The State of Illinois Department of Natural Resources

Illinois Wildlife Preservation Fund Grant Program
Final Report

Submitted by Phoebe Smith
Winfield United for a Better Community
PO Box 383
Winfield, IL 60190

GRANT AGREEMENT 08-042W

July 30, 2008

To: Dan Kirk
Illinois Department of Natural Resources
13608 Fox Road
Yorkville, Il 60560

From: Phoebe Smith, Applicant Representative
0S 490 Summit Dr.
Winfield, Il 60190
630-653-6747
smithhigdon@comcast.net

Date of mailing: Wednesday, June 25, 2008

Applicant Information:

Winfield United for a Better Community
PO BOX 383
Winfield, Il 60190
Steve Romanelli, President
Phone: 630-665-2652
sjr@gerlin.com

Grant Agreement # 8-042W

Grant notification dated June 25, 2007
End of grant period: June 30, 2008

Summary of Project Accomplishments

A. Introduction

With the support of the **Illinois Wildlife Preservation Fund Grant**, the Wild Ones' Native Landscapers' Seeds for Education Grant, the Lt. Gov. Pat Quinn Rain Garden Grant, 30 local organizations and businesses and approximately 280 volunteers, the dream of a Winfield (IL) Community Outdoor Classroom has become a reality. Located just south of the corner of Winfield Road and Beecher Street along the east side of the Winfield Public School in Winfield, Il, what was once a monoculture of Kentucky bluegrass with a row of non-native bushes along one edge is now a lush collection of 4 areas of Illinois native plant communities, including three prairie plant collections, a woodland collection, two rain gardens and five native trees. Insects, amphibians, birds and small mammals are now frequenting the space to the delight of adults and school children who helped plant the native plugs in 2007 and 2008 and of the passersby who notice the beautiful array of unusual flowers and grasses. Due to careful selection of plant species, thoughtful layout, edging of beds, wide public involvement in the planting process and public education, the community has received the "new" style of landscaping with open arms; not one complaint of "weeds" in a highly visible public place has been registered at Village Hall. We have succeeded in both beautifying the

front yard of the school, as requested by the school board, and in offering the general public a place where they can learn through their eyes and ears about the benefits of using native plants in home, business and public landscaping. We saw with our own eyes the benefits to wildlife made possible by replacing lawn with native plantings, as it began to appear as soon as our beds were planted. Both wildlife and human populations of Winfield are benefiting from the site.

The addition of 2 interpretive panels and three signs, funded almost entirely by the IDNR Wildlife Preservation Fund grant has added greatly to the educational value of the Outdoor Classroom. The signs add additional meaning to what may appear to many as a mere garden of wildflowers. One panel describes the natural history of the area over the past 500 million years. One speaks to the more recent natural history of Illinois which includes the vast prairies unique to this part of the world until their demise around 1900. It also speaks of the importance of biodiversity, the need for conservation of natural resources, the benefits of native plants and the power of the individual to act to make changes that will affect our environment in a positive way. Another sign describes the benefits of the rain garden and yet another indicates the need to eradicate garlic mustard and buckthorn in one's own yard. A fifth sign is a list of sponsors including the IDNR.

History

In May 2006 a request was made from the Winfield Public School to Winfield Community for a Better Community to beautify - with our own funds - the front yard of the elementary school. We responded with an offer to install a community outdoor classroom in the same space, and the school board gladly accepted. A team of 15 outdoor classroom volunteers, including 3 teacher liaisons, was formed.

Planning for the site and grant writing took a year. In April of 2007 preparation of the beds and planting with the students and other community groups began.

On June 29, 2008 a letter was written to Phoebe Smith, project manager, announcing the approval of a grant in the amount of $2000 from the Illinois Wildlife Preservation Fund to help cover the cost of interpretive panels and additional plants. Brainstorming on the content of the interpretive panels began immediately along with the search for sign producers. Over time it became apparent that the cost of plants would be less than anticipated since we received several donations from "partner nurseries" and sources.

On February 28, 2008, our request to amend the grant agreement to be able to spend the whole amount on interpretive panels was granted by Kathy Barker. These panels have been designed, purchased and will be installed by July 30, 2008. Sign a Rama of St. Charles, IL was within our budget and became our sign producer.

