



Records related to the establishment
of the Minnesota Valley National
Wildlife Refuge

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REFUGE MISSION

Our Mission is to manage the ecological communities of the lower Minnesota River Valley while providing environmental education and wildlife-oriented recreation opportunities.

REFUGE VISION

Our Vision is to accomplish the Refuge Mission through high quality and innovative service, programs, and facilities that are models both locally and internationally, provided by an exceptional staff, integrated with the community.

REFUGE SLOGAN

Minnesota Valley.. Caring for the Resource and Each Other.

Registry

**Minnesota
Valley**



National Wildlife Refuge

MINNESOTA VALLEY NATIONAL WILDLIFE REFUGE
REFUGE OVERVIEW

- * Minnesota Valley National Wildlife Refuge (NWR) is unique in the refuge standpoint:
 - * One of a handful of urban national wildlife refuges nationwide
 - * Contains the premier educational\visitor center in the refuge system
 - * Is located within a population of over 2 million and yet contains diverse, quality habitats such as floodplain wetlands and forests, calcareous fens, oak savanna, native prairie, hillside forest and riverine habitats
 - * Contains over 300 species of birds, mammals and reptiles and amphibians
 - * The staff conducts diverse management practices on the habitat and with the wildlife that allows the public to see first hand what type of work the U.S. Fish and Wildlife Service does.
- * The refuge staff manages the refuge as an ecosystem, coordinating work with communities and state agencies.
- * Biodiversity is part of the refuge mission and is emphasized to the public.
- * The message stressed to the public in programming, exhibits and written material is "How Can We Live Together?" It emphasizes the interaction of people, habitats, wildlife and development and seeks to motivate the public to involvement in environmental issues.
- * The staff is reaching out to inner city youth through partnerships in the community and that bring the youth to the refuge.
- * The refuge has a very active private lands program and has worked with hundreds of landowners to restore wetlands on their property. Work is being concentrated in watersheds that impact refuge areas.
- * The refuge hosts dozens of international visitors each year through the Minnesota International Center, and through many international visitors to the Mall of America or who are here for other reasons. The refuge staff has a keen interest in developing international partnerships to add a global perspective to their mission and to bring global issues to local partners.
- * Refuge staff have developed a landscape management plan for the refuge. It is currently undergoing public review. The original document was developed with multi-agency\group involvement.
- * Being located in an urban area, how the refuge is managed comes under a variety of intense scrutiny. Management decisions are based upon the best scientific information available. The staff is continually evaluating management practices to ensure that they are achieving management goals.

MINNESOTA VALLEY NATIONAL WILDLIFE REFUGE
TOTAL QUALITY MANAGEMENT/REINVENTING REFUGES

BACKGROUND

- * The staff at Minnesota Valley NWR jumped into Total Quality Management (TQM) on January 23, 1992 when they began a two day, facilitated retreat to develop a refuge mission and vision statement, to identify issues that needed addressing at the refuge and to establish Quality Improvement Teams (QIT) to address the issues.
- * The program includes 7 permanent QITs that each have a membership of staff representing a diversity of refuge programs (e.g. public use, maintenance, biology, administration, etc.). The teams meet once a month or on an as needed basis. In addition, special teams have formed for such specific projects as maintaining and improving the aquarium in the visitor center exhibit area.
- * Input regarding management and operations of the refuge can be provided by any staff member through the QITs, a suggestion box, a "Needs Form" given to the appropriate staff, electronic mail, or through direct discussion. Actions recommended by QITs that require an obligation of station funds or a commitment of staff time other than that of those on the team, go to the Coordinating Committee for attention. The Coordinating Committee membership includes the supervisors responsible for each major program on the refuge, the refuge manager and a staff member at large, elected by the entire staff.

RESULTS

- * To date over 60 suggestions or recommendations for modifications in operations have been made. Of these almost all have been accepted as proposed or modified slightly and implemented.
- * Examples of the results of these suggestions include:
 - A "Square Table" discussion is held 6 times per year, involving the entire staff and a potluck. It is an opportunity for staff to describe some aspect of what they are doing in detail to the rest of the staff, to promote better communication and understanding.
 - The entire staff receiving training and daily planners to improve each individual's time management skills.
 - Development of a new employee handbook specific to the refuge with a complete set of refuge policies and information related to personnel issues, vehicles, administrative issues, mission and vision statements, etc.
 - Development of an Employee Quality Bill of Rights stating an employees rights to enable them to do quality work and listing the employees obligations as well.
 - Development of a Peer Appreciation Award so that each employee can award a fellow employee for outstanding work.

Minnesota Valley Interpretive Association, Inc.

The Minnesota Valley Interpretive Association, Inc. is a non-profit organization. The Association was organized for educational, scientific, and charitable purposes. Incorporated in 1989, the Association's primary activity has been the operation of the Blufftop Bookshop in Minnesota Valley National Wildlife Refuge's visitor center. The Association also accepts donations.

The Association has a cooperative agreement with the U.S. Fish and Wildlife Service. Under the cooperative agreement, the Association is permitted to sell items in the visitor center recognizing that profits from the sale will benefit the refuge and the U.S. Fish and Wildlife Service.

The Association is guided by a Board of Directors. There are no general members of the Association. Day to day sales in the Bookshop are handled by refuge staff as part of their information desk duties. Volunteers help do the bookkeeping and buying for the shop.

Since opening the Blufftop Bookshop in 1990, the Association has paid back its \$25,000 start-up loan and donated \$32,387 to the refuge. The Association has paid for printing of 200,000 color brochures and their distribution to area hotels. Other donations have included support for environmental education teacher workshops, postage for newsletters, Minnesota's Junior Duck Stamp Contest, transportation of inner city youth to the refuge, and refreshments for volunteers.

FRIENDS OF THE MINNESOTA VALLEY COMMITTEE GUIDELINES AND RESPONSIBILITIES

Committees: One or more persons with responsibility for seeing that adequate information is gathered about an issue/project/idea so that board can take action. Committees research subject and present recommendations to full board for consideration. The committee is not necessarily responsible for undertaking the activity but is expected to enlist support to help accomplish the project.

Chairs: Will be board members. The President is responsible for seeking new chairs.

Members: Committees are encouraged to seek members from general membership. No more than 25% of a committee may be from outside of Friends membership.

Outreach

- 1) Recommend ways to involve membership.
- 2) Oversee investigation and production of communication tools (newsletter, brochures, packets, display, slide show, video) and ensure that they serve targeted population.
- 3) Investigate ways to expand community awareness of Refuge, Friends, and issues.
- 4) Look at ways to leverage resources and establish collaborations and coalitions.

Issues

- 1) Communicate position of Friends' on well-defined issues to the public and people necessary to effect change.

Heritage Registry

- 1) Support Heritage Registry staff.
- 2) Develop means to evaluate effectiveness of program.
- 3) Assist staff in focusing Registry activities taking into account limited resources.
- 4) Develop business program.
- 5) Research providing technical assistance to other groups.

Development

- 1) Develop fundraising strategy and goals.
- 2) Supervise fundraising activities.
- 3) Recommend ways to increase membership.
- 4) Supervise membership maintenance activities.

Executive

- 1) Financial stability of Friends including day-to-day and long range financial needs.
- 2) Fundraising training.
- 3) Grant management.
- 4) Recommendations to Board about grant applications including restrictions and implications.
- 5) Employment issues.
- 6) Board development.

Nominating

- 1) Select and recommend new members for the board.

Special: Temporary committees will be formed as needed to research specific issues as they arise.



Minnesota Valley National Wildlife Refuge Volunteer Program

The purpose of the volunteer program is to assist the Refuge in reaching its mission and goals with the help of a dedicated volunteer staff.

The volunteer program at Minnesota Valley has been around since the mid 70's. It started out as a concerned group of citizens working to better the community they live in. They were the forerunners to the official establishment of the Refuge. Volunteers have been an integral part of the Refuge since its beginnings. Without the many hours of donated time the Refuge would be unable to complete many of its tasks.

The following program areas give volunteers a chance to participate:

- | | |
|--------------------------|--------------------------|
| *Environmental Education | *Wildlife Interpretation |
| *Maintenance | *Artist/Photographer |
| *Biology | *Bookshop |
| *Wildlife Ranger | *Clerical |
| *Library | *Computer |
| *Newsletter | |

The activities involved in the above programs are both challenging and rewarding. Volunteering offers people a chance to learn new skills and to improve on their existing ones.

Accomplishments:

'95	580 Participants	'94	451 Participants
	16,782 Hours		11,695 Hours
Volunteers on all Refuge teams			
Implement training sessions for group leaders			

For information concerning volunteering at Minnesota Valley National Wildlife Refuge contact the Volunteer Coordinator at (612) 854-5900.



Here is what we have said:

Vision

A healthy Lower Minnesota River Watershed where an informed citizenry takes personal and group responsibility to ensure that natural ecological systems and human economic and social systems coexist in a fashion sustainable into the future.

Mission

Supporting conservation and management of the natural and cultural resources of the Lower Minnesota River Watershed, and promoting environmental awareness.

Organizational History

The Friends of the Minnesota Valley and its predecessor groups have been instrumental in supporting conservation of the Lower Minnesota Valley for more than 25 years. In the 1970's citizens concerned about increasing development in the Minnesota River Valley convinced river corridor commissions and councils that the area could best be preserved as a national wildlife refuge. They held public meetings and spearheaded an extensive letter writing campaign, and in 1976 the Minnesota Valley National Wildlife Refuge was established. Since Refuge establishment we have taken the lead to secure federal funding for Refuge land acquisition and construction of the Visitor Center. We have also continued to be an advocate for and promoted awareness of the ecological importance of the Lower Minnesota River Valley through environmental education, community involvement, fund-raising, monitoring legislation and issues that affect the valley, recruiting members and volunteers, and developing a Registry of private landowners that are voluntarily committed to protecting and preserving their land.

Leadership in Stewardship™ Goals

- Protect and conserve biodiversity of the Lower Minnesota Watershed.
- Instill within the community a sense of appreciation, responsibility, and stewardship for the Lower Minnesota Watershed.
- Develop strong base of resources to sustain and nurture the Friends organization.

