

**Environment and Natural Resources Trust Fund
2012-2013 Request for Proposals (RFP)**

Project Title:

ENRTF ID: 058-D

SNA Acquisition, Restoration, Enhancement & Citizen Engagement

Topic Area: D. Land Acquisition & Restoration

Total Project Budget: \$ 4,686,400

Proposed Project Time Period for the Funding Requested: 2 yrs, July 2013 - June 2015

Other Non-State Funds: \$ 0

Summary:

Diverse native plant communities and rare species habitat would be acquired as Scientific and Natural Areas (SNAs) and their quality sustained and improved through restoration, enhancement, monitoring, and citizen-student involvement.

Name: Margaret (Peggy) Booth

Sponsoring Organization: MN DNR

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St. Paul MN 55115

Telephone Number: (651) 259-5088

Email: peggy.booth@state.mn.us

Web Address: www.dnr.state.mn.us/snass

Location

Region: Statewide

County Name: Statewide

City / Township:

<input type="checkbox"/> Funding Priorities	<input type="checkbox"/> Multiple Benefits	<input type="checkbox"/> Outcomes	<input type="checkbox"/> Knowledge Base
<input type="checkbox"/> Extent of Impact	<input type="checkbox"/> Innovation	<input type="checkbox"/> Scientific/Tech Basis	<input type="checkbox"/> Urgency
<input type="checkbox"/> Capacity Readiness	<input type="checkbox"/> Leverage	<input type="checkbox"/> Employment	<input type="checkbox"/> TOTAL <input type="checkbox"/> %



Environment and Natural Resources Trust Fund (ENRTF) 2012-2013 Main Proposal

PROJECT TITLE: SNA Acquisition, Restoration, Enhancement & Citizen Engagement

I. PROJECT STATEMENT

Sites of biodiversity significance identified by the Minnesota County Biological Survey (MCBS) would be permanently protected as state Scientific and Natural Areas (SNAs), their quality improved, and public support for and involvement in their conservation will be increased by a suite of tools through the DNR SNA Program. About 700 acres of at risk, high quality native plant communities and wildlife habitat of state significance would be acquired and designated as SNAs. Native habitat restoration and enhancement activities would be implemented on about 1600 acres of SNAs threatened by human impacts, invasives, and lack of natural disturbance regimes. Furthermore, to address gaps in sustaining SNAs and to increase citizen and student knowledge and skills about biodiversity conservation, new SNA naturalists would engage youth and volunteers in about 80 events and as SNA site stewards at about 100 SNAs.

II. DESCRIPTION OF PROJECT ACTIVITIES

Activity 1: Protection of Sites of Biodiversity Significance Budget: \$3,184,400

The SNA Program will protect and buffer MCBS-recommended sites of biodiversity significance by acquisition and SNA designation of ~ 700 acres. To be acquired and designated as SNA, the site must be recommended for SNA designation in an Ecological Evaluation report which serves as the site’s baseline assessment for fee acquisitions AND must be part of a MCBS-mapped biodiversity significance site (or be a geological feature of statewide significance). All such sites are predominantly MCBS-mapped native plant communities and contain habitat for rare species and Species of Greatest Conservation Need. In addition, SNA staff uses criteria, such as landowner readiness and urgency, degree of threat, and partnership opportunities, to rank which recommended sites are currently pursued. The revised list of priority projects for this is Table 1 and as illustrated in Figure 1 (both attached). DNR may request to add other qualifying sites to the list with additional MCBS recommendations and changes in landowner interest, acquisition opportunity, or threats. Most acquisition will be of fee title, but if more appropriate for ongoing management and use, acquisition will be of a SNA-administered conservation easement with SNA designation. Conservation easement monitoring would be done on about 10 sites, including sites, if any, acquired in conservation easement with these funds. As of March 2012, the SNA Program manages 18 SNA conservation easements at 10 designated SNAs. The second phase of the SNA/rare resource strategic prioritization (initiated through an 2011 ENRTF appropriation) will incorporate new information on water quality/watershed approaches, geological features of statewide significance, and new MCBS data into the GIS-based analysis to refine priorities and increase coordinated rare resource protection with other Divisions and partners and to implement State Wildlife Action Plan (SWAP).

Outcome	Completion Date
1a. acquisition as SNA of ~700 acres of high quality habitat	6/30/15
1b. monitoring for ~10 SNA conservation easements	6/30/15
1c. SNA/rare resource protection strategic prioritization – Phase 2	6/30/15

Activity 2: Native Habitat Restoration & Enhancement Budget: \$1,016,800

Restoration and enhancement activities would be completed on about 1600 acres at ~30 SNAs. Interpretive signs-kiosks would be developed and installed at ~10 SNAs. Management plans will be completed for ~19 SNAs (including any sites acquired through these funds). Management practices at ~9 SNAs would be monitored to identify adaptive management process improvements needed to achieve better habitat for rare species and Species of Greatest Conservation Need (SGCN). Restoration and enhancement activities – including bringing sites acquired up to minimum standards – will be

carried out by DNR staff- SNA crews, Conservation Corps Minnesota (CCM), Sentence to Service (STS), volunteers, and/or contractors. Activities include seed collection, planting, exotics control, woody encroachment removal, site clean-up, signing (including development & installation of interpretive kiosks), fencing, prescribed burns, management plan preparation, and monitoring. All restoration will use seeds/plants of a local ecotype, collected from onsite or within 25 miles. Restoration and enhancement of degraded and rare land features (particularly native prairie, savanna, and forest helps implement the SWAP and achieve Habitat Recommendation 5 of the SCPP. This activity and its funding would include all work needed to bring up to the Department’s minimum standards those SNA parcels acquired through this funding and will include that restoration and enhancement of newly acquired sites which is ecologically advisable and feasible within the appropriation period.

