



City of Blaine

Natural Resource Conservation Board

August 20, 2024 | 7:00 PM
Blaine City Hall
10801 Town Square Drive NE
Blaine, MN 55449

The Natural Resource Conservation Board is an advisory body to the City Council. The Board is charged with recommending acquisition of lands for open space and developing a Natural Resource Plan which includes environmental policy and guidelines for the maintenance and preservation of Blaine's existing and future open spaces and trail corridors. One of the Board's functions is to hold public meetings and make recommendations to the City Council. For each item, the Board will receive reports prepared by City staff, provide the opportunity for public response, conduct Board discussions and make recommendations. The City Council, however, makes all final decisions on these matters.

AGENDA

1. Call to Order

2. Roll Call

3. Approval of Minutes

- 3.1.** 2024-353 Approval of the April 16, 2024 NRCB Minutes
Sponsors: Nate Monahan, Recreation Manager

4. Open Forum for Citizen Input

5. New Business

- 5.1.** 2024-354 Presentation by Intern Irene Woods
Sponsors: Nate Monahan, Recreation Manager
- 5.2.** 2024-356 NEW! Blaine Wetland Sanctuary New Solar Walk
Sponsors: Nate Monahan, Recreation Manager
- 5.3.** 2024-370 Review of Wetland Bank Concept Signage from Metro Blooms
Sponsors: Nate Monahan, Recreation Manager
- 5.4.** 2024-357 Volunteer Opportunities
Sponsors: Nate Monahan, Recreation Manager

5.5. 2024-369

NRCB Updates

Sponsors: Nate Monahan, Recreation Manager

6. Adjournment



City of Blaine

Natural Resource Conservation Board

April 16, 2024 | 7:00 PM
Blaine City Hall
10801 Town Square Drive NE
Blaine, MN 55449

MINUTES

1. Call to Order

The meeting was called to order at 7:00PM.

2. Roll Call

Present – Chair Rafferty, Boardmembers Anderson, Panning, Truchon.

Absent – Boardmember Dahl.

Others Present: Recreation Manager Nate Monahan.

3. Approval of Minutes

- 3.1.** 2024-829 Approval of March 19, 2024 NRCB Minutes
Sponsors: Nate Monahan, Recreation Manager

Boardmember Panning requested a change to the minutes on Page 4 at the bottom of the page, correcting the spelling of Boardmember Anderson's last name.

Boardmember Truchon requested a change to the minutes on Page 5, noting she had suggested a bench be installed in Pioneer Park in Dottie's memory because she was responsible for establishing Pioneer Park.

MOVED by Boardmember Anderson, seconded by Boardmember Panning, to approve the minutes of the March 19, 2024 board meeting as amended.

Motion carried unanimously.

4. Open Forum for Citizen Input

No one appeared to address the NRCB.

5. New Business

Recreation Manager Monahan reviewed the updated board policies in detail. He explained boardmembers and commissioners are vital to the community and provide input and guidance on the many opportunities and issues Blaine faces as a growing community. Requirements for these volunteer positions include being a resident of Blaine, attending meetings, and having a community interest. In order to be most responsive to residents interested in serving on boards and commissions and to be able to be flexible during the recruitment, the appointment process previously outlined by ordinance was moved and included instead as a Council policy.

Mr. Monahan explained the City's advisory boards and commissions include the Natural Resources Conversation Board, Park Advisory Board, Planning Commission and Traffic Commission. There are other ad hoc boards and commissions whose members are appointed but do not directly report to the City Council including the Charter Commission, Fire Board, and Senior Advisory Board, as well as community boards such as the Blaine Historical Society. **Boards and commissions meet quarterly** or as needed, based on a calendar and work plan created and approved by Council and implemented by staff. The exception to quarterly meetings is the Planning Commission who meets more frequently to act on land use applications and hold public hearings as required by Statute.

Mr. Monahan reported board/commission appointments are made annually by City Council based on each term's ending, typically March of each year. Appointments are made based on balanced ward representation where possible for up to two 3-year terms per member. The Council can by consensus deviate from these criteria and allow for differing ward representation and/or additional term(s). Council will determine the candidate review and interview process each appointment cycle based on the number of vacancies, reappointments, and applications received. He indicated members may be removed by the mayor if the removal is confirmed by a majority vote of the City Council. Current members who move from the council election ward they were appointed to will be allowed to complete their term with the approval of the mayor and the two councilmembers from the council election ward they moved from. Terms of current members who move outside the City shall end immediately.

Mr. Monahan stated most boards/commissions are comprised of seven members. Each board/commission will appoint their chair/vice chair and adopt rules for the transaction of its business which may include provisions for conducting public hearings and the filing of written testimony by the public if needed. With the assistance of staff, each board/commission will provide a public record of its proceedings which include the minutes of its meetings, its findings, and action taken on each matter heard by it, including the final recommendation. He explained board and commission members will be compensated at the rate of \$60 per meeting attended and \$75 per meeting attended for chairpersons, not to exceed two meetings per month.

