

Private Landowner Engagement & Demonstration Project at the Openlands Lakeshore Preserve



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conserving nature for life

Celebrating its 50th anniversary, Openlands has helped secure, protect, and provide public access to more than 55,000 acres of land for parks, forest preserves, land and water greenway corridors, and urban gardens in the Chicago region.

National Fish and Wildlife Foundation
Sustain Our Great Lakes Community Grants

Northeast Illinois Ravine Restoration & Monitoring Program

Outcomes:

- Habitat Restoration
- Training for Land Managers
- Private Landowners Engagement & Demonstration Project

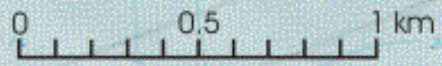
Partners:

- Alliance for the Great Lakes
- Chicago Botanic Garden
- Lake County Forest Preserve District
- Openlands
- Illinois Natural History Survey
- Conservation Research Institute



Openlands Lakeshore Preserve





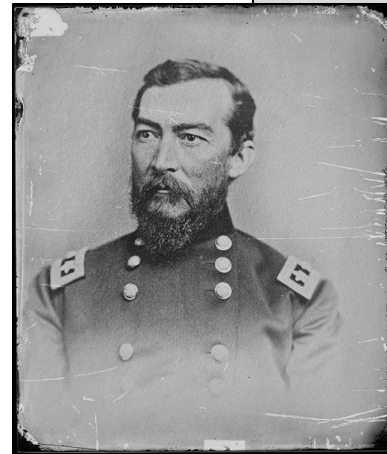
Map location

42° 12.5' N

87° 47.5' W

History of Fort Sheridan

- Established 1889, decommissioned 1993
- Formed in response to labor uprisings in Chicago
- Named after Civil War hero General Philip H. Sheridan
- Original Fort = 714 acres
- National Historic District / National Registry of Historic Places



When the Fort was decommissioned it became . . .

- 250 acres - Lake County Forest Preserve
- 77 acres - Openlands Lakeshore Preserve
- 90 acres - Army Reserves
- 125 acres - Town of Fort Sheridan
- 172 acres - US Navy Housing



RAVINE ROAD





Of the 60 miles of Lake Michigan shoreline in Illinois, only half is open to the public – with 26 of those miles located within Chicago city limits.



Fort Sheridan Forest Preserve & Openlands Lakeshore Preserve



336-acre preserve

Over 2 miles of shoreline

5 ravines

Openlands Lakeshore Preserve



77-acre preserve

Over a mile of shoreline

3 ravines



Lakeshore bluffs

*Common Juniper (T),
Buffalo Berry (E),
Golden Sedge (T)*



...and beach...

Seaside Spurge (E), Sea Rocket (T), Marram Grass (E)



... and ravines.



*Bellwort, great white trillium
and wild geranium blooming in
Bartlett Ravine*





Schenck

Van Horne

Bartlett

Hutchinson

Stormwater...









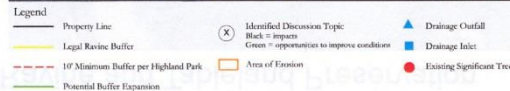


Private Landowner Engagement & Demonstration Project

- The Town of Fort Sheridan subdivision platted 24 lots almost to the edge of the ravine slope on the north side of Bartlett Ravine.
- The covenants required an average 6 foot buffer along the ravine edge.
- Openlands surveyed the preserve boundary and discovered that not only was the buffer not in evidence, several landowners had actually encroached on our property.

Ravine and Tableland Preservation

IDENTIFIED
DISCUSSION TOPICS



not to scale

N



- Wanting to be a good neighbor, but also wanting to protect our ravine, we planned to meet with the neighbors to discuss options.
- Rather than one big meeting, Openlands felt that smaller meetings of 2-3 homeowners at a time would provide more opportunity for discussion.
- Invitations were sent out to all 24 homeowners - 8 responded. We learned later that several of the houses were unoccupied or rented.
- Everyone who came was interested in learning about how to protect their property and the ravine. But one couple was very receptive and eager to plant their buffer. More about them later.
- The following slides shows the handout Openlands prepared explaining the importance of good land management for folks living next to this fragile ecosystem. It is available as a pdf file on Openlands website.

Landowner's Guide

Ravine and Tableland Preservation



Living Habitats
Landscape Architecture
Ecological Services
Environmental Planning
Custom Artworks

