



# 2011-2012 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 220 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 2600 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 ecological activities and as SNA site stewards.

### II. DESCRIPTION OF PROJECT ACTIVITIES

#### Activity 1: Protection of Sites of Biodiversity Significance Budget: \$2,230,000

The SNA Program will protect and buffer MCBS-recommended sites of biodiversity significance by acquisition and SNA designation of ~ 220 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 by the Commissioner's Advisory Committee 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 (a subset of the first half of the priority list provided to LCCMR in June 2010) 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 an SNA program-administered conservation easement with SNA designation. Conservation easement baseline reports and monitoring would be done on about 10 sites, including sites, if any, acquired in conservation easement with these funds. As of March 2010, the SNA Program manages 20 SNA conservation easements at 12 designated SNAs. One of these has a full baseline property report and ~11 baseline reports need to be completed. In cooperation with MCBS, the SNA Long Range Plan will be updated and GIS tools developed and applied to evaluate and prioritize candidate sites and to implement the State Wildlife Action Plan (SWAP); including identifying priority natural heritage features to be protected and their protection status.

Outcome	Completion Date
1a. acquisition as SNA of ~220 acres of high quality habitat	FY12-13; 6/30/13
1b. baseline property reports & monitoring for ~10 conservation easements	FY12-13; 6/30/13
1c. SNA Long Range Plan update & strategic prioritization tools	FY12-13; 6/30/13

#### Activity 2: Native Habitat Restoration & Enhancement Budget: \$650,000

Restoration and enhancement activities would be completed on about 2600 acres at ~30 SNAs. Interpretive signs-kiosks would be developed and installed at ~8 SNAs. Management plans will be completed for ~6 SNAs (including any sites acquired through these funds). Management

practices at ~10 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, Minnesota Conservation Corps (MCC), 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. Preliminary estimates are that statewide needs on SNAs are estimated at: one time actions: ~4100 acres plant community reconstruction, ~3600 acres woody encroachment removal, and development work (e.g. cleanup, signs, fencing or parking) at ~20 sites; plus ongoing work: ~6200 acres/year prescribed burns, revisiting about ~ 7000 acres/year to do invasive species spot treatments, revisiting ~20 sites per year to replace/repair signs or fences or do small scale mowing. The DNR is in the process of preparing a 10 year budget analysis of the department’s designated Scientific and Natural Area system’s land management needs which will be submitted to the legislature by November 15, 2010 (MN Session Laws 2010, Chap. 36, Art. 14 Sec. 74) . This report will provide more detailed information necessary to determine the amount necessary to manage, restore and maintain these units. Once this information is presented we will update this information in the work plan.

Outcome	Completion Date
2a. ~25 acres of prairie, forest, etc reconstruction (restoration)	FY13; 6/30/13
2b. ~200 acres of woody removal & exotics species treatment	FY12-13; 3/30/13
2c. ~2500 acres of prescribed burns	FY12-13; 5/30/13
2d. ~2 SNA interpretive kiosks installed AND development work on ~6 sites	FY13; 6/30/13
2e. management plans completed for ~6 SNAs	FY13; 6/30/13
2f. adaptive management monitoring on ~9 SNA sites	FY13; 6/30/13

**Activity 3: Citizen-Student Engagement in Natural Areas**

**Budget: \$400,000**

A new naturalist-led, local, partnership-based initiative will engage residents, students, and other interested people in ecological recreation and education activities on SNAs. This includes recruiting and assisting a network of 80+ SNA volunteer site stewards; co-sponsoring and coordinating volunteer site restoration and management work days; and 40+ locally initiated ecological 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 region-based part-time SNA naturalist positions would be established to cultivate and facilitate locally-led citizen-student based activities on SNAs.

Outcome	Completion Date
40+ volunteer events and network of 80+ volunteer site stewards.	FY12-13; 6/30/13

**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 and Habitat Corridors Partnership (in lieu of SNA seeking funding through either), The Nature Conservancy (acquisition, restoration. & management), Trust for Public Land (acquisition), Friends of the Mississippi River (restoration & enhancement), and Minnesota River Green Corridors Initiative (acquisition). Some projects will be with other DNR Divisions (e.g. coordinated acquisition leading towards cooperative state units and cooperative management). These efforts are complementary not redundant; all accomplishments on joint projects would be prorated.