Outcome	Completion Date
2a. ~30 acres of restoration of forest, prairie, & outcrop sites	6/30/15
2b. ~270 acres of woody removal & exotics species treatment	6/30/15
2c. ~1300 acres of prescribed burns	6/30/15
2d. ~10 SNA interpretive kiosks installed AND development work on ~25 sites	6/30/15
2e. management plans completed for ~19 SNAs	6/30/15
2f. adaptive management monitoring on ~9 SNA sites	6/30/15

Activity 3: Citizen-Student Engagement in Natural Areas

Budget: \$495,200

The second phase of the SNA Outreach Initiative will engage residents, students, and other interested people in ecological recreation and education activities on SNAs. This includes expanding and supporting a network of about 100 SNA volunteer site stewards; co-sponsoring and coordinating about 80 events including volunteer site restoration and management work days and recreation-educational events (guided nature hikes, birding visits, botanizing, citizen-science activities, etc) aimed at building long-lasting and action-based conservation ethics in the community. New or refined electronic/social media communications tools will be developed and disseminated to increase and enhance recreationist’s use of SNAs, e.g. an e-book version of the SNA guidebook for visitors.

Outcome	Completion Date
e-book version of SNA guidebook for visitors	6/30/14
~ 80 volunteer events & network of about 100 volunteer site stewards.	6/30/15

III. PROJECT STRATEGY

A. Project Team/Partners

This proposal includes the DNR’s work and funding to be used by the SNA program towards partnership project work on SNAs being submitted as separate, but coordinated LCCMR projects. This includes work with Metro Conservation Corridors (in lieu of SNA seeking funding). These efforts are complementary not redundant; all accomplishments on joint projects would be prorated.

B. Timeline Requirements

Two years (July 1, 2013 through June 30, 2015) is requested to provide multiple field seasons for restoration and development work and to take protection projects through basic improvements needed.

C. Long-Term Strategy and Future Funding Needs

The SNA Long Range Plan goal is protection by SNA designation 5 occurrences of each native plant community and 3 occurrences of each natural heritage element per landscape. Thus, the Division could utilize support from the Environment and Natural Resources Trust fund of \$3M to \$10M per biennium over the next 20 years.

2012-2013 Proposed Acquisition List

Project Title: SNA Acquisition, Restoration, Enhancement & Citizen Engagement

Project Manager Name: Margaret (Peggy) Booth

Environment and Natural Resources Trust Fund \$ Request: \$ 4,696,400

#	Parcel Name	Acquisition Type (Fee Title or Conservation Easement)	County	Ecological Significance	Proposed # of Acres	Proposed # of Shoreline Miles (if applicable)	Proposed Fee Title or Easement Holder (if applicable)
1	Agassiz Dunes [addition]	fee title	Polk	part of Agassiz Dunes/Fertile Dunes macrosite ranked Outstanding Biodiversity Significance area with oak savanna & rare plant species; within the Agassiz Dunes Prairie Core Area - 2010 MN Prairie Plan	40		DNR SNA
2	Iron Springs Bog [addition]	fee title	Clearwater	lowland tamarack swamp, upland forest & Mississippi River frontage	60	0.4 mi	DNR SNA
3	Mille Lacs Moraine [addition]	fee title	Crow Wing	small lakes & wetlands embedded in steep moraine ridges covered with good-quality red oak-basswood forest supporting red-shouldered hawk & cerulean warbler	80	1.5 mi	DNR SNA
4	Ice Ramparts	fee title	Aitken	geologically significant beach ridges with native forest cover on Lake Mille Lacs; includes acquisition (buyout) of School Trust Fund land	650	2.6 mi	DNR SNA
5	Magney Snively - Phase 2	conservation easement	St Louis	part of 5570-acre MCBS-mapped northern hardwood forest	800		DNR SNA
6	Art Lake Hardwood Ridges	fee title	Lake	part of 4700 acre MCBS-mapped ecologically intact area with oldgrowth sugar maple and upland white cedar forest on remote ridges; black-throated blue warbler	240		DNR SNA
7	Icelandite Fen	fee title	Cook	Lake Superior shore with MCBS-mapped unique fen & forest plant communities	30	0.6 mi	DNR SNA
8	Horseshoe Bay	fee title	Cook	Lake Superior shore with outstanding biodiversity site with spruce-fir woodland, rare plants & unique Lake Superior shore; acquisition (buyout) of School Trust Fund land	150	0.3 mi	DNR SNA
9	Little Kandiyohi-Wakanda Lakes Peninsula Forest	fee title	Kandiyohi	wet mesic hardwood forest; rock elm, Kentucky coffeetree; shoreline on 2 lakes	260	2+ mi	DNR SNA
10	Savage Fen [addition]	fee title	Scott	calcareous fen, forested bluff	100		DNR SNA
11	Forestville-Saxifrage Hollow	fee title	Fillmore	algific talus slope, most important springshed in Root R. Watershed, etc; straddles South Branch of Root River	400	2.4 mi	DNR SNA

NOTES:

