1995 Project Abstract
For the Period Ending December 31, 1997
This project was supported by the Minnesota Future Resources Fund ($80,000) and the Environment and Natural Resources Trust Fund ($245,000)

TITLE: Cannon River Watershed Strategic Plan: Integrated Management F2
PROJECT MANAGER: Allene Moesler
ORGANIZATION: Cannon River Watershed Partnership
ADDRESS: PO Box 501, Faribault, MN 55021
LEGAL CITATION: ML95, Chp.220,Sec. 19, Subd. 5(b)
APPROPRIATION AMOUNT: $325,000

Statement of Objectives: Implementation of the strategic plan of the Cannon River Watershed Partnership was to include community organizing, learning opportunities, and projects focusing on the protection of water quality and biodiversity in the Cannon River Watershed. Biologically and economically sustainable projects and stewardship plans that reduce non-point pollution and protect or restore native habitats were to be supported with technical expertise and cost share.

Overall Project Results: Community organizing efforts resulted in the formation of one lake association and increased citizen leadership and participation in the Big Woods Project. Local citizen leadership did not occur in the time frame as anticipated, but citizen participation on steering and project selection committees was consistent. It appears that interest is very strong and citizens appreciate the opportunity to participate in the decision making, but do not feel comfortable in leadership roles at this time. Project participation and requests for stewardship plans grew out of information meetings, workshops, tours and other special events. On-site visits by technicians in targeted areas were well received by landowners and accelerated progress.

The demonstration and non-point source pollution prevention outcomes include:

- Approximately 3,000 people received training or information about resource protection.
- Two cluster septic systems for 46 shoreline residents were approved.
- 107 acres of buffer strips were installed and secured with 5-year agreements.
- 8 shoreline neighbors committed to the restoration of 860 feet of lakeshore. Permit delays and unseasonable high water in 1997 forced shoreline modification and seeding to be postponed.
- Cattle have been fenced from 2150 feet of shoreline
- Approximately 45 manure spreaders have been calibrated and nutrient management plans done for 13,000 acres of fields.
- Four farms are utilizing rotational grazing. 16 families received HRM training.
- Brush clearing, burning, exotic and/or invasive species control has protected a fen and other high quality natural sites within the Cannon River Wilderness area.
- A trail was built to prevent erosion and circumvent a fragile site in the CRWA.
- A project to remove major source of phosphorus to Lake Volney was approved.
- A 2,000' project to reduce erosion on the Little Cannon River was installed.
- A 7-acre trout lily preserve was protected from golf course erosion and enhanced with seeding.
- Big Woods, prairie and oak savanna transition sites were established at River Bend Nature Center. Trails, signs and curricula were developed to interpret the site.
- Stewardship plans were done for 124 sites totaling 9013 acres.
- 480 acres were planted to native trees; 90 acres restored to prairie. In addition, students and volunteers planted 11,500 trees in the Big Woods Project area.

All project sites were marked with distinctive blue and white signs. Results of on-going monitoring of selected projects will be available as data is collected. Demonstration sites are available to the public during tours or with appointment. Project sites are noted on maps with overlays so as to relate them to identified high quality natural and riparian areas. The projects and events created significant interest and support for CRWP as well as for it's agency and organization partners from the general public. Cooperative efforts benefit all partners, the public and the resources. This project has attracted additional monitoring programs and stimulated interest in additional research. Brochures, slides, etc. are used by staff, board and volunteers at public events and are available upon request. The most effective elements of this biennium were extended with the 1997-99 LCMR grant.

Date of Report: DECEMBER 31, 1997 WORKPROGRAM FINAL REPORT

LCMR Work Program 1995

I. Project Title and Project Number: Cannon River Watershed Strategic Plan: Integrated Management F2

Program Manager: Allene Moesler
Agency Affiliation: Cannon River Watershed Partnership
Mail Address: PO Box 501, Faribault, MN 55021
Phone: 507 332-0488
FAX: 507 332-0513

A. Legal Citation: ML95, Chp.220, Sec. 19, Subd. 5(b)
Total Biennial LCMR appropriation: $325,000
Balance: $66.00

Appropriation Language: $245,000 of this appropriation is from the trust fund and $80,000 is from the future resources fund to the Board of Water and Soil Resources for an agreement with the Cannon River Watershed Partnership to implement activities in the Cannon River watershed through matching grants and technical assistance. This appropriation must be matched by at least $81,000 of non-state money. This project must be completed and final products delivered by December 31,1997, and the appropriation is available until that date.

B. Status of Match Requirement: Non-state money contributed to this program total $95,598. Of this, $56,759 is from the McKnight Foundation; $23,925 from The Nature Conservancy; $8,000 from a Stewardship Incentive Program, and the remainder from counties and program fees.

II. Project Summary: Actions recommended in county water plans and the CRWP Strategic Plan will be prioritized by citizen and technical committees for implementation in selected areas. Local citizen groups will implement actions which will reduce non-point source pollution, reduce erosion and protect biologically sensitive areas. Projects will address problems and serve as models for long term area benefit. Biological monitoring, already begun, will continue as a citizen/academic/technical partnership to measure impact. This project is intended to educate citizens, build consensus on issues and facilitate the building of stable local organizations which have long-term goals and viability. It will utilize and coordinate local, state and federal agency resources as well as individual and academic expertise.

III. Work Program Final Report: (December 31, 1997 A Forest Ecologist and LCMR Project Coordinator were hired to deliver outcomes. Focus watersheds were selected based on 1) remaining natural resources; 2) threats to those resources and 3) citizen interest and support. The expectation was that empowering citizens with information and resources would result in local leadership of community organizations.

Local leadership did occur in the Big Woods Project and on Circle Lake. Participation in special events, information meetings and on committees, however, remained strong. The conclusion at this time is that while people are willing to participate in protecting natural resources, they generally do not have the time or desire to provide leadership. This helps to define the role of CRWP in some areas; that of facilitation and education. Also, providing citizens an opportunity to meet technical resource staff from local, state, and federal agencies at events seemed mutually beneficial. Citizens learned more about available expertise and technicians learned a great deal about the public they serve. Together, they are making changes to reduce non-point source pollution and protect remaining high quality natural areas.

Accomplishments resulting directly from this proposal include:

- Approximately 3,000 people received training or information about resource protection.
- Two cluster septic systems for 46 shoreline residents were approved.
- 77 acres of buffer strips were installed and secured with 5-year agreements; 30 acres with 2-year agreements. USFWS is negotiating to purchase the 30-acre shoreline tract.
- 8 shoreline neighbors committed to restoring 860 feet of lakeshore. Permit delays and unseasonable high water in 1997 forced postponement to spring of 1998.
- Cattle were fenced from 2150 feet of shoreline.
- Approximately 45 manure spreaders have been calibrated and nutrient management plans done for 13,000 acres of fields.
- Four farms are now utilizing rotational grazing. 16 families received HRM training.
- Brush clearing, burning, exotic and/or invasive species control has protected a fen and other high quality natural sites within the Cannon River Wilderness area.
- A trail was built to prevent erosion and circumvent a fragile site in the CRWA.
- A project to remove major source of phosphorus to Lake Volney was approved.
- A 2,000' project to reduce erosion on the Little Cannon River was installed.
- A 187-acre trout lily preserve received protection from golf course construction and was enhanced.
- Big Woods, prairie and oak savanna transition sites were established at River Bend Nature Center. Trails, signs and curricula were developed to interpret the site.
- Stewardship plans were done for 124 sites totaling 9013 acres.
- 480 acres were planted to native trees; 90 acres restored to prairie. In addition, students and volunteers planted 11,500 trees in the Big Woods Project area.