#### **B. Timeline Requirements**

Two years (July 1, 2011 through June 30, 2013) is requested to provide multiple field seasons for restoration and development work and to take protection projects through basic improvements needed. Work on Activities 1, 2a, and 2b is expected to span both years of the biennium, while work on the other activities will start in FY13 or after comparable funds from the pending 2010 SNA project funded through the LCCMR are expended or encumbered.

#### **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.

## 2011-2012 Detailed Project Budget - DNR SNA

### IV. TOTAL TRUST FUND REQUEST BUDGET 2 years

BUDGET ITEM	AMOUNT
<b>Personnel:</b> see below - all FTEs are for 1 or 2 years depending on outcome	\$ -
- <b>Activities 1-3:</b> Classified & unclassified <u>specialists &amp; technicians</u> paid almost exclusively with special project funds (4.8 FTEs - for 1 or 2 years)	\$ 656,600
- <b>Activities 1-3:</b> Classified <u>project &amp; contract coordinator</u> paid primarily with special project funds (0.45 FTE - for 1 or 2 years)	\$ 80,100
- <b>Activity 2:</b> Project <u>crews</u> (classified or unclassified laborers paid primarily with special project funds and unclassified seasonal burn crew 1.9 FTEs - for 1 or 2 years)	\$ 103,200
<b>Contracts:</b> <u>Professional/technical Contractors</u> (state bid process) for deliverables including: <b>Activity 1b:</b> SNA easement baseline property reports & monitoring (~\$18K); <b>Activity 2e:</b> SNA adaptive management plans (~\$19K); <b>Activity 2f:</b> adaptive management monitoring (~\$27K); and <b>Activity 3</b> volunteer/student events/projects (~\$55K)	\$ 119,000
- <b>Other contracts</b> (MCC or state bid process) for <b>Activity 2</b> deliverables including <b>2a</b> native habitat reconstruction (~\$10K), <b>2b</b> woody encroachment removal & exotics control (~\$100K), <b>2c</b> prescribed burning (~\$140K); and <b>2d</b> site development (fences, signs, etc) (~\$8K)	\$ 258,000
<b>Equipment:</b> <b>Activities 1-3:</b> Fleet charges for trucks, cars, & equipment, e.g. mowers, seeders	\$ 24,300
<b>Tools/Supplies/Printing:</b> <b>Activity 1a-1b:</b> supplies & printing (~\$0.3K); <b>Activity 1c:</b> prioritization process printing & supplies - including large map reproduction (~\$3K); <b>Activity 2: 2a-2c</b> parts, tools, repair costs & supplies for restoration, enhancement, management plans, & monitoring (~\$4.1K); <b>2d</b> interpretive displays, signs & posts, fencing, etc (~\$4.2K); <b>Activity 2e-2f:</b> printing & supplies <b>Activity 3:</b> volunteer and school events supplies (including safety items, handtools, etc, printing, & advertising (~\$10K).	\$ 21,600
<b>Acquisition (Fee Title or Permanent Easements):</b> <b>Activity 1:</b> Fee (or conservation easement) acquisition & designation as DNR SNA (~220 acres) including \$xx for real estate transaction costs	\$ 1,963,000
<b>Travel:</b> <b>Activity 1-3:</b> in-state travel (non-fleet mileage, lodging, meals) essential to completing project	\$ 8,200
<b>Additional Budget Items:</b> DNR MIS charges for <b>Activity 1c</b> strategic prioritization GIS work & development & support (~\$16K); <b>Activity 2f</b> adaptive monitoring database upgrades & support (~\$10K); and <b>Activity 3:</b> volunteer steward database development & support (~\$20K)	\$ 46,000
<b>TOTAL ENVIRONMENT &amp; NATURAL RESOURCES TRUST FUND \$ REQUEST</b>	<b>\$ 3,280,000</b>