Here is what we should do to be consistent with what we have said:

Leadership in Stewardship™ requires that the Friends of the Minnesota Valley begin to once again get ahead of the curve, as we did when as citizens we worked for the establishment of the Refuge as a tool to protect the special resources of the Lower Minnesota River Valley. In this effort we will expand our area of focus to the Lower Minnesota River Watershed, most of which falls within the 13 county wetland management district which is managed by the Minnesota Valley National Wildlife Refuge staff. In our continuing role as a catalyst for good public and private stewardship we will work with others to identify some of the systemic threats in the watershed which are taking their toll on the health of that which we

have worked so hard for - among other things, the Minnesota Valley National Wildlife Refuge. We will continue to expand our extremely valuable private landowner Heritage Registry Program which has been on going since 1991 and has taken us well off Minnesota Valley National Wildlife Refuge land and into the watershed. Importantly, however, our work will be inextricably linked to the health of the Minnesota Valley National Wildlife Refuge, and in particular, the aquatic resources therein. The health of the Refuge is truly a reflection of the health of its watershed. We will continue efforts to develop Long Term Environmental Monitoring programs - such as the work we are currently doing with the Water Quality Project in the Lower Minnesota River Watershed.

Leadership in Stewardship™ requires that we begin networking within the Lower Minnesota River Watershed in ways that will allow us to be a player in setting the community-based conservation agenda into the next century. This will mean developing relationships with our conservation organization friends, and individuals and interests well beyond our traditional environmental organization friends. In order to achieve long term, sustainable conservation, we must work with not only the ecological, but the community and economic legs of the three legged stool of sustainable development. We are in a perfect position to inform these new partners about the values of the National Wildlife Refuge System and make them more aware of the Minnesota Valley National Wildlife Refuge.

Leadership in Stewardship™ will require us to step up to the plate as the Minnesota River Basin Joint Powers Board recognized agent for leadership (as in ***Leadership in Stewardship™***) in the Lower Minnesota River Watershed. This will be an exciting time in which all Friends members can participate in an effort which contributes significantly to improving the health of the Minnesota River ecosystem. We will take personal and organizational responsibility to work hard to bring the resources together to fully implement the ten recommendations from the Minnesota River Citizens' Advisory Committee to the Minnesota Pollution Control Agency.

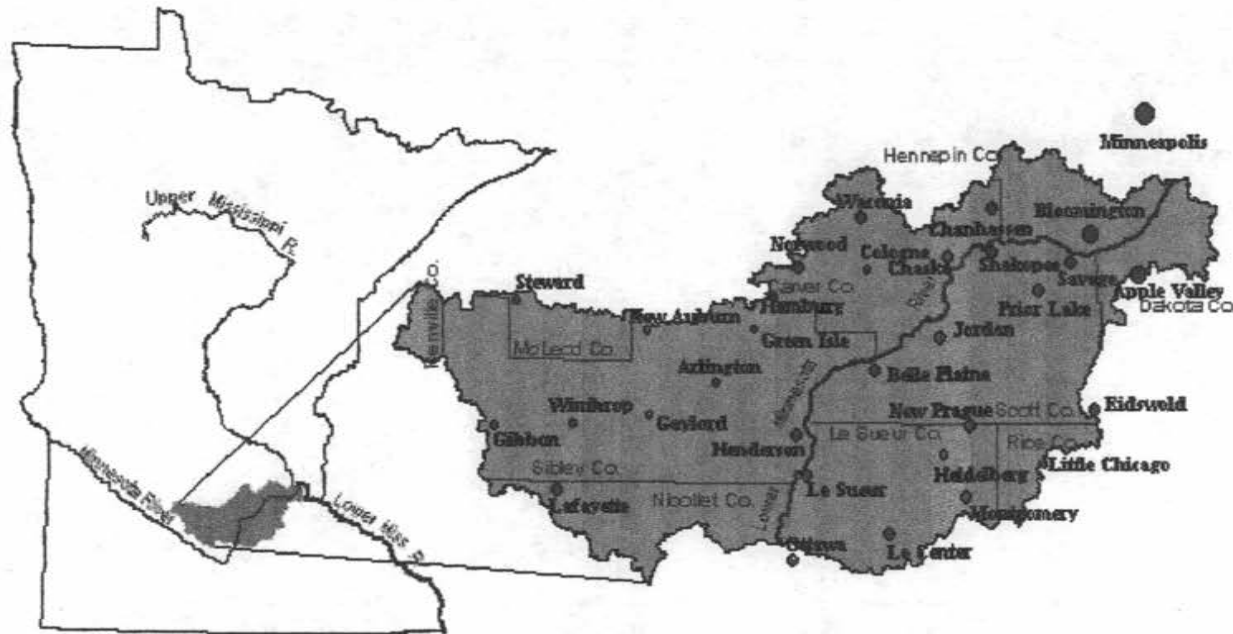
Leadership in Stewardship™ will lead to a broader membership base for the Friends of the Minnesota Valley as we work directly in communities to promote a long-term sustainable development agenda. The effort will also lead to greater community understanding of the Minnesota Valley National Wildlife Refuge and its important role in conservation in the Lower Minnesota River Watershed. Hopefully we will spend less time fighting losing battles on issues that threaten the ecological health of the Lower Minnesota River Watershed and more time helping to avoid such crises and allow for the environment in which win-win scenarios can be created.

Leadership in Stewardship™ will allow us to continue to serve as an advocate for the Minnesota Valley National Wildlife Refuge in much the same way as we have since incorporation in 1982. We will have a clearly articulated Memorandum of Agreement between the USFWS and the Friends that will insure this is a healthy long term relationship.

Leadership in Stewardship™ will allow us to accomplish our goals, achieve our mission and attain the vision we have laid out for ourselves. To do anything less would not be true to what we have said we are about.



FY 2001 Plan



Vision

A healthy Lower Minnesota River Watershed where an informed citizenry takes personal and group responsibility to ensure that natural ecological systems and human economic and social systems coexist in a fashion sustainable into the future.

Mission:

Supporting conservation and management of the natural and cultural resources of the Lower Minnesota Watershed, and promoting environmental awareness.

Friends of the Minnesota Valley Activities Planned for FY 2001

Goal: Protect and conserve biodiversity of the Lower Minnesota River Watershed, especially the Minnesota Valley National Wildlife Refuge

Minnesota Valley Heritage Registry-Big Rivers Partnership - Approximately 1,500 landowners own property immediately adjacent to the Minnesota Valley National Wildlife Refuge, and many more own property in the watershed that includes or is adjacent to significant natural plant community occurrences and/or critical to water quality. These landowners, individuals and corporations, are the focus audience of the program. More than 10 percent (198) of the adjoining landowners have become registrants - a total of more than 3,000 acres. This successful, hands-on approach to stewardship and private responsibility is key to watershed protection and protection of biological diversity in this region and will continue to grow under our planned efforts and focus of our new full-time Land Conservation Manager.

Rapid and sprawling residential development is a threat to the resources of the Minnesota Valley. We will focus our efforts on bringing together residential developers who are active in the watershed in a Listening to the River forum where alternative, and more ecologically compatible development strategies, can be discussed. Leaders in residential compatible economic development efforts will be brought in for a conference to interact with local developers and community planners.

FY 2001

Nurturing Current Heritage Registrants

- Annual Spring and Fall Mailings to all Registrants
- Host 3 strategic neighborhood meetings with Registrants
- Publish and disseminate Registry News in Valley Vision at least twice per year
- Conduct 5 Registry Field Trips

Heritage Registry Expansion and New Enrollments

- Bluff Creek, Riley Creek sub-watersheds and Seminary Fen focus. Goal = 20 new registrants.
- Corporate Registry Goal = 5 new
- Respond to all unsolicited referrals to Heritage Registry program

Big Rivers Partnership Collaboration

- Encourage and coordinate restoration of grasslands or woodlands through restoration initiatives with the Big Rivers partnership on at least 2 site with focus on Belle Plaine and Wolf/Bloomington Bluffs BRP Stewardship Initiatives
- Coordinate activities with Great River Greening, Refuge Volunteer Coordinator and community and corporate volunteers
- Solicit several corporate partners in Big Rivers Partnership activities in the Lower Minnesota River Watershed (Ceridian, Minnegasco)
- Submit BRP nominations for future potential projects

Corporate Registry Projects

- Ceridian Corporation site management plan
- Minnegasco Black Dog site management plan
- Excel Energy - explore current relationship with MNVNR

MN Valley National Wildlife Refuge and Associated Managed Areas and Watershed - The Friends of the Minnesota Valley will continue to work to insure ecosystem-based management principles are in place and that the Minnesota Valley National Wildlife Refuge is able to accomplish its goals of stewardship, biological monitoring, and education. Continue efforts to chart a common vision amongst public and private stakeholders for the Lower Minnesota River Watershed. These efforts will be integrated with the Greenways and Natural Areas initiative and Big Rivers Partnership collaborative and involve participation from local, state and federal agency experts as well as representatives from other non-profit organizations and local community groups. We will also work to insure the MN River Basin CREP program is fully funded so that public resource agencies have tools at their disposal to acquire easements on marginal agricultural land – especially within the floodplain of the Minnesota River.

FY 2001

Participate in and encourage citizen participation in development of the USFWS Comprehensive Conservation Plan and Preliminary Project Proposal for refuge expansion. Coordinate grass roots effort for public involvement in this administrative process.

- Continue to insure adequate federal and state land acquisition funds are available to acquire property from willing sellers for conservation purposes
- Coordinate efforts to obtain Conservation Reserve Enhancement funds for permanent easements in the Minnesota River Basin.
- Host an annual briefing for local, state and federal elected officials
- Convene monthly meetings of Leadership in Stewardship working groups
- Complete Lower Minnesota River Watershed Strategic Plan for Metropolitan Council
- Participate in Seminary Fen/Assumption Creek Conservation Planning and Implementation effort
- Coordinate Minnesota River CREP campaign, establish broad-based coalition to secure \$51.4 million from state of MN to leverage \$98 million in federal funds.

Lower Minnesota River Watershed Strategic Plan Development – Work with local public and private stakeholders efforts to coordinate information through the Minnesota River Basin Data Center. Produce a Lower Minnesota River Watershed map identifying who is monitoring what, where, why and how often.

