

# PRAIRIE CROSSING LAND MANAGEMENT PLAN SUMMARY 2020

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Nathan Aaberg, Joe Marencik, Jim O'Connor, Bill Pogson, and Mike Sands

Liberty Prairie Foundation

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#### **Background and Overview**

Within the quilt of affiliated landowners on the original development site, as indicated in the Land Ownership Exhibit, the Prairie Crossing Homeowner's Association (HOA) is responsible for the management of approximately 252 acres of common area land and 27 acres of lakes and ponds. An overview of the land and cover types have been provided in the Land Cover Exhibit.

#### **Principles**

In 2002 and again in 2013, the Prairie Crossing Homeowners Association Board adopted the following set of underlying principles for managing the real estate owned by the HOA.

#### Stewardship

The Prairie Crossing Homeowners' Association is committed to stewarding its common and natural areas such that their ecological health and function improve every year until they reach a "steady state" of sufficient quality that they enhance the surrounding open space in the Liberty Prairie Reserve. We recognize that the successful integration of a vibrant human community with a healthy and diverse native ecosystem requires balance and compromise. At a minimum, all common area management decisions should consider the following points:

- 1. Aesthetic expectations should be consistent with a healthy, rural environment
- 2. All management decisions should recognize the importance of the interconnections within an ecosystem. The **health of the entire ecosystem** should be the principle criteria
- 3. It is usually cheaper to prevent a problem than to fix it
- 4. Healthy native ecosystems contain **low levels of weeds**
- 5. Inputs that are not immediately used entirely by the intended plant community must not be allowed to **run off and become pollutants in downstream areas** and water bodies
- 6. No pesticides or fertilizers should be applied on common areas without being first reviewed (ingredient list, application procedures, MSD sheets) by the Environmental Consultant
- All proposed inputs for natural resource management should enhance the ultimate long-term biodiversity, stability and sustainability of the targeted ecosystem and affected ecosystems "downstream."

# **Ecosystems**

Each of the landscape types and ecosystems has specific long-term and multi-year management goals, which are consistent from year to year. This Land Management Plan Summary is an annual document laying out in detail the work proposed for the year, which will advance the long-term goals for each area. Ecosystem management is an ongoing program, and the annual management plans are designed to manage these areas for the long-term within the context of annual budgets.

Details on the specifics for each ecosystem are provided in the following pages.

#### **Prairies and Wetlands**

The planted prairies, meadows and wetlands were created from sterile chemically dependent farmland. They were planted with a broad variety of adapted native species. Additionally, early successional weed species colonized much of the bare ground in the early years, establishing seed banks. The prairies and wetlands are critical for the treatment of our stormwater, and the maintenance of extremely high water quality in our lakes and ponds. In addition to providing quality habitat for desired insects, birds and other wildlife, they provide aesthetically pleasing vistas that reflect the value the community places on conservation of our natural resources. The prairie and wetland area under HOA management is 203 acres.

# Ecosystem Goal

Establish and maintain healthy prairies and wetlands that are stable, functional native ecosystems with broad plant diversity and minimal weed pressure. Healthy prairies and wetlands have minimal woody shrubs and trees, and are not compromised by Eurasian weeds. While fully mature native prairies and wetlands need minimal management with occasional prescribed burns, the planted prairies are still in the establishment phase and still require more active management for the control of weed species.

# **Current Objective**

Facilitate the development of stable, functional native ecosystems with broad plant diversity and minimal weed pressure that provide quality habitat for desired wildlife and aesthetically pleasing vistas. Continue the control of perennial Eurasian weeds (e.g. Sweet Clover, Purple Loosestrife, Canadian Thistle, Phragmites,) and woody invasive species.