All project sites are marked with distinctive blue and white signs. The results of ongoing monitoring of selected projects will be available as data is collected. Demonstration sites will be available to the public during tours or other special events. Project sites are noted on maps with overlays so as to relate them to identified high quality natural and riparian areas. The projects and events created significant interest and support for CRWP as well as for its agency and organization partners from the general public. Cooperative efforts benefit all partners, the public and the resources. Brochures, slides, etc. are used by

staff, board and volunteers at public events and are available upon request. The most successful elements of this biennium were extended with the 1997-99 LCMR grant. Equipment purchased will continue to be used as intended.

Some of the practices described in the Objectives D-G were less successful than others, so the budget was shifted to accommodate the projects with the greatest public acceptance and natural resource protection. Changes in the Conservation Reserve Program also required a shift in emphasis and some of the goals are being met with the continuous sign up for riparian buffers.

Indirect outcomes include: the restoration of a 1600 acre wetland in Steele County known as the Straight River Marsh Project, the Cannon River Watershed selected as a focus for the Environmental Indicators Initiative, an EPA grant was received by a research facility to compare the Saginaw and Cannon River watersheds, and the Cannon River Chapter of the Minnesota Land Trust was formed. The US Fish and Wildlife Service has added the Cannon River watershed to it's priorities and purchased a 162 acre wetland in the 3 Lake Basin. More calls are coming in from the public requesting help with resource protection and/or information.

This proposal has achieved the desired result. Programs, practices and projects directed toward goals of the Cannon River Watershed Strategic Plan are strong and continue to gain support. The momentum gained and lessons learned assure that the continuation of the processes begun in this biennium will be even more successful in the next. Matching dollars that exceeded expenses for this biennium are on hand and will be applied to publications and the dissemination of materials growing out of this proposal.

IV. Statement of Objectives:

A. Subwatershed Initiative Development: Little Cannon River. The Little Cannon Issues Committee will be open to all area residents. Steering and technical advisory committees will direct educational programs, update environmental data, and integrate long and short term goals and actions with those of local and state agencies and organizations. Objectives D-F provide options for actions and demonstration projects.

B. Subwatershed Initiative Development: Prairie Creek. Similar to Objective A, but will require establishing an organized effort, in partnership with or as an adjunct to the Big Woods Project, rural resident and/or agricultural groups to focus on water quality issues.

C. Subwatershed Initiative Development: Fox/Circle Lakes. Conservation clubs and state and federal agencies working on projects in this area will be integrated into a network with citizens to prioritize goals and actions, including Objectives D-G.

D. Stream Corridor Stabilization Projects: Causes for shoreline erosion vary, requiring various technologies. Demonstration projects may include vegetative filter strips, bioengineering, willow plantings, limiting livestock access through fencing and/or rotational grazing. Total area of protection will be determined by methods chosen for implementation.

E. Agricultural Nutrient Management: Eighteen nutrient management plans, twelve livestock grazing plans, and tuition for twelve families to attend holistic resource management training will be provided to farmers adjacent to or impacting water resources.

F. Protection of Biologically Sensitive Areas: Sites identified as biologically sensitive or significant will be protected as needed to maintain or improve site integrity.

G. Forest Stewardship Plans: Educational events focusing on the Big Woods ecosystem and forest stewardship are planned. Individual forest stewardship plans for 6000 acres and technical assistance and cost share will be provided for completion of high priority conservation projects.

Timeline for Completion of Objectives:

A. Subwatershed Initiative Development: Little Cannon River
7/1/95 1/1/96 7/1/96 1/1/97 7/1/97 12/31/97
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

B: Subwatershed Initiative Development: Prairie Creek
7/1/95 1/1/96 7/1/96 1/1/97 7/1/97 12/31/97
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

C. Subwatershed Initiative Development: Fox/Circle Lake
7/1/95 1/1/96 7/1/96 1/1/97 7/1/97 12/31/97
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

D. Stream Corridor Stabilization Projects
7/1/95 1/1/96 7/1/96 1/1/97 7/1/97 12/31/97
XXXXXXXXXXXXX

E. Agricultural Nutrient Management
7/1/95 1/1/96 7/1/96 1/1/97 7/1/97 12/31/97
XXXXXXXXXXXXXXXXX

F. Protection of Biologically Sensitive Areas
7/1/95 1/1/96 7/1/96 1/1/97 7/1/97 12/31/97
XXXXXXXXXXXXXXXXX

G. Forest Stewardship Plans
7/1/95 1/1/96 7/1/96 1/1/97 7/1/97 12/31/97
XXXXXXXXXXXXXXXXXXXXXXXXX

V. Objectives/Outcomes

Objectives A through G are described on following pages.

A. Title of Objective/Outcome: Subwatershed Initiative Development: Little Cannon River

A.1. Activity: Citizens will be empowered to prioritize and implement actions to achieve goals of the Goodhue County Water Plan and the Cannon River Watershed Strategic Plan. Projects that reduce erosion and/or nutrient loading, stabilize riparian zones, and protect biologically sensitive areas will be accomplished at prioritized sites. Agricultural practices that lessen environmental impact will be encouraged. Long-range (3-10 year) subwatershed goals and plans focusing on surface and ground water protection are expected.

A.1.a. Context Within the Project: The Little Cannon River is a major contributor of sediment to the Cannon River, which carries much of it to the Mississippi River. Reducing sediment loading and "normalizing" the rate of flow are basic goals. Biologically sensitive areas exist which are in need of protection and/or restoration. There is also a history of citizen action and studies of issues, making this area a priority for action. Consistent funding and local leadership will provide stability to this project. Understanding, identifying and resolving threats to water quality on a subwatershed basis is expected to yield commitment to action and protection far past the term of this grant.

A.1.b. Methods: A steering committee, reorganized in 1994, will have established a meeting schedule, identified landowners, and have a landowner survey format determined by July 1, 1995, at which time a Project Coordinator will be employed by CRWP. A technical advisory committee will also be in place. The first stream sampling will also have been accomplished as part of the Citizen Stream Monitoring project. Survey results will determine the direction of public educational activities and other actions. Sub-committees will be formed to focus on specific issues, such as areas with unique biological and/or geological features. Sites will be evaluated and prioritized for appropriate project implementation. Cooperative landowners will be provided options and assistance. Those selected are those least likely to qualify for other local, state or federal programs. Stream corridor protection will include, but not be limited to vegetative filter strips. Bioengineering will be utilized where appropriate. Landowners will be offered opportunities to develop plans that reduce erosion and/or nutrient loading, or to participate in holistic resource management training. All project participation is voluntary. Evaluation will be on going and activities adjusted accordingly. Annual watershed conferences will inform the public about the status and progress of this project. Citizen stream monitoring will also be on going.