FY 2001

- Initiate and coordinate the process of developing an integrated *Strategic Action Plan* to improve land use and water quality in the Lower Minnesota River Watershed (see attached watershed map). This plan will build upon the accomplishments of the Lower Minnesota River Watershed Project, which combined the efforts of the Lower Minnesota Civic Organizing Project and those of the Friends of the Minnesota Valley in May of 1999. This plan will also build upon and integrate the Comprehensive Local Water Plans in those portions of the counties within the subwatersheds of the Lower Minnesota River Watershed.
- Circulate draft plan for broad community and stakeholder review, modification and buy in.
- Identify role of institutions and other community-based organizations in implementing the comprehensive plan.

Goal: Instill within local communities a sense of appreciation, responsibility, and stewardship for the Lower Minnesota River Watershed and the Minnesota Valley National Wildlife Refuge

Communications and Outreach

1. Events/Newsletter/Press Releases - The Friends will host a Watershed Congress "Listening to the River" as part of our watershed-wide efforts to create greater awareness of high priority conservation needs amongst our members, the general public and agencies and organizations working in the Lower Minnesota River Watershed. The Friends will also host an Annual Members Meeting in the Fall during National Wildlife Refuge Week, and registry events as described in a previous section. The Friends will continue to participate in various MN Valley National Wildlife Refuge Events such as Fish Day, Earth Day, International Migratory Bird Day, and National Wildlife Refuge Week. The Friends will increase participation with Chambers of Commerce – particularly Bloomington and Richfield.

The Valley Vision will continue to be distributed to Friends members and community leaders throughout the watershed. The newsletter will be scaled down in size and increased in frequency this year. This communication device is critical to the long term success of the Friends as a membership organization and our primary vehicle for communicating with our constituency. We will communicate with the broader public through strategic press releases, press tours in the watershed, open houses, editorial visits with local editors, and occasional features in the major Twin Cities newspapers.

FY 2001

- Increase awareness about the Heritage Registry Program through press releases announcing new Registrants in local newspapers.
- Develop a Friends of the Minnesota Valley web site through in-kind donation from professional web site designer.
- Participate in MEP database development initiative to enhance our ability to communicate with members (e-mail, etc...)
- Create 5-6 Friends of the Minnesota Valley member newsletters per year
- Assist in Minnesota River Basin Joint Powers Board Annual Meeting
- Listening to the River Congress
- Registry Events
- Annual Meeting
- Refuge event participation
- Meet with key suburban Chambers of Commerce – develop partnership program

Goal: Develop and Maintain a Strong and Stable Base of Resources

Organizational Development

The Board of Directors represents a diverse group of individuals from throughout the Lower Minnesota River Watershed. These individuals represent differing world views and come from communities ranging throughout the watershed, and as such, assist staff in keeping current on issues and trends within our program area. In addition, our Honorary Board, representing some of our best previous Board members and leaders, is being reactivated as a vital part of our institution. This group includes many senior members of Minnesota's conservation and political community.

The Board is prepared to increase its role in fundraising for our program activities. The next three years are critical for us in establishing greater community awareness of our program and broadening the base of financial support for our activities. We have plans to develop a Corporate Associate Program (annual membership levels of \$1,000, \$2,500, \$5,000, \$7,500 and \$10,000) and have had initial success with several corporations with operations in the watershed.

FY 2001

- Maintain active Board involvement through working projects bi-monthly Board meetings
- Identify new Board members representing the diversity of local community leadership to fill vacancies. Expand private fundraising capacity of the Board
- Refine new Membership and Donor Database program
- Implement Corporate Associate Member program (15 new members)
- Solicit new membership from 5,000 to increase Friends of the Minnesota Valley membership base. Acquire 150 – 300 new members.



**Special Report to
Friends of the Minnesota Valley Donors and Members**

***Leadership in Stewardship™*
Friends of the Minnesota Valley
July 1, 1999 – June 30, 2000**

Minnesota Valley Heritage Registry

- held two registrant led field trips providing registrants an opportunity to share ideas;
- hosted a community picnic in coordination with the Jordan Chamber of Commerce;
- sent out two issues of a special Registry Newsletter.
- enrolled an additional 33 landowners as registrants this year, most in St. Lawrence Township in Scott County and in the Assumption Creek/Seminary Fen area in Hennepin County.
- Hired Holly Buchanan, a full time Land Conservation Manager with responsibility for the Heritage Registry Program and our expanding involvement in integrated natural resource conservation in the Lower Minnesota River Watershed.
- Big Rivers Partnership – The Friends began formal collaboration with the LCMR-funded Big Rivers Partnership and have taken on responsibility for coordinating efforts of this initiative in the Lower Minnesota River Watershed

MN Valley National Wildlife Refuge and Associated Managed Areas

- The Friends continued to participate in community discussions to insure our public resources are managed in a fashion that protects biodiversity and that public funding is made available to accomplish biodiversity protection.
- Provided significant assistance to the USFWS regarding the establishment of a \$26 million Minnesota Valley National Wildlife Refuge Mitigation Trust – special thanks to John Knapp and Julie Fishel of Winthrop & Weinstein who did extensive legal research and work at no cost to the Friends.
- The Friends sponsored and facilitated ongoing efforts to establish a Lower Minnesota River Watershed conservation plan and agenda. Friends' consultant Diane Lynch convened monthly meetings of the Public Outreach Working Group (see Communications and Outreach section) and the Data Collection and Monitoring Working Group and quarterly meetings of an overarching steering committee for the overall effort. This component of our *Leadership in Stewardship™* initiative has led to the Friends being selected by the Minnesota River Basin Joint Powers Board as

the lead watershed organizer for the Lower Minnesota River Watershed. We have integrated our efforts with those charged with development and implementation of comprehensive local water plans and others involved with conservation delivery through local units of government.

- The Friends of the Minnesota Valley Board and members continued participation in the development of the Minnesota Valley National Wildlife Refuge Comprehensive Conservation Plan. Working groups met several times throughout the year to shape a vision for the future of the Minnesota Valley National Wildlife Refuge in the areas of: Refuge Expansion & Watershed Activities; Environmental Education & Interpretation; Refuge Recreational Uses; Refuge Management & Biology; and Threats & Conflicts. The Refuge staff is now developing their internal draft of the Comprehensive Conservation Plan based on the information developed by the various working groups. This plan will roll out for formal public comment in FY 2001 and the Friends will be actively engaged in promoting an expanded vision for the Refuge and its programs.
- The Friends informed Congress of the need for land acquisition funding at the Minnesota Valley National Wildlife Refuge. We formally requested that Congress consider appropriating \$1,500,000 through the Land and Water Conservation Fund. Congress approved the full \$1,500,000 for this purpose in October, 2000.

Long Term Biological Monitoring

- A Data Collection and Monitoring Working Group of public sector staff convened by the Friends completed an exhaustive survey of over 500 possible public and private sector water quality monitoring entities in the Lower Minnesota River Watershed. The results have been shared with the Minnesota River Basin Data Center and we plan to have the respondents sites mapped out in GIS format so that their monitoring information will be available to a broad audience. We are also seeking to gain an understanding of how information from these monitoring efforts is being used by decision-makers and how it is being translated to the public in the Lower Minnesota River Watershed.

Communications and Outreach

- The Friends of the Minnesota Valley continued to promote conservation values and instill within local citizens and communities a sense of appreciation, responsibility, and stewardship for the Lower Minnesota River Watershed and the Minnesota Valley National Wildlife Refuge. We increased awareness about the Heritage Registry Program through press releases announcing new Registrants in local newspapers, initiated development of a Lower Minnesota River Watershed web site through in-kind donation from Minnesota Extension, published 3 Friends of the Minnesota Valley member newsletters, and hosted numerous events and meetings at the Minnesota Valley National Wildlife Refuge.
- The Friends contracted with Judy Erickson to provide regular communications consultation, prepare newsletters and develop press releases to provide greater community awareness of the Friends.
- The Friends took a lead role in educating the public and elected officials of the importance of funding the Minnesota River Conservation Reserve Enhancement Program (CREP). A significant component of our public relations effort centered on promoting full state funding for CREP. The Friends contracted for government affairs work to insure that the Ventura Administration and state legislature were fully aware of the need for state funds for CREP. \$20.5 million was appropriated against a full need of \$72.3 million by September 2002. We will again focus attention on obtaining the remaining \$51.4 million in 2001.
- We worked successfully to have a Friends member and registrant appointed as a manager of the Lower Minnesota River Watershed District from Dakota County.

Minnesota River Watershed

Events that affected agriculture and the environment

- 1851 Treaty of Traverse - Des Sioux opens Mn. River Based to settlement.
- 1855 European settlement - moldboard plow - horsepower.
- 1860s Crops grown with natural fertility of prairie soil - wheat a cash crop.
- 1870s Railroad hastens settlement and reaches South Dakota by 1871.
- 1880s Rapid settlement of southern and western Minnesota.
- 1890s Steam engine utilized in agriculture.
Basic ditch laws passed.
- 1900s Start of farm ditching.
- 1910s Farm drainage, tiling.
Extension service established.
- 1920s Expansion of tractor numbers.
- 1930s Extremely dry years - wind erosion.
Soil Conservatin Service (SCS) established.
Soil and Water Conservation Districsts (SWCD) established.
Hybrid corn.
- 1940s Commercial fertilizer came into use.
Soybeans introduced as a farm crop.
Extension agents expand responsibilities to community and family.

Herbicides - insecticides utilized.
- 1950s Increased row crops.
Extensive farm ditching and tiling.
Soil Bank Program authorized.
SCS & SWCD in every county.
- 1960s Shift to higher rates of fertilizer and greater use of pesticides.
Legislative Commission on Minnesota Resources (LCMR) enacted.
Expanded programs through Soil and Water Conservation Districts.
- 1970s University of Minnesota research.
Soil survey acceleration.
New generation of farm equipment.
- 1980s Reduced tillage.
Chisel plow.
High tech sustainable farming.
Improved soil testing.
Less use of conventional tillage.
CRP - RIM directed toward retiring highly erodable crop land.
County water planning act.
13 county joint powers group formed.
Minnesota ground water act.
MPCA Clean Water Partnership programs.
Nitrogen fertilizer task force BMPs.
Minnesota River Assessment Project.
Wetland conservation act.
University Experiment Station research.
- 1990s New generation pesticides (small quantities - low toxicity).
Abandoned well sealing program by counties.
Waste container collection and recycling.
Grid soil testing, grid fertilizer and pesticide application techniques.
Federal farm legislation addressing agricultural compliance for conservation measures.
Expanded programs through Soil and Water Conservation Districts.
Blue Earth River Basin joint powers group formed.
Biotechnology industry places products into commercial markets.

