## The Deer Lake Conservancy

## **Conservation Projects**







Tour Guide







## Organization Information

#### The Deer Lake Conservancy

We hope you enjoy this trail guide. It describes projects completed over more than two decades. Our focus is to gain control of critical lands for the purpose of reducing runoff of nutrients and sediment that flows from agricultural areas to Deer Lake. We have purchased properties and then converted eroding cropland to prairie, restored wetlands, cleaned up old gravel pits and disposal areas, and created sediment basins to hold dirty water and release it slowly.

Our efforts have paid off! Deer Lake water clarity as measured by Secchi Disk has about doubled beginning in 2010 as compared to 1995-2000. In recognition of this striking lake improvement, the Deer Lake Conservancy received the "Lake Management Success Story" award at the 2015 North American Lake Management Society (NALMS) Symposium in Saratoga Springs, NY.



We encourage you to enjoy the trails and learn more about Deer Lake Conservancy efforts to improve Deer Lake!

#### **Rock Creek**



#### Prairie Restoration

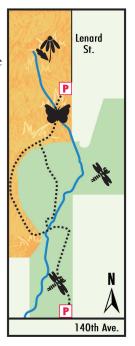
About fifty species of native flowers and grasses were planted to create this 20-acre prairie in 1998. Its erosive soils had been farmed in row crops for decades, causing tons of soil to wash into the west basin. of Deer Lake. The sturdy stems and deep roots of native prairie plants now help to slow runoff water and hold soil in place.

A list of flowers and grasses planted here is available from the Deer Lake Conservancy. Plant guides may be checked out at the St. Croix Falls Public Library.



#### Gravel Pit Reclamation

Removal of sand and gravel left an open scar on the landscape and created potential for soil erosion. The area was reshaped and seeded in 1998.





#### **Woodland and Springs**

The trail enters the woods at the south end of the prairie. This area has cool spring ponds that supply fresh water to the lake. The large trap rock boulders carried by the glaciers and deposited along the trail are a reminder of the power of water and ice.

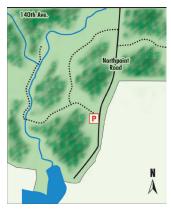
#### Land Management

The Conservancy owns this 51-acre property including the woods to the south. It was originally purchased thanks to a generous donation from Jim and Sylvia Earl and dedicated as a memorial to Margaret H. Earl. The Department of Natural Resources holds a conservation easement on the property ensuring it will remain undeveloped to protect Deer Lake waters forever.

#### **Lower Rock Creek**

Rock Creek, the largest intermittent stream which flows to Deer Lake, travels through this property entering the lake at a natural lagoon – an important wetland habitat area.

The Lower Rock Creek property trails link to adjacent trails on the Rock Creek property and the Johnson Preserve. Lower Rock Creek trails provide striking views of the ravine and steeply sloping forest.

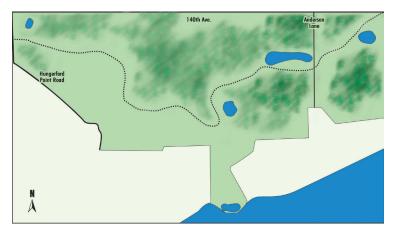


The Lower Rock Creek property provides the opportunity for the Deer Lake Conservancy to achieve its goal of 65% reduction of watershed total phosphorus loading since 1996. According to the project engineer, a sediment basin that captures agricultural runoff on the Lower Rock Creek Property can meet the goal: leading to an even cleaner Deer Lake!



This 32-acre parcel meets that lake in a WDNR-designated Sensitive Habitat Area along 500 feet of shoreline.

#### The Johnson Preserve



This 95-acre parcel has 425 feet of lakefront.

The Andersen family established the Gustav and Elizabeth Johnson Preserve in 1996. The Preserve was formalized when Julian Andersen donated a conservation easement to the West Wisconsin Land Trust in 2016 and sold the property to the Deer Lake Conservancy in early 2017. The Preserve is now available for generations of Deer Lake residents and the public to enjoy for years to come.

The Preserve's wetland ponds and shallow wet depressions capture significant watershed runoff, preventing delivery of sediments and nutrients to the lake and allowing infiltration to recharge the springs which feed the lake. A 2016 Conservancy project on the very east side of the property further increased water holding-capacity of a pond to reduce downstream erosion to Dry Creek and Deer Lake.

The trails that wind through the property showcase the many native woodland plants, birds, and animals that call the Preserve home. The Preserve will be managed to support these species including the Red Shouldered Hawk, listed as Threatened in Wisconsin. Results of biologist surveys of Preserve plant and animal life and the management plan are available on the Conservancy website.

Conservancy Property

#### **Tour the Conservation Practices**



# The Deer Lake Trails are Open

- Rock Creek Lo
- Johnson Preserve Dry





- Please stay on trails
- No motorized vehicles or horses

## e Conservancy en to the Public

Lower Rock Creek Dry Creek • Flagstad Farm





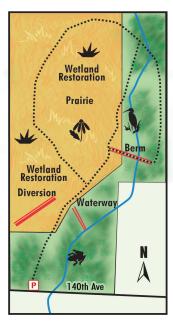
Scale 1'' = approx. 1/3 mile

## **Dry Creek**



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Earthen berms were constructed to capture runoff water from agricultural drainages. The ponds that form behind the berms allow dirty water to settle, and release clean water slowly. By reducing the rate of flow, downstream erosion is also decreased. The pond created by the earthen berm reaches the base of the trees more than 100 feet north of the dam during periods of peak runoff. A second pond with a permanent pool of over an acre is located on private property to the north.





