

Twenty to twenty-four Story Boards would be placed along the walkway by the gravel road. The story board would detail nature stories geared toward grammar school children and periodically changed every three months from March to October. The PHPL is paying for the story boards and their installation.

The first story board would be introductory, detailing the purpose of the story boards, and the last one would invite people to walk the nature path and could include information on the PHNRC, our logo and the nature trail system.

The first story board would be located before going up the hill, and the last story board would be placed by the bleachers.

The story boards would be installed in the Spring when the ground has thawed. The post for the story boards is not cement by a real estate sign-type post. An unveiling of the story boards is planned for Spring 2018.

Perhaps a future Eagle Scout Project could be to improve the story boards.

The story boards will not interfere with our interpretative signage.

Interpretative Signage and Features – Status on Production and Costs

The PHNRC previously discussed the different types of interpretative signage and costs. The cost of an interpretative sign is related to its size. For example, an 18" x 24" sign is about \$450 and an 11" x 9" sign is \$105.

The signs are constructed with material that is indestructible and fireproof and placed on a galvanized post. PHNRC would install the signs.

Fossil is the vendor, and we provide the graphics and file. Fossil provides the sign, post and attachments. There is a one-time set-up fee of \$150 and \$75 for wrapping and crating. All the signs should go into production simultaneously.

We could have six to seven of the 11" x 9" signs and one large one at each edge or have signage all along the nature trail.

Also, we are considering individual tree and plant markers and are looking at stainless steel markers. They are durable, simple to install and can be laser-engraved. We would purchase no more than 300 for labeling every species of tree, plants and shrubs.

Ideas about content for the interpretative signs are: ecological restoration, invasive plant species, watersheds (maps can show that everything drains into the creek), flood plain/river habitat, monarch butterflies, native plants, wildlife, mention the partnership and grant funding, volunteer efforts, and include photos.

FIRST SIGN

What is Ecological Restoration?

It is the practice of renewing and restoring degraded, damaged or destroyed ecosystems and habitats in the environment by active human intervention and action.

In 2016, the Prospect Heights Park District together with the City and PHNRC received a ComEd Green Regions grant awarded through Openlands to restore this site.

Healthy ecosystems support biodiversity, which means having a large variety of different living organisms.

Look around as you walk down the trail. This area now has hundreds of different species of plants, insects, birds and mammals. It is in the process of being restored back to a natural, healthy ecosystem for wildlife and for you!"

INSERT: ComEd Logo, Openlands Logo, volunteers working, planting, Boy Scouts?

Protecting the Watershed

You are standing in an important ecosystem that drains (have area noted on the map).

A watershed is an area that includes a particular river, lake and all of the streams that flow into it. Our watershed is part of a larger watershed that eventually drains into the Des Plaines River then the Illinois and Mississippi Rivers until the water gets to the Gulf of Mexico.

Storm water runoff is rainfall that flows over the ground surface. It is created when rain falls on roads, driveways, parking lots, roof tops and other paved surfaces that do not allow water to soak into the ground.

Storm water runoff is the number one cause of stream impairment in urban areas because it can carry pollutants, pesticides and excess fertilizers into bays, rivers, lakes and groundwater. Remember that what goes in your storm drain can find its way into our water sources.

PHOTOS: Slough watershed and Des Plaines River watershed, runoff?

Riparian - River

The plants, shrubs and trees along the river provide shade, cover and organic matter that support many cycles of life along this wildlife corridor.

Riparian zones along streams and rivers connect animal populations, allowing for safe habitat and migration for many species.

Macroinvertebrates are small organisms that live in the creek that are visible to the naked eye. Sampling them is one way to see how healthy the creek is. Some macroinvertebrates, such as mayfly larvae, can only live in very clean, pristine streams. Others, like leeches, can live in polluted, dirty, silty water. You can monitor the change in quality over time by comparing the different macroinvertebrates.

INSERT: Photos of macroinvertebrates. Photos of Black-crowned night heron, leopard frog, muscles, fish. Photos of: How many animal species use river areas for food, water, cover and migration? Then illustrate four pie charts – 90% Birds, 80% Mammals, 72% Reptiles and 77% amphibians.

Why are Native Plants Important?

Native plants have deep, long root systems that can stabilize the soil and the shoreline. This can prevent the shore from eroding or washing away.