A.1.c. Materials: Two computers, a printer, and appropriate software for use by the Project Manager and Project Coordinator for Objectives A-F. Estimated cost, $6000. Anticipate that items will be used for continuation of objectives beyond life of the grant. Should use change, CRWP will pay back to the Fund an amount equal to the cash value received or a residual value approved by the Director of the LCMR if it is not sold.

A.1.d. Budget: $25,000 $27,054 $28,721
Total Biennial LCMR Budget: $18,333
LCMR Balance: $00.00
Match: $6666 $8,721 $10,388
Match Balance: $00.00

A.1.e. Timeline:

	1995 1998 8/30 2/29	10/30	12/31	1996 2/28	4/30	6/30	8/31	10/31	12/31	1997 2/28	4/30	6/30	8/31	10/31	12/31
Resident list	X														
Focus meetings		X	X	X	X	X		X	X	X	X				
Info meetings		X	X	X	X			X	X	X			X		
Watershed tour						X	X					X			
Slide show	X							X							
Public program	X				X		X	X			X		X		
Vision/mission			X												
Short-term plan draft				X				X	X						
Site visits	X				X	X	X	X	X		X		X		
Citizen monitoring	X	X					X	X	X				X	X	
Audit				X						X					X
Final plan														X	
Final report														X	
6-month report			X			X			X			X		X	

A.1.f. Workprogram Final Report (December 31, 1997) Resident lists of targeted areas were compiled. Tours, meetings and publicity elicited interest and participation. Attendance at focus meetings waned in 1997 when the meeting site moved from a rural site to the Cannon Falls City Hall. However, a different and very interested audience resulted; mostly non-farming rural residents concerned about woodlands, erosion and the Little Cannon River. Their response was to request stewardship plans and assessment of their natural resources. Implementation of plans appears imminent.

A citizen volunteer read the three gauging stations placed on the Little Cannon to study hydrological flows during the summer of 1996. Also, a team of Carleton students completed and presented a geologic study of the river, looking primarily at meandering patterns over time.

Citizen leadership did not evolve as anticipated, although project approval and participation appeared strong. Because of local reluctance to provide leadership, the focus shifted from citizen organization to collaboration and technical assistance. Citizen representation continues on the project selection committee.

The Goodhue County SWCD and NRCS staff agreed to implement a pilot project involving on-site visits for land use and natural resource assessment. SWCD staff served as the primary contacts between landowners and local, state and federal agencies and programs as needed for residents whose primary land use was farming. The DNR forestry worked jointly with the SWCD and contract forester provide forest stewardship plans and the menu of practices and programs to non-farm rural residents. Many of the non-farming rural residents previously unfamiliar with agencies and programs, but were responsive and appreciative. Approximately 40 on-site visits were accomplished by SWCD staff, and 30 forest stewardship plans were completed. These programs will continue with the Phase II LCMR proposal as interest, implementation, and landowner satisfaction indicates success. The coordinated efforts of the agencies involved represent the integrated management envisioned in this proposal.

An unanticipated but very welcome outcome is interest by the Cannon Falls League of Women Voters in the Little Cannon River, the dam on it in Cannon Falls and their efforts to inform the community about natural resource protection issues from a policy perspective. Over 40 people learned about the history of the dam on the Little Cannon River. About 20 people learned about the "Wild, Scenic, and Recreational" designation for the Cannon River.

While the level of local leadership is a disappointment, requests for forest stewardship plans and nutrient management indicates that there is interest in protecting the resource. A fish kill on Hay Creek prompted calls about the Little Cannon and protecting it. Interest is definitely growing and the expectation of a viable local organization may have been overly ambitious given the time frame, but momentum is such that the CRWP will continue to focus on the Little Cannon River watershed.

B.Title of Objective/Outcome: Subwatershed Initiative Development: Prairie Creek

B.1. Activity: Develop a Prairie Creek Watershed focus group to provide local input to existing organizations and agencies on issues pertaining to water quality.

B.1.a. Context Within the Project: Prairie Creek is a major tributary of the Cannon River, flowing through a large area of farmland. It is a contributor of sediment and farm chemicals to Lake Byllesby. Near its headwaters, it drains areas of the Big Woods and prairies being restored with native vegetation. It also contains populations of rare and endangered species. The Big Woods Project, which is a diverse group of people and organizations that came together in 1992, is working on forest expansion, restoration projects and land management tools for landowners. It is also concerned about land use and development issues.

B1.b. Methods: Local landowners will be notified of opportunities to set the priorities for the Prairie Creek Watershed and to indicate their concerns and interest levels on the priorities. Watershed citizens will be invited to learn about watershed concepts, specific issues and program potential. The Big Woods Project residents will serve as a nucleus for the focus group to meet with a technical committee to identify problems and solutions. Projects will be chosen for implementation from those in Objectives D-G to be included in a two year plan. A long term plan is expected to be developed, based on the outcome of the first two years of this project, with initial sources of funding for implementation identified.
Participation in programs and projects will be the main measurement at the end of the proposal period. During this period, long-term monitoring criteria will be established. Plans for future actions beyond 1997 will indicate commitment.

B.1.c. Materials: See Objective A.

B.1.d. Budget: $25,000 27,055 $28,772
Total Biennial LCMR Budget: $18,333
LCMR Balance: $00.00
Match: $6,667 $8,722 $10,389
Match Balance: $ 00.00

B.1.e. Timeline:

	1995			1996						1997					
	1998 8/30 2/29	10/30	12/31	2/28	4/30	6/30	8/31	10/31	12/31	2/28	4/30	6/30	8/31	10/31	12/31
Resident list	X														
Focus meetings		X	X	X	X	X		X	X	X	X				
Info meetings		X	X	X	X			X	X	X			X		
Watershed tour						X						X			
Slide show	X							X							
Public program	X				X		X				X		X		
Vision/mission			X												
Short-term plan draft				X				X	X						
Site visits	X				X	X	X	X	X		X		X		
Citizen monitoring	X	X					X	X	X				X	X	
Audit				X						X					X
Final plan														X	
Final report														X	
6-month report			X			X			X			X		X	

B.1.f. Workprogram Final Report: Update Information meeting and public events were held in conjunction with Objective G activities and the Big Woods Project steering committee. The project was restructured to maximize the Big Woods strategic plan and resources. A local citizen initiative, the Seven Mile Woods Association, evolved into an independent organization to concentrate on protecting their rich natural resources, including a branch of Prairie Creek.

Several hundred people attended the "Meeting In the Big Woods" on July 9, 1996. Speakers included Senator Steve Morse; Rod Sando, MN DNR; and John Sawhill, President and CEO of The Nature Conservancy. Collaborative efforts with Friends of the Cannon Valley Wilderness area and Seven Mile Woods Associations resulted in significant natural resource protection strategies and implementation. A conservation overlay district has been proposed to township and county officials by the Big Woods Project. The leadership of the Big Woods Project is researching non-profit status.