Project objectives as described by applicant:

1. This project will bring learning from the classroom and into the outdoors.
2. This project will familiarize students and general public with unfamiliar native plants and concepts.
3. This project will introduce beneficial native landscaping concepts to students and public.
4. This project will be user friendly with the intention of reaching a large audience.
5. This project will encourage community spirit.

We feel we have laid a good foundation for accomplishing all the above goals, that the learning his already happening and will continue for years to come.

Materials and Methods

Since the beginning of the IDNR Wildlife Preservation Fund grant agreement (June 30, 2007) until now (June 25, 2008) continued work on the site has included the following endeavors : the addition of woodland bed containing a second rain garden, the planning and execution of a children's mural, the designing and purchasing of 2 interpretive panels and three signs, the planting of additional natives by adult volunteers and school children, the environmental education of school children and teachers via on-site volunteer led activities and 2 nature walks in and beyond the community. A surprise donation of a permeable paver sidewalk from The Savanna Group and Unilock has added another element of wonder and education to the site.

12 students were involved in painting the children's mural depicting children in various position of discovering nature, and 300 students saw it's unveiling. 20 children and 6 teachers were involved in the design of the interpretive panels.

How our objectives have been met (methods and materials)

Our project has brought 270 children and 12 teachers out of the classroom and into nature under the guidance of 10 volunteers. These children worked beside adult volunteers as they learned together how to create a wildlife habitat using native plugs and trees. We used an electric drill with an auger to create holes for planting plugs and shovels for planting additional native trees. Hand shovels were used to plant trees; a hose used for watering. The soil was not amended despite the Farm Service soil sample report which indicated that nothing would grow there. We did add a tablespoon of "inoculant" in the hole before the plug went in as advised by Pizzo and Associates. The soil was not turned so as not to bring up weed seeds. We had a tremendous first and second year growth in our native beds.

Our project has familiarized children and adults with native prairie and woodland plants. Adults and children planted plugs, transplanted donated woodland plants, watched them grow over time; we observed insects, toads, butterflies, birds, skunk and raccoon scat that followed. We looked at DNR posters on natives, endangered species, and butterflies. With school permission, Winfield United volunteers lead students on foot from the outdoor classroom into the woods in Winfield to discover even more native plants. 20 children then wrote us thank you cards using internet photos of native plants they had seen on our walk. See some of these included in this report. We have individual plant signs to install with the children in the fall.

Besides the volunteers who helped with the plantings, our project involved 20 children and 6 adults in the research and design of 2 interpretive panels. See the chosen drawing incorporated in interpretive panel # 2. **This panel also includes a list of benefits of using native plants.** It is a summary of talks we have given on site. The panel should be able to be read from a distance of 20 feet. It will catch the eyes of passersby and motorists from a much greater distance.

Our project is user friendly. The native flowers and grasses and butterflies on site are eye-catching. A main street and long sidewalk run along bed #1; a new permeable paver sidewalk leads people into the center of the classroom. Attractive and interesting interpretive panels describe, suggest and encourage. A marked entrance with a welcome sign and a wall with molded letters spelling out Winfield Community Outdoor Classroom are in the summer plans. Monies from a native tree sale held on the site last spring should cover that cost.

Our project encourages community spirit! 30 sponsors from within and beyond our community, 300 community volunteers, a pleased school board, good press, and returning wildlife – together we have created something positive in a highly visible downtown area. Volunteers planting in and caring for the gardens are an interesting sight to drivers who are waiting for a green light. There is a lot of horn-honking going on in this small town! We have received good press in local publications. Yes, the development of this classroom has indeed created community spirit.

A. List of plants on the site before the installation of native plants (Inventory from memory; not actually documented)

Kentucky Blue grass
Crabgrass
4 Cotoneaster bushes
12 Fothergill bushes
6 Yews
1 White oak
Tulips
Thistle
Dandelions

B. Wildlife spotted previous to installation of native plants: unnoticed, undocumented, none remembered.

C. List of IL Native Plants installed on the Outdoor Classroom Site

Trees
Service Berry
Pagoda Dogwood
Redbud
White Oak
Hophornbeam

Shrubs
Witch Hazel
New Jersey Tea

Forbs
Whorled Milkweed
Spiderwort
Sky Blue Aster
Beard Tongue
Pale Beard Tongue
Prairie Coreopsis
Marsh Blazing Star
Wild Sienna
Wild Golden Glow
Purple Prairie Clover
Butterfly Weed
Shorts Aster
Cream Indigo
Prairie Smoke
Nodding Wild Onion
Yellow Coneflower

