department Coordinator	*Board Meeting Date Oct 27 2009
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***Subject Title (As it will appear on the agenda):**
 Public Hearing on Roseau County Water Management Plan

***Background (Provide sufficient detail of the subject):**
 A public hearing will be held by the Water Management Taskforce to review changes and updates to the Roseau County Water Management Plan. The purpose of the water management plan is to insure that our water resources and related land resources are protected, managed and developed through the application of sound water and related land resource management. This water plan is also recognized as the Roseau County SWCD Comprehensive Plan. Five priority concerns have been identified that will be worked on during the next 10 years with an amendment opportunity in the 5th year. This public hearing is an opportunity to respond to the Roseau County Water Management Plan, its goals and objectives and action plan. The plan is attached here for your review.

***Financial Consideration:**

***Legal Consideration:**
 MN Statute 169.011 MN Statute 169.045 Roseau County ATV Ordinance

***Other Consideration:**
 None

***Resolution (Wording should reflect the intent of the Board vote):**
 None

Coordinator's Office Use (Do Not Write Below)

Date Received:	Comments:

Board Action:

Comm.	Motion (First)	Motion (Second)	Vote			Vote Result
			Yes	No	Abstain	
Swanson						Passed
Johnston						
Folds						Failed
Rasmussen						
Walker						Tabled

ATTEST: Teresa Klein, Board Clerk

PUBLIC NOTICE

**Special Meeting of the
Roseau County Commissioners
Water Management Taskforce
on the
Roseau County Water Management Plan**

October 27, 2009, at 11:15 a.m.

**Roseau County Courthouse
606 5th Ave. SW, Rm 180
Roseau, MN 56751**

October 5, 2009

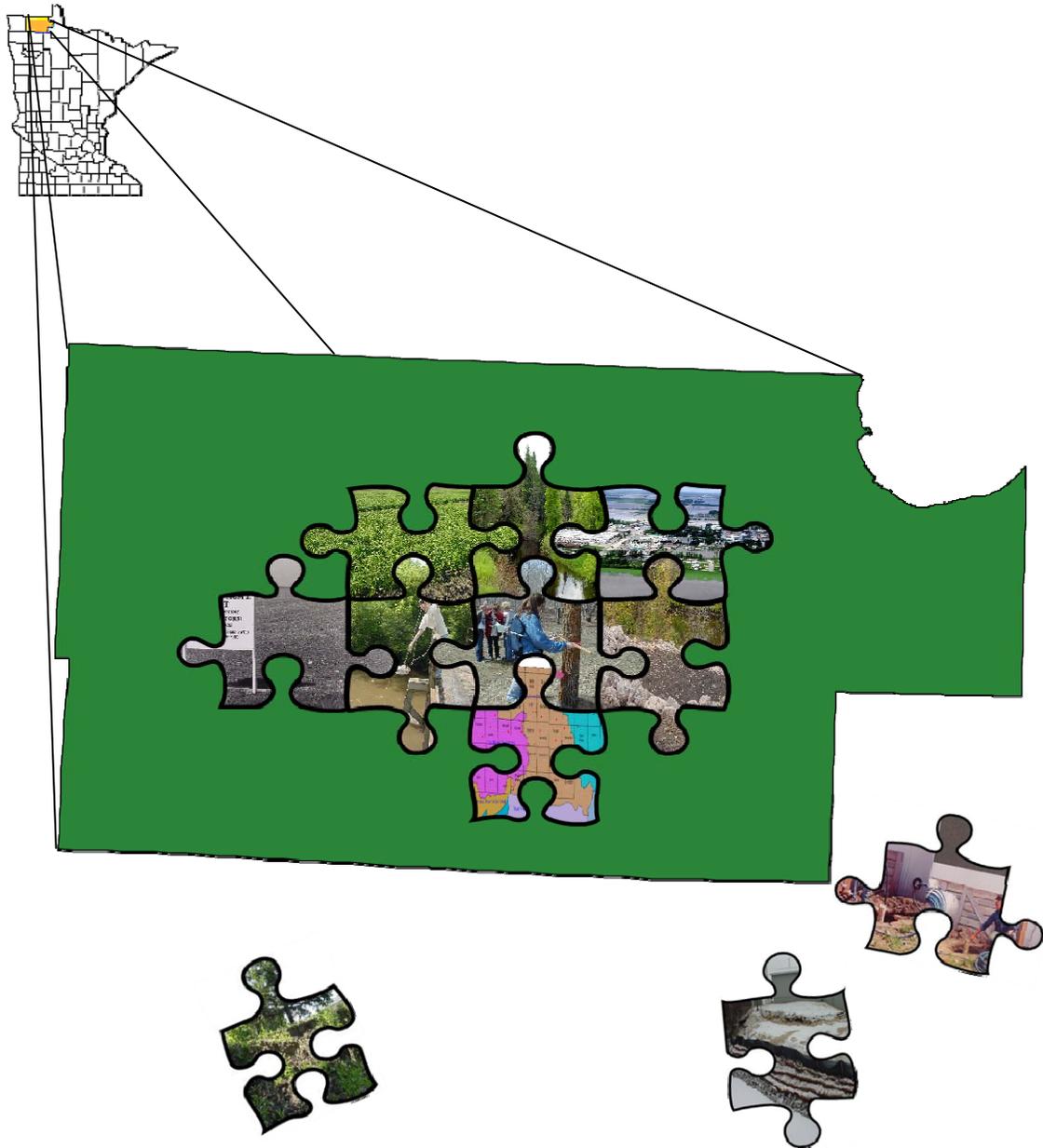
**by: /s/ Janine Lovold
Program Coordinator
Roseau SWCD**

October 14 & 21, 2009

ROSEAU COUNTY

LOCAL WATER MANAGEMENT PLAN

2010-2019



Common Acronyms and Abbreviations:

BMP – Best Management Practice
BWSR – MN Board of Water and Soil Resources
CLWP – Comprehensive Local Water Plan (old system)
CREP – Conservation Reserve Enhancement Program
CRP – Conservation Reserve Program
CSP – Conservation Stewardship Program
DNR – Minnesota Department of Natural Resources
EQIP – Environmental Quality Incentive Program
FDR – Flood Damage Reduction
HEL – Highly Erodible Land
LWMP – Local Water Management Plan
LoW – Lake of the Woods
MDA – Minnesota Department of Agriculture
MDH – Minnesota Department of Health
MPCA – Minnesota Pollution Control Agency
NRCS – Natural Resource Conservation Service
NRE – Natural Resource Enhancement
PWT – Project Work Team
RIM – Re-Invest in Minnesota
RRWD – Roseau River Watershed District
RRWMA – Roseau River Wildlife Management Area
SSTS – Subsurface Sewage Treatment System
SWCD – Soil and Water Conservation District
TMDL – Total Maximum Daily Load
TRWD – Two Rivers Watershed District
WRWD – Warroad River Watershed District
WCA – Wetland Conservation Act

For Copies

Roseau County Local Water Management Plan – contact Roseau County SWCD 218-463-1903 or website at www.nwmnswcd.org; click on Roseau, Plans & Financial Info

Roseau River Overall Plan – contact Roseau River Watershed District – 218-463-0313

Two Rivers Overall Plan – contact Two Rivers Watershed District – 218-843-3333

Warroad River Overall Plan – contact Loren Horner – 218-386-2850

River Watch Information – contact Danni Halvorson – 218-523-6171

Local Government Unit for Local Water Management (LWM): Roseau SWCD

Roseau Co SWCD Board of Supervisors:

			Term expires
Chair	Glenn Darst	Greenbush, MN	2012
Vice-Chair	Jay Estling Jr	Roosevelt, MN	2012
Treasurer	Gary Johnson	Roseau, MN	2010
Secretary	Warren Ulvin	Roseau, MN	2012
Public Relations	John Gaukerud	Badger, MN	2010

County Commissioners:

Alan Johnston	Warroad, MN	District 1
Jack Swanson	Roseau, MN	District 2
Orris Rasmussen	Roseau, MN	District 3
Russell Walker	Warroad, MN	District 4
Mark Foldesi	Greenbush, MN	District 5

Water Resources Advisory Committee:

Loren Horner	WRWD
Chad Severts	BWSR
Watershed Managers	RRWD, TRWD, WRWD
Cary Hernandez	MPCA
Loren Horner	WRWD
Brian Ketring	Roseau County Hwy Dept
Nathan Johnson	Region Ext. Office
Scott Johnson	District Manager
Mark Foldesi	County Commissioner
Gary Bennett	DNR - Waters
Phil Talmage	DNR - Fisheries
Dawn Torrison	DNR - Wildlife
Dan Money	TRWD
Rob Sando	RRWD
Jeff Pelowski	Environmental Services

Office Information:

Roseau County Soil and Water Conservation District
502 7th Street Southwest, Suite 8
Roseau, MN 56751

Phone: 218-463-1903

Fax: 218-463-3919

<http://www.nwmnswcd.org/>

Water Plan Coordinator:

Janine Lovold

Email: janine.lovold@mn.nacdnet.net



Executive Summary

Roseau County, located in north-western Minnesota, has the distinction of being part of two ecoregions (Red River Valley and Northern Minnesota Wetlands), two main river basins (Red River and Rainy River), and two biomes (Tallgrass Aspen Parkland and Coniferous Forest). Thus, Roseau County is a transitional region with many interesting and unique characteristics. Roseau County covers a total of 1685.4 square miles (1,078,680 acres) including waterbodies. About 30% of the land is in public ownership and the remaining 70% is privately owned.

Adjacent entities are Kittson County to the west, Marshall County to the south, Beltrami to the southeast, Lake of the Woods County to the east and Manitoba, Canada to the north. Major cities are Badger, Greenbush, Roosevelt, Roseau, Strathcona and Warroad with Salol and Wannaska being minor communities. The City of Roseau is the county seat and is located 10.5 miles south of the Canadian border. Roseau County contains 44 major townships (11 are unorganized) and 11 partial ones (borders Canada and Lake of the Woods; mostly unorganized). According to the US Census Bureau (2000), 91.1% of the 16,388 persons in Roseau County are rural. (The 2008 population estimate is 15,946 residents.) Population density is 9.8/square mile. Principal industries are Polaris, Marvin Windows, Central Boiler and HeatMor. Agriculture and agricultural related businesses are still a major source of income and include production from small grain, oil seed, grass seed, bees, beef cattle, dairy, hogs, sheep and turkey.

The climate can be extreme in Roseau County. The average winter temperature is 4.6° F and the average summer temperature is 63.9° F. Temperature extremes can be lower than -40° F's and higher than 100° F. Temperatures are typically cooler in the east and warmer in the west. Total annual precipitation is 20.52 inches. More precipitation typically falls over the eastern part of the county (can be ~ 30 inches), while the western portion is generally drier (~ teens to 20 inches). Most of the precipitation occurs from June through September. Average snowfall is 35.3 inches. Prevailing winds are from the west and April is typically the windiest month at an average of 10.0 miles/hour. The sun shines 64% of the time in the summer and 49% in the winter.

Soils were developed from calcareous and loamy glacial till. Eastern county soils basically consist of lacustrine silts and clays and also some lacustrine sands on sandbars. The western two thirds of the county are dominated by Percy soils that are loamy till with rock fragments. Organic soils can be found in one third of Roseau County. Because the topography is more or less level with gentle slopes, soils are poorly drained and contain a higher content of organic matter. Soils under the former grassland prairie typically have a higher water holding capacity and are darker in color. Forest soils consist of sands to heavier textured soils where pine and deciduous trees are found, respectively.

The landscape of Roseau County, shaped during the last Ice Age, is level to gently sloping and includes three of the four major beach ridges in northern MN (Norcross, Tintah, & Campbell). The most extensive ridge and sandbars occurs in Beltrami Island State Forest (BISF) in the southeast. The highest point of the county, incidentally, is also located here at 1270 ft. The lowest point is found in northwestern Roseau County. The other two beach ridges are found in southern part of the county, west of State Hwy 89 and from Greenbush through Badger, ending four miles west of Roseau. Drainage principally occurs through three major river systems. Two Rivers drains southwestern Roseau County through three branches that eventually converge and flow into the Red River of the North in Kittson County. Warroad River drains the eastern end of the county through two branches that converge south of Warroad and flows into Lake of



the Woods. The Roseau River drains from the southeastern part of the county in the BISF through two branches that converge in northwestern Malung Township. The river flows in a southeasterly to northwesterly direction and empties into the Red River of the North close to Dominion City, Manitoba, Canada. Two minor watersheds, Tamarac and Thief River, also drain into the Red River of the North. Drainage from all watersheds ultimately flows into Hudson Bay.

Total Maximum Daily Load (TMDL) studies and implementation plans have not been conducted yet for impaired waters in Roseau County. Surface waters identified as impaired, on the Clean Water Act's 303 (d) list, which may require a TMDL include: Sprague Creek for turbidity; Roseau River from Hay Creek to Canadian border for dissolved oxygen (DO) and turbidity; Two Rivers South Branch from unnamed ditch to lateral ditch 2 for fish bioassessments (IBI); and headwaters of north fork Roseau River to main stem Roseau River and Roseau River to Canadian border for the bioaccumulative toxin, mercury. (IBI or index of biotic integrity is a regionally based index used to measure the integrity of rivers and streams, and to determine the level of their biotic impairment. Multiple parameters based on fish community structure and functions are used to evaluate a complex biotic system.) The mercury impairment also includes the man-made Hayes Lake on north fork Roseau River. See page 12 for a map relating to these impairments. Roseau County is also expected to participate in the Lake of the Woods TMDL study for excess nutrients. Willow Creek is anticipated to be added to the Impaired Waters List.

A monitoring study on the Roseau River by the MPCA is tentatively scheduled for 2010 for turbidity and DO. One monitoring study regarding organics, inorganics and field tests was done by the Two Rivers Watershed District and the Roseau and Kittson SWCDs during the years 1991-1993 with a BWSR Challenge Grant. Recommendations from that study included filter strip implementation along all water courses that are tributary to rivers, fencing livestock away from rivers, implementation of tillage and erosion control techniques, and fertilizer and pesticide control chemicals to be used and handled with care. The Roseau SWCD has monitored river and creek sites within the county since 2001 and has incorporated surface monitoring data into the EPA STORET database starting with year 2003. A baseline study of Roseau County surface waters by the SWCD has a timeline of 10 years and will be completed around 2013. The SWCD has been collecting data on turbidity and DO along with conductivity, water temperature, pH, nitrate, total phosphorus, fecal coliform bacteria counts, and now *E. coli*. The Two Rivers Watershed District (TRWD) also has been collecting data for many years on four sites in the Two Rivers watershed portion within Roseau County and for short term around TRWD project sites as needed. The River Watch high school students and Red River Watershed Management Board personnel also have surface water sites that they have been collecting data since year 2000. The Warroad River Watch has not been active for many years, but the Badger – Greenbush River Watch will be starting soon. The Roseau River Watch is active during the school year. Roseau County and its monitoring partners anticipate in working together for TMDL development, implementation, and monitoring regarding impaired waters within the next 10+ years.

Purpose of the Local Water Management Plan

The purpose of the updated Local Water Management Plan for Roseau County is:

1. To actively work on the existing local priority concerns and to identify future potential priority concerns so that our water resources and related land resources are protected, managed and developed.
2. To update and continue the process of developing and applying an action plan to promote sound water and related land resource management in the county.



3. To continue working towards effective environmental protection and management in Roseau County through focusing on priority concerns and recognizing potential priority concerns.
4. This water plan is also recognized as the Roseau County SWCD Comprehensive Plan.

A resident survey and entity survey / concern sheet were employed to obtain information from all watersheds and provide the Water Resources Advisory Committee the opportunity to identify five priority concerns that would be worked on during the next 10 years with an amendment opportunity in the 5th year. Details regarding these concerns can be found in the Priority Concerns Scoping Document in Appendix A.

Description of Roseau County Priority Concerns

<p>Priority Concern 1: Erosion & Sedimentation of Surface Waters, Stormwater Runoff and Wetlands</p>

Although Roseau County is relatively flat, erosion and the resulting sedimentation take place through wind and water since the advent of ground cover removal and drainage for agricultural purposes.

Currently, Roseau County CRP acres are at the 25% cap, but that may change with lands coming out of CRP, especially if CRP becomes a program of the past. All highly erodible lands (HEL) are required to have a conservation plan and ground cover in Roseau County, but even non-HEL's have been observed to have erosion incidences. On most agricultural lands, most producers do not plant a cover crop in the fall, unless they are involved with programs that require such a practice. With rising costs of production, many producers may elect to skip best management practices that are in their best interest. It is also believed that some producers may not realize that production costs can increase due to erosion causing land to become less productive. Even on non-HEL's and particularly during droughts, wind erosion has caused sediments to collect in roadside ditches or settle around structures.

Drainage is essential for agriculture and dwelling in Roseau County. With the efficient use of drainage equipment, run-off occurs at ever increasing rates along with sediment that collects downstream. Best Management Practices, such as filter strips adjacent to all ditch systems, need to be implemented. A list of Best Management Practices can be found in Appendix B for various applications in rural and urban areas. Floods of the past have been the major contributors of erosion and sedimentation. The 2002 flood was observed to scour forested areas, entire fields and roads, carve new channels, and damage ditch systems through erosion and sloughing. Sediments were seen to settle out in the form of sedimentation bars in ditches and stream courses.

Stormwater runoff has supplied to sediment buildup, although in a slower fashion compared to a flood event. Runoff sediments may fill in wetlands and thus reduce floodwater retention and natural filtering capabilities. Most cities in Roseau County are located on a river system and so urban runoff picks up dirt, debris, nutrients and other chemicals, which flow into river systems. Stormwater management is not required for cities under 5,000 people.

Retroactive cleanouts and proactive practices need to be implemented to help alleviate and / or prevent sedimentation, improve navigability, and keep waterways open. Land use and land cover through the use of Best Management Practices (BMP's) are key to keep soil where it belongs.



Objective:

- ▶ Enhance and improve the quality of surface waters and wetlands through conservation practices, best management practices, restoration, and structures

Water Plan Cost: Staff Time

Watershed Priority Areas: Roseau River, Warroad River, Lake of the Woods, All

Groundwater System: NA

Priority Concern 2: Flood Control and Flood Damage Reduction

Flooding is a problem throughout Roseau County because the topography is generally flat, which impedes timely drainage. Most flooding occurs during the spring with the snow melt, but the less frequent summer and fall floods have been known to occur. Flooding is prevalent primarily from north City of Roseau to Canada where land fall is generally 0.2 feet/mile and stream capacity is not sufficient. Waters may take months to recede and cause considerable structural damages to buildings, roadways, ditches, and agricultural lands. Major floods have shown to cause this type of damage even in areas that typically do not experience such problems, such as those areas to the south and southeast of Roseau County where landfall is more significant. However, the difference is that flood water recedes fairly quickly.

Overbank flooding occurs when river channel capacities are not adequate to sufficiently drain water in a timely matter during rapid snow melt, snow melt with rain, ice jams, or severe rainfall amounts. Overland flooding takes place when snowmelt or severe rainfall is impounded through frozen or blocked culverts and ditches. Overland flooding may also occur during high water conditions where culverts or ditches are running at full capacity and are unable to handle the additional runoff. The water accumulates until it overflows roadways and floods section after section in the down slope direction.

The primary concern of the watershed districts in Roseau County is to reduce flood damages through programs and projects that deal with levees, ring dikes, establishment of impoundments and restoration of wetlands and watercourses, and also at the same time enhance natural resources. The mission of the watershed districts for flood damage reduction is to protect city and rural homesteads, protect agricultural lands, and reduce damage to roads and crossings. A current project in the process of being built is the East Diversion around the City of Roseau by the Army Corps of Engineers. The project is designed to help with flood control in the City of Roseau and not impact downstream lands.

Objectives:

- ▶ Implementation of practices for flood control and flood damage reduction to reduce flood impacts
- ▶ Water flow gauge and structure upgrades with additional analytical parameters for data analysis

Water Plan Cost: \$200+

Watershed Priority Areas: Roseau River, Two Rivers, Warroad River, All

Groundwater System: NA

Priority Concern 3: Surface Water Protection and Improvement

The current impairments identified by the MPCA are fish IBI (index of biological integrity) for a portion of Two Rivers South Branch in southwestern Roseau County and into Kittson County, dissolved oxygen and turbidity for the Roseau River from convergence of Hay Creek to the Canadian border, and turbidity for Sprague Creek. Agriculture, livestock production, ditch cleanouts also impact surface waters, especially with stormwater runoff or during floods. It is also noteworthy to mention that most of the streams that are classified as impaired have been channelized or modified in the past.

Protection of aquatic and riparian habitats is essential for healthy riverine systems and wildlife populations (aquatic and terrestrial). As work, inventories, or surveys are done on river systems, water segments with adjacent riparian areas that can provide the greatest biological benefit need to be designated as important priority areas for protection. Potential areas also need to be inventoried for restoration and possible protection.

The Roseau River is one of the many recreational opportunities that Roseau County has to offer. Many residents enjoy fishing on this river summer and winter, especially on reaches around the old Roseau Lake to Caribou in Kittson County. Five fish surveys between 1978 and 2000 have found that fish species and population have been consistent on the Roseau River (see Roseau River Overall Plan and Red River Basin Stream Survey Report 2000). With all the modifications and land use changes that have impacted this watershed from the beginning of the late 1800s through the 1900s, it is important to protect and improve the water quality of the Roseau River.

Two Rivers also has many outdoor recreational opportunities of which most occur in Kittson County. Two Rivers South Branch headwaters (aka SD 91, channelized portion) originate south of the City of Badger and eventually flow into Lake Bronson, where people use these waters for swimming and fishing. Many fish are supported by these waters and include northern pike, walleye, perch, sauger, crappie, sunfish, bass, catfish, bullhead, carp, and suckers (TRWD Overall Plan page 13). The Overall Plan also mentions that stream fishery habitat is being degraded due to the unstable watercourse with erosion and sedimentation issues, flashy flows, beaver dam blockages, and loss of upland habitat.

Lake of the Woods is not inside the Roseau District; however, Roseau County does have many ditch systems, Willow Creek and Warroad River, which contribute to Lake of the Woods waters. Lake of the Woods is a major draw for its fishing industry, nationally and internationally and impacts our local economy directly. The impairment for Lake of the Woods is excess nutrients. Algal blooms have been observed in the lake's waters. Another concern listed in the Rainy River Basin Plan (2004) is severe erosion that has the potential to harm the fishing industry, which in turn impacts the local economy. The Lake of the Woods has an enormous watershed that includes Minnesota, and the provinces of Manitoba and Ontario, Canada.

An additional concern within Roseau County is lack of surface water during drought conditions that impact livestock and fish populations.

Objective:

- ▶ Protect, improve and monitor the quality of surface waters

Water Plan Cost: \$8550+ plus Staff Time

Watershed Priority Areas: All

Groundwater System: NA

Priority Concern 4: Managing Existing Ditch Systems

Drainage systems are critical for agriculture, urban and rural residences in Roseau County and need to be maintained and improved to optimally function. Wet cycles and past floods have deteriorated drainage structures and caused sloughing and erosion. Support for continued maintenance using new technologies to improve water quality during and after repair is needed as it will take many years to inventory and repair the ditches.

Objectives:

- ▶ Proper care and maintenance of existing ditch systems

Watershed Priority Areas: All

Groundwater System: NA

Priority Concern 5: Groundwater Protection and Quality

Not much is known about ground water resources or its movement in Roseau County as no hydrological mapping has been done. The limits of aquifers, especially the more deeply buried or less extensive aquifers are not well mapped and the recharge areas are not well defined. The extent of agricultural chemicals that impact groundwater resources have also not been documented. The extent of pollution by factors, other than nitrates and bacteria, has not been well studied. However, the MPCA has conducted a statewide baseline survey between 1992 and 1996 with thirteen factors using fourteen groundwater collection sites in Roseau County (see Appendix E).

Critical areas such as sandy beach ridges and other highly permeable locales are of high concern as percolation rates are greatest in these areas and are at risk for contamination. Rural homesteads are also of concern where groundwater testing is not done on a regular basis. Nearly 95% of rural residents in the U.S. rely on groundwater for their drinking supply according to the US EPA. Most residents in Roseau County are served by surficial drift aquifers of which are recharged by normal precipitation. This type of aquifer is thought to be susceptible to direct access of contaminants from the land surface.

Roseau County is also concerned about low groundwater levels during drought conditions. In 2006, drought conditions returned and many people had to deal with low well water levels for themselves and / or for livestock.

Objectives:

- ▶ Groundwater protection
- ▶ Groundwater quality analysis
- ▶ Update and implementation of ordinances that protect groundwater

Water Plan Cost: \$14,475+ plus Staff Time

Watershed Priority Areas: All

Groundwater Systems: All

Consistency with Other Plans

No differences were found in federal, state, watershed or surrounding county plans that were contradictory to the priority concerns selected for this Local Water Management Plan. Federal plans to various local plans included some or most of these concerns so it appears that these concerns are fairly common across boundaries, which may be due to politics and funding tied to these items. This makes partnering with various agencies easier and more efficient.

Recommended Amendments to Other Plans and Official Controls

- 1) Provide full funding to SSTS projects or areas that have an immediate health threat without penalizing the area as income too high or property value is too low to qualify for full funding
- 2) Include more environmental education and education for permitting processes
- 3) Better communication between agencies
- 4) Need for a one-stop-shop for permitting and a lead agency or coordinator
- 5) Timely implementation of existing plans and controls
- 6) Fix regulations that are too little or too much
- 7) More authority to watershed boards

Priority Concerns

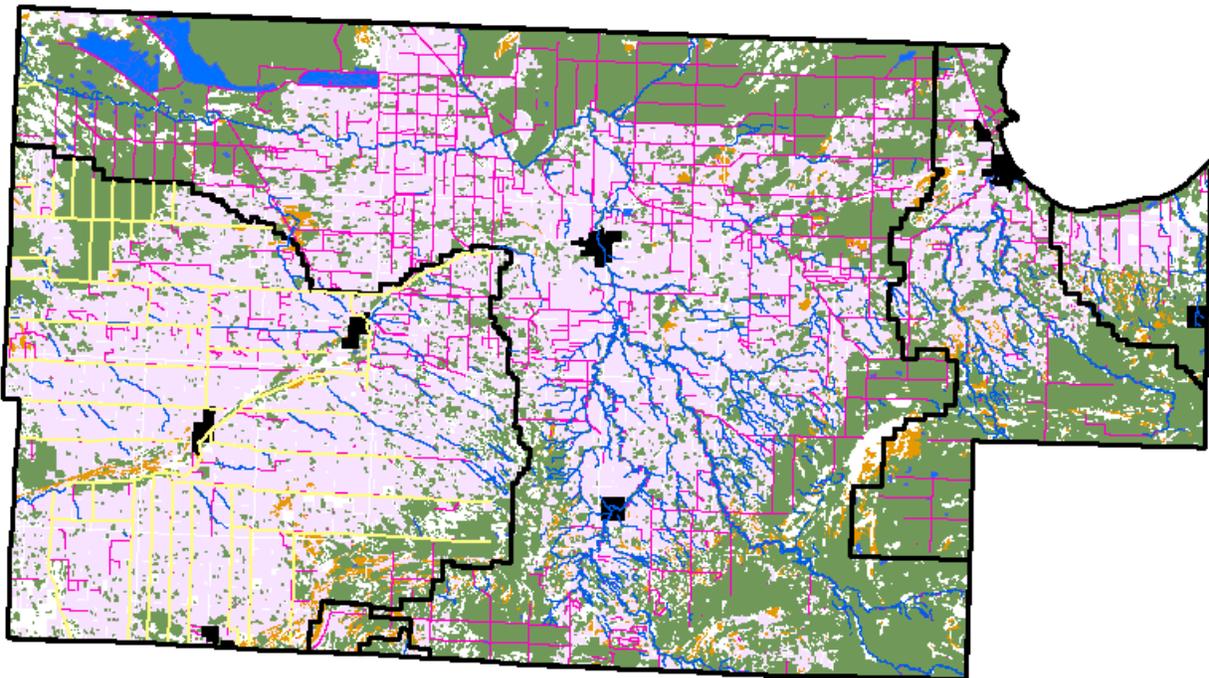
Identification of Priority Concerns

The Priority Concerns that this local water management plan will address are 1) Erosion & Sedimentation of Surface Waters, Stormwater Runoff and Wetlands; 2) Flood Control and Flood Damage Reduction; 3) Surface Water Protection and Improvement; 4) Managing Existing Ditch Systems; and 5) Groundwater Protection and Quality.

Assessment of the Priority Concerns

Assessment

Priority Concern 1: Erosion & Sedimentation of Surface Waters, Stormwater Runoff and Wetlands



Rivers & Lakes
Ditches, Ditches under TRWD jurisdiction
Wetlands
Highly Erodible Land
Farm Program Lands
Cities

Erosion and sedimentation are very important concerns in Roseau County that affect surface water quality, cause problems with the various drainage systems and potentially fill-in wetlands. The Overall Plans of the Two Rivers, Roseau River and Warroad River (also Rainy River Basin Plan 2004) describe erosion and sedimentation plus other surface water problems in the sub-watersheds within Roseau County. These problems include ditch or river bank erosion or failures, field erosion, road & culvert washouts, and sedimentation of agricultural ditches, fields, & pastures, and sedimentation & cattails that cause drainage blockages, to list a few. The Roseau River Overall Plan mentions that the area of high sedimentation occurs from the Hwy 310 bridge to Lake Bottom. Roseau County has had over 10 years of wet to very wet conditions by 2004.

Floods of the past, especially 2002, have caused erosion in fields, drainage systems, and stream systems. The result is sedimentation in water courses that has hindered drainage and navigability. This sedimentation can range from inches up to 3 feet in areas. Persisting siltation from sediment bars in streams continue to impact larger bodies of water such as Lake of the Woods and the Red River of the North, both of which drains into Canadian waters. A total of 35 sediment bars has been counted in the Roseau River during an aerial flight in 2006 by HDR Engineering, Inc., who worked with the Roseau River Watershed District (RRWD) at that time. (This flight only flew the northern part starting from the City of Roseau.) Also, the river passage in Warroad has been dredged partially in the past due to sedimentation and the resulting cattail/reed growth and navigability impediments. This river is currently facing the same problem once again, because of the massive flood in 2002 that scoured the top soil from fields, leveled roads, and channeled new water courses and dropped sediment into the navigation channels in the Warroad River located within the City of Warroad. In addition, sedimentation within wetlands may cause problems such as less temporary water storage during floods, eventual competition with upland plant and animal species, less capacity to filter or store water, and more flooding impacts to upland areas.

Wind erosion has also contributed to sediment loads in many drainage systems, especially in the dry times. Highly erodible lands (HEL) are required to have and maintain cover, but non-HEL's often are left bare after harvest until spring planting. Conservation education and program availability continue to be needed to combat erosion.

Stormwater is another major contributor of erosion and sedimentation. In rural areas, runoff from fields flow from field ditches into ditch systems and then into creeks and rivers. In the urban setting, street runoff carries sediment from spring thaw to freeze up with most of the sediment loading occurring in the spring due to snowmelt carrying sand particulates from winter street sanding.

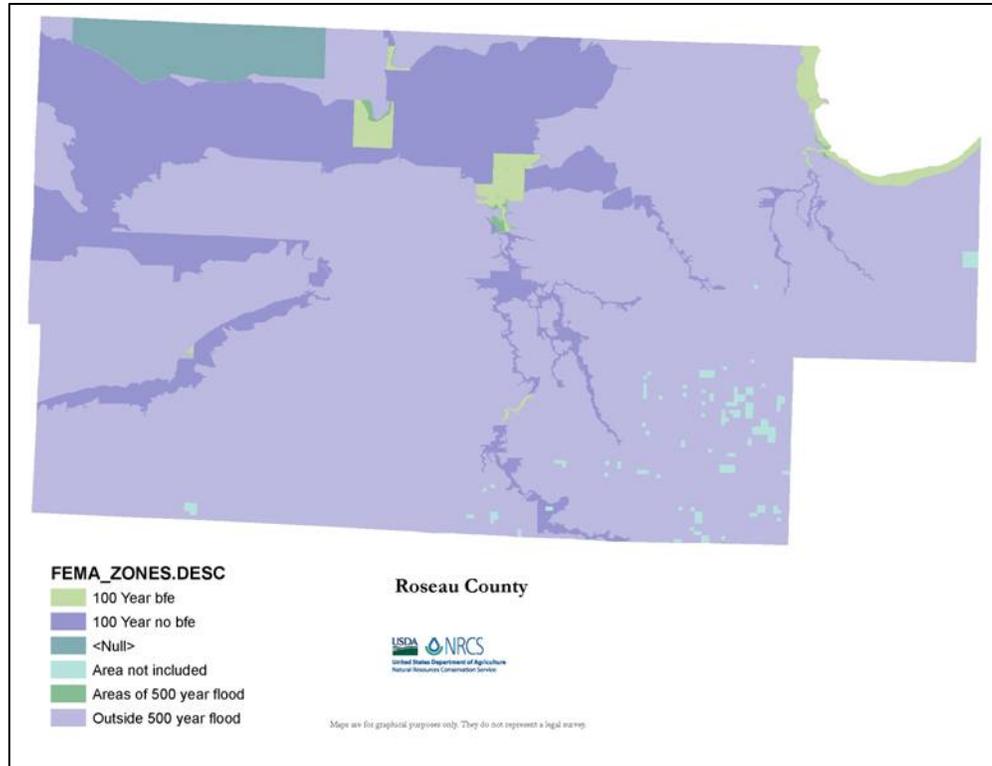
Future Project If Funding Was Available

- Inventory and identify sites county-wide with GPS for side-water inlets needed to control erosion and sedimentation
- Provide cost-share to landowner to put in side-water inlet plus rock weir, rock dams or rip-rap

Assessment

Priority Concern 2: Flood Control and Flood Damage Reduction

FEMA Zone Flood Map of Roseau County



Flood Control and Flood Damage Reduction with Natural Resource Enhancements

Flooding is a major concern for many agricultural and livestock producers and Roseau County residents. Flooding frequency may occur annually in the spring after snowmelt in some sub-watersheds, especially those northern areas between the City of Roseau and the Canadian border. Summer flooding or high waters does take place at times with the last major flooding occurring in 2002. Flooding impacts water quality by the movement of sediment, nutrients and pesticides from the landscape into surface waters. Damage can be quite extensive to public and private lands, infrastructure and other property, such as livestock. For maps on historic heavy rains, please see Appendix C.

The Watershed Districts' Overall Plans list flooding and flood damage problems by subwatershed and also include implementation strategies for flood control and flood damage reduction, respectively. For more information, contact the respective Watershed District to obtain a copy of their Overall Plan (pg ii). Some of the listed problems include insufficient channel capacity, need for ditch cleanout/maintenance, crossover waters from adjacent watersheds, crop loss, overland flooding, water backup, beaver dams, uncontrolled runoff from higher to lower areas, stream bank failures, uncontrolled water flow from Beltrami Island State Forest or Public Lands, and flashiness of water flow.

LIDAR (light detecting and ranging) is a tool used to obtain topographical data. This remote laser sensor was recently used to map the Red River Basin through the International Water



Institute. The County covered the cost for the east side of the county for LIDAR mapping as this area is not part of the Red River Basin.

Future Project If Funding Was Available

- County-wide culvert inventory (excluding TRWD as culvert inventory is completed) with GPS waypoints, flow direction and size
- Beaver and Beaver Dam Removal as mentioned in Watersheds' Overall Plans, District-wide
- Raingarden implementation in strategic areas for stormwater control – \$50,000
- Expand / improve gauges in Greenbush, Pelan, and SD #72

Roseau River Watershed Overall Plan

The FDR goals are:

1. Providing 100 year protection for the City of Roseau and rural homesteads in the district,
2. Providing 10 year protection for agriculture lands,
3. Reducing flood damage to roads and crossings,
4. Reducing drought damages, and
5. Preserving ground water supply recharge areas.

The NRE goals are:

1. Protecting, restoring, enhancing and managing lakes and streams in the Roseau River watershed to support sustainable aquatic communities,
2. Managing wetland and upland habitats in the Roseau River watershed to support sustainable wildlife communities,
3. Preserving, protecting and restore unique natural resource communities and other features in the watershed,
4. Increase and promote outdoor recreational activities related to fish, wildlife and other natural resources in the watershed, and
5. Improving water quality in the Roseau River watershed.

Two Rivers Watershed District

The FDR goals are:

1. Coordinating with other Boards the delivery of flow to the Red River,
2. Maintaining, modifying, constructing or improving properly functioning watercourses to provide protection to agricultural land for a 10 year event, while ensuring that there are no resulting downstream adverse impacts,
3. Reducing the duration, peak and frequency of overland flooding,
4. Reducing damages to and loss of residential area from flooding for a 100 year event (minimum),
5. Minimizing the effects of drought relative to land use practices, and
6. Enhancing and protecting groundwater supplies.

The NRE goals are:

1. Improving and sustaining surface water quality,
2. Reducing erosion and sedimentation,
3. Participating in efforts to enhance, establish and protect stream corridors and riparian areas,
4. Participating in efforts to enhance, provide and protect habitats,
5. Supporting the expansion of water based recreation, and
6. Providing educational and outreach opportunities.

EXCERPT FROM TRWD OVERALL PLAN

GOAL: Reduce the duration, peak, and frequency of overland flooding

PRIORITY ISSUE:

Public Infrastructure:

- Reduce road & culvert damages from flooding.

Agricultural Land:

- Reduce damages to cropland from flooding (delayed planting or destroyed crops).



- Reduce damages to pastures from flooding.

General:

- Address issues associated with crossover flooding from the Roseau River.
- Address beaver dams on ditches and natural watercourses.

STRATEGIES:

- 1) For Public Infrastructure, expand on the current District culvert sizing policy by implementing a complete culvert sizing project in one or more subwatersheds to effectively size all culverts from upstream to outlet to control the 10 year runoff event. In areas east of U.S. Highway #59, promote land use practices that reduce runoff, promote natural landscape storage activities (wetland & prairie restoration), stream & river rehabilitations to slow down stream flows, incorporation of ag levies where appropriate, install gated storage immediately east of Hwy 59 (in North Branch and Middle Branch subwatersheds) – by doing so in conjunction with other activities the needed acre feet of storage can be reduced. In areas west of U.S. Highway #59, utilize riparian buffers, stream rehabilitation with ag levies, field windbreaks to reduce snow & sediment deposits in drainage systems (will allow ditches to open earlier in spring), immediately west of Hwy 59 utilize off channel gated storage, and emphasize best management practices (conservation tillage & residue management). In areas west of U.S. Hwy 75, investigations regarding the feasibility of improving drainage channels should continue. This type of channel work would be designed to remove local water from the land in advance of the peak of the Red River flooding.
- 2) For Agricultural Land, utilize the same strategies as stated in #1 above. This should be done by slowing down water from upstream areas with respect to the 10 year runoff event for ag lands. Pasture management plans should be developed which include tolerant seed mixtures, rotational grazing, and livestock exclusion from streams.
- 3) For the general category, the same strategies as listed above should be considered. Also, partnerships should be created with the Roseau River WD and Canada to identify issues related to crossover flooding and agree upon possible solutions, including impoundments, diversions, and dike building. A watershed district wide beaver control program should be investigated, with incentives for trappers and payments for beavers in widespread areas, not just on legal drainage systems.

PREFERRED OUTCOMES: Significant reduction in damages to residential, public infrastructure, and private property.

POTENTIAL PARTNERS: SWCD, Townships, Counties, County Highway Dept., NRCS, DNR, BWSR, FSA, USACE, Roseau River Watershed District, International Joint Commission, Red River Basin Commission.

GOAL: Reduce damages to and loss of residential areas from flooding for a 100 year event (minimum)

PRIORITY ISSUE: Reduce damages and losses to urban and rural residents from flooding.

STRATEGIES: Discourage building within the 100 year floodplain and other flood prone areas.

Utilize the farmstead ring dike program and other programs to protect farm residences and out-buildings.

Assess each community’s flood protection needs, and implement flood damage reduction projects both upstream from and within municipalities.

PREFERRED OUTCOMES: Protection of rural and urban residential areas from a 100 year frequency flow event. By reducing the damages, a reduction in the cost to repair will occur, resulting in less public and private money needed for disaster assistance.

POTENTIAL PARTNERS: Planning & Zoning, Townships, DNR, RRWMB, FEMA, NRCS, Cities, USACE, Counties, MN Department of Public Safety

Warroad River Watershed

Goals

1. Prove leadership and management for the business of the Watershed District
2. Provide information and education to the public
3. Promote good stewardship of the environment
4. Partner with local, state and federal entities
5. Focus on water flow management and water quality

Highest Recorded Peak Stages on Roseau River and Sprague Creek– USGS Gauges

Roseau River below South Fork near Malung

26.96 ft 6/12/2002
23.45 ft 4/20/1996
23.37 ft 4/3/1966
22.98 ft 4/6/1997

Roseau River at Ross

18.89 ft 6/16/2002
18.25 ft 5/12/1950
17.50 ft 7/1919
17.40 ft 5/23/1996

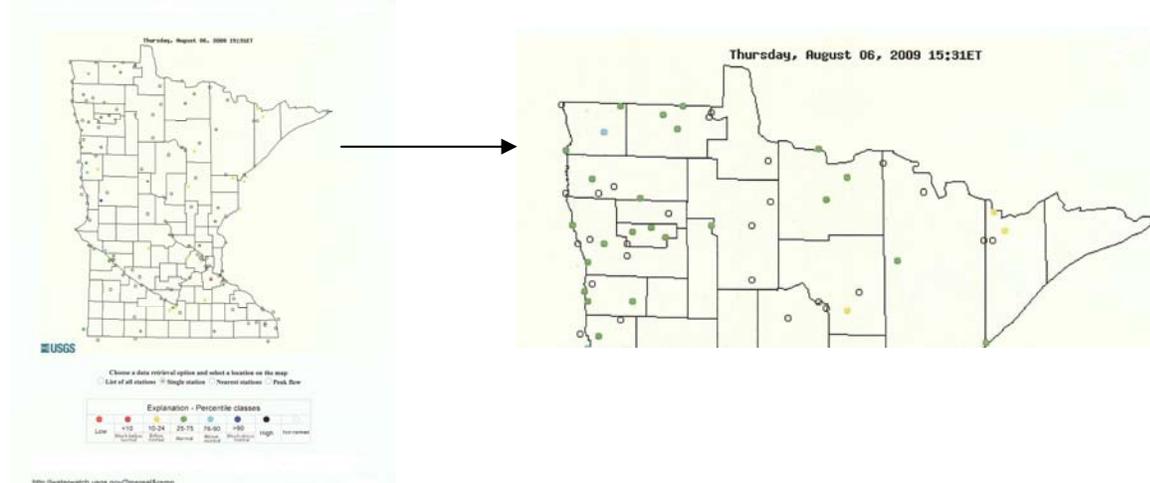
Roseau River below SD 51 near Caribou

11.91 ft 6/24/2002
11.81 ft 5/19/1950
11.13 ft 4/19/1997
10.78 ft 5/31/2004

Sprague Creek

17.08 ft 6/11/2002
14.25 ft 5/13/2004
13.43 ft 11/9/2000
12.53 ft 7/1/2005

USGS Stream flow conditions in Real Time - <http://mn.water.usgs.gov/>



Two Rivers Flow Network

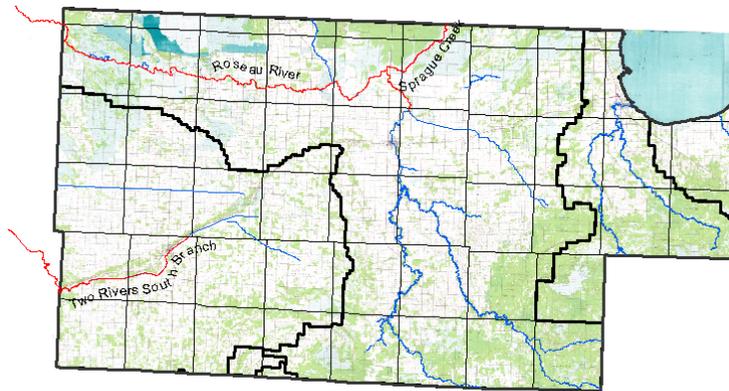
Two Rivers WD also has a network of stream flow monitoring sites. The WD would like to expand / improve gauges in Greenbush, Pelan, and SD # 72 on the county line between Roseau and Kittson Counties.

Assessment

Priority Concern 3: Surface Water Protection and Improvement

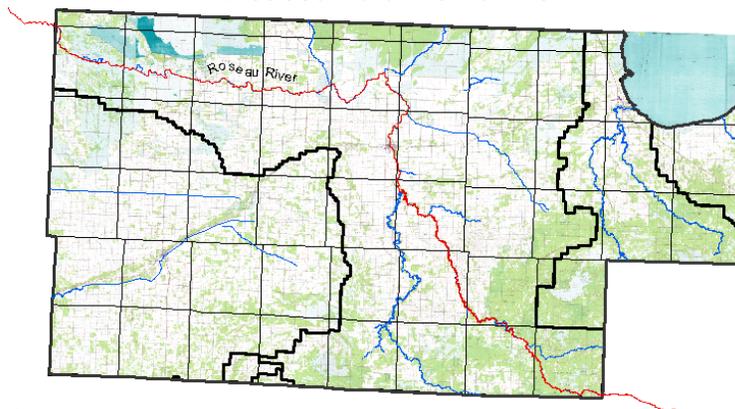
The MPCA has identified impaired waters in Roseau County on the 303(d) list of the Clean Water Act. If this concern is not addressed, waters downstream will continue to be impacted. The impaired waters must be studied to see if the impairments are caused by human activity or by natural conditions and what measures can be taken to improve the condition of Roseau River, Sprague Creek and Two Rivers. The waters are considered impaired for aquatic wildlife, fisherman and ultimately Canada since downstream waters from each river eventually enters the Red River, which flows into Lake Winnipeg before heading to Hudson Bay. The impacted waters in Roseau County include three sub-basins, which are Hay Creek/Norland, Lake Bottom and Big Swamp for Roseau River and Sprague Creek. The sub-basins of impacted water regarding Two Rivers South Branch are SD 90, SD 91 and SD 95. The many sub-watersheds that comprise each of the basins can be found on page 48 of the Overall Plan of the Roseau River Watershed District and page 23 of the Overall Plan of the Two Rivers Watershed District.

Impaired Waters Affecting Aquatic Life



- Two Rivers South Branch** – Fish and Invertebrate Index of Biological Integrity
- Roseau River** – Dissolved Oxygen and Turbidity
- Sprague Creek** - Turbidity

Bioaccumulative Toxins



- Roseau River** – Mercury Impairment



Summary of Roseau River Watershed and the Water Quality Data Collected **Roseau River Watershed**

The Roseau River originates in Beltrami Island State Forest and empties into the Red River in Manitoba, Canada. Between these two regions, the Roseau River flows through many different land use areas that include forests, agricultural land, cities, peat lands and swamps. Many small tributaries, three large tributaries, State Ditches, Judicial Ditches, laterals, field and township drainages and treated lagoon waters contribute to the waters of the Roseau River. In the early 1900s, the Roseau River was modified from Caribou to north of the City of Roseau to increase the width of the channel and straighten the alignment to increase drainage in order to alleviate flood waters that plagues this watershed. This modification is known as State Ditch 51 and landfall is about 0.2 feet/mile.