Landowner's Guide

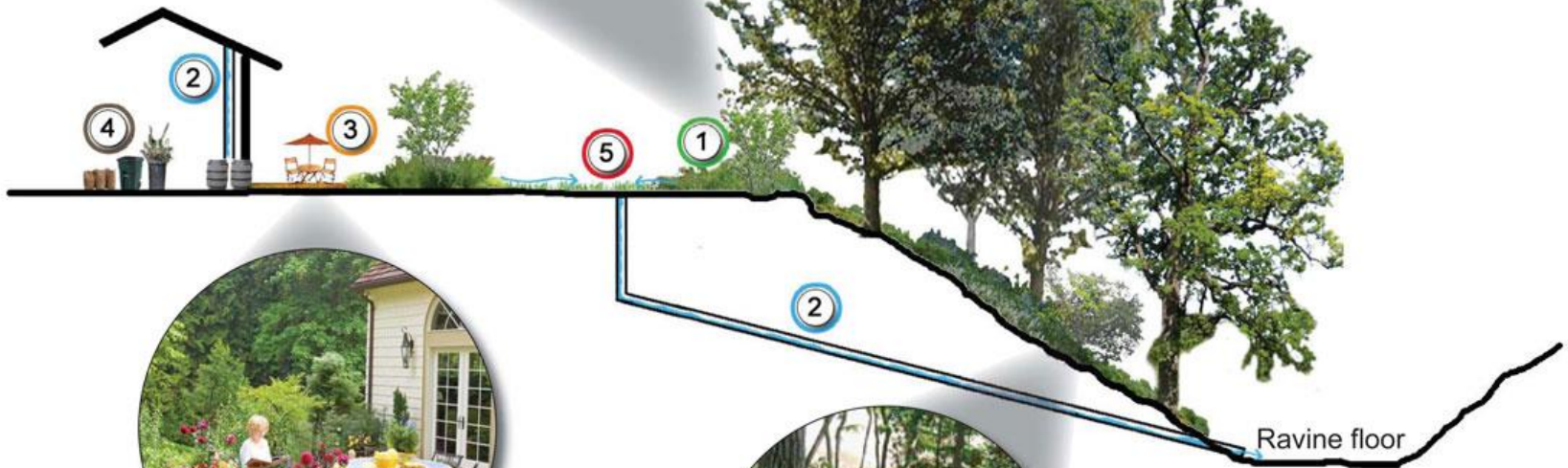
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HEALTHY CONDITIONS

Native planting within ravine buffer area



Mature native trees on ravine slopes



Minimized paving and lawn within rear yard



Stable slopes with dense ground cover

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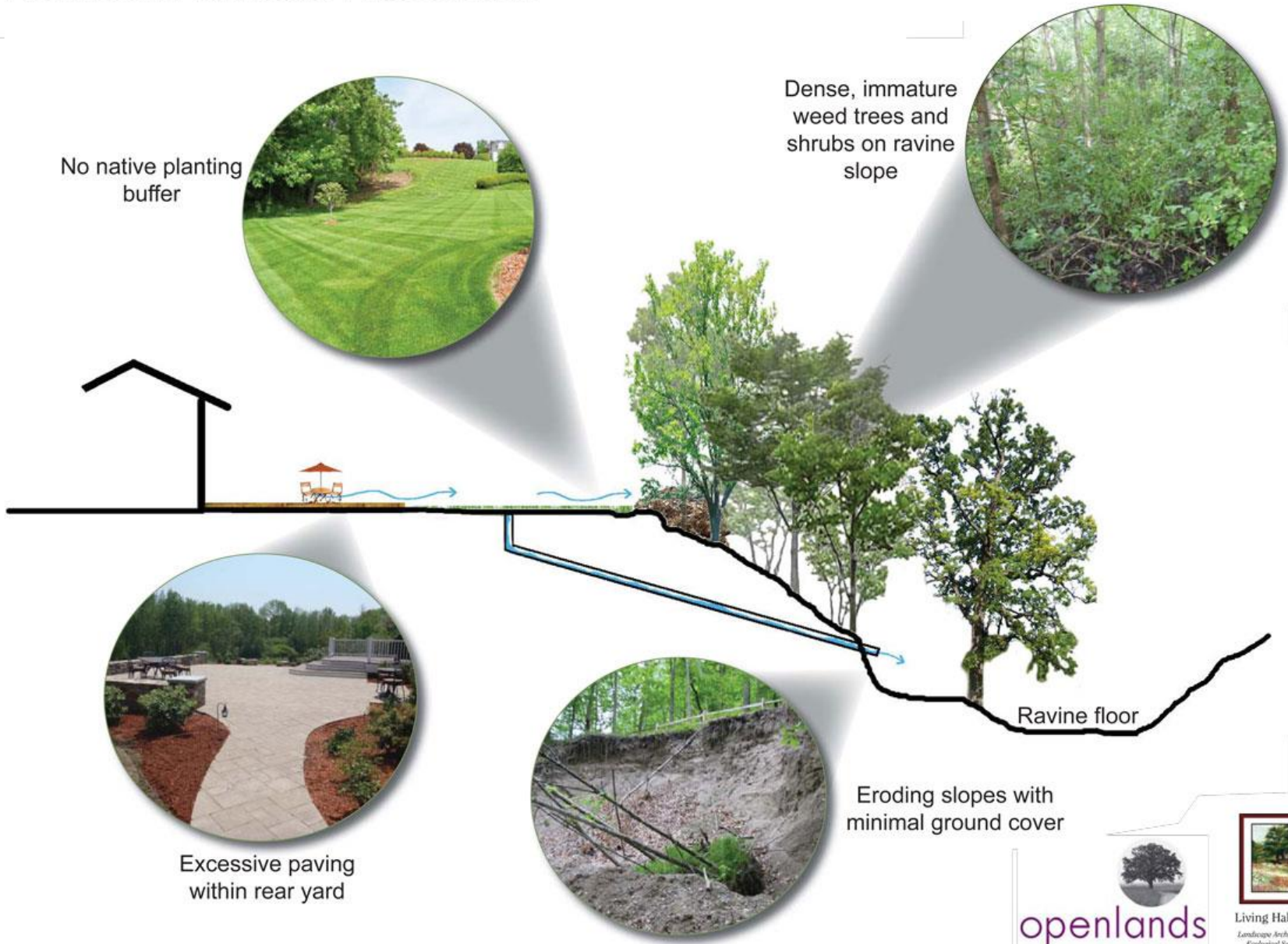
Living Habitats
Landscape Architecture
Ecological Service
Environmental Planning
Custom Artworks