Wild Petunia
Rattlesnake Master
Stiff Goldenrod
Prairie Dropseed
Compass plant
Wild Quinine
Golden Alexander
Shooting Stars
Leadplant
Black-eyed Susan.
Prairie Blazingstar
Marsh Blazingstar
Cylindrical Blazingstar
Purple Coneflower
Pale purple Coneflower
Goldenrod
Blue-eyed Grass
Pasqueflower
Blue Flag Iris
Ironweed
Wild Geranium
Beebalm
Hepatica
Wild Ginger
Anemone
Virginia Bluebells
Joe Pye Weed
Columbine

Grasses
Switch Grass
Indian grass
Purple love Grass
Tufted Hair Grass
Little Blue Stem
Penn Sedge

D. Wildlife spotted within 14 months after planting native plants as listed by 4 volunteers who sat on site at various times of the day for 1 hour each.

Dragonflies
Monarch butterflies on asceplias
Yellow-tailed butterflies
White butterflies (cabbage?)

Brown butterflies
Flies
Japanese beetles on Beebalm and Horn Hopbeam
"Other beetles"
Fat Bumble Bees on New Jersey tea
Tiny bees
Common wasps
Black wasps
Small white moth
Lightning bugs
June bugs
Cicadas or tree frogs?

Black ants
Various spiders
Green grasshoppers
Brown grasshoppers

Toads

Adult and baby Robin in Serviceberry tree
Sparrows in oak
Cardinals
Yellow and back songbird
Brown and black small bird
Swallow
"singing birds"

Skunk (scat)
Raccoon (scat)

(Humans; children and adults and leashed dogs)

Specific audience affected: Hundreds of school children, 20 teachers and assistants, 2 administrators, 8 school board members, 10 adult volunteers, 3 home schooled children, 24 Boy and Girl Scouts, 3 college students, many customers at May tree sale, dog walkers and other pedestrians, thousands of motorists stopped at the intersection of Winfield Road and Beecher every day.

Measurable outcomes achieved:

9 species of non-native plants on school site previous to start of our project.
No attempted study of wildlife existence on site previous to this project; no general recollection of wildlife sightings either.

57 species of native plant species plus 9 pre-existing non-natives on site by time of this report – June, 2008; 28
30 wildlife types observed by 4 team members in month of June, 2008

Within phase 2 of the project 270 school children spent an average of 40 minutes planting or watering plugs on the site. 14 adult volunteers spent a minimum of 137 hours preparing the site, planting, mulching, watering, teaching, etc.

50 students sent thank you cards referring to the Outdoor Classroom and the nature hikes originating in the outdoor classroom.

15 students under the guidance of 1 art teacher designed and executed the painting of a 28'x7' mural depicting children in positions of discovering nature throughout the year. It will be installed in the O.C. this summer (08).

16 presentations were given in the O.C. by Winfield United volunteers to sixteen classes of preschool, elementary and middle school students within phase 2.

4 articles have been published concerning the outdoor classroom with several mentioning the IDNR as a grant giver.

4 interpretive panels and one contributor sign have been created for the site.

1 Children's mural has been created for the sight.

The Winfield Garden Club was inspired by our project to take on its own river bank restoration project across the street from our site.

So far, one tour of site has been requested for August with more tours in the works.

Summary

Phase 2 of Winfield Community Outdoor Classroom has been successfully completed except for the purchase of benches and the installation of a compost bin and information kiosk. We have resubmitted our application for the C2000 grant for this purpose and are simultaneously searching for other monies to cover the cost of additional items as soon as possible. Major achievements within the time frame of the Wildlife Preservation Fund Grant agreement were the addition of a woodland bed, the unexpected acquisition of a permeable paver sidewalk, the installation of a children's mural and the installation of 2 interpretive panels and 2 signs to compliment the 4 plant beds. A contributor sign has also been posted. We are pleased that the site has been given good press, that the community has been happy with the aesthetics and that already a lot of people have already learned something from the site about native plants as they pertain to wildlife habitat and conservation of natural resources.

Phase three will focus on intentional environmental education for school children and the community using speakers from various area foundations and organizations, written materials and hands-on experiences.