2012-2013 Detailed Project Budget

IV. TOTAL ENRTF REQUEST BUDGET - 2 years

BUDGET ITEM	AMOUNT
Personnel: ~ 6.43 FTE for two years for direct project activities spread across ~25 classified & unclassified staff paid almost exclusively through special project funds, including ~15-20% fringe benefits as per state union contracts: 0.4 FTE management coordinator (~\$72K) 1.0 FTE outreach coordinator (~\$130K) 3.47 FTE specialist, technician, planner/GIS (~\$485.8K) 1.56 FTE laborers & seasonal crews (~\$93.6K)	\$ 781,400
Contracts - Professional-technical: e.g. mgmt plan prep, monitoring, video/photo, etc.	\$ 245,000
Contracts - CCM & Other Field Operations: e.g. invasives, woody removal, RxBurn, etc.	\$ 307,000
Equipment/Tools/Supplies: e.g. fencing, signs, PPE, other field tools, etc.	\$ 86,800
Acquisition (Fee Title or Permanent Easements): 700 acres to be designated SNA & administered by SNA program; in fee or conservation easement; includes transaction costs	\$ 2,870,000
Travel: DNR fleet charges (for operation of trucks, cars, & special fieldwork equipment) & instate travel costs (as per state contracts)	\$ 49,200
Additional Budget Items: printing (designation orders, information materials, etc (~\$5.3K) MIS database/website development & support (~\$65K)	\$ 70,300
Direct support services. DNR used a rate of 6.5% to calculate costs for direct support services, which are DNR's direct and necessary business services required to support this proposal.	\$ 286,700
TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND \$ REQUEST =	\$ 4,696,400