*why did I change?
To what extent
should I chg?*

*delet
thru 40 yrs old
40 yrs old*

REFUGE BEGINNINGS

The dream of having a national wildlife refuge in the Minnesota Valley was developed in the early 1970's by a group of citizens called the Burnsville Environmental Council although the general idea for preserving the Valley dated from the 1930's. Theodore Wirth, former superintendent of Minneapolis Parks, proposed in 1935 that a 42,000 acre park be created along the river, from Fort Snelling to Shakopee, but nothing of came of it until the Burnsville Environmental Council got interested.

The Burnsville Council was started by the Albrechtsen, Crozier, Duerre, Oulman and Sullivan families along with other individuals. They had banded together in the early 1970's to protect the natural values of the city as it was going through a very rapid growth period. Together they developed a proposal for a sign ordinance, a proposed city-wide trail system and built Burnsville's first nature interpretive trail in Lake Alimagnet Park. It was also one of the first cross country ski trails in Burnsville.

Frustrated with their failure to stop the expansion of land fill operations on the Burnsville portion of the Minnesota River flood plain they decided that a more comprehensive approach was necessary to protect the river bottoms. They couldn't keep fighting at the local level and accomplish anything major. As a result, in 1974, under the leadership of President Dick Duerre, the Burnsville group produced a 24 page booklet that proposed a Minnesota River National Wildlife Recreation Area, something that had never been created anywhere in the nation. The Council sent the proposal booklet to everyone from local City Councils to the President of the United States.

Fortunately, Bill Frenzel, then the U S Congressman for the 3rd District responded by asking the Department of Interior to investigate the feasibility of establishing a national wildlife recreation area in the valley.

The Department of Interior then delegated that task to the Minneapolis Regional Office of the U S Fish and Wildlife Service. At the time, Ed Crozier was in a position to direct preparation of a study report. The result was the development, in 1975, of a proposal for a 6,600 acre Minnesota River National Wildlife Refuge, somewhat smaller then the current refuge. Although still a good idea, the Burnsville Council's concept of a National Wildlife Recreation Area was too foreign for most people and the establishment of a national wildlife refuge was easier to accept.

Very quickly the Burnsville Environmental Council realized that the project was more than they could handle. They needed citizen involvement from other communities along the river so they journeyed across the river and asked Elaine Mellott for help. At the time Elaine was doing an admirable job of advising Bloomington officials on environmental matters as chair person of the Bloomington Natural Resources Commission. Together the Burnsville and Bloomington groups formed an Ad Hoc Lower Minnesota River Committee. Eventually the Burnsville Environmental Council exhausted their energies and the Council dissolved.

Fortunately, Elaine Mellott took up the challenge. Aided by her friend, Marialice Seal, another Bloomington environmentalist, they formed a loosely knit, all-volunteer no-membership-dues group that brought together citizens from throughout the valley. At the peak of its grass-roots effort, in 1974 and 1975 the group included 200 people.

They kept up the contacts between the volunteers and they asked people drum up more support for the project by writing letters and calling officials. Mellott and Seal and the other volunteers were able to get support and funds from more than 40 private groups: conservationist, chambers of commerce, corporations, the Jaycees and endorsements from some city councils. Together with Ed Crozier and Tom Follrath, representing the U.S. Fish & Wildlife Service, Mellot and Seal made numerous presentations up and down the river educating people about the project.

On July 11, 1975 Democratic Senator Mondale introduced a bill to establish the Minnesota Valley National Wildlife Recreation Area. Senator Humphrey was a co-sponsor. On December 19, 1975, Republican Congressman Frenzel and Congressman Hagerdorn introduced the same bill. Mondale became personally interested in the project, urging state and local governments along the river to preserve their lands for a recreation area along the river.

On March 4, 1976 Congressman Fraser joined the effort and introduced the same bill. But the biggest boost seem to come on April 14, 1976 when Congressman Oberstar introduced a similar bill. Oberstar was a member of the Committee on Merchant Marine and Fisheries that handled such legislation and he was in a strategic position to make things happen. And they did. Congress approved the bill on October 6, 1976 and the Minnesota Valley National Wildlife Refuge was established.

I could modify the preceeding article to include the beginnings of the Friends if desired.

Martin Seabo/Aid

Durenburger

Janet Watson

Frenzels aid

Shirley Hunt



Heritage Registry

sponsored by

**Friends
of the
Minnesota
Valley**

**Friends of the
Minnesota Valley**
3815 East 80th Street
Bloomington, MN 55425
612/854-5900

Who are the Friends?

The Friends of the Minnesota Valley is a local, nonprofit citizens organization, devoted to protecting and preserving the natural and cultural resources of the Minnesota Valley. The Friends are responsible for the establishment of Minnesota Valley National Wildlife Refuge and are currently working to complete the Refuge. The Friends also sponsor projects and programs, such as the Heritage Registry, to help meet the demands of urbanization, outdoor recreation and natural resource protection.

What is the Heritage Registry?

The Heritage Registry is an honor roll of landowners who volunteer to protect and preserve their natural land for the benefit of wildlife and the ecosystems that support it. The goal of the Heritage Registry is to conserve and protect biodiversity in the Valley so that it will continue to be an area for wildlife, environmental education and recreation. The Registry encourages a hands-on approach to stewardship.

How does land qualify for the Registry?

The Registry focuses on privately owned lands in the Lower Minnesota Valley. Lands immediately adjacent or ecologically connected to the Minnesota Valley National Wildlife Refuge are top priority.

How will enrolling my land help the Minnesota River?

The Minnesota Valley National Wildlife Refuge stretches 34 miles along the Minnesota River from Fort Snelling to near Jordan, Minnesota. The Registry is designed to create a buffer zone surrounding the Refuge in hopes of reducing runoff, erosion and habitat fragmentation. The Minnesota River is the most polluted river in Minnesota and the single largest source of pollution to the Mississippi River north of St. Louis.

The Lower Minnesota River's health is being threatened at an increasing rate. From 1960-1990, development in and around the Lower Minnesota Valley grew by 156 percent. The Metropolitan Council predicts an additional 49 percent increase in Valley development by the year 2020. Enrolling land in the Registry contributes to a network of Minnesota River neighbors who are aware of the importance and uniqueness of this urban river corridor and who are taking an active role in stewardship of the Minnesota Valley.

What is the commitment for enrolling in the Registry?

Commitments are verbal, voluntary and non binding. There is no required financial contribution. As a Registrant you will receive an engraved plaque, an honorary membership to the Friends of the Minnesota Valley and access to an information network on stewardship techniques.

Those enrolled in the Registry verbally agree to:

- 1) preserve and protect the area to the best of their ability
- 2) notify the Friends of the Minnesota Valley of any potential threats
- 3) notify the Friends of any intent to sell or transfer ownership of the property
- 4) allow a Registry representative to conduct an annual site visit to monitor the effectiveness of the program

How do I enroll?

Just call the Friends of the Minnesota Valley and a Registry representative will do an informal survey of plant and animal communities on your property. Call 612/858-0706.

Results

The Registry is a proven tool for providing information to landowners about the impacts they have on the Valley's natural resources. More than 130 property owners have registered over 2500 acres of land. Surveys show that more than 75 percent of those enrolled have made improvements in the land use practices.

Attention businesses

The Business and Corporate Registry is a special branch of the Heritage Registry developed to meet the needs of the corporate community. The program functions similar to the Heritage Registry. Call for more information.

More Information

Friends of the Minnesota Valley
Minnesota Valley National Wildlife Refuge Visitor Center
3815 East 80th Street
Bloomington, Minnesota 55425
612/854-5900



Water Quality Trekking Pack

The Water Quality Trekking Pack is a pilot program that will provide teachers and students three levels of learning. First teachers and students will become aware of nonpoint source (NPS) pollution and issues surrounding it. Next, hands-on water quality testing and site investigation at the Refuge's Louisville Swamp unit will promote an understanding of the effects NPS pollution has on the Minnesota River. Then they will participate in discussions of potential solutions and ways in which they can play a role. Ultimately, they will be encouraged to participate as a class or individually in storm drain stenciling projects, Refuge water quality data collection, and other community projects aimed at reducing NPS pollution.

A contracted teacher will help Refuge staff select information and activities from existing curricula or create original material if necessary. Ten Dakota County teachers will pilot the Water Quality Trekking Packs in the spring. These teachers will attend a four hour teacher training and then schedule their class for a field trip to the Louisville Swamp Unit to field test the pack curriculum and equipment. At the conclusion of the program they will provide written evaluation of pack materials and attend a focus group session where their comments can be discussed in conjunction with those who designed the pack. In return, participating teachers will receive a small stipend, busing costs, and funding for a substitute teacher while they attend training.

In summer the packs will be revised. Additional funding will be sought to produce enough copies of the pack to be distributed to interested schools throughout the metro area in the fall.

Water Quality Trekking Pack Goals and Objectives

Goal 1: Provide teachers (grades 7-12) with tools/information necessary to lead students on field trip at Refuge's Louisville Swamp Unit to study how NPS pollution effects water quality in the Minnesota River.

Objective A: Provide teachers with four instructional components:

1. Educator's Overview to provide instructors with essential information;
2. Pre-Site Activities designed to prepare groups for field trip. Activities choices will include classroom and schoolyard activities and vocabulary/reading list;
3. On-Site Activities to provide background information on site, step-by-step procedures for lesson, suggested discussion and investigation, and evaluation methods; and
4. Post-Site Activities designed to help students process the information and identify actions they can take to help solve some of the water quality issues they now have a greater awareness and understanding of.

Objective B: Provide teachers and students will materials needed to conduct the on-site activities in one/several backpacks.

Goal 2: Encourage student action in water quality issues and their resolution.

Objective C: Explain storm drain stenciling projects as one example of how they

can get involved in the resolution of water quality issues.