### V. OTHER FUNDS

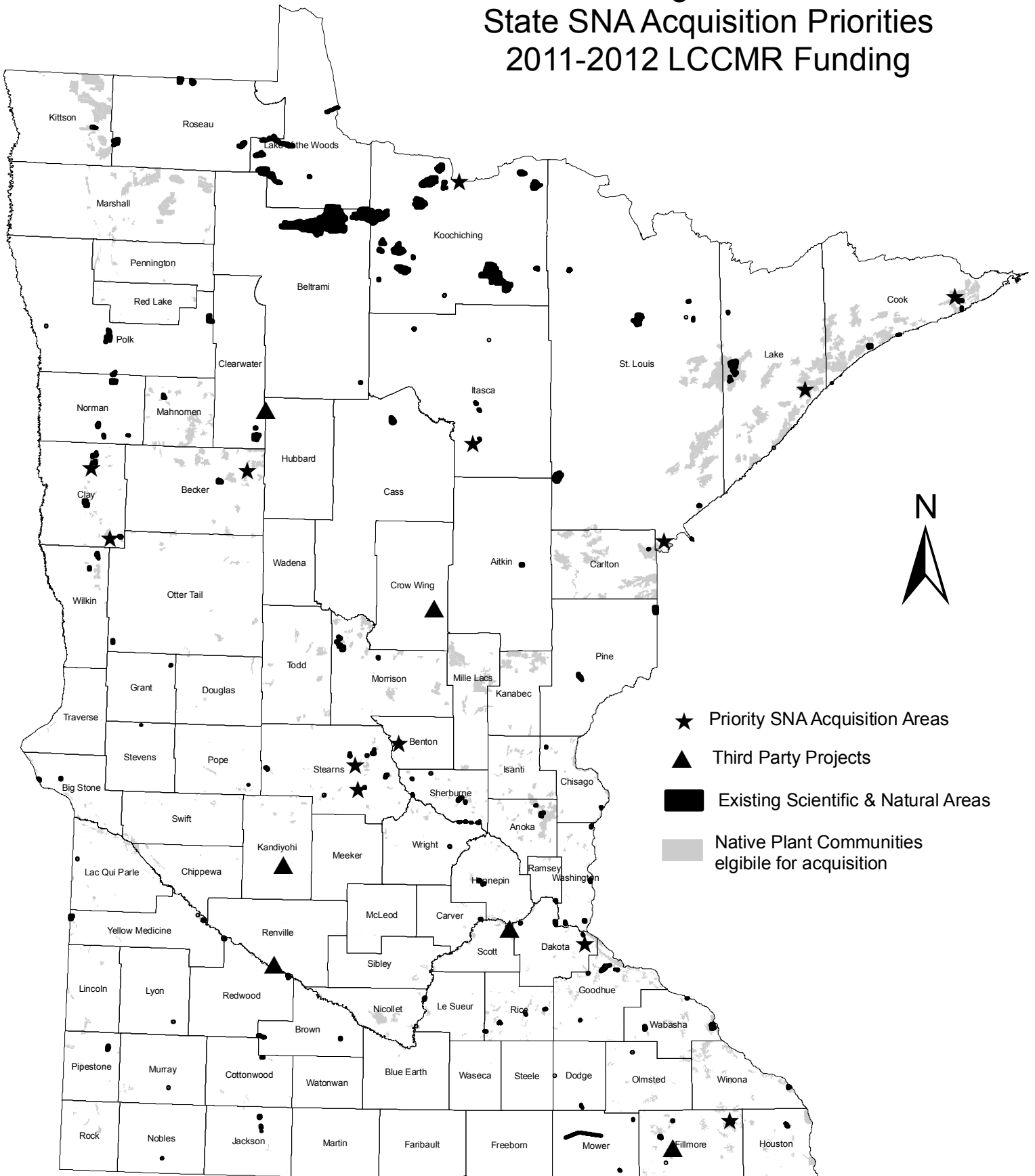
SOURCE OF FUNDS	Subtotal	AMOUNT	Status
<b>Other Non-State \$ Being Applied to Project During Project Period:</b> Potential: partial landowner donations, federal State Wildlife Action grants.		\$ -	
<b>Other State \$ Being Applied to Project During Project Period:</b> - Estimated Dept Share Services - Estimated Division Support Costs		\$ 146,300 \$ 196,800	Division \$s appropriate for proj. activities; pending biennial budget approval
<b>In-kind Services During Project Period:</b> DNR office facilities, supervisor-manager time, & other support will be provided (but contributions not tracked)		\$ -	
<b>Remaining \$ from Current ENRTF Appropriation:</b> (as of 4/8/10)	<b>Approp Balance</b>	<b>Total Balance</b>	(see to left)
2008 SNA Statewide \$543.6K encumbered	\$2,980		
2008 Metro Corridors (SNA only) \$434.5K encumbered	\$1,019		
2009 SNA Statewide \$ 96.0K encumbered	\$476,212		
2009 Metro Corridors (SNA only) \$161.1K encumbered	\$222,043		
2009 HCP 6 (Native Prairie) - balance is listed in separate prairie proposal		\$ 702,254	