Prairies and Wetlands		
Task/Practice	Responsibility	Estimated Cost
Spring Burns On Priority Areas (See 2019 Burns Completed & PC Burn Priorities 2020 Exhibits) (Budget Line Item - #704 Prairies)	Applied Ecological Services ETL Managed Volunteers	\$15,000
Fall Burns On Priority Areas (See PC Burn Priorities 2020 Exhibits)	ETL Managed Volunteers	included in above

Prairies and Wetlands		
Task/Practice	Responsibility	Estimated Cost
Selectively Herbicide for Specific Weeds on an ongoing basis (See Field Stewardship Activities) (Budget Line Item - #704 Prairies)	Jim O'Connor & misc contractors	\$25,000
Major site wide control of Year 1 Reed Canary Grass & Phragmites Year 1 Aquatic Invasives (Lake Leopold) (Budget Line Item – 921 Reserves)	Contractors	\$20,000 (Reserves) \$12,500 \$7,500
Selectively Cut and Herbicide Invasive Woody Species (See PC Woody Invasives Priorities 2020)	Jim O'Connor & Volunteers	included in above
Review Presence & Impact of <i>Galerucella</i> Beetles On Purple Loosestrife	Jim O'Connor	No Additional Charge (NAC)
Continue Selective Prairie Enhancement With Over Seeding of Conservative Species.  (Budget Line Item - #702 Lakeshore)	Jim O'Connor & Volunteers	\$2,500 in Materials
Do Spring Monitoring and Addling of Goose Nests. 2020 Permits Received for Egg Addling. Submit Reports and 2020 Permit Application to IDNR (Budget Line Item - #702 Lakeshore)	Integrated Lakes Management	\$1,500
Conduct Homeowner Education Programs  Burn school in early spring  Prairie Education/Appreciation Event  (Budget Line Item - \$704 Prairies)	Environmental Team Environmental Stewardship Committee Guest speaker	\$1000
Document All Treatments	Environmental Team	NAC
Mow 2021 Fire Breaks in Fall 2020	LPF Managed Labor	Contract Rates
Apply for 2021 Burn Permits in November 2020	Environmental Team Leader	NAC

Prairies and Wetlands		
Task/Practice	Responsibility	Estimated Cost
Address flooding of Shooting Star likely due drainage issues in wetland that receives stormwater flows from drain in front of Minsky family home  (Budget Line Item – Reserves Section)	Environmental Team	\$6,000
Write and Publish Appropriate Stories in Newsletter On Monthly Basis	Jim O'Connor Environmental Stewardship Committee	NAC
Respond to Residents' Questions/Concerns	Environmental Team	NAC

# **Volunteer Field Stewardship Activities**

With the continued caveat of weather conditions, the following is a summary by month of the expected natural area stewardship activities. This work is done by Jim O'Connor, individual contractors, and volunteers. All herbicide use will conform to the guidelines of the Illinois Nature Preserve Commission (the least toxic herbicide at the lowest effective dose).

Field Stewardship	
Month	Activities
January	Brush Cutting and Cut Stump Herbicide with Garlon
	<ul> <li>Frost Seeding of Native Species if the Ground Permits (Thaw).</li> </ul>
February	Brush and Tree Clearing, as above
	Wetland Prescribed Burns if Conditions Warrant
	Order Native Plugs for Spring Delivery
March	Brush Clearing using Herbicide Garlon 4
	Herbicide Garlic Mustard at Rosette Stage with     Glyphosate 1% before Spring Ephemerals Emerge
	Frost Seed Prairie and Woodland Seed if Bare Ground
	Begin Early Spring Prescribed Burn Season