Winfield United for a Better Community thanks the Illinois Department of Natural Resources for its support bringing an Outdoor Classroom of nature study into our community. Please feel free to visit the site at 150 S. Winfield Road, Winfield, IL. Phoebe Smith is available for any further questions you might have. 630 653-5747

Attached:

Receipt of payment for signs purchase. It is in excess of the amount granted to Winfield United for a Better Community by the Special Wildlife Funds Grant Program. Winfield United has covered the balance.

Winfield Schools
4-16,17 SHOP & SHARE AT FAMILY FOODS
4-17 THRU 19 SPRING BOOK FAIR
4-18 11:30 DISMISSAL-COOK'S NIGHT OUT
4-19 BOARD OF ED MTG 7:30 PM

Native vs. Non-Native, Invasive Plants

Illinois native plants are those prairie, woodland and wetland plants that evolved here over thousands of years, adapting to the particular soils, weather conditions and fires in the central plains. When settlers arrived here they often brought **non-native plants** and seeds from their homelands. Many of these plants were not suitable for our soils and extreme temperatures. Some would not grow here. Many needed extra care to compensate for new growing conditions. Unfortunately, some of these plants did *too* well and crowded out plants native to this area. As natural habitats are invaded by non-native plants they become unsuitable for native wildlife. Many Illinois' plant and animal species are threatened or endangered due to habitat loss. It's not too late to change this with your help.

Common Buckthorn

Garlic Mustard

John M. Randall / The Nature Conservancy

Common Buckthorn and Garlic Mustard are examples of invasive plants that are quickly spreading in our remaining woodlands and into our yards.
It is important for landowners to remove these invasives from their properties before they spread into neighbors' yards and forest preserves.
Pull and properly dispose of Garlic Mustard before it goes into seed.
Pull or cut down Common Buckthorn, first removing female plants with berries.
Apply herbicide to freshly cut trunk.
Be a good neighbor - help Illinois native plants and animals survive.

TROPICAL ILLINOIS: UNDERWATER

Shallow seas once covered much of Illinois

Marine life included:

Cephalopods, Bony Fish, Sharks, Starfish & Corals

500-325 million years ago

TROPICAL ILLINOIS: EMERGENCE FROM THE SEA

Dry land, swamps, rivers emerged from the sea.

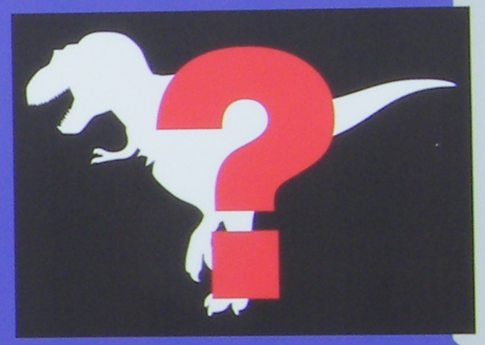
Plants and animals included:

Treelike Ferns, Giant Dragonflies, Scorpions, Amphibians & Reptiles

320 million years ago

MYSTERIOUS ILLINOIS RAINFOREST TO DESERT

Few fossil clues exist to show what happened here.



Birds?, Repties?, Amphibians? Dinosaurs?, Asteroid fallout? Global cooling?

No dinosaur bones found in IL Keep looking!

290-1.8 million years ag

GLACIAL & INTERGLACIAL ILLINOIS

4 glaciers advanced and retreated across parts of Illinois.

Arctic tundra and boreal forests developed where glaciers ended.

Animals included:
Wooly Mammoths, Mastodons, Wolves
Bears, Wildcats & Moose

Warmer interglacial periods saw armadillos and giant turtles

Humans enter IL 25,000 yrs. ago.

1.8 million - 12,000 years ago

FORESTED ILLINOIS:
WITH PATCHES OF PRAIRIE

As temperatures rose, spruce forests were replaced by deciduous forests which opened up to small patches of tallgrass prairie plants.

Plants and animals included:

Hickory	Black bears
Oak	Bison
Indian Grass	Gray wolves
Big Bluestem	Wapiti

10,000 – 8,000 years ago

ILLINOIS: THE PRAIRIE STATE
WITH PATCHES OF WOODLAND

The tallgrass prairie expanded to it!s historic extent 6,500 years ago covering 60% of Illinois with hundreds of species of native grasses, wildflowers and shrubs. Scattered oak savanna dotted the landscape. Forested areas grew along north-south running rivers where they were protected from prairie fires. Wetlands were also abundant. This rich ecosystem provided abundant habitat for insects, birds, reptiles, amphibians, mammals and indigenous peoples.