April 26, 2013

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UNHEALTHY CONDITIONS



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YES

NO

1

BUFFER



- Minimum 10' width from top of ravine slope
- Along entire length of property adjacent to ravine



- Native savanna and prairie plants with a diverse selection of species



- Minimal irrigation, drip if necessary



- Encroach within 10' of top of ravine slope with the following:

- lawn
- paving
- pool
- outdoor furniture or play equipment



- Non-native plants



- Allow children to play on ravine slopes

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YES

NO

2

DRAINAGE



- Direct storm drain pipes to bottom of ravine



- Native plant gardens within side yard swale areas



- Direct a portion of roof gutters to rain barrels or cistern



- Direct storm drain pipes to top or mid slope of ravine



- Allow excessive sheet runoff into ravine



- Place sprinklers within 20 ft of top of ravine

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YES

NO

3

SURFACES



- Use porous paving for outdoor hard surface areas



- Small patio areas in back yard



- Overbuild site with excessive roofs, paving and lawn



- Large contiguous areas of impervious surface with no areas for stormwater infiltration

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YES

NO

4

YARD WASTE



- Dispose of yard waste in trash or local landfill



- Compost



- Dump yard waste onto ravine slopes

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YES

NO

5

LAWN CARE



- Let height reach 4 inches before mowing



- Hand pick weeds
- Use organic fertilizers and pesticides only as necessary



- Aerate



- Chemical fertilizers and pesticides

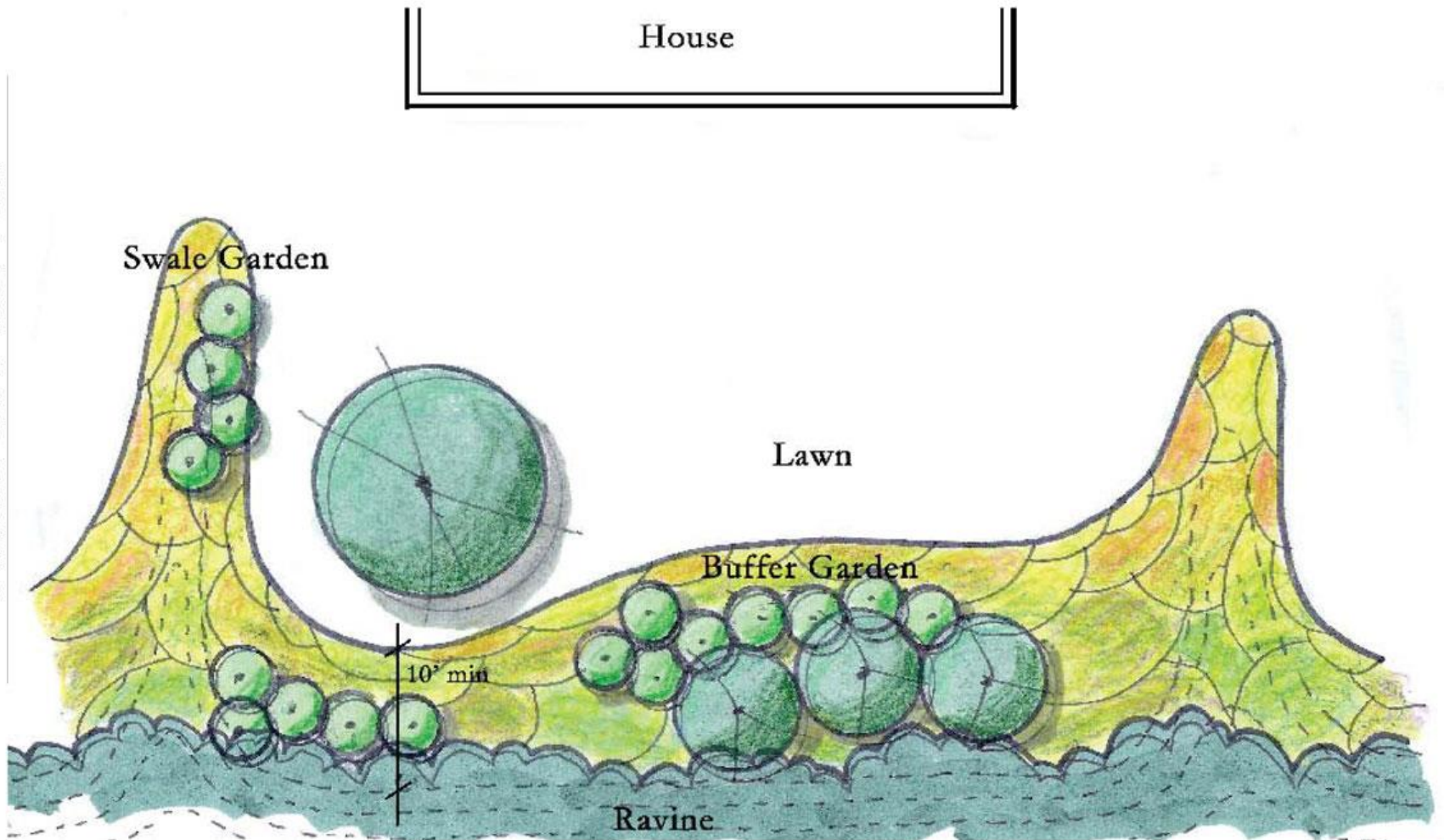


- Excessive mowing and watering

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EXAMPLE GARDEN
SWALE AND BUFFER