Chair Rafferty asked if the NRCB would remain in place through 2024. Mr. Monahan stated this would be the case.

Boardmember Truchon questioned when the council would be making a decision on the NRCB/Park Board merger. Mr. Monahan indicated the council would be discussing this matter in further detail at a future workshop meeting.

Boardmember Panning inquired why this board would remain at five members instead of seven. Mr. Monahan stated he was uncertain why the council made this decision.

Boardmember Panning feared this board would be lost due to attrition. Mr. Monahan explained typically vacancies are posted by the city, applicants are received and appointments are made by

the city council.

Boardmember Truchon asked how many residents applied to serve on the NRCB. Mr. Monahan reported three residents applied, but two of the residents had the NRCB as their third choice and Boardmember Dahl had the NRCB as his first choice.

Boardmember Anderson commented on the NRCB work plan and asked if the capital improvement plan falls under the budget umbrella. Mr. Monahan stated this was the case.

Mr. Monahan questioned when the Board wanted to hold its four meetings this year. He suggested the remainder of the 2024 meetings be held in June, August and October.

Boardmember Panning supported the work plan having the Board discussing work that needed to be done in the winter months within the BWS.

Boardmember Truchon indicated she would like the work plan to include an item that would have the NRCB continuing to review and discuss the condition of the city's open spaces. In addition, she wanted to hold a discussion regarding a prairie restoration. She suggested City staff speak with Great River Greening regarding the plan they drafted for the BWS.

Mr. Monahan stated he would email the NRCB members a draft work plan and would request comments or feedback.

5.2. 2024-23 Blaine Wetland Sanctuary Consultant for Wetland Bank and Trail Development
Sponsors: Nate Monahan, Recreation Manager, Megan Hedstrom, Stormwater Coordinator

Mr. Monahan provided an update on the hiring of a consultant for the Blaine Wetland Sanctuary Site 7 Wetland Bank and trail design/development. He explained the city has been working with local and state agencies to finalize the details of the consultant contract to meet wetland bank requirements.

Boardmember Truchon asked who was managing the EDA wetland bank. Mr. Monahan stated this would be part of the contract, managing Branch 3, as well. He commented further on the work Great River Greening did this past winter to maintain and restore the southern portion of the BWS.

Boardmember Truchon reported Great River Greening has been a great partner to the city of Blaine. She thanked them for the interest they have taken in the Blaine Wetland Sanctuary.

5.3. 2024-830 NRCB Updates
Sponsors: Nate Monahan, Recreation Manager

Mr. Monahan provided the board with an update on the following projects:

New Rain Garden Conceptual Sign review - Staff reviewed the new sign design that was created by Metro Blooms. It was noted these signs would be the same size as the interpretive signs within the BWS. The board appreciated the colorful sign design and suggested the font size be increased.

Boardmember Truchon requested staff speak with Metro Blooms about creating another sign

that speaks to the importance of wetland banks. Mr. Monahan indicated he could speak with Metro Blooms regarding this matter.

Boardmember Anderson discussed several language changes for the rain garden sign.

Boardmember Truchon suggested language regarding curb cut rain gardens be included on the sign if space allows.

Dottie McKinley Memorial Bench at Pioneer Park - Staff reached out to Dottie McKinley's three daughters in order to discuss a memorial bench at Pioneer Park. He explained language for the plaque was being finalized along with a location for the bench. He believed it would be nice to hold a ceremony with the NRCB and Dottie's family once the bench was installed.

Rare Grass *Aristida Longispica* Educational Sign at Lochness Park has been install next to hole 5 of the disc golf course - Staff reported a rare grass sign has been installed in Lochness Park.

Updates from March NRCB Meeting - Staff would be passing along the PowerPoint presentation from the March NRCB meeting to the Boardmembers.

Eagle Scout Projects - Staff commented on an Eagle Scout bench project that would be completed along the trail just north of Sunrise Ponds Park. He stated another Eagle Scout would be adding benches on the island within the BWS off the boardwalk.

Aveda Walk - Boardmember Panning invited all residents to attend a walk around the Aveda property on Sunday, April 21 from 1PM to 3PM.

Garlic Mustard Pull - Boardmember Truchon reported a garlic mustard pull would be held at Pioneer Park on May 11 from 9AM to 12PM.

6. Adjournment

Chair Rafferty adjourned the meeting at 7:48PM.



City of Blaine Staff Report

File Number: 2024-354

Agenda Date	Status
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August 20, 2024

In Control	File Type
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Natural Resources Conservation
Board

Presentation

New Business -

Agenda Item # 5.1

Presentation by Intern Irene Woods

Background

Recommendation

Attachment List

None



City of Blaine Staff Report

File Number: 2024-356

Agenda Date	Status
August 20, 2024	
In Control	File Type
Natural Resources Conservation Board	Presentation

New Business -

Agenda Item # 5.2

NEW! Blaine Wetland Sanctuary New Solar Walk

Background

Staff will present on a new Solar System interpretive walk at the Blaine Wetland Sanctuary!