<b>Funding History - 2007-2010</b> by Source & Year (total appropriation)	<b>SNA - public \$s</b>	<b>Total Funding</b>	(see to left)
ENTRF 2007 Metro Corridors (SNA only - \$243,000)	\$243,000		
ENTRF 2007 HCP 4 (Native Prairie - Eco only - \$100,000)	\$50,000		
ENRTF 2008 SNA (statewide - \$1,000,000)	\$1,000,000		
ENRTF 2008 Metro Corridors (SNA only - \$515,000)	\$515,000		
ENTRF 2008 HCP 5 (Native Prairie - Eco only - \$75,000)	\$37,500		
ENRTF 2009 SNA (statewide - \$590,000)	\$590,000		
ENRTF 2009 Metro Corridors (SNA only - \$410,000)	\$410,000		
ENRTF 2009 HCP 6 (Native Prairie - Eco only - \$75,000)	\$37,500		
ENRTF 2010 SNA-Native Prairie (pending - \$1,175,000)	\$703,300		
ENRTF 2010 HCP 6.5 (Native Prairie - Eco only) (pending - \$63,300)	\$31,600		
LSOHC 2010 Accelerated Prairie (SNA program only) (pending - \$1,300,000)	\$660,000		
LSOHC 2010 Accelerated Forest (SNA only) (pending - \$758,000)	\$758,800		
Bonding 2008 SNA (\$1,000,000)	\$1,000,000		
Bonding 2008 Native Prairie (\$4,000,000)	\$2,000,000		
Federal (available SFY09-10) State Wildlife Grant (\$137,000)	\$137,000		
Other partner contributions & landowner donations (not specified here)		\$8,173,700	