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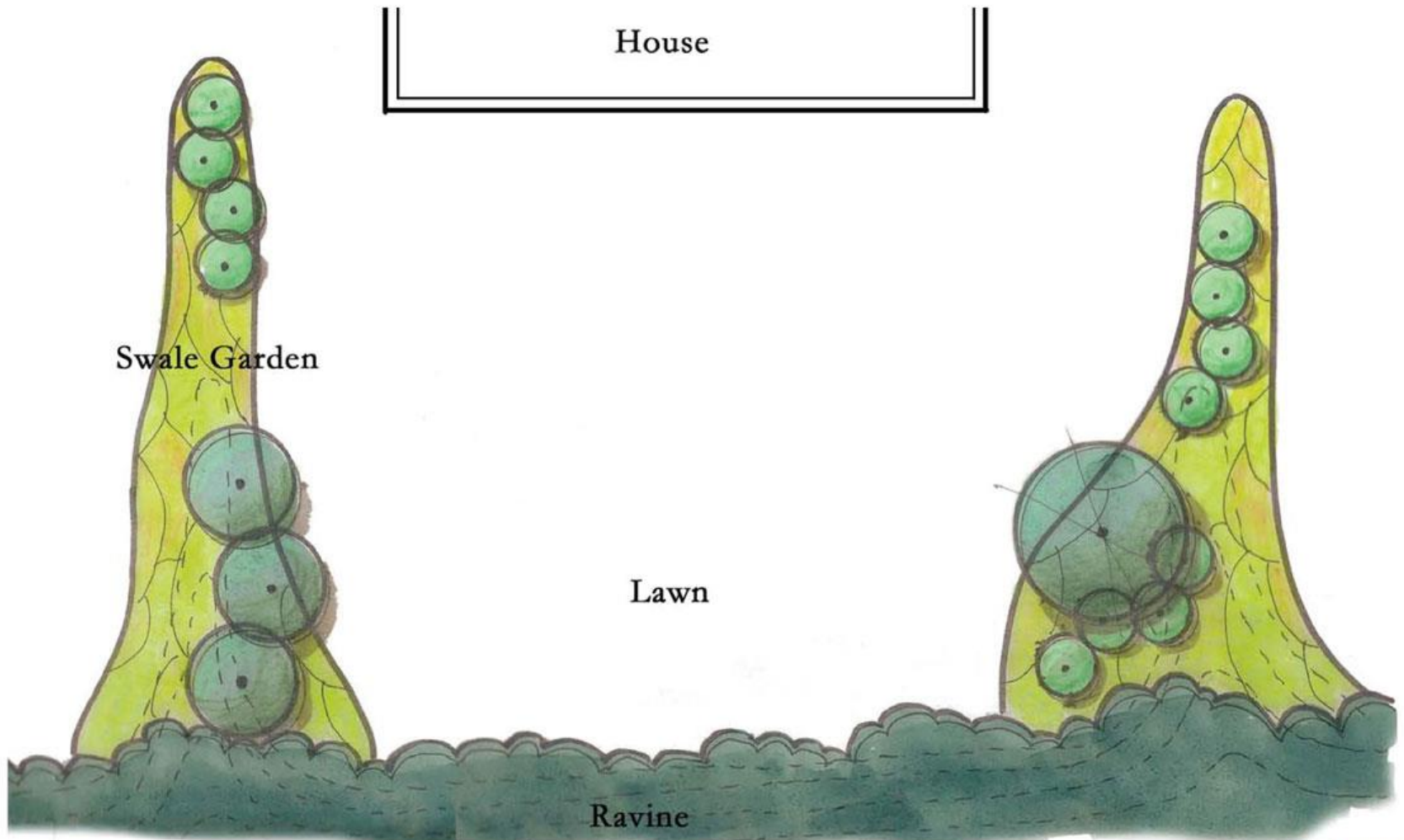
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EXAMPLE GARDEN
SWALE ONLY