Hay Creek is a tributary of the Roseau River whose headwaters start in northwestern Beltrami Island State Forest. This creek meanders predominately through agricultural land before draining into main stem of the Roseau River north of the City of Roseau. Hay Creek has been modified and straightened in the 1900s and even had its convergence into the Roseau River changed.

Most of the Sprague Creek Watershed occurs in Canada and drains down into Roseau County from the north and meanders through the bog in Lost River State Forest before converging with the Roseau River. A small section of Sprague Creek, which lies on U.S. soil, was changed through dredging for Judicial Ditch 61. Many laterals of Judicial Ditch 61 empty into Sprague Creek at various locations. This creek is mainly surrounded by bog forest, peatland and wetlands. Tannins from the tamarack trees stain the waters a tea color. Sprague Creek empties into the Roseau River about seven miles north of the City of Roseau. In 2008, MPCA added Sprague Creek to the 303 (d) list Clean Water Act as impaired waters requiring a TMDL for turbidity.

Another tributary of the Roseau River is Pine Creek, which also was modified and diverted. Part of Pine Creek's waters was diverted to flow into the wildlife pools in the Roseau River Wildlife Management Area before draining into the Roseau River in extreme northwestern Roseau County because of the Canadian diversion. The rest of Pine Creeks waters flows south through some agricultural lands and the old Roseau lakebed to finally empty into the Roseau River.

More detailed information about drainage and the Roseau River can be found in the Overall Plan of the Roseau River Watershed District. However, this summary shows that there is a possibility of many factors that are contributing to the impaired waters of the Roseau River. The slow down of water on State Ditch 51 due to the low fall of land may cause the water to stagnate, especially during drought conditions. The low flow in this area during floods would also cause low dissolved oxygen due to dead plant and animal matter, nutrient loading, and high algae populations. The peatlands and swamps would furnish some acid seepage, which also is known to deplete waters of oxygen. So the combination of natural stagnation, acid seepage and warm water temperatures during summer months may help to contribute to low oxygen conditions. One cannot blame the entire problem on natural causes. Channel modifications from the past, storm water runoff from cities, developments, fields and pastures, floodwaters and sedimentation from channel erosion (modified and unmodified) are all contributors.

The MN DNR - Division of Fisheries has published five fish population surveys between 1971 and 2000 for the Roseau River. Additional surveys for Bemis Hill Creek, Sprague and Bear Creeks and the Palmville outlet near Mickinock Creek have also had fish population assessments in the late 1980's to mid 1990's.

The MPCA has been monitoring the Roseau River (State Ditch 51) since the 1970's and found low dissolved oxygen levels. Most aquatic organisms need to have DO levels to be above 5 mg/L to survive. This study prompted the MPCA to place the Roseau River section from Hay Creek to the Canadian Border onto 303(d) list. In 2008, the MPCA added a turbidity impairment, for the same reach, to the 303 (d) list. Additional monitoring and studies need to be done to pin-point problem areas and find out what can be done to restore water quality.

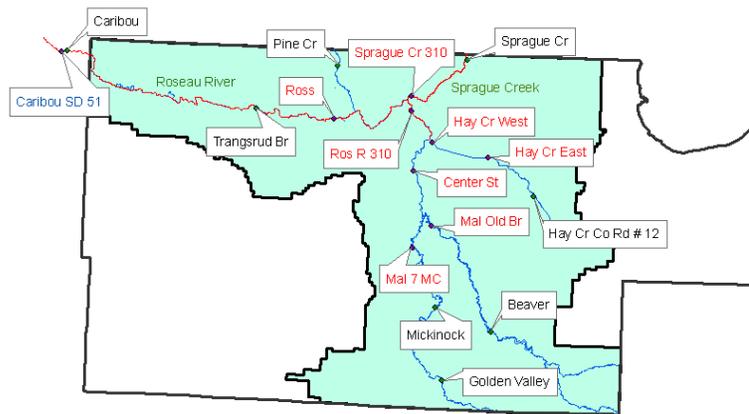
Water monitoring data from 2003 through 2009 by the Roseau SWCD has been entered into the EPA STORET database.

Monitoring

Surface water monitoring currently is being done by the Roseau SWCD, Red River Watershed Management Board, and during the school year, River Watch students (Roseau High). Waters being monitored include the Roseau River, Hay Creek, and Sprague Creek, which have been done since 2001. The Roseau SWCD and River Watch monitors at selected sites once a month to get a "snapshot" of what the water is like at that moment of time. See figure below for locations of water sampling sites.

Roseau River Watershed Water Monitoring Sites

Black – Roseau SWCD
Red – River Watch
Blue – Red River Wd Mgt Bd



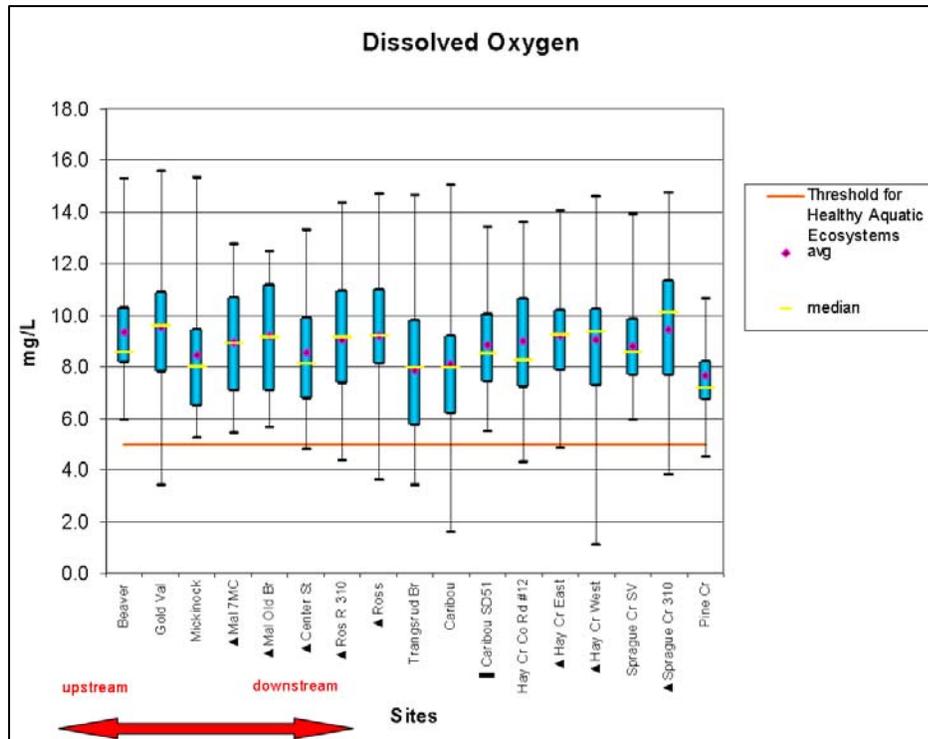
River Watch checks waters for stage level, pH, conductivity, water and air temperatures, dissolved oxygen, turbidity and transparency. The Roseau SWCD parameters for monitoring are stage level, water temperature, pH, conductivity, turbidity, and dissolved oxygen. Water samples are sent to a lab for fecal coliform counts (recently changed to *E. coli* counts), nitrate and total phosphorus.

Graphs (pages 16, 17) were created for dissolved oxygen and turbidity as these are of primary concern. Ecoregions are defined by land use, land-surface form, potential natural vegetation and soil characteristics (Fandrei et al, 1988; MPCA). Water quality is interrelated to ecoregion physical characteristics and this information can be used to determine water characteristics for that region (Fandrei et al, 1988; MPCA).

The ecoregions in Roseau County are the Northern Minnesota Wetlands, which include Roseau River watershed and Lake of the Woods watershed, and Red River Valley, which includes the Two Rivers watershed. Since the Roseau River watershed has characteristics of the Red River Valley and Northern Minnesota Wetlands Ecoregions, the graphs show both ecoregion ranges for the water sites for the Roseau River Watershed. (The Red River Valley ecoregion annual mean includes at least four years of data between years 1979-1992 and the Northern MN Wetlands annual mean includes at least four years of data between years 1970-1992.) The water sample sites means are compared against the ecoregions' annual means. The MPCA

uses the 25% and 75% quartiles to establish the typical ranges for streams in Minnesota according to ecoregion.

Dissolved Oxygen



Note: Roseau SWCD DO data – 2003-2008 (2001 & 2002 data not used as DO was measured using a different instrument)

River Watch DO data – 2001-2008

		Dissolved Oxygen					
Site		min	25th%	median	75th%	max	avg # of samples
1	Beaver	5.91	8.15	8.57	10.27	15.28	9.36
2	Gold Val	3.43	7.83	9.59	10.87	15.58	9.57
3	Mickinock	5.23	6.48	7.99	9.45	15.33	8.48
4	▲ Mal 7MC	5.46	7.05	8.88	10.66	12.77	8.96
5	▲ Mal Old Br	5.65	7.05	9.13	11.19	12.48	9.20
6	▲ Center St	4.80	6.80	8.10	9.88	13.30	8.56
7	▲ Ros R 310	4.37	7.35	9.15	10.93	14.33	9.05
8	▲ Ross	3.63	8.11	9.20	11.00	14.67	9.20
9	Trangsrud Br	3.39	5.75	7.95	9.81	14.66	7.88
10	Caribou	1.60	6.19	7.94	9.22	15.05	8.10
11	■ Caribou SD51	5.48	7.41	8.50	10.05	13.38	8.83
12	Hay Cr Co Rd #12	4.28	7.22	8.24	10.66	13.59	9.00
13	▲ Hay Cr East	4.84	7.85	9.27	10.20	14.06	9.20
14	▲ Hay Cr West	1.07	7.27	9.34	10.25	14.60	9.03
15	Sprague Cr SV	5.91	7.64	8.56	9.84	13.90	8.82
16	▲ Sprague Cr 310	3.81	7.68	10.07	11.32	14.73	9.42
17	Pine Cr	4.49	6.72	7.16	8.23	10.65	7.67

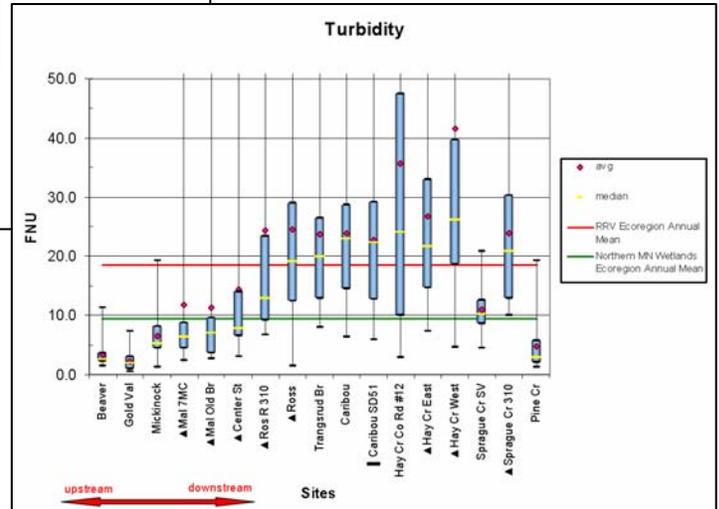
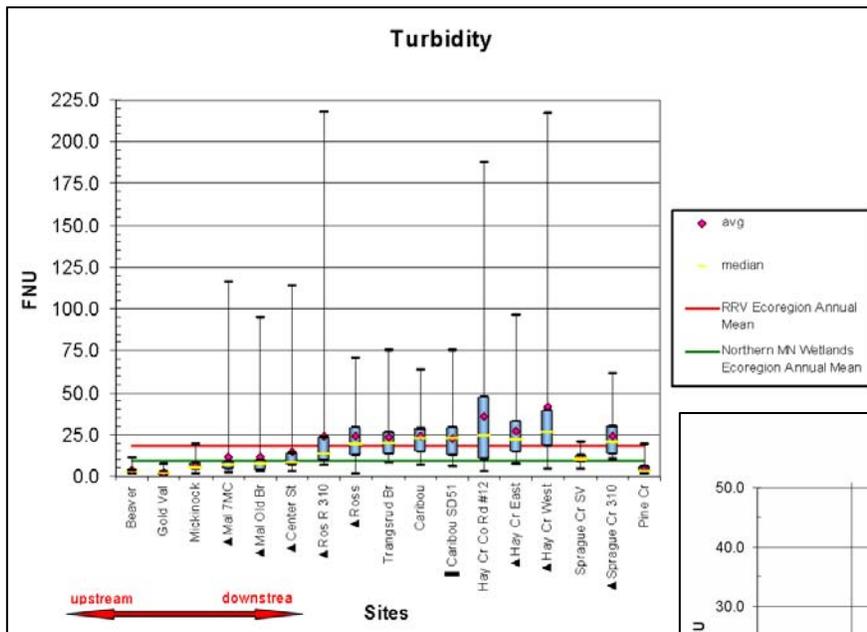
Most of the time, sites show dissolved oxygen to be consistently above the 5 mg/L threshold. Low spikes below the threshold were found at eleven sites. Even though the other six sites show the minimum dissolved oxygen concentration to be above 5 mg/L, the minimums were low enough during the day that one could assume the dissolved oxygen may have dipped below the threshold later in the day or night. In dissolved oxygen studies, samples need to be taken before 9:00 am or a continuous probe needs to be placed to get the most accurate readings and obtain readings during the early morning hours. Most of the readings were not done during the

recommended time as this is difficult to accomplish and would require many days to check all sites.

The means or averages averaged from 7.67 to 9.57 mg/L. The higher means are found at sites in the upper reaches of the watershed or in the forest. The dissolved oxygen means lower as the sites progress through agricultural lands and peatlands.

Low dissolved oxygen concentrations were generally found almost every site during low water flow conditions with warm summer temperatures, summer stagnant waters (no flow), and times of flooding, especially at those sites where flood waters always slowly dissipate (north of the City of Roseau).

Turbidity



RRV Ecoregion Annual Mean = 18.5 mg/L

RRV Stream Range = 6-23 NTU

Northern MN Wetlands Ecoregion Annual Mean = 9.4 mg/L

Northern MN Wetlands Stream Range = 4.1 – 10 NTU

NTU – nephelometric turbidity units – ecogregion measurements

FNU – formazine nephelometric units – SWCD measurements – sites without symbols – years 2003-2008

NTRU – nephelometric turbidity ratio units – River Watch, RRV WMB – all sites with symbols – years 2001-2008

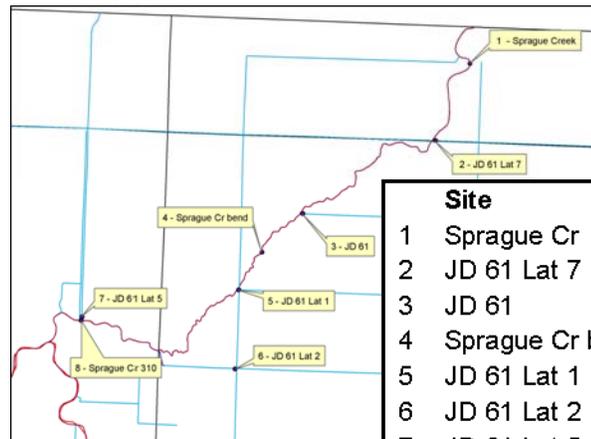
Note: The turbidity units are not interchangeable. At this time, no formula exists to convert units. The Roseau SWCD turbidity meter measures in FNU's. The River Watch / RRV WMB turbidity meter measures in NTRU's. The MPCA turbidity studies involving ecogregions uses NTU's.

Even though the turbidity measurements are not convertible at this time, a graph (page 17) was constructed to show what is currently happening in the Roseau River watershed. The second graph is just a close up of the first graph. Sites going through low impact forested areas in the upper-watershed have the lowest turbidity on average (Beaver and Golden Valley). As the water flows through higher impacted areas such as agriculture and incoming ditches, turbidity increases. Highest turbidity measurements were found after a significant rainfall, cattle or other animals in the stream upstream from monitoring site, fast flow, construction, converging muddy ditches, and flood / eroding conditions.

Turbidity							
Site	min	25th%	median	75th%	max	avg	# of samples
1 Beaver	1.5	2.2	2.6	3.7	11.3	3.4	31
2 Gold Val	0.5	1.0	1.9	3.0	7.3	2.2	27
3 Mickinock	1.3	4.4	5.3	8.2	19.2	6.5	30
4 ▲Mal 7MC	2.4	4.5	6.3	8.7	116.0	11.8	22
5 ▲Mal Old Br	2.8	3.6	7.0	9.6	94.8	11.3	23
6 ▲Center St	3.1	6.5	7.8	14.0	114.0	14.4	21
7 ▲Ros R 310	6.7	9.2	12.9	23.4	218.0	24.4	24
8 ▲Ross	1.4	12.4	19.1	29.1	71.0	24.5	16
9 Trangsrud Br	8.0	12.9	20.0	26.5	75.0	23.7	30
10 Caribou	6.3	14.5	23.0	28.7	63.7	23.9	30
11 ■Caribou SD51	5.8	12.7	22.3	29.1	75.6	22.7	26
12 Hay Cr Co Rd #12	2.8	10.0	24.1	47.5	188.0	35.6	28
13 ▲Hay Cr East	7.4	14.6	21.7	33.0	96.5	26.7	29
14 ▲Hay Cr West	4.6	18.6	26.1	39.7	217.0	41.5	34
15 Sprague Cr SV	4.5	8.6	10.2	12.6	20.8	10.9	24
16 ▲Sprague Cr 310	10.0	12.9	20.8	30.3	61.6	23.9	21
17 Pine Cr	1.2	2.1	2.8	5.7	19.2	4.8	18

Turbidity on Sprague Creek

A turbidity check was done once in May 2009 at seven sites to get a general idea of what was happening in the Sprague Creek watershed since the creek has been listed for turbidity impairment. The highest turbidity measurement occurred on Site 6, JD 61 Lat 2. This lateral converges with Sprague Creek a little more than a mile downstream. This ditch had a muddy appearance and upon closer inspection of an atlas, flows on the north side of agricultural lands and has other lateral and branches that converge upstream. The other laterals flow through forested areas. Obviously, more measurements need to be done to fully understand what is happening between the first and last sites.



Site	FNU
1 Sprague Cr	7.7
2 JD 61 Lat 7	2.8
3 JD 61	2.8
4 Sprague Cr bend	12.5
5 JD 61 Lat 1	2.2
6 JD 61 Lat 2	18.5
7 JD 61 Lat 5	--
8 Sprague Cr 310	5.6

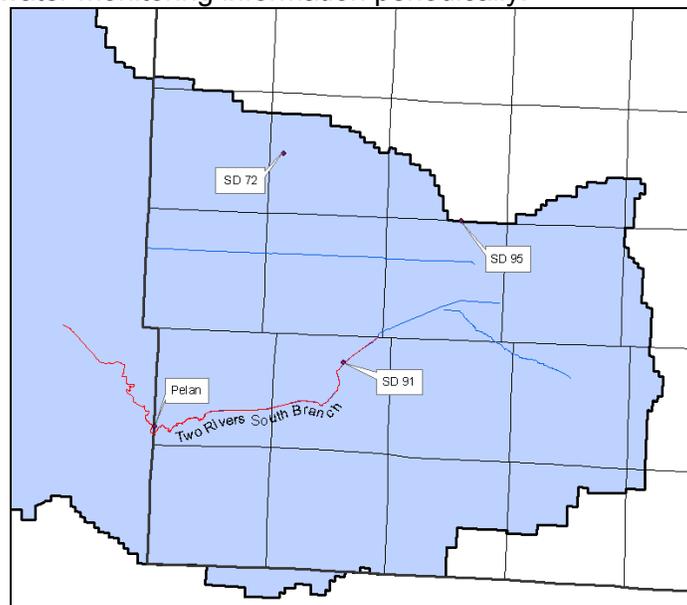
Summary of Two Rivers Watershed and the Water Quality Data Collected
Two Rivers Watershed

The Two Rivers has three branches, into which waters from western Roseau County empties. The South Branch originates south of Badger, flows through Greenbush and exits Roseau County in Dewey Twp. Most of the South Branch in Roseau County is known as SD 91. The branches and laterals of SD 91 along with the CD 4 empties into the South Branch system. Waters from SD 95 (branches & laterals) in Barto and Polonia Twps flow westerly and eventually enter into Middle Branch. Badger Creek and Skunk Creek waters were diverted in the past from entering into the Roseau River system and now flow into SD 95. State and Judicial Ditches in Soler and Juneberry Twps contribute waters that flow into the North Branch of Two Rivers.

The MN DNR - Division of Fisheries has published five fish population surveys between 1986 and 2003 for the Two Rivers system.

Monitoring

Surface water monitoring has been done by the TRWD and the sites are shown on the map below. The Badger-Greenbush High School students will be starting the River Watch program. Currently the sites that they will be visiting are unknown at this point. The TRWD publishes a summary of surface water monitoring information periodically.



TRWD current surface water monitoring sites

Two Rivers Watershed Water Quality Summary
By Danni Halvorson, RRBMP, 2004

The following is an overview of the River Watch, Watershed District, and Water Plan monitoring on the Two Rivers for 1991 thru 2003 as performed by the Red River Basin Monitoring Program (RRBMP), the Two Rivers Watershed District (TRWD), and the Kittson County Water Plan (KCWP).

The data was analyzed by site, ecoregion, and water course. Omernik's ecoregion framework from Fandrei, et al. (1988) was used for spatial division of the watershed. A map of Omernik's ecoregions is provided in the appendix, all but one of the sites used in this analysis fall within the Red River Valley (RRV) ecoregion. Mean values for selected variables were calculated for and compared to the annual ecoregion range from the 25th to 75th percentile also known as the interquartile (IQ) range taken from the

work of McCollor and Heiskary (1993) in an attempt to characterize the baseline water quality of the watershed. This IQ range is used as a range of “typical values” that would be expected for “least impacted” streams in the RRV ecoregion.

Site data was also analyzed using the “Guidance Manual for Assessing the Quality of Minnesota Surface Waters, for the Determination of Impairment” (MPCA 2003). This was done to assess the potential of the sites to exceed the Total Maximum Daily Load standards. This process is often referred to as the, Impaired Waters Assessment.

SITES, SAMPLE SCHEDULES, AND WATER QUALITY VARIABLES

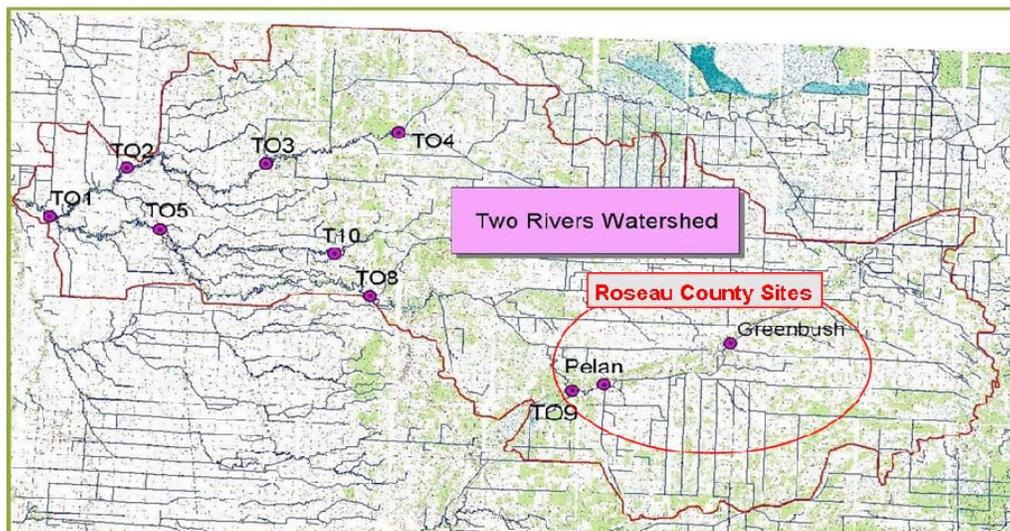
Sampling was conducted on a monthly basis when possible and took place randomly from April to November for each of the years 1991 thru 2003. Sampling occurred at as many as 27 sites in the TRWD from 1991 thru 2003, however only the sites on the Two Rivers with more than 10 sample events were used in this analysis. Thus, the analysis focuses on ten core sites; 3 on the North Branch, 5 on the South Branch, 1 on the Middle Branch, and 1 site after the confluence of the North and South Branches of the Two Rivers. The sites mentioned are shown on the map on page 2 below.

The monitoring included field collection and lab analysis. The RRBMP, TRWD, and KCWP generally sampled four to five sites from the different rivers and/or tributaries in the locale. Monitoring of physical and chemical conditions involved monthly collection of samples from April through November for the following parameters: turbidity, pH, conductivity, dissolved oxygen, total phosphorus, ortho-phosphorus, nitrate/nitrite nitrogen, TKN, TSS, fecals, and air and water temperature.

Lab analysis was conducted by MVTL Labs, Inc in New Ulm, MN for the years 1991 - 1998 and at RMB Lab in Detroit Lakes, MN for 1999 - 2003. Lab analysis was also conducted by the schools involved in River Watch for the years 1999 – 2001. This data because of its potential for error was not used in preparing this report.

For the purposes of this report analysis of the nutrient content, TSS, and fecals will be based solely on certified lab data. Nutrient content analysis is further refined by focusing on total phosphorus and nitrate/nitrite nitrogen because they have corresponding ecoregion IQ ranges. And, analysis of turbidity, pH, conductivity, and dissolved oxygen will be based on all the available data collected from 1991 thru 2003. A brief explanation of selected water quality parameters and a table of the raw data used in the following analysis are provided in the appendix.

WATER QUALITY SITES USED IN ANALYSIS



(For reference, Roseau County Sites diagram was added)

ECOREGION – DATA ANALYSIS

Table 1 below shows a conglomeration of all the data as it compares to the RRV ecoregion and is broken into 3 parts. Part 1 shows mean nutrient, fecal, and sediment data from the certified labs MVTL and RMB, part 2 shows mean field data collected at each site, and part 3 shows the IQ data from McCollor and Heiskary (1993). In each case the number of events/samples that the data is based on is given as **N**. Mean values in each part of the table are highlighted in yellow if they exceed the upper IQ value (75th percentile).

Table 1 Ecoregion Data Comparisons

1991 -2003 Ecoregion Means (MVTL and RMB Labs)								
Site	TP	N	NO2NO3	N	TSS	N	Fecals	N
Greenbush								
Pelan								
T01	0.071	5	0.028	5	6	5		
T02	0.173	43	0.193	23	60	49	61	19
T03	0.126	29	0.048	12	19	36	24	23
T04	0.090	23	0.088	5	9	29	58	17
T05	0.128	29	0.019	12	7	31	50	27
T08	0.134	30	0.067	11	29	36	63	27
T09	0.148	30	0.088	9	8	31	31	21
T10	0.083	20	0.023	6	16	26	65	23
T10	0.095	27	0.020	11	9	35	43	24
1991 through 2003 Ecoregion Means (All Field Data)								
Site	Turbidity	N	Conductivity	N	pH	N	DO	N
Greenbush								
Pelan								
T01	6.82	12	631	15	8.01	15	10.23	14
T02	7.84	10	488	10	8.20	10	8.86	10
T03	79.43	33	681	33	8.08	59	8.90	77
T04	25.38	28	600	26	7.94	55	7.86	74
T05	7.16	27	540	26	8.01	54	8.73	74
T08	3.66	29	596	28	7.71	56	8.01	76
T09	20.86	18	552	18	8.07	44	9.01	63
T10	4.63	23	486	23	8.07	50	9.98	70
T10	8.22	5	506	5	7.94	51	9.00	52
T10	6.84	13	447	14	7.87	41	9.32	62

(Roseau County Sites in RED)

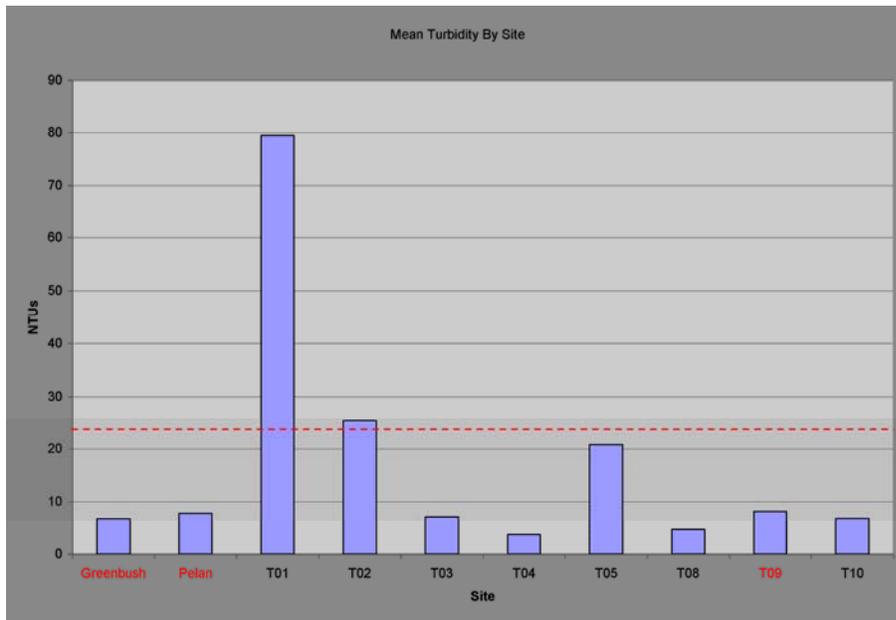
Ecoregion study annual data 1979-1992, 25th to 75th percentile range.

Ecoregion	TP=	NO3NO2=	TSS=	Turbidity=	Conductivity=	pH=
RRV	.11-.30	.01-.21	11-59	6-23	440-640	8-8.4
N=	321	198	322	139	322	187
Units	mg/l	mg/l	mg/l	NTUs	Us/cm	

***Values that are in yellow exceed the ecoregion study's 75th percentile value
 ***Units for watershed parameters are the same as indicated for Ecoregion study.
 ***Ecoregion values for dissolved oxygen and fecals are not set. State standards of 5 mg/l dissolved oxygen and 220 colonies/100 ml for fecals apply.

When looking at the mean values across the watershed there does not appear to be any problems with nutrient levels, fecals, or dissolved oxygen. However, mean turbidity at sites T01 and T02 does exceed the upper IQ value of 23 NTUs for the RRV ecoregion. TSS at site T01 also exceeds the upper IQ value of 59 mg/l. Graph 1 below further illustrates how sites T01 and T02 exceed the ecoregion expected value for turbidity. The ecoregion expected value is shown as the red dashed line. The data shows that sediment is an issue at site T01 and that T02 mean turbidity is also above the expected value however only slight.

Graph 1 Mean Turbidity



IMPAIRED WATERS ASSESSMENT

The following additional assessment is based on the levels of use support defined by the U.S. EPA and MPCA for listing waters as impaired for the State 303(b) report and 303(d) List (TMDL). These categories listed in Table 2 are: Fully Supporting, Partially Supporting, and Not Supported as per the guideline for conventional pollutants and water quality characteristics in the table. Results are reported at sites where there was a minimum of 10 data points within the most recent 10 years as required for impaired waters assessments.

Water quality standards are benchmarks by which the qualities of surface waters are measured. The Clean Water Act requires all surface waters be assessed to determine their condition and ability to support their designated uses. In the case of the surface waters of the Two River watershed, designated uses relate to aquatic life and recreation.

Measurement of various parameters provides guidance as to the extent that surface waters are meeting their designated uses. The information presented in Table 3 provides an overview of the status of water quality conditions based on turbidity (25 NTUs), dissolved oxygen (5mg/l), and fecal counts (220 col/100ml) at sampling sites distributed throughout the Two River watershed. The table shows the number of samples the analysis is based on followed by the percent of the samples that did not meet the assessment guidelines. Percent values are shaded or not shaded according to their level of use support.

Table 2 Levels of Use Support

Summary of Data Requirements and Exceedance Thresholds for Assessment of Conventional Pollutants and Water Quality Characteristics.					
Impairment Assessment for	Period of Record	Minimum No. of Data Points	Use Support or Listing Category Based on Chronic Standard Exceedances		
Chronic Standards Exceedances Thresholds:			< or =10%	10-25%	>25%
305(b) Report	Most recent 10 years	10*	Fully Supporting	Partially Supporting	Not Supporting
303 (d) List (TMDL)	Most recent 10 years	10*	Not Listed	Listed	Listed

*Minimum of 20 data points for turbidity based on TSS.

Table 3 Levels of Use Support Percent Exceedance

Sample Site	Number of DO samples	D.O. < 5 mg/l	Number of Turb samples	Turb > 25 NTU	Number of Fecal samples	Fecals > 200 orgs/100ml
T01	77	5	33	75	19	5
T02	74	12	28	43	23	0
T03	74	0	27	0	17	0
T04	76	16	29	0	27	0
T05	63	2	18	28	27	4
T08	70	0	23	0	21	0
T09	52	6	5	0	23	9
T10	62	3	13	8	24	0
Greenbush	14	14	12	8		
Pelan	10	10	10	0		
No shade Fully Supporting (< or = 10% of sample events exceeding) Partially Supporting (10-25% of sample events exceeding) Not Supporting (> 25% of sample events exceeding)						

The impaired water assessment further shows excessive turbidity at site T01 and T02 with site T05 showing up also as having too many sample events with turbidity levels greater than 25 NTUs. The high levels of turbidity at these sites are most likely associated with erosion from wind, agricultural practices, and stream instability caused from previous high water damage to the main channel and upstream tributaries (e.g. local drainage and field ditches).

At times, dissolved oxygen content also appears to be a problem at sites T02, T04, Greenbush, and Pelan. The low dissolved oxygen readings at T04 may be and most likely are associated with the vast wetland areas directly upstream of the site. The Pelan site located near the large ridge between the cities of Karlstad and Greenbush may also be receiving significant ground water flow especially during low water levels that may be causing the dissolved oxygen content to fall below the desired level. However, the remaining sites T02 and Greenbush appear to be receiving most of their flow from surrounding agricultural land. It appears that forces other than ground water interaction may be causing the low dissolved oxygen readings at these sites.

SUMMARY AND RECOMMENDATIONS

From the data used in this investigation, it looks like the biggest concerns in the watershed are dissolved oxygen and sediment levels. In particular, to point the finger at the one site with the most problems it appears that the T02 site is in the worst shape having both high sediment and low dissolved oxygen readings. T01 also has significant sediment based on TSS and Turbidity but the dissolved oxygen readings have been to date all greater than the desired 5 mg/l level.

It is important to note that the values listed in this analysis are concentrations only and do not account for flow or loadings. At a minimum, the data warrants further investigation on the problem areas indicated above. Further investigation should include flow data collection in conjunction with the chemical analysis for TSS and field measurements of turbidity so sediment loads coming from the flagged sites can be estimated and a TSS/turbidity correlation can be developed. Further investigation into the sites flagged for low dissolved oxygen is also warranted. Site T02 in particular which is located in the lower 1/3 of the watershed should have enough flow to keep dissolved oxygen levels above the 5 mg/l threshold. It appears that a flow blockage maybe the Hill Dam just downstream of the site or other obstacle is affecting the flow during low water levels and possibly the dissolved oxygen levels at the site

REFERENCE

Fandrei, G., S.A. Heiskary, and S. McCollor. 1988. Descriptive Characteristics of the Seven Ecoregions in Minnesota. Minnesota Pollution Control Agency.

Heiskary, Steven, and S. McCollor. 1993. *Selected Water Quality Characteristics of Minimally Impacted Streams from Minnesota's Seven Ecoregions, Addendum to: Descriptive Characteristics of the Seven Ecoregions in Minnesota.* Minnesota Pollution Control Agency.

Minnesota Pollution Control Agency. 2003. *Guidance Manual for Assessing the Quality of Minnesota Surface Waters. For the Determination of Impairment.* 305(b) Report and 303(d) List.

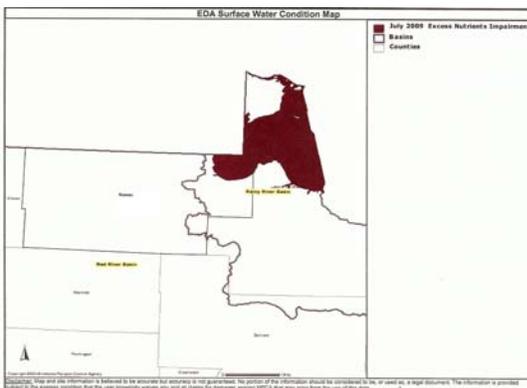
Summary of Lake of the Woods/Warroad Watersheds and the Water Quality Data Collected

LOW/Warroad Watersheds

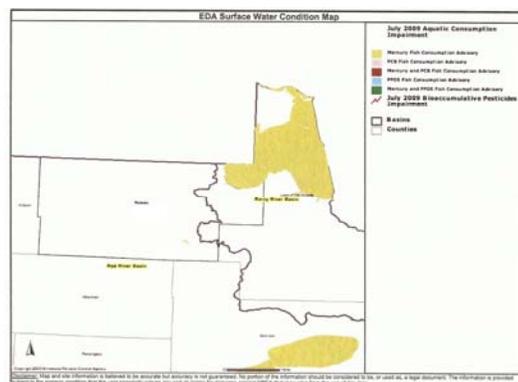
The Warroad River has two branches, into which waters from eastern Roseau County empties. Both branches arise in BISF and converge in northern Moranville Township before flowing into Lake of the Woods in the City of Warroad. Bulldog Run, Clausner Creek and CD 6 empty into the West Branch Warroad River. Other ditch systems that converge with the Warroad River system or flow directly into Lake of the Woods are CD 6, 9, 10, 20, 25, 26 and JD 22 and 62. Willow Creek flows into the Lake of the Woods in North Laona Township.

These watersheds, which are part of the Rain River Basin, are different compared to the rest of the Rainy River watersheds in that they resemble more like watersheds in the Red River Basin in topography, wetlands and erosive soils according to the Rainy River Basin Plan.

No surface waters are listed as impaired in the Warroad River or Lake of the Woods watersheds in Roseau County. Nolan Baraton, MPCA (Water and Basin Planner for the Rainy River Basin), indicated that Lake of the Woods is on the impaired waters list for excess nutrients and mercury (not in Roseau County) and that Willow Creek (in Roseau County) is up to be on the impaired waters list. A TMDL study will be underway in the next few years. As the Warroad River, Willow Creek and numerous ditches empty into Muskeg Bay of Lake of the Woods, Roseau County and its partners will be asked to fill TMDL study roles. The Roseau SWCD would like to continue its role in monitoring surface waters in this area of the county and add monitoring sites on the various ditch systems in order to collect data of what is going into Lake of the Woods from Roseau County. The main ideas are to reduce phosphorus loading and make sure no new sources of phosphorus are getting into the lake. Warroad River will be set up as a pour point and have a station set up for flow monitoring during this study.



Excess Nutrient Impairment

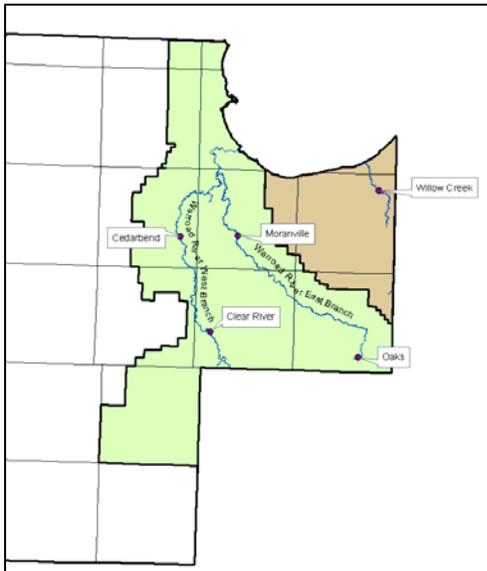


Mercury Impairment

Monitoring

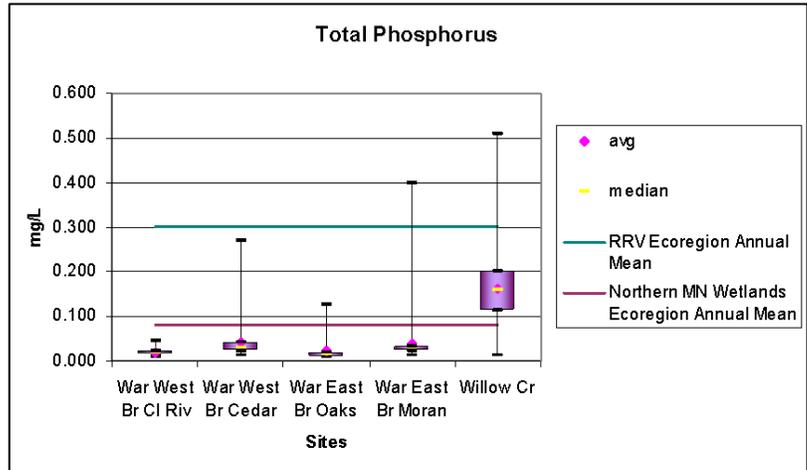
Surface water monitoring has been done Roseau SWCD since 2001 and the sites are shown on the map below. Data from years 2003- 2009 have been recorded in the STORET database. Data from 2001 and 2002 were gathered using different equipment and so were not included in the database. The Warroad High School River Watch was active only in year 2001.

Because Lake of the Woods has been listed for excess nutrients, nitrate and phosphorus data and graphs are shown below. Other graphs with pH, DO, temperature, fecal coliform counts, specific conductivity and turbidity may be found in Appendix D.

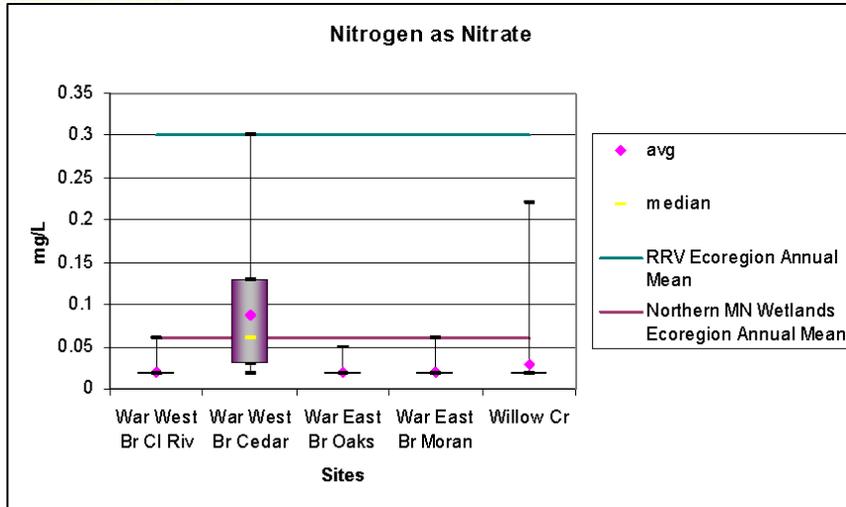


Total Phosphorus

Most of the time, phosphorus does not seem to be an issue for the Warroad River. Willow Creek is consistently above the northern MN wetlands ecoregion annual mean of 0.08 mg/L. Willow Creek runs through a few pastures and geese have been known to use these waters in the summer, according to a local landowner. This creek can dry down to little or no flows during summer and into fall. The Clear River and Oaks sites are located in BISF and show the least amounts of total phosphorus and have means below the ecoregion annual mean. The Cedarbend and Moranville sites are located in more agricultural areas and also have means below ecogion mean, although higher spikes of total phosphorus have been recorded.



Total Phosphorus							
Site	min	25th%	median	75th%	max	avg	# of samples
War West Br Clear River	0.011	0.015	0.019	0.022	0.044	0.020	34
War West Br Cedarbend	0.014	0.023	0.029	0.042	0.270	0.042	36
War East Br Oaks	0.009	0.011	0.016	0.021	0.127	0.022	34
War East Br Moranville	0.012	0.023	0.029	0.034	0.400	0.039	34
Willow Creek	0.013	0.115	0.155	0.202	0.510	0.161	31



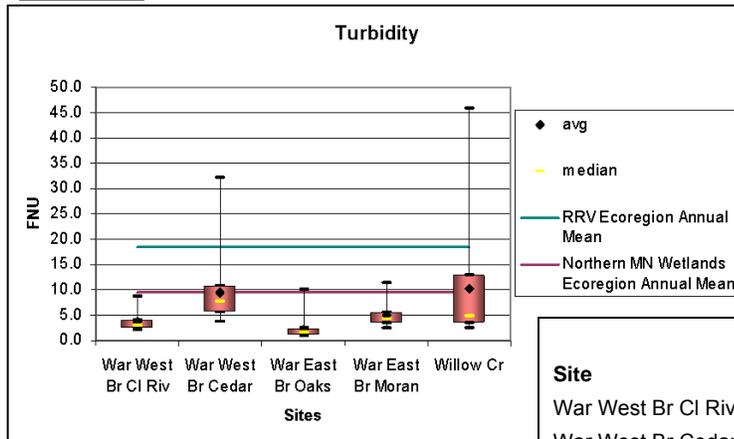
Nitrates

Nitrates do not seem to be an issue, except for the Cedarbend site, where on average, nitrate means are above the northern MN wetlands ecoregion annual mean of 0.06 mg/L. At this time, it is unknown why nitrates are consistently higher at this location compared to any other site in the Warroad or LOW watersheds. One other potential monitoring site

exists between this site and the Clear River site to possibly narrow down the source. Nitrate spikes for three sites are right at the ecoregion mean with the two other sites being at or lower than the Red River ecoregion mean.

Nitrate								
Site	min	25th%	median	75th%	max	avg	# of samples	
War West Br Clear River	0.02	0.02	0.02	0.02	0.06	0.02	34	
War West Br Cedarbend	0.02	0.03	0.06	0.13	0.30	0.09	36	
War East Br Oaks	0.02	0.02	0.02	0.02	0.05	0.02	34	
War East Br Moranville	0.02	0.02	0.02	0.02	0.06	0.02	34	
Willow Creek	0.02	0.02	0.02	0.02	0.22	0.03	31	

Turbidity



Northern MN Wetlands Ecoregion Annual Mean = 9.4 NTU

Northern MN Wetlands Stream Range = 4.1 – 10 NTU

RRV Ecoregion Annual Mean = 18.5 NTU

RRV Stream Range = 6-23 NTU

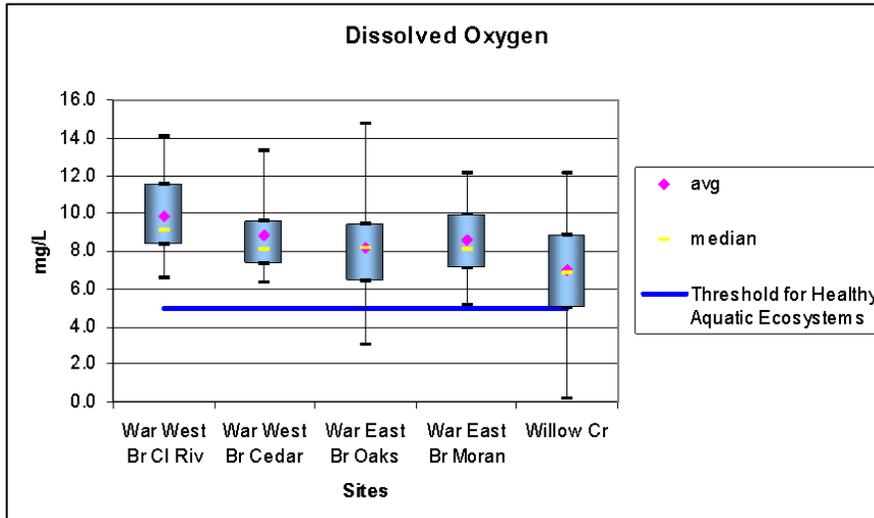
Turbidity (FNU)							
Site	min	25th%	median	75th%	max	avg	count
War West Br CI Riv	2.1	2.4	2.9	4.1	8.7	3.7	31
War West Br Cedar	3.8	5.5	7.7	10.7	32.2	9.3	33
War East Br Oaks	0.8	1.1	1.7	2.5	10.0	2.2	30
War East Br Moran	2.4	3.5	4.3	5.5	11.4	4.9	34
Willow Cr	2.4	3.3	4.8	13.0	45.7	10.3	28

NTU – nephelometric turbidity units, ecogregion measurements
FNU – formazine nephelometric units, SWCD measurements

(Note: The turbidity units are not interchangeable. At this time, no formula exists to convert units. The Roseau SWCD turbidity meter measures in FNU's. The MPCA turbidity studies involving ecoregions uses NTU's.)