## Wetland Restorations

1/2 mile of trails

Wetlands were restored by removing drainage tiles installed to increase the land available for farming. These wetlands now serve to capture runoff water and provide habitat for ponddwelling creatures.



#### Prairie Restoration

Ten acres of native prairie were planted here in 1999. Prairies provide habitat for butterflies and grassland birds. Burning is used occasionally to reduce growth of weeds, shrubs, and trees.



#### Tire Clean-up

Over twenty truckloads of discarded tires were removed from the stream bed as part of this project. A water diversion directs clean runoff away from a farmstead and down a rock waterway to the stream.

## Flagstad Farm

The Conservancy acquired the Flagstad Farm Preserve, a 70-acre parcel on the south side of Deer Lake, in August 2002 to prevent development of the parcel and to allow water quality improvements. Purchase of the property also initiated Conservancy involvement with a Department of Transportation plan that could result in U.S. Highway 8 moving from within approximately 15 feet of the lake to a full half mile south of the lake in this area.



#### **Prairie Restoration**

Row-cropped farm fields draining directly to the lake through three large culverts were planted to native prairie grasses and flowers in June 2003. This conversion will significantly reduce pollutant loading to the lake. Seeds for the 100+ prairie species planted here were collected and grown within 50 miles of the prairie restoration site creating one of the largest local-ecotype prairies in the state.



#### Gravel Pit Reclamation

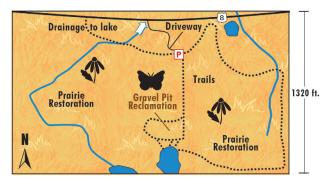
The Conservancy hauled out three truckloads (five tons) of scrap metal and other garbage, and then had the area shaped and seeded to native prairie. Native lupine now covers the hill.



## Wetland Restoration

Plugging a drainage ditch along the southern property boundary resulted in additional water-holding capacity in a pond and decreased agricultural runoff to Deer Lake, which is now filtered by the prairie.

Conservancy Property



## **Maple Cove**

Maple Cove is a 17-acre Conservancy parcel on the northwest side of Deer Lake.

Donation of this property by the Miller family allowed treatment of runoff water and prevented back lot development in an area that drains to Deer Lake.

A deep ravine previously carried pollutants from agricultural fields directly to Deer Lake. A sedimentation basin now installed on the property captures field runoff allowing it to soak into the soil. Allowing infiltration of runoff water not only captures agricultural pollutants but also feeds the springs that flow into the lake along its western shore. The fields were planted with eighty prairie species from seed collected within 50 miles of the site. A walking trail is open to the public.

Conservancy Property

#### **Foussard Kane Forest**

The Foussard Kane Forest is a 17-acre parcel of native mixed hardwoods and conifers.

The Foussard and Kane families decreased runoff to Deer Lake from agricultural fields by planting them to spruce, pine, black walnut, oak, and maple. This protection was assured into the future, when the families donated the property to the Conservancy. Preventing residential development on Deer Lake back lots is important. Dense residential and commerical development creates more impervious surfaces that lead to increases in runoff pollutants flowing to the lake.

Conservancy Property

### **Prairie Restoration**



This project, completed in 1997, was named for Suki Victor, a driving force in establishing the Deer Lake Conservancy. Donations of \$1,000 from each of 40 founding members financed the construction of the pond. The contributions also provided cash to match financial assistance available from Polk County and the Department of Natural Resources for subsequent projects.

A 630-foot berm creates a five-acre pond during periods of peak runoff. Like other Conservancy projects, this pond is important to the lake because it captures stormwater runoff laden with sediment. Sediment carries phosphorus, the nutrient that leads to algae blooms in Deer Lake and many other Wisconsin Lakes.

Privately Owned

#### **Wetland Restoration**

This one-half acre wetland was restored by excavating four thousand cubic yards of wetland sediments laden with nutrients from barnyard runoff. The pond allows some of the nutrients to settle-out and provides shallow water habitat for water birds such as wood ducks and great blue herons.

The Amery High School Science Department and the United States Geological Survey monitored water quality for the project.

The project was financed through a Lake Protection Grant from the Department of Natural Resources. Original landowners Don Hill and Rudy Blakeman generously granted easements to allow the project to occur. Current owners Barbara Richardson and Tom and Barb Gartland granted easements for recent stormwater improvements.

## The Deer Lake Conservancy

The Deer Lake Conservancy is a tax exempt organization incorporated in the State of Wisconsin. The purpose of the organization is the preservation of Deer Lake and the surrounding land that contributes to the natural, scenic, recreational and productive value of the lake.

As a 501C(3) corporation, contributions are fully deductible from Federal and State income tax. The Conservancy is actively seeking contributions which may be in the form of cash, securities, property and land easements.

Please send contributions to: The Deer Lake Conservancy PO Box 1139 St. Croix Falls, Wisconsin 54024



## **Partner Organizations**

These conservation projects and the trail system were completed with financial and technical assistance from many organizations including:

Polk County Land and Water Resources and Parks Departments Wisconsin Department of Natural Resources
The Deer Lake Improvement Association
University of Wisconsin Extension
Natural Resources Conservation Service
Harmony Environmental

Natural Resources Conservation
Harmony Environmental
Farm Service Agency
Ducks Unlimited
Pheasants Forever
Wisconsin Conservation Corps
National Park Service
Amery High School
U.S. Geological Survey
West Wisconsin Land Trust

Contributions of Conservancy Members