Objective D: Require that all classes using the WQT Packs complete all water quality data sheets supplied in the on-site activity unit then mail in to the Refuge.

Objective E: Report back to participating teachers each fall with a yearly summary of water quality data collected by students at the Louisville site for use in classroom discussion.

Goal 3: Promote teacher awareness of NPS pollution and effects it has on Minnesota River water quality.

Objective F: Provide a four hour teacher training for WQT Pack users on topic of NPS pollution, it's effects on Minnesota River water quality, and how to reserve and use the WQT Packs with their students.

Goal 4: Increase teacher and student participation in water quality issues effecting the Minnesota River and the Refuge.

Objective G: Select Dakota County educators to assist in development of WQT Pack.

Objective H: Invite limited number of teachers (10) to participate in field testing WQT Pack.

Goal 5: Evaluate effectiveness of WQT Packs including instructional components, equipment, and teacher training.

Objective I: Collect feedback (via evaluation forms) on pack components from Refuge staff, participating teachers, and students where appropriate.

Objective J: Conduct focus groups. To include: Refuge staff; pack designers; participating teachers; and participating students where appropriate to discuss pack components.

Curricula: 4 units with progressively difficult site activities and water quality tests.

Exploring the Watershed - Students explore sources of non-point source pollution and determine its effects on areas within the watershed. Students test the water for pH, temperature, dissolved oxygen, and carbon dioxide.

Life in the Water of the Watershed- Students conduct an analysis of the macroinvertebrates and plants and examine how non-point source pollutants may affect aquatic life. Students conduct alkalinity and total hardness in addition to pH, temperature, dissolved oxygen, and carbon dioxide.

Developing a Water Quality Index- Students develop a water quality index and test for nitrate, dissolved oxygen, pH, total dissolved solids, turbidity, temperature and biochemical oxygen demand. The effects of these parameters on macroinvertebrates and plants is examined. The effects of non-point source pollution on each of these parameters is investigated.

Using a Standard Water Quality Index - Tests conducted in "Developing a Water Quality Index" are repeated. In addition, Fecal coliform and algae tests are conducted using micropore filtration techniques. The effects of non-point source pollution with respect to each of these parameters will be identified.

RIVER STEWARD WATER QUALITY CAMPAIGN
WORK PLAN AND TIME LINE

I. Educate residents of the lower Minnesota Valley about how their choices affect river water quality and what individuals can do to improve the river.

A. Operations and Campaign Setup (months 1-3)

1. Hire one marketing/PR staff person for campaign.
- ② Begin to explore opportunities for partnerships with city, county and regional governments and lawn and garden centers.
- ③ Develop detailed timetable, distribution plans, and seasonal messages for River Steward Cards.
- ④ Design prototype for first River Steward Card, for fall 1996 distribution.
- ⑤ Develop database of earned media contacts/opportunities.

B. Campaign Management (months 4-24)

1. Continue to develop partnerships with local government and corporate sponsors to expand the River Steward Campaign.
- ② Develop plans for a 1997 Spring Planting Promotion.
- ? 3. Explore opportunities for corporate sponsored PSA's for spring 1997.
4. Develop feedback and outcomes measurements for campaign.

C. Campaign Operations (months 4-24)

- ① Design, produce and distribute quarterly River Steward Cards.
2. Develop and exploit ongoing earned media opportunities.
3. Develop and distribute River Steward Point of Sale Displays for garden centers, shopping centers, outdoor recreation stores and public places.
- ④ Coordinate River Steward Campaign with existing Friends and refuge activities, and other regional environmental education efforts.

II. Raise awareness and concern about stewardship among bluffland and floodplain landowners in the lower Minnesota Valley.

A. Operation and Setup (months 1-6)

1. Revise, redesign, and produce Heritage Registry marketing material.
 - a. Conduct facilitated brainstorming sessions.
 - b. Develop concepts and pre-test materials.
 - c. Produce new materials.
2. Identify, purchase, setup, and receive training in a database program to manage landowner mailings.
3. Mail first River Steward Cards to bluffland and floodplain landowners.

B. Program Management (months 4-24)

1. Implement regular mail program.
2. At month 12 and 24 evaluate success of program at raising awareness through a targeted fundraising and Friends membership appeal.

- ① EXPLORE OPPS
- ② "CARDS"
- ③ MEDIA
- ④ KICK OFF
- ⑤ COORDINATE WITH existing ACTIVITIES

PROPOSAL

Background - For the second consecutive year, American Rivers has listed the Minnesota River as one of our nation's most threatened rivers. The Minnesota River is the largest source of pollution to the Mississippi River north of St. Louis. In the lower Minnesota Valley, the greatest threats to the river arise from urban runoff, soil erosion, and lost and fragmented wildlife habitats. These threats to the river's health and prosperity are intensified by rapid urban expansion. From 1960-1990, communities in the area grew by 156%. By 2020 these same communities are expected to grow another 50%.

In the future, our ability to protect the Minnesota River depends in large part on our ability to change the way people see the river and their relationship to it. If we can change the way people care for their land, we can control the runoff and erosion that is so damaging to our water quality.

Recent research on public attitudes toward the environment and the Upper Mississippi River Basin shows a compelling need and opportunity for public education. This research shows that urban and suburban residents feel a lack of connection to the great rivers that flow through their backyards. People believe these rivers are important natural and economic resources that have been damaged by human use, but they do not know what causes environmental damage to rivers like the Minnesota and Mississippi, and they don't understand how that damage affects the lives of the people like themselves.

This lack of public connection and understanding of rivers is borne out by the Friends' experience talking to Minnesota Valley residents about the Heritage Registry. It is not unusual for people who have lived in the valley all their lives to be completely unfamiliar with the river and to have little or no sense of responsibility or connection to its future.

The Friends and the Refuge understand the crucial role which raising public awareness will play in protecting the resources of the Minnesota River, and have we demonstrated our ability to develop and implement successful public outreach targeting young people, educators, and landowners. Our proposal is to expand these efforts through a well-coordinated communications strategy that will reach a wider audience with a clear message connecting people to the Minnesota River.

PROPOSAL DESCRIPTION

The Friends of the Minnesota Valley are requesting \$136,000 over two years, to implement a River Steward Water Quality Campaign that will increase awareness of the Minnesota River as a unique resource that should be protected for our enjoyment today and for our grandchildren in the future. The River Steward Water Quality Campaign will be a comprehensive public education campaign targeted to residents of the lower Minnesota Valley and nearby communities.

The River Steward Campaign has two primary goals:

- 1) Educate residents of communities in the lower Minnesota Valley about how their choices affect river water quality and what individuals can do to improve the river; and
- 2) Raise awareness and concern about stewardship among bluffland and floodplain landowners in the lower Minnesota Valley.

In response to public opinion research which found that people do not understand the sources of river pollution and do not know what they can do to help, the campaign will communicate the message that individuals can make a difference in the water quality of the Minnesota River by making simple, easy changes in the way they use water and care for their land.

Target Audiences - The River Steward Water Quality Campaign will focus on people living in the communities of the lower Minnesota Valley between Belle Plaine and Fort Snelling. This target audience includes over 325,000 urban, suburban, and small town residents.

The Friends has selected this target audience because it is most connected by proximity to the Minnesota River, and most able to have an affect on the Minnesota River by the actions it takes. We also know from research data that people in urban and suburban areas, particularly women and residents under age 49, are most predisposed to river protection messages and most likely to take action to protect the environment. Focused resources directed at this audience will have a measurable impact on their attitudes and actions.

An important component of our strategy will be to put special focus on a key subset of this target audience: the roughly 1,000 individuals and families who own land along the bluffs and floodplain of the lower Minnesota Valley. This group deserves special attention because they are in the best position to protect the Minnesota River, because they are the most connected to the river by proximity, and because they are most likely to believe that the quality of the Minnesota River affects the quality of their lives. They are also potential members for the Friends' Heritage Registry

Messages - The River Steward Water Quality Campaign will focus on a message of stewardship and empowerment:

Everyone has a responsibility to protect the Minnesota River Valley for our enjoyment today and the enjoyment of our children and grandchildren in the future. The River Steward Water Quality Campaign empowers people by educating them about easy things they can do to help take care of the Minnesota River and promote river stewardship.

Implementation - Implementation of the River Steward Water Quality Campaign will have two components: the first and most important will be a coordinated plan to raise public awareness of the Minnesota Valley. The second component, more narrowly focused, will be a comprehensive plan to raise awareness and concern about stewardship among bluffland and floodplain landowners, and drive home the message of stewardship with this crucial audience. Implementation plans for these two components are summarized below.

1) Focus on Public Awareness: To meet the first goal of raising awareness of the Minnesota Valley and educating residents about what they can do to help protect the Minnesota River, the River Steward Water Quality Campaign will:

- Design, produce and distribute a quarterly Friends of the Minnesota Valley River Steward Card.

The River Steward Cards will provide seasonal ideas for how individuals can protect and improve water quality of the Minnesota River. Potential topics include lawn care and fertilizer use, landscaping for wildlife, native plantings and how they benefit the river, and education about limiting runoff and soil erosion. Each edition of the River Steward Card will provide information about where to go for more information and easy to understand "fun facts" about why water quality of the Minnesota River is important to people.

The River Steward Cards will be designed and produced on heavy paper or cardstock so that people can keep them and refer to them over time.

The Friends will explore opportunities to distribute the River Steward Cards through lawn and garden retailers (Bachmans, Lyndale Garden Center and others); hardware stores; outdoor recreation stores such as REI; at community centers, city halls, and schools; shopping centers; and parks throughout the region. The River Steward Cards also will be distributed through existing Friends and Refuge mailings and activities.

- Explore opportunities for a more extensive collaboration with local lawn and garden firms such as Bachmans. An extensive collaboration with a corporate River Steward sponsor will allow the Friends to expand the reach of its message and further leverage the resources devoted to this campaign. A more extensive collaboration might include "Minnesota River Steward" stickers for local plants that attract birds and wildlife and require less fertilizer. The sticker might also be used for lawn care products that are

better for the river. A Year 2 project could include large scale in-store promotions during spring planting season promoting Minnesota River friendly products, including PSAs and in-store Friends information booths to provide information about river stewardship.