As mentioned earlier, turbidity units are not convertible at this time. A graph was constructed to show which sites have greatest variability and show how landuse can affect surface waters. Cedarbend and Willow Creek have the most variability for turbidity and the highest recorded spikes.

Dissolved Oxygen



All sites have dissolved oxygen (DO) means above the threshold of 5 mg/L. Minimums show that two sites, Oaks and Willow Creek, have had recorded minimums of 3.0 and 0.2 mg/L DO, respectively. The other sites have minimums close enough to the threshold where DO may have dipped below 5 mg/L later in the day or night. Most of the time where DO

<u>Dissolved Oxygen</u>							
Site	min	25th%	median	75th%	max	avg	count
War West Br CI Riv	6.6	8.3	9.1	11.5	14.1	9.8	26
War West Br Cedar	6.3	7.3	8.1	9.6	13.3	8.8	32
War East Br Oaks	3.0	6.4	8.2	9.4	14.8	8.2	29
War East Br Moran	5.1	7.1	8.1	10.0	12.1	8.6	30
Willow Cr	0.2	5.0	6.8	8.9	12.1	7.0	27

has been low, it has been due to low flows, high summer temperatures warming surface waters, and/or stagnation.

Future Roseau County TMDL Studies

Local water monitoring partners anticipate involvement with the monitoring and assessment of surface water impairments, TMDL studies and implementation plans in Roseau County. Expected TMDL studies include the dissolved oxygen impairment on the Roseau River, turbidity impairment on Sprague Creek and Roseau River, fish bioassessments (IBI) on Two Rivers South Branch and nutrient monitoring in Warroad River, Willow Creek and various ditches in WR/LOW watersheds (for LOW TMDL). Effectiveness monitoring will be supported and addressed as needed. The mercury studies on Roseau River will also be supported when it comes up. Despite the target start as indicated on the TMDL list below, no studies have been started.

2008 TMDL List - Final

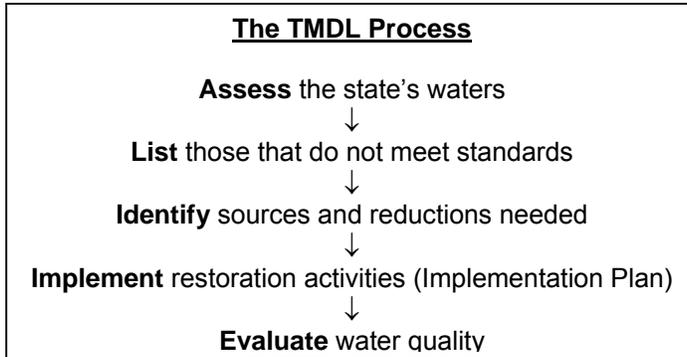
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Reach	Description	Yr ¹²	River ID# ⁴	Prev ID# ¹³	Lake or wetland ID# ⁵	Affected use	Pollutant or stressor ³	Target start ¹	Target completion ¹	Cate-gory ¹⁴
RED RIVER BASIN										
Roseau River	Headwaters to S Fk Roseau R	98	09020314-504			Aquatic consumption	Mercury in fish tissue	1998	2011	5C
Roseau River	S Fk Roseau R to Hay Cr	98	09020314-502			Aquatic consumption	Mercury in fish tissue	1998	2011	5C
Roseau River	Hay Cr to MN/Canada Border	96	09020314-501			Aquatic life	Oxygen, Dissolved ^{2,5}	2007	2010	5A
Roseau River	Hay Cr to MN/Canada Border	98	09020314-501			Aquatic consumption	Mercury in fish tissue	1998	2011	5A
Roseau River	Hay Cr to MN/Canada Border	08	09020314-501			Aquatic Life	Turbidity	2011	2014	5A
Sprague Creek	MN/Canada border to Roseau R	08	09020314-508			Aquatic Life	Turbidity	2011	2014	5C
Two River, South Branch	Unnamed ditch to Lateral Ditch 2	02	09020312-506			Aquatic life	Fish bioassessments	2010	2013	5C

Category 5 – at least one use is impaired and a TMDL is required.

5A – Impaired by multiple pollutants and no TMDL study plans are approved by EPA

5C – Impaired by one pollutant and no TMDL study is approved by EPA



Links

- MPCA Impaired Waters – <http://www.pca.state.mn.us/water/tmdl/index.html>
- BWSR Clean Water Legacy – <http://www.bwsr.state.mn.us/CWL/index.html>
- MN USGS Waters – <http://mn.water.usgs.gov/>
- DNR Watershed Map of MN – <http://dnr.state.mn.us/watersheds/map.html>
- EPA TMDL Website – <http://www.epa.gov/owow/tmdl/>

Other

For information on statistical data 2003-2008, surface water monitoring graphs 2003-2008, Guide to Typical Minnesota Water Quality Conditions, permitted waste water discharges, normal annual precipitation, normal precipitation May – September, rainfall monitoring network, and Roseau SWCD river monitoring locations, see Appendix D. For information on examples of Best Management Practices, feedlots, feedlot delegated county map, land ownership, topography, TB management zones, general land use, and wetland type information, see Appendix B.

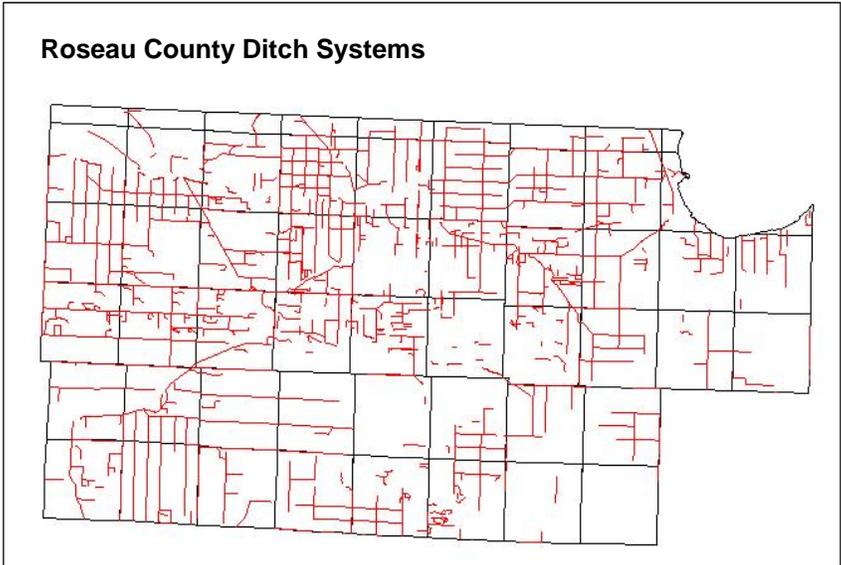
Future Projects If Funding Was Available

- Additional surface monitoring sites (up to possible 10) for Warroad River/Lake of the Woods watersheds with lab parameters including chlorophyll – a, total suspended solids (TSS), nitrate – nitrite, and total phosphorus
- Additional lab parameters for already established sites (5 sites) for chlorophyll – a and TSS for Lake of the Woods and Warroad River monitoring sites
- Additional lab parameter for Sprague Creek for TSS with additional monitoring sites (up to 6) for TMDL study
- Update river monitoring equipment (sonde unit, Van Dorn sampler)

Assessment

Priority Concern 4: Managing Existing Ditch Systems

Roseau County’s ditch system is quite extensive. Drainage started back in the 1800’s and as the county was settled; more ditches were dug and or modified to accommodate agriculture, livestock, industrial and residential needs. Cost-share was even provided to private landowners to encourage more drainage and therefore, allow more land to be put into production. Most of the surface lateral ditches on agricultural land have been maintained through private landowners. Other drainage is completed through Roseau County, watershed districts, and the



Minnesota Drainage Commission. The MN DNR is in charge of public drainage systems.

Older drainage systems (county, judicial, state, watershed) included in the 927 miles of public ditches are in need of maintenance so that the entire system may function correctly from impacts due to sloughing, erosion and sedimentation as past floods and storm waters have deteriorated this drainage structure. Ditch cleaning issues can arise in the form of landowner(s) denying access for ditch system cleanout leaving that length unrepaired. Many inventory records regarding the ditch systems are currently located at a restoration facility because of floodwater damage from 2002.

The policy of Roseau County is to maintain the drainage system to minimize flooding and adverse impacts that might occur when cleaning a drainage system. Roseau County and the watershed districts will continue to try and maintain the existing drainage systems within the county and to use updated best management practices with new technologies to reduce impacts on water quality when maintenance is performed. About 200+ “As-Built” miles of ditches have been inventoried and gone through maintenance so far with more being done in future years. Funding continues to be critical for inventorying ditches and digitizing records.

Ditch Systems

County						
5	6	7	9	10	11	13
17	18	20	21	23	24	25
26						
Judicial						
19	22	33	61	62	63	69
State						
20	51	69	72	87	90	91
95						

TRWD Ditch Jurisdiction - CD #4, Soler #4 and Dewey #5

RRWD Ditch Jurisdiction - #1, #3, CD #8, CD #16, SD #51, JD #62



EXCERPT FROM TRWD OVERALL PLAN

GOAL: Maintain, modify, construct, or improve properly functioning watercourses to provide protection to agricultural land for a 10 - year event, while ensuring that there are no resulting downstream adverse impacts.

PRIORITY ISSUE:

Legal (Public) Systems:

- Reduce the number of drainage systems with outlets that are in disrepair.
- Address beaver dams on ditches and natural watercourses.
- Address problem of debris in river channels.
- Address blockages in drainage systems from sediment, vegetation, and other causes.
- Reduce “flashiness” of the hydrograph related to ditches and natural watercourses.
- Reduce damages to legal ditch systems by preventing or correcting slope failures.

Natural Systems:

- Reduce the number of drainage systems with outlets that are in disrepair.
- Address beaver dams on ditches and natural coulees.
- Address problem of debris in river channels.
- Address blockages in drainage systems from sediment, vegetation, and other causes.
- Reduce the “flashiness” of the hydrograph related to ditches and natural watercourses.
- Reduce damages to natural systems by preventing or correcting slope failures.

Private Systems:

- Reduce the number of drainage systems with outlets that are in disrepair.
- Address beaver dams on ditches and natural coulees.
- Address blockages in drainage systems from sediment, vegetation, and other causes.
- Reduce the “flashiness” of the hydrograph related to ditches and natural watercourses.
- Follow all necessary permitting procedures
- Ensure proper construction to prevent erosion problems such as gullies, side slope failures, and washouts.

Road Ditches:

- Reduce the number of drainage systems with outlets that are in disrepair.
- Address beaver dams on ditches and natural coulees.
- Address blockages in drainage systems from sediment, vegetation, and other causes.
- Reduce the “flashiness” of the hydrograph related to ditches and natural watercourses.
- Reduce damages to legal ditch systems by preventing or correcting slope failures.

STRATEGIES:

- 1) For legal ditch systems, an annual inspection should be done on each system, which identifies the general ditch condition and specific problems, including any restrictions, condition of outlets, bank and bed failures, sedimentation issues, water quality issues, fish & wildlife issues, and any other issues. A ditch operations and maintenance plan should be written for each ditch system and should address annual cattail spraying, beaver dams and maintenance of them, removal of woody vegetation and debris, cover crops on adjacent fields, riparian buffer strips, CRP, wetland restorations, funding needed for maintenance, and other issues deemed appropriate. For systems that have chronic problems, investigate the feasibility of establishing a storm water management unit or water management district and set up of a storm water utility.
- 2) For natural systems, an inventory should be completed similar to a ditch inventory & once complete work with DNR to investigate delegating permitting authority. Clean outs of sediment should be done as necessary, and water flow from ditches into natural systems should be controlled by utilizing side pipe inlets or other means. Other maintenance should



include brush management, prescribed burning to control vegetation, no farming up to waterway edges, and perpetual easements through programs such as EWP, RIM, & CREP.

3) For private systems, the *Rules of the Two Rivers Watershed District* should be reviewed and adjusted if necessary. Also, an inventory of sites should be completed and an effort made to identify who is responsible for maintenance, and work with them to do the maintenance.

Other strategies include encouraging farmers not to farm to bottoms of ditches and watercourses, cost share on side pipe inlets, riparian buffer strips, sediment traps, fencing to eliminate cattle in ditches, and grassed waterways.

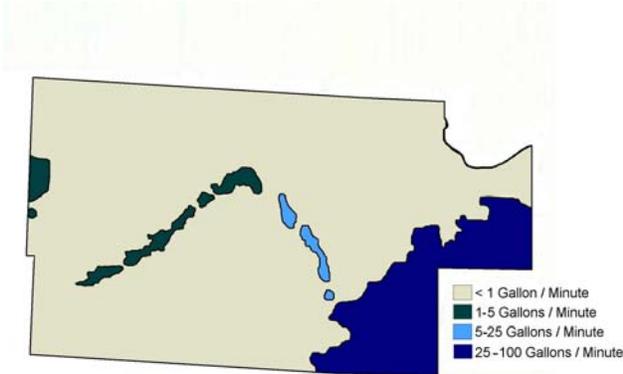
4) For road ditches, the TRWD should work with road authorities (MNDOT, County Highway Dept., & Townships) to identify trouble spots (i.e. where field ditches outlet into road ditches), develop a corrective action plan, and a policy agreement to address capacity of future road construction and maintenance activities. Also, road ditches could be included as a part of (lateral to) legal drainage systems in order to facilitate maintenance. In addition, upstream projects should be incorporated that address timing of flows such as stream restorations and gated storage. Measures should be taken to address sedimentation of ditches due to erosion from adjacent fields resulting from poor tillage practices or lack of cover crop. Maintenance issues include roadside mowing, buffer strips, elimination of the practice of farming ditch bottoms, incorporating wetland projects, and eliminating livestock in ditch systems.

PREFERRED OUTCOMES: All systems within the District should eventually have capacity to carry a 10 year frequency storm event (3.5 – 4 inches runoff in 24 hrs). Reduction of erosion and sedimentation, leading to less complaints and less ditch cleaning, reducing maintenance costs.

POTENTIAL PARTNERS: Soil & Water Conservation Districts, County Commissioners, County Highway Departments, Townships, DNR, BWSR, FSA, NRCS

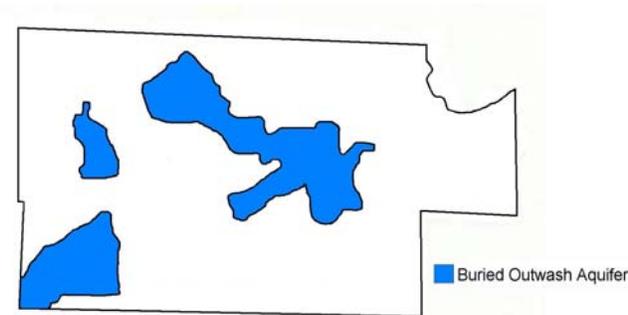
Priority Concern 5: Groundwater Protection and Quality
Groundwater Systems in Roseau County

Unconsolidated Glacial Drift Aquifers



Surficial Drift Aquifers

Most residents in Roseau County are served by surficial drift aquifers of which are recharged by normal precipitation. This type of aquifer is susceptible to direct access of contaminants from the land surface. The water quality in these aquifers is generally believed to be good quality. This water may contain large concentrations of iron and manganese. Hardness can range from 200-400 mg/L. Nitrate contamination is present in some areas. The dominant water type is calcium magnesium bicarbonate.

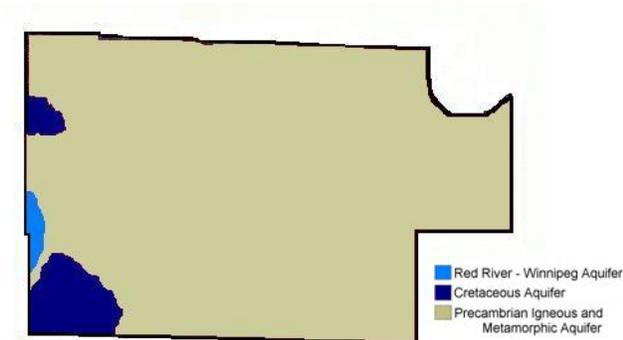


Buried Drift Aquifers

Water from buried drift aquifers are also found in Roseau County, which also provides good drinking water. It is also believed that these waters are also of good quality. Hardness may range from 300-1200 mg/L. Iron concentration may be high. Dominant water type is calcium magnesium bicarbonate. Where Cretaceous rock underlies buried aquifers, calcium magnesium bicarbonate sulfate and calcium magnesium chloride water types are present.

Bedrock Aquifers

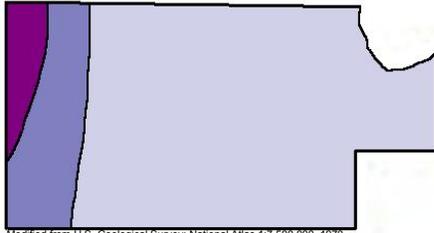
Other aquifers in Roseau County include Cretaceous and Red River-Winnipeg aquifers, which are sedimentary bedrock aquifers, and a crystalline bedrock aquifer. Cretaceous and Red River-Winnipeg aquifers are found in small areas on the west side of the county.



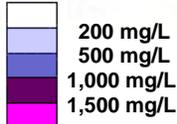
Bedrock Aquifers

The Cretaceous aquifer is usually only used when drift aquifers are not present, but may be used for rural domestic and livestock supplies. Water is commonly hard with high sulfate, chloride and dissolved solids concentrations. The Red River-Winnipeg aquifer is highly mineralized with dissolved solids concentrations ranging from 3000 – 60,000 mg/L. Large iron, sodium and chloride concentrations are also present. This water is seldom used. Crystalline bedrock aquifers (Precambrian) underlie the unconsolidated and sedimentary materials in Roseau County.

Dissolved-Solids Concentration in Water from the Crystalline-Rock Aquifer



Modified from U.S. Geological Survey; National Atlas 1:7,500,000, 1970.



This bedrock is composed of igneous and metamorphic rocks. Cretaceous aquifers may contribute mineralized water to the crystalline aquifer in the western most part of the county. Crystalline bedrock aquifers consist of granite, greenstone and slate rocks where water collects in fractures, faults and weatherized zones. Dissolved solids concentrations are generally less than 300 mg/L. The common water type is calcium magnesium bicarbonate. Yields may be limited, but may supply water to rural domestic and livestock wells. This aquifer is not considered an aquifer for most of the state of Minnesota.

Groundwater Recharge

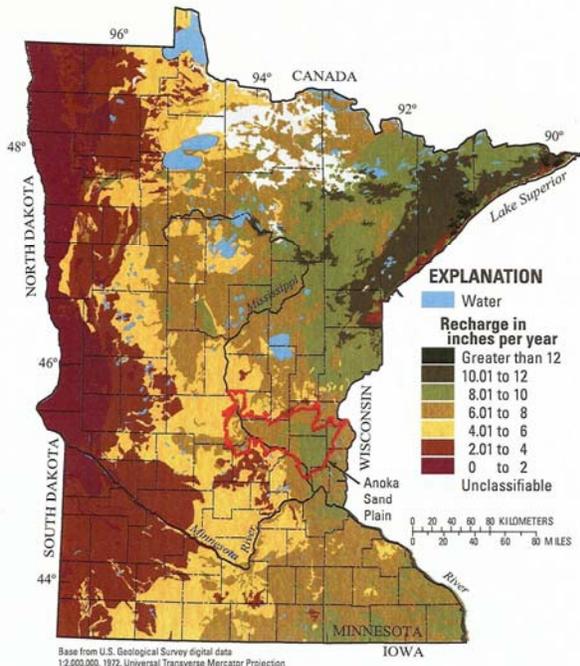


Figure Average annual recharge rate to surficial materials in Minnesota (1971-2000) estimated on the basis on the regional regression recharge method (modified from Lorenz and Delin, 2007).

Groundwater recharge estimates for Roseau County ranges from 0 - 2 inches in the west to 4 - 6 inches in the east (see left map).

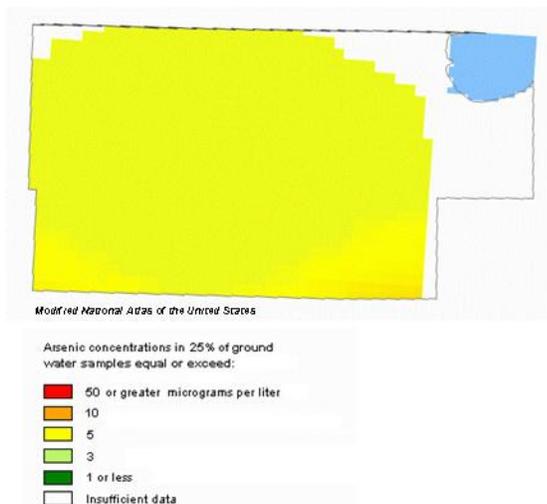
According the USGS, most of Minnesota's groundwater is replenished during the spring and fall when precipitation/snowmelt is prevalent and plant transpiration is lower (USGS, 2007). Most of the precipitation that falls on Minnesota is returned to the atmosphere through evaporation and transpiration with only a fraction ending up in groundwater systems. Recharge rates vary across Minnesota in response to differences in soils, land cover and use, landscape, confining layers, precipitation rate, snowmelt rate, evaporation and transpiration. After groundwater is recharged, much of the water flows through groundwater systems and empties into wetlands, streams and lakes. The rest of the recharged groundwater may flow to deeper confined aquifers, may be taken up by plants, or may be withdrawn through wells for many purposes.

Groundwater recharge is not equivalent to infiltration of water at the land surface, not equated to the process of percolation, to be confused with aquifer yield, or the same as sustainable yield (January 2007. Ground-Water Recharge in Minnesota. Fact Sheet 2007-3002, US Dept of the Interior and US Geological Survey).

Groundwater Studies

The groundwater systems in Roseau County are not well understood and there have been no extensive groundwater studies done to date except for a Baseline Study and a Salol Landfill Analysis by the MPCA and routine private drinking well tests for nitrate and bacteria. The Minnesota DNR, USGS, and Minnesota Department of Agriculture have no observation wells located in Roseau County.) The MPCA has conducted a Baseline Study of Groundwater in of 15 wells located throughout Roseau County (see appendix F for the results of this study). Most wells were private drinking water wells. Analyses that were published to maps include beryllium, boron, calcium, chloride, iron, manganese, nitrate, sodium, sulfate, total dissolved solids, total organic carbon and volatile organic compounds. The arsenic study used 32 wells to test groundwater. The Salol landfill wells were analyzed for many different chemicals. This analysis is useful for localized information, but is not comprehensive to what is going on in the rest of the county. No known pesticide studies have been done regarding Roseau County's groundwater.

A report regarding the MPCA baseline groundwater study was published ([Baseline Water Quality of Minnesota's Principal Aquifers - Northwest Region](#), 1999). Water quality was observed from a water chemistry standpoint rather than consumption. Water was sampled from surficial aquifers (two each for unconfined and water table) and eleven buried aquifers in Roseau County. (No well water samples were taken from the Cretaceous aquifer located in Roseau County.) Results were combined with 18 other counties in the northwest region.



The conclusion of this study was that arsenic was the primary chemical of concern for buried drift aquifers. Other chemicals that were thought to be a concern were iron, sodium, and where buried drift aquifers are underlain by Cretaceous bedrock, chloride, boron, sulfate, and sodium. In Cretaceous aquifers, chemicals of concern are boron, sulfate, sodium, molybdenum, fluoride, and iron. Health-based drinking standards were exceeded for manganese, nitrate, selenium, arsenic, barium, boron, and molybdenum and for the non-health based standards, iron, aluminum chloride, fluoride sodium and sulfate. Volatile organic compounds were found in a low percentage of wells (4.9%). (One of these wells is located in eastern Roseau County.)

For information on groundwater appropriation, source water assessment, groundwater provinces, open dump and landfill inventory sites, registered underground storage tank list, underground storage tank leak list, and a list of hazardous waste generators, see Appendix E.

Roseau SWCD Ground Water Data

The Roseau SWCD has used nitrate equipment to test groundwater in the past. Between 2002 and 2005, ninety nine well water samples, twelve water brands, and one city water sample were tested for nitrates using the Minnesota Department of Agriculture nitrate testing equipment. Thirty-two samples tested positive to presence of nitrate. Twenty nine out of the thirty two samples were below 10 ppm (parts per million) and 86% of those were 1 or less than 1 ppm. Three samples were greater than 10 ppm and had the results of 11, 17, and 24 ppm. The



highest sample was taken from an older farm near a mobile home park. The State of Minnesota established that nitrate levels be less than 10 ppm for drinking water purposes.

The various brands of brand drinking water tested for nitrate included Dasani®, Kandiyohi® (5 gallon distilled water), Aquafina®, Crystal Glen®, & Culligan® – 0 ppm, Roseau City Water – 0.2 ppm, Ice Mountain® – 0.6 ppm, Evian® Natural Spring Water – 0.7 ppm, Chippewa Spring Water Sport® – 3.2 ppm, Klarbrunn® – 4.1 ppm, Henry’s Natural Spring Water® – 4.2 ppm, Holiday Pantry® Natural Spring Water– 4.3 ppm, and Kandiyohi® Purified Water – 4.7 ppm. All were below the State standard of 10 ppm, but 61.5% did have nitrate present.

Well Survey 2000 (Certified Lab)

wells – 41
Coliform Bacteria– 6 positive
E coli – 1 positive
Nitrate – 2 greater than 10 ppm; 2 less than 10 ppm, rest below detection limit
Lead – 6 positives; ranges 1.4 – 13.6 ppb; 1 greater than 5 ppb; 1 greater than 10 ppb, rest below detection limit

Well Survey 2001(Certified Lab)

wells – 16
E coli – 1 positive
Coliform Bacteria – 5 positives
Nitrate Nitrite Nitrogen – 3 less than 10 ppm, rest below detection limit
Lead – 6 positives; ranges from 1.1 to 6.5 ppb, rest below detection limit

Year 2002 (Certified Lab)

wells – 1
E coli – negative
Coliform Bacteria – negative
Nitrate Nitrogen – below detection limit

Well Survey 2005 (Certified Lab)

wells – 87
E coli – 1 positive
Coliform Bacteria – 11 positive
Nitrate – 10 less than 10 ppm, rest below detection limit

Future Project If Funding Was Available

- Establish a 50% cost-share program for septic systems (mounds and regular)

Goals and Objectives

Priority Concern 1: Erosion & Sedimentation of Surface Waters, Stormwater Runoff and Wetlands
--

Objective A: Enhance and improve the quality of surface waters and wetlands through conservation practices, restoration, and structures

- 1. Encourage the use of best management / conservation practices in rural areas to reduce erosion**
 - Examples of land use practices include having a cover on highly erodible land, planting windbreaks, planting buffers and riparian strips adjacent to waterways, not farming to edge of ditch or in the ditch, residue management on fields (not just the erosion prone ones), erosion and sedimentation management on new developments and road construction, planting cover strips on tilled fields in the fall, grade stabilization structures in gully forming areas, and streambank stabilization on bank sloughs. These types of practices will maintain and enhance water quality and keep the soil where it is supposed to be. All watersheds priority.
- 2. Promote and support Warroad River restoration**
 - The Warroad River in sections 29 and 30 needs to be dredged and cleaned for navigability into Lake of the Woods.
- 3. Promote and support the east stormwater control and sediment basin for City of Roseau**
 - The City of Roseau needs to construct a stormwater control and sediment basin for the east side of the city in order to manage stormwater runoff and collect sediment before the water is released into the Roseau River. Raingardens could also be implemented in reducing stormwater runoff and aid in recharging groundwater.

Priority Concern 2: Flood Control and Flood Damage Reduction

Objective A: Flood control and flood damage reduction practices to decrease flood impacts

- 1. Participation in Project Work Teams (PWT) of Watershed Districts to support on-going flood reduction efforts and identify natural resource enhancement opportunities**
 - Each Watershed District has a Project Work Team that is active in the District to help with projects that are related to goals of the District. RRWD current projects include the Malung Impoundment, Roseau Lake Bottom, Palmville, Roseau WMA, Hay Creek – Norland, and ring dike program. TRWD current projects in Roseau County are Ross 7 and Big Swamp.
 - Support the repair of three government dams and other potential projects in Beltrami Island State Forest with retention/release capabilities that include natural resource enhancements.
- 2. Support for beaver and beaver dam removal as mentioned in the sub-watershed sections of the Watersheds' Overall Plans**
 - Sub-watersheds of RRWD with mentioned beaver problems – South Branch, North Branch, Stafford, Big Swamp; Sub-watersheds of TRWD within Roseau County with

mentioned beaver problems – SD 90, Middle Branch, Badger and Skunk Creek Diversion, SD 95, SD 91; Areas within WRWD with mentioned beaver problems – Moranville Twp (eight sections), CD 10 and laterals, Bulldog Run starting at Rd 136, District-wide.

3. Promote and support stormwater control for City of Warroad

- The City of Warroad needs stormwater control to manage stormwater runoff that overwhelms stormwater drains within the city and causes street flooding. Possible solutions per WRWD Overall Plan (2007) include a stormwater project, maintaining waterways & ditches, new drainage systems, and culvert size review/resizing. Raingardens have been shown to be effective in ground water recharge and stormwater runoff control for homes and businesses.

4. Support the update of the Floodplain Management Ordinance – pending due to DNR, FEMA restudy

Objective B: Water flow gauge and structure upgrade with additional analytical parameters for data analysis

1. Acquire additional water flow gauges, some with additional parameters to gather more data

- The RRWD would like to get more river information than the currently water flow gauge measures for projects and to assess the state of the waters on a daily basis. Emergency Services would like additional flow monitoring gauges (Wannaska, and near Hayes Lake State Forest). TRWD would like to expand their gauge sites and improve gauges.

Priority Concern 3: Surface Water Protection and Improvement

Objective A: Protect, improve and monitor the quality of surface waters

1. Continue surface water quality monitoring efforts for baseline study and later for TMDL studies

- Water quality monitoring and analysis will continue on the Roseau River, Warroad River, Sprague Creek, Pine Creek and Willow Creek. Highest priority is given to the impaired reaches on the Roseau River and Sprague Creek in the Roseau River Watershed. TRWD currently monitors waters of the Two Rivers watershed in the western part of the county.

2. Continue to support the rainfall monitoring network

- Currently 37 people and agencies, located throughout the county participate in recording rain amounts that can be used for flood forecasts and crop disaster programs. All watersheds are priority.

3. Test surface waters for ag chemical(s)

4. Partner and work on TMDL Plan(s) and Implementation for impaired waters

- Partner with the Kittson County, TRWD, Kittson SWCD, RRWMB and MPCA to work on and implement TMDL plans for fish IBI on Two Rivers South Branch located in southwestern Roseau County and flowing into Kittson County. Partner with the Roseau County, RRWD, MPCA, and RRWMB to work on and implement TMDL plan for DO and turbidity on the Roseau River from Hay Creek to the Canadian border. Partner with LoW County, LoW SWCD, WRWD, MPCA to work on and implement TMDL plans for excess nutrients on Lake of the Woods of which some surface waters of Roseau County empty into; and Willow Creek (when officially listed as impaired)



5. **Protection of quality habitat in aquatic and adjacent riparian areas along streams**
6. **Promote nutrient / manure management plans**
 - NRCS writes nutrient and pest management plans for producers in EQIP
7. **Promote ag chemical education and their impacts**
 - The SWCD as the Ag Inspector for Roseau County provides certified testing for chemical applicators in multiple categories
8. **Promote soil and water stewardship/education**
 - Provide support for students environmental activities such as the Envirothon, River Watch and Conservation Camp
 - Provide support for area churches during stewardship week
 - Educate through newsletters and fairbooth

Priority Concern 4: Managing Existing Ditch Systems

Objective A: Proper care and maintenance of existing ditch systems

1. Continue the ditch system inventory
2. Continue routine ditch maintenance as funded with proper side slopes and sediment structures & matting
3. Partner with the DNR for rock structures that are adequate and effective
4. Partner with watershed districts and Minnesota Conservation Corps for culvert inventory/study
5. Digitization of ditch records for information access
6. Implement new technologies in ditch systems and maintenance as they come available

Priority Concern 5: Groundwater Protection and Quality

Objective A: Groundwater protection

1. Offer Ag BMP low interest loans for replacing failing septic systems
2. Offer cost-share for well sealing for wells not covered by State Cost Share Program
3. Promote waste water treatment systems solutions in cluster developments
4. Promote educational material for groundwater supply, drinking water, septic systems and abandoned wells
5. Participate on wellhead protection teams as requested for cities wanting wellhead protection plans
6. Assist Cities with wellhead protection plan implementation as opportunities arise

Objective B: Groundwater quality analysis

1. Continue to have well water test kits on hand
2. Establish monitoring wells for routine water quality testing
3. Offer well water testing for critical areas such as sand ridges (nitrate, coliform bacteria, arsenic)



4. **Begin a groundwater quality study for nitrates, coliform bacteria and arsenic**
5. **Begin a groundwater quality study for atrazine**
6. **Provide a well water testing clinic for nitrate and coliform bacteria every 2 years for 100 people**

Objective C: Update and implementation of ordinances that protect groundwater

1. **Update the county-wide SSTS ordinance beginning in 2010**
2. **Update of Solid Waste Management ordinance beginning in 2012**
3. **Update of Shoreland ordinance beginning in 2011**



Implementation Schedule for Priority Concerns

Priority 1								
Objective A: Enhance and improve the quality of surface waters and wetlands through conservation practices, restoration, and structures								
			Cooperators	WP Cost	Potential funding sources	Duration	Watershed	Groundwater systems
Actions	1	Encourage the use of best management / conservation practices in rural areas to reduce erosion	SWCD, NRCS, Hwy Dept, WD's	0	Grants, EQIP, Federal, County	continuous	All	NA
	2	Promote and support Warroad River restoration	ACOE, NRCS, DNR, WD, Hwy Dept, SWCD	Staff time?	Grants, Federal, State, Local	1-2 months?	All	NA
	3	Promote and support the east stormwater control and sediment basin for City of Roseau	City of Roseau, DNR, MPCA, ACOE, SWCD	0	Grants, Federal, State, Local	1-2 years	RR	NA

Priority 2								
Objective A: Flood control and flood damage reduction practices to decrease flood impacts								
			Cooperators	WP Cost	Potential funding sources	Duration	Watershed	Groundwater systems
Actions	1	Participation in Project Work Teams (PWT) of Watershed Districts to support on-going flood reduction efforts and identify natural resource enhancement opportunities	All agencies and interested groups	\$200/yr	Local	continuous	RR, TR	NA
	2	Support for beaver and beaver dam removal as mentioned in the sub-watershed sections of the Watershed Districts' Overall Plans	WDs, County, SWCD	Staff time	State, Grants, WD, County	1x every 8-10 yrs	RR, TR, WR	NA
	3	Promote and support stormwater control for City of Warroad	City of Warroad, Twp, WRWD, Hwy Dept, SWCD	Staff time	WD, County, Grant	continuous	WR	NA
	4	Update the Floodplain Management Ordinance – pending due to DNR, FEMA restudy	County, Environmental Office	0	County, Grant	pending	All	NA
Objective B: Water flow gauge and structure upgrade with additional analytical parameters for data analysis								
Actions	1	Acquire additional water flow gauges, some with additional parameters to gather more data	RRWD, TRWD, Emergency Mgmt, USGS, SWCD	?	Federal, State, Grants	continuous / short time	RR, TR	NA



Priority 3								
Objective A: Protect, improve and monitor the quality of surface waters								
			Cooperators	WP Cost	Potential funding sources	Duration	Watershed	Groundwater systems
Actions	1	Continue surface water quality monitoring efforts for baseline study and later for TMDL studies	SWCD	\$3500-4500/yr	State, WD, Grant	About 4 more years/ ? for TMDL studies	RR, LoW, WR	N/A
	2	Continue to support the rainfall monitoring network	SWCD, NRCS	\$200/yr	Local, Grant, DNR	continuous	All	N/A
	3	Test surface waters for ag chemical(s)	SWCD	\$600-\$2500	State, Grant, WD	2 mo/yr	RR, LoW, TR,WR	N/A
	4	Partner and work on TMDL Plan(s) and Implementation for impaired waters	County, WD's, MPCA, SWCD	unknown	County, WD, MPCA, State, Grant	3 yrs per project?	TR, RR, WR, LoW	N/A
	5	Protection of quality habitat for aquatic and adjacent riparian areas along streams	County, WD's, DNR, SWCD	Staff time	DNR, Grant, State	continuous	TR, RR, WR, LoW	N/A
	6	Promote nutrient / manure management plans	MPCA, MDA, NRCS, SWCD	Staff time	NRCS	0	All	N/A
	7	Promote ag chemical education and their impacts	SWCD, County	Staff time	County, Grant	continuous	All	N/A
	8	Promote soil and water stewardship/education	SWCD, WD, RRWMB	\$1350/yr	Grant, County, WD's, SWCD, RRWMB, NRCS	continuous	All	N/A

Priority 4								
Objective A: Proper care and maintenance of existing ditch systems								
			Cooperators	WP Cost	Potential funding sources	Duration	Watershed	Groundwater systems
Actions	1	Continue the ditch system inventory	County, Hwy Dept, WD's	0	County, Grant, State	>10 years	All	N/A
	2	Continue routine ditch maintenance as funded with proper side slopes and sediment structures & matting	Hwy Dept, WD's	0	County, Grant, State	>10 years	All	N/A
	3	Partner with the DNR for rock structures that are adequate and effective	Hwy Dept, DNR	0	County, State, DNR	>10 years	All	N/A
	4	Partner with watershed districts, Minnesota Conservation Corps and Hwy Dept for culvert inventory/study	WD, MCC, Hwy Dept, County, SWCD	0 or ?	County, State, WD, Grant	1 month WRW/LoWW, 5 months RRW ?	All, except TR	N/A
	5	Digitization of ditch records for information access	Hwy Dept, WD's, County	0	County, Grant, State	>10 years	All	N/A
	6	Implement new technologies in ditch systems and maintenance as they come available	Hwy Dept, WD's, MDA, MPCA	0	County, State	>10 years	All	N/A



Priority 5								
Objective A: Groundwater protection								
			Cooperators	WP Cost	Potential funding sources	Duration	Watershed	Groundwater systems
Actions	1	Offer Ag BMP low interest loans for replacing failing septic systems	SWCD, Banks, Farm Credit Services	0	Multi-lender, State	1x every 2-3 yrs	All	All
	2	Offer cost-share for well sealing for wells not covered by State Cost Share Program	SWCD	\$1000/yr	State Grant	continuous	All	All
	3	Promote waste water treatment systems solutions in cluster developments	County, Watersheds, Townships, Environmental Office, SWCD, MPCA	Staff time	State, Federal, County, Staff time	continuous	All	All
	4	Promote educational material for groundwater supply, drinking water, septic systems and abandoned wells	SWCD, MDA, MDH MPCA,	Staff time	Grants, Staff time	2007-2010	All	All
	5	Participate on wellhead protection teams as requested for cities wanting wellhead protection plans	SWCD, MDH, Cities	Staff time	Local, Staff time	As needed	RR, TR, WR	All
	6	Assist Cities with wellhead protection plan implementation as opportunities arise	SWCD, MDH, Cities	Staff time	Local, Staff time	As needed	RR, TR, WR	All
Objective B: Groundwater quality analysis								
Actions	1	Continue to have well water test kits on hand	SWCD, MDH	0	Grants, Local, Staff time	12 mo/year	All	All
	2	Establish monitoring wells for routine water quality testing	SWCD, MDH, DNR, MPCA	?	Grants, Local, Staff time	6 mo/yr	All	All
	3	Offer well water testing for critical areas such as sand ridges (nitrate, coliform bacteria, arsenic)	SWCD, MDH, MDA	\$10,450 + shipping	Grant, Local, Staff time	1week/year for 4yrs for about 180 people	All	All
	4	Begin a groundwater quality study for nitrates, coliform bacteria and arsenic	SWCD, MDH, MDA	\$1375 plus shipping	Grant, Local, Staff time	25/yr	All	All
	5	Begin a groundwater quality study for atrazine	SWCD, MDH, MDA	\$350-\$1500	Grant, Local, Staff time	25/yr	All	All
	6	Provide a well water testing clinic for nitrate and coliform bacteria every 2 years for 100 people	SWCD, MDA	\$150	Grant, Local, Staff time	Every 2-3 yrs	All	All
Objective C: Update and implementation of ordinances that protect groundwater								
Actions	1	Update SSTS ordinance beginning in 2010	County, MPCA, Environmental Office	0	County, MPCA, Grant	Continuous	All	All
	2	Update of Solid Waste Management ordinance beginning in 2012	County, MPCA, Environmental Office	0	County, MPCA, Grant	1-2 years	All	All
	3	Update of Shoreland ordinance beginning in 2011	County, DNR, Environmental Office	0	County, DNR, Grant	1-2 years	All	All



Implementation Schedule for Ongoing Programs

Implementation Plan – Ongoing Programs					
Programs	Agency	Cost or as funded per year (as of year 2010)	Existing Funding Sources	Watershed	Groundwater Systems
Ag BMP Loan Program	SWCD	\$50,000 or Revolving (3-7 applications yr for tillage equipment @ \$50,000 each	State, Staff time	All	All
CRP	FSA	Ongoing	Federal	All	All
County Ag Inspector	SWCD	\$6,875 +Grant	County, State Grant	All	All
EQIP	NRCS	Ongoing	Federal	All	All
SSTS	Environmental Services	\$9931 + county \$ or as funded; Need for \$30,000	State Grant, County	All	All
LWM	SWCD	\$20,719 + county levy or as funded; will decrease 2011	Grants, Staff time	All	All
Shoreland Management	Environmental Services	\$3,073 + county \$ match or as funded	State Grant, County	WR / LoW	All
State Cost Share	SWCD	\$17,716 or as funded; will decrease 2011	State Grant, Staff time	All	All
WCA	SWCD	\$27,619 + match Or as funded	State Grant, Staff time	All	All
CSP	FSA, NRCS, SWCD	Ongoing	Federal	All	All
CCRP	FSA, NRCS	Ongoing	Federal	All	All
Tree Program	SWCD	\$32,000	District	All	All

Appendix A

Priority Concerns Scoping Document



I. Introduction

County Primer

Roseau County is located in the northwestern part of Minnesota and is one of seven counties that border Canada. The City of Roseau is the county seat and is located in north central Roseau County (see below).



Roseau County Population

The 2000 Census (see Table 1 below) showed Roseau County had a population of 16,338. The 2007 population estimate revealed a slight decrease to 15,946 persons; however, the population trend to 2035 is an increase to 16,940 persons, according to the Minnesota State Demographic Center.

Roseau County Population

Estimated Census 2007	Census 2000	Census 1990	Census 1980	Census 1970	Census 1910
15,946*	16,338	15,026	12,574	11,569	2,254

*US Census Bureau

Roseau County Dominant Land Use

Minnesota Land Use and Cover Statistics for Roseau County

Description	Acreage	% of Total
Urban and rural development	11,006	1.0
Cultivated land	541,133	50.4
Hay/pasture/grassland	89,280	8.3
Brushland	128,577	12.0
Forested	215,560	20.1
Water	3,492	0.3
Bog/marsh/fen	84,048	7.8
Mining	1,039	0.1
Total	1,074,135	100.0

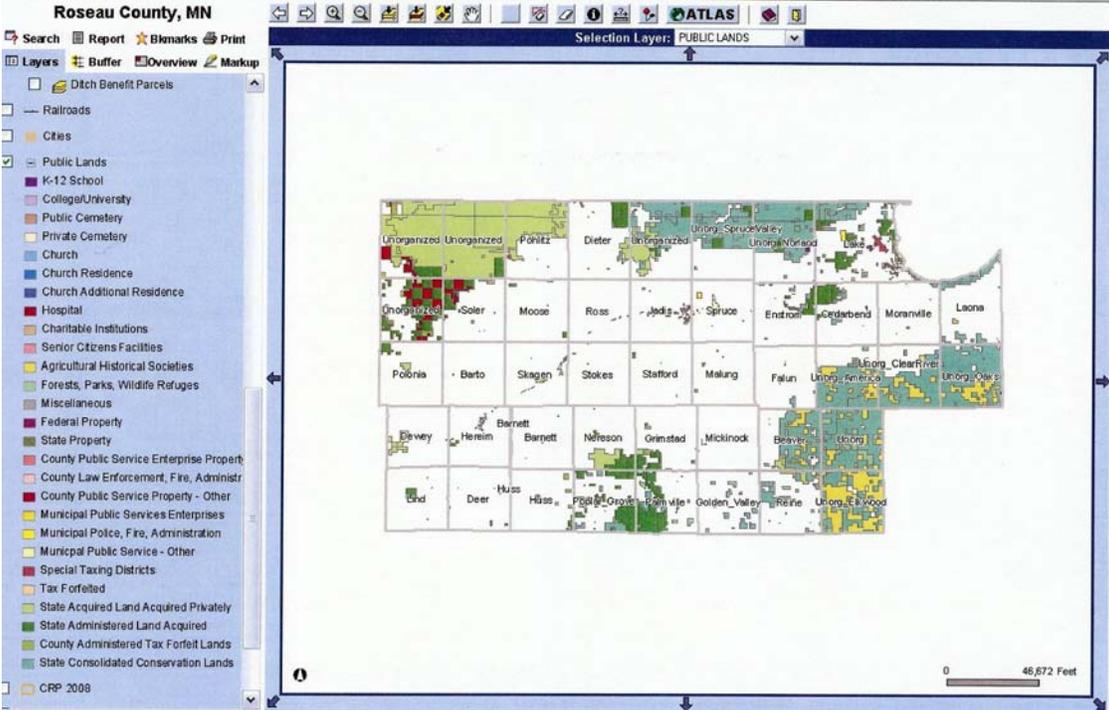
Land Management Information Center <http://www.lmic.state.mn.us>

The projected land use trend is to stay about the same with a very slight increase in urban and rural development.



