

# Lessard-Sams Outdoor Heritage Council

## Fiscal Year 2018 / ML 2017 Request for Funding



Date: May 26, 2016

Program or Project Title: Carnelian Creek Conservation Corridor (FA01)

Funds Requested: \$5,265,200

**Manager's Name:** Wayne Ostlie  
**Title:** Director of Land Protection  
**Organization:** Minnesota Land Trust  
**Address:** 2356 University Avenue W  
**Address 2:** Suite 240  
**City:** St. Paul, MN 55114  
**Office Number:** 651-917-6292  
**Mobile Number:** 651-894-3870  
**Email:** wostlie@mnland.org

County Locations: Washington

Regions in which work will take place:

- Metro / Urban

Activity types:

- Protect in Easement

Priority resources addressed by activity:

- Wetlands
- Forest
- Habitat

### Abstract:

Washington County's Carnelian Creek Conservation Corridor contains one of the largest unprotected wildlife habitat complexes within the entire metropolitan area and has been identified as one of the County's top conservation priorities. The Minnesota Land Trust and Washington County will protect 735 acres of the Conservation Corridor's most threatened, high quality forest and aquatic habitat in this first phase of the project. This project represents a unique opportunity to conserve intact habitat of this magnitude within the LSOHC's Metropolitan Urbanizing Area, and includes more than 10 miles of shoreline and supports 70 species in greatest conservation need.

### Design and scope of work:

The Carnelian Creek Conservation Corridor has long been a conservation target of Washington County, DNR, Minnesota Land Trust and other conservation organizations due to its rich forest habitat and its abundant clear lakes which are currently completely undeveloped—a rare feature in the Twin Cities Metropolitan area. The Minnesota Land Trust and Washington County have formed a partnership to complete this first phase of the Carnelian Creek Conservation Corridor Project by securing a perpetual conservation easement on 735 acres which forms the critical core of the larger 2,700 acre Corridor, ensuring that this unique habitat complex will remain intact forever for the benefit of fish, game and wildlife species.

This first phase of the Carnelian Creek Conservation Corridor Project, known as the "Terrapin Lakes Site", will be completed through a partnership with Warner Nature Center. This first phase will cover 735 acres of high quality habitat and more than 10 miles of shoreline that Warner Nature Center would own at the time of the easement. This project will ensure that the core wildlife habitat area of the Corridor will be protected forever from development, fragmentation and poor land management. This project represents a unique window in time due to having a motivated landowner in Warner Nature Center and to Washington County's commitment to dedicate funds from its Land and Water Legacy Fund to help complete the project. There is nothing that currently legally protects the property

from development. The terms of the conservation easement will ensure the property's protection for generations to come.

This first phase of the project at the Terrapin Lakes Site is specifically noted as having:

- Oak and maple-basswood forest habitat identified as having high-quality biodiversity by the DNR due to its undisturbed canopy and significant age;
- High biodiversity for species in greatest conservation need such as Blanding's Turtle, the Common Snapping Turtle and Eastern Fox Snake, the Red-shouldered Hawk, Bald Eagle, Rose-Breasted Grosbeak, and American Woodcock;
- More than 10 miles of shoreline and riparian habitat on North and South Terrapin, Mays and Clear Lakes;
- High quality water discharge and recharge areas which help maintain aquatic habitat and water quality; and
- High quality undeveloped shallow (Upper Terrapin) and deep (Mays, Lower Terrapin and Boot) lakes.

This project represents an urgent and important protection opportunity due to the landowner's current interest in conservation and to the commitment of Washington County to participate in funding the project through its Land and Water Legacy Program. We anticipate 50% of the easement's acquisition costs to be funded by non-state sources, making this a very high leverage project for the Outdoor Heritage Fund. And while the project will not specifically require public access, more than 15,000 children and adults experience the site's unique and abundant wildlife habitat each year through Warner Nature Center's programs.

### **Which sections of the Minnesota Statewide Conservation and Preservation Plan are applicable to this project:**

- H2 Protect critical shoreland of streams and lakes
- LU8 Protect large blocks of forest land

### **Which other plans are addressed in this proposal:**

- Tomorrow's Habitat for the Wild and Rare
- Land and Water Legacy Program Conservation Priorities: Top 10 Conservation Priorities for Washington County (2012)

### **Describe how your program will advance the indicators identified in the plans selected:**

Once secured, conservation easements will protect in perpetuity the forests and wetlands of the property as habitat for both common and the most at-risk species. A habitat management plan will be developed to enhance and maintain the site's important habitat. Protection and management of key habitats advances a primary goal identified by the Statewide Wildlife Action Plan through stabilization of Species in Greatest Conservation Need (SGCN). Additionally this program will protect shoreland habitat, aiding in the maintenance of high water quality of non-impaired lakes, and ensuring the permanent conservation of large tracts of natural habitat in the Carnelian Creek Corridor, an identified priority conservation area by Washington County in its Land and Water Legacy Program.