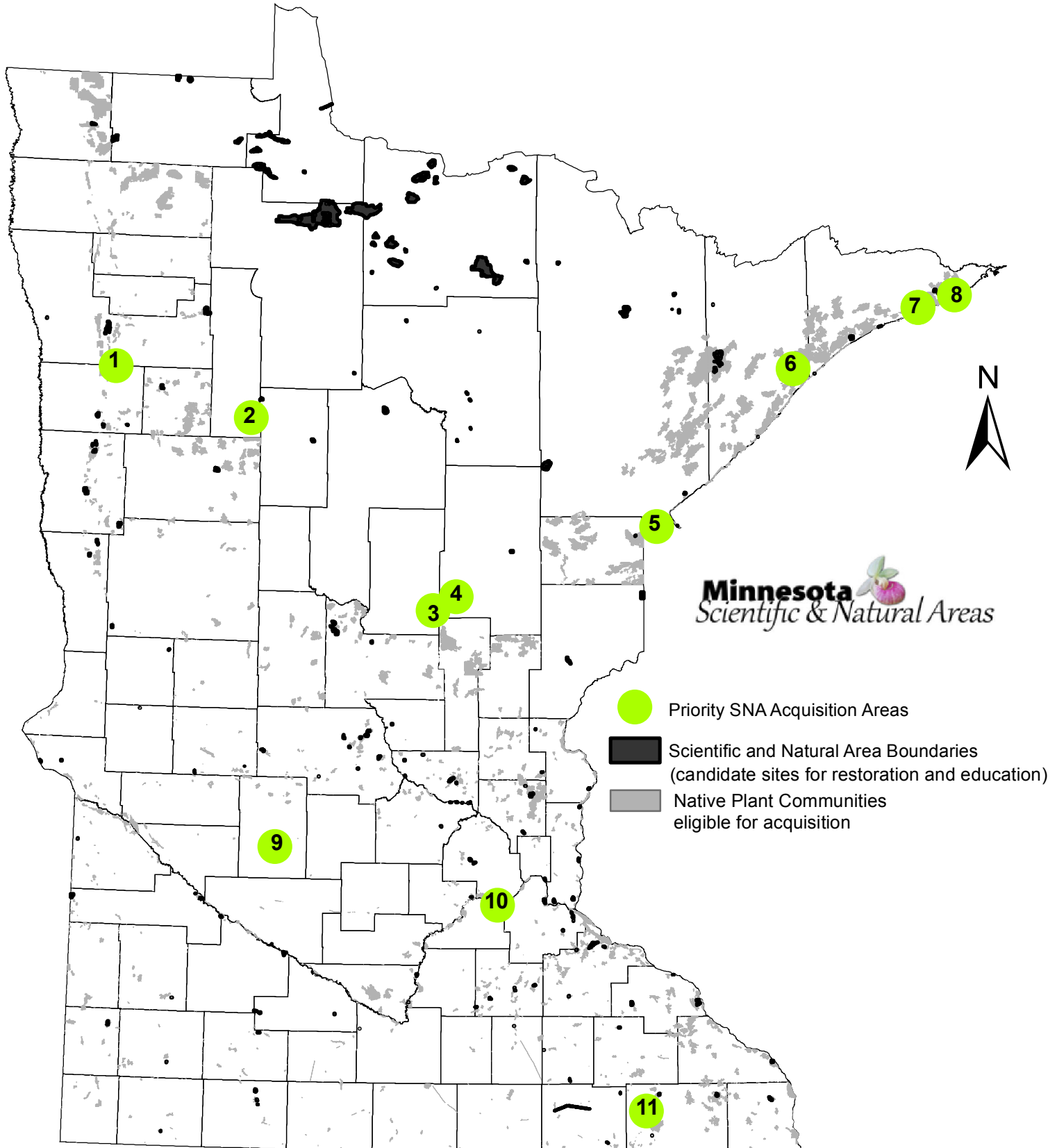
V. OTHER FUNDS

SOURCE OF FUNDS	AMOUNT	Status
Other Non-State \$ Being Applied to Project During Project Period: Potential: partial landowner donations, federal State Wildlife Action grants.	\$ -	
Other State \$ Being Applied to Project During Project Period: No other state funds are proposed; if any activities are split funded their accomplishment acres will be pro-rated.	\$ -	
In-kind Services During Project Period: DNR office facilities, supervisor-manager time, & other support will be provided (but contributions not tracked)	\$ -	
Remaining \$ from Current ENRTF Appropriation (if applicable): BALANCES AS OF 3/6/12: 2010 SNA & Native Prairie Restoration, Enhancement & Acquisition (including private prairie stewardship \$s related to other proposal) Balance: \$199.3K encumbered, \$610.1K unobligated; 2011 SNA Acquisition, Restoration, & Citizen Engagement - Balance: \$1.3K encumbered, \$411.5 unobligated.	\$ 1,021,600	unobligated - see notes to left
Funding History FY2008-2013: CY 2007-2011 LCCMR appropriations: 2007 SNA Metro Corridors \$243K; 2008 SNA Statewide \$1M; 2008 SNA Metro Corridors \$515K; 2008 Accelerated Prairie (Results 3,4 & 6 only) \$975K; 2009 SNA Statewide \$590K; 2009 SNA Metro Corridors \$410K; 2010 SNA Statewide & Native Prairie Stewardship \$1.175M ; & 2011 SNA Statewide \$1.64M. CY2010-11 LSOHC appropriations: 2010 Accelerated Prairie (SNA & NPB only) ~\$1.3M; 2010 Accelerated Forest (SNA only) ~\$758.8K; 2011 SNA & NPB Acquisition \$1.070M; 2011 Prairie Restoration & Enhancement (SNA & NPB only) ~\$449K. FY08-10 bonding: 2008 SNA \$1M; 2008 Native Prairie (SNA & NPB) \$4M. Federal FY08-12 appropriations: State Wildlife Grants 2010 \$137K & 2012 \$49.8K, Other: partner contributions & landowner donations.	\$15,312,600	includes some funds for NPB & other non-SNA site work