- Create opportunities to collaborate on the River Steward Water Quality Campaign with other environmental education programs around the region. Both Dakota County and the Metropolitan Council are pursuing public education projects that focus on lawn care, water quality, and non point source pollution. The City of Bloomington has recently launched a Citizens Wetland Advisory Commission which may present another opportunity for collaboration. Cargill has an international program, "Water Matters", that encourages employees and their families to get involved in water quality issues. The Friends will take every opportunity to work with these and other community, regional and local government groups to leverage resources, avoid duplication, and coordinate messages and strategies.

- Outreach materials for the campaign will be linked by a common graphic image that will symbolize the entire project. Other partners will be encouraged to use this same imagery in their Minnesota River stewardship projects. This will provide a common thread that will further educate the public about their relationship to the multitude of actions affecting the river.

- Leverage the River Steward message through local earned media: newspaper home and garden sections; local newscast weather segments; and weekend gardening and home improvement programs on radio and TV. Earned media will be a crucial component of a successful communications strategy because it will further leverage our resources.

2) Focus on Landowners: The second goal of the River Steward Water Quality Campaign is to raise awareness and concern about stewardship among bluffland and floodplain landowners in the lower Minnesota Valley. The Friends have successfully reached out to over 128 Minnesota Valley residents and convinced them of the importance of stewardship through the Heritage Registry. Their commitment makes them true Minnesota River Stewards, and is crucial to a successful River Steward Campaign.

To be successful in the future, the Friends must reach a broader audience, an audience unfamiliar with the Friends and uncomfortable with the idea of joining an environmental group. This includes the over 1,000 individuals and families that live in the blufflands and floodplains of the Minnesota Valley that are not yet participating in the Heritage Registry.

To meet this goal of raising awareness and concern about stewardship among bluffland and floodplain landowners, the River Steward Water Quality Campaign will do the following:

- Create a targeted regular mail program to bluffland and floodplain landowners. The

targeted mailing program will reinforce the messages of the River Steward Campaign with this crucial audience, as well as communicate a positive image for the Friends as a grassroots, neighborhood community group rather than an environmental advocacy organization.

- Expand the mail program to key "opinion leaders" who are important to the success of the River Steward Campaign. These people will include key government, agency, community and business leaders as well and local media.

- Revise and redesign Heritage Registry communications material. The Friends will conduct facilitated brainstorming sessions with current Heritage Registry members to explore ideas for how best to reach neighbors who do not yet participate in the Heritage Registry. Based on these sessions, public opinion research, and other resources from groups like the Land Trust Alliance, concepts for the revised Heritage Registry material will be developed, pre-tested with potential members, and then revised and produced.

FUTURE PLANS

Following implementation of the first phase of the River Steward Water Quality Campaign, plans will be made to continue public education activities with a focus on recreation. Most residents of the Twin Cities are not aware of the environmental challenges facing the Minnesota, nor do they appreciate its recreational value. Popular press often refers to the area as the "Twin Cities Best Kept Secret". The goal of this phase of the will be to raise awareness of the recreational value of the Minnesota Valley among outdoor enthusiasts.

Message - The Minnesota River Valley enhances our lives through its natural beauty and the recreational value it provides to families for hiking, fishing, boating, and other outdoor activities. We must protect the Minnesota River so that we can continue to enjoy it.

Activities:

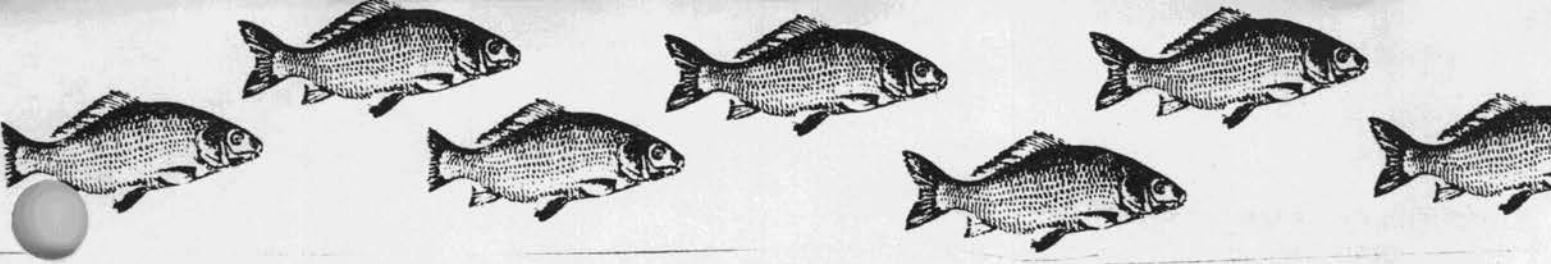
- Create or improve links between the Refuge, Friends, and outdoors groups via the internet.
- Create a "Fun in the Minnesota Valley" information campaign for the summer months designed to publicize recreation opportunities in the valley. The campaign would inform outdoor enthusiasts about existing fun things to do in the valley, and communicate the message that the Minnesota valley is an important recreational resource. The campaign could be coordinated through existing recreation programs of area communities and parks.

Support - The Friends have just begun a five year plan to increase membership and diversify funding. Two months into the project, we have already experienced the lack of awareness and connection that area residents have to the Minnesota River. The activities of the first phase of the River Steward Water Quality Campaign will lay the ground work for successful membership development and fundraising activities. Because raising awareness and concern for the Minnesota Valley, as well as increasing the visibility of the Friends, will have a direct impact on our ability to attract new members and obtain major River Steward sponsors, it is imperative that the Friends embark on a public education campaign.

Conclusion - The result of the River Steward Water Quality Campaign will be the creation of a network of river neighbors who are aware of the importance and uniqueness of this urban river corridor, who recognize their connection to the surrounding landscape, and who are taking an active role in stewardship of the Minnesota Valley.

PROJECT BUDGET

	Year One	Year Two
<u>Income</u>		
McKnight	73,600 ^{71,000}	62,400 ^{65,000}
Corporate Sponsors	0	30,000
USFWS (inkind)	20,000	20,000
Total	93,600.00	112,400.00
	91,000	115,000
<u>Expenses</u>		
Salary/Benefits: Project Manager	33,000	33,000
Salary/Benefits: Executive Director	13,600	13,600 ⁴
Postage	3,300	3,300
Printing	6,650	36,650
Mileage	1,000	1,500
Professional Fees	10,500	2,150 ³⁵⁰⁰
Equipment & Supplies	3,000	1,000
Training	250	250
General Operating Expenses	20,000	20,000
Miscellaneous (2% of budget)	1,800	2,200 ^{1,200}
Total	93,600.00	112,400.00



MINNESOTA VALLEY HERITAGE REGISTRY STEWARDSHIP RESOURCES

This is a list of resources... people to contact with questions about the natural or unnatural things you see, about how to maintain or improve natural habitats on your property, or to just share your enthusiasm! Also included is a list of nurseries that stock native plants.

FRIENDS OF THE MINNESOTA VALLEY 854-5900

Executive Director: Ann Haines, Refuge Visitor Center

Heritage Registry Office: Refuge Visitor Center

President: Jean Johnson, P.O. Box 20244, Bloomington, MN 55420-9998

MINNESOTA VALLEY NATIONAL WILDLIFE REFUGE 854-5900

Visitor Center: 3815 E. 80th Street, Bloomington, MN 55425-1600

Refuge Manager: Rick Schultz

Biologist: Vicki Sherry

Environmental Education: Suzanne Trapp

Volunteer Coordinator: Maria Olson

Private Lands Program: (Wetland and Grassland restorations) Tom Kerr and Todd Luke

Law Enforcement: Sam Friberg

Bluff Top Bookshop: Sells a wide variety of nature books and gifts.

Library: Source for books, videos, and films on valley history, plants, wildlife, etc.

THE NATURE CONSERVANCY, Minnesota Field Office 331-0750

1313 5th Street SE., Minneapolis, Mn 55414 Protects land with rare or endangered species and natural communities. Excellent advisors on rare habitat restoration and management.

THE LAND STEWARDSHIP PROJECT 433-2770

14758 Ostlund Trail North, Marine on the St. Croix, MN 55047
LSP promotes cost-effective sustainable agricultural practices that are safe for our environment.

MINNESOTA LAND TRUST 522-3743

70 N 22nd Ave., Minneapolis, MN 55411-2237
Helps landowners to protect and enhance open spaces through variety of tools, including conservation easements.

SOIL AND WATER CONSERVATION DISTRICTS

Provides technical assistance and cost share programs to landowners for protecting soil and water resources.

Carver County	442-5101	LeSueur County	(612) 357-4879
Dakota County	460-8004	Scott County	492-2636
Hennepin County	544-8572	Sibley County	(612) 237-5435

MINNESOTA DEPARTMENT OF NATURAL RESOURCES

500 Lafayette, St. Paul, MN 55101	
Information Center and Publications (DNR Reports)	296-6157 (metro) 1-800-766-6000 (toll free)
Non-Game Wildlife and Natural Heritage Programs	296-3344
Metro Area: Forester: Al Olson	832-6165
Wildlife Manager: Tom Keefe	445-9393
Region IV Mankato (Sibley & LeSueur Counties)	
Forestry:	(507) 389-6713
Wildlife:	(507) 225-3572

UNIVERSITY OF MN EXTENSION SERVICE

DIAL-U Insect and Plant Clinic 1-900-988-0500 \$2.99/phone call

Personalized service for specific questions. Hours: April-Sept. 9-5 M-F; October-March 9-2 M-F.

Info U 24hr Services 624-2200 or 1-800-525-8636 FREE

Recorded messages: Enter 3 digit topic code or 100 for list. Call local office for topic/code list.

Faxback: Receive text of documents on your fax machine! Request code 9010 Home

Horticulture for list of titles/codes.

COUNTY EXTENSION OFFICES:

Carver	442-4496	LeSueur	(612) 357-2251
Dakota	463-3302	Scott	492-2370
Hennepin	374-8400	Sibley	(612) 237-5531

MINNESOTA RIVER VALLEY AUDUBON CHAPTER

P.O. Box 20400, Bloomington, MN 55420

Monthly meetings at Refuge Visitor Center. Slide shows, discussions, field trips, and newsletter.