8,000-300 years ago

BOUNTIFUL ILLINOIS:

as seen by first Europeans to enter the Chicago region

"We have seen nothing like this (Illinois River) that we enter, as regards to its fertility of soils, its prairies and woods; its cattle, elk, deer, wildcats, bustards, swans, ducks, parroquets and even beaver."

Jacques Marquette, 1673

1673

TRANSFORMED ILLINOIS:

FARMLANDS AND URBANIZATION

European American settlers felled Illinois' forests for lumber. Wetlands were drained and prairies plowed to create farmland. Meandering streams were straigtended into fast moving channels. Rivers were dammed to create power. Prairies fires were controlled allowing woodlands more space. Non-native plants and animals were introduced and compete still with native species. Within 80 years most of Illinois' prairie ecosystem disappeared. Illinois became a mosaic of croplands, non-native grasslands, diminished wetlands, fragmented woodlands, polluted rivers and growing urban areas. Rich prairie soils yield corn and soybeans to feed livestock and people around the world. But the great prairie is no more.

1808-1900

FUTURE ILLINOIS?

It is impossible to predict Illinois' future, but history tells us change is certain. Natural forces and human behavior both affect our environment. We can't control natural forces, but we can make personal choices that will benefit rather than degrade our environment.

10 THINGS YOU CAN DO TO HELP OUR ENVIRONMENT

1. GO OUTSIDE AND STUDY NATURE! KNOW YOUR ENVIRONMENT.
2. GET INVOLVED IN COMMUNITY, RIVER AND BIKE PATH CLEAN-UPS.
3. REMOVE INVASIVE BUCKTHORN AND GARLIC MUSTARD FROM YOUR YARD. SET A GOOD EXAMPLE FOR OTHERS TO FOLLOW.
4. CREATE A NATIVE WILDLIFE HABITAT IN YOUR YARD USING NATIVE PRAIRIE AND WOODLAND PLANTS.
5. CREATE A RAINGARDEN TO CATCH AND FILTER RUN-OFF WATER.
6. CATCH RAINWATER IN RAIN BARRELS FOR GARDENING NEEDS.
7. CONSIDER PERMEABLE PAVERS AS AN ALTERNATIVE TO ASPHALT OR CONCRETE.
8. WALK OR RIDE YOUR BIKE INSTEAD OF DRIVING.
9. RAKE YOUR LEAVES; DON'T BLOW THEM.
10. RE-USE – REDUCE – RECYCLE

TOMORROW? 2050? 3000?

WHY USE NATIVE PLANTS?

1. NATIVE PLANTS ARE BEAUTIFUL.
2. THEY ARE PERENNIAL.
3. THEY DO WELL IN OUR UNAMENDED SOILS.
4. ONCE ESTABLISHED THEY NEED NO WATERING.
5. THEY NEED NO PESTICIDES.
6. THEIR DEEP ROOTS LEAD WATER INTO THE GROUND WHICH REDUCES FLOODING.
7. THEY MAKE OXYGEN AND ABSORB CO_2.
8. THEY ATTRACT BUTTERFLIES, DRAGONFLIES, LIGHTNING BUGS, POLLENATING INSECTS, BIRDS, TOADS, SMALL MAMMALS AND KIDS!
9. THEY ARE OF HISTORICAL INTEREST.
10. WHAT MORE DO YOU WANT?

BIODIVERSITY:

The concept of the "web of life" in which humans and all of nature are interdependent parts that under ideal circumstances combine seamlessly to make a healthy, environmental whole.

If we unwittingly or intentionally cause loss of a particular natural habitat, flower, animal - or we introduce a plant or animal where it doesn't belong - the system upon which the other parts depend suffers or even breaks down.

Once we and our children begin to grasp the idea that our future depends on preserving the natural systems that support life, we can act to make choices that will not harm nature's "web". Business, government and agriculture must do the same. Together we can make a healthier Illinois and planet Earth.

Illustration by Jed Ebbert

Hopeful Illinois

UNLESS SOMEONE LIKE YOU CARES A WHOLE AWFUL LOT NOTHING IS GOING TO GET BETTER.

IT'S NOT.

DR SEUSS
THE LORAX

NOW, ACT!