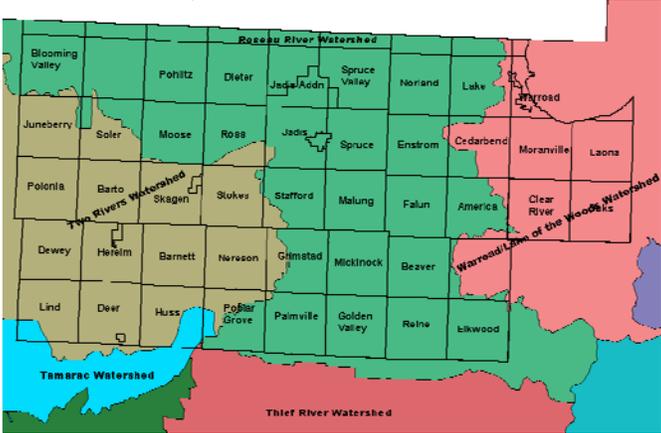
Public Land consists of many different entities as shown on the left in the figure below. Public Land acres versus Private Land acres are about 30% and 70%, respectively, as of January 2009. (DNR administers 27% of total Roseau County acres that also include the Federal Land Utilization Project (LUP) lands.)

Public Lands



Roseau County Watersheds

A total of five watersheds exists in Roseau County (see figure below). The major watersheds include Two Rivers, Roseau, and Lake of the Woods. A subdivision of Lake of the Woods that will be mentioned in various times throughout this document is the Warroad River watershed. The two minor watersheds are Tamarac and Thief River. Due to their small size, they will be assumed to be included with major watersheds discussions, issues and water plan coverage even if they are not mentioned directly.





Two Rivers Watershed Land Ownership and Use

This watershed has one of the highest percentages of privately owned land of the watersheds that are located in Roseau County. Existing land use is predominately agricultural with recreational land becoming more important. Currently, limited residential developments are taking place. The area will probably maintain at the current level of ownership. Future developments most likely will take place around the surrounding communities of Greenbush and Badger. One industry that has continued to flourish in the Two Rivers Watershed is Central Boiler.

Some state owned land is present with the largest area being the Nereson Wildlife Management Area (WMA). Other smaller WMAs are located in the southern and western part of the watershed. One Scientific & Natural Area occurs in western Roseau County and is known as the Two Rivers Aspen Prairie Parkland. Roseau County also has a Recreation Area located in the northwestern part of the watershed.

Roseau River Watershed Land Ownership and Use

A large percentage of the watershed is in private ownership and is used primarily for agricultural purposes. Some isolated state owned tracts are located along the corridor of the Roseau River and all of the large state owned areas are located in forested and wildlife management areas. These areas are the Roseau River Wildlife Management Area (NW part of the watershed), Lost River State Forest (north central part of the Watershed), Beltrami Island State Forest (extreme SE part of the Watershed), Hayes Lake State Park (SE part of the Watershed), and Palmville Wildlife Management Area (south). Two Scientific and Natural Areas, Pine Creek Peatland and Sprague Creek Peatland, are found in the north central Roseau River Watershed. Scattered Tribal Lands also occur in the southern and southeastern Roseau River Watershed. Former Con-Con lands exist in Beltrami Island State Forest as Wildlife Management Areas at the present time. Approximately 27,926.65 acres of the Land Utilization Project (LUP) lands are also located in Beltrami Island State Forest. The State of Minnesota continues to lease the LUP lands from the U.S. government.

A lot of development in and around the watershed has occurred in the last ten years due to the continual and successful expansion of Polaris Industries in Roseau, MN. As businesses grow, an accompanying correlation of growth in population is seen to meet the labor demand. The increasing population is causing significant land use changes in the watershed due to the number of trailer communities and private individual homesteads that have sprang up in the last 10 -15 years.

Warroad River / Lake of the Woods Watershed Landownership and Use

This watershed also has a high percentage of public land ownership. Existing land use in watershed is primarily forestry, recreational and agricultural. Significant public land ownership, besides the State of Minnesota, occurs in Beltrami Island State Forest. Numerous housing and trailer house developments have sprang up over the last number of years. Development will continue at a constant pace with the major employers in Warroad being Marvin Windows and HeatMor Inc.

Various Wildlife Management Areas (WMAs) occur within the Lake of the Woods Watershed within Roseau County with South Shore WMA and Cedarbend WMA having the most acres. Also, former con-con lands exist in Beltrami Island State Park as WMAs now. Scientific &



Natural Areas include the Luxemburg Peatland and part of the Winter Road Lake Peatland. Most of the Tribal Lands exist within Beltrami Island State Park.

Plan Information

Comprehensive local water planning began in 1985 through the Comprehensive Local Water Management Act (Minnesota Statutes, Chapter 110B). This act provided an avenue for the county to identify any water-related resource problems and to actively manage the resources in the county. Roseau County began water planning in 1988 with the formation of the Roseau County Task Force. This task force was a key component in the development of the Roseau County Comprehensive Local Water Plan (CLWP) and it was established to ensure that the planning process maintained a local focus and to provide the local knowledge base of county resources, problems and procedures. It established the issues, goals, objectives, action plans and implementation strategies and was the principal architect of the Roseau County Plan.

Roseau County's CLWP was finalized and implementation began in 1991. The Roseau County Task Force continued its work as an advisory board and changed their name to the Roseau County Water Resources Advisory Committee. This group has developed an awareness of the water planning issues in the county, understands the history of local water planning, represents a wide variety of public and local government interests, and constitutes a valuable resource for the county. This committee will report to the Roseau County Board of Commissioners through the Program Coordinator and designated County Commissioner who takes part in the Water Resources Advisory Committee (WRAC).

During the last update of the CLWP, state statutes were changed and the Administrative Rules Chapter 9300 was repealed halfway through the extension. This change caused the Comprehensive Local Water Plan to be renamed the Local Water Management Plan (LWMP). Most of the data items and assessments needed for the update were abolished and new guidelines were developed.

The Roseau County Soil and Water Conservation District (SWCD) was selected to be the lead implementation agency to manage the LWMP. The Roseau SWCD designated the Program Coordinator to administrate the CLWP. The coordinator is responsible for the work plan and budget development, Water Resources Advisory Committee (WRAC) meetings, carrying out the LWMP prioritized goals for the year, reporting to the County Commissioners, assisting all other cooperating agencies in any relevant information sharing, and updating the Plan. Two updates have been completed since water planning started and the expiration of the current Plan will occur on December 31, 2009. The present update will be the fourth generation of local water management.



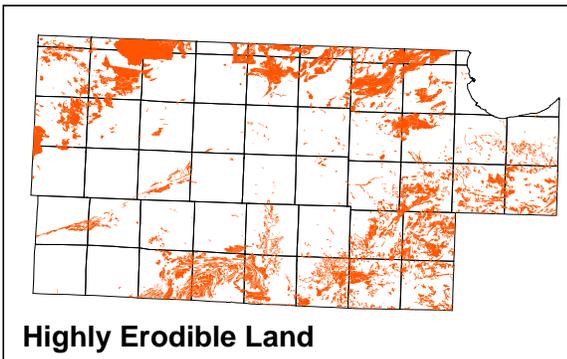
II. List of Priority Concerns

The priority concerns selected by the Water Resources Advisory Committee were based on the resident survey and agency input. Each of the priority concerns is inter-related with one or more of the other priority concerns, but each is focused on issues that are present in Roseau County.

1. Erosion & Sedimentation of Surface Waters, Stormwater Runoff and Wetlands

Erosion and sedimentation are very important concerns in Roseau County that affect surface water quality, cause problems with the various drainage systems and the filling in of wetlands. The Overall Plans of the Two Rivers, Roseau River and Warroad River describe erosion and sedimentation plus other surface water problems in the sub-watersheds within Roseau County. These problems include ditch or river bank erosion or failures, field erosion, road & culvert washouts, and sedimentation of agricultural ditches, fields, & pastures, and sedimentation & cattails that cause drainage blockages, to list a few. The Roseau River Overall Plan mentions that the area of high sedimentation occurs from the 310 bridge to Lake Bottom. Roseau County has had over 10 years of wet to very wet conditions.

Floods of the past, especially 2002, have caused erosion in fields, drainage systems, and stream systems. The result is sedimentation in water courses that has hindered drainage and navigability. This sedimentation can range from inches up to 3 feet in areas. Persisting siltation from sediment bars in streams continue to impact larger bodies of water such as Lake of the Woods and the Red River of the North that drains into Canadian waters. A total of 35 sediment bars has been counted in the Roseau River during an aerial flight a few years ago by JOR Engineering, Inc., who worked with the Roseau River Watershed District at that time. (This flight only flew the northern part starting from the City of Roseau.) Also, the river passage in Warroad has been dredged in the past due to sedimentation and resulting cattail/reed growth and navigability impediments. This river is currently facing the same problem once again, because of the massive flood in 2002 that scoured the top soil from fields, leveled roads, and channeled new water courses. In addition, sedimentation of wetlands causes problems such as less temporary water storage during floods, eventual competition with upland plant and animal species, less capacity to filter or store water, and more flooding impacts to upland areas.



Wind erosion has also contributed to sediment loads in many drainage systems, especially in the dry times. Highly erodible lands (HEL) are required to have and maintain cover, but non-HEL lands often are left bare after harvest until spring planting. Conservation education and program availability continue to be needed to combat erosion.

Stormwater is another major contributor of erosion and sedimentation. In rural areas, runoff from fields flow from field ditches into ditch systems and then into creeks and rivers. In the urban setting, street

runoff carries sediment from spring thaw to freeze up with most of the sediment loading occurring in the spring due to snowmelt carrying sand particulates from winter street sanding.

Action: including, but not limited to: best management practices such as cover crops, better tillage practices, streambank stabilization, buffer strips, filter strips, conservation tillage,



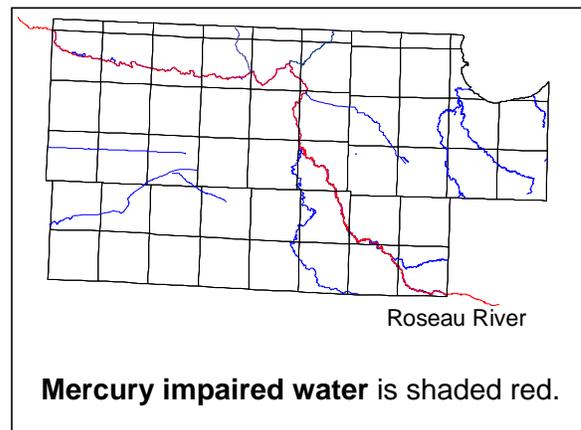
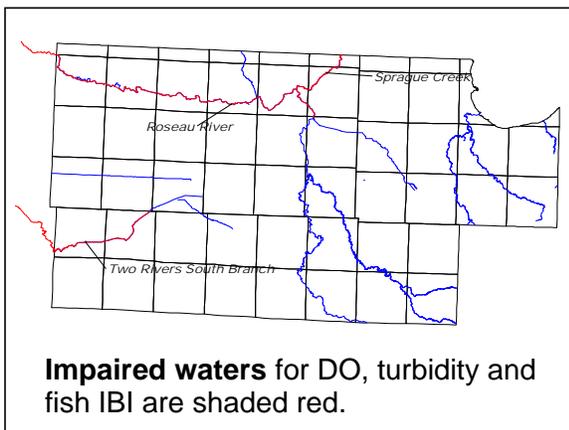
windbreaks, living snowfences, grade stabilization structures, riprap, grassed waterways and travel corridors; restoration of Warroad River due to siltation from 2002 Flood, support for stormwater control / sediment basins for the City of Warroad, construction of the east stormwater control / sediment basin for the City of Roseau

2. Flood Control and Flood Damage Reduction

Flooding is a major concern for agricultural producers and for all citizens living in Roseau County. Flooding frequency may occur annually in the spring after snowmelt in some sub-watersheds, especially those north between Roseau and the Canadian border. Summer flooding or high waters has become more frequent in the last climatic wet cycle (10+ years since 1993). Flooding impacts water quality by the movement of sediment, nutrients and pesticides from the landscape into surface waters. Damage can be quite extensive to public and private lands, infrastructure and other property, such as livestock. The Two Rivers, Roseau River, and Warroad River Watershed District Overall Plans list flooding and flood damage problems by subwatershed and also include implementation strategies for flood control and flood damage reduction, respectively. Some of these problems are insufficient channel capacity, crossover waters from adjacent watersheds, crop loss, overland flooding, water backup, beaver dams, uncontrolled runoff from high to low areas, stream bank failures, uncontrolled water flow from Beltrami Island State Forest or Public Lands, and flashiness of water flow.

Action: including, but not limited to: participating in Project Work Teams of Watershed Districts, support on-going flood reduction efforts, identify Natural Resource Enhancements with flood damage reduction efforts, repair and upgrade the four water flow gauges and structures in Roseau River watershed – especially the Malung gauge and structure, acquire new water flow gauges capable of gathering additional water data, partner with USGS/other agencies to install gauges with increased capabilities on a short term basis, repair three government dams in Beltrami Island State Forest with retention/release capabilities, beaver and beaver dam removal

3. Surface Water Quality Improvement and Protection

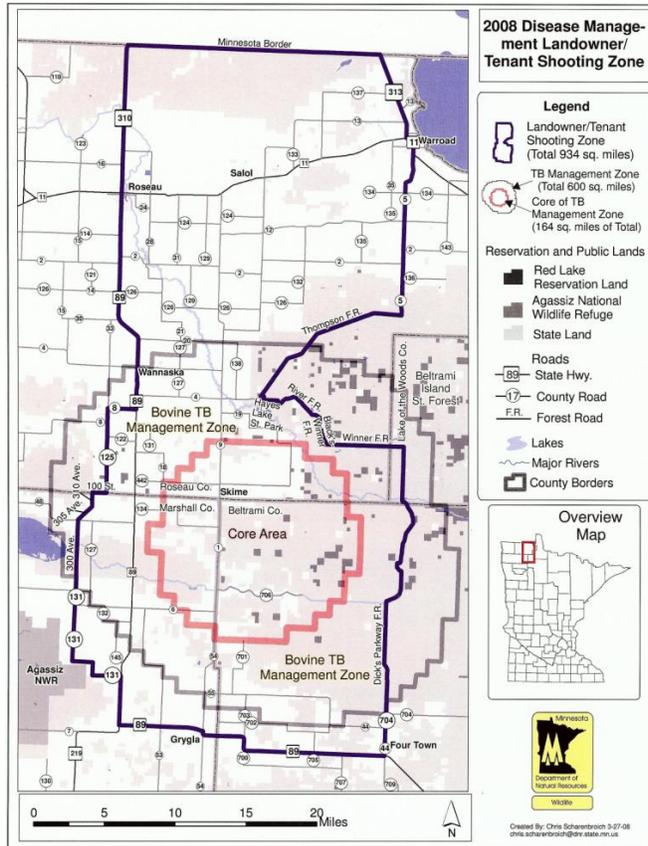


Impairments of surface waters have been identified by the MPCA on the draft impaired waters 303(d) list. The Roseau River impairments comprise of dissolved oxygen (DO) and turbidity. Sprague Creek also is identified as having turbidity impairment. The Two Rivers South Branch



impairment is index of biological integrity, which means that stressors are causing fish population decline. All these surface waters drain into Canadian waters. Mercury impaired water is shown in the second map, but will not be reviewed in this update as much of the pollution source(s) may be national as well as world-wide in origin.

Agriculture and livestock production also provide a source of chemical and excess nutrient contamination to surface waters. Runoff during rainstorms potentially has long reaching affects in downstream waters. Water sampling for agricultural chemicals has been limited and tests are quite expensive.

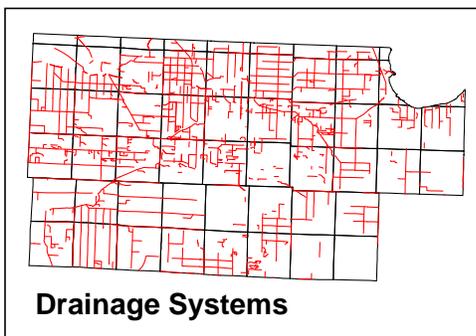


A TB zone has been established in the southeastern part of the county and consists of a core area (red) and a management zone (gray). Livestock producers in this area have been given the option of a buyout and a total of 45 producers have decided to go through with this option. Of course, this number also includes portions of Marshall and Beltrami Counties (see map on left). It is unknown at this time if any of those particular producers in Roseau County will decide to start another cattle herd in this area. Roseau County surface waters in these areas include the main stem Roseau River. With less cattle herds, it is assumed that water quality will stay about the same or improve, but it is uncertain if landowners will open the land or leave it in grass. Generally the pastured lands in this area are more marginal in nature and are made up of sands, peat or muck. There are limited tilled fields in the core zone with more tilled fields found north in the

managed zone.

Action: including, but not limited to: water quality monitoring, nutrient/manure management plans, education of agricultural chemicals and their impacts, water sampling for agricultural chemical(s), rainfall monitoring network, TMDL implementation plan(s) for impaired water, encouragement of best management practices for producers

4. Managing Existing Ditch Systems



Agricultural drainage is an important part to the livelihood of farmers in Roseau County. Older drainage systems are in need of maintenance so that the entire system



may function correctly from impacts due to sloughing, erosion and sedimentation as past floods have deteriorated this drainage structure. The drainage system in Roseau County is quite massive with 927 total miles and so it will take quite a while to correct problems. New technologies need to be implemented to reduce impacts on water quality during maintenance. About 200+ “As-Build” miles of ditches have been inventoried and gone through maintenance so far with more being done in future years.

Action: including, but not limited to: continue to inventory of ditch systems through “As-Builds”, promotion of proper side slopes, incorporation of sediment structures and/or matting during maintenance, support through MN DNR for rock structures that are adequate and effective, culvert studies/design, side-water inlets, grant application with watersheds for digitization of ditch records for information access and other agency access, implementation of new technologies as they come available, routine ditch maintenance as funded

5. Groundwater Water Protection and Quality – Not much is known about the county’s groundwater and its movement, but Roseau County must maintain, protect and improve groundwater quality. In some high density areas on sand ridges, ground water is appearing to be contaminated by nitrates due to a high concentration of septic systems and this water seems to be spreading to surrounding rural homesteads. Other contaminants such as fecal coliform bacteria or *E. coli* may also be present. A total of 16 mobile home communities exist in the county and out of those, two are located on the sand ridge between the Cities of Salol and Warroad. Roseau County desires to have good, clean water for all residents.

Action: including, but not limited to: offer Ag BMP low interest loans for replacing failing septic systems, support of waste water treatment systems in cluster developments, sealing wells, well water kits, establish monitoring wells for routine water quality monitoring, water testing targeted at mobile home communities with individual wells and individual septic systems, groundwater quality studies for nitrates, coliform bacteria, and arsenic, testing clinics for nitrates and coliform bacteria, support and help for Wellhead Protection Plans, educational materials for groundwater supply, drinking water, septic systems, and abandoned wells, implementation of new county-wide SSTS ordinance – February 2010, update of the Solid Waste Management ordinance, update of the Shoreland ordinance (mandated 2002)

III. Priority Concern Identification

Priority Concerns from State and Local Agencies – including MN Dept of Health, Two Rivers WD, MPCA, MN Dept of Ag, City of Warroad, MN DNR and BWSR

- Water Quality/Groundwater Protection
- Erosion and Sedimentation Control
- Flood Control
- Water Quality
- Natural Resource Enhancements
- Address Flooding Issues to Improve Water Quality
- Improving Drainage Infrastructure and Implement Conservation Drainage Practices to Improve Water Quality
- Manure Management and ISTS



- Agricultural Chemical Use and Potential Impacts To Unconfined Shallow Groundwater
- Agricultural Chemical Use and Potential Impacts To Surface Water
- Protect Groundwater based drinking water sources within Roseau County
- Sealing Unused, Unsealed Wells
- Develop a Local Groundwater Quality Data Base
- Impaired Waters/Total Maximum Daily Loads (TMDL)
- Stormwater Issues
- Feedlot Delegation and Compliance
- Subsurface Sewage Treatment Systems (SSTS) and Unsewered Areas
- Stormwater Runoff and Ditch Systems in City of Warroad
- Co Highway #74 inadequate drainage near/by City of Warroad
- County Ditch cleanout needed on “Hackett” property near/by City of Warroad
- New commercial area on west side – new drainage ditch needed in City of Warroad
- County Ditch improvement needed on ditch by Co Rd 35 by the City of Warroad
- 2002 Flood silt and vegetation problem in Warroad River within the City – River Restoration
- Flood Damage Reduction
- Groundwater Quality
- Erosion and Sediment Control

Survey – Roseau County Residents by Newsletter and Online

(total of 50 responses)

The watershed in which the landowner resides or owns land

32 Roseau

Township? (online survey)

11 Two Rivers

4 Warroad

1 Lake of the Woods

1 Tamarac

1 Thief River

0 Not Sure

Deer, Falun, Mickinock, Malung, Soler, Hereim, Clear River, Stafford, Spruce, Poplar Grove, Reine, Polonia, Moose, Lake, Jadis Addn, Skagen, Moranville, Jadis, Grimstad, Golden Valley, Dieter, Dewey, Beaver, Spruce Valley, Pohlitz

Top Roseau County Issues

21 Flooding

17 Stormwater/Drainage Mgmt

13 Erosion

12 Declining water clarity

11 Development pressure/impacts

11 Lack of environmental education

11 Contaminated runoff

11 Groundwater contamination

10 Failing septic systems

9 Over-application of fertilizers

6 Lack of groundwater during drought

3 Natural habitat destruction

1 Lack of regulations

- Other

1. Most issues are isolated and not a big concern for Roseau County. Gov. rules made for



other areas of the state that don't pertain to us. State & Local gov need to use common sense in regard to wetter areas. Let farmers drain depressional areas. Depression areas have runoff consisting of chemicals and fertilizers that leach down into soil.

2. Too many regulations.
3. More authority needed (watershed board).
4. Wetlands
5. We must keep our sewage taken care of and keep some one on it. We are too lax.
6. Inadequate ditching.
7. Too much management (poor).
8. Lack of coordination between drainage management and retention.
9. Use of chemical fertilizers, pesticides/herbicides is detrimental to microorganism populations, the effects of which are being seen in larger organism populations.

Most threatened resources with 1 being the most threatened

- 1 Groundwater
- 2 Streams/Rivers
- 3 Lakes
- 4 Wetlands
 - a. Should be watched.
 - b. Lack of Drainage.
 - c. None. Fluxuating water levels helps to maintain healthy vegetation in lakes & rivers.

Importance of resource concerns

- 30 Flooding
- 27 Drinking water
- 21 Source water protection
- 13 Stormwater
- 11 Feedlots
- 10 Wellhead protection
- 8 Wetlands
- 7 Non point source pollution
- 6 Sedimentation—wind erosion
- 4 Sedimentation—water erosion
- 3 TMDLs

Additional Comments/Suggestions:

1. Water storage should be in ponds to keep water back, not on farmer's land.
2. Lots of field drainage, fertilizers, etc is a real problem for water quality in Roseau River, Lake of the Woods or Lake Bronson. Also affecting the Red River. Also cattle yards on River Banks in the County.
3. We do not get the drainage we need during heavy rains.
4. There is a great deal of upstream ditching without coordinated downstream activity
5. The entire ecosystem, not just the visible matter, must be included when evaluating interventions. Less manipulation and more simply allowing Nature to balance herself will result in long term success. Need to stress minimal chemical application to farmers and educate on non-chemical methods of farming.
6. Survey question number 6 will be rather confusing for the average respondent. Many of the (11) topics/concerns should be explained in more detail as to allow for more educated decisions/choices by the respondent.
7. Good format



8. The public ditch system in Golden Valley Township does not work.
9. Release of water from reservoir into Roseau River causing flooding instead of letting the water level lower in anticipation of flooding so as to alleviate more flooding.

Public Input Meeting

A Public Input Meeting was held for all Roseau County residents on September 4, 2008.

People present were:

- Jody Horntvedt Minnesota Regional Extension – Roseau Office (Facilitator)
- Chad Severts Board of Water and Soil Resources (WRAC)
- Scott Johnson Falun Township/District Manager (WRAC)
- Janine Lovold Roseau SWCD, Water Management Coordinator

Summary

Not one Roseau County resident came to the meeting.

Water Resources Advisory Committee Meeting (WRAC)

A WRAC meeting was held on September 4, 2008

People present were:

- Jody Horntvedt Minnesota Regional Extension – Roseau Office (Facilitator)
- Phil Talmage MNDNR – Fisheries - Baudette
- K. Warren Ulvin Roseau SWCD Supervisor
- Garry Bennett MNDNR – Hydrologist – Thief River Falls
- Dick Novacek Two Rivers Watershed District
- Loren Horner Warroad River Watershed District
- Chad Severts Board of Water and Soil Resources
- Jim Courneya Minnesota Pollution Control Agency
- Scott Johnson Falun Township/Roseau SWCD Manager
- Janine Lovold Roseau SWCD, Water Management Coordinator

Summary

The meeting started with stating the goal of the meeting was to select priority concerns based on agency and citizen input plus any additional concerns from the committee. A summary of activities and projects regarding the 2005-2009 Water Plan was distributed and gone over. The

planning overview of the 2010-2019 Water Plan was discussed along with the purpose and expectations of the WRAC committee. The WRAC committee then went to work to arrange the priority concerns under six focus groups and then each individual member voted their top three concerns under each group. Those committee members that could not attend were mailed the information so that each may vote. The six focus groups with their priority concerns are listed below.

Groundwater

- Water quality / groundwater protection
- Ag chemical impact to groundwater
- Protect groundwater drinking sources
- Sealing wells
- Groundwater quality database
- Subsurface sewage treatment systems/ unsewered areas / cluster development
- Stormwater / drainage management
- Lack of groundwater
- Failing septic systems
- Over-application of fertilizer (spc Nitrogen)

Surface Water

- Erosion and Sedimentation
- Flooding Control
- Failing septics
- Fertilizer over-application, chemicals
- Water quality
- Runoff
- Stormwater management
- Impaired waters of the county
- Drainage / ditches
- Feedlots / manure management
- Invasive species



- Drainage**
- Inadequate drainage Co Hwy 74—City of Warroad
 - **Lake of coordination between drainage and retention**
 - Too much or not enough drainage
 - **New commercial area—west side of Warroad—new drainage system**
 - Proper pipe sizing
 - **Failing Ditch Systems—twp, county state**
 - Improving existing systems
 - **Beaver control**

- Stormwater/Runoff**
- Sediment / Erosion
 - **Flooding / Flood Damage Reduction**
 - Pollutant runoff—urban, agricultural, feedlots, manure application, construction, ditch cleaning
 - **Ditch improvement / maintenance**
 - Declining water clarity
 - **Impaired waters (TMDL's)**
 - Lack of coordination between drainage management and retention

- Wetlands**
- Water quality protection
 - **Erosion and sediment control**
 - Flood control
 - **NRE's (Natural Resource Protection)**
 - Stormwater issues/runoff
 - **Impaired waters (TMDL's)**
 - Flood Damage Reductions
 - **Too much ditching**
 - Inadequate ditching

- Other**
- Education (environmental)
 - **Education (permitting process)**
 - Regulations (too much)
 - **Regulation (too little)**
 - Authority—more needed, watershed board
 - **Lack of funding**
 - Timely implementation of existing plans and controls
 - **Lack of agency coordination**
 - Lead agency or coordinator
 - **Communication**
 - Need for a “one stop shop” for permitting

Public Written Comments

These written comments were taken from the survey (see pages 9-10).

- Most issues are isolated and not a big concern for Roseau County. Gov. rules made for other areas of the state that don't pertain to us. State & Local gov. need to use common sense in regard to wetter areas. Let farmers drain depression areas. Depression areas have runoff consisting of chemicals and fertilizers that leach down into soil.
- Too many regulations.
- More authority needed (watershed board).
- Wetlands
- We must keep our sewage taken care of and keep some one on it. We are too lax
- Inadequate ditching.
- Too much management (poor).
- Lack of coordination between drainage management and retention.
- Use of chemical fertilizers, pesticides/herbicides is detrimental to microorganism populations, the effects of which are being seen in larger organism populations.
- Water storage should be in ponds to keep water back, not on farmer's land.



- Lots of field drainage, fertilizers, etc is a real problem for water quality in Roseau River, Lake of the Woods or Lake Bronson. Also affecting the Red River. Also cattle yards on River Banks in the County.
- We do not get the drainage we need during heavy rains.
- There is a great deal of upstream ditching without coordinated downstream activity
- The entire ecosystem, not just the visible matter, must be included when evaluating interventions. Less manipulation and more simply allowing Nature to balance herself will result in long term success. Need to stress minimal chemical application to farmers and educate on non-chemical methods of farming.
- Survey question number 6 will be rather confusing for the average respondent. Many of the (11) topics/concerns should be explained in more detail as to allow for more educated decisions/choices by the respondent.
- Good format
- The public ditch system in Golden Valley Township does not work.
- Release of water from reservoir into Roseau River causing flooding instead of letting the water level lower in anticipation of flooding so as to alleviate more flooding.
- Funding.
-

Stakeholder list of issues (WRAC Committee)

- Beaver control
- Need for a “one stop shop” for permitting
- Unregulated ditching
- Non-compliance with existing ditch laws



IV. Priority Concern Selection

Each individual WRAC member was asked to select their top three picks for priority concerns under each of the focus groups, to prioritize the focus groups and to submit these items on a sheet of paper. The votes were compiled; results were consolidated; and the top five were chosen.

1. Erosion and Sedimentation of Surface Waters, Stormwater Runoff and Wetlands
2. Flood Control and Flood Damage Reduction
3. Surface Water Improvement and Protection
4. Managing Existing Ditch Systems
5. Groundwater Water Protection and Quality

No differences were found in federal, state, watershed or surrounding county plans that were contradictory to the priority concerns selected for the next Water Management Plan. Federal plans to various local plans included some or most of these concerns so it appears that these concerns are fairly common across boundaries, which may be due to politics and funding tied to these items. This makes partnering with various agencies easier and more efficient.

V. Priority Concerns Not Addressed By This Plan

Many priority concerns were submitted that will not be addressed by the Water Plan at this time as they cannot all be done in a 10 year span or due to lack of funding. Many government entities already address many of the concerns. A few concerns could be addressed by the individual citizen at little to no cost. After the five year review of this next plan, the result may be additional or modified priority concerns from the compiled list or newly arisen concerns.

**Appendix B
Water Plan Information**

Examples of Best Management Practices

Feedlot Registration

Feedlot Delegated Counties

Land Ownership

Topography

TB Management Zones

General Land Use

Technical Definition of Wetland Types in MN

Circular 39, 1956 Wetland Type Estimates

Table B-1.

Examples of Best Management Practices	
<p>AGRICULTURE Animal waste management Conservation tillage Contour farming Contour strip cropping Cover crops Crop rotation Fertilizer management Integrated pest management Livestock exclusion Range and pasture management Sod-based rotations Terraces</p> <p>CONSTRUCTION Disturbed area limits Nonvegetative soil stabilization Runoff detention/retention Surface roughening</p> <p>URBAN Flood storage Porous pavements Runoff detention/retention Street cleaning</p>	<p>SILVICULTURE Ground cover maintenance Limiting disturbed areas Log removal techniques Pesticide/herbicide management Proper handling of haul roads Removal of debris Riparian zone management Road and skid trail management</p> <p>MINING Block-cut or haul-back Underdrains Water diversion</p> <p>MULTICATEGORY Buffer Strips Detention/sedimentation basins Devices to encourage infiltration Grassed waterway Interception/diversion Material ground cover Sediment traps Streamside management zones Vegetative stabilization/mulching</p>

<http://www.epa.gov/owow/tmdl/decisions/dec3.html>

Table B-2.
8/21/2009

Info by MPCA

Feedlot Registration Report
Roseau County - Not Delegated
Region - Detroit Lakes

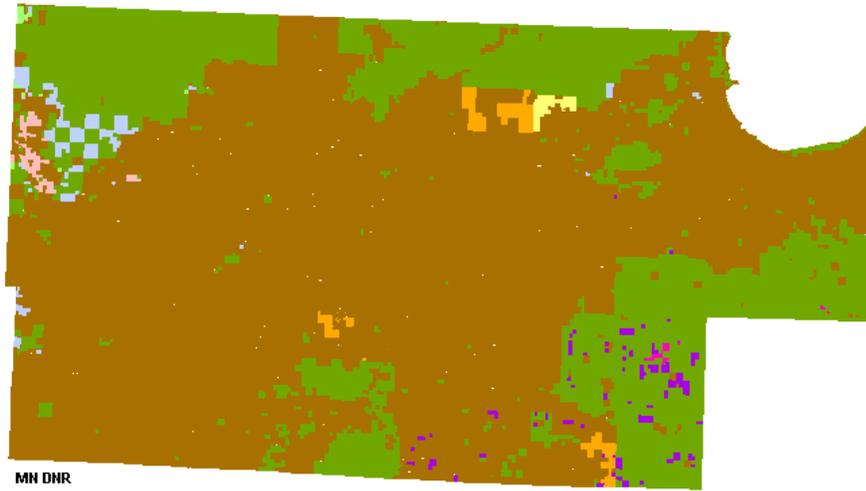
Reg. ID	Date	Status	Source	Township	
135-63675	12/2/2005	C	Registration Form	Skagen	T161, R42, S 22 NE SE
135-63673	12/2/2005	C	Registration Form	Grimstad	T160, R40, S4 SE SE
135-63676	12/2/2005	C	Registration Form	Grimstad	T160, R40, S9 NE NE
135-62055	12/19/2001	C	Registration Form	Stokes	T161, R41, S2 NE NE
135-66745	11/28/2005	C	Registration Form	Lake	T163, R37, S25 NW SW
135-62011	11/30/2005	C	Registration Form	Malung	T161, R39, S13 SW NW
135-63667	12/21/2001	C	Registration Form	Poplar Grove	T159, R41, S8 SW SE
135-63811	12/9/2005	C	Elink (BWSR)	Moranville	T162, R36, S21 SW NW
135-65104	2/1/2006	C	Registration Form	Moranville	T162, R36 S27 SW NW
135-64967	12/6/2005	C	Registration Form	Soler	T162, R43, S35 SW NW
135-63810	12/26/2001	C	Registration Form	Como	T158N, R42, S 9 SE SE
135-64131	8/17/2009	C	Registration Form	Clear River	T161, R36, S2 NE NW
135-64095	12/30/2001	C	Registration Form	Laona	T162, R35, S22 NE NE NE
135-63665	12/12/2005	C	Registration Form	Ross	T162, R41, S19 SW SW
135-62126	3/8/2006	C	Registration Form	Golden Valley	T159, R39, S3 SE NE
135-64035	12/7/2005	C	Registration Form	Moranville	T162, R36, S6 SW NE
135-50002	12/9/2005	C	Registration Form	Enstrom	T162, R38, S5 SW SW
135-64037	11/28/2005	C	Registration Form	Mickinock	T160, R39, S17 SW SW
135-63821	12/20/2001	C	Registration Form	Skagen	T161, R42, S31 NE NE
135-61622	3/31/2006	C	Registration Form	Huss	T159, R42, S5 SE
135-50003	12/6/2005	C	Registration Form	Nereson	T160, R41, S7 SE
135-61794	12/2/2005	C	Registration Form	Hereim	T160, R43, S11 SE
135-62804	11/28/2005	C	Registration Form	America	T161, R37, S3 NE NW
135-63815	1/5/2006	C	Registration Form	Nereson	T160, R41, S30 NW NW
135-62999	3/31/2006	I		Moranville	T162, R36, S2 SW NW
135-63005	12/12/2005	C	Registration Form	Malung	T161, R39, S9 NE
135-63820	4/5/2006	I		Moranville	T162, R36, S18 SE
135-61602	11/28/2005	C	Registration Form	Skagen	T161, R42, S15 SW
135-63813	4/3/2006	C	Registration Form	Norland	T163, R38, S27 SE SE
135-63861	12/14/2005	C	Registration Form	Barnett	T160, R42, S9 NE NE
135-93660	2/16/2003	C	Registration Form	Moose	T162, R42, S13 NE NE
135-61789	12/21/2005	C	Registration Form	Lake	T163, R36, S19 NW
135-63824	12/28/2001	C	Registration Form	Nereson	T160, R41, S30 SW NW SW
135-65101	12/20/2001	C	Registration Form	Dewey	T160, R44, S10 NE
135-64380	1/9/2006	C	Registration Form	Moranville	T162, R36, S29 NE NW
135-63670	11/28/2005	C	Registration Form	Hereim	T160, R43, S21 NW NW
135-61796	11/28/2005	C	Registration Form	Falun	T161, R38, S20 NE

135-61795	11/28/2005	C	Registration Form	Malung	T161, R39 S11 SW
135-61797	11/28/2005	C	Registration Form	Mickinock	T160, R39, S30 NE
135-65750	11/28/2005	C	Registration Form	Poplar Grove	T159, R41, S20 SE NE
135-62559	12/21/2005	C	Registration Form	Moranville	T162, R36, S15 SE
135-64076	12/6/2005	C	Registration Form	Lake	T163, R37W, S16 SE NE SW
135-64074	12/31/2001	C	Registration Form	Grimstad	T160, R40, S21 NE
135-61551	4/3/2006	C	Registration Form	Moranville	T162, R36, S9 NE NE
135-62797	11/15/2001	C	Registration Form	Barnett	T160, R42, S 32 NE NE
135-63011	12/8/2005	C	Registration Form	Nereson	T160, R41, S32 NW NW
135-65204	12/27/2001	C	Registration Form	Hereim	T160N, R43W, S13 SW
135-60738	8/15/2005	C	Registration Form	Skagen	T161, R42, S24 W1/2 of NW
135-62067	4/11/2006	C	Registration Form	Hereim	T160, R43, S9 SE SW
135-62982	11/30/2005	C	Registration Form	Nereson	T160, R41, S14 NE SE
135-62015	11/28/2005	C	Registration Form	Ross	T162, R41, S30 SW
135-63809	4/10/2006	C	Registration Form	Ross	T162, R41, S29 NE
135-60897	4/5/2006	C	Registration Form	Golden Valley	T159, R39, S18 SW SE
135-61555	12/7/2001	C	Registration Form	Malung	T161, R39, S26 NW SW
135-63816	12/20/2001	C	Registration Form	Lind	T159, R44, S5 SE NE
135-64055	1/10/2006	C	Registration Form	Moranville	T162, R36, S12 SW NW
135-61824	2/8/2006	C	Registration Form	Barnett	T160, R42, S25 SW
135-64080	11/30/2005	C	Registration Form	Cedarbend	T162, R37 S1 SE SW SE
135-64261	12/28/2001	C	Registration Form	Falun	T161, R38, S9 SE SE
135-64091	12/30/2005	C	Registration Form	Hereim	T160, R43, S36 NE
135-61792	11/30/2005	C	Registration Form	Moranville	T162, R36, S20 NE SE NE
135-65002	12/28/2005	C	Registration Form	Skagen	T161, R42, S33 SE SW
135-65001	12/28/2005	C	Registration Form	Barnett	T160, R42, S4 NW NW
135-64075	12/15/2005	C	Registration Form	Enstrom	T162, R38, S34 NE SE
135-63664	2/21/2007	C	Registration Form	Dewey	T160, R44, S24 NE SE
135-108400	5/6/2009	C	Registration Form	Huss	T159, R42, S15 North 1/2
135-80062	3/26/2002	C	Registration Form	Spruce	T162, R39 S23 SE SW
135-64153	4/6/2009	C	Permit Application	Palmville	T159, R40, S11 NE SW
135-69600	3/1/2002	C	Registration Form	Stafford	T161, R40, S31 SW NE
135-76340	12/19/2005	C	Registration Form	Dewey	T160, R44, S23 NE SW NE SE NE NE
135-64801	11/28/2005	C	Registration Form	Hereim	T160, R43, S17 SW NW
135-63814	11/28/2005	C	Registration Form	Hereim	T160, R43, S15 SW NW
135-50004	3/2/2009	C	Permit Application	Malung	T161, R39, S24 SW SW
135-62955	11/28/2005	C	Registration Form	Hereim	T160, R43, S26 NE
135-62587	12/14/2005	C	Registration Form	Soler	T162, R43, S3 NW
135-63999	12/15/2005	C	Registration Form	Lake	T163, R37, S35 SW SE
135-64053	4/3/2006	I	Registration Form	Lake	T163, R37, S 25 SW NE
135-63672	12/8/2005	C	Registration Form	Poplar Grove	T159, R41, S10 NW
135-64253	12/5/2005	C	Registration Form	Reine	T159, R38, S28 NW NW NW NW
135-64083	12/30/1991	I	Registration Form	Enstrom	T162, R38, S26 NW SE
135-63063	12/28/2005	C	Registration Form	Laona	T162, R35, S 28 NW NE

135-65751	12/1/2005	C	Registration Form	Barnett	T160, R42, S22 SE NE
135-63619	12/31/2001	C	Registration Form	Moranville	T162, R36, S26 NW NW
135-63613	12/31/2001	C	Registration Form	Moranville	T162, R36, S27 NE NE
135-63614	12/31/2001	C	Registration Form	America	T161, R36, S4 SW NW
135-62827	4/3/2006	C	Registration Form	Clear River	T161, R37, S4 NW NW
135-62568	12/27/2001	C	Registration Form	Enstrom	T162, R38, S4 NW NW
135-63823	12/19/2005	C	Registration Form	Poplar Grove	T159, R41, S28 NW NW
135-60743	12/19/2005	C	Registration Form	Barnett	T160, R42, S33 NW NW
135-61185	12/12/2001	C	Registration Form	Stafford	T161, R40, S 23 SW SW
135-60625	11/28/2005	C	Registration Form	Dieter	T163, R41, S 31 NE NE NE
135-64890	12/26/2001	C	Registration Form	Dieter	T163, R41, S29 SE NW
135-62618	11/30/2005	C	Registration Form	Barnett	T160N, R42, S1 SE
135-64276	4/20/2006	C	Elink (BWSR)	Laona	T162, R35 S21 SW NW
135-62617	12/13/2005	C	Registration Form	Poplar Grove	T159, R41, S28 SW
135-64081	12/28/2001	C	Registration Form	Stafford	T161, R40 S 21 SE NE
135-106980	1/30/2006	C	Registration Form	Clear River	T161, R36, S15 NE NE
135-107080	2/14/2006	C	Registration Form	Stokes	T161, R41, S32 SW
135-63965	4/5/2006	C	Registration Form	Cedarbend	T162, R37, S25 NW SW
135-63817	11/30/2005	C	Registration Form	Cedarbend	T162, R37, S 30 SW NW
135-63818	11/30/2005	C	Registration Form	Cedarbend	T162, R37, S31 NE NE
135-65207	4/19/2006	C	Registration Form	Mickinock	T160, R39, S23 NE SW NW SE
135-63004	4/3/2006	C	Registration Form	Ross	T162, R41, S36 SW
135-63808	11/30/2005	C	Registration Form	Dewey	T160, R44, S3 SW

Figure B-2.

Ownership



Legend

OWNER_DESC

- County
- Federal
- Other Public
- Private
- Private Conservancy
- Private Industrial
- Private Non-Industrial
- State
- Tribal

Figure B-3.

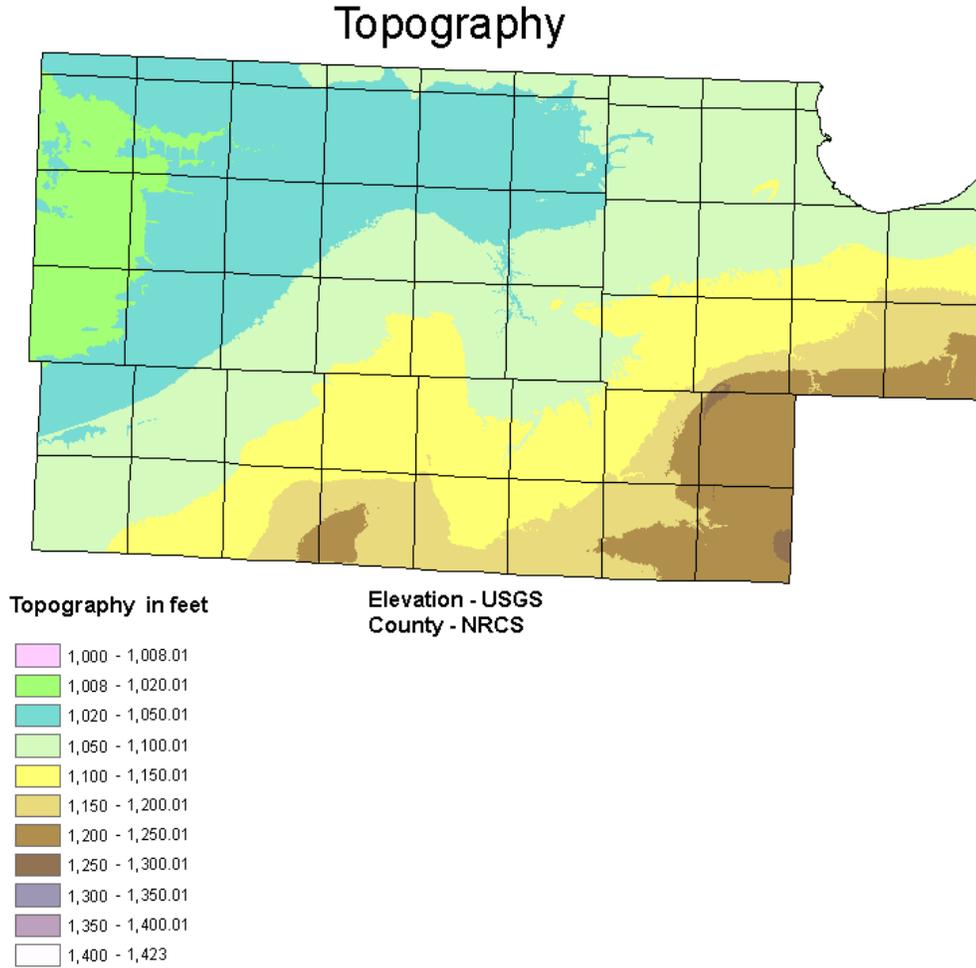


Figure B-4. TB Management Zones

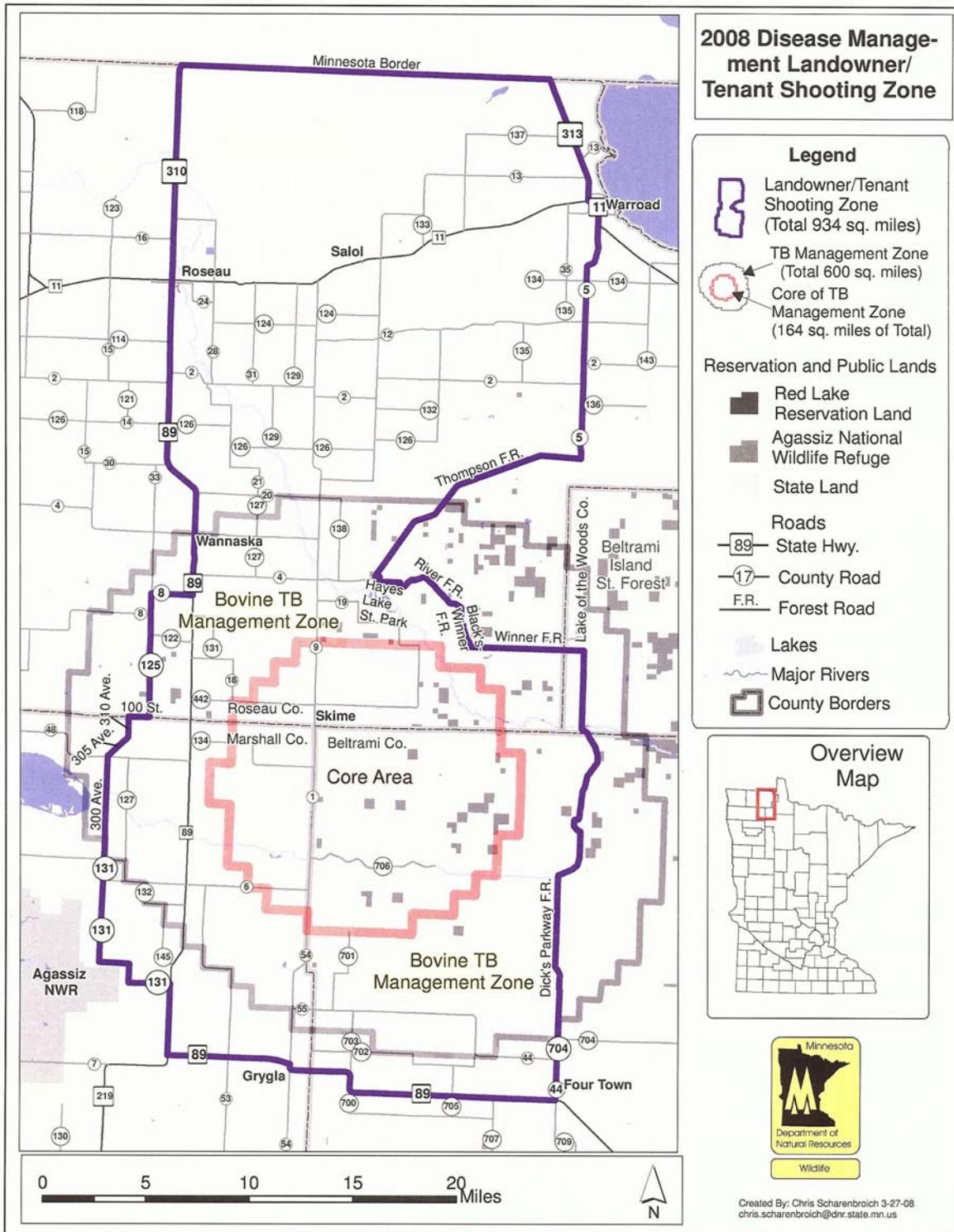
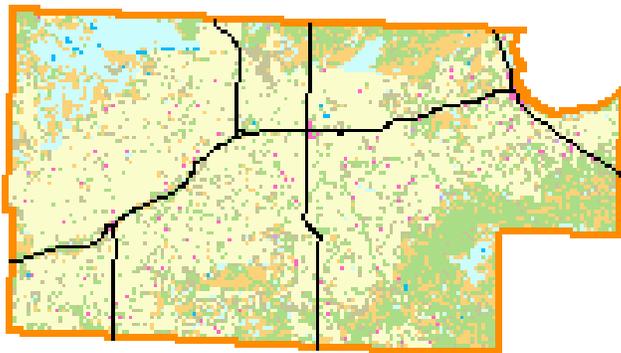


Figure B-5. General Land Use

Description	Acreage	Percent of Total
Urban and rural development	11,006	1.0
Cultivated land	541,133	50.4
Hay/pasture/grassland	89,280	8.3
Brushland	128,577	12.0
Forested	215,560	20.1
Water	3,492	0.3
Bog/Marsh/Fen	84,048	7.8
Mining	1,039	0.1
Total	1,074,135	100.0



Legend

- Urban and rural development
- Cultivated land
- Hay/pasture/grassland
- Brushland
- Forested
- Water
- Bog/marsh/fen
- Mining

MnGeo (formerly The Land Management Information Center)

Technical definition of wetland types in Minnesota

Two wetland classification methods are commonly used in Minnesota. The mapping method used for the initial wetland protection program and the DNR-regulated waters inventory (public waters inventory) legislation of 1976 and 1979 was identified in "Wetlands of the United States," published as U.S. Fish and Wildlife Service Circular 39 Document by Shaw and Fredine in 1956 (reprinted 1971). Eight wetland types are recognized in Minnesota, but none are assigned to rivers and lakes.