MINNESOTA NATIVE PLANT SOCIETY

220 Biological Sciences Center, University of Minnesota, St. Paul, MN 55108

Monthly meetings at Refuge Visitor Center. Slide shows, discussions, field trips, fall seed exchange, spring plant sale, photo contest, and newsletter.

DAKOTA SOCIETY 884-3743

15341 Red Oaks Road SE, Prior Lake, MN 55372

Engages in research and education pertaining to the history and culture of Native Americans.

OTHER MINNESOTA RIVER CITIZENS GROUPS:

COALITION FOR A CLEAN MINNESOTA RIVER (CCMR)

P.O. Box 488, New Ulm, MN 56073 (507) 359-2346

CLEAN UP OUR RIVER ENVIRONMENT (CURE)

103 West Nichols Ave., Montevideo, MN 56265 (612) 269-2105

OTHER HELPFUL PHONE NUMBERS:

National WildflowerResearch Center	(512) 929-3600
Bell Museum of Natural History	624-1852
Wildlife Information Line	624-1374
Wildlife Extension Specialist, U of MN:	624-3298
Raptor Research and Rehabilitation Center, U of MN:	624-4755
Wildlife Rehabilitation Clinic, U of MN:	624-7730
Humane Society of Minnesota:	296-3613
MN Health Department Rabies Information:	
623-5414 (8-4:30 weekdays) 623-5254 nights, weekends or emergencies.	
Department of Agriculture, Animal Damage Control:	290-3157
Turn in Poachers (TIP):	1-800-652-9093
Minnesota Historical Society:	726-1171
Minnesota Pollution Control Agency:	296-6300
Emergencies and Spills, after hours:	296-8100
Master Gardner Home Horticultural Hotline	374-8433

(This list is for informational purposes only. No endorsement of organizations or products intended.)

PLANTS

Some of these species no longer exist in the valley, but all were verified to occur here at some time in the past.

SPECIES	LATIN NAME	OFFICIAL STATE STATUS (SC = "SPECIAL CONCERN")
1. Sullivan's Milkweed	<i>Asclepias sullivantii</i>	Threatened
2. Kitten tails	<i>Besseyia bullii</i>	Endangered
3. Tuberous Indian Plantain	<i>Cacalia plantaginea</i> (C. tuberosa)	Threatened
4. Sterile Sedge	<i>Carex sterilis</i>	Threatened
5. Hill's Thistle	<i>Cirsium hillii</i>	SC
6. Twig-rush	<i>Cladium mariscoides</i>	SC
7. Small white lady's-slipper	<i>Cypripedium candidum</i>	SC
8. a species of Tick Trefoil	<i>Desmodium cuspidatum</i> var. <i>longifolium</i>	Proposed SC
9. Beaked Spike-rush	<i>Eleocharis rostellata</i>	Threatened
10. Eared Gerardia	<i>Gerardia auriculata</i>	Endangered
11. Long-Bearded Hawkweed	<i>Hieracium longipilum</i>	Undetermined
12. One Flowered Broom-Rape	<i>Orobanche uniflora</i>	SC
13. Cowbane	<i>Oxypolis rigidior</i>	Undetermined
14. Tubercled Rein-orchid	<i>Platanthera flava</i> var. <i>flaviola</i>	Endangered
15. Western Prairie Fringed Orchid	<i>Platanthera praeclara</i>	Endangered
16. Hair-like Beak-rush	<i>Rhynchospora capillacea</i>	Threatened
17. Sessile-flowered cress	<i>Rorippa sessiliflora</i>	Proposed SC
18. Whorled Nut-rush	<i>Scleria verticillata</i>	Threatened
19. False Asphodel	<i>Tofieldia glutinosa</i>	SC
20. Marsh Arrow-grass	<i>Triglochin palustris</i>	SC
21. Valerian	<i>Valeriana edulis</i> ssp. <i>ciliata</i>	Threatened



Valeriana edulis ssp. *ciliata*: (a) entire plant, x 1/5; (b) staminate flower, x 5; (c) fruit, x 5.

NATURAL COMMUNITIES

Natural communities must also be ranked and tracked to determine their status over time. The following communities are considered rare and declining in numbers and acres across the state and globe.

COMMUNITY	TOTAL NO. IN VALLEY	GLOBAL RANK	STATE RANK
1. Calcareous Fen	5	Special Concern	Threatened
2. Dry Sand Savanna, Oak Subtype	2	Threatened	SC
3. Glacial Till Hill Prairie	3	Special Concern	SC or better
4. Maple Basswood Forest	2	Special Concern	Threatened to SC
5. Mesic Blacksoil Prairie	3	Threatened	Threatened to SC

TOTAL SENSITIVE SPECIES

	CURRENT	PAST	
Birds:	18	9	
Mammals	7	5	
Reptiles	7	?	
Fish	1	2	
Mussels	1	?	
ANIMALS; 34	16	TOTAL: 50	
PLANTS;		TOTAL: 21	
TOTAL SENSITIVE SPECIES		71	



Besseyia bullii: (a) entire plant, x 1/2; (b) portion of inflorescence, x 2 1/2.



STATE ENDANGERED, THREATENED AND SPECIAL CONCERN SPECIES OF THE MINNESOTA RIVER VALLEY FROM FORT SNELLING TO JORDAN

As a part of the ecological survey made by the Minnesota Valley Heritage Registry Program, this list of sensitive species was created. It was created by consulting with the Department of Natural Resources Heritage Program, Refuge Personnel, The Nature Conservancy, the University of Minnesota, local ecologists, biologists, botanists, ornithologists, and others.

All of the following species are endangered, threatened, special concern, or being considered for one of the above categories within the state of Minnesota. The "state status" is a legal definition of how rare a species is within the state. An "Endangered" species is the most imperiled, threatened with extinction through all or a significant portion of its range. A "Threatened" species is likely to become endangered within the foreseeable future. A species with "Special Concern" status is extremely uncommon in Minnesota or has unique or highly specific habitat requirements and deserves careful monitoring.

The sensitive species on this list have been verified to occur in the Minnesota Valley on or adjacent to the Refuge and Recreation Area at some time. Although some no longer occur here, there is still the hope that some may return, providing we maintain and improve the available habitat. It is crucial that we continue to maintain the native natural communities that do still exist so that we are not faced with the loss of more species.

BIRDS

SPECIES (SC = "Special Concern")	LATIN NAME	OFFICIAL STATE STATUS	NOTES RE. USE OF VALLEY
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The following sensitive bird species still use the Refuge and Recreation Area or adjacent land.

1. Horned Grebe	<i>Podiceps auritus</i>	SC	migrant
2. American White Pelican	<i>Pelecanus erythrorhynchos</i>	SC	migrant
3. American Bittern	<i>Botaurus lentiginosus</i>	SC	possible nester
4. American Bald Eagle	<i>Haliaeetus leucocephalus</i>	Threatened State and Fed.	nesting
5. Osprey	<i>Pandion haliaetus</i>	SC	migrant
6. Red Shouldered Hawk	<i>Buteo lineatus</i>	SC	possible nester
7. Peregrine Falcon	<i>Falco peregrinus</i>	Endangered State and Fed.	nests near refuge
8. Common Moorhen	<i>Gallinula chloropus</i>	SC	migrant
9. Sandhill Crane	<i>Grus canadensis</i>	SC	migrant
10. Upland Sandpiper	<i>Bartramia longicauda</i>	SC	historical nester
11. Wilson's Phalarope	<i>Phalaropus tricolor</i>	SC	potential nester
12. Marbled Godwit	<i>Limosa haemastica</i>	SC	rare migrant
13. Common Tern	<i>Sterna hirundo</i>	SC	migrant
14. Forster's Tern	<i>Sterna forsteri</i>	SC	migrant, possibly nesting
15. Short Eared Owl	<i>Asio flammeus</i>	SC	rare migrant
16. Loggerhead Shrike	<i>Lanius ludovicianus</i>	Threatened	potential nester
17. Bells Vireo	<i>Vireo bellii</i>	Undetermined	nests
18. Henslow's Sparrow	<i>Ammodramus henslowii</i>	SC	vagrant, potential nester
19. Trumpeter Swan	<i>Cygnus buccinator</i>	Extirpated	migrant, captive breed

The following sensitive bird species are believed to have used the Refuge and Recreation Area or adjacent land at one time but are now extirpated from the area.

20. Passenger Pigeon	<i>Ectopistes migratorius</i>	Extinct	probable nester
21. American Swallow-tailed Kite	<i>Elanoides forficatus</i>	Extirpated	migrant, possible nester
22. Whooping Crane	<i>Grus canadensis</i>	Extirpated	possible vagrant
23. Long Billed Curlew	<i>Numenius americanus</i>	Extirpated	possible vagrant
24. Piping Plover	<i>Charadrius melodius</i>	Endangered State and Fed.	migrant
25. Greater Prairie Chicken	<i>Tympanuchus cupido</i>	SC	nested at Flying Cloud
26. King Rail	<i>Rallus elegans</i>	SC	vagrant, possible nester
27. Louisiana Waterthrush	<i>Seiurus motacilla</i>	SC	nested at Purgatory Creek

MAMMALS

<u>SPECIES</u>	<u>LATIN NAME</u>	<u>OFFICIAL STATE STATUS</u> (SC = "Special Concern")	<u>NOTES RE. USE OF VALLEY</u>
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The following sensitive mammal species currently use the Refuge and Recreation Area or adjacent land.

1. Northern Myotis (a mouse)	<i>Myotis Septentrionalis</i>	SC	positive summer resident
2. Western Harvest Mouse	<i>Reithrodontomys megalotis</i>	NOT LISTED	eastern edge of range, disappearing with prairie
3. Eastern Pipistrelle (a bat)	<i>Pipistrellus subflavus</i>	SC	common here
4. Eastern Spotted Skunk	<i>Spilogale putorius</i>	SC	rare here
5. Mule Deer	<i>Odocoileus hemionus</i>	SC	occasional wanderer
6. Prairie Vole	<i>Microtus ochrogaster</i>	SC	probably occurs
7. Least Shrew	<i>Cryptotis parva</i>	SC	may be north of range

The following sensitive mammal species are believed to have used the Refuge and Recreation Area or adjacent land at one time but are now extirpated from the area.