The "Water Committee" of the Big Woods Project was activated to focus on Prairie Creek. The University of Minnesota was brought in by this committee to assess erosion processes and the impact of agricultural practices. Fecal coliform bacteria studies were done on Prairie Creek by MPCA. Analysis is underway. The outcome will help to determine future emphasis.

Multiple committees continue to research and implement restoration, seek methods to protect the area through innovative processes and ordinances, and evaluate common erosion problems. The Big Woods Project is very successful, with broad participation. It will continue as a separate organization with strong support by CRWP, state agencies, and private groups. Thousands of trees were planted and many forest stewardship plans completed (see Objectives G and G1). This is a dynamic program with multiple supporting partners and citizen leadership.

C. Title of Objective/Outcome: Subwatershed Initiative Development: Fox/Circle Lake & Wolf Creek

C.1. Activity: Develop a citizen/technical team to evaluate and implement projects that will result in improved water quality and a less volatile hydrograph in this subwatershed. Recreational water usage will also be addressed.

C.1.a. Context Within the Project: Wolf Creek flows through Fox and Circle Lakes on its way to the Cannon River south of Dundas. Permanent and seasonal homes, farms and feedlots surround the lakes. Runoff and development challenge them. The protection and restoration of streams and lake shorelines are essential to reduce erosion and restore fish habitat. Lakeshore owners have observed a significant decline in water quality over the past 10 years. To date, there have been cooperative efforts between landowners, sportsmen's clubs, SWCD, DNR, MPCA, and CRWP to promote wetland restoration and fence cattle from lakes. Both lakes have been involved with the MPCA Lake Assessment Program. While the need for action has long been recognized, the organizational aspects have not been developed. This project will provide focus and priorities for action, as well as an opportunity to implement specific projects. The sportfishing and conservation clubs have contributed significant dollars for several projects and have indicated interest in continuing.

C1.b. Methods: A steering committee will have been created by July 1995, to determine a general course of action. Watershed citizens will be invited to learn about watershed concepts, specific issues and program potential. Landowners will be drawn into the process of identifying threats to surface waters and actions to reverse the process of degradation. An informal committee of agency (SWCD, MPCA, DNR, SCS) staff will be solidified as a technical team to educate and advise the citizen group. Projects will be chosen for implementation from those in Objectives D-G to be included in a two-year plan. A long-term plan will be developed, based on the outcome of the first two years of this project, with initial sources of funding for implementation identified. During this period, long-term monitoring criteria will be established. Participation in programs and projects will be a measure of success. Plans for future actions beyond 1997 will indicate commitment.

C.1.c. Materials: See Objective A.

C.1.d. Budget: $25,000 $27,055 $28,722
Total Biennial LCMR Budget: $18,334
LCMR Balance: $00.00
Match: $6,666 $8,722 $10,389
Match Balance: $00.00

C.1.e. Timeline:

	1995 8/30 2/29	10/30	12/31	1996 2/28	4/30	6/30	8/31	10/31	12/31	1997 2/28	4/30	6/30	8/31	10/31	1998 12/31
Resident list	X														
Focus meetings		X	X	X	X	X		X	X	X	X				
Info meetings		X	X	X	X			X	X	X			X		
Watershed tour						X						X			
Slide show	X							X							
Public program	X				X		X				X		X		
Vision/mission			X												
Short-term plan draft				X				X	X						
Site visits	X				X	X	X	X	X		X		X		
Citizen monitoring	X	X					X	X	X				X	X	
Audit				X						X					X
Final plan														X	
Final report														X	
6-month report			X			X			X			X		X	

C.1.f. Workprogram Update: Focus meetings and special events held in local township and community facilities were attended by groups from 12-50+. Bus and pontoon tours familiarized the steering committee and public with concerns. Groups began to coalesce around specific issues such as cluster septic systems, lakeshore levels, and shoreline improvement. The steering committee was very active until individuals began to focus on their own lakes. A brochure about shoreline care and landscaping was printed and distributed. Eight neighboring families on Fox Lake agreed to do shoreline repairs along 1,000 feet of shoreline (See Objective D2). USFWS purchased a ¼ section adjacent to Wolf Creek for wetland restoration, thus encouraging sportsmen's clubs to restore an adjacent wetland that will help to stabilize flows and reduce sedimentation. In August, 1996, 950+ tires were removed from Fox Lake in a joint effort with a sportsmen's club, Sentence to Serve, and Rice County Landfill.

The Circle Lake Association was officially formed in July, 1997 and has about 50 members.. Their priority issues are sedimentation, weeds, and lake levels. The Association applied for a grant to identify the sources of problems and find solutions. Residents on Lake Mazaska and Fox Lake were provided with information about forming a lake association, but no organizations now exist.

Citizens from the Three Lake Basin served on the Rice County Lakeshore Zoning committee. The initial hearing for recommendations was a debacle due to lack of information disseminated. CRWP summarized the recommendations and distributed them to Rice County members and Three Lake Basin project participants. It was the only effort to provide accurate information to the public other than copies that were available from the courthouse. The committee has been asked to redo the recommendations.

Historic social conflicts and on-going disagreement over lake levels have had a negative impact on efforts to have one committee or organization for the three lakes. It was anticipated that understanding of the watershed and resource impacts would bring people together. CRWP will continue to assist lake associations and restoration of the Rice County Coalition of Lake Associations.

At the recommendation of the steering committee, 530 shoreland management booklets were printed for the "Shoreland Volunteer Program." Training is scheduled for March, 1998. CRWP sponsored a holiday thank you for project participants on Nov. 22 at which a resident received a Governor's Certificate for 20 years of lake monitoring. CRWP will continue efforts in this area.

C.2. Activity: Feasibility study for collector septic system on rural lakeshore.

C.2.a. Context within the project: Failed septic systems are recognized as contributors to nutrient overloading and subsequent degradation of lakes. The presence of non-conforming lots makes it impossible in some cases to construct adequate septic systems on each parcel. A feasibility study and consultation for a group of lakeshore owners will determine the potential for a cluster system serving several households. Any actual implementation costs will be borne by the property owners, with the understanding that the system will serve as a demonstration model.

C.2.b. Methods: The team from Activity C1 will identify several areas along the lakes that have failing septic systems and substandard lots. Landowners will be invited to an information meeting to learn about the process and given an opportunity to participate. An area will be selected where there appears to be consensus among neighbors. If none exists on either of the above lakes, Lake Mazaska property owners will be approached. A consulting firm will be hired to work with the committee and property owners.

C.2.c. Materials: N/A

C.2.d. Budget: $6,600
Total Biennial LCMR Budget: $6,600
LCMR Balance: $00.00
Match:
Match Balance:

C.2.e. Timeline:

	1995			1996						1997					1998
	8/30	10/30	12/31	2/28	4/30	6/30	8/31	10/31	12/31	2/28	4/30	6/30	8/31	10/31	12/31
List of potential sites		X													
Information meeting				X		X		X							
Site Identified		x			x	X		x							
Contract let															
Updates from contractor															
Final report from contractor															
Activity assessment															

C.2.f. Workprogram Update: $2,000 was pledged to a site with 16 homes that were hooked into a tile line draining into a creek adjacent to Lake Mazaska. The Lake Mazaska cluster did not materialize because of soil conditions unacceptable for septic drainfields and the cost of purchasing land for a community mound was prohibitive. Landowners are doing individual mound systems.

