

## 1995 Project Abstract

For the Period Ending June 30, 1997

This project was supported by MN Future Resources Fund Subd.5.

**TITLE:** Shoreland Septic Inventory and Education

**PROJECT MANAGER:** Beth Kluthe

**ORGANIZATION:** Hubbard County Environmental Services

**ADDRESS:** 301 Court St. Park Rapids, MN 56470

**LEGAL CITATION:** ML 1995, Ch. 220, Sec. 19, Subd. 5 (j)

**APPROPRIATION AMOUNT:** \$145,000

### Statement of Objectives

The primary objective of the project was for the Hubbard County Environmental Services Office to inventory all shoreland areas in the Mantrap Watershed to identify failing septic systems. Property owners were required to upgrade failing septic systems within one year of notification. The Hubbard County Environmental Services Office conducted inspections and issued certificates of compliance for newly upgraded septic systems. A secondary objective involved establishing an education program to inform property owners of the problems associated with failing septic systems. Additional education efforts were focused on proper maintenance and use of septic systems and included recommendations for water conservation. Fact sheets were developed to aid in this effort.

### Overall Project Results

The entire shoreland area of the Mantrap Watershed has been inventoried to identify failing septic systems. 1746 existing records housed in the Environmental Services Office were reviewed to target properties where information was inadequate to document conforming septic systems. 1062 properties were targeted for an onsite review and property owners notified an inspection was to be conducted. Educational materials were mailed to 1062 property owners. 625 septic systems were inspected and determined to be failing. Property owners were notified upgrades were required within 12 months and received educational materials. 463 septic systems have been upgraded, inspections conducted, and certificates of compliance issued. The Mantrap Watershed consists of 17 lake complexes and is of prime economic and recreational importance to the area. The end result of the project will be 100% compliance with shoreland septic systems.

### Project Results Use and Dissemination

The format of the program has been shared with other local units of government. Crow Wing County has initiated a septic system inventory program using this project as a template. The Tri-County Leech Lake Project has also initiated the use of this program in their project. Presentations have been made at numerous lake association meetings and Hubbard County Coalition of Lake Association meetings. Hubbard County will continue to employ a watershed application of this program in the future.

LCMR Final Work Program Update Report

I. Project Title and Project Number: Shoreland Septic Inventory and Education F7

Program Manager: Beth Kluthe  
Agency Affiliation: Hubbard County Environmental Services  
Mail Address: 301 Court Street  
Park Rapids, MN 56470  
Phone: (218) 732-3890  
Fax: (218) 732-3465

A. Legal Citation: ML 95, Ch. 220, Sec. 19, Subd. 5(i).  
Total biennial LCMR appropriation: \$145,000.  
Balance: \$29,646

**Appropriation Language:** This appropriation is from the future resources fund to the board of water and soil resources in cooperation with the pollution control agency for an agreement with Hubbard County to inventory the Mantrap Watershed for failing septic systems and education and enforcement efforts to implement upgrading of the systems. In the work program for this project required under Minnesota Statutes, section 116P.05, subdivision 2, paragraph (c), Hubbard County shall include documentation that the county is actively pursuing adoption of a countywide ordinance to regulate individual sewage treatment systems.

On motion of Commissioner DeLaHunt, seconded by Commissioner Robinson to compose a county wide Sanitary Code with an ordinance to be written and have it reviewed by the board and a legal authority. Motion carried unanimously.

B. Status of Match Requirement: N.A.

II. Project Summary: The Hubbard County Environmental Services Office initiated a program to inventory lakeshore properties in the Mantrap Watershed for failing septic systems and provide education and enforcement efforts to implement upgrading of the systems. An attempt was made to unite individuals to form a permanent watershed coalition to provide a framework to address watershed issues and assist in the project's completion. The project area contains 17 lakes, 10 of which are in the "Mantrap Chain of Lakes". Six lakes in the project area were evaluated by an existing program. Working with lake associations and the watershed coalition a complete listing of property owners was compiled. Existing records housed in the Environmental Services Office were reviewed and properties targeted with suspect or unknown septic systems. Property owners were notified by

letter of onsite visits to inventory their property. A technician inspected the property to determine the status and components of the existing system. Property owners who had systems identified as nonconforming received notification that the system must be upgraded within one year. Property owners also received educational materials explaining what a failing system is and why they have a negative impact on water quality as well as information describing how to properly maintain their new conforming septic system. As systems are upgraded an inspection was completed to ensure compliance with sanitary code standards. All lakeshore properties in the watershed have been evaluated to identify failing septic systems and to implement upgrading.