Field Stewardship	
Month	Activities
April	Sow Prairie and Woodland Grass Seed Mixes, Rake in if Possible
	Conduct Prescribed Burns
	Plant Trees
	Plant Bare Root Stock of Conservative Forbs
	<ul> <li>Herbicide Cool Season Grasses (Grass Specific Herbicide)</li> </ul>
	Herbicide Reed Canary Grass With Glyphosate 5%
	Prepare Planting Beds for Plugs
May	Pull Garlic Mustard and Remove Flowering Plants
	<ul> <li>Plant Native Grass and Legume Seed, Rake in on Bare or Burnt Ground.</li> </ul>
	Conduct Late Spring Prescribed Burns
	Plant Small Oaks
	<ul> <li>Herbicide Sweet Clover, Crown Vetch, Bird's Foot Trefoil, Thistle, Teasel, and Burdock rosettes preferably with Transline.</li> </ul>
	Pull and Remove Dame's Rocket
	Plant Conservative Native Plugs
June	Herbicide First Year Patches of Sweet Clover.
	Pull and Discard Bolting Garlic Mustard, Queen Anne's Lace.
	Spray Canada Thistle with Transline
	Herbicide Purple Loosestrife & Reed Canary Grass
	Begin Cutting and Herbicide Woody Resprouts with 50% Glyphosate

Field Stewardship	
Month	Activities
July	Pull Or Cut Flowering Yellow Sweet Clover, and Remove
	Herbicide Canada Thistle and Purple Loosestrife
	Spot treatments in Lake Leopold for Coontail
	Cut and Herbicide Woody Resprouts
	Cut Nodding Thistle, Remove Seed Heads
	Mow Large Stands of Tall Goldenrod before Flowering
August	Cut Flowering White Sweet Clover, and Remove
	Cut and Herbicide Honeysuckle, Willows and Buckthorn With 50% Glyphosate
	Herbicide Purple Loosestrife, Phragmites, Teasel and Thistle Rosettes
September	Collect Seed From Early Flowering Native Plants
	Continue to Cut and Herbicide Woody Resprouts
	Herbicide Reed Canary Grass
October	Collect Seed for Storage and Use in 2020
	<ul> <li>Herbicide Woody Invasives, Sweet Clover 1rst Yr, Teasel Rosettes, and Reed Canary Grass (5% Glyphosate)</li> </ul>
	Frost Seed Forbs From Late October Through Late     March
November	Conduct Fall Burns, Especially Wetlands
	Frost Seed Forbs
	Herbicide Garlic Mustard Rosettes, Cut Brush Herbicide with Garlon 4
December	Frost Seeding Forbs
	Cut Teasel Heads and Remove
	Continue Brush Clearing and Herbicide Cut Stumps
	Conduct Burns if Weather Permits

#### **Lakes and Ponds**

The ponds and lake were dug as part of the initial residential development. While serving as the primary storage for storm water, their relationship with the wetlands and prairies allows for high quality habitat. In addition to their use as stormwater detention and wildlife habitat, the lakes are used for swimming, winter skating, fishing, and non-motorized boat traffic. The water quality has been maintained at a high standard, such that the IL DNR has stocked the ponds with four species of State Threatened or Endangered fish species. The natural progression for a lake or pond is to gradually fill with dead plant material and become a wetland or bog.

#### Ecosystem Goal

In addition to their use as habitat, the lakes are used for various recreational activities. We will maintain a high standard of water quality, diversity of native aquatic vegetation and integrity of the shorelines. While native aquatic vegetation is critical to maintaining water clarity, excessive aquatic weeds (e.g. Eurasian water milfoil, coontail, etc.) and algae both detract from the habitat value and the attractiveness of the lake. Managing base nutrient levels is a critical component of the lake management to interrupt the natural succession process and maintain the high quality open water status. This may entail periodic removal of relatively small amounts of nutrient rich sediment.

# Current Objective

Continue to monitor and maintain high water quality standards, improve the diversity of aquatic vegetation, and integrity of the shorelines.