### **Which LSOHC section priorities are addressed in this proposal:**

#### **Metro / Urban:**

- Protect habitat corridors, with emphasis on the Minnesota, Mississippi, and St. Croix rivers (bluff to floodplain)

### **Describe how your program will produce and demonstrate a significant and permanent conservation legacy and/or outcomes for fish, game, and wildlife as indicated in the LSOHC priorities:**

The Terrapin Lakes project will help protect one of the more significant intact habitat corridors within the Metro area. With more than 700 acres of forests and 10 miles of shoreline, this parcel contains an unusually large complex of significant habitat for fish, game and wildlife species in the urbanizing area. In addition, because this tract sits within the larger Carnelian Creek Conservation Corridor, its protection will benefit wildlife species far beyond the borders of this given tract. The easement will be perpetual and guide future activity on the property for generations to come. Minnesota Land Trust's accredited conservation easement program—and its partnership with Washington County—will help ensure that the terms of the easement will be upheld and that the State and County's investments will continue to pay dividends far into the future. There are very few opportunities for land protection at this scale remaining within this region.

### **Describe how the proposal uses science-based targeting that leverages or expands corridors and complexes, reduces fragmentation or protects areas identified in the MN County Biological Survey:**

The Terrapin Lakes site is a critically important site of biodiversity significance located within a mapped Metro Conservation Corridor and Washington County's Carnelian Creek Conservation Corridor. The Carnelian Creek Corridor is an important natural land conservation wildlife corridor. The corridor connects the Terrapin Lakes site with other large natural areas in the county including Big Marine Park Reserve and the County's High Priority Tanglewood Corridor that extends to the St. Croix River, a National Scenic Riverway is managed

by the National Park Service and an Important Bird Area identified by Audubon. The Terrapin Lakes area is host to wetlands, forests, and grasslands resulting in more functional habitat for a wide variety of species of greatest conservation need.

**How does the proposal address habitats that have significant value for wildlife species of greatest conservation need, and/or threatened or endangered species, and list targeted species:**

The extensive upland forests, grasslands, shallow lakes, bogs, and deep lakes of the Terrapin Lakes site form one of the most biologically important systems in the Twin Cities Metro area, providing habitat for some 77 Species of Greatest Conservation Need (see uploaded attachment for the complete list). The protection of these habitats has been identified in numerous plans as a conservation priority for Minnesota, including the Minnesota Biological Survey, the State Conservation and Preservation Plan, Minnesota DNR Strategic Conservation Agenda, and the Washington County Land and Water Legacy Program Priorities. The central goal of this proposal is to protect the Terrapin Lakes site through a permanent conservation easement, leaving a lasting legacy for Minnesota's residents.

**Identify indicator species and associated quantities this habitat will typically support:**

DNR staff, in consultation with a variety of experts in NGOs and other agencies, have compiled a select group of indicator species and associated quantities to be used by any applicant to answer the question above. The metrics are derived from existing data sources and/or scientific literature, but are necessarily gross averages. It is important to emphasize that the estimates provided are not accurate at a site-specific scale. Therefore, they are not intended to be used to score or rank requests, but represent the best information we have for immediate support to the Council's objective.

Forests: Ovenbird

Ovenbirds (*Seiurus aurocapilla*) are found in upland forests statewide; typically in relatively mature forest but can also be found in younger forests. Deciduous, mixed coniferous-deciduous, and coniferous forests may be suitable. Ovenbirds nest on the ground in leaf litter. This species has been identified as a priority species to monitor, as an indication of the health of mature forest uplands. While territories vary in size and may overlap, an average of 10 pairs for every 10 hectares may be translated to roughly 16 pairs for every 40 acres.

Wetlands and Shallow Lakes: Mallard

The biological model used to estimate habitat needs to support mallard population growth uses an accepted rate of 1 mallard pair per hectare (1 mallard pair per 2.47 acres) of wetland habitat (noting that upland habitat for nesting is also obviously needed).

**Outcomes:**

**Programs in metropolitan urbanizing region:**

- A network of natural land and riparian habitats will connect corridors for wildlife and species in greatest conservation need *The focal project area is captured within the Carnelian Creek Conservation Corridor and intersects with the Tanglewood Conservation Corridor, both of which are priority conservation targets for Washington County. Conservation plans for both corridors have been developed and are being used to target conservation action. The outcomes of this action to protect this core area will be measured and evaluated relative to the encompassing goals of those corridor plans.*

**How will you sustain and/or maintain this work after the Outdoor Heritage Funds are expended:**

The land protected through this conservation easement will be sustained through the best standards and practices for conservation easement stewardship jointly held by Washington County and the Minnesota Land Trust. The Minnesota Land Trust is a nationally-accredited and insured land trust with a very successful stewardship program that includes annual property monitoring, effective records management, addressing inquiries and interpretations, tracking changes in ownership, investigating potential violations and defending the easement in case of a true violation. Funding for these easement stewardship activities is included in the project budget.