In 1979, the U.S. Fish and Wildlife Service published the Cowardin et al. method, "Classification of Wetlands and Deepwater Habitats in the United States." This comprehensive representation of all wetland habitats is used on the **National Wetlands Inventory (NWI) Maps** [EXT](#). For more information on associated plant types, see **Wetland Plants and Plant Communities of Minnesota and Wisconsin** [EXT](#). For information on where to obtain wetland plants, see the **Directory of Wetland Plant Vendors in the U.S.** [EXT](#)

Type 1 - Seasonally Flooded Basin or Flat

Type 2 - Wet Meadow

Type 3 - Shallow Marsh

Type 4 - Deep Marsh

Type 5 - Shallow Open Water

Type 6 - Shrub Swamp

Type 7 - Wooded Swamp

Type 8 - Bogs

Minnesota Wetlands Acreage for Types 1-8 by County (.pdf 20k)

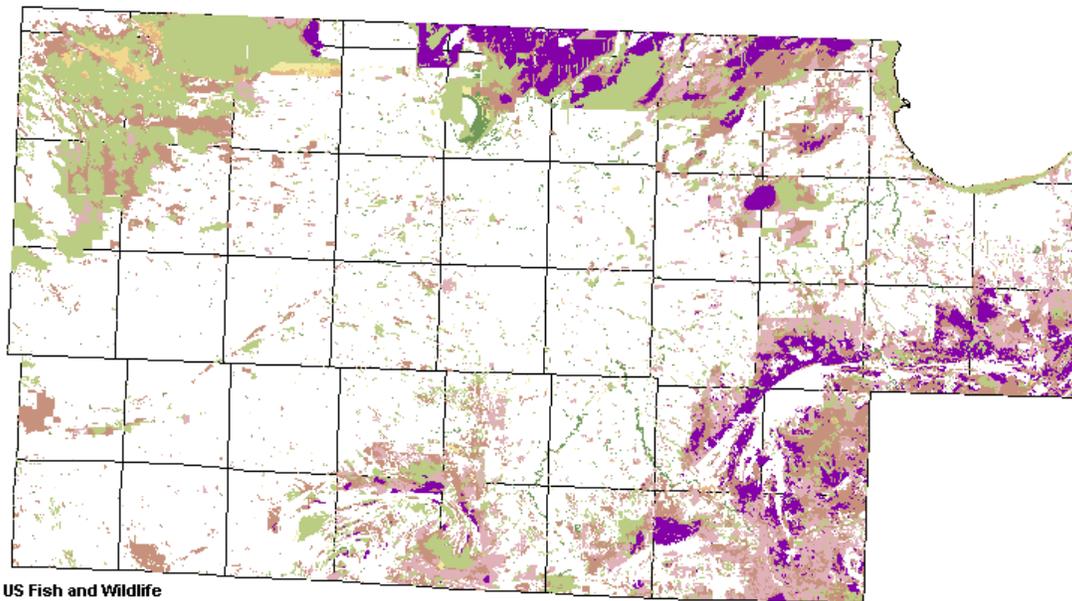
COUNTY AREAL ESTIMATES OF MINNESOTA'S 8 WETLAND TYPES (CIRCULAR 39 CLASSIFICATION)

County areal estimates (acres) of Minnesota's eight wetland types (Circular 39) plus riverine wetlands, industrial/municipal wetlands, total wetlands, total deep water, total upland, and total county area. Data are derived from National Wetland Inventory (NWI) habitat classification polygon data (Cowardin *et al.* 1979) and approximated to U.S. Fish & Wildlife Service Circular 39 wetland types (Shaw and Fredine 1956, reprinted 1971). Circular 39 types 1 (T1) through 8 (T8) are consistent with the classification method; Riverine wetlands are between-bank wetland habitats; and Industrial/municipal habitats are often dike-related impoundments (Cowardin *et al.* 1979). Total Wetlands is the sum of wetland types T1 through T8 plus Riverine plus Industrial/Municipal habitats. Deep Water habitats, greater than 2-m deep, were assumed to be all NWI polygons labeled as L1, PUBG, and PUBH. Total Wetlands plus Total Deep Water plus Total Upland equals the Total County Area. Values may vary somewhat based upon county separations of the NWI data.

ID	County	CIRCULAR 39 WETLAND TYPES (Shaw and Fredine 1956)								Riverine	Industrial/ Municipal	Total Wetlands	Total Deep Water	Total Upland	Total County Area
		T1	T2	T3	T4	T5	T6	T7	T8						
68	Roseau	8,235	119,160	4,149	2,815	1,682	100,511	69,323	49,251	139	634	355,899	1,331	717,003	1,074,233
STATE-WIDE TOTALS		287,747	1,001,195	1,691,160	111,608	247,034	2,274,318	1,063,646	3,765,148	94,145	53,989	10,589,990	2,543,015	40,550,514	53,683,519

Figure B-6.

Roseau County Wetlands - Circular 39



US Fish and Wildlife
USDA NRCS

Wetland Types

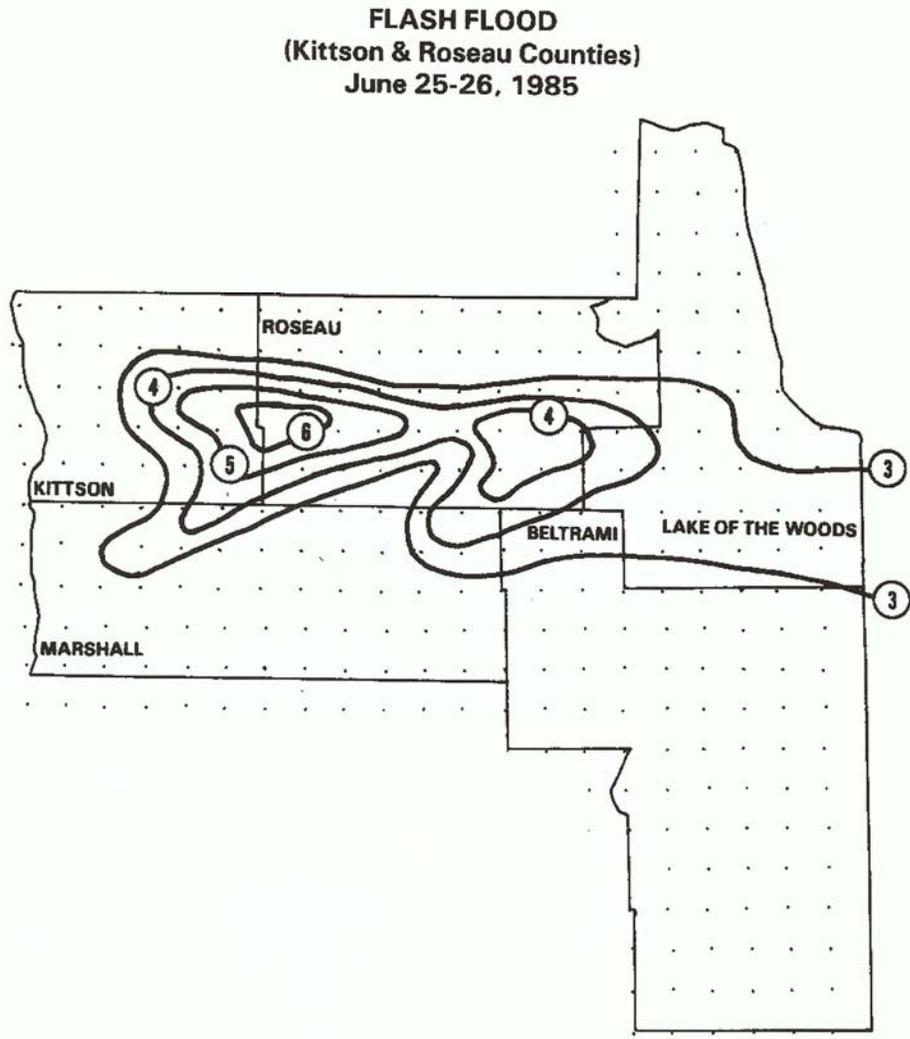
CIRC39

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

Appendix C
Flooding and Flood Control

1985 Flash Flood
Heavy Rains 2001
Flood 2002

Figure C-1. 1985 Flash Flood

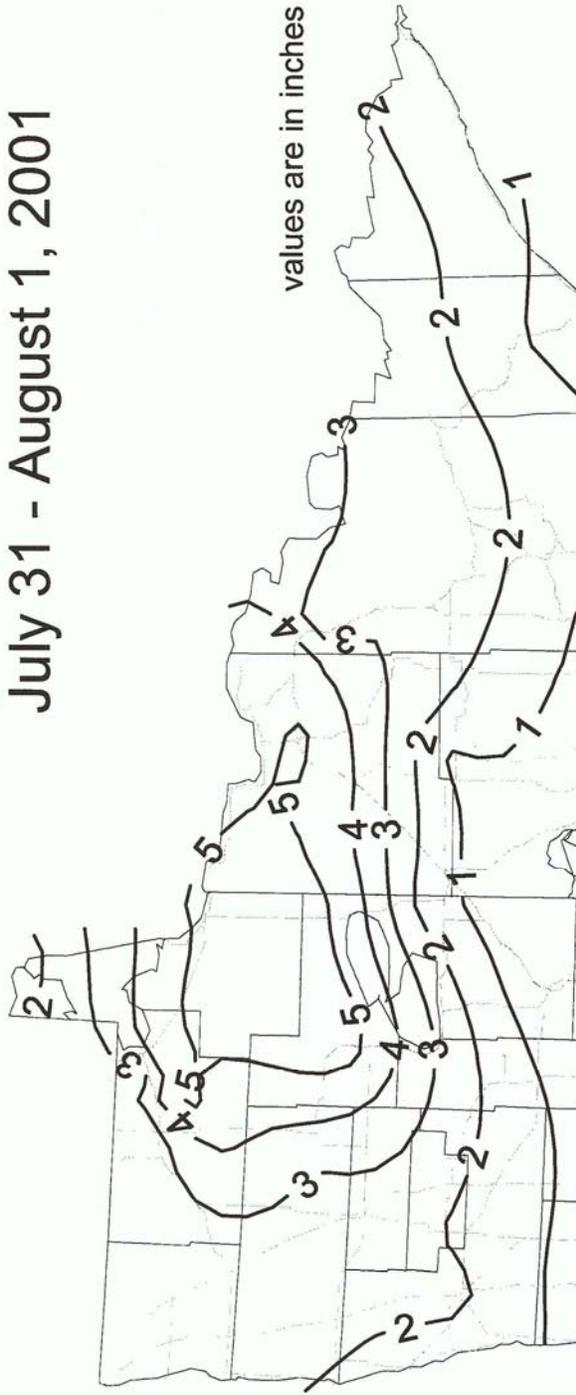


Flash flood rains in Kittson and Roseau Counties began about 8 PM on the 24th of June and ended during the forenoon on the 25th. However, it did rain off and on into the 26th. (Most of the rains occurred before 8 AM on the 25th).

The 4-inch and greater area covered about 1,300 square miles. The heaviest amount reported was 6.05 inches in western Roseau County. Flood of ditches and fields was reported.

Figure C-2. Heavy Rains 2001

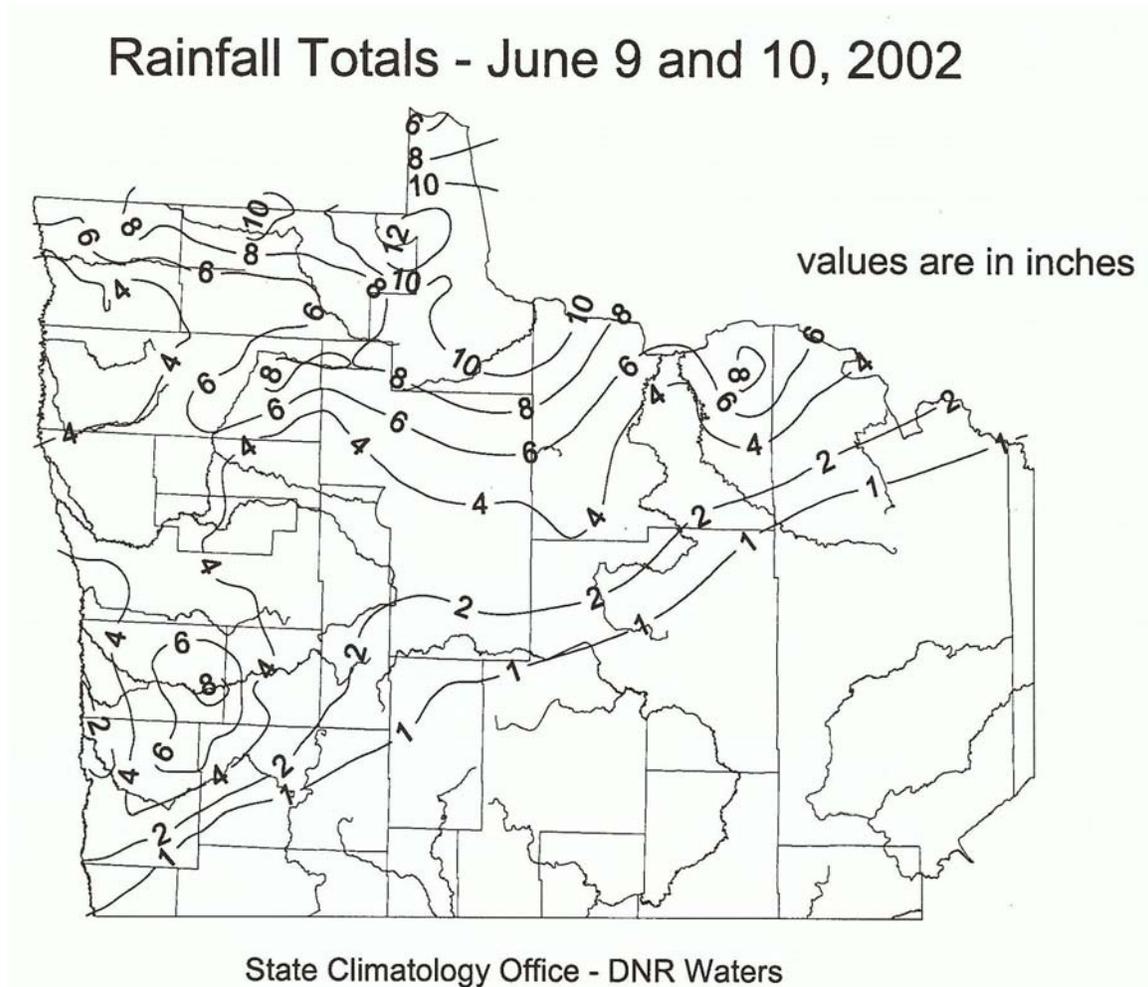
Heavy Rains Douse the Northland July 31 - August 1, 2001



Torrential rains fell upon far northern Minnesota on July 31 and August 1. The first of a sequence of thunderstorms entered northwestern Minnesota during the early morning hours of the 31st. The last of the storms finally exited northeastern Minnesota approximately 24 hours later. In their wake, the storms left a swath of two to six inches of rain. The heavy rain led to rising streams, urban flooding and road wash-outs. The heaviest rain fell in portions of Lake of the Woods, Beltrami, and Koochiching counties. Rainfall amounts topping five inches were common in these counties. Scattered within this three county area were isolated unofficial reports of six to seven inches. The highest official total reported was 5.97 inches at Baudette in Lake of the Woods county. An automated weather station near Baudette indicated that nearly three inches of rain fell in a two hour period between 6:00 pm and 8:00 pm on the 31st.

State Climatology Office - DNR Waters

Figure C-3. Flood 2002



Extraordinarily Heavy Rains Fall on Northwestern and North Central Minnesota June 9 and 10, 2002

Portions of northwestern and north central Minnesota experienced one of the most significant precipitation events in Minnesota's post-settlement history on June 9 and 10, 2002. While not unprecedented, the event was extraordinarily rare in its intensity and geographical extent.

Rainfall totals for the 48-hour period beginning during the early-morning hours of Sunday, June 9 exceeded six inches over a broad multi-county area. Rainfall accumulations topped eight inches in portions of Norman, Mahnomon, Marshall, Kittson, Roseau and Koochiching counties. All of Lake of the Woods county fell within the eight inch contour. An incredible twelve inches of rain doused portions of Roseau, Lake of the Woods, and Koochiching counties. The largest rainfall report was a 14.55 inch total near Lake of the Woods on the Roseau/Lake of the Woods county border. Anecdotal reports of fifteen or more inches were received in some areas.

To place the event in historical context, a 48-hour rainfall total of six and one half inches is considered to be a one percent probability occurrence in these areas. The map above indicates that hundreds of square miles exceeded this threshold. Additionally, some communities received more than one half of their total normal annual precipitation during this two-day period. Rainfall events of similar intensity and spatial extent have occurred only twice in the last 30 years in this region. The June 2002 event is on par with the July 1972 "Grand Daddy" of flash floods, and the 1975 flood episode affecting southeastern North Dakota and northwestern Minnesota.

In the southern portion of the affected area, thunderstorms began to drop heavy rains shortly after midnight on June 9 and continued into the morning hours. Six or more inches of rain fell in less than twelve hours in northeastern Clay, southeastern Norman, and western Mahnomen counties. More than nine inches of rain was reported near Twin Valley in Norman county. Northern sections of the affected area received rain during the morning of the 9th, but the rainfall was not nearly as heavy as that experienced by their southern neighbors. However, thunderstorms redeveloped along the Canadian border during the afternoon of the 9th, and moderate to heavy rain continued to fall nearly continuously for the remainder of June 9, into the day on June 10, and finally tapered off in the early morning hours of the June 11.

The thunderstorms produced damaging wind, hail, and some small tornadoes. However, the heavy downpours led to the greatest amount of damage. Many tributaries of the Red River left their banks, creating serious flooding in cities such as Ada in Norman county and Roseau in Roseau County. General urban flooding was reported in many other communities, resulting in flooded basements and blocked streets. Major and minor highways in northwestern and north central Minnesota were closed due to flooding. Widespread inundation of farm fields occurred and will significantly impact agricultural production.

**Appendix D
Surface Water**

**Statistical Data 2003-2008
Reading Box and Whisker Graphs
Surface Water Monitoring Graphs 2003-2008
Guide to Typical Minnesota Water Quality Conditions
Permitted Waste Water Discharges
Normal Annual Precipitation
Normal Precipitation May – September
Rainfall Monitoring Network
Roseau SWCD River Monitoring Locations**

Table D-1. Statistical Data for Roseau County Surface Water Monitoring

RRW = Roseau River watershed, WRKLOWW = Warroad River & Lake of the Woods watersheds, ALL = all watershed sites

Total									
RRW	Phosphorus	Site	min	25th%	median	75th%	max	avg	count
		1 Beaver	0.020	0.026	0.028	0.033	0.067	0.032	33
		2 Golden Valley	0.024	0.037	0.056	0.067	0.151	0.059	31
		3 Mickinock	0.018	0.048	0.058	0.072	0.096	0.060	33
		4 Trangsrud Br	0.038	0.075	0.091	0.115	0.163	0.097	33
		5 Caribou	0.039	0.069	0.092	0.113	0.162	0.095	34
		6 Hay Cr	0.017	0.035	0.047	0.065	0.294	0.061	29
		7 Sprague Cr	0.010	0.022	0.031	0.035	0.057	0.030	27
		8 Pine Cr	0.015	0.026	0.031	0.051	0.087	0.039	19
		9 War East Br Cl Riv	0.011	0.015	0.019	0.022	0.044	0.020	34
		10 War West Br Cedar	0.014	0.023	0.029	0.042	0.270	0.042	36
		11 War East Br Oaks	0.009	0.011	0.016	0.021	0.127	0.022	34
		12 War East Br Moran	0.012	0.023	0.029	0.034	0.400	0.039	34
		13 Willow Cr	0.013	0.115	0.155	0.202	0.510	0.161	31
ALL	pH	Site	min	25th%	median	75th%	max	avg	count
		1 Beaver	7.45	7.81	7.95	8.02	8.31	7.91	27
		2 Golden Valley	7.25	7.71	7.92	8.15	8.45	7.91	23
		3 Mickinock	6.91	7.67	7.81	8.05	8.32	7.83	26
		4 Trangsrud Br	7.19	7.60	7.81	7.99	8.54	7.80	26
		5 Caribou	7.03	7.50	7.81	8.12	8.71	7.82	26
		6 Hay Cr	6.75	7.74	7.97	8.09	8.44	7.87	23
		7 Sprague Cr	7.19	7.57	7.69	7.87	8.08	7.70	20
		8 Pine Cr	7.24	7.38	7.49	7.59	7.66	7.48	15
		9 War East Br Cl Riv	6.72	7.73	7.84	7.98	8.39	7.77	22
		10 War West Br Cedar	6.82	7.88	7.94	8.08	8.22	7.89	28
		11 War East Br Oaks	6.42	7.19	7.35	7.47	7.91	7.31	25
		12 War East Br Moran	7.03	7.78	7.88	7.96	8.10	7.81	26
		13 Willow Cr	6.91	7.57	7.69	7.85	8.00	7.66	23
ALL	Specific Conductivity	Site	min	25th%	median	75th%	max	avg	count
		1 Beaver	153	225	250	276	396	256	33
		2 Golden Valley	267	316	346	388	479	351	29
		3 Mickinock	341	425	469	508	589	472	32
		4 Trangsrud Br	246	316	348	379	482	355	32
		5 Caribou	279	321	350	382	454	353	32
		6 Hay Cr	311	359	403	426	554	400	29
		7 Sprague Cr	192	222	238	267	457	256	26
		8 Pine Cr	193	243	283	337	471	301	19
		9 War East Br Cl Riv	130	182	207	278	409	228	27
		10 War West Br Cedar	157	241	318	353	546	308	34
		11 War East Br Oaks	100	145	182	213	322	185	31
		12 War East Br Moran	192	248	295	375	563	324	31
		13 Willow Cr	309	387	423	473	556	430	29

ALL	Temperature	Site	min	25th%	median	75th%	max	avg	count
		1 Beaver	6.72	13.41	17.60	21.52	28.65	17.24	33
		2 Golden Valley	5.09	12.61	16.66	21.46	26.68	16.21	29
		3 Mickinock	5.33	12.16	16.18	20.71	25.76	15.87	32
		4 Trangsrud Br	5.60	12.76	16.57	21.94	25.99	16.83	32
		5 Caribou	5.87	13.07	16.97	22.92	26.07	17.19	32
		6 Hay Cr	2.57	9.35	14.97	18.55	23.66	13.85	29
		7 Sprague Cr	4.80	10.29	15.04	19.62	23.04	14.74	26
		8 Pine Cr	5.07	9.76	15.03	17.59	22.11	13.69	19
		9 War East Br Cl Riv	3.35	11.15	15.78	20.00	25.69	15.37	27
		10 War West Br Cedar	3.26	11.07	16.50	19.44	24.54	15.32	34
		11 War East Br Oaks	3.95	11.60	16.88	20.80	25.94	16.31	31
		12 War East Br Moran	3.68	11.06	16.12	19.84	24.85	15.19	31
		13 Willow Cr	2.95	11.03	16.47	19.61	25.64	15.32	29

ALL	Nitrate	Site	min	25th%	median	75th%	max	avg	count
		1 Beaver	0.019	0.019	0.019	0.019	0.09	0.02	34
		2 Golden Valley	0.019	0.019	0.019	0.019	1.06	0.05	31
		3 Mickinock	0.019	0.019	0.019	0.019	0.07	0.02	33
		4 Trangsrud Br	0.019	0.019	0.019	0.019	0.20	0.04	33
		5 Caribou	0.019	0.019	0.019	0.03	0.44	0.07	34
		6 Hay Cr	0.019	0.019	0.019	0.019	0.58	0.04	29
		7 Sprague Cr	0.019	0.019	0.019	0.019	0.04	0.02	27
		8 Pine Cr	0.019	0.019	0.019	0.019	0.06	0.02	19
		9 War East Br Cl Riv	0.019	0.019	0.019	0.019	0.06	0.02	34
		10 War West Br Cedar	0.019	0.03	0.06	0.13	0.30	0.09	36
		11 War East Br Oaks	0.019	0.019	0.019	0.019	0.05	0.02	34
		12 War East Br Moran	0.019	0.019	0.019	0.019	0.06	0.02	34
		13 Willow Cr	0.019	0.019	0.019	0.019	0.22	0.03	31

ALL	Fecal Coliform	Site	min	25th%	median	75th%	max	avg	count
		1 Beaver	1	6	16	28	86	21	33
		2 Golden Valley	1	6	12	26	80	19	31
		3 Mickinock	2	12	30	54	530	66	33
		4 Trangsrud Br	1	8	24	42	260	34	33
		5 Caribou	1	9	24	36	324	43	34
		6 Hay Cr	2	12	118	348	1914	274	29
		7 Sprague Cr	4	23	36	47	144	44	27
		8 Pine Cr	2	9	20	39	142	34	18
		9 War East Br Cl Riv	1	2	10	27	84	18	34
		10 War West Br Cedar	1	27	111	176	1160	178	36
		11 War East Br Oaks	1	4	6	13	142	15	34
		12 War East Br Moran	1	18	41	74	200	50	34
		13 Willow Cr	2	15	52	125	1520	167	31

		Site	min	25th%	median	75th%	max	avg	count
All	Turbidity	Beaver	1.5	2.2	2.6	3.7	11.3	3.4	31
		Gold Val	0.5	1.0	1.9	3.0	7.3	2.2	27
		Mickinock	1.3	4.4	5.3	8.2	19.2	6.5	30
		Trangsrud Br	8.0	12.9	20.0	26.5	75.0	23.7	30
		Caribou	6.3	14.5	23.0	28.7	63.7	23.9	30
		Hay Cr Co Rd #12	2.8	10.0	24.1	47.5	188.0	35.6	28
		Sprague Cr SV	4.5	8.6	10.2	12.6	20.8	10.9	24
		Pine Cr	1.2	2.1	2.8	5.7	19.2	4.8	18
		War West Br Cl Riv	2.1	2.4	2.9	4.1	8.7	3.7	31
		War West Br Cedar	3.8	5.5	7.7	10.7	32.2	9.3	33
		War East Br Oaks	0.8	1.1	1.7	2.5	10.0	2.2	30
		War East Br Moran	2.4	3.5	4.3	5.5	11.4	4.9	34
		Willow Cr	2.4	3.3	4.8	13.0	45.7	10.3	28

		Site	min	25th%	median	75th%	max	avg	count
All	DO	Beaver	5.91	8.15	8.57	10.27	15.3	9.36	38
		Gold Val	3.43	7.83	9.59	10.87	15.6	9.57	27
		Mickinock	5.23	6.48	7.99	9.45	15.3	8.48	37
		Trangsrud Br	3.39	5.75	7.95	9.81	14.66	7.88	30
		Caribou	1.60	6.19	7.94	9.22	15.05	8.10	30
		Hay Cr Co Rd #12	4.28	7.215	8.24	10.66	13.6	9.00	27
		Sprague Cr SV	5.91	7.64	8.56	9.84	13.90	8.82	24
		Pine Cr	4.49	6.72	7.16	8.23	10.65	7.67	17
		War West Br Cl Riv	6.6	8.3	9.1	11.5	14.1	9.8	26
		War West Br Cedar	6.3	7.3	8.1	9.6	13.3	8.8	32
		War East Br Oaks	3.0	6.4	8.2	9.4	14.8	8.2	29
		War East Br Moran	5.1	7.1	8.1	10.0	12.1	8.6	30
		Willow Cr	0.2	5.0	6.8	8.9	12.1	7.0	27

Reading Box and Whisker Graphs

Bottom dash – minimum observation recorded

Middle dash – (located within the bar) – mean or median of the data set or 50% quartile

Top dash – Maximum observation recorded

Bottom of the Box – 25% quartile

Top of the Box – 75% quartile

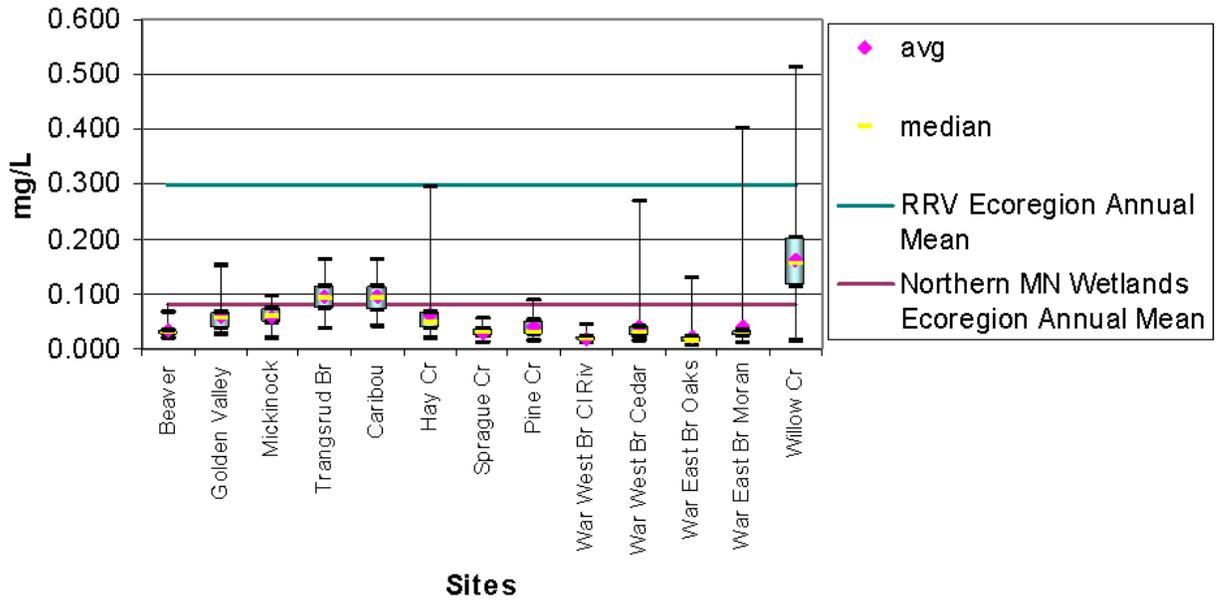
Generalizations

- The longer the box and whiskers, the more variability in the water samples at that particular site.
- The whiskers show the outliers of the data set. These data points may not fit what the samples may test normally, but shows the extremes (lows and highs).
- Overlapping quartile ranges show that sample data are quite similar between sites. Indicates little or no change between sites.

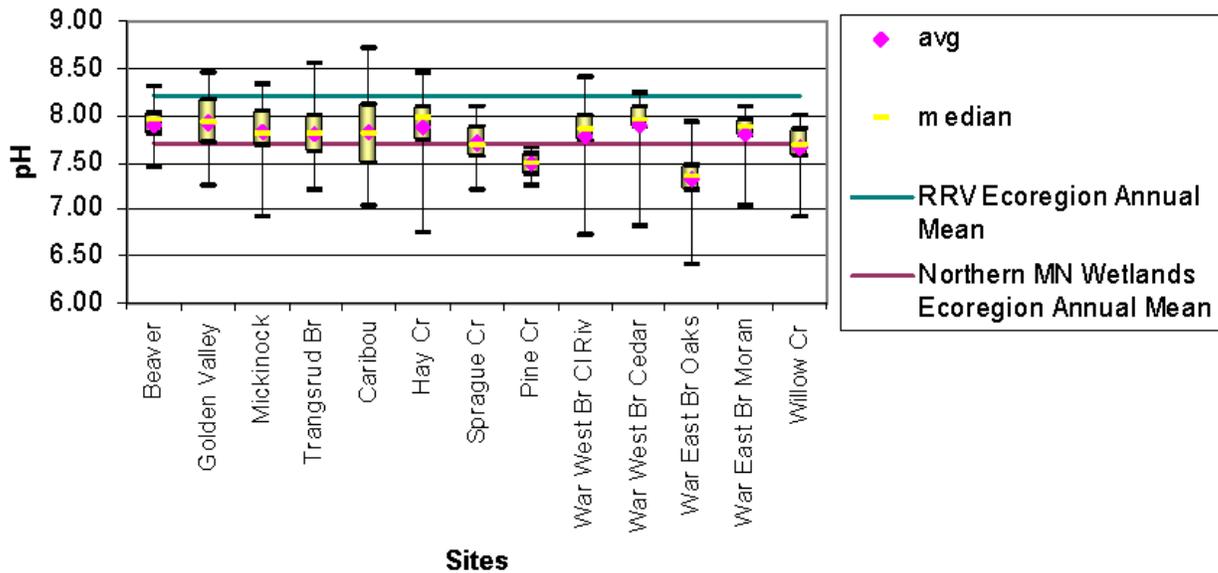
Non overlapping quartile ranges show that some sort of change in conditions is happening between sites.

Figures D-1 & D-2.

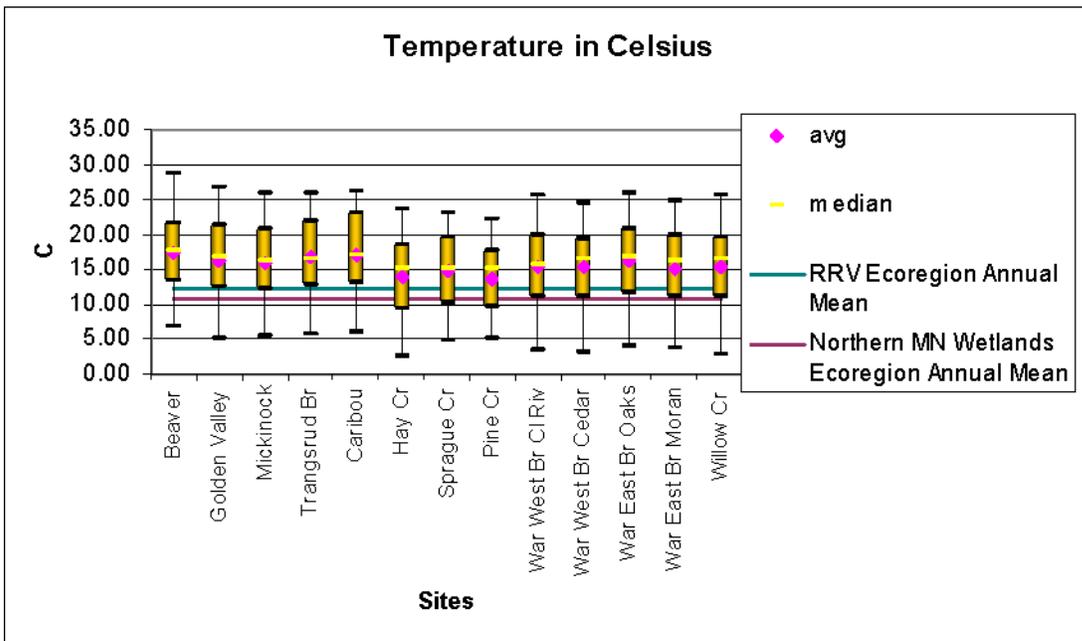
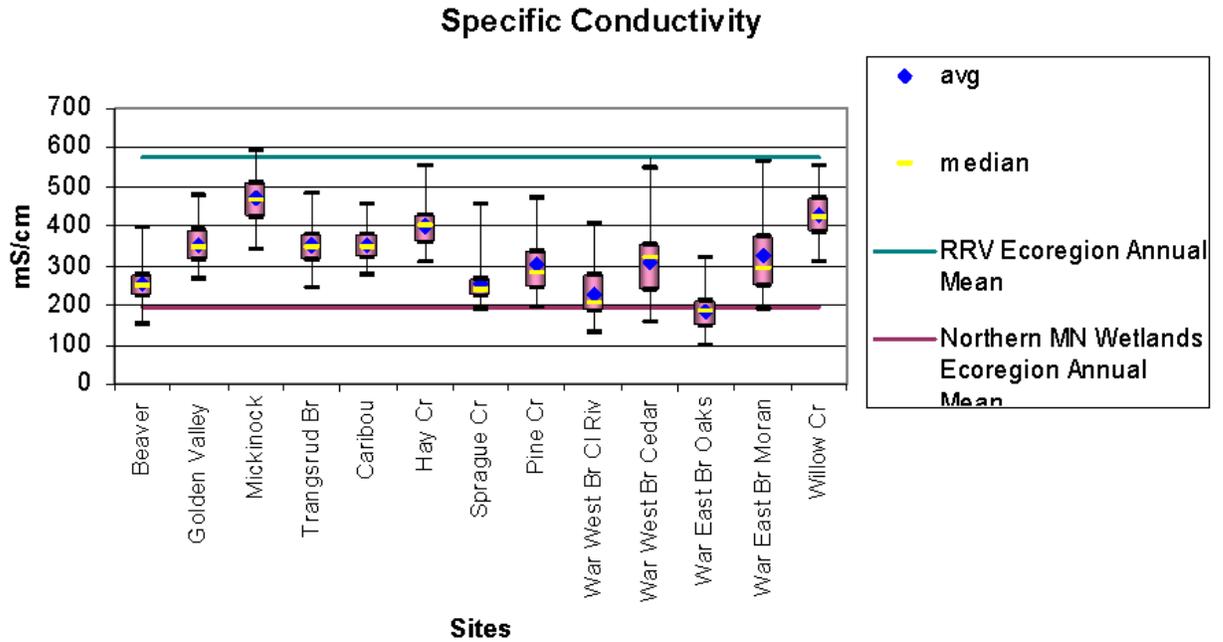
Total Phosphorus



pH

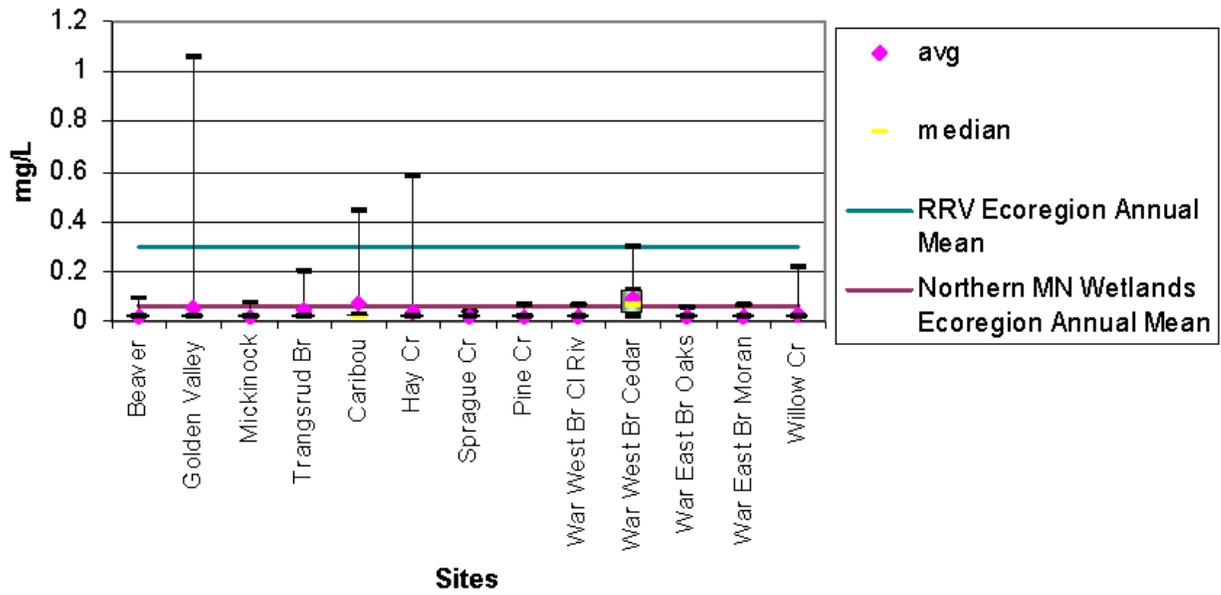


Figures D-3 & D-4.

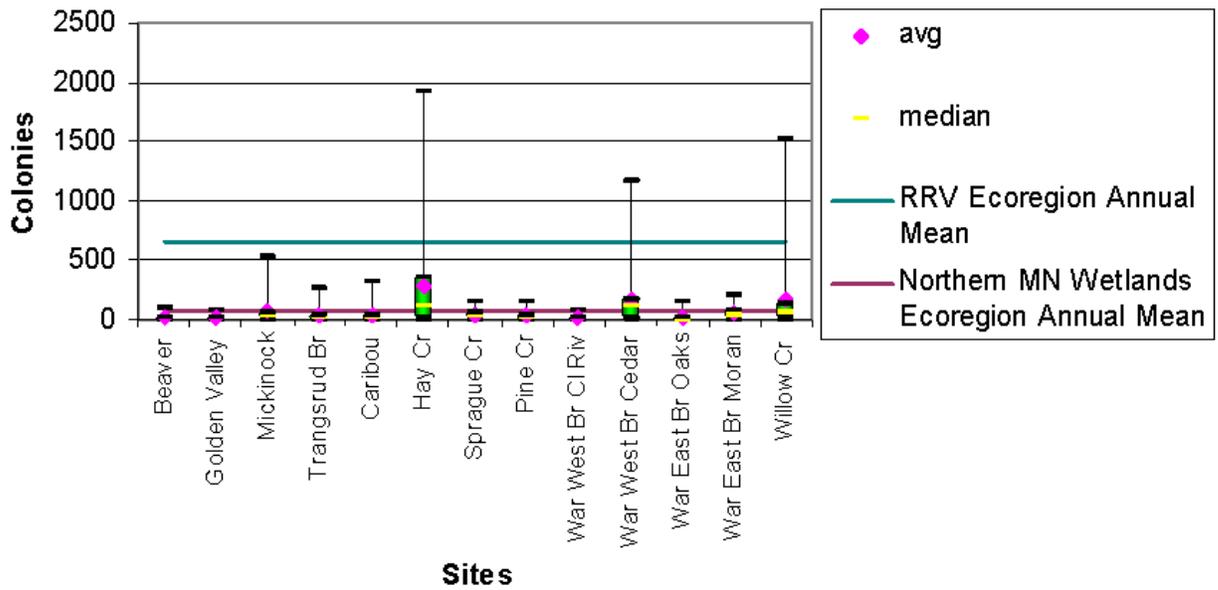


Figures D-5 & D-6.