In June of 1996, about 50 people attended a septic system/cluster system program. As a result, two groups of neighboring landowners (one each on Fox and Circle Lakes) decided to study solutions to their non-conforming lots and septic problems. Several indicated that they would lead the neighborhood organization if CRWP would help with soil testing and a feasibility study. In July 1997, Forest Township established a subordinate service district to serve as the fiscal agent for the Circle Lake group. Similar action was taken for Fox Lake shortly after. Circle Lake will have a community mound system and Fox Lake will have a community drainfield. Engineering plans are done and construction will begin in the spring of 1998.

To address areas where soils and lot sizes cannot meet accepted design standards, a group of landowners requested the investigation of performance standards as opposed to design standards. (For example, composting toilets and alternative gray water management). A contract for a literature search was signed with a consulting firm, with the interest and support of the MPCA and Rice County Environmental Health. The contractor has failed to deliver a final product despite assurances that it would be done. No payment has been or will be made to that contractor.

D. Title of Objective/Outcome: Stream/Lakeshore Erosion Control

D.1. Activity: Vegetative Buffer Strips

D.1.a. Context Within the Project: The planting of vegetative buffer strips is an accepted practice for stabilizing riparian zones by slowing runoff and filtering some sediments. Buffer strips planted at the headwaters of tributaries will allow their impact to be more easily determined.

D.1.b. Methods: Sites will be selected and landowners contacted for participation. Technical advisors (SWCD or Extension) will oversee the individual projects. Donations of equipment, seed and labor will be sought. Contracts and/or detailed workplans will be drawn up specific to each landowner and/or site. Implementation will be recorded by photographs and journal accounts. Follow-up will include on-site inspections and monitoring. Demonstration and/or field days may also be held. Annual reports are expected for three years.

D.1.c. Materials: Equipment will be rented as needed. Native plants will be used as available and/or practical.

D.1.d. Budget: $41,425
Total Biennial LCMR Budget: $29,425
LCMR Balance: $$00.00
Match: $12,000
Match Balance: $00.00

D.1.e. Timeline:

1995 1998 8/30 2/29	10/30	12/31	1996 2/28	4/30	6/30	8/31	10/31	12/31	1997 2/28	4/30	6/30	8/31	10/31	12/31
Site selection				x	x	x				x	x			
Landowner workplans				x	x	x	x			x	x	x		
Site prep./seeding				x	x	x	x			x	x	x		
Project documentation					x			x			x		x	
Project evaluation					x			x			x		x	
Final report														x

D.1.f. Workprogram Final Report (December 31, 1997): A brochure describing options for Objectives D-G was developed distributed to landowners in the target areas. At the suggestion of agricultural technical advisors, a 3-5 year easement agreement was offered to landowners agreeing to plant and maintain buffer zones wider than required by law, but necessary for effective erosion control and runoff filtration. incentive payment to recover losses incurred by not renting riparian areas for grazing while other programs are researched. USFWS is working with that landowner.

77.56 acres of buffer have been established with 5 year agreements signed on 8 parcels and a 2 year agreement on an additional 30 acres are in place. .

D. Title of Objective/Outcome: Stream/Lakeshore Erosion Control

D.2. Activity: Erosion control using bioengineering

D.2.a. Context Within the Project: Rip-rap is an expensive and often inappropriate method of erosion/gully control. Techniques that use trees and/or other naturally occurring products have been developed, but are not in common use where erosion is severe. Those methods applicable for successful erosion control will be implemented as demonstration projects.

D.2.b. Methods: Sites will be selected and landowners contacted for participation. Technical advisors (SWCD or Extension) will oversee the individual projects. Donations of equipment and labor will be sought. Contracts and/or detailed workplans will be drawn up specific to each landowner and/or site. Implementation will be recorded by photographs and journal accounts. Follow-up will include on-site inspections and monitoring. Demonstration and/or field days may also be held. Annual reports are expected for three years.

D.2.c. Materials: Equipment will be rented as needed. Materials needed will be identified in workplan updates as they are determined.

D.2.d. Budget: $41,425
Total Biennial LCMR Budget: $29,425
LCMR Balance: $00
Match: $12,000
Match Balance: $00

D.2.e. Timeline:

1995 1998 8/30 2/29	10/30	12/31	1996 2/28	4/30	6/30	8/31	10/31	12/31	1997 2/28	4/30	6/30	8/31	10/31	12/31
Shoreline consultation				x	x	x				x	x			
Site selection				x	x	x				x				
Landowner workplans				x	x	x	x			x	x	x		
Site prep./seeding				x	x	x	x			x	x	x		
Project documentation					x			x			x		x	
Project evaluation					x			x			x		x	

D.2.f. Workprogram Final Report (December 31, 1997): Bioengineering was an option included in the brochure. Staff and volunteers attended bioengineering workshops. Sites on the Little Cannon where bioengineering was used were included on the all LCR area tours. A 600 foot section of revetment on the Little Cannon was halted because of woodland damage necessary to get equipment to the site. 860' of continuous shoreline on Fox Lake is being restored with the cooperation of 8 landowners. The permitting process was cumbersome and would have been very difficult without professional engineering consultants. The permitting process caused July implementation to be rescheduled for late fall, however, unseasonably high water resulted in spring work. At this time, all landowners have signed agreements, branch bundles are ready for installation (constructed by an MCC crew), plants and seeds ordered, and construction materials ordered. The evaluation and monitoring process involving landowners will begin in early spring. This process is very expensive and most likely could not be undertaken by an individual landowner without outside assistance. However, the engineering firm is confident that the results can be replicated in similar circumstances if this project achieves the expected outcome. The site is a demonstration of several techniques and will be followed for a minimum of 5 years.

D. Title of Objective/Outcome: Stream/Lakeshore Erosion Control

D.3. Activity: Removing livestock from riparian zones

D.3.a. Context Within the Project: Livestock contribute major amounts of nutrients to streams and lakes at some sites. Vegetation is quickly restored when livestock are removed. Several demonstration projects in Rice County have shown fencing to be inexpensive and practical when alternative summer watering sources are available.

D.3.b. Methods: Sites will be selected and landowners contacted for participation. Technical advisors (SWCD or Extension) will oversee the individual projects. Rotational grazing will be an option with training provided by the Land Stewardship Project and the Sustainable Agriculture Division of the Minnesota Department of Agriculture. Donations of equipment and labor will be sought. Contracts and/or detailed workplans will be drawn up specific to each landowner and/or site. Implementation will be recorded by photographs and journal accounts. Follow-up will include on-site inspections and may also include demonstration and/or field days. Annual reports are expected for three years.

D.3.c. Materials: Equipment will be rented as needed. Native seed will be used as available and/or practical.