III. Six Month Work Program Update Summary: July 1, 1997. The Hubbard County Environmental Services Office initiated a program to inventory lakeshore properties in the Mantrap Watershed for failing septic systems and provide education and enforcement efforts to implement upgrading of the systems. Research has been completed on seventeen lakes and 1746 property records reviewed. The primary focus has been on evaluation of individual septic systems and inspection of new systems as they are upgraded as a result of this program. Property owners are receiving notification of an onsite inspection and educational materials discussing the problems associated with failing septic systems. Field evaluations have been completed on 1062 properties. To date 463 systems have been completely upgraded and inspected for compliance. The failing septic system survey objective has been achieved. The program format has been shared with other local units of government for implementation. The Tri-County Leech lake Watershed Project has integrated the septic inventory program. The watershed approach will next be used in Hubbard County to inventory the Crow Wing Watershed. Initial contacts have been made in the establishment of a watershed coalition however only limited progress has been made. On April 11, 1996 Hubbard County adopted a county wide sanitary ordinance. A total of 150 septic systems have been inspected in nonlakeshore areas. The Hubbard County Environmental Services Office is responsible for implementing and enforcing the ordinance.

IV. Statement of Objectives:

Timeline for Completion of Objectives:

	1/96	6/96	1/97	6/97
A. Watershed Coalition	xx	xx	xx	xx
B. Failing Septic System Survey	xx	xx	xx	xx

V. Objectives/Outcome:

A. Title of Objective/Outcome: Watershed Coalition.

**A.1 Activity:** Individuals from lakes within the watershed will be united to form a permanent watershed coalition to assist in this project's completion and address watershed issues. Exofficio members will be technical staff from local, state, and federal agencies and local government officials.

**A.1.a. Context within the project:** This group will assist the project by helping develop property owner lists for each lake, reporting on the project at lake association meetings, and assisting with educational activities. This group will also function to provide recommendations.

**A.1.b. Methods:** Key individuals will be identified for each lake and solicited for membership. Exofficio members will include the Hubbard County Local Water Plan, Soil and Water Conservation District, County Commissioner, Township Supervisor, University of Minnesota Extension Service, Soil Conservation Service, Board of Water and Soil Resources, Minnesota Pollution Control Agency, Department of Natural Resources, and sportsman's clubs. The Coalition will meet at least quarterly. As the Coalition matures the group may choose to expand their activities and horizons beyond this project.

**A.1.c. Materials:** Materials will include mailings, publication of meeting notices, copying costs, phone costs, and office supplies.

**A.1.d. Budget:**  
Total Biennial LCMR Budget:\$2,000  
**LCMR Balance:**\$2,000  
**Match:** N.A.  
**Match Balance:** N.A.

**A.1.e. Timeline:**

1/96	6/96	12/96	1/97	6/97
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Product #1

Task Force					
Activity Reports	xx	xx	xx	xx	xx

**A.1.f. Workprogram Update:** July 1, 1997. The establishment of a watershed coalition has not been successful. However, as a result of enlisting the support and assistance of the Hubbard County Coalition of Lake Associations in an effort to complete this objective several lakes in the watershed have formed lake associations and joined the county organization.

B. Title of Objective/Outcome: Failing Septic System Survey.

**B.1. Activity:** Property Record Review and Notification of Field Evaluation. Technicians reviewed the existing documents on file in the Environmental Services Office to identify suspected failing or unknown systems. Systems with adequate documentation of conformity were further evaluated. Property owners of targeted systems received notification of all upcoming field evaluation and information on failing septic systems.

**B.1.a. Context within the project:** This review targets the properties for the next phase of the project which is field investigation and notifies effected property owners. This step is necessary to effectively direct limited resources and avoid public perception of inefficiency.