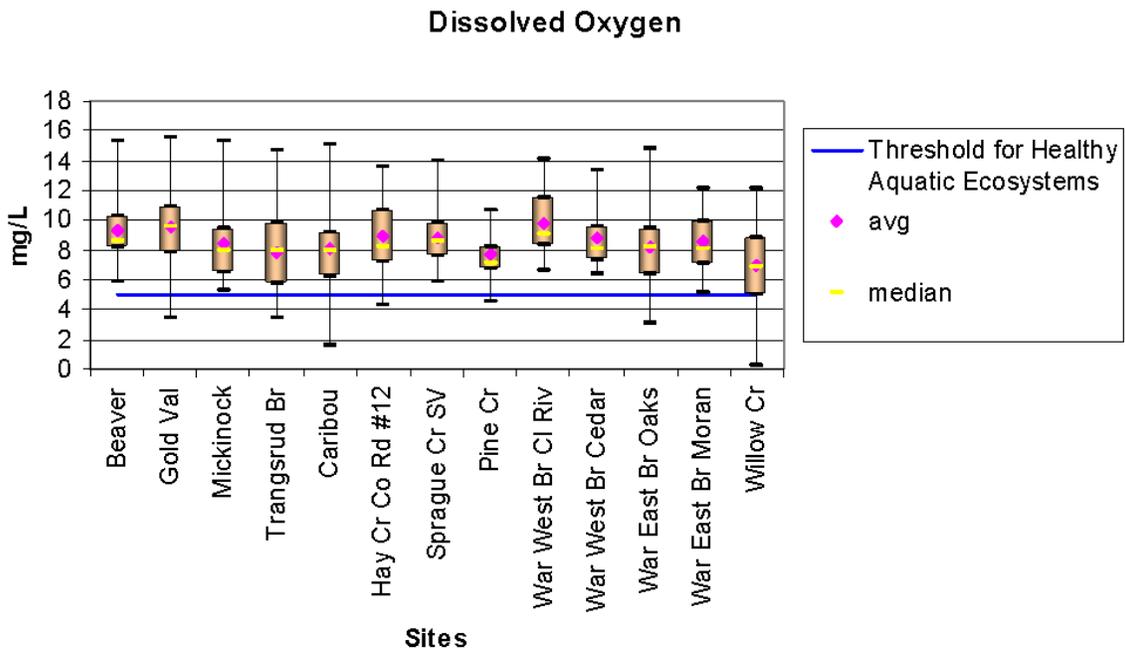
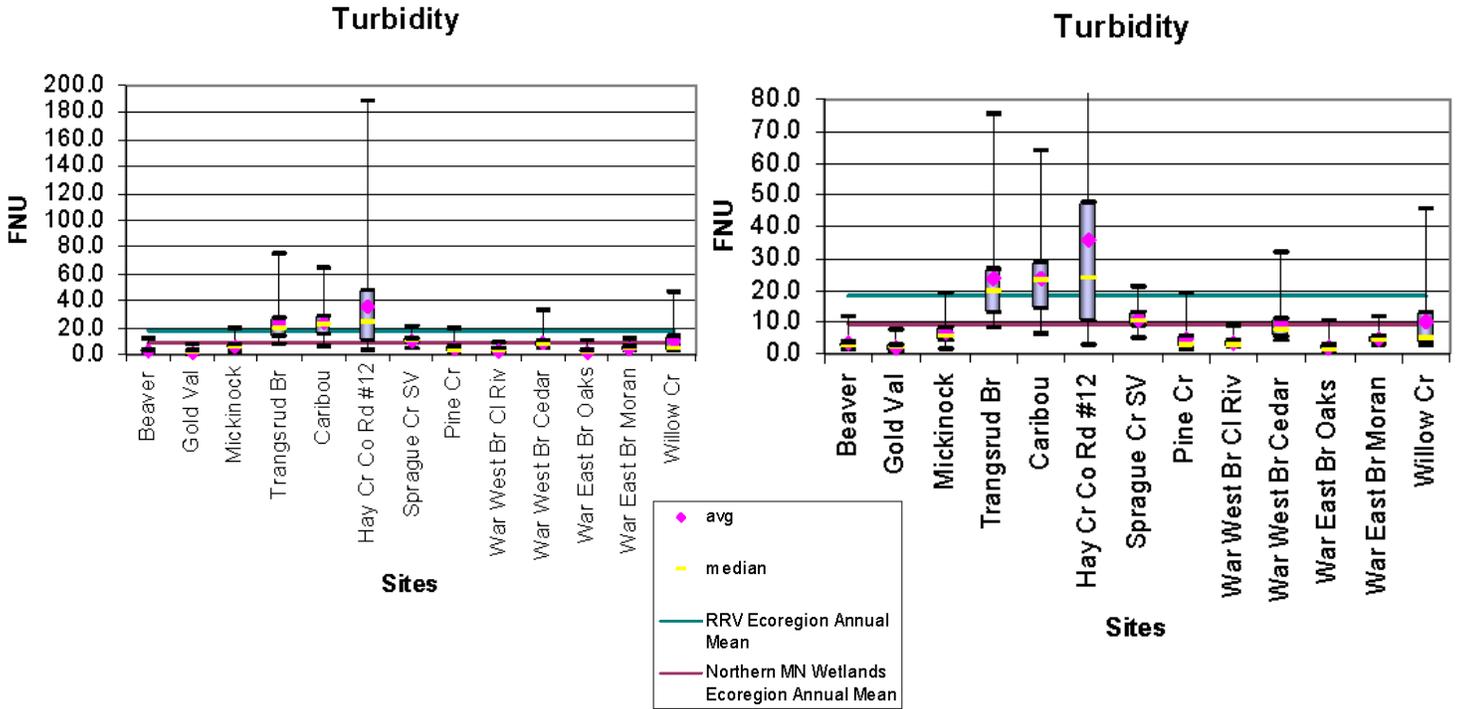
Nitrogen as Nitrate



Fecal Coliform Counts



Figures D-7A, D-7B & D-8



Taken from <http://www.pca.state.mn.us/data/eda/wqguide.html> with edits to show only those regions relevant to Roseau County.

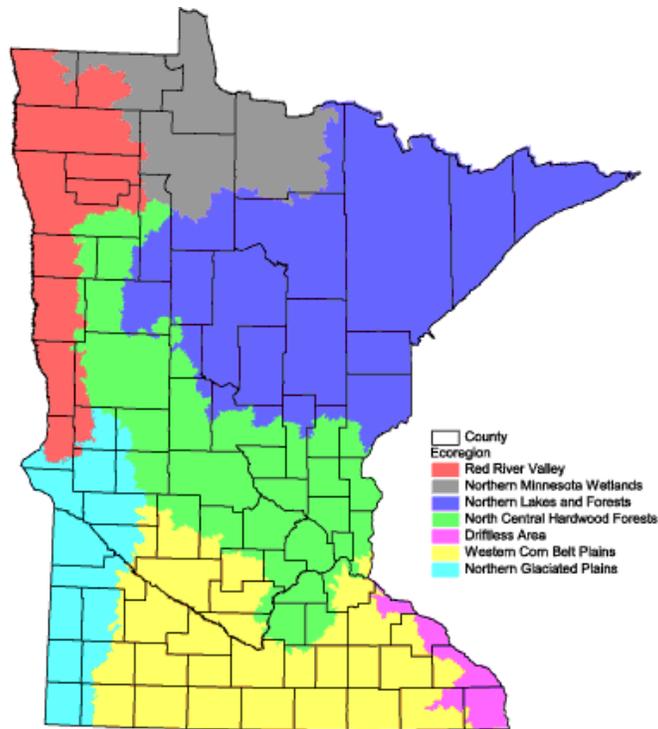
Guide to Typical Minnesota Water Quality Conditions

Understanding what constitutes “good” water quality in Minnesota is difficult because of the wide variety of geographic and environmental conditions that exist in the state. Lakes and streams in the northern part of the state have different physical and chemical properties than those in the southern, eastern and western parts of the state. So, a water body in western Minnesota that is considered to be in good condition might be considered to be in poor condition if it were located in northern Minnesota.

Because of this complexity, it may be useful to understand what are considered to be typical water quality conditions in each of Minnesota’s “ecoregions.”

An ecoregion is a relatively large expanse of land containing a geographically distinct collection of plants, animals, natural communities and environmental conditions. There are seven of them in Minnesota.

Ecoregions in Minnesota



Typical Water Quality Conditions in Minnesota's Ecoregions

Red River Valley

The ecoregion is relatively flat and heavily cultivated. The Red River Valley ecoregion has few lakes and surface water drains north through the Red River to Hudson Bay.

Stream turbidity has increased significantly in the last two decades. The removal of shelter belts and increased cultivation of marginal land has enhanced wind erosion, which may be responsible for the higher stream turbidity.

Northern Minnesota Wetlands

This region is flat, heavily forested and contains many marshes and wetlands. It has few lakes, but two of them are among the largest in the state: Lake of the Woods and Red Lake Reservoir.

The water quality of streams in this ecoregion is generally very good, due to the relatively slight slope of stream beds and the abundance of ground cover along stream banks (also known as riparian vegetation).

A network of drainage ditches drain portions of the ecoregion, and agriculture accounts for less than 10 percent of land use.

Environmental concerns for this region include long-range atmospheric transport of pollutants (mercury, etc.) or are confined to specific areas associated with agricultural production, logging or potential peat-mining operations.

Comparison Tables

Below are tables combining the information presented in the previous section. These tables make it easier to compare how water quality varies across Minnesota's ecoregions.

[Printable Version of Comparison Tables](#)

Typical summer lake water quality conditions in Minnesota's ecoregions

	Red River Valley	Northern Minnesota Wetlands	Northern Lakes and Forests	North Central Hardwood Forests	Northern Glaciated Plains	Western Corn Belt Plains	Driftless Area*
pH	8.6 – 8.8	7.2 – 8.3	7.2 – 8.3	8.6 – 8.8	8.3 – 8.6	8.2 – 9.0	N/A
TSS (in mg/L)	2 – 6	<1 – 2	<1 – 2	2 – 6	10 – 30	7 – 18	N/A
NO ₃ (in mg/L)	<0.01	<0.01	<0.01	<0.01	.01 – .1	0.01 – 0.02	N/A
TP (in mg/L)	0.023 – 0.050	0.014 – 0.027	0.014 – 0.027	0.023 – 0.050	0.130 – 0.250	0.065 – 0.150	N/A
Turb (in NTU)	1 – 2	<2	<2	1 – 2	6 – 17	3 – 8	N/A
Secchi (in m)	1.5 – 3.2	2.4 – 4.6	2.4 – 4.6	1.5 – 3.2	0.3 – 1.0	0.5 – 1.0	N/A
Chl- <i>a</i> (in µg/L)	5 – 22	<10	<10	5 – 22	30 – 55	30 – 80	N/A
TKN (in mg/L)	<0.60 – 1.2	<0.75	<0.75	<0.60 – 1.2	1.8 – 2.3	1.3 – 2.7	N/A

* Very few lakes exist in this ecoregion.

Typical annual stream water quality conditions in Minnesota's ecoregions

	Red River Valley	Northern Minnesota Wetlands	Northern Lakes and Forests	North Central Hardwood Forests	Northern Glaciated Plains	Western Corn Belt Plains	Driftless Area
pH	8.0 – 8.4	7.6 – 7.9	7.4 – 7.9	7.9 – 8.3	8.0 – 8.3	8.0 – 8.2	7.9 – 8.3
TSS (in mg/L)	11 – 59	4.8 – 16	1.8 – 6	4.8 – 16	11 – 63	10 – 61	4.8 – 16
NO _x (in mg/L)	0.01 – 0.21	0.01 – 0.08	0.01 – 0.09	0.04 – 0.26	0.01 – 0.51	1.4 – 7.4	0.04 – 0.26
TP (in mg/L)	0.11 – 0.3	0.04 – 0.09	0.02 – 0.05	0.06 – 0.15	0.09 – 0.25	0.16 – 0.33	0.06 – 0.15
Turb (in NTU)	6 – 23	4.1 – 10	1.7 – 4.3	3 – 8.5	5.6 – 23.5	5.2 – 22	3 – 8.5
FC (in # organisms per 100 ml)	20 – 220	20 – 40	11 – 20	40 – 360	20 – 410	70 – 790	40 – 360
Temp (degrees C)	0 – 21	0 – 20	0.5 – 17	2 – 21	2.5 – 22	3.5 – 20	2 – 21
BOD ₅ (in mg/L)	1.8 – 4.1	1.1 – 2.1	0.8 – 1.7	1.5 – 3.2	2.3 – 4.5	2.0 – 5.5	1.5 – 3.2

If you have suggestions on how we can improve this site, or if you have questions or problems, please [contact us](#).
 If you have questions or problems with this Web site, contact webmaster@pca.state.mn.us
 Minnesota Pollution Control Agency, 520 Lafayette Road, St. Paul, MN 55155-4194
 Phone: 651-296-6300, 800-657-3864; 24-hour emergency number: 651-649-5451 or 800-422-0798; TTY: 651-282-5332,
 TTY 24-hour emergency number: 651-297-5353 or 800-627-3529

Table D-2. Permitted Waste Water Discharges

Permitted Waste Water Discharges

Facility Name	Analyte Parameters	Facility Name	Analyte Parameters
Badger WWTP		Marvin Windows & Doors	
MN0049506	BOD, Carbonaceous (20 C)	MN0055026	2,3,7,8-Tetrachlorodibenzo-p-dioxin
PER 001	Flow	PER 001	2,4,6-Trichlorophenol
WS001	TSS	SD001	Arsenic, Total
	pH		BOD, Carbonaceous (20 C)
			Flow
			Carbonate, Hardness (as CaCO3)
Greenbush WWTP			Lead, Total (as Pb)
MN0044431	BOD, Carbonaceous (20 C)		Mercury, Total (as Hg)
PER 001	Fecal Coliform, MPN or Membrane Filter (44.5 C)		Nitrogen, Ammonia
SD001	Flow		Nitrogen, Kjeldahl
	DO		Pentachlorophenol (PCP)
	TSS		Phosphorus, Total (as P)
	pH		Temperature
PER 001	BOD, Carbonaceous (20 C)		Xylene
WS001	Flow		p-I
	TSS	PER 001	BOD, Carbonaceous (20 C)
	pH	SD002	Flow
Polaris Industries			Oil and Grease, Total Recoverable (hexane extraction)
MNG120028	Chromium, Total (as Cr)		TSS
PER 001	Flow		p-I
WS001	Nickel, Total (as Ni)	PER 001	BOD, Carbonaceous (20 C)
	pH	SD003	Flow
Roseau WWTP			Oil and Grease, Total Recoverable (hexane extraction)
MNG580039	BOD, Carbonaceous (20 C)		TSS
PER 002	Fecal Coliform, MPN or Membrane Filter (44.5 C)		p-I
SD001	Flow	PER 001	BOD, Carbonaceous (20 C)
	DO	SD004	Flow
	Phosphorus, Total (as P)		Oil and Grease, Total Recoverable (hexane extraction)
	TSS		TSS
	pH		p-I
PER 002	BOD, Carbonaceous (20 C)	PER 001	BOD, Carbonaceous (20 C)
WS001	Flow	SD005	Flow
	Phosphorus, Total (as P)		Oil and Grease, Total Recoverable (hexane extraction)
	TSS		TSS
	pH		p-I
Warroad WWTP			
MN0025194	BOD, Carbonaceous (20 C)		
PER 001	Fecal Coliform, MPN or Membrane Filter (44.5 C)		
SD003	Flow		
	TSS		
	pH		
	DO		
PER 001	BOD, Carbonaceous (20 C)		
WS001	Flow		
	TSS		
	pH		

Contact MPCA for detailed report.

Figure D-9. Normal Annual Precipitation 1971-2000

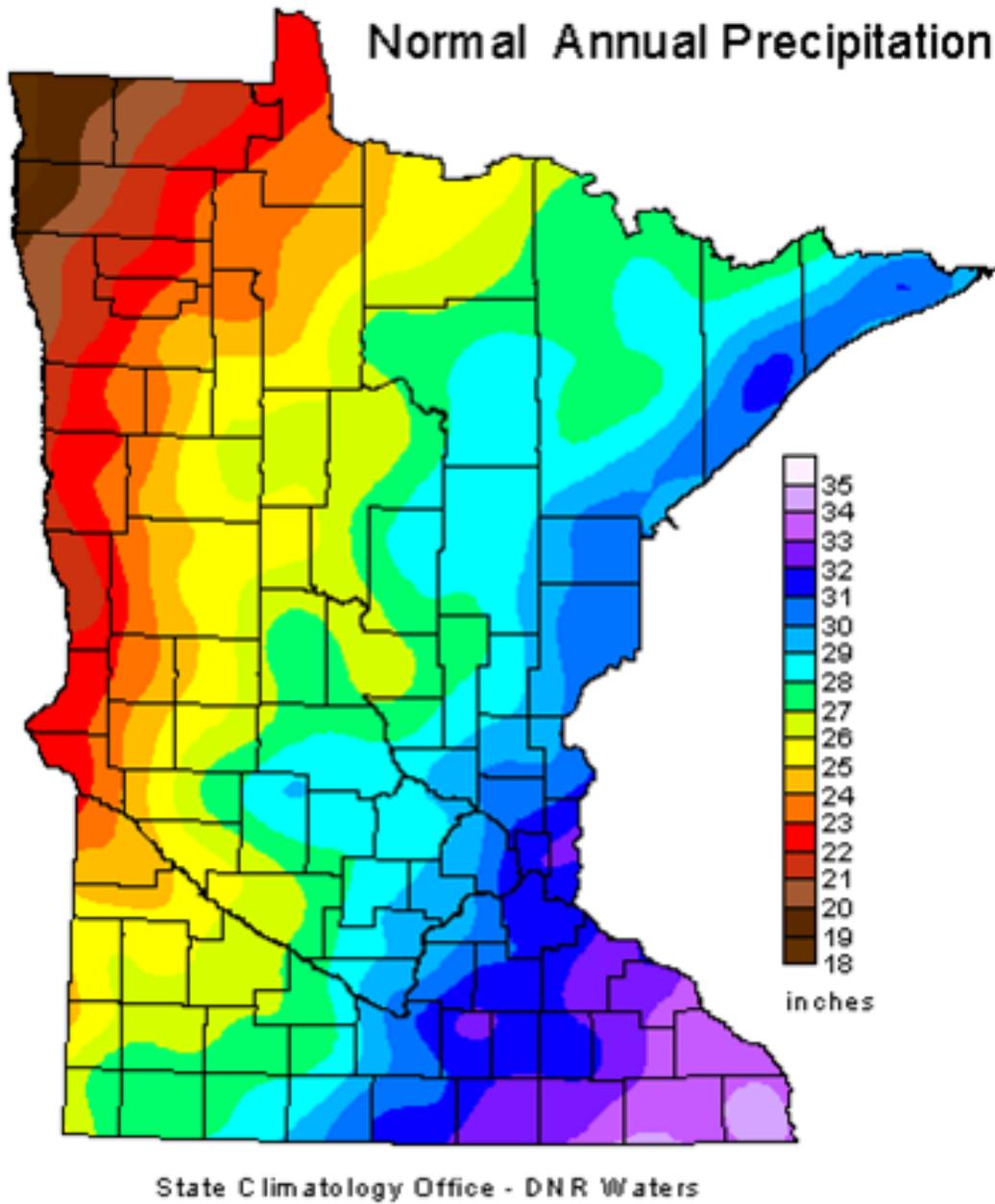
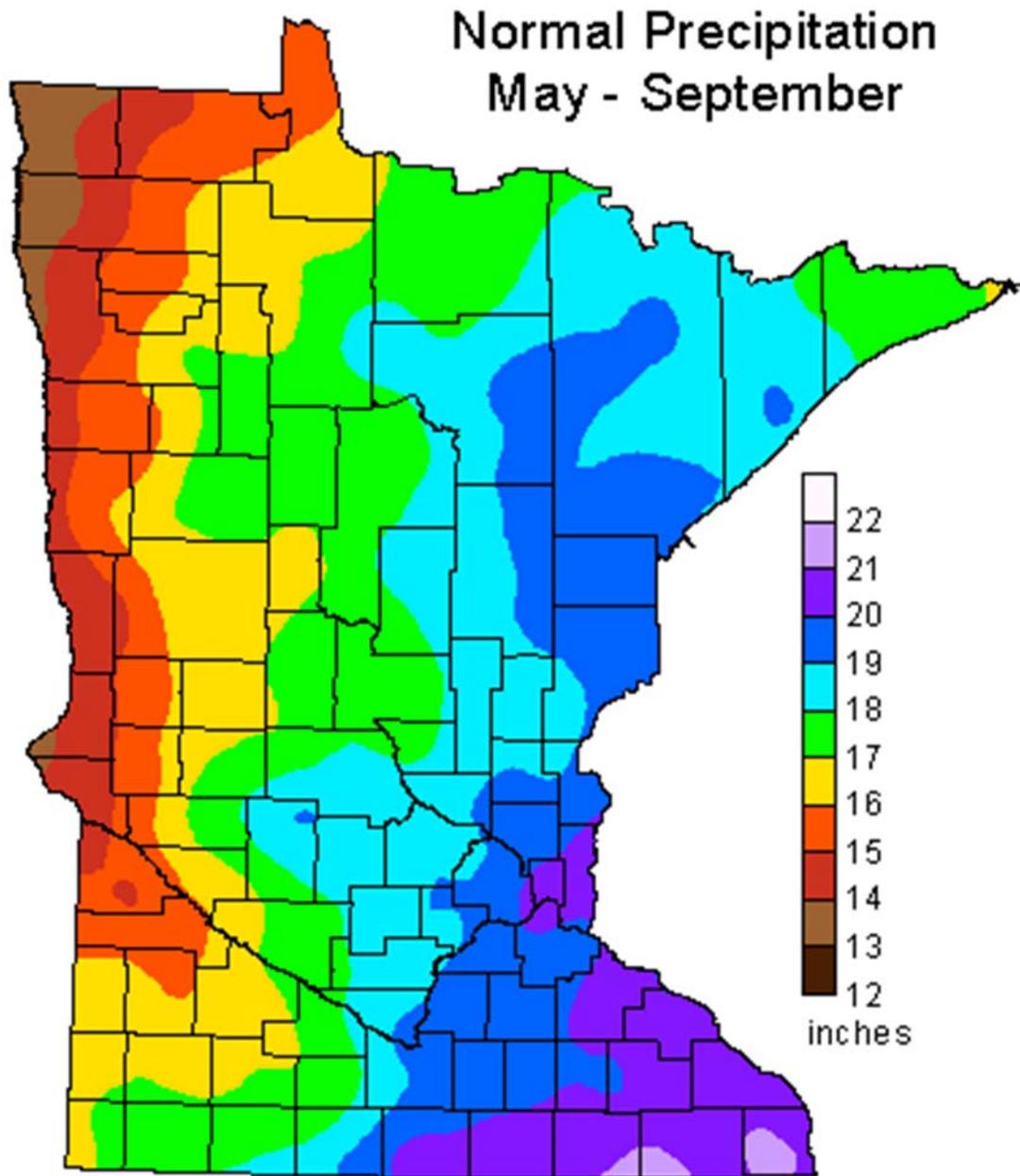


Figure D-10. Normal Precipitation May Through September 1971-2000



State Climatology Office - DNR Waters

Figure D-11. Rainfall Monitoring Network

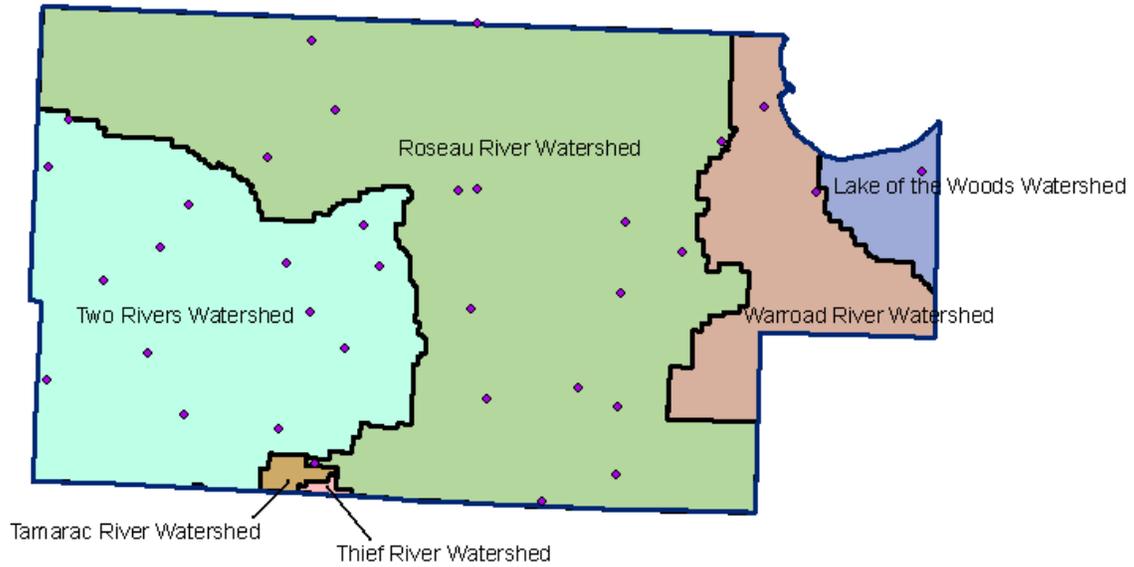
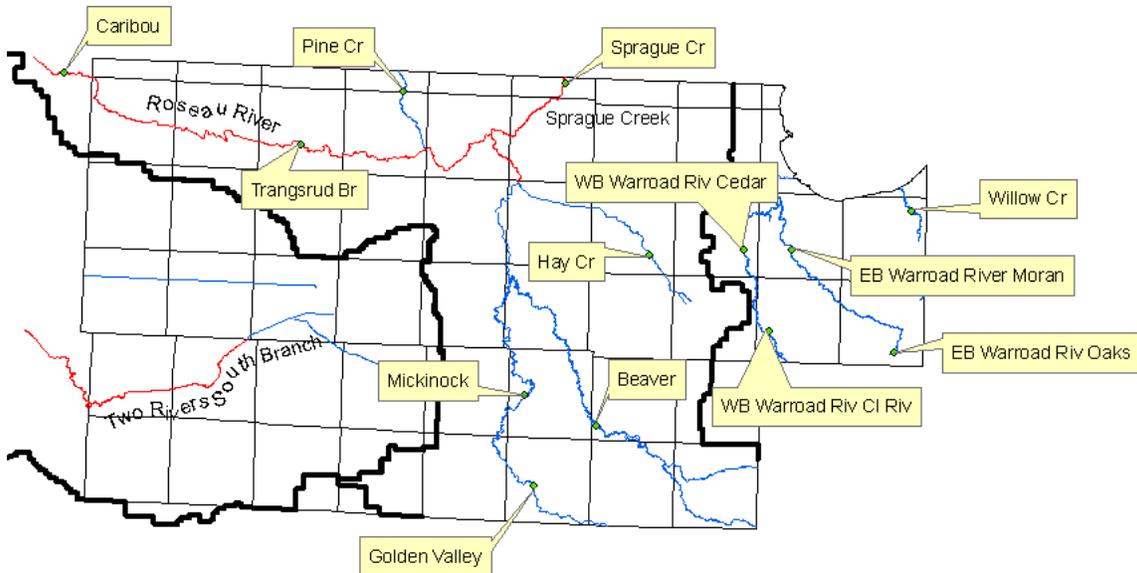


Figure D-12. SWCD Water Quality Monitoring Locations



**Appendix E
Groundwater**

**Groundwater Appropriation
Source Water Assessment
Groundwater Provinces
Groundwater Recharge
State Baseline Study
Salol Sanitary Landfill Summary
Open Dump and Landfill Inventory Sites
Registered Underground Storage Tank List
Underground Storage Tank Leak List
List of Hazardous Waste Generators**

Figure E-1.

Appropriation Permit Index Notes

MN-DNR Water Appropriation permits are required for withdrawals greater than 10,000 gallons per day or one million gallons per year.

The permit index shows each installation of all active permits. Use, agricultural acreage, permitted pumping rate (in gallons per minute) and permitted volume (in millions of gallons per year) are repeated for each installation, but pertain to the permit as a whole.

Blank values mean no reported pumping or no report.

Water Appropriation Permit Index Key

Minnesota DNR Water Appropriation permits are required for withdrawals greater than 10,000 gallons per day or one million gallons per year.

Use Codes

WATERWORKS

- 211. Municipal
- 212. Private waterworks
(trailer courts, small housing units)
- 213. Commercial and Institutional
(business, industry, hospital)
- 214. Cooperative waterworks
- 215. Fire protection
- 216. Campgrounds, waysides, highway rest areas
- 217. Rural Water Districts
- 219. Waterworks

POWER GENERATION

- 221. Hydro power
- 222. Steam power cooling-once through
- 223. Steam power cooling-wet tower
- 224. Steam power cooling-ponds
- 225. Steam power-other than cooling
- 226. Nuclear power plant
- 229. Power generation

AIR CONDITIONING

- 231. Commercial building A/C
- 232. Institutions (school, hospital)
- 233. Heat pumps
- 234. Coolant pumps
- 235. District heating/cooling
- 239. Once-through heating or A/C
- 238. Air conditioning

INDUSTRIAL

- 241. Agricultural processing (food & livestock)
- 242. Pulp and paper processing
- 243. Mine processing (not sand & gravel washing)
- 244. Sand and gravel washing
- 245. Industrial process cooling once-through
- 246. Petroleum-chemical processing, ethanol
- 247. Metal processing
- 248. Non-metallic processing (rubber, plastic, glass)
- 249. Industrial processing

TEMPORARY (12 months or less)

- 251. Construction (non-dewatering)
- 252. Construction (dewatering)
- 253. Pipeline & tank testing
- 254. Landscape watering
- 255. Pollution containment
- 256. Water level maintenance
- 257. Livestock waste treatment
- 258. Temporary agricultural irrigation
- 259. Temporary

WATER LEVEL MAINTENANCE

- 261. Basin (lake) level
- 262. Mine dewatering
- 263. Quarry dewatering
- 264. Sand/gravel pit dewatering
- 265. Tile drainage and pumped sumps
- 266. Dewatering
- 269. Water level maintenance

SPECIAL CATEGORIES

- 271. Pollution containment
- 272. Aquaculture (hatcheries, fisheries)
- 273. Snow/ice making
- 274. Peat fire control
- 275. Livestock watering
- 276. Pipeline and tank testing
- 277. Sewage treatment
- 279. Special categories

NON-CROP IRRIGATION

- 281. Golf course
- 282. Cemetery
- 283. Landscaping/athletic fields
- 284. Sod farm
- 285. Nursery
- 286. Orchard
- 289. Non-crop irrigation

MAJOR CROP IRRIGATION

- 290. Major crop irrigation
- 296. Wild rice irrigation

* indicates Multi-Use Permits

Resource Codes	Status Codes
1 - Ground Water	1 - Active
2 - Lake	2 - Standby
3 - Stream/River	3 - Abandoned
4 - Ditch	4 - Terminated
5 - Dug Pit/Holding Pond	99 - Non-Authorized
6 - Quarry/Mine/Gravel Pit	
7 - Wetland	
	Fee Codes
	E - Exempt from Fees
	N - Non-Profit

County Codes

1 Aitkin	30 Isanti	59 Pipestone
2 Anoka	31 Itasca	60 Polk
3 Becker	32 Jackson	61 Pope
4 Beltrami	33 Kanabec	62 Ramsey
5 Benton	34 Kandiyohi	63 Red Lake
6 Big Stone	35 Kittson	64 Redwood
7 Blue Earth	36 Koochiching	65 Renville
8 Brown	37 Lac Qui Parle	66 Rice
9 Carlton	38 Lake	67 Rock
10 Carver	39 Lake of the Woods	68 Roseau
11 Cass	40 Le Sueur	69 St. Louis
12 Chippewa	41 Lincoln	70 Scott
13 Chisago	42 Lyon	71 Sherburne
14 Clay	43 McLeod	72 Sibley
15 Clearwater	44 Mahnommen	73 Stearns
16 Cook	45 Marshall	74 Steele
17 Cottonwood	46 Martin	75 Stevens
18 Crow Wing	47 Meeker	76 Swift
19 Dakota	48 Mille Lacs	77 Todd
20 Dodge	49 Morrison	78 Traverse
21 Douglas	50 Mower	79 Wabasha
22 Faribault	51 Murray	80 Wadena
23 Fillmore	52 Nicollet	81 Waseca
24 Freeborn	53 Nobles	82 Washington
25 Goodhue	54 Norman	83 Watonwan
26 Grant	55 Olmsted	84 Wilkin
27 Hennepin	56 Otter Tail	85 Winona
28 Houston	57 Pennington	86 Wright
29 Hubbard	58 Pine	87 Yellow Medicine

Table E-1.

MN DNR Water Appropriation Permits			All Active Permits - By County & Location						8/25/2008				
Roseau County									Reported Pumping in MG				
Permit - Inst	Permittee	Use Co Twp Rng Sec SubSec shed	Water Well Resource Code/Name	----- Permitted -----			-----					Status	
				Acres	GPM	MG/Y	2003	2004	2005	2006	2007		
2003-1053 - POND	GREENBUSH GOLF ASSOCIATION	281 68	70	5	8	80	3.4		1.3	1.3		2.1	1
2003-1053 - 1	GREENBUSH GOLF ASSOCIATION	281 68	70	508566 1 QBAA	8	80	3.4	3.2	1.5	1.6	3.2	2.8	1
1975-1161 - 2	GREENBUSH, CITY OF	211 68	70	215204 1 QBAA		500	42.0						3
1975-1161 - 1	GREENBUSH, CITY OF	211 68	70	219774 1 QBAA		500	42.0						3
1975-1161 - 3	GREENBUSH, CITY OF	211 68	70	219774 1 QBAA		500	42.0	.2	5.7		1.6	.2	1
1975-1161 - 4	GREENBUSH, CITY OF	211 68	70	215204 1 QBAA		500	42.0	32.9	32.4	27.0	40.2	36.4	1
1981-1049 - 1	JOHNSON, JEAN E	290 68	71	150098 1 QBAA	390	600	65.0						1
1972-0514 - 1	BADGER, CITY OF	211 68	70	239914 1 QBAA		204	22.0	13.1	11.9	13.6	13.2	11.5	1
1977-1674 - 1	TMHP INC	212 68	71	125745 1 QWTA		38	8.0	2.4	1.4	1.3	1.5	3.0	3
1977-1674 - 2	TMHP INC	212 68	71	132180 1 QWTA		38	8.0						3
1961-1084 - 1	ROSEAU, CITY OF	211 68	71	1 QBAA		1,400	230.0						3
1961-1084 - 5	ROSEAU, CITY OF	211 68	71	220237 1 QBAA		1,400	230.0						2
1961-1084 - 2	ROSEAU, CITY OF	211 68	71	1		1,400	230.0						3
1961-1084 - 6	ROSEAU, CITY OF	211 68	71	220240 1 QBAA		1,400	230.0	67.8	60.6	61.3	64.8	52.5	3
1961-1084 - 8	ROSEAU, CITY OF	211 68	71	533054 1 QBAA		1,400	230.0	47.0	45.8	47.2	46.6	44.0	1
1961-1084 - 4	ROSEAU, CITY OF	211 68	71	409242 1 QBAA		1,400	230.0	61.7	50.9	32.3	35.0	45.8	3
2005-1010 - NPUMFJOHNSON, HARVEY AND MARY		281 68	80	5	47	800	7.3				6.5	6.0	1
1993-1086 - 2	AMG INC	212 68	80	248658 1		80	4.4	2.0	2.0	2.0	2.0	2.0	1
1993-1086 - 1	AMG INC	213 68	80	248657 1		80	4.4	2.0	2.0	2.0	2.0	2.0	1
2005-1010 - SPUMFJOHNSON, HARVEY AND MARY		281 68	80	5	47	800	7.3		5.0	6.1			1
1994-1212 - 1	MARVIN WINDOWS AND DOORS	213 68	80	421612 1 QBAA		60	2.2	1.7	1.8	1.7	1.6	1.6	1
1981-1071 - 4	WARROAD, CITY OF	211 68	80	158578 1 QBAA		470	100.0	34.7	32.4	29.6	31.1	37.1	1
1981-1071 - 6	WARROAD, CITY OF	211 68	80	409223 1 QBAA		470	100.0	17.9	17.4	15.8	17.1	.1	1
1981-1071 - 3	WARROAD, CITY OF	211 68	80	240085 1 QBAA		470	100.0	.0		.0			1
1981-1071 - 5	WARROAD, CITY OF	211 68	80	139816 1 QBAA		470	100.0	33.8	29.8	29.8	34.7	42.0	1
1992-1155 - 1	BOHNENKAMP, JOHN AND BOBBIE	212 68	80	418231 1 QBAA		100	2.5	1.7	1.8	1.7	1.7	1.8	1
1992-1155 - 2	BOHNENKAMP, JOHN AND BOBBIE	212 68	80	418232 1 QBAA		100	2.5						1
1990-1029 - 3	LAKEWOOD PARK & SALES INC	212 68	71	405272 1 QBAA		300	16.0	7.4	7.4	7.4	7.4	7.4	1
1990-1029 - 1	LAKEWOOD PARK & SALES INC	212 68	71	243172 1 QBAA		300	16.0	4.5	4.5	4.5	4.5	4.5	1
1990-1029 - 2	LAKEWOOD PARK & SALES INC	212 68	71	415817 1 QBAA		300	16.0	4.5	4.5	4.5	4.5	4.5	1
2006-0578 - 1	MN DEPT OF NATURAL RESOURCES	261 68	71	2		11,000	30.0						1E

Table E-2.
DNR Waters

Site	Unique Well No	Well ID	Depth	Well Use	Roseau County Source Water Assessment		SWPA	Potential Contaminant Sources
					Aquifer Sensitivity	Well Integrity		
					High	Susceptible		
89 Cafe	00264138	#1		Primary				
AMG Inc	00248657	#1, Lot 4A	120	Primary	Glacial Deposits	Susceptible	No	
AMG Inc	00248658	#2, Golf	120	Primary	Glacial Deposits	Susceptible	No	
Badger	00238914	#1	150	Primary	Glacial Deposits	Not Susceptible	No	
Badger	00238915	#2	240	Primary	Glacial Deposits	Not Susceptible	No	
Badger Motel	00491954	#1	200	Primary	Bedrock	Susceptible	LP tank, sewer	
Bemis Hill Campground	00263213	#1		Primary	Glacial Deposits	Susceptible	Drain field, grave, LP tank, sewer, septic tank	
Belfred Lutheran Church (Stafford)	00170153	#1	97	Primary	Glacial Deposits	Susceptible	Drainfield, grave, LP tank, sewer, septic tank	
Bethesda Lutheran Church	00261241	#1		Primary	Glacial Deposits	Not Susceptible		
Bethlehem Lutheran Church	00502470	#1	112	Primary	Glacial Deposits	Not Susceptible		
Birch Ridge Campground	00660857	#1	110	Primary	Glacial Deposits	Not Susceptible		
Central Boiler & Central Fireplace	00513271	#1	192	Primary	Glacial Deposits	Not Susceptible		
Church of JCLS	00743376	#2	55	Primary	Bedrock	Not Susceptible		
Concordia Lutheran Church	00491466	#1	109	Primary	Glacial Deposits	Not Susceptible		
DJ's Saloi Store	00591013	#2	204	Primary	Glacial Deposits	Not Susceptible		
	00261239	#1	80	Primary	High	Susceptible	Drainfield, LP tank, pit, petroleum storage tank, sewer, septic tank	
Faith Lutheran Church	00261246	#1		Primary	High	Susceptible	Drainfield, LP tank, sewer, septic tank	
First Lutheran Church	00261237	#1	140	Seasonal	High	Susceptible	Inventory not completed	
First Lutheran Church	00508556	#2	95	Primary	Glacial Deposits	Not Susceptible	Inventory not completed	
Gery's Building Center	00614622	#1	94	Primary	Glacial Deposits	Not Susceptible	Drainfield, septic tank	
Greenbush	00215204	#4	178	Primary	Bedrock	Susceptible		
Gustav Adolph Lutheran Church	00261235	#1		Primary	High	Susceptible		
Hayes Lake State Park	00220402	#3	78	Primary	Glacial Deposits	Not Susceptible	Drainfield, petroleum storage tank, sewer, septic tank	
Hayes Lake State Park	00265379	#4		Primary	High	Susceptible	Inventory not completed	
Hayes Lake State Park	00220403	#5	166	Primary	Glacial Deposits	Not Susceptible	Inventory not completed	
Hayes Lake State Park	00265381	#6		Seasonal	High	Susceptible	Inventory not completed; may not meet MN DOH standards	
Hayes Lake State Park	00220401	#1	41	Primary	Glacial Deposits	Not Susceptible	Inventory not completed	
Hayes Lake State Park	00128423	#2	91	Primary	Glacial Deposits	Not Susceptible	Inventory not completed	
Hayes Lake State Park	00482190	#7	43	Primary	Bedrock	Not Susceptible	Inventory not completed	
Hope Community Church	00155653	#1	34	Primary	Bedrock	Not Susceptible	Drainfield, LP tank, sewer, septic tank	
Intercept Industries, Ltd	00531892	#1	165	Primary	Glacial Deposits	Not Susceptible		
Intercept Industries, Ltd	00268944	#2		Primary	High	Susceptible	No	
Lakewood Park & Sales	00248119	#2	124	Primary	Glacial Deposits	Susceptible	No	
Lakewood Park & Sales	002148120	#3	160	Primary	Glacial Deposits	Susceptible	No	
New Life Assembly of God Church	00261245	#1	102	Primary	High	Susceptible	Drainfield, LP tank, sewer, septic tank	
Norland Lutheran Free Church	00267744	#1		Primary	High	Susceptible	Cesspool, petroleum storage tank	
North Country Convenience Store	00591576	#1	28	Primary	Glacial Deposits	Not Susceptible	Drainfield, frost proof yard hydrant, interceptor (waste), LP tank, sewer, sewage lift station	
Northern Lights Mobile Home Park	00418231	North	49	Primary	Glacial Deposits	Not Susceptible	No	
Northern Lights Mobile Home Park	00418232	South	50	Primary	Glacial Deposits	Not Susceptible	No	
Oak Manor Mobile Home Park	00443083	#4	35	Primary	Bedrock	Not Susceptible	No	
Oak Manor Mobile Home Park	00548836	#5	65	Primary	Glacial Deposits	Not Susceptible	No	
Oiland Free Lutheran Church	00524509	#1	166	Primary	Glacial Deposits	Not Susceptible	No	
Paradise Mall	00421602	#1	151	Primary	Glacial Deposits	Not Susceptible	No	
Pine Grove Lutheran Church	00663205	#1	64	Primary	Glacial Deposits	Not Susceptible	No	
Pine Ridge Estates	00418239	#1	102	Primary	Glacial Deposits	Not Susceptible	No	
Pine Ridge Estates	00418249	#2	138	Primary	Glacial Deposits	Not Susceptible	No	
Riverfront Station	00560797	#1	89	Primary	Glacial Deposits	Not Susceptible	No	
Rivers Edge Bail & Convenience	00513269	#2	137	Primary	Glacial Deposits	Not Susceptible	No	
Riverside Lutheran Church	00261232	#1	89	Primary	High	Susceptible	Sewer	
Roosevelt Diner & Percy's Place	00264142	#1		Primary	High	Susceptible	Drainfield, interceptor, LP tank, petroleum storage tank, sewer, septic tank, sewage lift station	
Rose Free Lutheran Church	00583875	#2	101	Primary	Glacial Deposits	Not Susceptible		
Roseau	00409242	#7	155	Primary	Glacial Deposits	Not Susceptible		

Roseau	00533054	#8	152	Primary	Bedrock	High	Not Susceptible		
Roseau	00552737	#9	142	Primary	Glacial Deposits	High	Not Susceptible		
Roseau Evangelical Covenant Church	00261244	#1		Primary		High	Susceptible		Sewer, septic LP tank, sewer
Roseau Free Lutheran Church	00513277	#1	36	Primary	Glacial Deposits	High	Not Susceptible		
Springsteel Island Resort	00248123	#1	150	Primary	Glacial Deposits	High	Susceptible	No	
Springsteel Island Resort	00735666	#2	75	Primary	Glacial Deposits	High	Not Susceptible	No	
Springsteel Resort	00220288	#1	84	Primary	Glacial Deposits	Low	Susceptible		LP tank, petroleum storage tank, sewer, operating well
Springsteel Resort	00443109	#2	154	Primary	Glacial Deposits	Low	Not Susceptible		LP tank, petroleum storage tank, sewer, operating well
Springsteel Resort	00485798	#3	178	Primary	Glacial Deposits	Low	Not Susceptible		LP tank, petroleum storage tank, sewer, operating well
Spruce Free Lutheran Church	00220188	#1	127	Primary	Glacial Deposits	Low	Susceptible		LP tank, petroleum storage tank, sewer, operating well
St. Phillip's Catholic Church (Falun)	00263016	#1		Primary		High	Susceptible		Drainfield, septic tank
Strathcona City Well	00261234	#1	150	Primary		High	Susceptible		Drainfield, petroleum storage tank, sewer, septic tank
Timberline Mobile Home Park	00264274	#4		Primary	Glacial Deposits	High	Susceptible	No	Drainfield, frost proof yard hydrant, interceptor (waste), LP tank, sewer, sewage lift station, septic tank
Timberline Mobile Home Park	00591022	#5	118	Primary	Glacial Deposits	High	Not Susceptible	No	
US Customs and Border Protection (Roseau)	00735671	#3	109	Primary	Glacial Deposits	Low	Not Susceptible		
US Customs and Border Protection (Warroad)	00261243	#1		Primary		High	Susceptible		Drainfield, LP tank, sewer, septic tank, sewage lift station
US Customs and Border Protection (Roseau)	00261240	#1	120	Primary	Glacial Deposits	High	Susceptible		Drainfield, LP tank, sewer, sewage lift station
Wannaska School Community Building	00219748	#1		Primary	Glacial Deposits	Low	Not Susceptible		
Warroad	00158578	#4	154	Primary	Glacial Deposits	Low	Not Susceptible	No	
Warroad	00139816	#5	138	Primary	Glacial Deposits	Low	Not Susceptible	No	
Warroad Baptist Church	00506553	#1	135	Primary	Glacial Deposits	Low	Not Susceptible		
Warroad Eagles 4195	00433656	#1	148	Primary	Glacial Deposits	Low	Not Susceptible		
Woodland Trailer Park	00249277	#1	85	Primary	Glacial Deposits	High	Susceptible	No	
Woodland Trailer Park	00248159	#2		Primary	Glacial Deposits	High	Susceptible	No	

<http://mnh-aqua.health.state.mn.us/swaf>

Well Integrity - Susceptible - Susceptible to contamination because it does not meet current construction standards or no information about well construction is available, regardless of aquifer sensitivity.

Blue - serves same people year-round (homes, businesses)

Green - serves same people, but not year-round
Black - does not consistently serve same people year-round

Figure E-2.

Ground water provinces: Minnesota DNR

Page 1 of 3

Ground water provinces

Ground water provinces data: Download GIS layers and metadata; links to source data and maps; table of selected aquifer parameters



Figure 1. Minnesota ground water provinces. [PDF/248KB]

Alternate province map with no cross section lines [PDF/849KB]

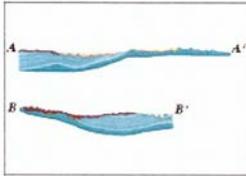


Figure 2. Cross sections of Minnesota ground water provinces. [PDF/381KB]



Figure 3. Bedrock aquifer types.

Introduction

Minnesota is generally considered to have abundant ground water. But that resource is not evenly distributed across the state. That uneven distribution can limit the amount of ground water available to industry and development in some areas. **(See also *Minnesota Profile--Groundwater, Minnesota Conservation Volunteer*).** The Minnesota Ground Water Provinces map summarizes aquifer and ground-water resource differences at the regional level.

The occurrence of ground water in Minnesota is related primarily to local geologic conditions that determine the type and properties of aquifers. Figure 1 shows the six ground water provinces of the state based on bedrock and glacial geology. Within each province, ground-water sources and the availability of ground water for drinking water, industrial, and agricultural uses are similar.

The aquifers within these provinces occur in two general geologic settings: bedrock comprising a wide range of rock types and ages, and unconsolidated sediments deposited by glaciers, streams, and lakes. The combination of physical aquifer attributes (thickness, lateral extent, permeability, and porosity type) of the two settings distinguishes the six ground water provinces within the state.

Figure 2 shows two generalized geologic cross sections that illustrate subsurface conditions along lines A-A' and B-B' on Figure 1.

Bedrock Aquifers

Bedrock type divides the state into two bedrock aquifer regions (Figure 3). In the southeastern third of Minnesota the bedrock aquifers consist of thick, laterally extensive sequences of sandstone, limestone, and dolostone of sedimentary origin. These layers are shown on the generalized cross sections (Figure 2) as the light blue stippled layers. In these bedrock aquifers, ground water occurs in granular pore spaces, partings, joints,

fractures, and dissolution features. Karst features are common in bedrock in the extreme southeast. Conditions vary locally, but generally these aquifers are capable of yielding sufficient quantities of ground water for most purposes.