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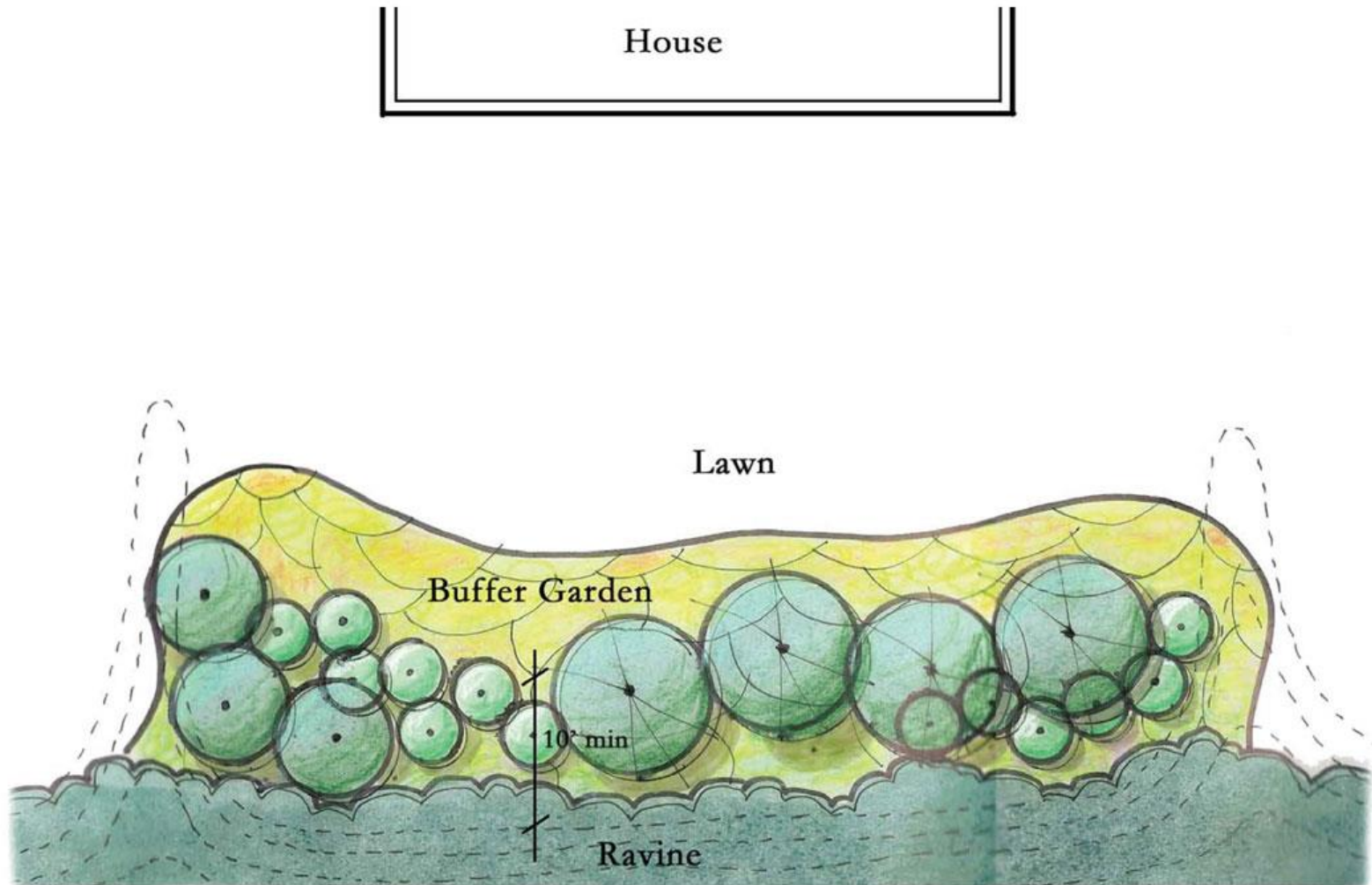
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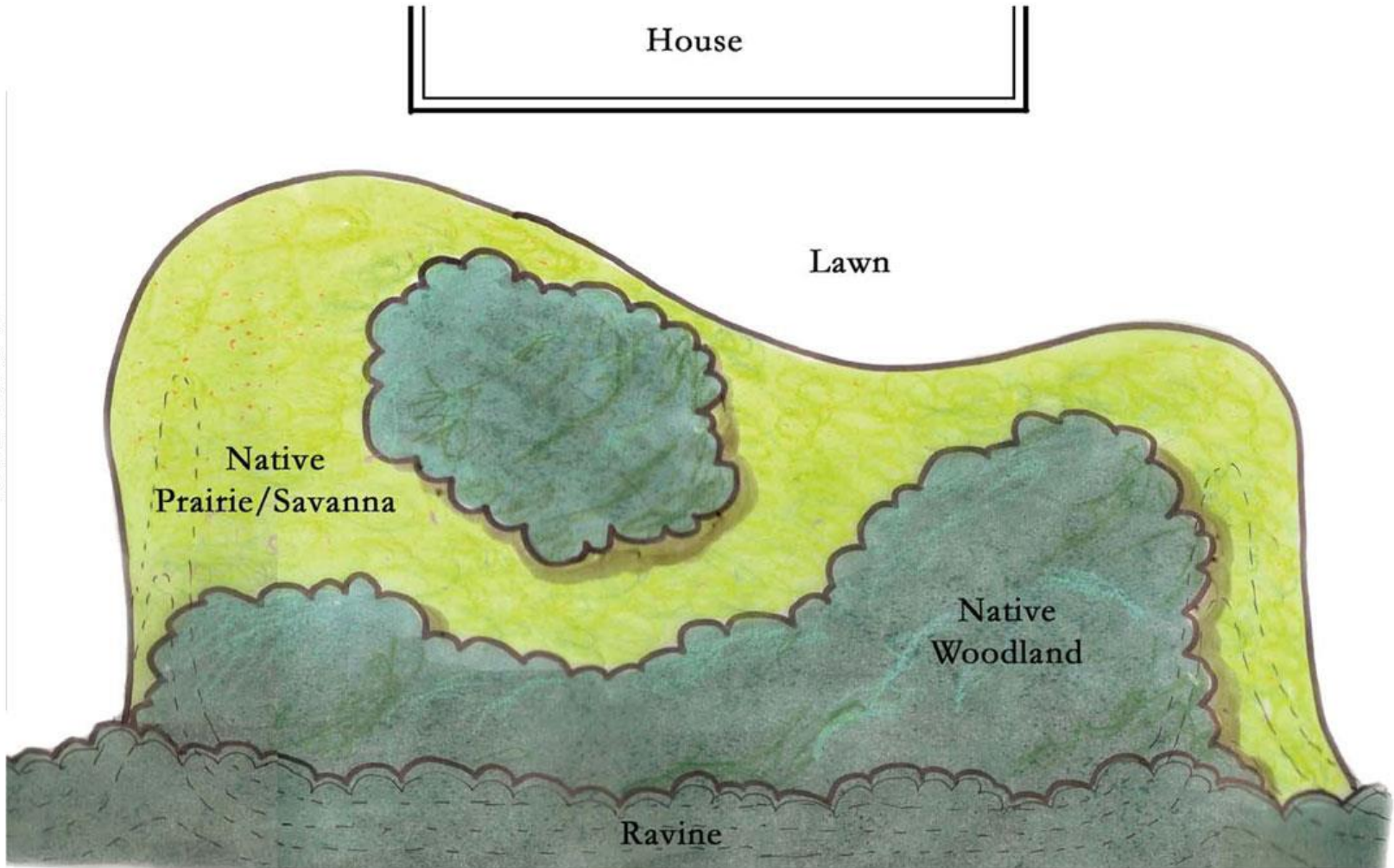
EXAMPLE GARDEN
BUFFER ONLY