Lakes and Ponds		
Task/Practice	Responsibility	Estimated Cost
Monitor Lake Leopold Eurasian Milfoil and Other Aquatic Weeds As They Rebound from the Whole Lake Treatment of Early 2012	TBD Integrated Lakes Management	NAC
Aquathol Treatment of Area off Beach, Cresent Overlook for Aquatic Weed Control (Budget Line Item - #701 Lake & Ponds)	Integrated Lakes Management	\$7,000

Lakes and Ponds		
Task/Practice	Responsibility	Estimated Cost
Monitor Filamentous Algae Populations for Potential Spot Treatments	Integrated Lake Management TBD	NAC
Continue to Monitor Water Quality Monthly in Leopold Lake and 2 downstream ponds (DO, BOD, N, P, Cl, Temperature, Clarity, Algae and Zooplankton Species Composition). Record Lake Levels.  (Budget Line Item - #701 Lake & Ponds)	Ken Haney (PC resident and volunteer)	\$1,000 (\$500 for Lake Aldo Leopold testing during usual monitoring months +\$500 for one test of ponds)
Clean beach 2x weekly from Memorial Day through Labor Day	LPF	\$1,000
(Budget Line item - #501 Beach)		
Monitor Beach Bacteria Levels	County Health Dept	NAC
Monitor for Potentially Toxic Blue Algae Blooms	Ken Haney Integrated Lakes Management	NAC
Conduct 1 Water Quality Evaluation of Sanctuary Pond	TBD	NAC
Spot Treatment of Aquatic Weeds in 1 Shoreline Location for T&E Fish Sampling in Sanctuary Pond	Integrated Lakes Management	NAC (included in other work)
Create appropriate educational pieces Articles in Meadow Mix re Lake Leopold	Environmental Team	NAC
Prepare Plans & Secure Permits for 2019 2020 sediment removal in North Bay (From Reserves)	Environmental Team Contractors	\$16,900 (Reserves)
Document All Treatments	Environmental Team	NAC
Respond to Residents' Questions/Concerns	Environmental Team	NAC

# Turf, Trees, and Shrubs

The major turf areas with landscape trees and formal planting include the Village Green, Station Village Green, Road Edges, and Center Courts of home clusters for a total of approximately 30 acres.

# Ecosystem Goal

Provide aesthetically pleasing and comfortable recreational surfaces, using no irrigation and minimal fertilization and pesticides. Turf areas should be healthy with no noxious weeds and reflect well on the appearance of the community.

# Current Objective

Continue to build the health of the soil and plant systems to provide resilience to drought and other stresses. Enhance the health and vitality of the landscape trees and shrubs.

Turf, Trees, and Shrubs		
Task/Practice	Responsibility	Estimated Cost
Two Site Inspections with LPF, LCM & Premier Management (April & September)	LPF Landscape Concepts Premier Management	NAC
Mow Weekly (At 3-4") April 15 – Nov 30  Focal Point of April Site Inspection will be to Reduce Any Unnecessary Mowing Around Light Poles, Boulders, etc along the Roads and Trails	Landscape Concepts	\$40,000
Use 2#/1000 sq ft of Liquid N Plus Atriplex In Split Application (June & September)	Landscape Concepts	NAC
Enhancement of the Native Bed at Jones Point with planting of native plugs plus watering essential for establishment	Jim O'Connor Environmental Team	\$2,000
Fertilize All Landscape Trees in Sept/Oct with Liquid Slow Release N Plus Atriplex	Landscape Concepts	NAC

Turf, Trees, and Shrubs		
Task/Practice	Responsibility	Estimated Cost
Renew mulching and mulch zone trimming for trees & shrubs in common areas (one more cycle of work in 2021 for ~\$4500)  (Budget Line Item - #911 Mulching of Trees)	Landscape Concepts	\$9,000
Selective Tree Work (Replacing Dead Trees, Safety Pruning)  (Budget Line Item - #705 Trees)	Contractor	\$4,000
Sustainable management (pruning. Mulching, thinning) of edible landscape on Prairie Orchid (Budget Line Item - #703 Plantings)	Linda Weins Arborsmith Landscape Concepts	\$5,500
Monitor Use of Bluebird Nesting Structures	Volunteers	NAC
Post All MSDS On Web Site	Environmental Team Leader	NAC
Write and Publish Appropriate Stories In Newsletter	Environmental Stewardship Committee	NAC
Document All Applications	Environmental Team Leader	NAC
Respond to Residents' Questions/Concerns	Enviornmental Team	NAC

# **Hedgerows**

The hedgerows are remnants from the prior use of the farm land. These hedgerows were planted by early settlers. The principal tree species are Osage Orange, Hackberry, Black Cherry, Mulberry, Norway Maple, Red Maple, Box Elder and Silver Maples. The lower shrub layer is dominated by Buckthorn, Honeysuckle and Wild Grape. The current acreage is approximately 4 acres.