The remainder of the state, as well as the sedimentary bedrock in the southeast part of the state, is underlain by bedrock of hard, and very old, igneous and metamorphic rocks (dark blue layer on cross sections). Ground water in these rocks occurs mostly in fractures that may not yield useable quantities of water. Above the hard, fractured bedrock in southwestern Minnesota, but also scattered elsewhere in the state, are Cretaceous sandstone aquifers that are interbedded with thick shale. These sandstone aquifers are relatively thin and only locally useful.



Figure 4. Unconsolidated aquifer types.

Unconsolidated Aquifers

Layered above bedrock nearly everywhere in the state are unconsolidated sediments deposited by glaciers, streams, and lakes. These sediments are shown in tan and brown on the cross sections (Figure 2). In the unconsolidated sediments setting, aquifers are surficial or buried sand and gravel that usually occur only locally. The state can be divided into three regions based on sediment composition and thickness (Figure 4).

In the northeast and southeast, unconsolidated sediments are generally thin or absent. The major river valleys in these regions are an exception, as these river valleys do contain sufficiently thick sediment for useable unconsolidated aquifers. In central and east-central Minnesota the unconsolidated sediments are relatively sandy and aquifers are more common. In the remainder of the state, sediments are relatively clayey and aquifers are less common.



Figure 5. Ground water provinces.

Ground Water Provinces

Combining the regions of the two general geology settings in Figures 3 (bedrock) and 4 (unconsolidated sediment) creates the ground water provinces shown in Figure 5.

Provinces 1 and 4 (metro and central, respectively) are characterized by buried sand aquifers and relatively extensive surficial sand plains as part of a thick layer of unconsolidated sediments deposited by glaciers overlying the bedrock. Province 1 is underlain by sedimentary bedrock that has good aquifer properties,

Table 1.
General availability

General Availability of Ground Water by Source			
Area	Surficial Sands	Buried Sands	Bedrock
1	Moderate	Moderate	Good
2	Limited	Moderate	Good
3	Limited	Limited	Good
4	Good	Moderate	Limited
5	Moderate	Limited	Limited
6	Limited	Limited	Limited

but in Province 4 the glacial sediments are thick, sand and gravel aquifers are common, and the deeper fractured bedrock is rarely used as an aquifer.

The unconsolidated glacial sediments of Provinces 2 and 5 (south-central and western, respectively) are typically clayey and may contain limited extent surficial and buried sand aquifers. In Province 2 the sedimentary bedrock aquifers are commonly used, but in Province 5 the fractured bedrock is usually buried deeply beneath glacial sediments and is only locally used as an aquifer.

The unconsolidated sediments in Provinces 3 (southeastern) and 6 (arrowhead) are thin or absent and, therefore, not used or relatively unimportant, except in major river valleys where sediment thickness is greater. However Province 3 is underlain by productive bedrock aquifers, but Province 6 is underlain by hard fractured bedrock that typically has limited ground-water yield.

Each of the provinces has a unique combination of aquifer characteristics that affect water availability. Table 1 shows general ground water availability by province for different ground water sources. The table shows that some parts of the state have several ground water resources to choose from, while other parts of the state may have only limited ground water resources available. Water resource planners, managers, and users should recognize these differences when evaluating ground-water resources for future use.

Suggestions for further reading:

Sustainability of Minnesota's ground water

DNR Waters reports

Minnesota Geological Survey publications list [EXT](#)

U.S. Geological Survey list of publications for Minnesota [EXT](#)

Figure E-3.

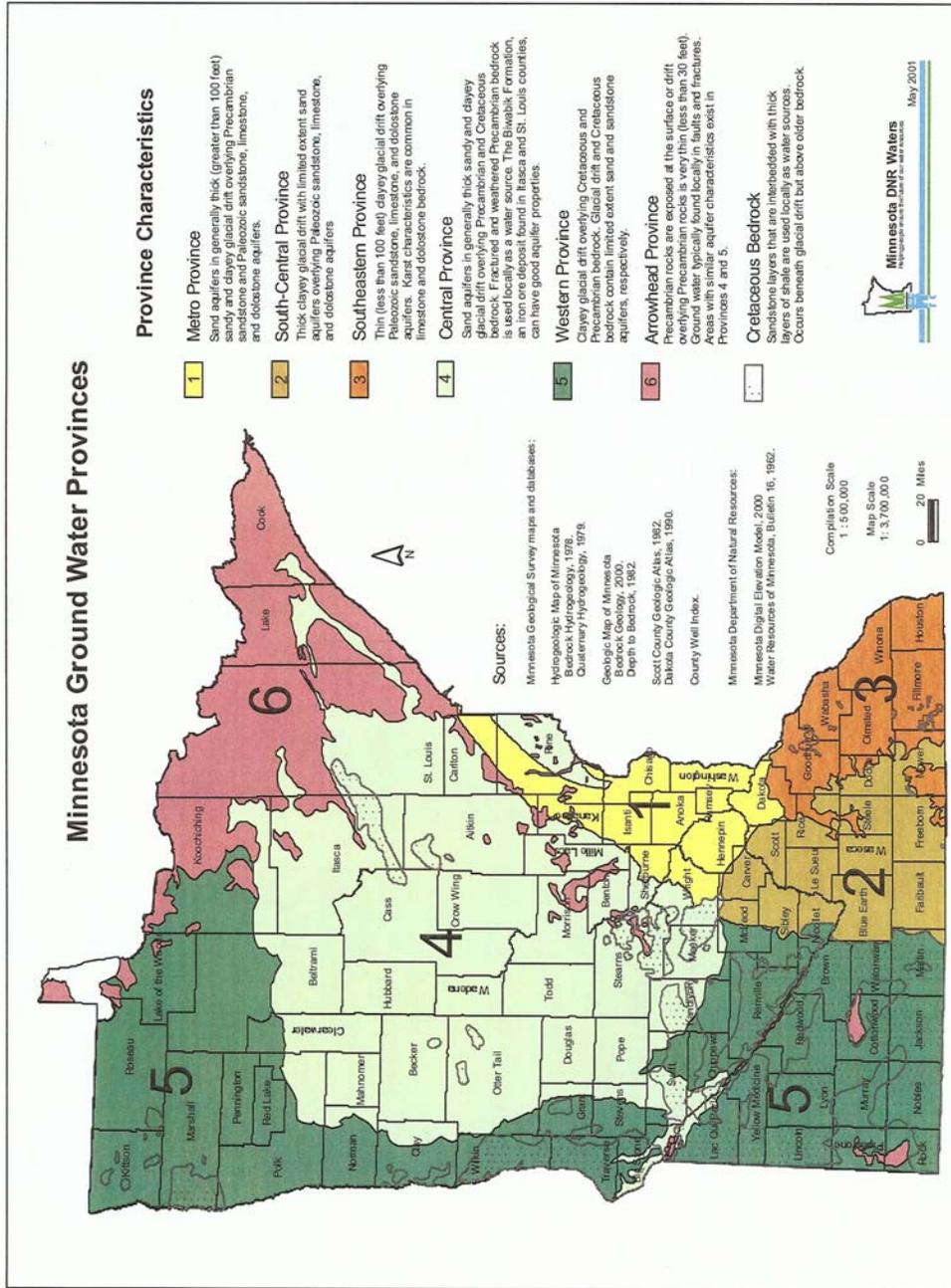


Figure E-4. Statewide Baseline Study

The Statewide Baseline Study was conducted between 1992 and 1996. The objectives of the Baseline Study were to establish median and 95th percentile concentrations for chemicals in the state's principal aquifers and to identify potential ground water quality concerns.

954 ground water samples were collected from across Minnesota (see figure below). About 95 percent of the samples were obtained from private drinking water wells. To accomplish this, we used nine square mile grids established on 11 mile centers. Within each grid, one sample was collected from each identified aquifer. The [Minnesota Department of Health County Well Index](#) was utilized to identify private drinking water wells.

Upon completion of the study, we conducted rigorous analysis of the data. Much of this data is summarized in reports and fact sheets that can be accessed through this web site. Comprehensive reports exist for each of the MPCA's six regions. Several fact sheets provide information for specific chemicals. Summary statistics were calculated for each chemical and results are presented for 30 aquifers and seven aquifer groups. In addition, we conducted correlation analysis between chemicals and other parameters, such as geographic location and well depth.

Map Showing Statewide Baseline Study Locations



Figure E-5. Arsenic

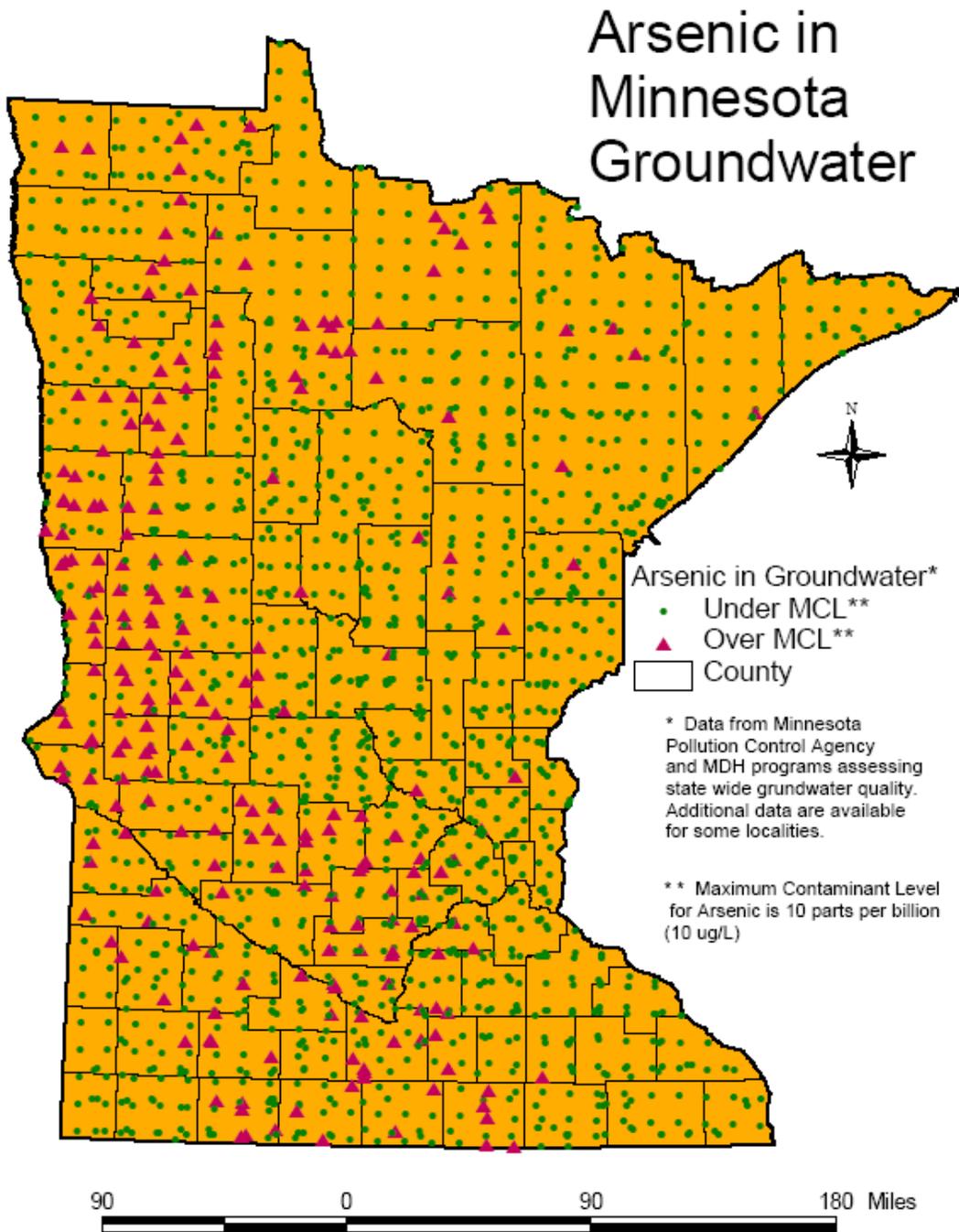


Figure E-6. Beryllium

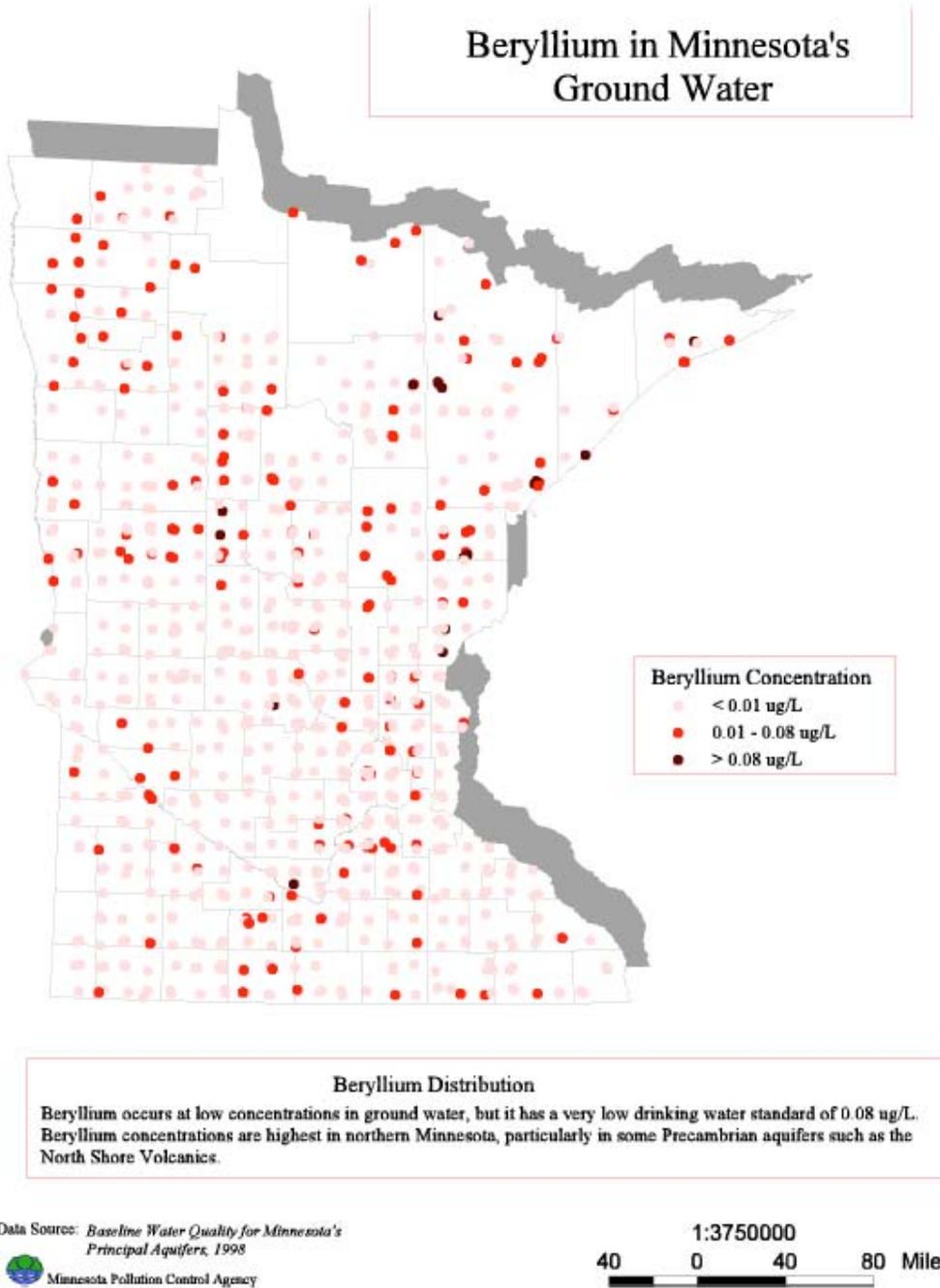
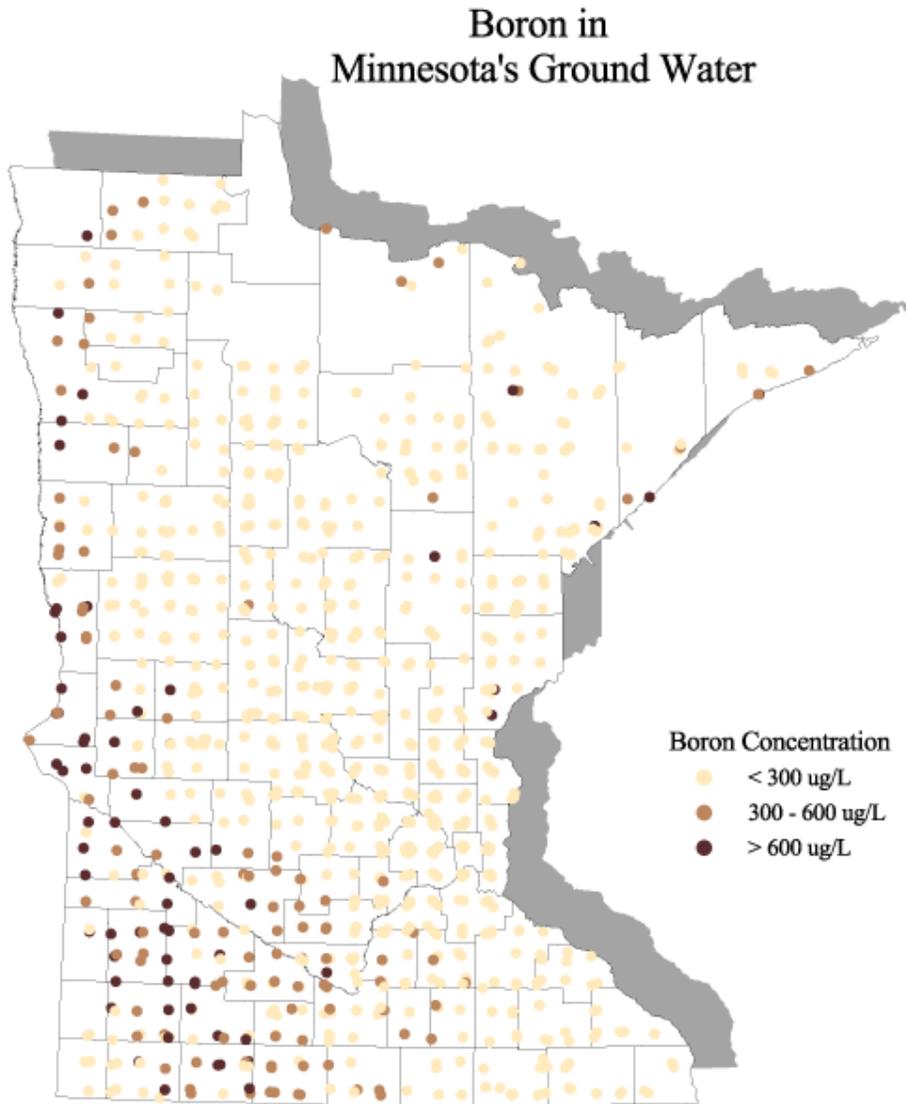


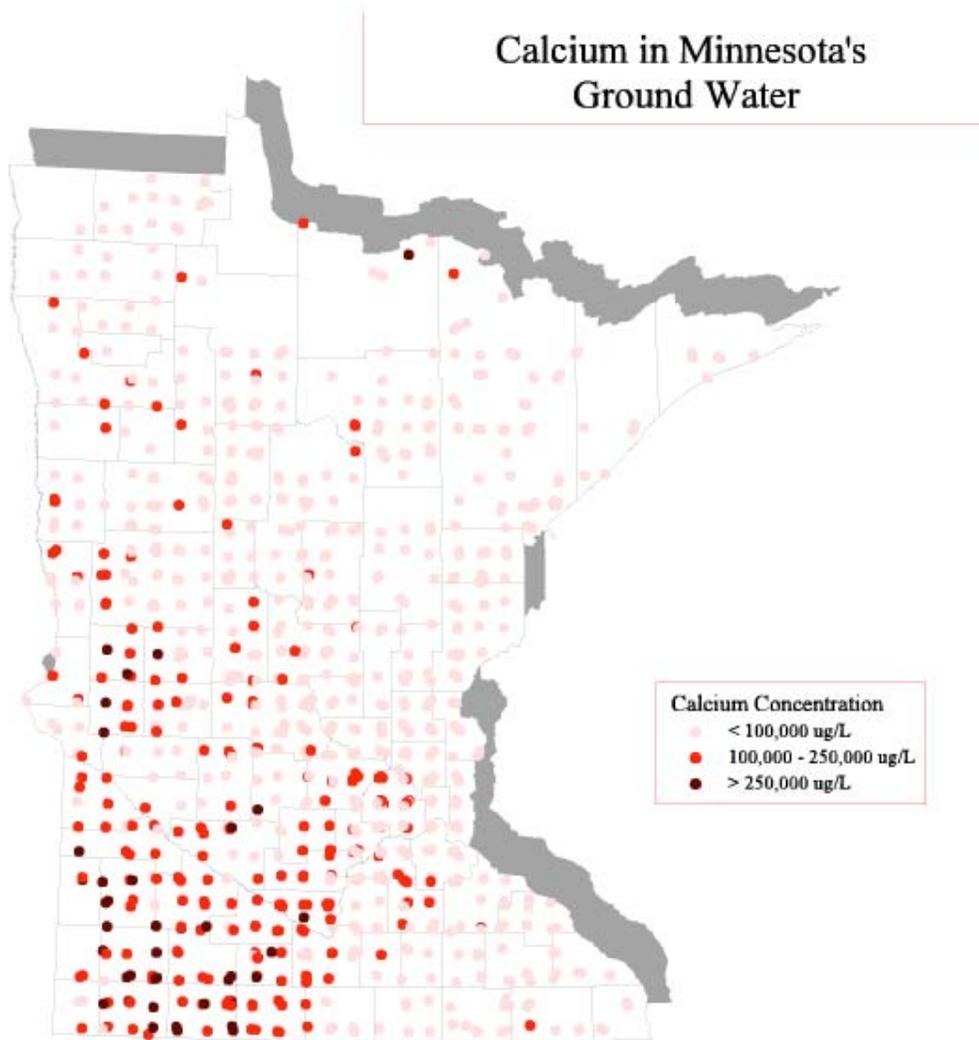
Figure E-7. Boron



Boron Distribution

The greatest concentrations of boron are in southwest and northeast Minnesota. Concentrations were low in central and southeast Minnesota. Most boron found in ground water is from natural sources, although there may be small contributions resulting from human activities.

Figure E-8 Calcium



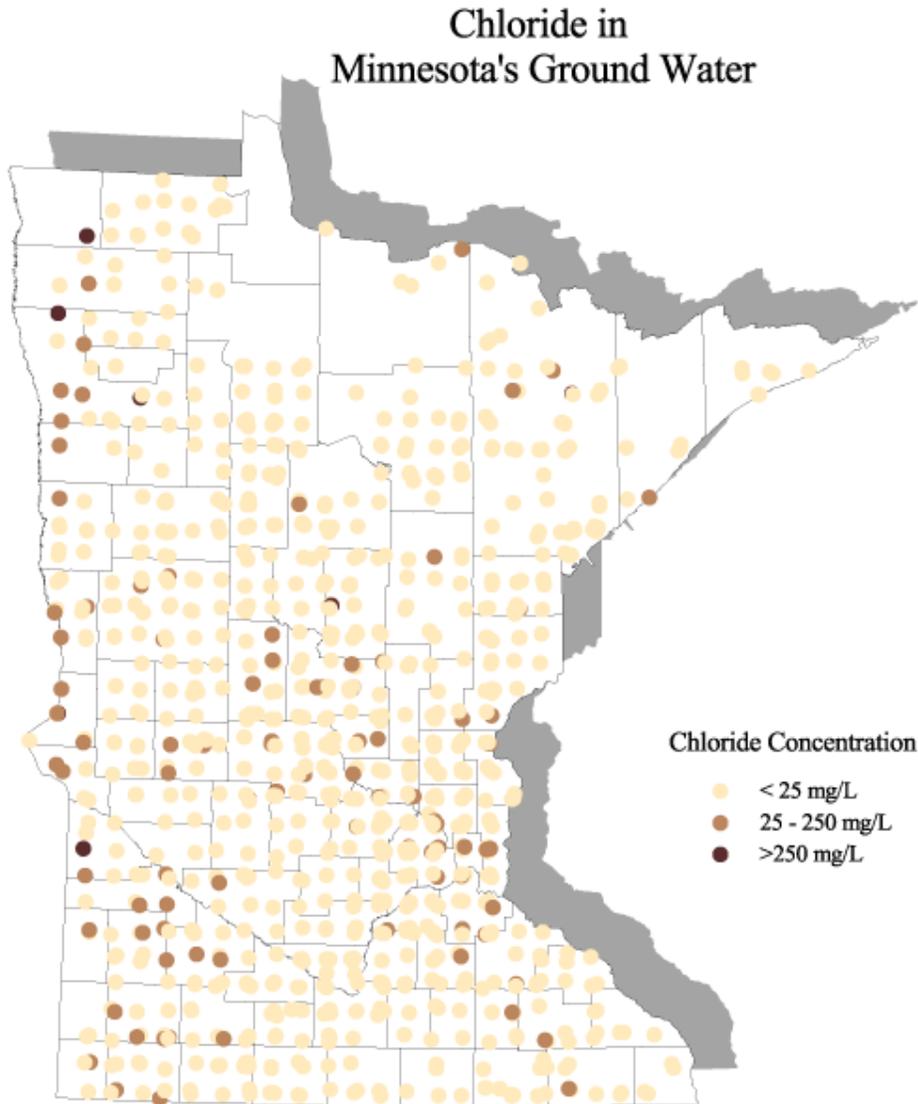
Calcium Distribution

Calcium concentrations mirror concentrations of total dissolved solids. Concentrations increase from east to west as a result of geology and ground water residence time. In most aquifers other than Cretaceous aquifers, calcium is the dominant cation.

Data Source: *Baseline Water Quality for Minnesota's Principal Aquifers, 1998*
Minnesota Pollution Control Agency
Ground Water Monitoring and Assessment Program



Figure E-9. Chloride



Chloride Distribution

Chloride concentrations can be elevated in different areas of the state, but concentrations increase from east to west. This is related to reduced recharge to ground water, increased residence times in ground water, and differences in geology from east to west.

Figure E-10. Iron

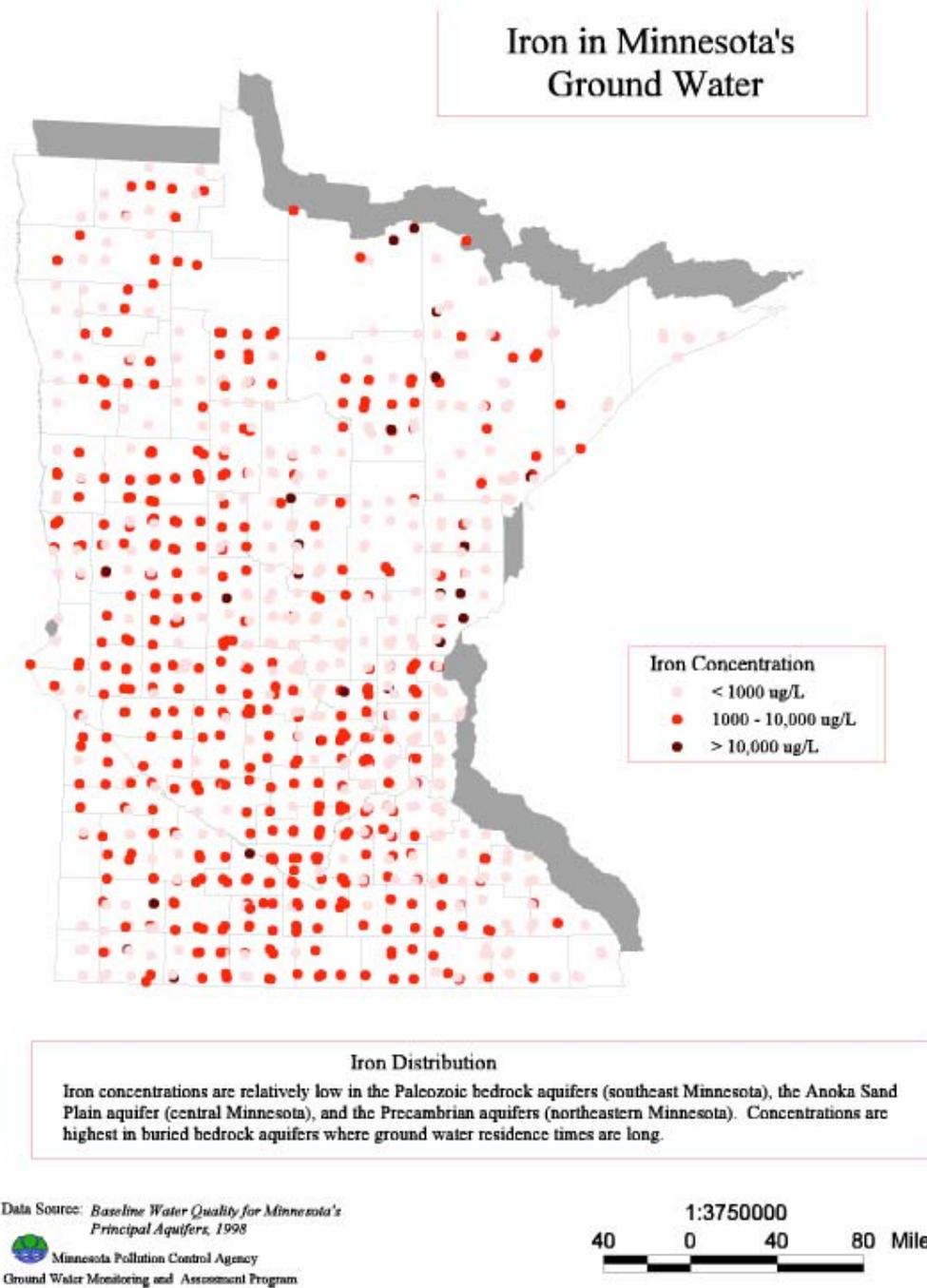
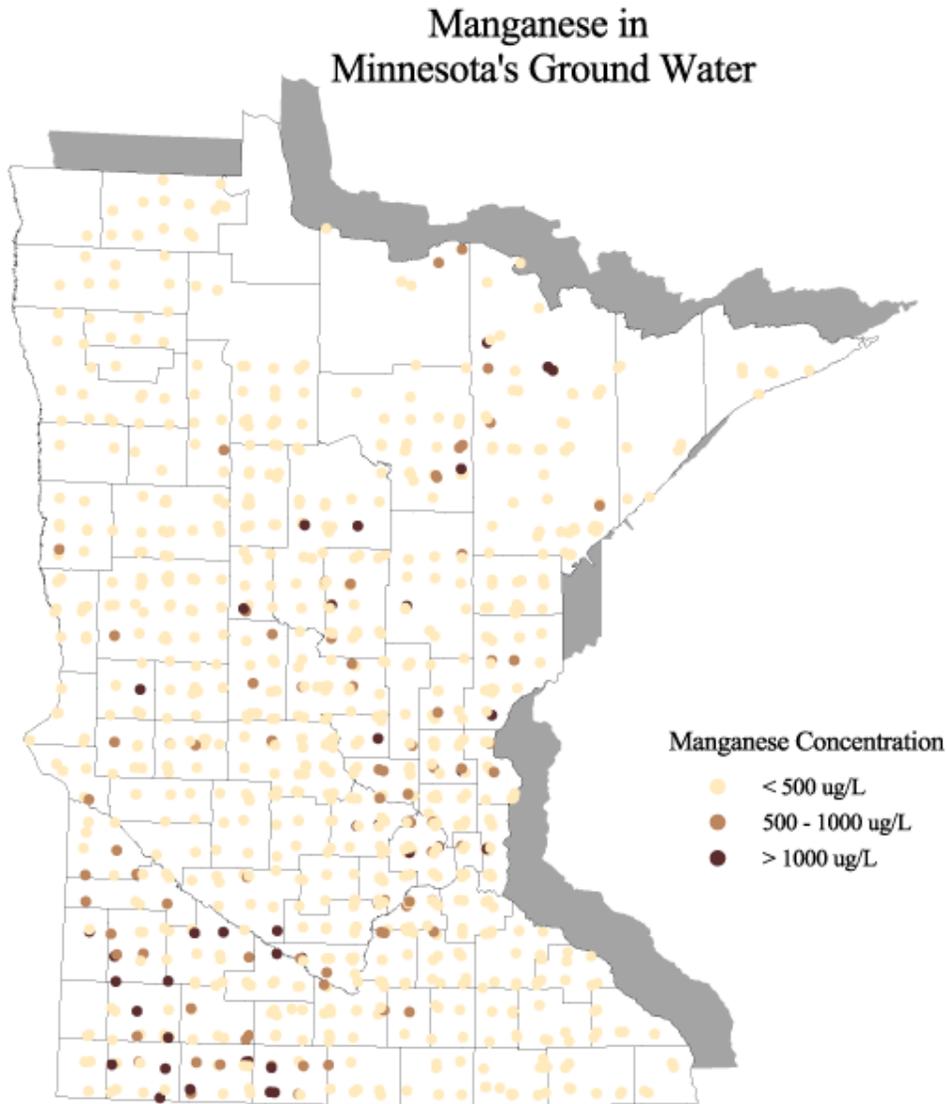


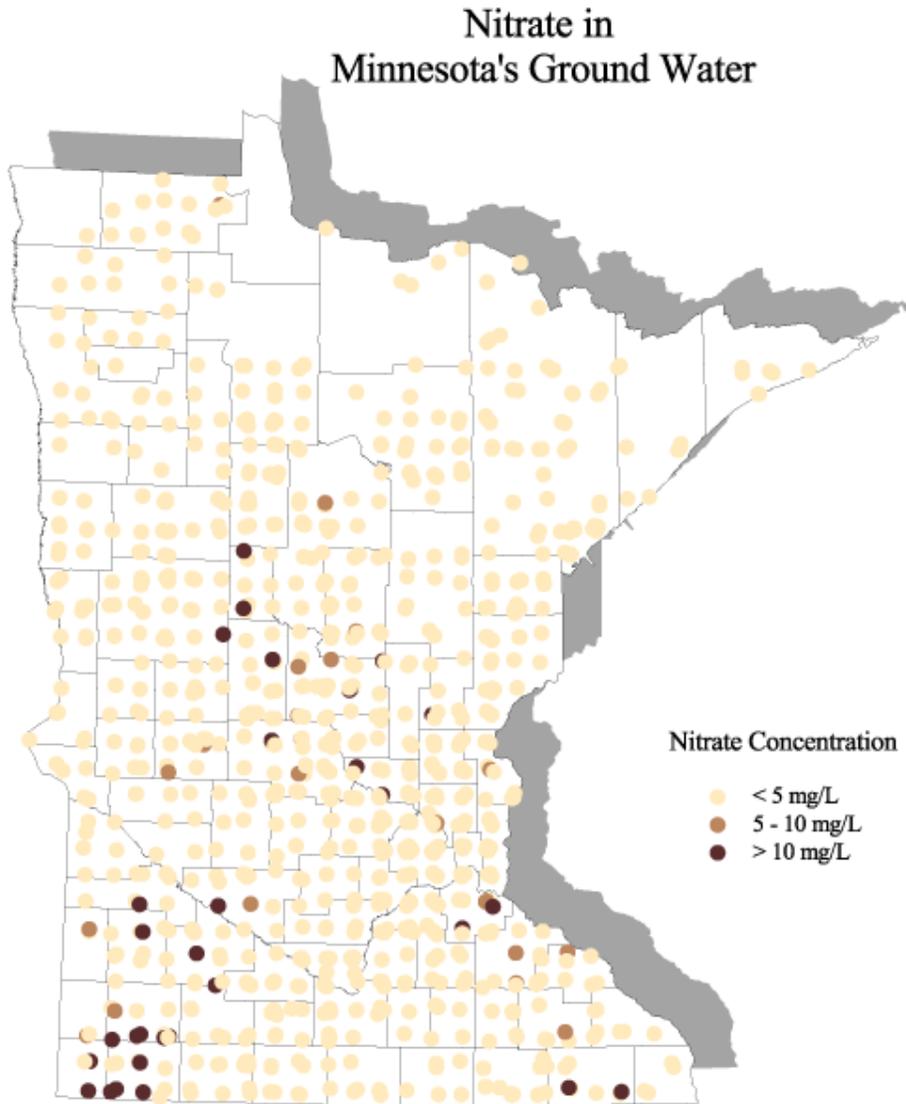
Figure E-11. Manganese



Manganese Distribution

Manganese is a naturally-occurring chemical in ground water. Although there are many uses of manganese in industrial processes, it is unlikely that human activity has much impact on manganese concentrations in ground water.

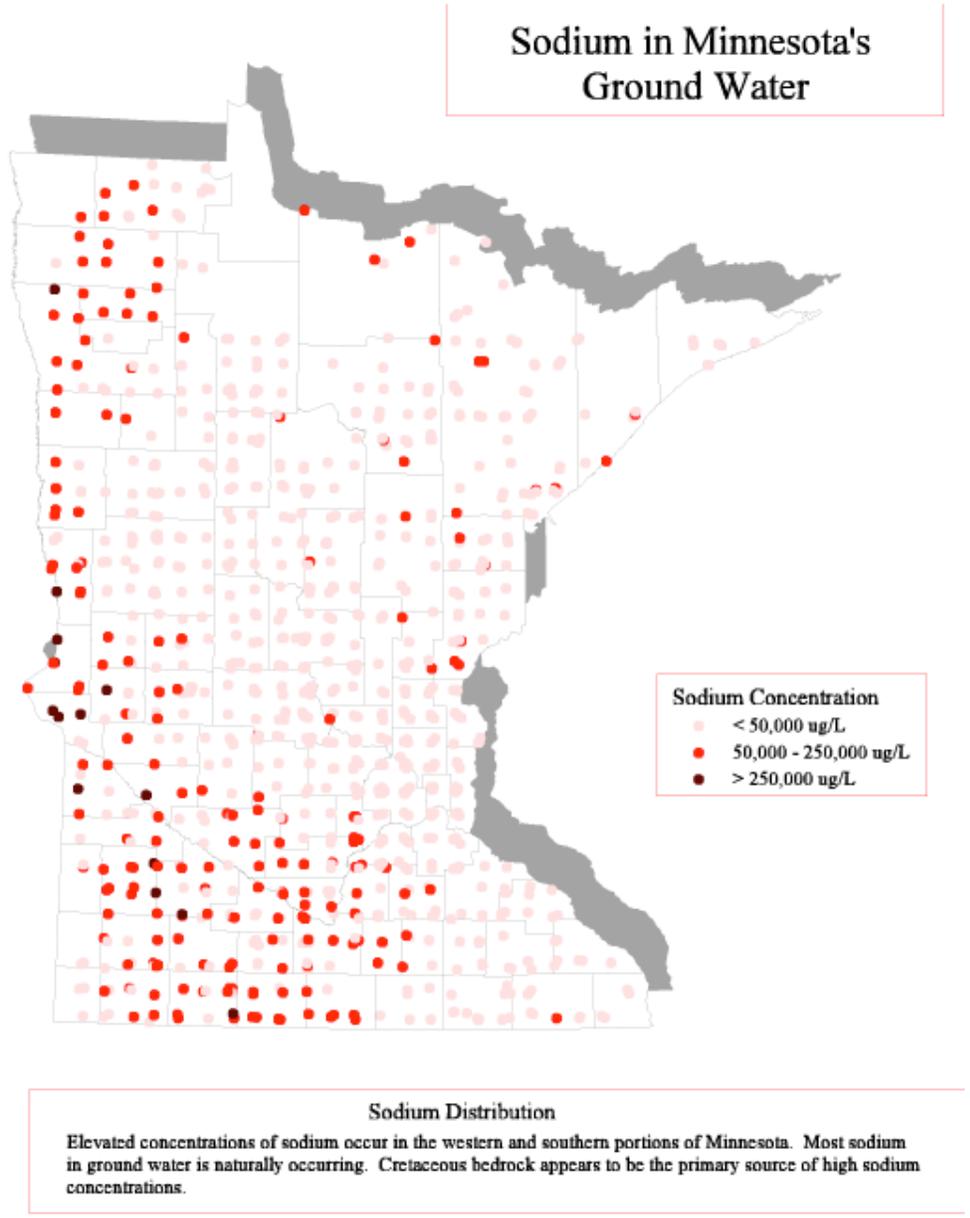
Figure E-12. Nitrate



Nitrate Distribution

Elevated nitrate concentrations are found throughout the state, but clusters of high concentrations are found in the southwest, southeast and central Minnesota. These are areas where shallow ground water is sensitive to contamination from human activity at the land surface.

Figure E-13. Sodium



Data Source: *Baseline Water Quality for Minnesota's Principal Aquifers, 1998*
Minnesota Pollution Control Agency
Ground Water Monitoring and Assessment Program

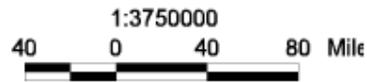


Figure E-14. Sulfate

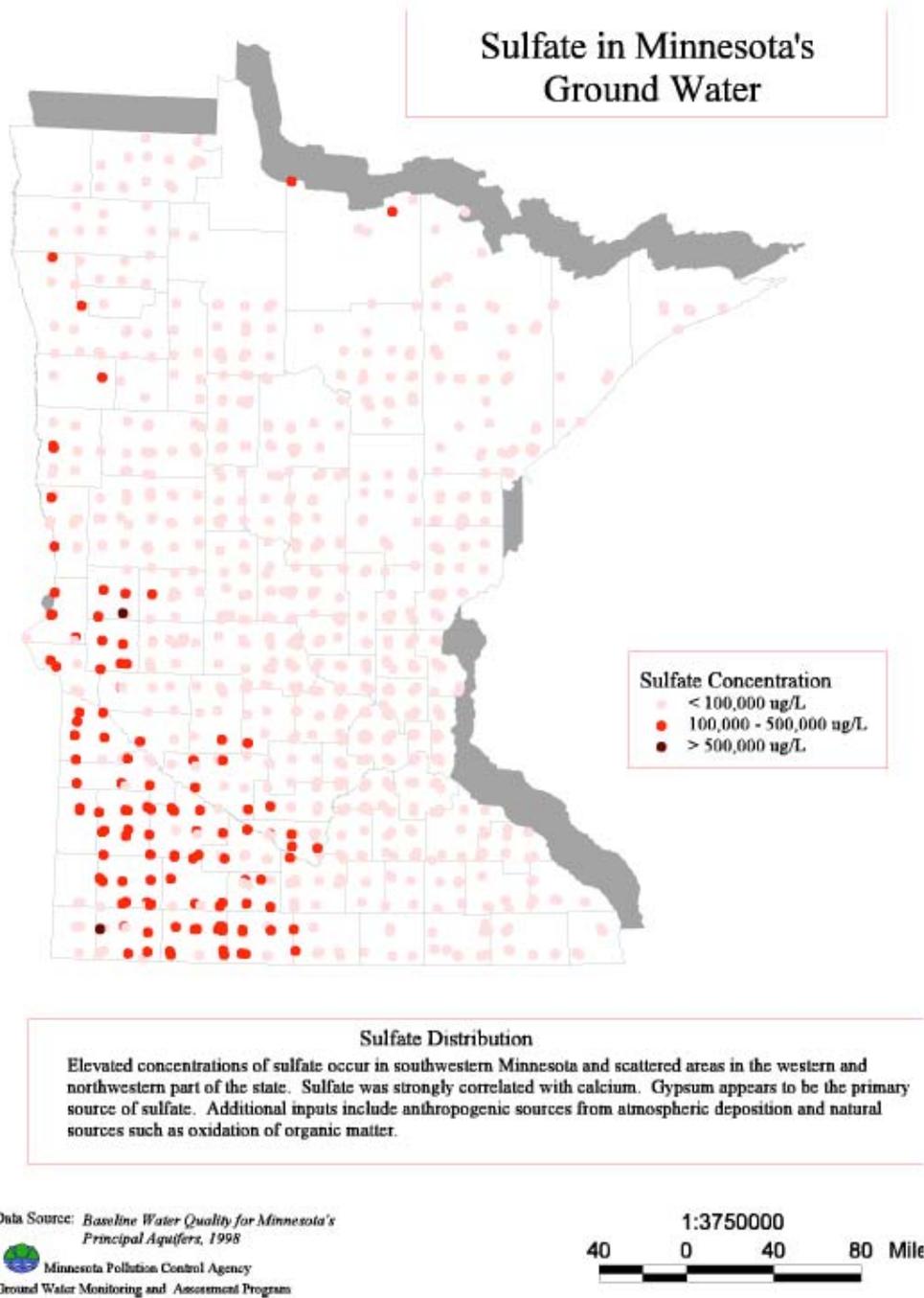
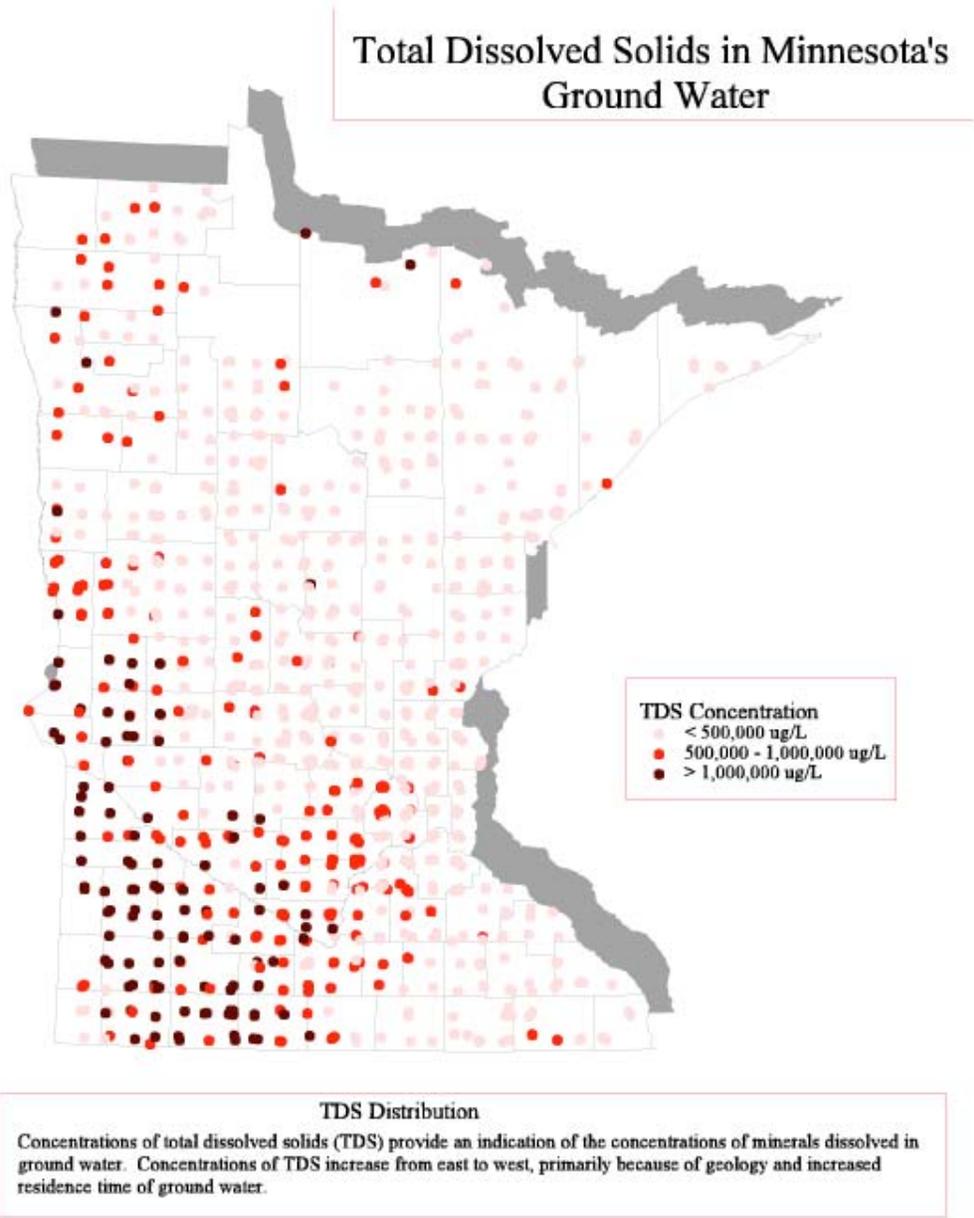


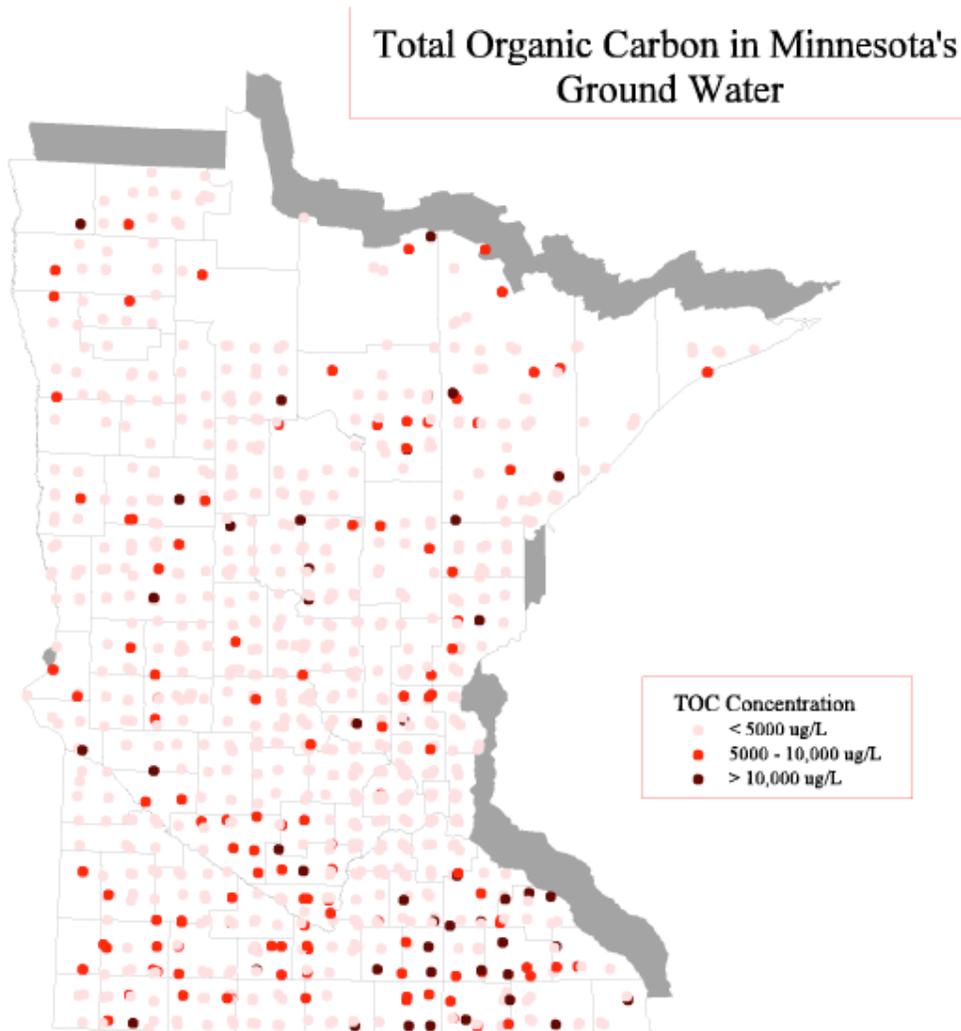
Figure E-15. Total Dissolved Solids



Data Source: *Baseline Water Quality for Minnesota's Principal Aquifers, 1998*
Minnesota Pollution Control Agency

1:3750000
40 0 40 80 Miles

Figure E-16. Total Organic Carbon



TOC Distribution

Carbon has important effects on the distribution of other chemicals in ground water. There are no strong spatial patterns to the distribution of carbon. Concentrations appear to be higher in the southern part of the state compared to other areas, possibly because of inputs from the soil zone.