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EXAMPLE GARDEN
NATURAL



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SAMPLE NATIVE PLANTS TREES AND SHRUBS

Blue Beech
Carpinus caroliniana

- understory tree
- 30-50 ft tall
- partial shade
- yellow-orange-red fall color
- found in wet and mesic woods



Pagoda Dogwood
Cornus alternifolia

- ornamental tree
- 15-30 ft tall
- partial sun to full shade
- white blooms in late spring
- dark blue berries
- red fall color
- found in mesic woods and woodland borders



Ninebark
Physocarpus opulifolius

- shrub
- 3-9 ft tall
- full to partial sun
- white bloom in spring
- dull yellow fall color
- found in mesic woods



Shagbark Hickory
Carya ovata

- canopy tree
- 75-100 ft tall
- full to partial sun
- blooms in fall
- found in dry and mesic woods



American Hazelnut
Corylus americana

- shrub
- 4-15 ft tall
- full sun to partial shade
- yellow blooms in spring
- edible fall fruit
- yellow fall color
- found in dry to mesic woods, savannas, and prairies



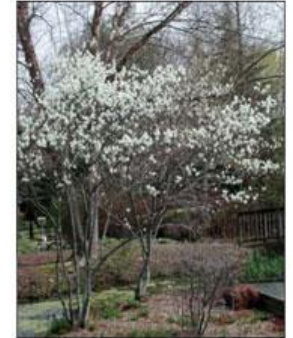
Wild Black Currant
Ribes americanum

- shrub
- 3-5 ft tall
- partial shade
- cream blooms in spring
- red-orange fall color
- found in wet to mesic woods



Allegheny Serviceberry
Amelanchier laevis

- ornamental tree
- 15-30 ft tall
- full sun to partial shade
- white flowers in spring
- yellow-orange fall color
- blooms in fall
- black fruit
- found in mesic woods



Witch Hazel
Hamamelis virginiana

- ornamental tree
- 15-30 ft tall
- partial to full shade
- yellow blooms in late fall
- found in mesic woods and savannas



Black Haw
Viburnum prunifolium

- ornamental tree
- 15-30 ft tall
- full sun to partial shade
- white bloom in spring
- purple berries
- red fall color
- found in dry woods and woodland borders



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Ravine and Tableland Preservation

SAMPLE NATIVE PLANTS WILDFLOWERS

Wild Garlic
Allium canadense

- wildflower
- 12-18 in tall
- full to partial shade
- blooms in early summer
- found in mesic woods and prairies



Wild Columbine
Aquilegia canadensis

- wildflower
- 1-3 ft tall
- light to partial shade
- blooms in late spring/early summer
- found in mesic woods and prairies



Swamp Milkweed
Asclepias incarnata

- wildflower
- 2-6 ft tall
- full to partial sun
- blooms in late summer
- found in wet prairies and marshes



Smooth Blue Aster
Aster laevis

- wildflower
- 2-4 ft tall
- full to partial sun
- blooms in late summer
- found in mesic to dry prairies and savannas



Big Leaved Aster
Eurybia macrophylla

- wildflower
- 2-4 ft tall
- partial to full shade
- blooms in fall
- found in mesic woods



Cream Wild Indigo
Baptisia leucophaea

- wildflower
- 1-2 ft tall
- full sun
- blooms in spring
- found in dry prairies and savannas



Prairie Coreopsis
Coreopsis palmata

- wildflower
- 1-3 ft tall
- full sun
- blooms in early summer
- found in mesic to dry prairies and savannas



Purple Joe-Pye Weed
Eupatoriadelphus purpureus

- wildflower
- 4-7 ft tall
- partial shade
- blooms in summer
- found in moist to mesic woods



Blazing Star
Liatris pycnostachya

- wildflower
- 3-5 ft tall
- full sun
- blooms in late summer
- found in moist to mesic prairies



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SAMPLE NATIVE PLANTS
WILDFLOWERS

Great Blue Lobelia
Lobelia siphilitica

- wildflower
- 2-3 ft tall
- full sun to partial shade
- blooms in summer
- found in wet to mesic prairies and woods



Woodland Phlox
Phlox divaricata

- wildflower
- 1-2 ft tall
- partial shade
- blooms in late spring
- found in dry to mesic woods