During the winter of 2013, Landscape Concepts Management aggressively weeded all hedgerows. These hedgerows are now divided into separate areas to allow for a four-year rotational focus on specific areas as needed for enhancement and management.

# Ecosystem Goal

Convert the hedgerows to predominantly healthy native tree species that provide attractive landscape features and high quality habitat for desired wildlife. Weedier species (Norway Maple, Mulberry, Box

Elders etc) will be slowly replaced by high quality native species. Understory shrubs will be native species with no Eurasian weed species (Buckthorn, Honeysuckle, Multiflora Rose, Tree of Heaven, etc.).

The process of removing weedier species, safety pruning of older branches, and replanting with native species is ongoing with a rotation of focus areas each year. Each hedgerow will receive priority attention every 4 years.

# **Current Objective**

Encourage the growth of healthy native tree species that provide attractive landscape features and quality habitat for desired wildlife with a minimum of weed species.

Hedgerows		
Task/Practice	Responsibility	Estimated Cost
Remove Both Species of Buckthorn, Honeysuckle in Hedgerow areas as needed (see Hedgerow and Tree Management Exhibit). Cut and Apply Garlon to Stumps. Wick Application of Garlon On Small Plants (Budget Line Item - #705 Trees)	Jim O'Connor Environmental Stewardship Committee Contractors	Not in 2020; likely in 2021
Plant Native Tree and Shrub Species in Hedgerows	Contractors Volunteers	\$500
Prune As Necessary to Eliminate Dangerous Snags. Leave Snags for Wildlife Habitat where they present No Human Danger (Budget Line Item - #705 Trees)	Landscape Concepts Management	\$500
Document All Treatments	Environmental Team Leader	NAC
Respond to Residents' Questions/Concerns	Environmental Team	NAC

# **Trails and Fences**

Over 10 miles of crushed gravel surface trails have been constructed at Prairie Crossing. The perimeter trail running from Lake Forest Hospital around to the Train Station, and the trail along Harris Road are public regional trails that have been conveyed to the Village of Grayslake. The internal trails are the property of the HOA. The trails provide recreational opportunities for walking, jogging, bicycling, and limited horseback riding. Additionally, they provide pedestrian and bicycle commuting opportunities.

# Amenity Goal

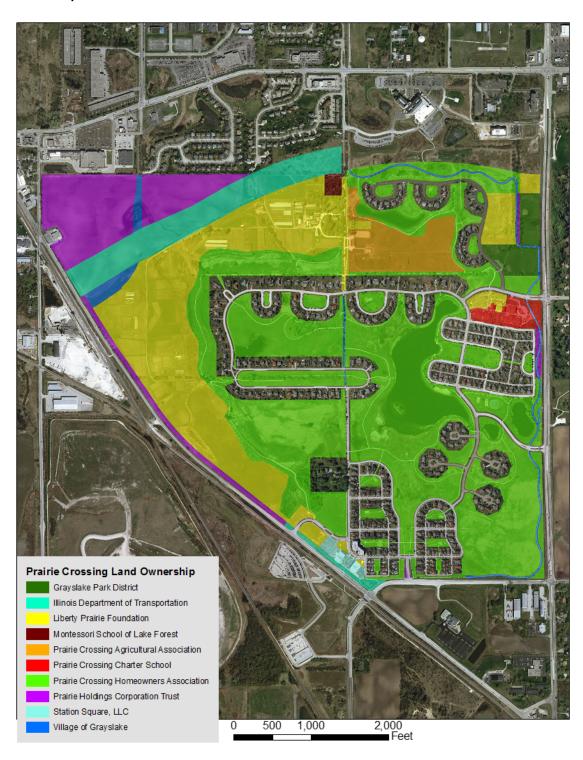
Maintain the trails and fences so they are attractive and safe to be used during all but the most extreme weather events. As trails are composed of gravel aggregate, they require regular management for weeds and structural integrity.