TROPICAL ILLINOIS: UNDERWATER
Shallow seas once covered much of Illinois
Marine life included:
Cephalopods, Bony Fish, Sharks, Starfish & Corals
500-325 million years ago
TROPICAL ILLINOIS: EMERGENCE FROM THE SEA
Dry land, swamps, rivers emerged from the sea.
Plants and animals included:
Treelike Ferns, Giant Dragonflies, Scorpions, Amphibians & Reptiles
320 million years ago
MYSTERIOUS ILLINOIS: RAINFOREST TO DESERT
Few fossil clues exist to show what happened here.
Birds?, Repties?, Amphibians?, Dinosaurs?, Asteroid fallout?, Global cooling?
No dinosaur bones found in IL Keep looking!
290-1.8 million years ago
GLACIAL & INTERGLACIAL ILLINOIS
4 glaciers advanced and retreated across parts of Illinois.
Arctic tundra and boreal forests developed where glaciers ended.
Animals included:
Wooly Mammoths, Mastodons, Wolves Bears, Wildcats & Moose
Warmer interglacial periods saw armadillos and giant turtles
Humans enter IL 25,000 yrs. ago.
1.8 million – 12,000 years ago
FORESTED ILLINOIS: WITH PATCHES OF PRAIRIE
As temperatures rose, spruce forests were replaced by deciduous forests which opened up to small patches of tallgrass prairie plants.
Plants and animals included:
Hickory
Oak
Indian Grass
Big Bluestem
Black bears
Bison
Gray wolves
Wapiti
10,000 – 8,000 years ago
ILLINOIS: THE PRAIRIE STATE WITH PATCHES OF WOODLAND
The tallgrass prairie expanded to it's historic extent 6,500 years ago covering 60% of Illinois with hundreds of species of native grasses, wildflowers and shrubs. Scattered oak savanna dotted the landscape. Forested areas grew along north-south running rivers where they were protected from prairie fires. Wetlands were also abundant. This rich ecosystem provided abundant habitat for insects, birds, reptiles, amphibians, mammals and indigenous peoples.
8,000-200 years ago

BOUNTIFUL ILLINOIS:

as seen by first Europeans to enter the Chicago region

"We have seen nothing like this (Illinois River) that we enter, as regards to its fertility of soils, its prairies and woods; its cattle, elk, deer, wildcats, bustards, swans, ducks, parroquets and even beaver."

Jacques Marquette, 1673

1673

TRANSFORMED ILLINOIS:

FARMLANDS AND URBANIZATION

European American settlers felled Illinois' forests for lumber. Wetlands were drained and prairies plowed to create farmland. Meandering streams were straightended into fast moving channels. Rivers were dammed to create power. Prairies fires were controlled allowing woodlands more space. Non-native plants and animals were introduced and compete still with native species. Within 80 years most of Illinois' prairie ecosystem disappeared. Illinois became a mosaic of croplands, non-native grasslands, diminished wetlands, fragmented woodlands, polluted rivers and growing urban areas. Rich prairie soils yield corn and soybeans to feed livestock and people around the world. But the great prairie is no more.

1808-1900

FUTURE ILLINOIS?

It is impossible to predict Illinois' future, but history tells us change is certain. Natural forces and human behavior both affect our environment. We can't control natural forces, but we can make personal choices that will benefit rather than degrade our environment.

10 THINGS YOU CAN DO TO HELP OUR ENVIRONMENT

1. GO OUTSIDE AND STUDY NATURE! KNOW YOUR ENVIRONMENT.
2. GET INVOLVED IN COMMUNITY, RIVER AND BIKE PATH CLEAN-UPS.
3. REMOVE INVASIVE BUCKTHORN AND GARLIC MUSTARD FROM YOUR YARD. SET A GOOD EXAMPLE FOR OTHERS TO FOLLOW.
4. CREATE A NATIVE WILDLIFE HABITAT IN YOUR YARD USING NATIVE PRAIRIE AND WOODLAND PLANTS.
5. CREATE A RAINGARDEN TO CATCH AND FILTER RUN-OFF WATER.
6. CATCH RAINWATER IN RAIN BARRELS FOR GARDENING NEEDS.
7. CONSIDER PERMEABLE PAVERS AS AN ALTERNATIVE TO ASPHALT OR CONCRETE.
8. WALK OR RIDE YOUR BIKE INSTEAD OF DRIVING.
9. RAKE YOUR LEAVES; DON'T BLOW THEM.
10. RE-USE – REDUCE – RECYCLE

TOMORROW, 2050? 3000?

WHY USE NATIVE PLANTS?