8. Wolverine	<i>Gulo gulo</i>	SC	past occasional wanderer
9. Mountain Lion	<i>Felis concolor</i>	SC	past resident
10. Gray Wolf	<i>Canis Lupus</i>	Threatened State and Fed.	past resident
11. Elk	<i>Cervus elaphus</i>	Extirpated	(original MN subspecies), valley resident late 1800
12. Bison	<i>Bison bison</i>	Extirpated	past resident

REPTILES

It is assumed that all of these reptiles still use the Refuge and Recreation Area.

1. Blandings Turtle	<i>Emydoidea blandingii</i>	SC
2. Snapping Turtle	<i>Chelydra serpentina</i>	SC
3. Western Hognose Snake	<i>Heterodon nasicus</i>	SC
4. Fox Snake	<i>Elaphe vulpina</i>	SC
5. Gopher Snake	<i>Pituophis melanoleucus</i>	SC
6. Milk Snake	<i>Lampropeltis triangulum</i>	SC
7. Blue Racer	<i>Coluber constrictor</i>	SC

An historical reptile list is currently not available.

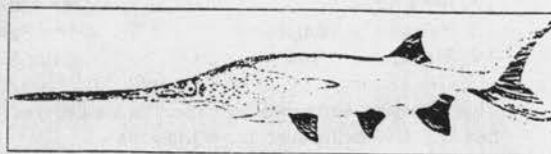


Blanding's Turtle

FISH

Of the following sensitive fish species, only the Shovelnose Sturgeon still uses the Minnesota River between Jordan and the mouth of the river. The others are past residents.

1. American Brook Lamprey	<i>Lampetra appendix</i>	SC
2. Shovelnose Sturgeon	<i>Scaphirhynchus platorhynchus</i>	SC
3. Paddlefish	<i>Polyodon spathula</i>	SC



Paddlefish

MUSSELS

1. Ebony Shell Freshwater Mussel	<i>Fusconaia ebena(ebenus)</i>	SC
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An historical mussel list is currently not available.



prefers large rivers,
recorded in MN river
recently.

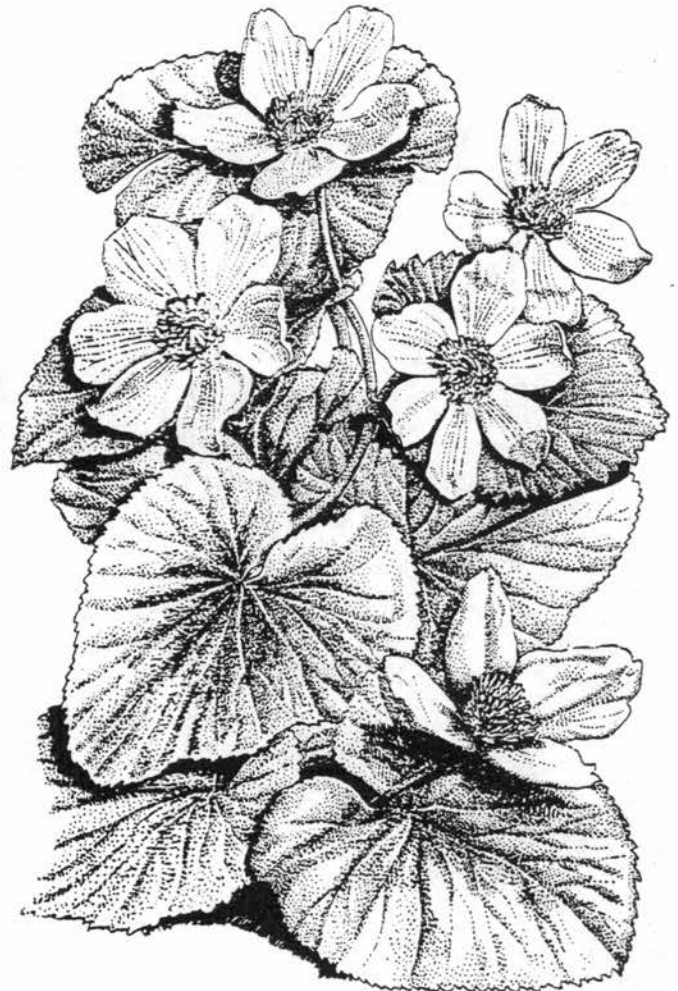
1. Floodplain Forests

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The floodplain forest community moved along the Minnesota River allowing a sheltered passage from east to west. A floodplain forest is relatively easy to pass through since it sustains little shrub or herbaceous understory. This plant community tolerates annual flooding disturbance which cleans the forest floor of natural barricades. The forest is subject to another environmental hardship, summer drought. Trees that survive here have to have a wide range of tolerance. That is why many of our residential landscape trees have been chosen from the floodplain (i.e. Green Ash and American Elm). Before Dutch Elm Disease, these landscapes were dominated by huge American Elms and Silver Maples. Green Ash now occupies the niche left by the elms. Black willow and cottonwood are the first to seed into sand bars and other exposed soils along the river.



The forest's hot, humid summer environment with its mosquitoes can be prohibitive to visitors. Choose a spring (after flood) for a pleasurable experience. You'll not be alone. You will be rewarded with morels, woods phlox, marsh marigold and blue flag, migrating song birds, and resident woodpeckers that thrive in the flood-killed trees. You will see many multi-stemmed trees that have survived flooding. An occasional shallow-rooted tree will be found prostrate after a windstorm. A subtropic atmosphere is possible where mature vines climb to the top of the forest. More vines are found in this plant community than any other in the Midwest, including woodbine, moonseed, grape, clematis, bittersweet, and poison ivy. By mid-August an herbaceous ground layer establishes, composed of many annual species. Avoid the aggregations of nettles to complete your hike with a favorable impression. The peace and solitude of the arching tree forms can be almost chapel-like. Be prepared to come away with a renewed spirit and interest in protecting this plant community. An example of protected floodplain forest exists near Le Sueur at Chamberlain Woods preserve #1 on the map.



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Scattered openings of prairie appeared more often as the river valley moved, ultimately opening in 18,000,000 acres of tallgrass prairie in the west. Astonished European settlers reported grasses "so high that a man is lost amongst it, but paths are even found...when trodden...by buffalo." They at first believed the grassland of little value to farming, since the land could not even grow trees. Later, with the help of the John Deere plow, they discovered the richness of these slow-building prairie soils. Less than 1% of these prairie communities still exist, and consequently, prairie is an endangered plant community.

Generally prairies are described as xeric, mesic, or wet which reflects the moisture conditions to which different species adapted. Each is a mosaic of dominant grasses dashed with herbaceous plants known as "forbs". Xeric or dry prairies found on steep hillsides and sand deposits tend to support Little Bluestem and Side Oats Grama grasses mixed with pasqueflower, silky aster, and puccoon. Mesic prairies are dominated by Big Bluestem, and Indian Grass. They include forbs like birdsfoot violet, blazing star and smooth aster. Wet prairies common to lowlands and the prairie pothole region include grasses like Bluejoint and Big Bluestem and forbs including Prairie Polk, Gayfeather and Blue Gentian. These descriptions only begin to address the diversity of plants, often 250+

species, per prairie. Is it any wonder that prairie enthusiasts "get hooked on prairie?"

Before settlement and fire prevention, these grasslands were often burned naturally or by Indians. Once the fires stopped, woody invasion became common. Also, oak clusters known as savannas grew into solid oak forests, changing the character of prairies as much as did the plow. Our most pristine remnants are often found on land that was not easy to plow.

Visit a prairie and you will quickly learn that it is not a field of weeds, but a matrix of Minnesota history. Dress for full sun exposure and continuous breezes, part of the harsh environment prairie plants have adapted to. You'll share the prairie with many birds and butterflies as well as gophers and ant hills. The small mammals will hear you coming and will have retreated to safety. If you visit at sunset and become a part of the rosy glow and long shadows, and ponder life as the big sky surrounds you and the horizon pulls you to follow, I think the importance of this prairie natural heritage will be memorable.

Prairie preserves are located at Kasota prairie near St. Peter and Black Dog Prairie in Burnsville.



2. Prairie:

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3. Maple Basswood Forest:

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As the settlers journeyed from the Twin Cities to Mankato they viewed the "Big Woods", some 3000 square miles of maple-basswood forest (note the green areas on map). Few vestiges remain. None are protected in the Minnesota River Valley at this time. The forest offered settlers the cooling effect of shade. Imagine their joy when discovering European memories like trillium, violet and dutchman's breeches carpeting the Big Woods. Certainly the familiarity of these plants added comfort in this very foreign landscape. The oaks and elms were cut for fence posts, wagons, barrels and so on for their use. Maple sugaring was an attractive use of this plant community also. The settler's major impact was clearing for cropland, and thus the Big Woods diminished!

What settlers first saw was a forest dominated by long-lived sugar maple growing on north and east slopes. They formed a canopy of leaves that almost completely block out the sun's rays by the first of June. Consequently the ground layer allows only the most shade-tolerant (like sugar maple seedlings) to survive. Early spring ephemerals compete for space until the canopy develops. They include current day favorites: hepatica, bloodroot, and trillium. Your visit to this landscape will take you to Wolsfeld Woods or Townsend Woods, preserves outside the Minnesota River Valley, since no remnants are protected there at this time.

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4. Oak Woodland:

On south and west slopes, another type of woodland plant community evolved - an oak forest. They did not exist as a continuous woodland like the Big Woods. Located on slopes, hilltops and other well-drained sites these oak dominated clusters often formed the transition between the maple-basswood forest and the prairie. Mostly small wood lots remain to remind us of their place in history. The woods' timber value was great to the settlers. Much of the woods was degraded by grazing as well. The oak woods that survived offer edges of valuable wildlife habitat to this day. Ask any deer where he finds the best food and cover!

If you chose to explore this piece of our natural heritage, you'll not hike as easily as through a lowland forest. The shrub layer is dense with dogwoods, hazelnut, blackberry, raspberry, and gooseberry plus prickly ash. That's why you'll also chance seeing many birds, squirrels, rabbits, woodchucks, red fox and white tail deer. Its habitat value is just one reason it must be preserved. Time your visit carefully and you might see yellow ladyslipper, violets, anemone, wild geranium and other spring delights. You'll not feel alone in this enclosed and diverse environment.

An example of an oak forest can be found in Big Stone State Park.