Spiderwort
Tradescantia ohiensis

- wildflower
- 2-4 ft tall
- partial to full shade
- blooms in late spring
- found in moist to mesic prairies and savannas



Feathery False
Solomon's Seal
Maianthemum racemosum

- wildflower
- 2-3 ft tall
- partial shade
- blooms in late spring
- found in mesic to dry woods



Jacob's Ladder
Polemonium reptans

- wildflower
- 1-2 ft tall
- full sun to partial shade
- blooms in fall
- found in moist to mesic prairies and woods



Ironweed
Vernonia fasciculata

- wildflower
- 3-5 ft tall
- full sun
- blooms in late summer
- wet prairies



Foxglove Penstemon
Penstemon digitalis

- wildflower
- 3 ft tall
- partial to full sun
- blooms in late spring to early summer
- found in mesic prairies and woodland borders



Sweet Black
Eyed Susan
Rudbeckia subtomentosa

- wildflower
- 3-5 ft tall
- full to partial sun
- blooms in summer
- found in mesic prairies and savannas



Culver's Root
Veronicastrum virginicum

- wildflower
- 3-4 ft tall
- full sun to full shade
- blooms in summer
- found in mesic woods and prairies



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SAMPLE NATIVE PLANTS
GRASSES, SEDGES, FERNS

Hairy Woodland Brome
Bromus pubescens

- grass
- 2-5 ft tall
- partial sun to light shade
- found in mesic woods



Pennsylvania Sedge
Carex pennsylvanica

- sedge
- 6" - 1 ft tall
- partial sun, full shade
- found in dry to mesic woods



Lady Fern
Athyrium filix-femina

- fern
- 1-2 ft tall
- partial shade
- found in dry to mesic woods



Swamp Oval Sedge
Carex muskingumensis

- sedge
- 2-4 ft tall
- partial shade
- found in wet woods and sedge meadows



Little Blue Stem
Schizachyrium scoparium

- grass
- 2-3 ft tall
- full sun
- found in dry to mesic prairies



Goldie's Wood Fern
Dryopteris goldiana

- fern
- 3-4 ft tall
- partial shade
- found in mesic woods



Brown Fox Sedge
Carex vulpinoidea

- sedge
- 1-3 ft fall
- full to partial sun
- found in mesic and wet prairies and woods



Prairie Dropseed
Sporobolus heterolepis

- grass
- 2-4 ft tall
- full sun
- blooms in fall
- found in dry to mesic prairies



Christmas Fern
Polystichum acrostichoides

- fern
- 1-3 ft tall
- partial shade
- found in dry woods



Landowner's Guide

Ravine and Tableland Preservation

For more plants and additional ravine information, please visit <http://www.openlands.org>.

Wildflowers				
COMMON NAME	BOTANICAL NAME	LOCATION	LIGHTING	MOISTURE
Wild Garlic	<i>Allium canadense</i>	T, SL	S, PS	M
Thimbleweed	<i>Anemone virginiana</i>	T, SL	S, PS	D, M
Wild Columbine	<i>Aquilegia canadensis</i>	T, SL	S, PS	D, M
Swamp Milkweed	<i>Asclepias incarnata</i>	T, SL	S, PS	W
Smooth Blue Aster	<i>Aster laevis</i>	T, SL	S, PS	D, M
Cream Wild Indigo	<i>Baptisia leucophaea</i>	T	S	D
Tall Bellflower	<i>Campanula americana</i>	T, SL	PS	M
Prairie Coreopsis	<i>Coreopsis palmata</i>	T, SL	S	D, M
Purple Joe-Pye Weed	<i>Eupatoriadelphus purpureus</i>	T, SL	PS	M
Big Leaved Aster	<i>Eurybia macrophylla</i>	T, SL	PS, SH	M
Wild Geranium	<i>Geranium maculatum</i>	T, SL	S, PS	D, M
Blazing Star	<i>Liatris pycnostachya</i>	T, SL	S	M
Great Blue Lobelia	<i>Lobelia siphilitica</i>	T, SL	S, PS	M, W
False Solomon's Seal	<i>Maianthemum racemosum</i>	T, SL	PS, SH	D, M
Wild Bergamot	<i>Monarda fistulosa</i>	T, SL	PS, SH	M
Foxglove Penstemon	<i>Penstemon digitalis</i>	T, SL	S, PS	M
Woodland Phlox	<i>Phlox divaricata</i>	T, SL	PS	D, M
Jacob's Ladder	<i>Polemonium reptans</i>	T, SL	S, PS	M
Black Eyed Susan	<i>Rudbeckia hirta</i>	T, SL	S, PS	D, M
Sweet Black Eyed Susan	<i>Rudbeckia subtomentosa</i>	T, SL	S, PS	M
Broad Leaved Goldenrod	<i>Solidago flexicaulis</i>	T, SL	PS, SH	D, M
Elm Leaved Goldenrod	<i>Solidago ulmifolia</i>	T, SL	S, PS	M
Meadow Rue	<i>Thalictrum dasycarpum</i>	T, SL	S, PS	D, M
Spiderwort	<i>Tradescantia ohioensis</i>	T, SL	PS, SH	M
Ironweed	<i>Vernonia fasciculata</i>	T, SL	S	W
Culver's Root	<i>Veronicastrum virginicum</i>	T, SL	S, PS	M
Golden Alexanders	<i>Zizia aurea</i>	T, SL	S, PS	M, W