Data Source: *Baseline Water Quality for Minnesota's Principal Aquifers, 1998*



Minnesota Pollution Control Agency
Ground Water Monitoring and Assessment Program

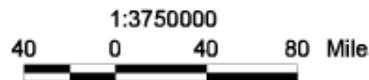
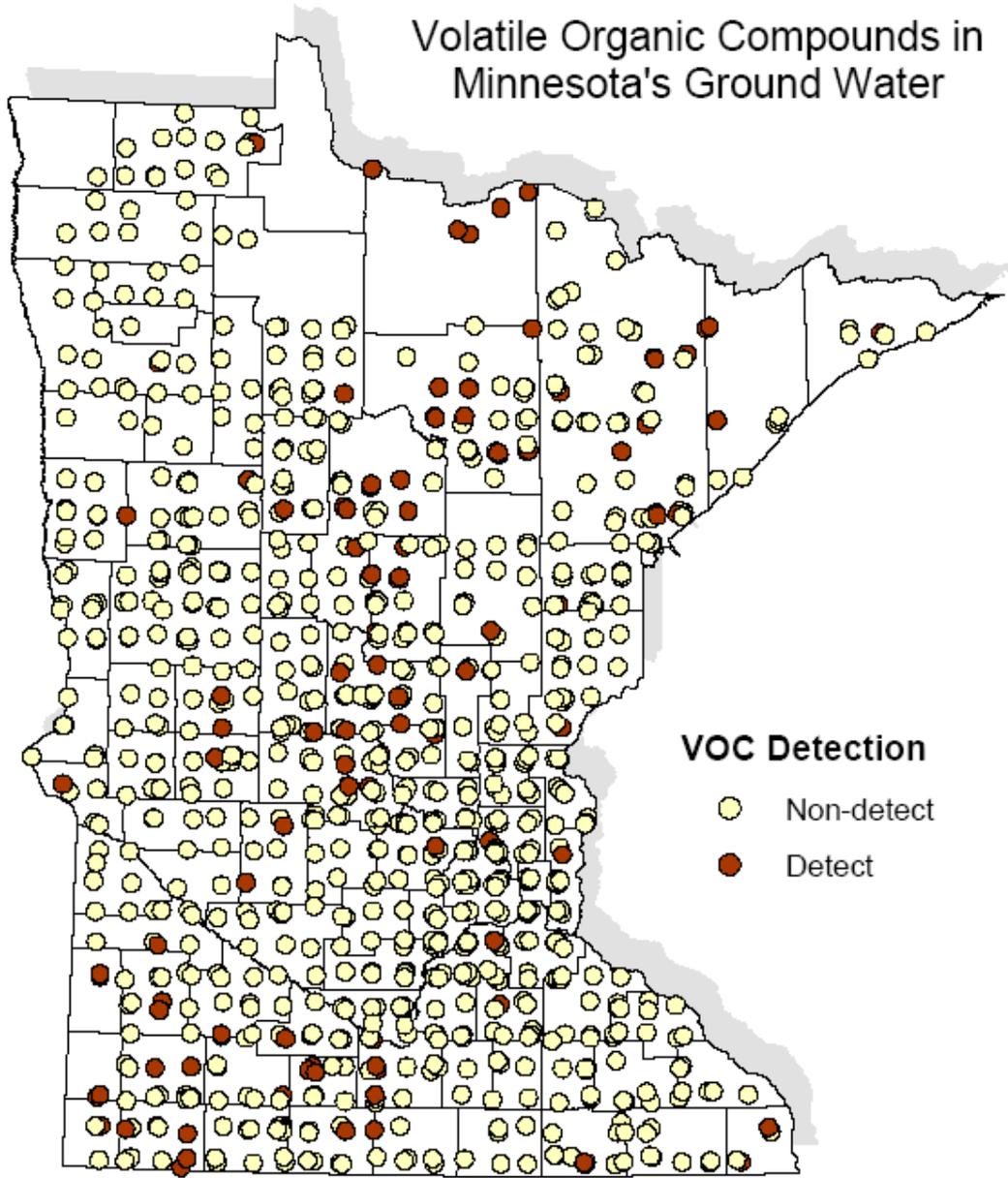


Figure E-17. Volatile Organic Compounds



VOC Distribution

VOC detections were scattered throughout the state. The occurrence of a VOC in a well appears to depend on a source for the VOC, rather than on geology or geochemical conditions within the aquifer.

Data Source: MPCA's Baseline Water Quality of Minnesota's Principal Aquifers

Table E-3. Salol Sanitary Landfill Summary -

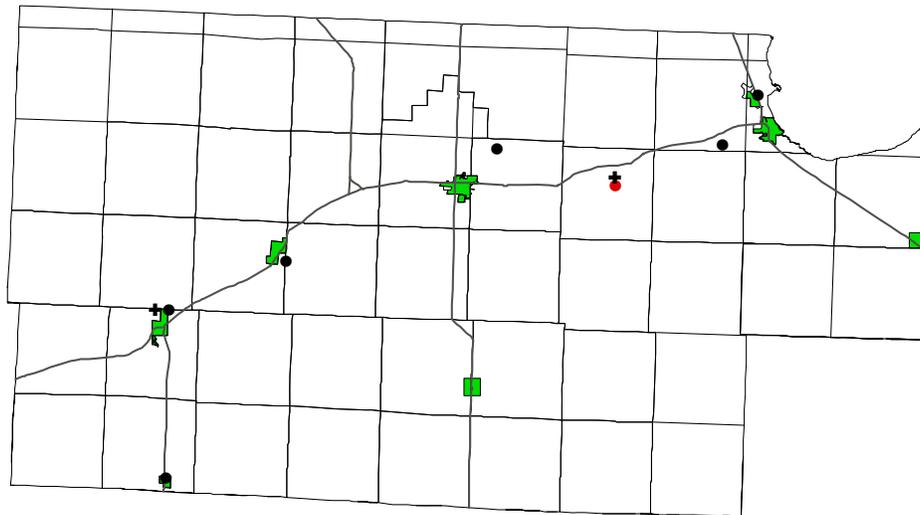
Salol Sanitary Landfill SW-137 VOC Detection

Well	Years	# VOC's detected	VOC'S > 6 times detected
TW-7A	1987-2001	9	None
TW-7B	1987-2001	12	ethyl ether, difluoromethane, 1,1-dichloroethylene cis, ethyl ether
TW-8	1987-2001	17	1,2-chloroethylene cis, ethyl ether, tetrahydrofuran
TW-9	1987-2001	3	None
MW-11	1991-2001	11	1,1,2,2-tetrachloroethylene, trichlorofluoromethane
MW-12	1991-2001	10	1,2-dichloroethylene cis
MW-13	1991-2001	23	Dichlorodifluoromethane, 1,1-dichloroethane, 1,2-dichloroethylene cis, difluoromethane, 1,2-dichloropropane, ethyl ether, ethyl benzene, isopropyl benzene, tetrahydrofuran, vinyl chloride
MW-14	1995-2001	3	Ethyl ether
Naslund	1988-2001	2	None
Johnson	1989	0	None
Theissen	1988	1	None
Nelson	1988	2	None

MPCA has original data used to compile this summary.

One lead test in 1999 was observed to occur over the MCL level of 15 µg/l . In well TW-7A, lead was found to be 50 µg/l. No other time did this level reoccur or even come close. All other heavy metals were below detection level or were below the recommended level. Manganese exceeded the HRL level of 100 µg/l in six out of eight wells with the highest concentration being 1360 µg/l in MW-13, 1992. All other water chemistries were found to be below the recommended level or were not detectable. Water chemistries included alkalinity, ammonia nitrogen, nitrate/nitrite, sulfate, TDS, TSS, arsenic, barium, cadmium, calcium, chromium, copper, iron, lead, magnesium, manganese, mercury, potassium, sodium.

Figure E-18. Waste Inventory Sites



- Closed dump
- MPCA Solid Waste Transfer Station and Demolition Landfill
- + Closed landfill

Table E-4. Registered Underground Storage Tank Sites (MPCA)

Name	City	Number Tanks	Volume	Status	Above or Underground
Bozes Rivers Edge Cenex C Store	Greenbush	2	16,000	reconditioned	U
Cenex C Store	Roseau	5	49,599	active	U
Cenex Station - Paradise	Strathcona	4	22,000	active	U
D & G Service	Roseau	2	3,000	active	U
Dale Salol Store	Salol	2	3,000	active	U
Riverfront Station	Wannaska	1	3,000	active	U
Denny's Outdoor Sports	Roseau	2	12,000	reconditioned	U
Farmers Union Oil Co	Warroad	5	60,000	3 active, 2 pending	U
		3	36,000	closed in-place	U
Fevold's Service Station	Roseau	1	2,000	closed in-place	U
				3 reconditioned, 1	
Holiday Stationstore # 193	Roseau	4	36,000	active	U
Holiday Stationstore # 342	Warroad	4	44,000	active	U
Holiday Stationstore # 235	Warroad	3	34,000	active	U
ISD # 682 Roseau Bus Garage	Roseau	2	14,000	active	U
		1	500	abandoned	U
ISD #690 Warroad High School	Warroad	1	6,000	active	U
Johnson Chev Buick Pontiac Inc	Warroad	1	500	active	U
Lakeview Restaurant	Warroad	2	3,000	active	U
Lifecare Medical Center	Roseau	1	10,000	active	U
		1	500	active	A
Malung Elementary School	Roseau	1	10,000	abandoned	U
Northern Wings Aviation Inc	Warroad	1	2,000	active	U
Olson's Store	Wannaska	1	3,000	active	U
Nichols Quick Stop	Warroad	3	20,000	closed in-place	U
North Country Convenience	Warroad	1	4,000	tank site deleted	U
		3	24,000	active	U
Riverside Bait & Tackle	Warroad	3	24,000	active	U
Roseau Municipal Airport	Roseau	2	8,000	active	U
Roseau Diesel Service	Roseau	1	1,000	closed in-place	U
Springsteel Resort	Warroad	2	1,500	closed in-place	U
TLI Quickstop	Roseau	4	28,550	active	U
Warroad Creamery	Warroad	1		abandoned	U
Warroad Motors	Warroad	4	18,000	active	U
Warroad Municipal Airport	Warroad	2	16,000	active	U

*Removed tank sites not listed in this table

**For a complete listing, contact MPCA
or see list at SWCD office

UST Summary	#
Active	53
Closed in-place	11
Removed	107
Pending	2
Tank site deleted	1
Reconditioned	7
Abandoned	3

Table E-5. Leak Sites

Report Number: 58

Report Title: All (Active and Inactive) Leak Sites
Minnesota Pollution Control Agency
TALES Report

Pref ID	Interest Name	Address	ZIP	City	County	Project Manager	Cond. Closure	Complete Closure	Type*
Total Count = 50									
14798	Anderson Residence	201 4th Ave SW	56751-	Roseau		Furuseth, Arlene		04/07/2003	1
14817	Arnesons Service	708 3rd St NE	56751-	Roseau	Roseau	Furuseth, Arlene			1
14812	Baumgartner Residence	39998 290th St	56751-	Roseau	Roseau	Furuseth, Arlene		04/07/2003	1
14797	Bergan Residence	501 2nd Ave SE	56751-	Roseau	Roseau	Furuseth, Arlene		04/07/2003	1
14795	Bernat Residence	700 Center St E	56751-	Roseau	Roseau	Furuseth, Arlene		07/10/2002	1
6739	D & E Sports	203 3rd St NW	56751-	Roseau	Roseau	Newquist, Richard		02/12/1997	1
14815	Dave Olson Residence	506 3rd St NE	56751-	Roseau	Roseau	Furuseth, Arlene		07/03/2002	1
14804	Degernes Residence	704 Main Ave N	56751-	Roseau	Roseau	Furuseth, Arlene		04/07/2003	1
14800	Erickson Auto Sales	119 2nd St SW	56751-1401	Roseau	Roseau	Furuseth, Arlene		04/07/2003	1
14792	Erickson Residence	313 9th Ave SE	56751-	Roseau	Roseau	Furuseth, Arlene		04/07/2003	1
12681	Farmers Union Oil Co	201 Main Ave S	56751-1495	Roseau	Roseau	Furuseth, Arlene		04/19/2002	1
12938	Fevold's Service	204 3rd St NW	56751-1013	Roseau	Roseau	Furuseth, Arlene			1
14808	Fichter Residence	100 3rd St SE	56751-	Roseau	Roseau	Furuseth, Arlene			1
9778	Former County Garage	308 Center St W	56751-	Roseau	Roseau	Furuseth, Arlene			1
14809	Greenhoe Residence	603 & 605 3rd Ave NE	56751-	Roseau	Roseau	Newquist, Richard	07/28/1997		1
14810	Greiffen Residence	26242 400th Ave	56751-	Roseau	Roseau	Furuseth, Arlene		04/07/2003	1
14805	Gustafson Residence	411 3rd Ave NE	56751-	Roseau	Roseau	Furuseth, Arlene		04/07/2003	1
14799	Helgeson Funeral Home	121 Center St W	56751-	Roseau	Roseau	Furuseth, Arlene		04/07/2003	1
14803	Helgeson Residence	710 Main Ave N	56751-	Roseau	Roseau	Furuseth, Arlene		07/02/2002	1
14794	Hiles Residence	203 3rd Ave NW	56751-	Roseau	Roseau	Furuseth, Arlene		04/07/2003	1
9620	Holiday Station Store # 193	County Road 11 & Highway 310	56751-	Roseau	Roseau	Oie, Michelle		07/17/2009	1
14813	James Olson Residence	100 3rd Ave NW	56751-	Roseau	Roseau	Furuseth, Arlene		04/07/2003	1
14811	Jc Penny	106 Thru 109 3rd St N	56751-	Roseau	Roseau	Furuseth, Arlene		07/02/2002	1
17630	Johnson Oil Co Bulk Plant	232 Main Ave S	56751-	Roseau	Roseau	Furuseth, Arlene			1
14568	Johnson Oil Company Bulk Plant	109 3rd St SW	56751-	Roseau	Roseau	Furuseth, Arlene		12/20/2005	1
14571	Johnson Oil Company Bulk Plant E	232 Main Ave S	56751-	Roseau	Roseau	Furuseth, Arlene		02/04/1991	1
2066	Land O Lakes	Highway 89	56751-	Roseau	Roseau	_tales31, Robyn L		04/07/2003	1
14801	Larson Dental Office	107 Center St	56751-	Roseau	Roseau	Furuseth, Arlene		04/07/2003	1
14793	Lykkan Residence	608 Center St E	56751-	Roseau	Roseau	Furuseth, Arlene		04/07/2003	1
4817	Norfarm Seed	219 Main Ave S	56751-1422	Roseau	Roseau	Serier, Kathryn		08/18/1998	1
14863	Omdahl Residence	311 Center St W	56751-	Roseau	Roseau	Furuseth, Arlene		04/07/2003	1
14796	Ostby Residence	606 Center St E	56751-	Roseau	Roseau	Furuseth, Arlene		04/07/2003	1
14806	Pielowski Residence	301 6th Ave SE	56751-	Roseau	Roseau	Furuseth, Arlene		04/07/2003	1
2746	Polaris Plant	Highway 89 S	56751-	Roseau	Roseau	_tales26, Dave	01/16/1991	06/25/1991	1
14883	R And Q Trucking	302 3rd St SW	56751-	Roseau	Roseau	Furuseth, Arlene		06/25/2003	1
14837	Rem North Star Inc	208 2nd Ave NE	56751-	Roseau	Roseau	Furuseth, Arlene		04/07/2003	1
11619	Rem Roseau Inc	208 2nd Ave NE	56751-	Roseau	Roseau	Furuseth, Arlene		07/13/2000	1
16173	Roseau - 3rd Street	117 3rd St NW	56751-	Roseau	Roseau	Furuseth, Arlene			1
16166	Roseau - Main Ave.	300 Main Ave Block	56751-	Roseau	Roseau	Furuseth, Arlene			1

* Leak Site Types: 1-Leak Site, 2-Property Transfer Site, 3-Both Leak/WPIC Site, 4-Million Gal Plus Fac, Leak Site, 5-Public Water Supply Well, 6-Suspected Leak Site



Total Count = 50

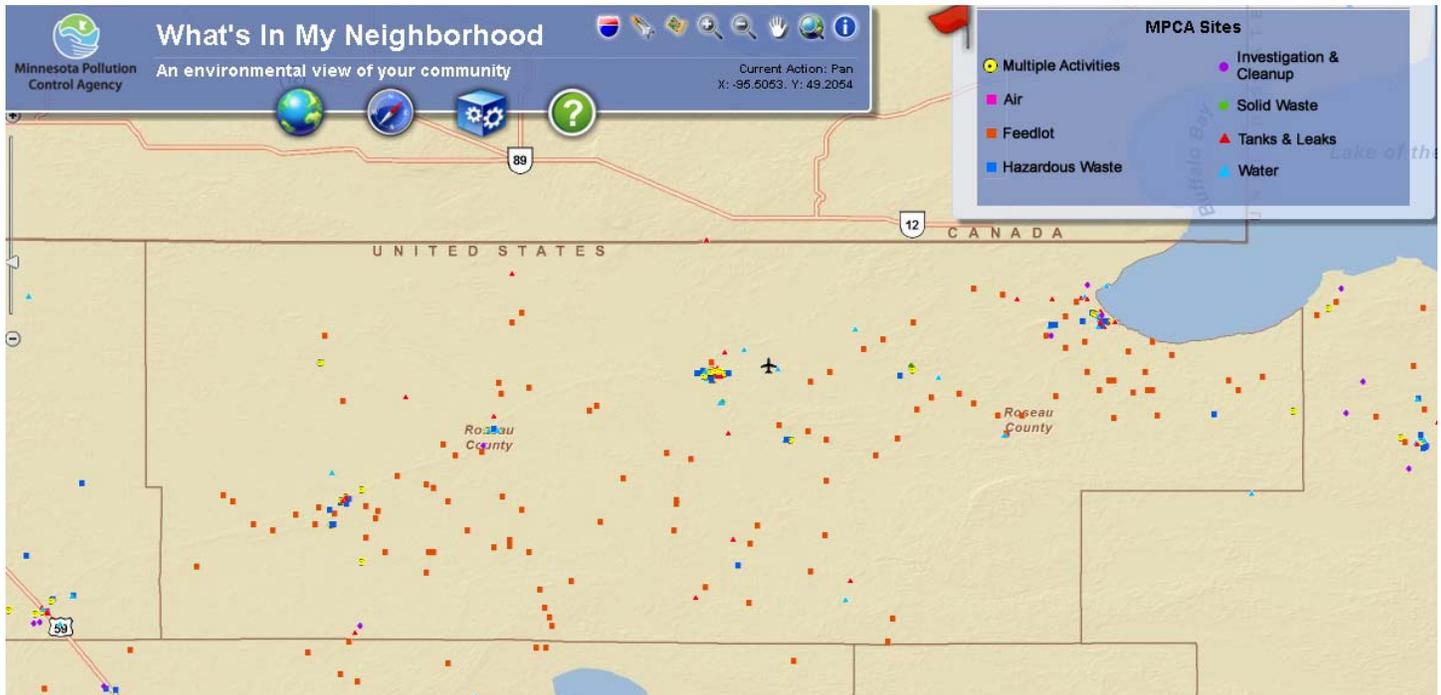
Pref ID	Interest Name	Address	ZIP	City	County	Project Manager	Cond. Closure	Complete Closure	Type*
2880	Roseau County Law Enforcement	108 3rd Ave SW	56751-	Roseau	Roseau	_tales26, Dave	10/08/1991	11/22/1991	1
2265	Roseau Electric Cooperative Inc	903 3rd St NE	56751-	Roseau	Roseau	_tales16, David J		07/25/1996	1
587	Roseau Hospital District	715 Delmor	56751-	Roseau	Roseau	Olson, Larry		08/20/2003	1
7495	Roseau Public School	509 3rd St NE	56751-	Roseau	Roseau	Bellefeuille, Doug		02/06/1995	1
14865	Roseau Residence	33641 400th Ave	56751-	Roseau	Roseau	Furusefth, Arlene		04/07/2003	1
14864	Rykkkan Residence	605 Center St	56751-	Roseau	Roseau	Furusefth, Arlene		04/07/2003	1
14802	Stynsberg Residence	705 4th St NE	56751-	Roseau	Roseau	Furusefth, Arlene		04/07/2003	1
13050	Us Customs Building	41967 State Highway 310	56751-	Roseau	Roseau	Furusefth, Arlene		06/27/2001	1
14791	Vancleve Residence	27507 County Road 3	56751-	Roseau	Roseau	Furusefth, Arlene		04/07/2003	1
14807	Weispfenning Residence	605 3rd St NE	56751-	Roseau	Roseau	Furusefth, Arlene		04/07/2003	1
14814	Wold Residence	210 2nd St NW	56751-	Roseau	Roseau	Furusefth, Arlene		04/07/2003	1

* Leaksite Types: 1-Leak Site, 2-Property Transfer Site,3-Both Leak/VPIC Site,4-Million Gal Plus Fac. Leaksite,5-Public Water Supply Well,6-Suspected Leak Site

Table E-6. Hazardous Waste Generators

Hazardous Waste ID	Facility Name	Location
MNR000059527	Acker Body Shop Inc	30088 330TH AVE ROSEAU, MN 56751
148681182	Altru Clinic Roseau	711 DELMORE DR ROSEAU, MN 56751
HWLIC1002885	Altru Clinic Warroad	412 N MAIN WARROAD, MN 56763
MND985667039	Ballard Motor Co	HIGHWAY 310 N ROSEAU, MN 56751
MND985702158	Borderland Rebuilt	HIGHWAY 11 E WARROAD, MN 56763
MNR000110338	Central Boiler Inc	20502 160TH ST GREENBUSH, MN 56726
MND985694090	Countryside Tire Inc	HIGHWAY 11 W WARROAD, MN 56763
MNR000114728	Craig'S Collision Center	104 INDUSTRIAL PARK CT NE WARROAD, MN 56763
MND023009939	D & E Sport Shop Inc	1091 3RD ST NW ROSEAU, MN 56751
MNS000132142	Dental Health Office	201 4TH AVE NW ROSEAU, MN 56751
MN0000977512	Dewaynes Auto Service Inc	47647 COUNTY ROAD 2 ROSEAU, MN 567518647
148681364	Don Stoskopf Redimix	401 2ND AVE SW ROSEAU, MN 567511463
MNP200001132	Drug Lab Cleanup - Minnesota Bca	BLACKS WINNER FOREST RD ROSEAU, MN 56751
148680150	Family Chiropractic Center	1013 3RD ST NE ROSEAU, MN 567511209
2790772	Farmers Coop Ag Service	380 OLD HIGHWAY 11 E GREENBUSH, MN 56726
MNR000025148	Farmers Union Oil Co - Roseau	1504 CENTER ST W ROSEAU, MN 56751
MNR000112623	Farmers Union Oil Co Bulk Plant	HIGHWAY 11 E WARROAD, MN 56763
MNNONGEN1021	Greenbush Implement Co	164 MAIN ST S GREENBUSH, MN 56726
MND981100472	Isd 676 Badger Bus Garage	110 CARPENTER AVE BADGER, MN 56714
MND981098965	Isd 678 - Greenburg Bus Garage	COUNTY ROAD 4 E GREENBUSH, MN 56726
148673262	Isd 678 Greenbush School	401 PARK AVE GREENBUSH, MN 56726
MND132392895	Isd 682 - Roseau Public School	509 3RD ST NE ROSEAU, MN 56751
MND985713791	Isd 682 - Roseau School	11TH AVE NE ROSEAU, MN 56751
148684814	Isd 690 Warroad Elementary School	HIGHWAY 11 & LAKE ST WARROAD, MN 56763
MND985716216	Isd 690 Warroad High School	510 CEDAR AVE NW WARROAD, MN 56763
		117 MINNESOTA HIGHWAY 32 S GREENBUSH, MN 56726
MND022808570	Jeff'S Super Service	101 COUNTY ROAD 4 E GREENBUSH, MN 56726
MNS000126201	Jon'S Auto Salvage	1101 STATE ST N WARROAD, MN 56763
MND023101058	Lake Country Chevrolet-Buick-Pontiac	152 5TH ST S GREENBUSH, MN 56726
MND981948227	Lifecare Greenbush Manor	715 DELMORE DR ROSEAU, MN 56751
MND112873526	Lifecare Medical Center	59947 KIRKWOOD DR WARROAD, MN 56763
MND156959876	M & R Auto	401 STATES AVE WARROAD, MN 56763
MND006164511	Marvin Windows	HIGHWAY 313 WARROAD AIRPORT WARROAD, MN 56763
		57536 STATE HIGHWAY 11 WARROAD, MN 56763
MNR000000547	Marvin Windows Airport Hangar	1190 CENTER ST W ROSEAU, MN 56751
WCERT1002469	Mende Auto Body & Muffler	117 3RD ST NW ROSEAU, MN 56751
MN0000030098	Mndot Roseau Ts	HIGHWAY 11 W ROSEAU, MN 56751
MND023009913	Northland Tire	301 5TH AVE SW ROSEAU, MN 56751
MND985770395	Pamida Inc 3293	65383 280TH ST ROOSEVELT, MN 56673
MND044792794	Polaris Industries Inc - Roseau	203 3RD ST NW ROSEAU, MN 56751
MND985757194	Powell'S Paint & Body	1084 CENTER ST W ROSEAU, MN 56751
MND985707330	Pro Automotive Inc	HIGHWAY 11 W ROSEAU, MN 56751
MNS000100388	Qc Techniques Inc	110 2ND AVE SW ROSEAU, MN 56751
MND106712722	Quality Printing	
MND985682327	Reuben'S Body Shop	

MNNONGEN1013	Rosco Surplus Inc	HIGHWAY 11 W ROSEAU, MN 56751
MND084113513	Roseau Aviation Inc	31072 420TH AVE ROSEAU, MN 56751
MND071501035	Roseau City Of	1198 CENTER ST W ROSEAU, MN 56751
MNNONGEN1006	Roseau County Coop Assocation	225 MINNESOTA AVE W GREENBUSH, MN 56726
MND982638389	Roseau County Highway Dept	407 5TH AVE NW ROSEAU, MN 56751
MND045967650	Roseau Diesel Service Inc	112 2ND ST SW ROSEAU, MN 56751
MNR000032342	Roseau Electric Cooperative	1107 3RD ST NE ROSEAU, MN 56751
MND064764384	Roseau Farm Service	1118 3RD ST NW ROSEAU, MN 56751
MND982650210	Roseau Times Region Inc	106 CENTER ST W ROSEAU, MN 567511417
MND981189574	Roso Cleaners & Laundromat	317 W ACERS ROSEAU, MN 56751
MND085101657	Sorensen Chev Olds	HIGHWAY 89 & CENTER ST ROSEAU, MN 56751
MNR000100875	Tg Design	18859 STATE HIGHWAY 11 GREENBUSH, MN 56726
		HIGHWAY 32 S & HIGHWAY 11 GREENBUSH, MN 56726
MND985672047	Tom'S Body Shop - Greenbush	56726
148684798	Warroad Care Center	611 E LAKE ST WARROAD, MN 56763
MND071360820	Warroad City Of	110 ALMA AVE SE WARROAD, MN 56763
148684830	Warroad Family Dentistry	307 S STATE AVE WARROAD, MN 56763
MND023101108	Warroad Motors	417 S STATE AVE WARROAD, MN 56763
MND985720077	Warroad School Bus Garage	ALMA AVE SE WARROAD, MN 56763
MNR000005751	Westgate Marine	156 LAKEVIEW DR WARROAD, MN 567633001
MND982423386	Wildwood Publishing Inc	29377 650TH AVE WARROAD, MN 567639605
MND982205593	Wilson Brothers Co Of Roseau	121 2ND ST NW ROSEAU, MN 567511001



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ITEM # Discussion 2

REQUEST FOR BOARD ACTION

* Required Fields



*Person Responsible for Request Klein, Trish	*Department Coordinator	*Board Meeting Date Oct 27 2009
--	-----------------------------------	---

***Subject Title (As it will appear on the agenda):**
AMC District 3 Meeting

***Background (Provide sufficient detail of the subject):**
The AMC District 3 Meeting is scheduled for October 29, 2009 in Mahnomens. The agenda is attached for your review.

***Financial Consideration:**

***Legal Consideration:**

***Other Consideration:**
None

***Resolution (Wording should reflect the intent of the Board vote):**
None

Coordinator's Office Use (Do Not Write Below)

Date Received:	Comments:
-----------------------	------------------

Board Action:

Comm.	Motion (First)	Motion (Second)	Vote			Vote Result	
			Yes	No	Abstain		
Swanson						Passed	
Johnston							
Folds						Failed	
Rasmussen							
Walker						Tabled	

ATTEST: Teresa Klein, Board Clerk

District
3



Kittson

Mahanomen

Marshall

Norman

Pennington

Polk

Red Lake

Roseau

Association of Minnesota Counties
DISTRICT MEETING

Thursday, October 29, 2009

8:00 a.m. – 12:00 p.m.

[American Legion](#)

122 W Monroe Avenue, Mahanomen

Fee \$25

Tentative Agenda

8:00 A.M.

REGISTRATION

8:15 A.M.

CALL TO ORDER

PLEDGE OF ALLEGIANCE

WELCOME – MAYOR OF MAHNOMEN

INTRODUCTIONS

During introductions, please come prepared to share the following:

- What is your county's budgetary levy increase?
- How does your county approach long-term planning?

AMC OFFICER CANDIDATE PRESENTATION

Second Vice President: Randy Maluchnik, Carver County

COUNTY REPORTS: CONCERNS, PRIORITIES AND ACCOMPLISHMENTS

LOCAL TOPICS

- **CPA Formula:** Several counties have expressed concern over this issue and would like to have a discussion about whether or not AMC should consider proposing a "stop-loss."
- **Limited Market Value Sunset:** What will be the effect of house values going up faster than the 10% maximum once this law sunsets?

PUBLIC SAFETY DISPATCH (PSAP) CONSOLIDATION and ARMER (800 MHz) UPDATE

Department of Public Safety Staff

MAPCED

Local and state strategies for economic development. A local MAPCED member will discuss a local project and give an overview of the organization's statewide strategy.

LEGISLATIVE AND POLICY COMMITTEE UPDATES

- State Fiscal and Unallotment Status
- GAMC – Status and county impacts
- Federal Legislative Issues

2010 LEGISLATIVE SESSION PREDICTIONS

MINNESOTA REDESIGN PROJECT



125 Charles Avenue
Saint Paul, MN 55103-2108
Main Line: 651-224-3344
Fax: 651-224-6540

SERVICE DELIVERY AUTHORITY REDESIGN

AMC MEETINGS & EVENTS

- Annual Conference, December 7 – 9, 2009; Hyatt Regency Minneapolis
- Legislative Conference, March 24 – 25, 2010; Crowne Plaza, St. Paul

12:00 P.M.

LUNCH/ADJOURN

12:30 – 3:00 P.M.

Board of Equalization Training
Department of Revenue Staff

ITEM # Discussion 3

REQUEST FOR BOARD ACTION

* Required Fields



*Person Responsible for Request Klein, Trish	*Department Coordinator	*Board Meeting Date Oct 27 2009
--	-----------------------------------	---

***Subject Title (As it will appear on the agenda):**
Award 2009-2010 sidewalk snow removal contract

***Background (Provide sufficient detail of the subject):**
Proposals will be received by the Roseau County Auditor until 4:30 p.m., Friday, October 23, 2009, for snow removal services, (2009/2010 snow season) for the Roseau County Courthouse Complex including the Courthouse, Detention Center, Sheriff's Office, and Social Services.

See attached request for proposals.

The Board will open proposals and award a contract.

***Financial Consideration:**

***Legal Consideration:**

***Other Consideration:**
None

***Resolution (Wording should reflect the intent of the Board vote):**
None

Coordinator's Office Use (Do Not Write Below)

Date Received:	Comments:

Board Action:

Comm.	Motion (First)	Motion (Second)	Vote			Vote Result
			Yes	No	Abstain	
Swanson						Passed
Johnston						
Folds						Failed
Rasmussen						
Walker						Tabled

ATTEST: Teresa Klein, Board Clerk

ROSEAU COUNTY

REQUEST FOR PROPOSALS --- SIDEWALK SNOW REMOVAL

Proposals will be received by the Roseau County Auditor at the Roseau County Courthouse; 606 5th Avenue SW, Room 160, Roseau, Minnesota, 56751; until **4:30 p.m., Friday, October 23, 2009**, for snow removal services, (2009/2010 snow season) for the Roseau County Courthouse Complex including the Courthouse, Detention Center, Sheriff's Office, and Social Services.

The Contractor shall provide first snow of the day snow removal services on all sidewalk and entrance hard service areas at the Roseau County Courthouse Campus including the Courthouse and Social Service buildings Monday through Friday prior to 8 a.m., and at the Detention Center Monday through Sunday.

In the event of a heavy snow, additional snow removal may be requested by the County. Contractor may, at its own discretion, perform snow removal services on Saturday or Sunday in other areas of the Courthouse Campus, when doing so is more efficient and would ultimately result in lower cost to the County.

Contractor must provide a Certificate of Liability Insurance naming Roseau County as additional insured.

Roseau County is requesting proposals at an hourly rate which is to include labor and equipment necessary to complete the duties as indicated. Reimbursement will be paid monthly following the second regularly scheduled County Board meeting.

For additional snow removal information contact Building Maintenance Supervisor Lenny Johnson at 218-463-4249. Quotation forms are available at the Roseau County Auditor's Office (address above) or by calling 218-463-1282.

Proposals will be considered by the Roseau County Board of Commissioners at their October 27, 2009, regular meeting. The Board reserves the right to reject any and all proposals.

Dated this 5th day of October 2009.

Anne K. Granitz
Roseau County Auditor

Publish the week(s) of October 5th and 12th

ITEM # Discussion 4

REQUEST FOR BOARD ACTION

* Required Fields



*Person Responsible for Request Klein, Trish	*Department Coordinator	*Board Meeting Date Oct 27 2009
--	-----------------------------------	---

***Subject Title (As it will appear on the agenda):**
NWRD Public Service Representatives

***Background (Provide sufficient detail of the subject):**
The Northwest Regional Development Commission is seeking nominations for public services representatives. Currently Roseau County does not have any members serving on this Commission. Gracia Nelson has expressed interest on serving and would need your nomination.

***Financial Consideration:**

***Legal Consideration:**

***Other Consideration:**
None

***Resolution (Wording should reflect the intent of the Board vote):**
None

Coordinator's Office Use (Do Not Write Below)

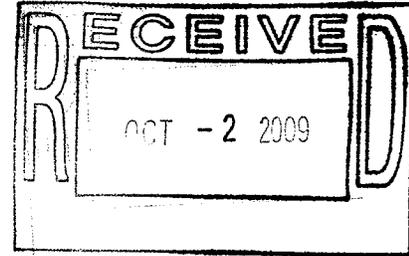
Date Received:	Comments:
-----------------------	------------------

Board Action:

Comm.	Motion (First)	Motion (Second)	Vote			Vote Result	
			Yes	No	Abstain		
Swanson						Passed	
Johnston							
Folds						Failed	
Rasmussen							
Walker						Tabled	

ATTEST: Teresa Klein, Board Clerk

NW Regional Development Commission



September 30, 2009

Anne Granitz
Roseau County Auditor
Roseau County Courthouse
Roseau, MN 56751

Dear Ms. Granitz:

The Northwest Regional Development Commission is seeking nominations for two minority and eight At-Large Public Interest Representatives on the Commission. The Commission would like to work closely with county boards and other groups to obtain nominations to represent these areas. These are two year terms of offices and members receive a \$50.00 "per diem" payment, as well as travel expenses, for the days on which they attend Commission meetings.

Attached is the "Nomination For Membership" form to be used when nominating an individual. Nominations should be addressed to: Joe Bouvette, Chairman, Northwest Regional Development Commission, 115 South Main, Warren, MN 56762. I have also attached a current list of Commission members.

Nominations should be submitted by November 6, 2009. Appointments for minority and at-large seats will be made at the Commission's Annual Meeting, in early December.

If you have any questions or would like additional information please feel free to contact Carol Sorensen of my staff at the number below.

Sincerely,

Leon Heath
Executive Director

making the most of our resources

115 South Main • Warren, MN 56762 • Phone: 218-745-6733 • Fax: 218-745-6438

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ITEM # Discussion 5

REQUEST FOR BOARD ACTION

* Required Fields



*Person Responsible for Request Klein, Trish	*Department Coordinator	*Board Meeting Date Oct 27 2009
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***Subject Title (As it will appear on the agenda):**
Off-Road Vehicles on County & Township Roads

***Background (Provide sufficient detail of the subject):**
Effective August 1, 2009 legislative changes to MN Statute 169.011, the addition of a new subdivision, changed the legality of driving mini-trucks on roadways. This legislative change allows these vehicles to operate under basically the same conditions as ATV's and golf carts (MN Statute 169.045). This statute allows counties, towns, and cities to pass an ordinance to allow the operation of mini-trucks on designated roads. Commissioner Swanson has requested the Board discuss this item to determine what course of action if any the Board would like to take.

***Financial Consideration:**

***Legal Consideration:**
MN Statute 169.011 MN Statute 169.045 Roseau County ATV Ordinance

***Other Consideration:**
None

***Resolution (Wording should reflect the intent of the Board vote):**
None

Coordinator's Office Use (Do Not Write Below)

Date Received:	Comments:

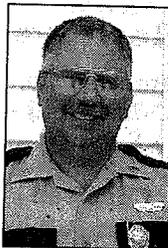
Board Action:

Comm.	Motion (First)	Motion (Second)	Vote			Vote Result
			Yes	No	Abstain	
Swanson						Passed
Johnston						
Folds						Failed
Rasmussen						
Walker						Tabled

ATTEST: Teresa Klein, Board Clerk

Mini-pickups becoming legal

**Ask a
MN
Trooper
Andy
Schmidt**



Question: In a discussion one morning one of the guys (Bob; not real name) said a friend of his (Bill; also not real name) had purchased a mini-pickup that had a right hand driver's seating position. Bob said he told Bill that he had heard you on the radio say it was illegal to drive that type of vehicle in MN. True or false?

Answer: Bob was right in that I did go on several radio stations and say it was illegal to drive that type of vehicle on MN roads. And at the time I said that I was correct. However, this area saw some changes with the latest legislative session and will take effect on Aug. 1, 2009. A new subdivision will be added to statute 169.011 defining what a mini-truck is. According to subdivision 40a clause (a) "Mini truck" means a motor vehicle that has four wheels; is propelled by an electric motor with a rated power of 7,500 watts or less or an internal combustion engine with a piston displacement capacity of 660 cubic centimeters or less; has a total dry weight of 900 to 2,200 pounds; contains an enclosed cabin and a seat for the vehicle operator; commonly resembles a pickup truck or van, including a cargo area or bed located at the rear of the vehicle; and was

not originally manufactured to meet federal motor vehicle safety standards required of motor vehicles in the Code of Federal Regulations, title 49, sections 571.101 to 571.404, and successor requirements. (b) A mini truck does not include: (1) a neighborhood electric vehicle or a medium-speed electric vehicle; or (2) a motor vehicle that meets or exceeds the regulations in the Code of Federal Regulations, title 49, section 571.500, and successor requirements."

My concern with these machines is that they were not manufactured to meet federal motor vehicle safety standards. These standards have been adopted and revised over the years to help keep you and me safer in vehicles. I was very concerned about the lack of such safety standards in these machines as they go up and down our roads. However our legislators were smart enough to restrict the operation of these machines. They restricted the operation of these mini-trucks to basically the same as golf carts and ATV's under statute 169.045. To save space here I will give a brief on the basics of this statute rather than quote the entire wording. Subdivision 1 allows counties, towns or cities to pass an ordinance to allow the operation of mini-trucks on designated roads. Authorization to operate a mini truck is by permit only. Subdivisions 2 requires the ordinance to designate the roadways that operation is allowed on, require evidence of insurance and may prescribe conditions under which a permit may be granted. Permits may be

granted for a period of not to exceed one year, and may be annually renewed. A permit may be revoked at any time if there is evidence that the person cannot safely operate the mini truck on the designated roadways. Subdivisions 3 and 4 do not apply to mini-trucks. According to Sb 5 the operator, under permit, may cross any street or highway intersecting a designated roadway. Subdivision 6 basically states that traffic laws do apply, and sb 7 states that our driver's license laws also apply to operators of mini-trucks. And now for subdivision 7a, which lists some equipment requirements and basically states; a mini truck may be operated under permit on designated roadways if it is equipped with: (1) at least two headlamps; (2) at least two taillamps; (3) front and rear turn-signal lamps; (4) an exterior mirror mounted on the driver's side of the vehicle and either (i) an exterior mirror mounted on the passenger's side of the vehicle or (ii) an interior mirror; (5) a windshield; (6) a seat belt for the driver and front passenger; and (7) a parking brake.

Parents don't just hand over the keys to your new driver. Please take the time to ride with them and let them gain experience before allowing them to face the dangers of a public road on their own. If you have any questions concerning traffic related laws in Minnesota send your questions to Trp. Andy Schmidt-Minnesota State Patrol at 1000 Highway 10 West, Detroit Lakes, MN 56501-2205. Or reach me at, andrew.schmidt@state.mn.us

INFORMATION ONLY



MINNESOTA DEPARTMENT of NATURAL RESOURCES

Parks and Trails Division

246 125th Avenue NE Thief River Falls, MN 56701

Telephone (218) 681-0889 Fax 681-0948

October 8, 2009

RECEIVED

OCT 13 2009

Jack Swanson, Board Chair
Roseau County
606 5th Ave. SW, Room 131
Roseau, MN 56751

Greetings:

MnUSA will be holding a meeting Saturday, November 21, 2009 at the McIntosh Centennial Center scheduled for 10:00 a.m. The Parks and Trails division will share a portion of the agenda of the meeting discussing miles being added to the GIA system, trail monitoring, and other GIA related issues. This meeting will provide an opportunity for both trail sponsors and trail administrators to ask questions, share information, and comment on grant-in-aid program issues. Sign orders will be available for pickup.

Lunch will be provided by MnUSA.

If you have any questions, please call my office.

Sincerely,

A handwritten signature in cursive script that reads 'Wade Miller'.

Wade Miller
Area Supervisor

WM/pkm

Cc: Terry Sizemore
Roseau County Trailblazers, Inc.
405 9th Avenue SE
Roseau, MN 56751

DNR Information: 651-296-6157, 1-888-646-6367 • TTY: 651-296-5484, 1-800-657-3929
www.dnr.state.mn.us

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