**Explain the things you will do in the future to maintain project outcomes:**

Year	Source of Funds	Step 1	Step 2	Step 3
2021 (and in perpetuity)	MLT Stewardship and Enforcement Fund	Annual monitoring of parcel in perpetuity	Enforcement if necessary	

**What is the degree of timing/opportunistic urgency and why it is necessary to spend public money for this work as soon as possible:**

In fall of 2014, Amherst H. Wilder Foundation, seeking to optimize funding available for current programming, divested 330 acres of its Wilder Forest holdings to Warner Nature Center. The County responded to this movement by engaging stakeholders over the remaining

600 acres identified in the second and third phases of Wilder's divestment plan. Three stakeholder meetings with 68 attendees were held between January and April of 2016. The conversations confirmed the collective will of the May Town Board, County and stakeholders to see this precious natural resource protected. Additionally, Warner Nature Center indicated if these neighboring parcels were not to be sold for development, they would be willing to place easements on their property. Wilder's need to optimize value for the benefit of its programs and Warner Nature Center current board members' personal connection and commitment to Rose and Lee Warner's original vision, call for timely, efficient and permanent protection.

### How does this proposal include leverage in funds or other effort to supplement any OHF appropriation:

This proposal will provide significant leverage to the OHF appropriation thanks to Washington County's willingness to participate in the funding of this conservation easement through its Land and Water Legacy Program, and landowner's willingness to donate a significant portion of the easement value. Nearly 50% of the costs of this project will be secured through non-state funds and landowner donation. This commitment by Washington County demonstrates both the urgency and high level of priority for this particular project. It also represents a rare opportunity for the OHF to invest in a single project of this scale in the metro area with a willing county partner. In addition, Minnesota Land Trust members will contribute to helping defray costs of the project not covered by the OHF.

### Relationship to other funds:

- Washington County Land and Water Legacy Fund

### Describe the relationship of the funds:

The Washington County Land and Water Legacy Program is the result of a 2006 voter-approved referendum authorizing the County to issue up to \$20 million in bonds to acquire and conserve land for the purposes of improving water quality of rivers, lakes and streams, protecting drinking water sources, purchasing parklands, preserving woodlands, and protecting land along water bodies from development. As part of the development of this program, Washington County undertook a prioritization effort and in 2011 identified its Top Ten High Priority Conservation Areas. The parcels in this proposal are located within one of these High Priority Areas referred to as the Land and Water Legacy Program's Carnelian Creek Corridor High Priority Area. Through the program, the County has issued \$10 million in bonds to date and acquired or protected more than 430 acres. The County intends to issue new bonds for the purposes of this project.

### Describe the source and amount of non-OHF money spent for this work in the past:

Not Listed

## Activity Details

### Requirements:

If funded, this proposal will meet all applicable criteria set forth in MS 97A.056 - **Yes**

Is the land you plan to acquire free of any other permanent protection - **Yes**

Do you anticipate federal funds as a match for this program - **No**

### Land Use:

Will there be planting of corn or any crop on OHF land purchased or restored in this program - **No**

Will the eased land be open for public use - **No**

Are there currently trails or roads on any of the acquisitions on the parcel list - **Yes**

Describe the types of trails or roads and the allowable uses:

Like most private lands, the property includes various driveways, field roads and hiking trails. These established trails and roads will be permitted in the terms of the easement and can be maintained if their use does not significantly impact the conservation values of the property. Creation of new roads/trails or expansion of existing ones will not be permitted.

Will the trails or roads remain and uses continue to be allowed after OHF acquisition - **Yes**

How will maintenance and monitoring be accomplished:

Existing trails and roads will be identified in the project baseline report and will be monitored annually as part of the Land Trust's stewardship and enforcement protocols. Maintenance of permitted roads/trails will be the responsibility of the landowner.