D.3.d. Budget: $18,000 $19,500

Total Biennial LCMR Budget: $13,000
LCMR Balance:$00
Match: $5,000 $6,500
Match Balance: $00

D.3.e. Timeline:

	1995			1996						1997					1998
	8/30	10/30	12/31	2/28	4/30	6/30	8/31	10/31	12/31	2/28	4/30	6/30	8/31	10/31	12/31
Site selection					x	x	x	x			x	x			
Landowner wkplans					x	x	x	x	x		x	x	x		
Site prep/seeding					x	x		x			x	x			
Project documentation						x			x			x		x	
Project evaluation						x			x	x		x		x	
Final report															x

D.3.f. Workprogram Final Report (December 31, 1997): Landowners in targeted areas were advised of the help available to fence cattle from streams. Fencing and alternative water sources would be cost shared. this option. Sites where this was done in 1994 were included in tours and publicized. Two landowners removed cattle from 2150 feet of shoreline where overgrazing and erosion were contributing to river degradation. Over 950 tires were removed from Fox Lake in August, 1996, from an area previously fenced. This was a collaborative effort; Tri-Lakes Sportsmen's Club donated $1,500, Sentence to Serve did the labor, lakeshore owners provided pontoons and Rice County Landfill accepted the tires.

This option gained interest, but is difficult to sell. Smaller farm units seem hesitant to try anything different. SWCD, NRCS and Extension technicians have been strongly encouraging farmers to accept this practice, and feel that the next two years will see better results. With the increased interest in buffers, some of the dollars budgeted to this objective were shifted others.

E. Title of Objective/Outcome: Agricultural Nutrient Management

E.1. Activity: Nutrient management plans for eighteen farms with livestock along stream corridors or lakeshore which are considered threats to water quality.

E.1.a. Context Within the Project: Excess nutrients are responsible for both surface and groundwater contamination, much of it coming from livestock. Over-fertilization is common, as nutrients from manure and legumes often are not quantified and given proper credit when commercial fertilizer is applied. In planning manure application rates, nitrogen availability is often used as the determining factor rather than phosphorus, which is becoming very high in some areas.

E.1.b. Methods: Sites will be selected and landowners contacted for participation. A technical consultant, under the supervision of area Extension offices and the MN Dept. of Agriculture, will develop total nutrient management plans for individual farms. Field days will be used to attract attention. Possible participants will be recommended by subwatershed initiative committees and the staffs of county extension and/or SWCD offices. On-site visits, soil testing, and other information will be gathered for each participant. Each plan will be developed using the Manure Application Planner (MAP) software, which is specific for this purpose. Plans will be presented to and discussed with each farmer. Follow-up visits will assess participation. Soil testing will be done as prescribed by Extension to evaluate plan implementation. A data base will be maintained for long-term access. Participants may be asked to hold field days. Annual reports are expected for three years. *Scales will be purchased for on-site manure calibration.*

E.1.c. Materials: A "laptop" computer and MAP software will be purchased for this project. The computer will be shared by the forest ecologist and will remain the property of CRWP for continued application to nutrient and forest plans. *A set of four heavy-duty weight scales will be purchased for a cost of approximately $6,250 in October, 1996.*

E.1.d. Budget: $20,000
Total Biennial LCMR Budget: $10,800
LCMR Balance:$1,891 **$ 000.00**
Match: $9,200
Match Balance: $7,941 **$000.00**

E.1.e. Timeline:

	1995			1996						1997					1998
	8/30	10/30	12/31	2/28	4/30	6/30	8/31	10/31	12/31	2/28	4/30	6/30	8/31	10/31	12/31
Field days															
Participant list (Little Cannon)			x												
Participant List (Prairie/Wolf)				x											
Consultant contract			x												
Site visits	x														
Soil testing				x	x	x	x				x	x	x		
MAP plans				x	x	x	x	x			x	x	x		
Project evaluations					x			x				x		x	
Final report															xxx

E.1.f. Workprogram Final Report (December 31, 1997) A laptop computer and printer were purchased for the Goodhue County SWCD to provide on-site nutrient management. Goodhue Co. SWCD technicians visited livestock producing farmers, offering nutrient management as an option in a menu of conservation and land enhancement programs. They held two demonstration clinics and calibrated 5 spreaders at each. Demonstration plots were set up and field days held to promote the process and results. In Rice County, 15 spreaders were calibrated at two clinics. 19 manure samples were sent in. Farmers going through the process were surprised at their under-estimation of nutrients applied and potential savings.

Scales available for demonstration clinics were not readily available for on site calibrations. In response to advice from Extension Educators and SWCD technicians, CRWP purchased a set of scales in the fall of 1996. They are available to technicians in all six watershed counties and are being scheduled and maintained by CRWP. Approximately 40 spreaders have been calibrated, and nutrient management plans have been developed for over 13,000 acres. As the environmental and economic benefits of good nutrient management are promoted and county mandates for plans increase, the availability and use of scales through CRWP will continue.

E.2. Activity: Livestock grazing plans will be designed for 12 farms with $500 available for fencing costs per farm.

E.2.a. Context Within the Project: Farming practices which are economically and environmentally feasible are available, but often not implemented due to lack of knowledge or technical assistance. Grazing has proven to be beneficial and when implemented on lands adjacent to streams and/or lakes, may reduce livestock impact on waters. Reliance on row crops which demand additional nutrients and chemicals is reduced.

E2.b. Methods: Generally the same as E1, except that the focus will be on rotational grazing as opposed to row crops.

E.2.c. Materials: Materials needed will be identified in individual plans when applicable. Fencing up to $500 will be covered for individual farmers.

E.2.d. Budget $20,000
Total Biennial LCMR Budget: $12,000
LCMR Balance: $00
Match: $6,972
Match Balance: $00

E.2.e. Timeline:

	1995			1996						1997					1998	
	8/30	10/30	12/31	2/28	4/30	6/30	8/31	10/31	12/31	2/28	4/30	6/30	8/31	10/31	12/31	/29
Site selection					x	x	x				x	x				
Landowner workplans					x	x	x	x			x	x	x			
Site preparation/installation						x	x	x			x	x	x			
Project documentation						x			x			x		x		
Project evaluations						x			x					x		
Final Report															x	

E.2.f. Workprogram Final Report (December 31, 1997) Rotational grazing plans were done for four farms. Two field days and workshops were held to explain and promote the benefits of this process. At this time, at least two more farmers are working on grazing plans with advisors.

E.3. Activity: Holistic Resource Management

E.3.a. Context Within the Project: As farm programs change, it becomes more difficult for individuals to make choices that are sustainable environmentally, economically and socially. HRM encourages entire families to set goals for their community and landscape as well as for profitability, and has demonstrated advantages to participants. It often results in farmers reducing chemical inputs and taking advantage of on-site resources. Long-range holistic management training may be appropriate but not affordable for some families.