Trees & Shrubs				
COMMON NAME	BOTANICAL NAME	LOCATION	LIGHTING	MOISTURE
Allegheny Serviceberry	<i>Amelanchier laevis</i>	T, SL	S, PS	D, M
Blue Beech	<i>Carpinus caroliniana</i>	SL	PS, SH	M, W
Shagbark Hickory	<i>Carya ovata</i>	T, SL	S, PS	D, M
Pagoda Dogwood	<i>Cornus alternifolia</i>	T	PS	M
American Hazelnut	<i>Corylus americana</i>	T, SL	S, PS	D, M
Witch Hazel	<i>Hamamelis virginiana</i>	T, SL	S, PS	M, W
American Hop Hornbeam	<i>Ostrya virginiana</i>	T	S, PS	D
Common Ninebark	<i>Physocarpus opulifolius</i>	T	S, PS	M, W
White Oak	<i>Quercus alba</i>	T, SL	PS	D, M
Wild Black Currant	<i>Ribes americanum</i>	T	PS, SH	M, W
Black Haw	<i>Viburnum prunifolium</i>	T	S, PS	M, W

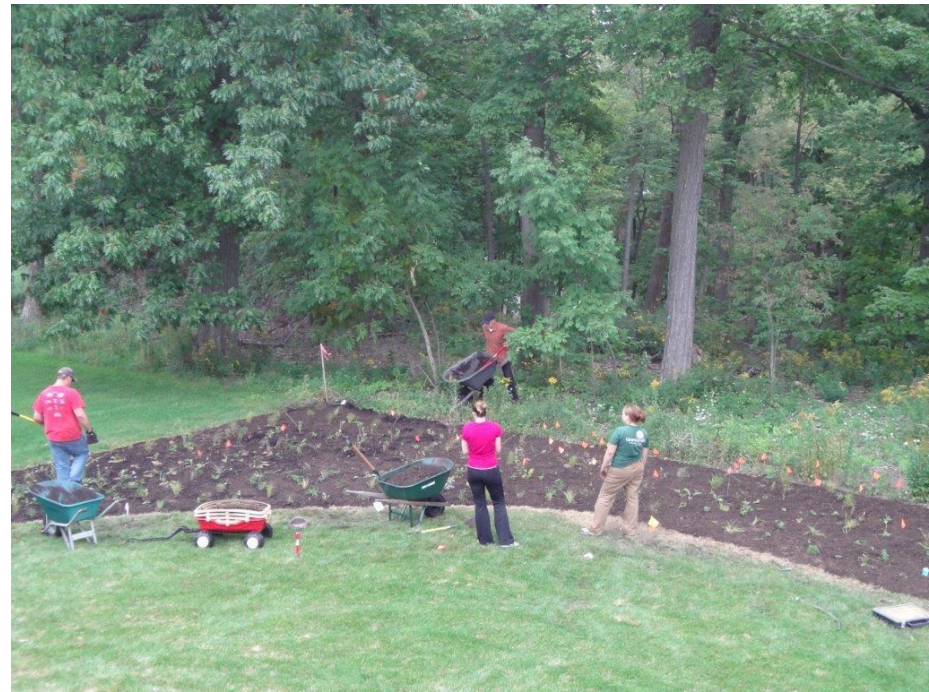
Grasses, Sedges, Ferns				
COMMON NAME	BOTANICAL NAME	LOCATION	LIGHTING	MOISTURE
Lady Fern	<i>Athyrium filix-femina</i>	T, SL	PS	D, M
Hairy Woodland Brome	<i>Bromus pubescens</i>	T, SL	PS	M
Pennsylvania Sedge	<i>Carex pensylvanica</i>	T, SL	PS	M
Swamp Oval Sedge	<i>Carex muskingumensis</i>	T, SL	PS	W
Brown Fox Sedge	<i>Carex vulpinoidea</i>	T, SL	S, PS	M, W
Goldie's Wood Fern	<i>Dryopteris goldiana</i>	T, SL	PS	M
Christmas Fern	<i>Polystichum acrostichoides</i>	T, SL	PS	D
Little Bluestem	<i>Schizachyrium scoparium</i>	T	S	M
Prairie Dropseed	<i>Sporobolus heterolepis</i>	T	S	M

Preferred Location		Lighting		Moisture	
T	tableland	S	sun	D	dry
SL	slope	PS	part sun	M	moist
		SH	shade	W	wet



Planting the Buffer

- Openlands provided the design and agreed to help with the maintenance for the first 2 years.
- Working with Living Habitats, the landscape designer, homeowners Britt and TJ purchased the plants.
- Openlands staff, Britt and TJ, and several volunteers planted the buffer.
- A key part of the agreement was that the homeowners would allow the buffer to be used as a demonstration for other neighbors to see what a buffer planting could look like.



Next Steps

- Britt and TJ will host an event inviting neighbors to view their buffer planting and learn more about what they can do.
- Openlands, the Chicago Botanic Garden and the Alliance for the Great Lakes are planning a Ravine Symposium for Spring 2014.
- The symposium will be (1) what have we learned about what conditions the ravines are in and (2) what can be done to help them. Sessions in the morning and field trips and hands on activities in the afternoon.
- Working with local park district and garden clubs, 3 (or more?) buffer demonstrations will be planted and interpreted for private landowners to see what they can do to help protect their property and the integrity of the ravine ecosystem.

www.openlands.org