1. NATIVE PLANTS ARE BEAUTIFUL.
2. THEY ARE PERENNIAL.
3. THEY DO WELL IN OUR UNAMENDED SOILS.
4. ONCE ESTABLISHED THEY NEED NO WATERING.
5. THEY NEED NO PESTICIDES.
6. THEIR DEEP ROOTS LEAD WATER INTO THE GROUND WHICH REDUCES FLOODING.
7. THEY MAKE OXYGEN AND ABSORB CO2.
8. THEY ATTRACT BUTTERFLIES, DRAGONFLIES, LIGHTNING BUGS, POLLENATING INSECTS, BIRDS, TOADS, SMALL MAMMALS AND KIDS!
9. THEY ARE OF HISTORICAL INTEREST.
10. WHAT MORE DO YOU WANT?

ILLINOIS DEPARTMENT OF NATURAL RESOURCES

BIODIVERSITY:

The concept of the "web of life" in which humans and all of nature are interdependent parts that under ideal circumstances combine seamlessly to make a healthy, environmental whole.

If we unwillingly or intentionally cause loss of a particular natural habitat, flower, animal - or we introduce a plant or animal where it doesn't belong - the system upon which the other parts depend suffers or even breaks down.

Once we and our children begin to grasp the idea that our future depends on preserving the natural systems that support life, we can act to make choices that will not harm nature's "web". Business, government and agriculture must do the same. Together we can make a healthier Illinois and planet Earth.

Illustration by Jed Elliott

Hopeful Illinois

UNLESS SOMEONE LIKE YOU CARES A WHOLE AWFUL LOT NOTHING IS GOING TO GET BETTER.

IT'S NOT.

DR SEUSS THE LORAX

NOW, ACT!