E.3.b. Methods: Similar to E1 and E2 to locate participants. Twelve families will receive tuition for one year of HRM training. The Project Coordinator will follow up individual participants. Recipients will provide an evaluation of this training and share their outcomes as part of the project. At least two in each watershed will be asked to cooperate in field days. *The Cannon River Watershed Partnership will sponsor a local HRM training course for 20-30 individuals in January, 1997.*

E.3.c. Materials:

E.3.d. Budget: $6,000
Total Biennial LCMR Budget: $4,200
LCMR Balance: $2,624 **$00**
Match: $1,800
Match Balance: $1,330 **$00**

E.3.e. Timeline:

	1995			1996						1997					1998
	8/30	10/30	12/31	2/28	4/30	6/30	8/31	10/31	12/31	2/28	4/30	6/30	8/31	10/31	12/31
Intro. to HRM				x						x					
Participant List (Little Cannon)					x		x	x							
Participant List (Prairie/Wolf)					x		x	x							
Week Training/6 families					1	x			x		x				
Individual training							x	x	x	x	x	x	x		
Final Report															x

E.3.f. Workprogram Final Report (December 31, 1997) The Land Stewardship Project held half-day introductory classes at no cost to participants with a full class schedule to follow. Partial tuition was paid for one family for this course held in spring, 1996. In order to make the training available to more families, CRWP chose to set up a class for January-February, 1997.

Individual and/or family tuition was not offered. Instead, the class was sponsored with 75-80% of costs born by CRWP; 20-25% by participant. Less expensive local training made more appealing to farm families. Fifteen families and/or individuals participated in HRM training follow-up sessions.

F. Title of Objective/Outcome: Protection/Restoration of Biologically Sensitive Areas

F.a. Activity: Identified sites will be protected as needed to preserve unique ecosystems, endangered or rare species.

F.1.a. Context Within the Project: The mission of CRWP includes protection of the natural systems of the Cannon River watershed. Remnants of prairie, Big Woods, and high quality wetlands including a calcareous fen are found in the watershed. Native vegetation offers many benefits to water quality, as it is finely adapted to soil and climatic conditions. Some cool water streams, once home to trout, have been altered and are inhospitable. Once abundant smallmouth bass have become uncommon in the Cannon and its tributaries. Mussel species have diminished.

F.1.b. Methods: Sites identified either by the County Biological Survey , DNR fish surveys and other inventory methods or expertise will be evaluated and appropriate methods of protection sought. Methods may include, but are not limited to: creating buffer zones, expanding existing sites, eliminating threats of erosion and/or siltation, replanting or restocking. Focus will be on sites in the three above watersheds, but sites elsewhere having no other form of protection will be considered.

F.1.c. Materials: To be determined by individual site project.

F.1.d. Budget: $48,050
Total Biennial LCMR Budget: $33,050
LCMR Balance: $00
Match: $15,000
Match Balance: $00

F.1.e. Timeline:

	1995			1996						1997					1998	
	8/30	10/30	12/31	2/28	4/30	6/30	8/31	10/31	12/31	2/28	4/30	6/30	8/31	10/31	12/31	2/2
Survey data				x												
Sites identified				x		x	x	x	x			x	x			
Action plan				x		X				x						
Implementation						x	x	x			x	x	x			
Project assessment									x			x				
Final Report														xxx		

F.1.f. Workprogram Final Report (December 31, 1997)
A preliminary planning meeting was held with ecologists from DNR and The Nature Conservancy to discuss criteria. One of the first projects approved was collaborating with several groups to protect a prairie from extensive damage by road construction activities. (This project was delayed because of county highway priorities.) Additional strategies were outlined at a wetland prioritization meeting. The 1996 Cannon River Summit, July 10, provided local units of government with tools, information and options to be used to identify, evaluate and protect local natural resources. The 1997 Cannon River Summit provided information about intergovernmental processes and procedures available to address natural resource protection across jurisdictional boundaries. Attendance at the annual "Summits" ranged from about 60-80

Information provided to the city of Faribault resulted in changes to plans for a proposed golf course in order to protect a dwarf trout lily population along bluffs of the Straight River; the storm water management plan was altered to reduce erosion along the bluff. Plantings and erosion control practices implemented at the by The Nature Conservancy

The Cannon Valley Wilderness Area, a Rice County park, was selected as a demonstration area. Buckthorn removal, fire, fencing, and erosion control projects were implemented to protect a fen, dwarf trout lilies, and streams feeding the Cannon River. Sentence to Serve and MCC crews provided labor. Rice County Parks, Friends of the Cannon Valley Wilderness Area, the CRWP forest ecologist and the DNR provided oversight and technical supervision. Aerial photos of priority sites were taken to compare with earlier photos and for future reference.

A Big Woods/Prairie/Transistion demonstration site was established at River Bend Nature Center in Faribault. CRWP is provided technical expertise, labor and some materials. The interpretation is being done by RBNC staff educators. An agreement was signed with LeSueur Co. SWCD and a landowner to implement a project that will remove a major phosphorus source to Lake Volney. Practices were implemented on a field eroding into a headwaters stream of the Little Cannon River.. Exotic weed control was applied to a 29 acre forest site. A total of 48.5 acres were protected and/or improved and 5,106 feet of practices implemented to protect streams and lakes.

G. Title of Objective/Outcome: Development and Delivery of Forestry Stewardship Plans and Reforestation Cost Share

(Note: Due to the repetitive nature of the process in this project, the format differs slightly from those preceding it.)

G.1. Activity: Forest stewardship concepts in the Cannon River Big Woods region will be instilled in the watershed through informational and educational activities and through the development of individual stewardship plans.

G.1.a. Context Within the Project: Development of stewardship ideals and plans will encourage integrated resource management across both public and private lands, accelerating the protection of the Big Woods Ecosystem.

G.1.b. Methods: Local landowners will be notified and periodically updated on stewardship opportunities through public meetings, mailings, newsletters and programs. The preparation of landowner forest stewardship plans follows guidelines established by the Department of Natural Resources, Division of Forestry. Briefly, the steps are as follows:

Landowners in specific areas will be contacted on-site following a letter of introduction to the process. Stewardship foresters and/or SWCD technicians will make individual contacts, delivering options for forestry and work with the landowner to address erosion, nutrient, and/or other issues that impact natural resources and meet landowner management goals. 1

1. Landowner requests a stewardship plan be written for his/her property.
2. Forester records landowner's name, address, telephone, legal description of property and acres to be included in the plan.
3. Through a personal interview, the forester outlines the landowner's management goals and objectives.
4. From map sources, the forester outlines general vegetation cover types, soils, watershed characteristics, and land use information.
5. During a field visit, the forester surveys individual vegetation cover types, noting dominant and characteristic plants, wildlife use areas, unique features, etc.
6. The forester writes the plan according to an established format.
7. The forester delivers the plan to the DNR Area Forester for review and approval.
8. Corrections and alterations are made.
9. The forester delivers and reviews the plan with the landowner.

G.1.c. Materials: Printer, estimated cost @ $500 (computer & software provided by DNR), standard forestry field equipment. Materials are expected to be used for same project beyond life of LCMR grant. Should that not occur, they will become the property of DNR.