Native plants can filter or absorb the runoff and some of the dangerous pollutants and fertilizers before they enter the creek.

The native wildlife depends on native plants for survival. Plants, insects, reptiles and birds together have evolved alongside of each other over thousands of years. They often have important relationships and depend on each other.

Some native plants are host species for certain insects, which means that the insect needs that particular plant to breed or live, such as Monarch butterflies and milkweed plants.

Insert: Eroded bank vs. stabilized bank; Picture of natives and underground rain forest, show long root systems, etc.; Picture of a Monarch Butterfly

Invasive Plants Can Take Over

Invasive plants can completely take over an area and not allow anything else to grow. This is what happened to this woodland. Invasive buckthorn, honeysuckle and reed canary grass spread through the area over the years and what remained was a degraded thicket that wildlife could not use.

Buckthorn even emits a chemical into the soil called Emodin, which is toxic to amphibian embryos. Where there was buckthorn near water, there were no frogs, toads or salamanders.

What makes a plant behave so badly? Invasive plants are often plants that have been brought here from far away, such as Europe or Asia. In those countries, they have natural predators that they have evolved with, so they are kept in “check.” When these plants are introduced here, they have no predators. Insects and other wildlife do not feed on them and cannot use them.

The plants can acquire mutations and abilities to gain strength and take over natural communities, often completely disrupting the ecosystem and the biodiversity that wildlife depends on.

What did we do? The entire community came together with the guidance of the PHNRC. Volunteers worked hard every other Sunday for almost one year to remove thickets and thickets of invasive buckthorn. Thanks to them, biodiversity and ecological health have been restored.

Insert: Pictures of buckthorn, honeysuckle, reed canary

Insert: Awesome pictures of volunteers

Insert: Before and after photos of the Morava Nature Center

Wetland Wildlife – A Bustling Community

Sit quietly for a while to watch and listen to the bountiful array of wildlife that surrounds you. Maybe a “plop” in the water will catch your attention as you spot a muskrat, turtle or tiny shrew making its way around the water. Listen for the trumpeting of Sandhill Cranes, dragonflies whizzing by and even an occasional Garter Snake shuffling dead leaves as it slips through the moss.

Another sign could be: Why is restoration so important to Prospect Heights?

Content can also include a sign on “What Can You Do?” and list ways on how residents can be ecologically-conscience, such as installing a rain barrel. It can be placed at the end of the trail and detail things homeowners can do.

Every interpretative sign should be numbered. The placement of interpretative signage will begin at Elm and head east to Pine Street. The placement of interactive, changeable signs can start at the tennis courts.

The signs can be changed after one or two years, even though the signs are guaranteed to last for 10 years. This will provide a fresh perspective and keep it interesting.

Agnes thought of temporal (temporary) signs so it is permanent but changed on a temporary basis, like a chalk board. However, vandalism is a concern. Another thought was to have a locked glass-topped case to use and change out signs according to the season. We could have one to three. The posts must be fireproof.

Members felt the signs were nicely informative, covered the facts well and were concise. Content can be divided between two signs if relevant content is too much for one sign to manage. The signs can be placed every 20 feet.

To summarize, Agnes has developed five signs. The sixth sign will be “What Can You Do? Then we need to develop two more signs. Members are to work out the content and graphics to get a set price.

Comprehensive Equipment List and Budget.

Our current budget for the Morava Nature Center is \$9,046.50, but will be reduced to \$9,020 after the purchased four posts are considered and then the cost for the interpretative signs.

The money left will be utilized to purchase the following items: interpretative signs, tools, herbicide, one string trimmer, one chainsaw, gloves, 10 shrubs and six to seven trees.

The interpretative signage will run between \$1,500 and \$4,000.

We have planted shrubs that Peter started from seed, but need a few more.

The trees to purchase could be ironwood and muscle wood that can tolerate shade. Also, it is important to include white oak, red oak, shagbark hickory and/or burr oak. The cost of the trees is \$250 to \$300 for trees a bit taller than 6 feet.

Oaks can be planted on the hill by the gravel path so they will receive full sun. They would also be in an excellent location for identifying trees when leading a class. Native trees are already planted by Public Works by Elm Street.

Money left can be utilized for purchasing seed.

We can purchase six to seven of the smaller signs and one large one for the end of the trail to have signage all along the trail.