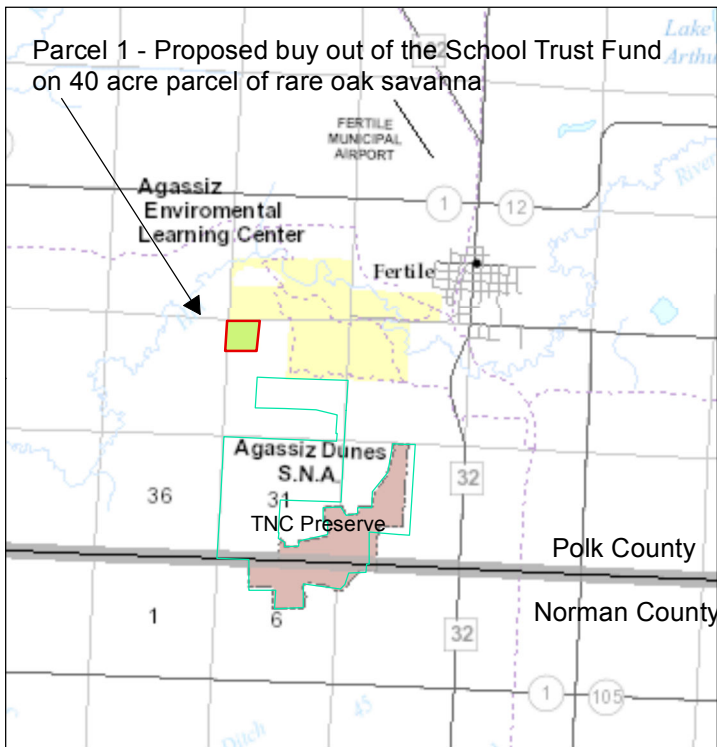


2012-2013 Target Areas for SNA Acquisition, Restoration, and Education

DNR Division of Ecological and Water Resources

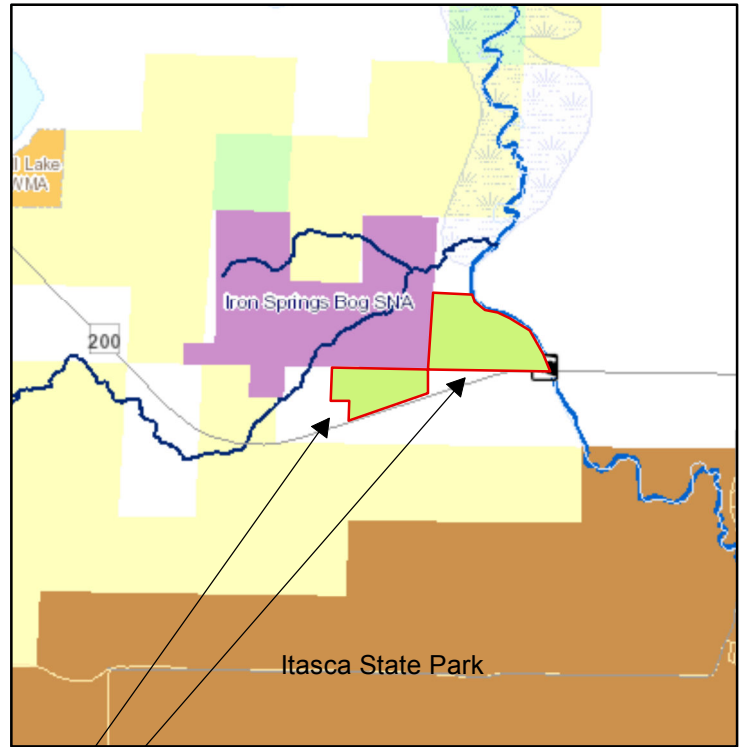


Parcel 1 - Agassiz Dunes SNA Addition



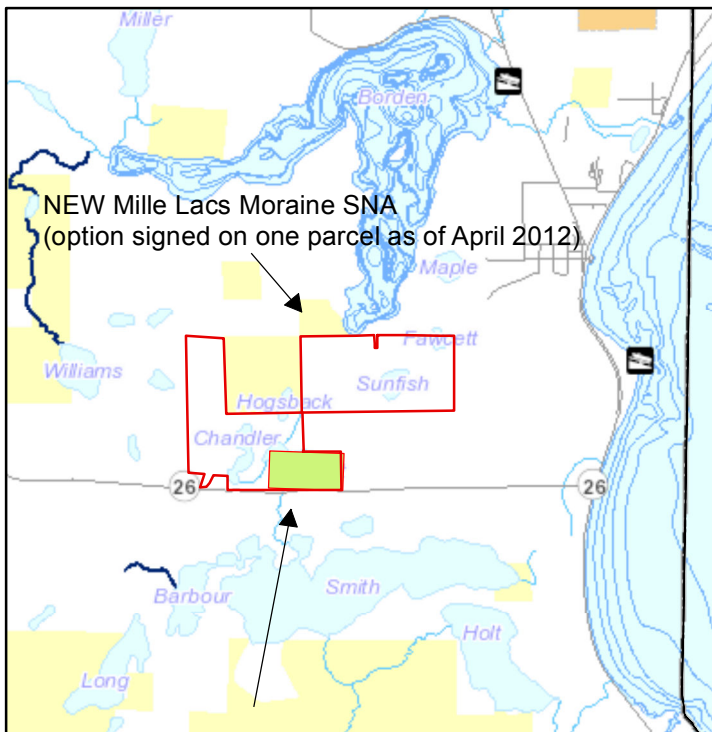
Part of Agassiz Dunes/Fertile Dunes macrosite ranked Outstanding Biodiversity Significance with oak savanna & rare plant species; within the Agassiz Dunes Prairie Core Area - 2010 MN Prairie Plan

Parcel 2 - Iron Spring Bog SNA Addition



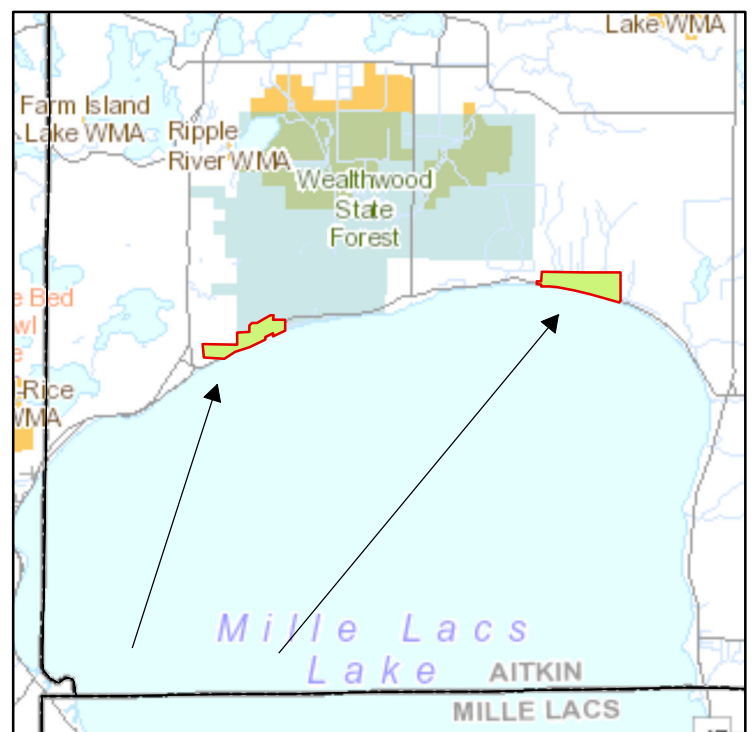
Purchase of 60 acres provides better public access to SNA and adds additional lowland tamarack swamp, upland forest, & Mississippi River frontage in Clearwater County.

Parcel 3 - Mille Lacs Moraine SNA Addition



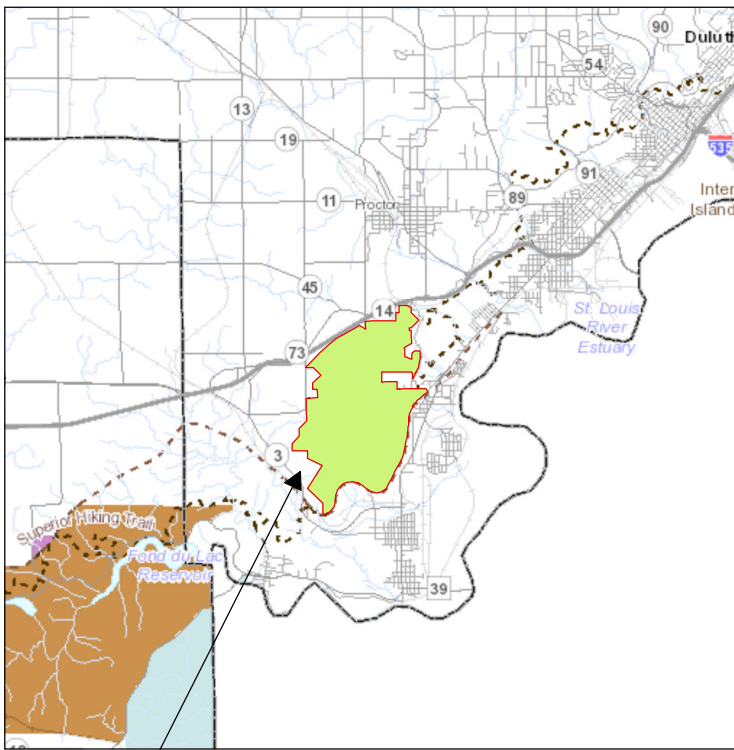
Proposed buy out of School Trust Fund on 80 acres. Small lakes & wetlands embedded in steep moraine ridges covered with good-quality red oak-basswood forest supporting red-shouldered hawk & cerulean warbler in Crow Wing County