Trails and Fences		
Task/Practice	Responsibility	Estimated Cost
Mow Trail Edges (2 Ft) In July & Sept Focal Point Of April Site Inspection with LCM will be to Reduce any Unnecessary Mowing Around Light Poles, Boulders Etc.	Bill Pogson Landscape Concepts Management	NAC In LCM Turf Management Contract
Organize & facilitate special meeting on use of glyphosate on PC trails	Environmental Team	NAC
Apply 1 Seasonal Application of Roundup (plus marker) or other Management Approach for Weed Control (Budget Line Item - #509 Trails)	Landscape Concepts Management	\$4,500
Repairs of Surface as Needed  1) Washouts  2) Drainage Issues  Monitor Results of Past Repairs  (Budget Line Item - #509 Trails)	Bill Pogson Landscape Concepts Management	\$4,000

Trails and Fences		
Task/Practice	Responsibility	Estimated Cost
Monitor and Replace Degraded Split Rail Fence Sections along Route 45 & Casey Road (Budget Line Item - #601 Fences)	LPF Managed Labor	\$2,000
Respond to Residents' Questions/Concerns	Environmental Team	NAC

# **Exhibits**

# **Land Ownership**



PCHOA L and Cover **Land Cover** Beach 0.3 ac.

Hedgerow 9,500 ft. Lawn 19.8 ac. Orchard 0.9 ac. Prairie 155.1 ac. Wetland 28.3 ac.

# 2020 Burn Priorities



# 2019 Burns Completed

# **Hedgerow and Tree Area Management**



1 inch = 600 feet

# **2020 Land Management Plan Integration into PCHOA Budget**

PCHOA BUDGET CATEGORY	ACCT#	AMOUNT
Maintenance of Amenities		
Beach	501	\$1,000
Cleaning beach during summer		\$1,000
Trails	509	\$8,500
Weed Management (Roundup or Alternative)		\$4,500
Repair of Trail Surface as needed		\$4,000
Maintenance of Infrastructure		
Fences	601	\$2,000
Replace Degraded Split Rail Fence Section		\$2,000
Maintenance of Common Area		
Lake and Ponds	701	\$8,000
Aquathol Weed Treatment Off Beach, Crescent Overlook		\$7,000
Water quality testing of Leopold & 2 downstream ponds		\$1,000
Lakeshore	702	\$4,000
Monitoring & Addling of Goose Eggs		\$1,500
Overseeding with Native Plant Seed on Ecosystems		\$2,500
Plantings	703	\$7,500
Enhance native beds at Jones Point entrance		\$2,000
Sustainable management of edible landscape		\$5,500
Prairies, Meadows, Wetlands		\$41,000
Spring & Fall Burns on Priority Areas		\$15,000
Selective cutting & herbiciding of invasives		\$25,000
Homeowner Education (including potential guest speaker)		\$1,000
Trees	705	\$5,000
Selective Tree Work		\$4,000
Prune hedgerow trees as needed for safety		\$500
Plant hedgerow trees and shrubs as needed		\$500
Turf	706	\$40,000
Mow weekly April 15 - Nov 30		\$40,000
	TOTAL	\$105,500
Projects and Other Expenses (Reserves)		
Mulching of Trees	911	\$9,000
Ecosystem-scale Management	921	\$20,000
Terrestrial Invasives (Reed Canary Grass)	921	\$12,500
Aquatic Invasives (TBD)	921	\$7,500
Wetlands Overflow/Drainage Problems - Shooting Star	????	\$6,000