**B.1.b. Methods:** Technicians will review existing records on file which include former permit applications, septic inspection records, and photos to determine conformity or nonconformity of septic systems. Properties with no records will be automatically inspected. In cases where the Watershed Coalition has been unable to provide property ownership lists the technicians will prepare the lists prior to the record's review. The record's review will be tabulated in a format which identifies the general location of the property on the lake, property owner's name and permanent address, status of existing septic system, dates of notification from county on upgrade requirements, date sanitary permit issued, and date of inspection of new system.

**B.1.c. Materials:** Technicians will require field and training materials including soil auger, soil rods, tape measures, clipboard, briefcase, camera/film and MPCA Onsite Sewage Treatment Systems Manual. One network computer will need to be purchased to be shared by two technicians. Two vehicles are

being leased. The County will purchase at least one vehicle at the end of the lease period. Administrative support is required. All equipment purchased with this appropriation will continue to be used for the same program through it's useful life and if use changes, Hubbard County will pay back the appropriate fund an amount equal to either the cash sale price Hubbard County receives from the sale at that time or a residual value to be negotiated with the Director if Hubbard County chooses not to sell it.

**B.1.d. Budget:**  
**Total Biennial LCMR Budget:**\$46,580  
**LCMR Balance:**\$2,564.00  
**Match:** N.A.  
**Match Balance:** N.A.

<b>B.1.e. Timeline:</b>		<b>10/95</b>	<b>1/96</b>	<b>6/96</b>	<b>1/97</b>	<b>6/97</b>
Product #1						
	Property Record Report	xx	xx	xx	xx	xx
Product #2						
	Notification Report	xx	xx	xx	xx	xx

**B.1.f. Workprogram Update:** July 1, 1997. Two technicians are working on the project. A total of 54 property records were reviewed on two lakes. The record's review indicated 4 septic systems were conforming and 17 properties did not contain any sanitary facilities. Letters have been sent to 33 property owners on seven lakes notifying them a field evaluation will be conducted. A spreadsheet has been developed for each lake which identifies the general location of the property on the lake, property owner's name and address, status of the existing septic system, dates of notification from county on upgrade requirements, date of sanitary permit issuance, and date of inspection of new systems.

**B.2 Activity:** Field Investigations and Notification to Property Owners. Properties targeted during the records review phase were investigated by a technician to determine the status and location of septic systems. Where systems were determined to be failing property owners received a letter requiring upgrade within 12 months.

**B.2.a. Context within the project:** This step is the field evaluation and verification of failing systems. System components and location are documented and property owners notified upgrading is required within 12 months.

**B.2.b. Methods:** Technicians used existing written records where available to identify location and components of systems. Where no information was available soil rods were used to determine location and status of systems. A field inspection report recorded the property owner, legal description, system type and setbacks including distance of system from wells, dwellings, lake, and property lines. A sketch was drawn to record information as well. Property owners were notified by mail of the results of the field evaluation and a requirement to upgrade within 12 months. Property owners were also supplied with a list of current licensed and MPCA certified installers. Technical assistance was available to assist property owners on upgrading septic systems.

**B.2.c. Materials:** The same technical materials and supplies listed for Activity A will be used in this activity.

**B.2.d. Budget:**  
**Total Biennial LCMR Budget:**\$90,420  
**LCMR Balance:**\$19,885.52  
**Match:** N.A.  
**Match Balance:** N.A.

<b>B.2.e. Timeline:</b>		<b>10/95</b>	<b>1/96</b>	<b>6/96</b>	<b>1/97</b>	<b>6/97</b>
Product #1						
	Field Inspection Report	xx	xx	xx	xx	xx
Product #2						
	Notification Report	xx	xx	xx	xx	xx
Product #3						
	Technical Assistance Report	xx	xx	xx	xx	xx

**B.2.f. Workprogram Update:** July 1, 1997. Two vehicles for field investigations were leased. Technicians evaluated 33 properties with onsite inspections and verified 22 failing septic systems.