Parcel 4 - *NEW* Ice Ramparts SNA



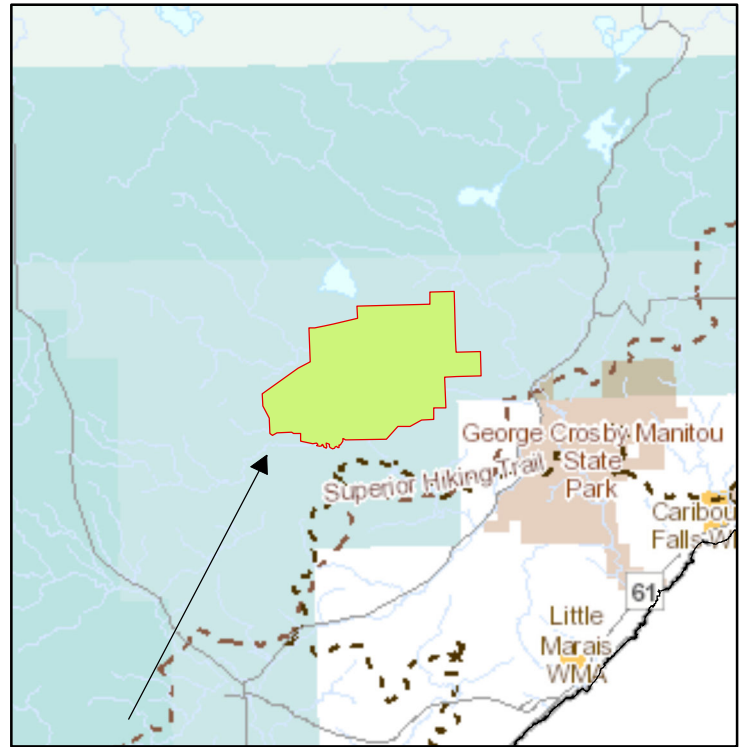
Proposed buy out of School Trust Fund of 650 acres of geologically significant beach ridges with native forest cover on Lake Mille Lacs in Aitkin County.

Parcel 5 - Magney-Snively SNA - Phase 2



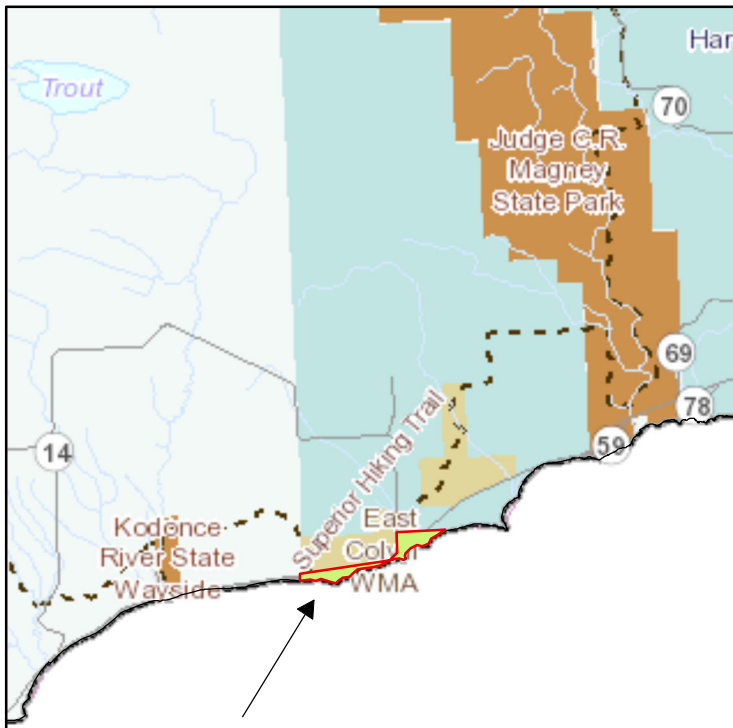
Protection of about 800 acres through conservation easement acquisition of 5570-acre MCBS-mapped northern hardwood forest in St. Louis County.