Will new trails or roads be developed as a result of the OHF acquisition - **No**

## Accomplishment Timeline

Activity	Approximate Date Completed
Conservation easement procured	June 30, 2020

# Budget Spreadsheet

**Total Amount of Request: \$5,265,200**

## Budget and Cash Leverage

Budget Name	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Personnel	\$40,000	\$0		\$40,000
Contracts	\$10,000	\$0		\$10,000
Fee Acquisition w/ PILT	\$0	\$0		\$0
Fee Acquisition w/o PILT	\$0	\$0		\$0
Easement Acquisition	\$5,145,000	\$5,145,000	Washington County; private	\$10,290,000
Easement Stewardship	\$30,000	\$0		\$30,000
Travel	\$2,500	\$0		\$2,500
Professional Services	\$29,500	\$0		\$29,500
Direct Support Services	\$8,200	\$8,200	MLT	\$16,400
DNR Land Acquisition Costs	\$0	\$0		\$0
Capital Equipment	\$0	\$0		\$0
Other Equipment/Tools	\$0	\$0		\$0
Supplies/Materials	\$0	\$0		\$0
DNR IDP	\$0	\$0		\$0
Total	\$5,265,200	\$5,153,200		\$10,418,400

## Personnel

Position	FTE	Over # of years	LSOHC Request	Anticipated Leverage	Leverage Source	Total
Conservation Staff (MLT)	0.10	3.00	\$40,000	\$0		\$40,000
Total	0.10	3.00	\$40,000	\$0		\$40,000

Amount of Request: \$5,265,200  
 Amount of Leverage: \$5,153,200  
 Leverage as a percent of the Request: 97.87%  
 DSS + Personnel: \$48,200  
 As a % of the total request: 0.92%  
 Easement Stewardship: \$30,000  
 As a % of the Easement Acquisition: 0.58%

**How did you determine which portions of the Direct Support Services of your shared support services is direct to this program:**

Like all conservation entities, the Minnesota Land Trust has direct support expenses which are essential to complete a conservation project, which include such costs as administrative support staff, office space, printing and office supplies. This proposal accounts for these critical expenses which are consistent with the Land Trust's current application for a federal indirect expense rate. However, we included only 50% of these direct support costs in this proposal, with the other 50% coming as leverage and paid for through the Land Trust's fundraising.

**Does the amount in the contract line include R/E work?**

No.

**Does the amount in the travel line include equipment/vehicle rental? - No**

**Explain the amount in the travel line outside of traditional travel costs of mileage, food, and lodging:**

None.

**Describe and explain leverage source and confirmation of funds:**

Leveraged funds for procurement of the conservation easement are committed from Washington County's Land and Water Legacy Fund and private sources.

**Does this proposal have the ability to be scalable? - Yes**

**Tell us how this project would be scaled and how administrative costs are affected, describe the “economy of scale” and how outputs would change with reduced funding, if applicable:**

Because this proposal represents one project vs a program, while it is scalable, reducing the request will potentially reduce the size of the protected property and/or require phasing of the project, which introduces more cost and risk into the equation. In addition, because all the critical transaction components are in place (willing landowners with high leverage due to Washington County's funding and landowner donation), it would be prudent to complete this project while we can.

## Output Tables

**Table 1a. Acres by Resource Type**

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	0	0	0	0	0
Protect in Fee with State PILT Liability	0	0	0	0	0
Protect in Fee W/O State PILT Liability	0	0	0	0	0
Protect in Easement	0	0	735	0	735
Enhance	0	0	0	0	0
Total	0	0	735	0	735

**Table 2. Total Requested Funding by Resource Type**

Type	Wetlands	Prairies	Forest	Habitats	Total
Restore	\$0	\$0	\$0	\$0	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$5,265,200	\$0	\$5,265,200
Enhance	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$5,265,200	\$0	\$5,265,200

**Table 3. Acres within each Ecological Section**

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	0	0	0	0	0	0
Protect in Fee with State PILT Liability	0	0	0	0	0	0
Protect in Fee W/O State PILT Liability	0	0	0	0	0	0
Protect in Easement	735	0	0	0	0	735
Enhance	0	0	0	0	0	0
Total	735	0	0	0	0	735

**Table 4. Total Requested Funding within each Ecological Section**

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest	Total
Restore	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$5,265,200	\$0	\$0	\$0	\$0	\$5,265,200
Enhance	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$5,265,200	\$0	\$0	\$0	\$0	\$5,265,200

**Table 5. Average Cost per Acre by Resource Type**

Type	Wetlands	Prairies	Forest	Habitats
Restore	\$0	\$0	\$0	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0
Protect in Easement	\$0	\$0	\$7,164	\$0
Enhance	\$0	\$0	\$0	\$0



**Table 6. Average Cost per Acre by Ecological Section**

Type	Metro/Urban	Forest/Prairie	SE Forest	Prairie	Northern Forest
Restore	\$0	\$0	\$0	\$0	\$0
Protect in Fee with State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Fee W/O State PILT Liability	\$0	\$0	\$0	\$0	\$0
Protect in Easement	\$7,164	\$0	\$0	\$0	\$0
Enhance	\$0	\$0	\$0	\$0	\$0

**Target Lake/Stream/River Feet or Miles**

55

I have read and understand Section 15 of the Constitution of the State of Minnesota, Minnesota Statute 97A.056, and the Call for Funding Request. I certify I am authorized to submit this proposal and to the best of my knowledge the information provided is true and accurate.