Property owners were notified upgrading is required within 12 months from the date of notification. Field inspection reports were completed for the 33 properties on seven lakes. In addition 69 inspections on new onsite sewage treatment systems were conducted in the watershed. These inspections were the result of the septic survey program conducted since the inception of this LCMR project. Technical assistance was provided to property owners and installers. Product reports have been compiled for the BWSR.

**B.3. Activity:** Education Efforts. Property owners received educational materials explaining what a failed septic system is and why they have a negative impact on water quality as well as information describing how to properly maintain their new conforming system, and tips on water conservation. Working in conjunction with the Minnesota Extension Service fact sheets have been developed and distributed to property owners. 2500 fact sheets have been printed. Lake Association newsletters, the Hubbard County COLA Update Newsletter, and newspaper articles were also used to describe the project and the role failing septic systems play in water quality degradation. Efforts were focused on contacts with individuals and groups in a consultative environment.

**B.3.a. Context within the project:** Education efforts will help foster support for the project's objectives as well as provide long term information for adequate maintenance and conservative water use habits for property owners.

**B.3.b. Methods:** Existing educational material was reviewed for pertinent information and input requested from professionals in the onsite industry. Fact sheets were prepared detailing: failing septic systems, septic system care and maintenance, and water conservation tips. Groups and individuals were contacted for consultations and educational materials and information distributed.

**B.3.c. Materials:** Materials will include printing, mailing, and activity costs.

**B.3.d. Budget:**  
**Total Biennial LCMR Budget:**\$6,000  
**LCMR Balance:**\$5,197  
**Match:** N.A.  
**Match Balance:** N.A.

B.3.e. Timeline:		10/95	1/96	6/96	1/97	6/97
Product #1						
Consultation		xx	xx	xx	xx	xx
Reports						

**B.3.f. Workprogram Update:** July 1, 1997. Education material have been mailed to 54 property owners whose systems were targeted for further investigation by the record's review. The material explains what a failed septic system is and why they have a negative impact on water quality. Additional material on maintenance of septic systems and water use conservation habits was available at the Environmental Services Office. Several educational and informational articles have been published in the area newspapers. Fact sheets have been developed on these three subjects. Product reports have been compiled for the BWSR.

**VI. Evaluation:** Documentation was kept of the number and percentage of failing septic systems identified and upgraded in the project area. The project is considered successful because 100% of the suspect systems have been evaluated and property owners contacted with educational materials. Contacts with property owners by technical staff will be recorded to document educational efforts. The potential impacts of the project include 100% compliance with shoreland septic systems on 17 lakes in a watershed of prime economic & recreational importance to the area, increased awareness and understanding by the general public of the problems associated with failing septic systems, and development of a program which is being used by other local units of government to proactively identify failing septic systems and educate and enforce efforts to implement upgrading of the systems.

**VII. Context within field:** Because of changes to the shoreland rule in 1989 by the DNR, units of government were required to develop proactive programs to identify and implement upgrading of failing septic systems. Several different types of programs have been developed including property transfer requirements and systematic inventories of single lakes. This project expands the latter concept to a watershed focus. Hubbard County has a program to identify and implement upgrading of failing septic systems in cooperation with lake associations on selected lakes. To date 42 lakes have been surveyed in Hubbard County, 2201 properties evaluated, 1371 nonconforming/failing septic systems identified and efforts undertaken to upgrade, and 1084 new conforming septic systems installed or parcels have connected to municipal wastewater systems.

- VIII. Budget context:** a) Local levy and local water planning dollars spent from June 30, 1993 to June 30, 1995: \$95,000. b) During the two year period from July 1, 1995 to July 1, 1997 local levy and water planning dollars estimated to be spent: \$101,000.
- IX. Dissemination:** Presentations concerning the project will be made to lake associations, COLA's, community service clubs and other groups are requested. Articles will be published in lake association news letters and local newspapers. Program format will be shared with other interested local units of government.
- X. Time:** Project will be complete, all money spent and all products done by June 30, 1997.
- XI. Cooperation:** An advisory watershed coalition group will be formed consisting of individual property owners within the watershed and exofficio members from local, state, and federal agencies. The Minnesota Extension Service and the Hubbard County Soil & Water Conservation District will function in an advisory capacity on development of educational fact sheets to be distributed to property owner. The program manager will spend 20% of her time on the project.
- XII. Reporting Requirements:** Semi-annual work program update reports will be submitted not later than January 1, 1996, July 1, 1996, January 1, 1997, and a final six-month work program update and final report by June 30, 1997.