Parcel 6 - *NEW* Art Lake Hardwood Ridges SNA



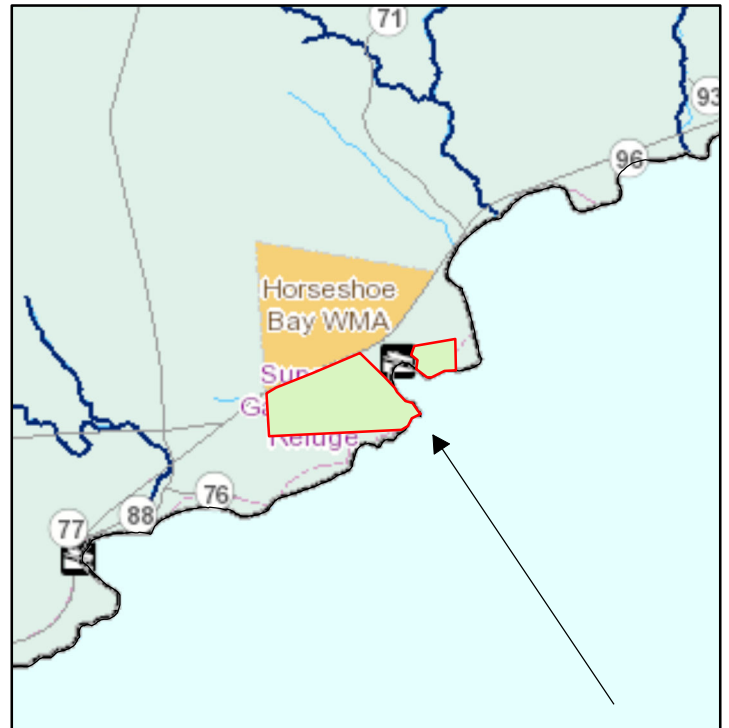
Purchase of about 240 acres of 4700 acre MCBS-mapped ecologically intact area with oldgrowth sugar maple and upland white cedar forest on remote ridges; habitat for black-throated blue warbler in Lake County.

Parcel 7 - *NEW* Icelandite Fen SNA



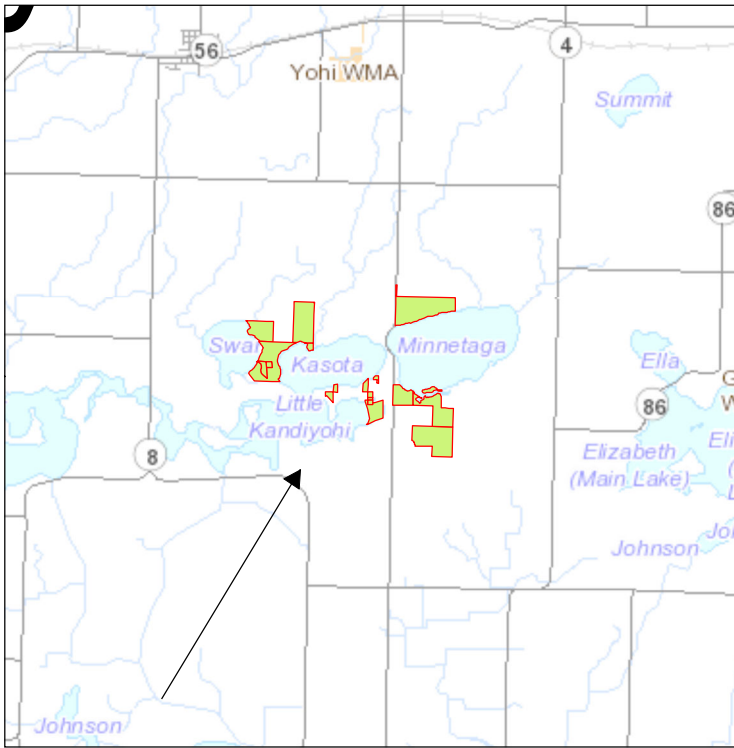
Designation as SNA on about 30 acres of Lake Superior shore with MCBS-mapped unique fen and forest plant communities in Cook County.

Parcel 8 - *NEW* Horseshoe Bay SNA



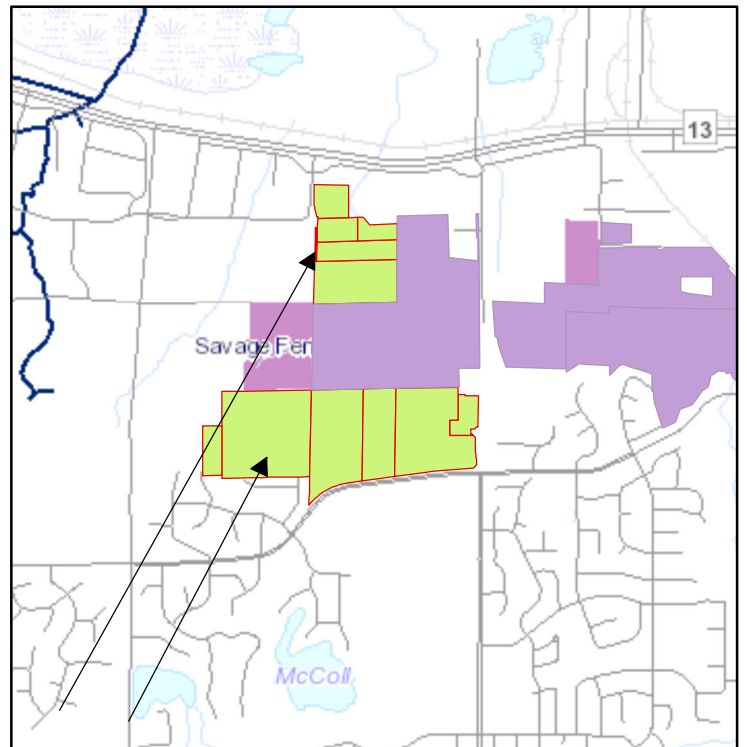
Proposed buyout of School Trust Fund on about 150 acres of Lake Superior shore. An outstanding biodiversity site with spruce-fir woodland, rare plants, and unique Lake Superior shore in Cook County.