TROPICAL ILLINOIS: UNDERWATER
Shallow seas once covered much of Illinois
Marine life included: Cephalopods, Bony Fish, Sharks, Plankton & Corals
TROPICAL ILLINOIS: EMERGENCE FROM THE SEA
As land, swamps, rivers emerged from the sea.
Plants and animals included: Trees, ferns, Giant dragonflies, Amphibians & Reptiles
MYSTERIOUS ILLINOIS: RAINFOREST TO DESERT
Few fossil clues exist to show what happened here
Insect, Reptile?, Amphibians?, Dinosaurs?, Asteroid Crash?, Global cooling?
No dinosaur bones found in IL. Keep looking!
GLACIAL & INTERGLACIAL ILLINOIS
Glaciers advanced and receded across parts of Illinois
Arctic tundra and boreal bio-zone developed where glaciers ended.
Animals included: Woolly Mammoths, Mastodons, Wolves, Bison, Wolverine & Moose
Warmer interglacial periods saw arrival of Elk and other species
Humans enter IL 24,000 yrs. ago.
FORESTED ILLINOIS: WITH PATCHES OF PRAIRIE
As temperatures rose, spruce forests were replaced by deciduous forests which opened up to small patches of tallgrass prairie plants.
Plants and animals included: Hickory, Oak, Indian Grass, Big Bluestem, Giant bears, Bison, Dire wolves, Elk
ILLINOIS: THE PRAIRIE STATE WITH PATCHES OF WOODLAND
The tallgrass prairie expanded to its historic extent 6,500 years ago covering 60% of Illinois with hundreds of species of native grasses, wildflowers and shrubs. Scattered oak savanna dotted the landscape. Forested areas grew along north-south running rivers where they were protected from prairie fires. Wetlands were also abundant. This rich ecosystem provided abundant habitat for insects, birds, reptiles, amphibians, mammals and indigenous peoples.
BOUNTIFUL ILLINOIS
as seen by first Europeans to enter the Chicago region
1673
TRANSFORMED ILLINOIS: FARMLANDS AND URBANIZATION
European American settlers value Illinois' forests for timber. Wetlands were drained and prairie plowed to create farmland. Meandering streams were straightened into fast moving channels. Rivers were dammed to create power. Prairies fires were controlled, urban/suburban sprawl and roadways were spread. Non native plants and animals were introduced and competed with native species. Within 80 years most of Illinois' prairie ecosystem disappeared. Illinois became a mosaic of agriculture, non-native grasslands, disturbed wetlands.
Impacted agriculture pollutated rivers and growing urban areas. Rich prairie soils yield corn and soybeans to feed livestock and people around the world. But the great prairie is no more.
1808-1900
FUTURE ILLINOIS?
It is impossible to predict Illinois' future, but certain bits of change is certain. Future technical issues consider both effect our environment. We can / cannot control natural forces.
So we can make personal choices that will benefit rather than degrade our environment.
10 THINGS YOU CAN DO TO HELP OUR ENVIRONMENT!
1. CONSTANTLY AND STORY NATURE? KNOW YOUR ENVIRONMENT
2. GET INVOLVED IN COMMUNITY WORKS AND BIKE PATH CLEANUPS
3. PLANTS WHICH BLOOM EARLY WILDFLOWERS FOR BEES, BUTTERFLIES AND BIRDS
4. PLANTS WHICH BLOOM LATE WILDFLOWERS FOR BEES, BUTTERFLIES AND BIRDS
5. PLANTS WHICH BLOOM LATE WILDFLOWERS FOR BEES, BUTTERFLIES AND BIRDS
6. PLANTS WHICH BLOOM LATE WILDFLOWERS FOR BEES, BUTTERFLIES AND BIRDS
7. PLANTS WHICH BLOOM LATE WILDFLOWERS FOR BEES, BUTTERFLIES AND BIRDS
8. PLANTS WHICH BLOOM LATE WILDFLOWERS FOR BEES, BUTTERFLIES AND BIRDS
9. PLANTS WHICH BLOOM LATE WILDFLOWERS FOR BEES, BUTTERFLIES AND BIRDS
10. PLANTS WHICH BLOOM LATE WILDFLOWERS FOR BEES, BUTTERFLIES AND BIRDS
WHY USE NATIVE PLANTS?
1. NATIVE PLANTS ARE BEAUTIFUL.
2. THEY ARE PERENNIAL.
3. THEY DO WELL IN OUR UNAMENDED SOILS.
4. ONCE ESTABLISHED THEY NEED NO WATERING.
5. THEY NEED NO PESTICIDES.
6. THEIR DEEP ROOTS LEAD WATER INTO THE GROUND WHICH REDUCES FLOODING.
7. THEY MAKE OXYGEN AND ABSORB CO2.
8. THEY ATTRACT BUTTERFLIES, DRAGONFLIES, LIGHTNING BUGS, POLLINATING INSECTS, BIRDS, TOADS, SMALL MAMMALS AND MORE!
9. THEY ARE OF HISTORICAL INTEREST.
10. WHAT MORE DO YOU WANT?
BIODIVERSITY:
Hopeful Illinois
UNLESS SOMEONE LIKE YOU CARES A WHOLE AWFUL LOT NOTHING IS GOING TO GET BETTER. IT'S NOT.
DR. SEUSS
THE LORAX
NOW, ACT!

A Garden that Benefits our Waterways

The rain garden to the left manages water draining off the roof above your head. The deep rooted native grasses and flowers planted in the depression help lead the water under the ground where it is naturally filtered before reaching Winfield Creek across the street. Otherwise, the swiftly flowing run-off water would move across the shallow rooted lawn and busy street, carrying with it pesticides, oil and dirt before ending up in our creek. There are 3 rain gardens here at the school. Can you find them?

Native plants also serve to beautify a yard and to attract birds and butterflies - to the delight of all. There goes one now! And another!

Make a rain garden at your home, and don't forget to include:

Blue Flag Iris Prairie Blazing Star Purple Prairie Clover

Wild Bergamot New England Aster Little Bluestem

Root Systems of Prairie Plants

Conservation Research Institute

Heidi Natura 1995 ©

Contributors

Winfield Community Outdoor Classroom

Winfield United for a Better Community
District 34 PTO & Student Council
Winfield school children
Girl Scouts and Boy Scouts of America
Doug Buethe and Susan Carr
Gary Gall and Todd Williamson
Al Schoneck
Murals by Steve
Wild Ones Native Landscapers
Winfield Junior Woman's Club
Prosek's Nursery
Scheffler's Flower Shop
Planter's Palette Nursery
Graf Tree Care
Midwest Groundcover LLC
Midwest Trading
Red Buffalo Nursery
Pizzo and Associates
Possibility Place Nursery
Target
Roger Kotecki
The Conservation Foundation
Cantigny
Lt. Governor Pat Quinn's Office
Winfield Main Street
Illinois Department of Natural Resources
The Savanna Group
UNILOCK
Central DuPage Hospital
Illinois State Museum