# Parcel List

## Explain the process used to select, rank and prioritize the parcels:

The focal project area is captured within the Carnelian Creek Conservation Corridor and intersects with the Tanglewood Conservation Corridor, both of which are priority conservation targets for Washington County. Conservation plans for both corridors have been developed and are being used to target conservation action. The outcomes of this action to protect this core area will be measured and evaluated relative to the encompassing goals of those corridor plans.

## Section 1 - Restore / Enhance Parcel List

No parcels with an activity type restore or enhance.

## Section 2 - Protect Parcel List

### Washington

Name	TRDS	Acres	Est Cost	Existing Protection?	Hunting?	Fishing?
Terrapin Lake	03120215	735	\$5,145,000	No	No	No

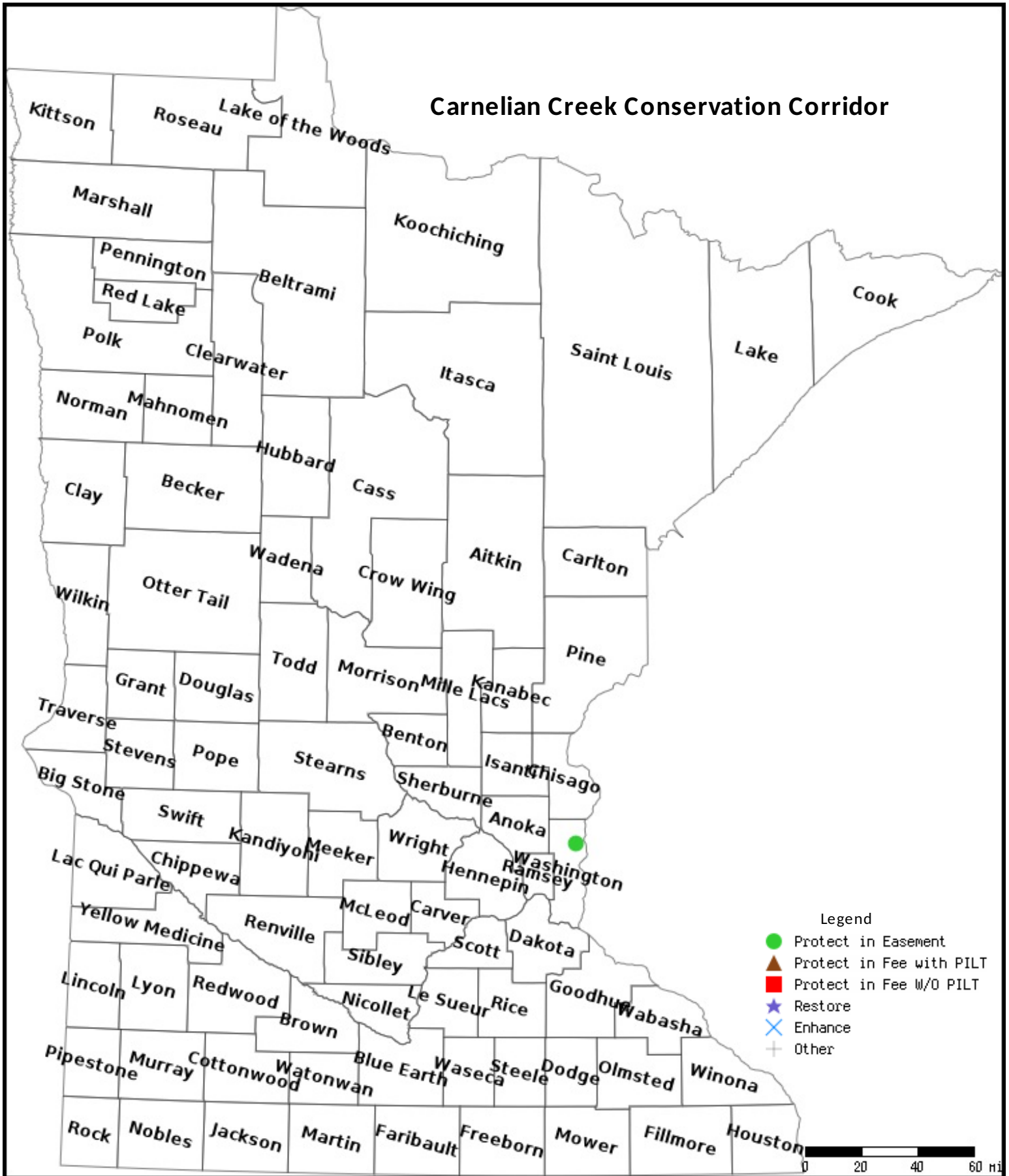
## Section 2a - Protect Parcel with Bldgs

No parcels with an activity type protect and has buildings.