Parcel 9 - *NEW* Little Kandoyohi-Wakanda Lakes Peninsula Forest



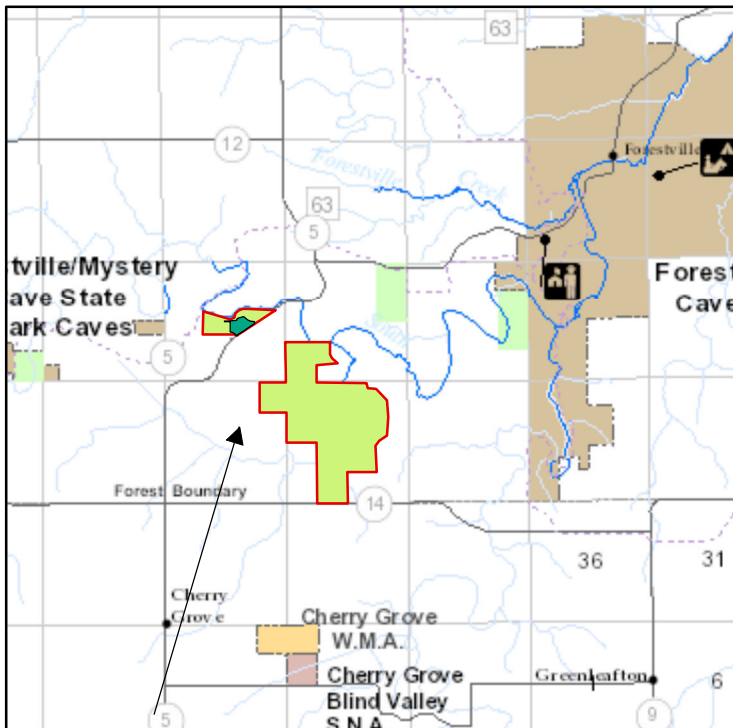
Purchase of about 260 acres with rare paleolithic forest of Kentucky coffeetree and rock elm including about 2 miles of shoreline on 2 lakes in Kandiyohi County.

Parcel 10 - Addition to Savage Fen SNA



Purchase of the final addition to Savage Fen SNA, protecting about 100 acres of calcareous fen and adjoining forested bluffs in Scott County.

Parcel 11 - *NEW* Forestville-Saxifrage Hollow SNA



Proposed acquisition of up to 400 acres featuring algific talus slope, and the most important springshed on the Root River Watershed in Fillmore County.



...established to protect and perpetuate, in an undisturbed natural state, those lands and waters embracing natural features of exceptional scientific and educational value.

Project Manager Qualifications

MARGARET (PEGGY) ANNE (SAND) BOOTH

WORK EXPERIENCE

- May 2006-current (100%) **MN DEPARTMENT OF NATURAL RESOURCES Ecological & Water Resources Scientific & Natural Area (SNA) Program Supervisor**
Manager and supervisor of SNA program – responsible for oversight of acquisition and management of system of 154+ state SNAs and the Division's prairie program (including Native Prairie Bank Conservation Easements, Prairie Stewardship, and Prairie Tax Exemption); managing these program's operating and capital budgets totaling up to about \$10 million. LCCMR project manager of several SNA appropriations.
- Sept 2002-May 2006 **MN DEPARTMENT OF NATURAL RESOURCES Regional Operations St. Paul Community Assistance Manager**
Including LCMR program manager of the Metro Conservation (Wildlife) Corridors partnership – Phase I and Phase II.
- July 1997-Sept 2002 **MN DEPARTMENT OF NATURAL RESOURCES Forestry Division St. Paul Metro Region Forestry Manager**
- April 1995-June 1997 **MN DEPARTMENT OF NATURAL RESOURCES Forestry Division St. Paul State Urban & Community Forestry Program Coordinator**
Including LCMR program manager for Minnesota ReLeaf.
- Oct 1992-April 1995 **MN DEPARTMENT OF NATURAL RESOURCES Forestry Division St. Paul Consultant**
Including providing technical assistance for LCMR-supported Minnesota ReLeaf Program and author of *Energy Conservation through Community Forestry*, and d) *Energy Conserving Landscapes: the Minnesota Homeowner's Guide*.
- 1982-1992 **UNIVERSITY OF MINNESOTA Department of Landscape Architecture St Paul Administrator/Director of Center for Community Studies (1983-1992) // Lecturer/Teaching Specialist (1982-92) // Research: Planting for Energy Conservation (1989-1992)**
Including LCMR Project Manager for the University's \$199,450 research project (part of the \$1.25 million Minnesota ReLeaf program) entitled *Tree and Shrub Planting for Energy Conservation in Minnesota Communities*. Assisted DNR on writing the *Minnesota ReLeaf Implementation Plan* and on the Minnesota ReLeaf Implementation Plan Work Group. Co-author of *Carbon Dioxide Budgets in Minnesota and Recommendations for Reducing Emissions with Trees*. Author of *Planting for Energy Conservation in the North*.
- 1975-1980 **CITY OF MINNEAPOLIS Planning Department – City Planner II – Urban Design**

EDUCATION

- 1991 **MASTER OF LANDSCAPE ARCHITECTURE** University of Minnesota Graduate School
1975 **BACHELOR OF LANDSCAPE ARCHITECTURE** University of Minnesota

Organization Description

Minnesota Department of Natural Resources, Division of Ecological & Water Resources SCIENTIFIC & NATURAL AREA (SNA) PROGRAM

Charged under MS 86A.05 to protect and perpetuate in an undisturbed natural state those natural features that possess exceptional scientific or education value. The program acquires, manages and facilitates public use of SNAs; oversees the Natural Area Registry; and provides native prairie stewardship assistance, including Native Prairie Bank conservation easements (MS 84.96 & 84.961).