Tree and plant markers would be laser-engraved on stainless steel and are simple to install. The total cost would not be greater than \$30.

Below is a summary of items for Agnes to purchase by the date of our November meeting, and the price listed is a “not to exceed” cost:

Summary:	Trees (up to 6 trees):	\$	1,800.00
	Shrubs (10):		500.00
	Herbicide and Surfactant:		600.00
	Chain Saw and String Trimmer:		1,000.00
	Gloves and Tools:		400.00
	Interpretative Signage (\$1,500-\$4,000)		4,000.00
	ESTIMATED TOTAL:	\$	<u>8,300.00</u>

More left can be utilized to purchase seed.

Members agreed that Agnes should proceed to purchase the items listed above at the estimated costs discussed and before our November meeting.

Agnes will compile a purchase list with pricing and send to all Commissioners for review.

Prairie Week Events and Outcome – September 17-23, 2017

Our plans for Prairie Week turned out well. We scheduled an event almost every day of the week of September 17, 2017.

September 17, 2017 (Sunday): PHPL 60th Anniversary Celebration from 1:00-4:00 pm. Didier Nolet’s exhibition entitled Terre Marécageuse: Wetlands Come to Life, based on the Prospect Heights Slough.

September 19, 2017 (Tuesday): Special Edition of Nature Speaks: Slough 101: The History and the Restoration presented by PHNRC Commissioners Agnes Wojnarski, Dana Sievertson, Jill Moskal and John Kamysz. Dana felt every speaker did well with their portion of the presentation.

September 20, 2017 (Wednesday): Special PHNRC Workday – Seed Collection at the ComEd Prairie Restoration Site from 5:30 p.m. to Dusk. The evening was spectacular.

September 21, 2017 (Thursday): Guided Tour of the ComEd Prairie Restoration Site from 6:00 – 7:00 p.m. for the public. Unfortunately, no one attended the Guided Tour. However, John mused that seed collection is like having a prairie tour.

September 23, 2017 (Saturday): Final Fall Bird Walk conducted by the Bird Conservation Network, Mary Lou Mellon and Lee Ramsey, from 7:30 – 9:30 a.m. The PHPD utilized two of their buses to transport 20 people to the Izaak Walton Nature Preserve.

Next year, we will have a more concentrated effort. Dana will spearhead the effort to make our Prairie Week a more interactive event for the Prospect Heights Community.

Nature Speaks Special Presentation and Outcome – September 19, 2017

Over 50 people attended. Interestingly, many who attended our presentation also attended the Bird Walk on Saturday.

Jill also noted that a good sign of capturing an audience's interest is participation in the question and answer portion of the presentation. Additionally, people approached Commissioners after the presentation to speak on the topic and other conservation topics.

NEW BUSINESS

Seed Collection Update

A lot of seed has been collected this season. Eight full trays in the Greenhouse are full of seeds plus three picnic table have seed trays stacked three feet high. This is only the beginning.

The more seed we collect, the better. Seed is especially needed for planting of the seeded prairie (ComEd) after the fall burn.

The special Wednesday Seed Collection Workdays have been well-attended. For example, 12 people volunteered this past Wednesday.

Progress Reports from Work Sites

Heron Pond: Heron Pond looks great. However, we have observed that trees have been cut and piled on the side of the creek. Also, one tree that fell into the pond was removed, but the Herons enjoyed perching or resting on this cut tree. Trees are cut and piled on the side of the creek. Stumps cannot be removed and are detrimental to the growth of native plants.

We need to have a discussion with Christina and Dino of the PHPD. Who oversees decision making and maintenance beyond this point? Who is in charge? We need clarification. We have put a lot of work into this project. It appears the PHPD and PHNRC are acting independently, and this can be detrimental.

Otherwise, Heron Pond looks beautiful. The erosion control blankets completely worked. All the plants have taken root, and the grasses planted to stabilize the shoreline look great. We are seeing hundreds of monarch butterflies.

Morava Nature Center: We are close to finishing this project. All the grasses planted on the side of the steps leading down to the creek have taken root, along with the sedges.

We must meet with PHPD and discuss their request to remove the trail that comes in as a spur, build another set of stairs straight up from the tennis court and remove the portion of the trail at the top.