## Section 3 - Other Parcel Activity

No parcels with an other activity type.

# Parcel Map



Data Generated From Parcel List

## Carnelian Creek Conservation Corridor: Phase 1

*Washington County is Minnesota's oldest county located in the east metro area.*

*Warner Nature Center is the oldest Nature Center in Minnesota located in the Town of May in northern Washington County.*

*The Minnesota Land Trust is a nationally-accredited conservation organization with a twenty-year history of protecting Minnesota's most unique wildlife habitats around the state.*

*For more information, please contact MLT's Wayne Ostlie, Director of Land Protection, Wayne Ostlie at 651-917-6292*

### WHAT IS THE CARNELIAN CREEK CONSERVATION CORRIDOR PROPOSAL?

*This first phase of the Carnelian Creek Habitat Corridor Program aims to protect 735 acres of high quality wildlife habitat in the east metro area with a conservation easement. It will protect 10 miles of shoreline on Terrapin, Mays and Clear lakes and 735 acres of forests, wetlands and grasslands that provide critical habitat, promote biodiversity and expand wildlife connections to the St. Croix River for more than 70 Species in Greatest Conservation Need. This project is a partnership of the Outdoor Heritage Fund, Minnesota Land Trust, Washington County and Warner Nature Center.*

### HOW DOES THE PROPOSAL SUPPORT STATE GOALS?

This project reflects a number of goals outlined in the Statewide Conservation and Preservation Plan, Tomorrow's Habitat for the Wild and Rare Plan and Washington County's Land and Water Legacy Program. Specifically, we aim to address these goals by:

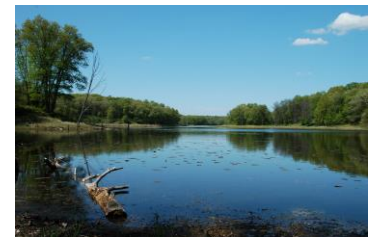
❖ **Protecting critical lakes, shorelines, bogs, wetlands**



❖ **Protecting one of the largest remaining forests in the metro area**



❖ **Targeting a unique landscape that has historical value to fish, game and wildlife**



### WHAT ARE THE OUTCOMES OF THE PROGRAM?

- Protected wildlife habitat for more than 70 Species in Greatest Conservation Need
- Protected aquatic habitat and water quality of the watershed
- Diverse forest habitat protected from development and fragmentation
- Increased participation of private landowners in habitat projects
- Protect prior public investment in shoreland and forest conservation in the area



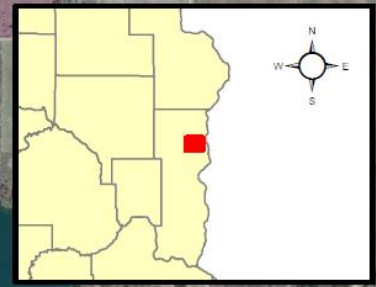


**Proposed Carnelian Creek Conservation Corridor Easement Area**

**Warner & Wilder Properties**

- Warner Nature Center Building Exclusion
- Easement Area
- Warner Nature Center Land (~824 acres)
- Wilder Forest Land (~588 acres)

**Easement Total Acreage ~735 acres  
Total Shoreline Protected ~55,000 feet**



*The more than 2,700 acre Carnelian Creek Corridor Priority Conservation Area is a mosaic of lake, wetland and upland community types connecting Big Marine, Mud, Turtle, Long, Staples, Northern Terrapin, Southern Terrapin, Mays, Clear, East Boot, West Boot, Bass and Big Carnelian lakes.*

*It contains aspen-oak land, oak openings and barrens, Big Woods (oak, maple, basswood, hickory), wet prairies, conifer bogs and swamps, and open water lakes.*

*The corridor is a host to Blandings Turtle, the Common Snapping Turtle, Eastern Fox, Milk Snake, Red-shouldered Hawk, Bald Eagle, Rose-Breasted Grosbeak and American Woodcock.*

This \$10.4 million project aims to leverage \$5.2 million from the Outdoor Heritage Fund and a non-state match from Washington County and Warner Nature Center.