### **XIII. REQUIRED ATTACHMENT:**

#### **1. Qualifications:**

Project Manager: Bethany S. Kluthe  
Hubbard County Environmental Services  
301 Court St.  
Park Rapids, MN 56470

#### **PROJECT MANAGER RESUME**

#### **Education:**

University of Minnesota St. Paul, MN  
Bachelor of Science Degree with Distinction Wildlife Biology

Minnesota Association of County Planning & Zoning Administrators Certifications  
Planning & Zoning Specialist I Certificate Oct. 1990  
Environmental Resources Specialist I Certificate Oct. 1990

Minnesota Pollution Control Agency Certification Program  
Onsite Sewage Treatment System Inspector, Site Evaluator and Designer Certificate  
July 1989 - Aug. 1992

#### **Work Experience:**

Hubbard County Planning & Zoning Administrator June 1990 - Present

Responsible for implementation of a comprehensive shoreland management program; interpretation, enforcement, and administration of county land use controls; budget preparation; personnel management including supervision of five employees; office administration; and grants writing and administration. Position requires working knowledge of land use law and water regulations. Frequent interaction with public, policy makers and intergovernmental agency personnel is required.

Hubbard County Water Plan Coordinator October 1990 - Present

Responsible for implementation of the Comprehensive Local Water Management Plan. Duties include preparation of annual budget, workplan/ report and coordination of Water Task Force. Responsible for formulating and executing strategies to achieve goals identified in plan. Programs implemented successfully include the Lake Advocate Program, GIS development, annual domestic well testing clinic, basic water chemistry testing on lakes, development of a lakeshore best management practices brochure, revision of county septage ordinance, development of an environmental health considerations packet for new property owners, and initiation of a comprehensive survey on lakeshore to identify and upgrade failing septic systems.

Hubbard County Environmental Services Technician Jan. 1989 - June 1990

Duties included assisting in the administration and implementation of land use controls by helping the public in the permit application process, conducting building site inspections, inspecting installation of onsite sewage treatment systems, and reviewing, evaluating, and issuing permits. Also investigated alleged violations, documented, made recommendations and drafted reports for supervisor.

Alaska Department of Fish & Game August 1984 - August 1988

Seasonal Creel Census Technician. Major responsibility was conducting creel census interviews for the purpose of collecting and recording biological data. Specific duties involved extensive contact with the general public, knowledge and enforcement of fish and game regulations, identification of fish species, data recording, and preparing weekly summary reports. Ability to work independently with minimal direct supervision required.

USDA Forest Service

January 1981 - December 1984

Biological Technician (intermittent employment). Major responsibility was to provide technical support for biologists in central office. Tasks included: design and preparation of maps, flip charts, and graphs; literature research of natural history data and subsequent entry of data into wildlife habitat data base; editing of wildlife habitat data base; general office support duties; stream sediment laboratory analysis; and compilation and writing of reports.

Alaska Department of Fish & Game

June 1982 - Sept. 1982

Field Technician. Participated in stream life study designed to evaluate life cycle of pink salmon. Study included capture and tagging of live adults and subsequent monitoring of tagged individuals. Work required individuals to have a high degree of self-reliance and to be a self-starter.

USDA Forest Service

April 1980 - December 1980

Biological Technician. Member of fisheries habitat protection crew. Duties consisted of field investigation of streams to be impacted by logging and road building activities. Determined which fish species streams supported and subjectively analyzed habitat potential. Prepared weekly reports submitted to biologists, engineers, and foresters detailing site specific recommendations for fisheries habitat protection.

Minnesota Department of Natural Resources

June 1979 - April 1980

Biological Technician. Provided technical support at Farmland Wildlife Research Station. Projects included evaluation of roadsides for wildlife use and research of the effects of disease in white-tail deer. Working knowledge of flora and fauna typical in Minnesota required. General ecological principles utilized.

2. **Project Staffing Summary:** See attached project staffing form.