G.1.d. Budget: $92,500 *9/1/96 $100,500*
Total Biennial LCMR Budget: $76,500
LCMR Balance: $66.00
Match: $16,000 *$24,000*
Match Balance: $00
G.1.e. Timeline:

	1995			1996						1997					1998
	8/30	10/30	12/31	2/28	4/30	6/30	8/31	10/31	12/31	2/28	4/30	6/30	8/31	10/31	12/31 2/29
Stewardship plans 750 acres each	x	x	x	x	x	x	x	x	x	x	x	x			

G.1.f. Workprogram update: Dan Milbert was hired as forest ecologist on 7/15/95. He completed 86 forest stewardship plans *covering 6013 acres.* A contract forester completed 38 stewardship plans covering 3000 additional acres with a grant from the Stewardship Incentive Program. Records and data on forestry projects were updated by an intern, making that information available and more functional. Brochures, booklets and fact sheets were developed and distributed in conjunction with the Big Woods Project. They include *Forests of Rice County_* and *Building a Home in the Big Woods.* The *Big Woods Plan* was completed along with special inserts for the plan books that relate to the southern Minnesota area. Many information meetings, tours and special events were held to strengthen local partnerships and to enhance and promote forest stewardship.

In the spring of 1996, in partnership with local schools, The Big Woods Project, The Nature Conservancy (TNC) and volunteers, 7000 seedlings were planted. Students planted over 4,500 trees in Big Woods Areas in 1997. (See story in the Nov-Dec 1996 Minnesota Volunteer). Participants have been recognized annually at the "Holiday in the Big Woods." A forestry workshop was held for about professional foresters and interested citizens. This objective is very successful and will continue into the next biennium. This is perhaps the closest to ecosystem based management that CRWP has achieved to date with the combined efforts of multiple agencies and organizations. In addition to new stewardship plans, there will be emphasis on follow-up and implementation of plans.

By seeking out landowners and contacting them directly, the foresters are expanding the educational aspects of the program and introducing landowners to additional resources. Response and feedback indicate that the program is very successful.

G.2. Activity: Technical and cost-share assistance will be available to complete priority conservation projects.

G.2.a. Context Within the Project: Technical and cost-share assistance provides the direction and coordination to private and public landowners to complete high priority conservation projects.

G.2.b. Methods: The approach to completing cost-share practices is as follows:

1. The landowner completes a request for a cost-share assistance form.

2. The forester develops a project plan that specifies the type, location and extent of the project, the technical specifications for the project and the estimated cost of the project.
3. The Cannon River Watershed Technical Cost Share Committee reviews the project plan. If the project is approved, the estimated cost-share reimbursement is subtracted from the current ledger and approval letter/notification is sent to the landowner. If disapproved, a notification is sent to the applicant.
4. The landowner completes the project according to project plan specifications.
5. The landowner provides receipts from the project to the Cannon River Watershed Partnership office and notifies them of completion.
6. The forester completes a field inspection of the project to validate that the project was completed as planned.
7. The forester notifies CRWP that the project was completed as planned.
8. The CRWP calculates the amount of cost-share reimbursement and reimburses the applicant according to the prescribed schedule.

G.2.c. Materials: The cost-share program which will be computerized using the same hardware and software as that used to write forest stewardship plans.

G.2.d. Budget: $55,000
Total Biennial LCMR Budget: $55,000
LCMR Balance: $00
Match:
Match Balance:

G.2.e. Timeline:

	1995			1996						1997					1998	
	8/30	10/30	12/31	2/28	4/30	6/30	8/31	10/31	12/31	2/28	4/30	6/30	8/31	10/31	12/31	2/29
Cost-share projects 62 acres each					x	x	x	x			x	x				

G.2.f. Workprogram Final Report(December 31, 1997): . A total of 480 acres have been reforested and 90 acres have been planted to prairie. This is in addition to the 11,500 trees planted by volunteers on public lands in the Big Woods project area. Several landowners planted prairie and trees at their own expense after having stewardship plans done for them.

VI. Evaluation: Three stable sub-watershed initiatives will exist. They will have established local leadership, priorities, plans and actions for three years beyond this project, or longer. Funding from private, state and federal programs will be on board for specific projects. The miles of shoreland protected, acres under grazing and nutrient plans, acres replanted with native vegetation, and commitment by landowners to maintain and utilize best management practices are measurable indicators. Biological monitoring of streams will probably not show measurable changes in the project time period due to uncontrollable variables affecting water quantity and quality; however, it will form the basis for long-term assessment.

VII. Context within field: Citizens in the Cannon River Watershed and technical advisors have developed the Cannon River Watershed Strategic Plan, and Counties will be updating their water plans in 1995. This project brings landowners, county staff, state agency staff and academic resources together to identify specific problems and solutions. It recognizes the interrelationship of land use and water quality and the need for agriculture, recreation, industry and rural landowners to cooperate. Successful efforts will be duplicated in other subwatersheds to achieve the Cannon River Watershed's mission. This project is unique in that it is a non-profit organization facilitating a watershed project and it utilizes citizen, governmental, academic and other area resources and expertise.

VIII. Budget Context: A $90,000 McKnight Foundation grant for 1993-94 resulted in the CRWP Strategic Plan, which is the basis for these actions. McKnight will contribute $81,250 for 1995 and $41,250 for 1996 with an additional $40,000 to match non-LCMR fundraising efforts. Of this, $100,000 will provide the match for LCMR. All three subwatersheds will have received considerable background work by July 1, 1995, funded by McKnight, The Nature Conservancy, local sports clubs, and fundraising efforts. Federal and state programs will be implemented where feasible. LCMR funding will fund actions that meet County Water Plan and CRWP plan criteria but do not qualify for existing programs. LCMR funding is expected to be used to leverage other funding where appropriate. There will be in-kind contributions by the technical advisors and some program cooperators.

IX. Dissemination: Projects will be documented with reports, meeting minutes, slides, photographs, etc. Annual "state of the watershed" conferences will provide an opportunity for all participants to communicate. Slide presentations, presentations about biological monitoring, and all data collected will be available from the CRWP office.

X. Time: The additional six months allowed for this proposal will assure that all seasonal construction and restoration will be able to take advantage of two full working seasons. Objectives in this proposal result from over two years of planning and are intended to be the first of long range efforts throughout the watershed to achieve the goals and actions of the Cannon River Watershed Partnership Strategic Plan.

XI. Cooperators: Chris Robbins, CRWP River Advocate: Evaluate plans and actions for conformity with the CRWP Strategic Plan, county water plans and regulations. Coordinate the citizen monitoring program as applicable to subwatershed initiatives. Access information and resources.
Dick Peterson, DNR Forester: Technical and supervisory support for the Forest Ecologist/Stewardship objective. Determine cost share criteria.
Dr. Jim Zischke, St. Olaf College: Coordinate citizen monitoring, oversee interns and water quality monitoring assessment and interpretation.
Larry Johnson and/or George Boody, Land Stewardship Project: consultant for grazing plans and holistic resource management.
Project Coordinator: Dale Brown
Forest Ecologist: Dan Milbert
Brad Carlson, Rice County Extension Educator
Jamie Schultz, Stewardship Forester
Glen Roberson, Goodhue County SWCD

XII. Reporting Requirements: Semiannual six-month workprogram update reports will be submitted not later than January 1, 1996, July 1, 1996, January 1, 1997, July 1, 1997, and a final six-month workprogram update and final report by December 31, 1997.