## Carnelian Creek Conservation Corridor - Species in Greatest Conservation Need

AM = amphibians, BI = birds, FI = fish, IN = insects, MA = mammals, MO = mollusks, RE = reptiles, SP = spiders												
Taxa	Scientific Name	Common Name	State Legal	Fed Legal	# of subsections	# of occurrences	# of habitats	Forest- Upland Deciduous (Hardwood)	Grassland	Lake- Shallow	Shrub- Lowland	Wetland- Non-forest
AM	<i>Acris crepitans</i>	Northern Cricket Frog	END	NL	6	1	3					x
AM	<i>Hemidactylium scutatum</i>	Four-toed Salamander	SPC	NL	4	0	5	x			x	
BI	<i>Ammodramus henslowii</i>	Henslow's Sparrow	END	NL	7	1	3		x			x
BI	<i>Ammodramus savannarum</i>	Grasshopper Sparrow	NL	NL	14	3	3		x			
BI	<i>Anas acuta</i>	Northern Pintail	NL	NL	9	0	5		x	x		x
BI	<i>Arenaria interpres</i>	Ruddy Turnstone	NL	NL	20	0	2					x
BI	<i>Bartramia longicauda</i>	Upland Sandpiper	NL	NL	19	1	6		x		x	x
BI	<i>Botaurus lentiginosus</i>	American Bittern	NL	NL	21	0	5		x		x	x
BI	<i>Buteo lineatus</i>	Red-shouldered Hawk	SPC	NL	12	15	3	x				
BI	<i>Calidris alpina</i>	Dunlin	NL	NL	24	0	2					x
BI	<i>Calidris fuscicollis</i>	White-rumped Sandpiper	NL	NL	20	0	2					x
BI	<i>Calidris pusilla</i>	Semipalmated Sandpiper	NL	NL	25	0	2					x
BI	<i>Caprimulgus vociferus</i>	Whip-poor-will	NL	NL	21	0	2	x				
BI	<i>Catharus fuscescens</i>	Veery	NL	NL	22	6	5	x				
BI	<i>Chlidonias niger</i>	Black Tern	NL	NL	18	2	2			x		x
BI	<i>Circus cyaneus</i>	Northern Harrier	NL	NL	25	0	6		x		x	x
BI	<i>Cistothorus palustris</i>	Marsh Wren	NL	NL	20	9	4			x	x	x
BI	<i>Cistothorus platensis</i>	Sedge Wren	NL	NL	25	9	5		x		x	x
BI	<i>Coccyzus erythrophthalmus</i>	Black-billed Cuckoo	NL	NL	25	5	6	x			x	
BI	<i>Contopus virens</i>	Eastern Wood-pewee	NL	NL	25	44	5	x				
BI	<i>Cygnus buccinator</i>	Trumpeter Swan	THR	NL	14	0	2			x		x
BI	<i>Dendroica cerulea</i>	Cerulean Warbler	SPC	NL	10	11	2	x				
BI	<i>Dolichonyx oryzivorus</i>	Bobolink	NL	NL	25	3	6		x		x	x
BI	<i>Empidonax minimus</i>	Least Flycatcher	NL	NL	25	6	4	x				
BI	<i>Empidonax traillii</i>	Willow Flycatcher	NL	NL	13	14	3				x	x
BI	<i>Empidonax virescens</i>	Acadian Flycatcher	SPC	NL	6	9	2	x				
BI	<i>Falco peregrinus</i>	Peregrine Falcon	THR	NL	6	10	10		x	x	x	x
BI	<i>Gallinula chloropus</i>	Common Moorhen	SPC	NL	7	1	2			x		x
BI	<i>Haliaeetus leucocephalus</i>	Bald Eagle	SPC	THR	21	35	7	x				
BI	<i>Hylocichla mustelina</i>	Wood Thrush	NL	NL	20	11	3	x				
BI	<i>Ixobrychus exilis</i>	Least Bittern	NL	NL	16	1	3			x	x	x
BI	<i>Lanius ludovicianus</i>	Loggerhead Shrike	THR	NL	10	1	3		x			
BI	<i>Limnodromus griseus</i>	Short-billed Dowitcher	NL	NL	22	0	1					x
BI	<i>Limosa haemastica</i>	Hudsonian Godwit	NL	NL	18	0	1					x
BI	<i>Melanerpes erythrocephalus</i>	Red-headed Woodpecker	NL	NL	22	1	8	x	x			
BI	<i>Melospiza georgiana</i>	Swamp Sparrow	NL	NL	25	16	3				x	x
BI	<i>Nycticorax nycticorax</i>	Black-crowned Night-heron	NL	NL	8	4	3			x		x
BI	<i>Pheucticus ludovicianus</i>	Rose-breasted Grosbeak	NL	NL	25	29	5	x				
BI	<i>Pluvialis dominica</i>	American Golden-plover	NL	NL	24	0	2					x
BI	<i>Podiceps grisegena</i>	Red-necked Grebe	NL	NL	17	0	2			x		x
BI	<i>Rallus limicola</i>	Virginia Rail	NL	NL	23	0	3			x	x	x
BI	<i>Recurvirostra americana</i>	American Avocet	NL	NL	16	0	2					x
BI	<i>Scolopax minor</i>	American Woodcock	NL	NL	22	0	4		x		x	
BI	<i>Seiurus aurocapillus</i>	Ovenbird	NL	NL	22	24	4	x				
BI	<i>Sphyrapicus varius</i>	Yellow-bellied Sapsucker	NL	NL	23	1	4	x				
BI	<i>Spiza americana</i>	Dickcissel	NL	NL	11	0	4		x			