Prairie Restoration (ComEd Prairie): This is our third year working on this project site, and it really looks great. The variety of birds, butterflies and insects that are now calling this are home is amazing. We have counted nine different species of butterflies.

The west side looks better than the east side. However, ComEd has planned a prescribed burn for the east side of the prairie this fall.

Remnant Prairie: The Remnant Prairie looks beautiful. We have removed all the teasel invasion and have only pockets of teasel growth to eradicate. Native plants have emerged in their stead. Essentially every invasive plant we have removed has been replaced by a native plant. Credit is due Peter and Carl for their persistent and consistent work on invasive removal.

Sedge Meadow: Great things have been happening at the Sedge Meadow. Rare species have appeared, and chorus frogs have been heard for the first time this year. A flush of teasel became impossible to control this summer, and, unfortunately, we could not get to all of it. The teasel invasion needs more herbiciding late in the year.

Slough: We will conduct several volunteer workdays this winter at the Slough and put down more seed. This project is coming along.

Tully Park: Twenty species of native plants were blooming at Tully Park this summer. For example, bottle brush, rye grass, side oats and several reed-type grasses were growing. Flowering plants included cardinal flower, rubeccia, cone flower, lobelia, monkey flower, iron weed, asters, monarda and white snake root.

Seed gathering occurred Tuesday, October 3, 2017, and a few more seed gathering days will be planned within the next week or two.

The Tully Park Neighborhood Group will be seeking assistance from the PHNRC for an invasive removal and final brush fire burn this fall.

Regarding the building of the Harvest Bible Church, the residents are disappointed that the landscaping will not be installed as we were originally informed.

Mrs. June Wolf approached the PHPD to plant a spruce tree in the park where a large buckthorn used to exist before being cut down. The location is between the homes of Mrs. Wolf and the Plischkes right at the edge of the park grass area. We do not yet have confirmation.

Seed Processing and Volunteer Appreciation Day – November 19, 2017

The Poplar Creek Prairie Stewards will be conducting their seed processing workday on November 12; therefore, PHNRC will conduct our seed processing workday and Volunteer Appreciation Day on Sunday, November 19, 2017 beginning at 9:00 a.m. at 9 Marion.

PCPS will be able to provide us with some of their seed processing boxes, but we also have five of our own.

Fall Burns

We are planning a Fall Burn in a tiny section in the woodland area by the Slough (from Elmhurst Road to Terry's house). The prescribed burn would occur any time between late October through late November. We should have a specific date by mid-October from Com Ed.

Dana provided Commissioners with memoranda, dated October 23, 2017, to the City Council, outlining all parameters for a fall prescribed burn of the Prospect Heights Slough Woodland Area. The memorandum outlined our Purpose, provided Background information and the Financial Impact. A Burn Map for fall 2017 was included.

Agnes' plan is to burn with a northwest or westerly wind, start at the break-line by the water (Elmhurst Road) and move uphill (to the plantings at Terry's House) to have the fire hotter and move faster.

Commissioners reviewed and approved the submission.

PHNRC also informed the City that Sara Race from ComEd stated a prescribed burn of the east prairie at the Prairie Restoration Project Site is on their schedule and will occur sometime during the first two weeks in November 2017. Stan Tec from ComEd will contact us to make the appropriate arrangements.

The date will be known when conditions are right. A northwest wind is optimal. We will have two days' notice. Residents will be advised via notice and voicemail blast the morning of the prescribed burn.

Agnes encouraged members to check out the Chicago Wilderness Prescribed Burn Training for certification.

Journal Articles

The September 2017 issue of The Resources Journal has been published. The October issue is being developed.

Ed Madden also recently informed Commissioners of a "Letter to the Editor" submitted by Sam Sobczak and published in the *Daily Herald* on October 2, 2017. The letter was entitled "Eagle Scout Grateful for Help with Morava Nature Preserve in Prospect Heights" and expressed Sam's

appreciation to the Natural Resources Commission for our cooperation and dedication in assisting Sam in completing his Eagle Scout Project.

The PHNRC were truly flattered by Sam's letter.

McDonald Creek Commission Meeting – September 26, 2017

Jill reported that the McDonald Creek Commission (MCC) met on September 26, 2017 and covered Old and New Business. Of their Old Business, the MCC discussed construction of this webpage on the City Website, which will include the MCC mission statement, priorities, meeting schedule and directions to PH residents. The webpage will also eventually have videos.