**State Scientific & Natural Area (SNA) Acquisition Priorities - 2011-12 LCCMR funding**

*This list is projects of high priority for potential acquisition with LCCMR (ENRTF) funds in FY12-13 for SNA designation whose landowners have expressed interest in potential sale. Sites may change in priority AND other qualifying sites may be added to the list or the order changed with additional MCBS recommendations and changes in landowner interest, acquisition opportunity, or threats.*

Note: prairie sites (all or part native prairie or oak savanna) are shaded						
Location Name	County	Proposed SNA Addition	Proposed New SNA	Current Project Acres	Estimated Full Cost (pending appraisals tbd)	Ecological Features (primary) & Notes on Acquisition Readiness-Funding
Hastings Sand Coulee	Dakota	1		180	\$ 1,000,000	dry and-gravel prairie, oak savanna, rare species; 3 projects initiated - 1 private landowner, 1 WMA transfer (no land cost) & 1 in cooperation with City.
LaSalle Lake - Phase II	Hubbard	1		315	\$ 3,400,000	PROPOSED for TPL funding, Phase 2 (interdisciplinary recreation site; up to 315 acres SNA); glacial tunnel valley; deep lake; native forest (upland & lowland conifer & hardwoods); project in appraisal review; optioned by TPL
Savage Fen - Phase II	Scott	1		98	\$ 800,000	calcareous fen-wetland complex, forested bluff; Phase 2 is ~ 98 acre acquisition from developer who will option it to TPL; this is also proposed as a TPL Metro Corridors project.
Morton Outcrops	Renville		1	15	\$ 50,000	PROPOSED for Green Corridor funding: Mn River Valley bedrock knob, mesic prairie; highest priority site in Mn River Valley; in discussion with landowner
Art Lake Hardwood Ridges	Lake		1	240	\$ 750,000	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; project initiated with landowner of 240 acres anxious to sell.
Blanket Flower	Clay	1		40	\$ 180,000	dry prairie hills & wetlands; in jeopardy from wind development - in conversation with 2 more landowners adjoining existing SNA
Englund Ecotone	Benton	1		160	\$ 820,000	Pin Oak-Bur Oak Woodland, Sedge Meadow, and Dry Barrens Oak Savanna and 4 rare plants species; landowner who acquired it for subdivision is willing to sell - would resolve lack of legal access to current parcel received through donation.
Watrous Island	Koochiching		1	70	\$ 160,000	is entire island in Rainy River; one of most northerly floodplain forests & some northern wet-mesic forest.
Avon Hills Forest	Stearns	1		110	\$ 600,000	mesic oak forest; 1 landowner in progress; in discussion with landowner of highest priority parcel adjoining existing SNA
Mille Lacs Upland	Crow Wing		1	580	\$ 1,800,000	high biodiversity significance area of mesic hardwood forest; would be first SNA in county & only example of this forest type in SNA protection in this ecological subsection; project in cooperation with TNC as 3rd party.
Forestville-Saxifrage Hollow	Fillmore		1	100	\$ 360,000	algific talus slope, hardwood forest etc; potential 3rd party, part of larger property currently offered for sale; in cooperation with TNC & DNR Parks.
Felton Prairie	Clay	1		350	\$ 800,000	prairie complex with sand-gravel prairie on beach ridge; is county property at risk for gravel mining; in discussion with county
Dinner Creek	Becker & Hubbard		1	240	\$ 500,000	forest-wetland complex, including jack pine woodland, white cedar swamp; land for sale by owner, acquisition process started, pending resolving legal access issue.
Cold Spring Heron Rookery	Stearns	1		40	\$ 70,000	frontage on Sauk River; floodplain forest; is 17 acre acquisition from private landowner plus tax forfeit land; in progress
Hovland Woods	Cook	1		1000	\$ 2,100,000	upland white cedar, northern hardwood forest; is for buying out School Trust Fund & other state ownership interest in order to add land to SNA and provide permanent protection of native forest
Root River Valley	Houston & Fillmore		1	60	\$ 150,000	Southern Dry Bedrock Bluff (goat) prairies in a complex of bluff prairies, bluffland forests, and cold streams; timber rattlesnakes (Threatened in MN) and Plains Wild Indigo found on site; coordinating work in this area with MLT, USFWS, other DNR divisions and units, and TNC.
Magney-Snivley	St. Louis		1	1800	\$ 5,800,000	northern hardwood forest with rare features; in cooperation with City of Duluth, TNC, & MLT; proposed as acquired DNR conservation easement & SNA designation.
Little Kandiyohi-Wakanda Lakes Peninsula Forest (also called Reid Woods)	Kandiyohi		1	210	\$ 1,300,000	very unique wet mesic hardwood forest; rock elm, kentucky coffeetree; landowner pursuing permanent conservation; proposed 3rd party
Forever Wild (Lake Sissibakwet)	Itasca	1		3	\$ 20,000	lakeshore property with diverse aquatic vegetation and fish habitat on Siseebakwet (Sugar) Lake; remainder of hardwood knob in existing SNA; habitat for forest birds.
<b>SUBTOTAL</b>		<b>10</b>	<b>9</b>	<b>5611</b>	<b>\$ 20,660,000</b>	

Figure 1:  
State SNA Acquisition Priorities  
2011-2012 LCCMR Funding



## Project Manager Qualifications

**MARGARET (PEGGY) ANNE (SAND) BOOTH**

## WORK EXPERIENCE

- May 2006-current (100%) **MN DEPARTMENT OF NATURAL RESOURCES Ecological Resources St. Paul Scientific & Natural Area (SNA) Program Supervisor**  
Manager and supervisor of SNA program – responsible for oversight of acquisition and management of system of 149+ 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 Resources SCIENTIFIC & NATURAL AREA (SNA) PROGRAM**

Charged under MS 84.05 to protect and perpetuate in and undisturbed natural state those natural features that possess exceptional scientific or education value; and under MS 84.96 and 84.961 to acquire Native Prairie Bank easements and work with landowners in conserving native prairie.