## Carnelian Creek Conservation Corridor - Species in Greatest Conservation Need

AM = amphibians, BI = birds, FI = fish, IN = insects, MA = mammals, MO = mollusks, RE = reptiles, SP = spiders												
Taxa	Scientific Name	Common Name	State Legal	Fed Legal	# of subsections	# of occurrences	# of habitats	Forest- Upland Deciduous (Hardwood)	Grassland	Lake- Shallow	Shrub- Lowland	Wetland- Non-forest
BI	<i>Spizella pusilla</i>	Field Sparrow	NL	NL	13	10	3		x			
BI	<i>Stelgidopteryx serripennis</i>	Northern Rough-winged Swallow	NL	NL	25	6	3		x			
BI	<i>Sterna forsteri</i>	Forster's Tern	SPC	NL	11	3	2			x		x
BI	<i>Sturnella magna</i>	Eastern Meadowlark	NL	NL	20	2	2		x			
BI	<i>Tringa melanoleuca</i>	Greater Yellowlegs	NL	NL	25	0	2					x
BI	<i>Tryngites subruficollis</i>	Buff-breasted Sandpiper	NL	NL	23	0	4		x			
BI	<i>Vermivora pinus</i>	Blue-winged Warbler	NL	NL	6	2	4	x				
BI	<i>Vireo bellii</i>	Bell's Vireo	NL	NL	6	2	2				x	
BI	<i>Wilsonia citrina</i>	Hooded Warbler	SPC	NL	2	9	1	x				
FI	<i>Alosa chrysochloris</i>	Skipjack Herring	SPC	NL	4	0	2			x		
IN	<i>Epidemia epixanthe michiganensis</i>	Bog Copper	NL	NL	13	0	2				x	
IN	<i>Euphyes bimacula illinois</i>	Two-spotted Skipper	NL	NL	7	0	1					x
MA	<i>Mustela nivalis</i>	Least Weasel	SPC	NL	12	0	8	x	x		x	x
MA	<i>Myotis septentrionalis</i>	Northern Myotis	SPC	NL	5	0	9	x	x			x
MA	<i>Spermophilus franklinii</i>	Franklin's Ground Squirrel	NL	NL	23	0	5		x		x	x
MA	<i>Spilogale putorius</i>	Eastern Spotted Skunk	THR	NL	19	0	8	x	x		x	
RE	<i>Chelydra serpentina</i>	Common Snapping Turtle	SPC	NL	25	14	5			x		x
RE	<i>Cnemidophorus sexlineatus</i>	Six-lined Racerunner	NL	NL	3	0	4		x			
RE	<i>Coluber constrictor</i>	Eastern Racer	SPC	NL	5	1	3		x			
RE	<i>Crotalus horridus</i>	Timber Rattlesnake	THR	NL	3	0	5	x	x			
RE	<i>Elaphe vulpina</i>	Eastern Fox Snake	NL	NL	9	1	6	x	x			
RE	<i>Elaphe vulpina</i>	Eastern Fox Snake	NL	NL	9	7	6	x	x			
RE	<i>Emydoidea blandingii</i>	Blanding's Turtle	THR	NL	13	83	7		x	x	x	x
RE	<i>Eumeces fasciatus</i>	Five-lined Skink	SPC	NL	3	0	5	x	x			
RE	<i>Heterodon nasicus</i>	Western Hognose Snake	SPC	NL	9	0	2		x			
RE	<i>Heterodon platirhinos</i>	Eastern Hognose Snake	NL	NL	6	2	7	x	x			
RE	<i>Lampropeltis triangulum</i>	Milk Snake	NL	NL	6	0	4	x				
RE	<i>Liochlorophis vernalis</i>	Smooth Green Snake	NL	NL	15	0	3		x			
RE	<i>Pituophis catenifer</i>	Gopher Snake	SPC	NL	7	1	4		x			
SP	<i>Marpissa grata</i>	A Jumping Spider	SPC	NL	6	1	3		x			x
SP	<i>Paradamoetas fontana</i>	A Jumping Spider	SPC	NL	5	0	3					x