MCC's production and distribution of "Water and You" brochure is scheduled for January or February 2018.

MCC is preparing a presentation on their Committee at a City Council Workshop Meeting either in November 2017 or in the Spring of 2018.

Under "New Business," The MCC has an official e:mail address, which members wish to learn how best to utilize. The e:mail inbox will be monitored, and the Public Works Superintendent and City Staff will be copied on all responses to e:mail messages.

The MCC is interested in recruiting residents who live along McDonald Creek to be volunteers with the MCC. A request will be posted on the MCC webpage. Interested residents will respond by sending a note to the MCC e:mail address.

The MCC desires more interface with Mark Russo, Public Works Superintendent.

MCC is interested in looking at the base of the Creek while water levels are low.

MCC is also interested in researching Grant opportunities.

The next monthly meeting of the McDonald Creek Commission is Tuesday evening, October 24, 2017 at 6:00 p.m. in City Hall Chambers. John Kamysz will attend for PHNRC representation.

ComEd Grant Luncheon and Presentation

Agnes will present a five-minute presentation on our successes during the ComEd Grant Luncheon for new grant recipients on Friday, October 13, 2017 from 11:30 am – 1:30 pm at Cantigny Park, Wheaton. ComEd chooses one or two very special projects that they deem superb. Twenty to thirty grant recipients and ComEd Staff will be present.

The PHNRC is the only one presenting.

MacArthur Grade 6 Workday – October 27, 2017

MacArthur Junior High Grade 6 students requested a workday with the PHNRC for service hours. This spring, the MacArthur students planted prairie plants at the Slough. This time they will collect seed from the prairie plants they planted.

We are expecting 20 to 30 students for two hours between 9:45 and 11:15 a.m. on October 27. After seed collecting, a short tour and talk will be presented.

Poplar Creek Prairie Stewards (PCPS) Seed Collection

PCPS scheduled a Seed Collection Volunteer Workday this Sunday, October 15, 2017. The weather forecast is for rain. If so, the rain date is Saturday, October 21, 2017. PCPS targeted our volunteers to informally invite them.

The Seed Collection Volunteer Workday is between 9:00 a.m. and 12 Noon at Carl Hansen Woods in Hoffman Estates. Dana will lead a group and work with John Navin and Diana Granitto of PCPS.

Visitor's Comments

Tyler Haisman, 1985 Rochelle Court, Wheeling, Illinois of Troup 166 of Arlington Heights was present regarding a Citizenship of the Community badge. Tyler needed to attend a meeting and interview someone. Tyler was here to observe.

Question: The PHNRC is preserving specific areas in Prospect Heights. Please explain where and provide examples of what you are doing to preserve the land.

Our sites are located within a five-mile radius in Prospect Heights. However, two are located in Wheeling and owned by ComEd and leased by the PHPD – the Remnant Prairie and Sedge Meadow.

The importance of these two sites is as a seed source for native seed. Our sense is that the soil of the Remnant Prairie was never worked. These two locations hold species of plants that have been here thousands of years.

Restoring the area all across our landscape holds plants that have been introduced from other countries and have become invasive and choke out native plants. This changes the landscape as a thicket of buckthorn and reed canary, so we remove the invasive plants.

The Remnant Prairie is where the bike path crosses Elmhurst Road going east that turns into Wheeling and you go further down to the ComEd substation. If you continue on toward Dunkin Donuts, that is where the Sedge Meadow is located.

Morava Nature Center is a two-acre site located behind the tennis courts of the Gary Morava Recreation Center and runs from Elm Street on the west to Pine Street on the east. Preservation of this site is a joint effort with the City and PHPD. This site was formerly a buckthorn invasive dump site.

PHNRC utilized money received from the ComEd Regional Grant and a matching grant from the City and PHPD to restore to restore that area. We removed all of the buckthorn and re-naturalized it.

When you remove the invasive plants, native plants will bounce back because they are waiting in the seed bank. For example, the wetland (Slough). The soil has been moist and holds anaerobic conditions, so when we took away the buckthorn, Michigan Lilies appeared/grew.

Other areas that were degraded or have been plowed, there is no native seed bank, so we reintroduce the native plants by seed or plugs. We grow our own plants because plants can be expensive. With our first grant, we spent \$10000 to purchase 7,000 plants. However, the following year, we grew 20,000 plants through our own Greenhouse Program. We, therefore, collect the seed and reintroduce plants that have been here for thousands of years that the wildlife depends on so we try to restore those natural ecosystems.

The Morava Nature Center is where Sam did his Eagle Scout Project, which was laying and lining over 650 feet of a nature trail, building a natural staircase, building a stepping stone bridge and planting over 2,000 natural species plugs.

Prairie Restoration was part of our first grant from ComEd and is where we took 4.5 acres of mowed grass located underneath the power lines at Elmhurst Road and heading west to Schoenbeck Road and turned it back into a prairie.

Turf grass is European grass, has short roots and cannot be used by wildlife. But native plants have roots 10 to 15 feet down, so they stabilize the shore and wildlife can use it. We replaced five acres of turf grass that had no ecological value and replaced it with five acres 100 different species of native plants. Now you see insects and birds that are using it.

We restored the wetland (the Slough) located off Elmhurst Road by Izaak Walton Park. The wetland runs from Elmhurst Road to Willow Road and parallels Hillside.

Heron Pond, which we are working with the Park District, is another site and is located by Walnut Woods.

Tully Park is not our project, but we worked with the residents to naturalize it.

Additionally, several homeowners have approached us, and we worked with them to transform parts of their yards into prairie. We get to try things out there that we would not normally try, so it is a symbiotic relationship.

Question: How can young people, like me, help?

That is the best question. There are lots of opportunities. Come to our volunteer workdays, which are conducted every other Sunday. We perform brush control, collect seed in the late summer to the late fall, and process the seed.

Attend the Nature Speaks Program, which has local and national speakers that give presentations on important ecological information and positions. The Nature Speaks Program is held at the Prospect Heights Public Library. Go to our website, www.phnrc.com. Our Calendar of Events is up to date plus our Nature Speaks tab shows the line-up of outstanding speakers. For example, on November 30, Rachel Goad, Chicago Botanical Gardens, will present citizen science; January 23, 2018, Stephen Packard will present "Rare Animals. Rare Plants. Rare People. Adventures in Chicagoland Conservation;" April 19, 2018, Allison Sacerdote-Velat will present her research on the green snake; and June 28, 2018, Dr. Gerould Wilhelm, Director of Research of the Conservation Research Institute in Cedarburg, Wisconsin and will speak about the health of the ecosystem.

Choose a part of McDonald Creek and monitor macro invertebrates. Work in our Greenhouse Program. Participate in seed processing. Come and watch a prescribed burn. These activities do not take a lot of skill, but are a good way to start.

Once you see what we are doing, take some of those things home and do things in your own backyard. It will add up, and you'll be amazed at the things you'll learn about nature and how you will become mindful of your surroundings. For example, in the season, we raised monarchs. We looked at milkweed for eggs, placed them into a terrarium, watched an egg become a crystal and then a butterfly. We then released them. Peter raised over 30 monarch butterflies.

Question: Do you have any Eagle Scout ideas?

We would be happy to work with you. Let's sit down with you and see what you're interested in. We can provide a tour of our sites, especially the ComEd Seeded Prairie off Elmhurst Road where the plants are over your head. The prairie, Nature Center and Slough all have established nature trails.

A project is mostly driven by your interest, skill set and capabilities and finding a need that we would have that would work well.

Question: What branch of local government is responsible for this?

We are the Natural Resources Commission under the City of Prospect Heights, but we also work for the Prospect Heights Park District. Where you may plan your project depends on if the property is City or Park District property. For example, Sam's project was on Park District property.

Good place to learn about us is our Publications Page; our archives hold almost three years of our monthly Resources Journal. The last six copies of this year have all kinds of information on Sam's project, what he did, how it progressed, the parts that did not work, and how it ended up.

OTHER BUSINESS

Next Meeting

The next meeting of the Prospect Heights Natural Resources Commission is scheduled for Thursday, November 9, 2017 at 7:00 p.m. in the City Council Chambers.

ADJOURNMENT

There was no further business to come before the meeting. Therefore, the meeting adjourned at 8:15 p.m.

Jill E. Moskal, CPS
PHNRC Commissioner and Recording Secretary