Recommendation

Informational

Attachment List

1. bws-activity-book-2024
2. walk-the-solar-system-
3. Solar System map

BLAINE Wetland Sanctuary:

Explore Your FENtastic Wetland



BLAINE Wetland
Sanctuary

11980 Lexington Ave NE
Blaine, MN 55449

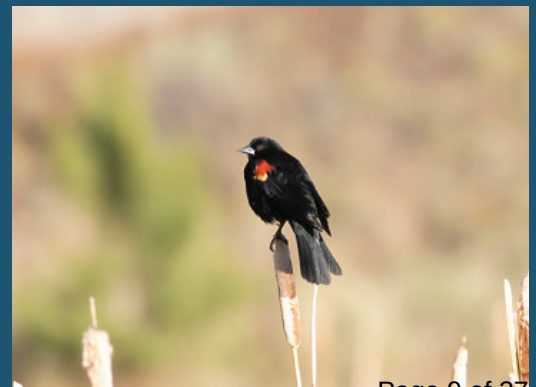
Explore how the systems of land, air, water, and living things are interconnected. Use this activity book as a guide.

Please stay on the trail at all times as you notice nature, have fun, and learn more about natural systems here. Enjoy!



Blaine Wetland Sanctuary - Welcome Video

Thank you for visiting Blaine Wetland Sanctuary. We're glad you came!





What makes Blaine Wetland Sanctuary so valuable and special?

People in this community use Blaine Wetland Sanctuary (BWS) as a recreation area. You might see bikers, walkers, runners, and birders along the path today. Blaine Wetland Sanctuary is also a place where scientists study unique plants and geology. This place is called a wetland sanctuary because it has a special type of wetland called a fen that is a unique habitat. People are working to restore and protect it for future generations. Many animals call this place home year-round, and different birds make quick stops here along their routes to different places on planet Earth, too. The mixture of plants and low, wet ground here act like a giant sponge to prevent flooding and naturally clean our water. The BWS area is important for keeping this 186 square mile watershed healthy. Bugs and critters living here work to pollinate plants and that makes this place special, too. Speaking of plants, they clean the air here too! Wetlands are being destroyed in many places, but... in 2000, the residents of Blaine passed a referendum to levy taxes supporting the buying of open space. With those funds, the City of Blaine purchased over 500 acres of land, now known as Blaine Wetland Sanctuary. Blaine Wetland Sanctuary is valuable and special for many reasons.



Exploring Wetlands: Blaine Wetland Sanctuary

What is a fen?



UNSCRAMBLE THE LETTERS TO FIND THE BEST WORD TO FILL IN EACH BLANK.

Part of Blaine Wetland Sanctuary is a fen. A fen is a type of (TWANDEL) _____, or land that is wet. According to the (NDITEU) _____ States Environmental Protection Agency, **fens are ground water-fed peat-forming wetlands.** A fen is similar to a (OGB) _____ because they both have spongy deposits of peat and both are found in areas where (IEGALRCS) _____ covered the land thousands of years ago. Other types of wetlands are (PSMAWS) _____ and ARSMHES_____.

KEY: wetland, united, bog, glaciers, swamps, marsh



Why are wetlands important?

Draw a line to connect the key words on the left with the explanation on the right.

Wetlands are important because they are...

- | | |
|-----------------------------|---|
| 1. Biological Supermarkets | A. provide food to support many living things in a food web |
| 2. Residential Developments | B. homes for living things in all life stages of development |
| 3. Sanctuary | C. decomposing plants and animals lead to cycling of organic matter and eventually new life |
| 4. Filters and Sponges | D. safe, protected place for or rare, threatened, and endangered species |
| 5. Recyclers | E. soak up extra nutrients and pollutants + cleans water as it goes to storage underground |
| 6. Landscape Protectors | F. when water flows into wetlands, it prevents flooding and |



What makes sundew plants so weird?

A sundew is a type of plant that eats bugs, and these live here, at Blaine Wetland Sanctuary. How weird and wonderful is that? Like all carnivorous plants, sundews use their leaves to catch bugs. Once inside the folding leaves, the plant digests and absorbs their insect prey to get nutrients. Tiny bugs are attracted to the hairs that cover the special leaves, where each leaf has a shiny drop of sugary, sticky stuff. When the bug lands on or nearby the leaf, it's movement triggers the tiny hairs, and then the bug gets tangled. The sticky liquid traps the bug and the plant sends in another liquid through the special leaf to digest the bug. Sometimes, the sundew leaves even curl around the bug. Sundews are plants and plants need nutrients, but fen wetlands have layers of acidic, peat going down 50+ feet deep. A fen does not have soil with nutrients in it for the plants, so the sundew has adapted by eating bugs.

What level of weird do you rate these sundew plant facts?

Circle your rating on the scale below.

Not weird at all 1 2 3 4 5 Extremely weird

Sundew (Drosera)



Color a picture of a sundew.

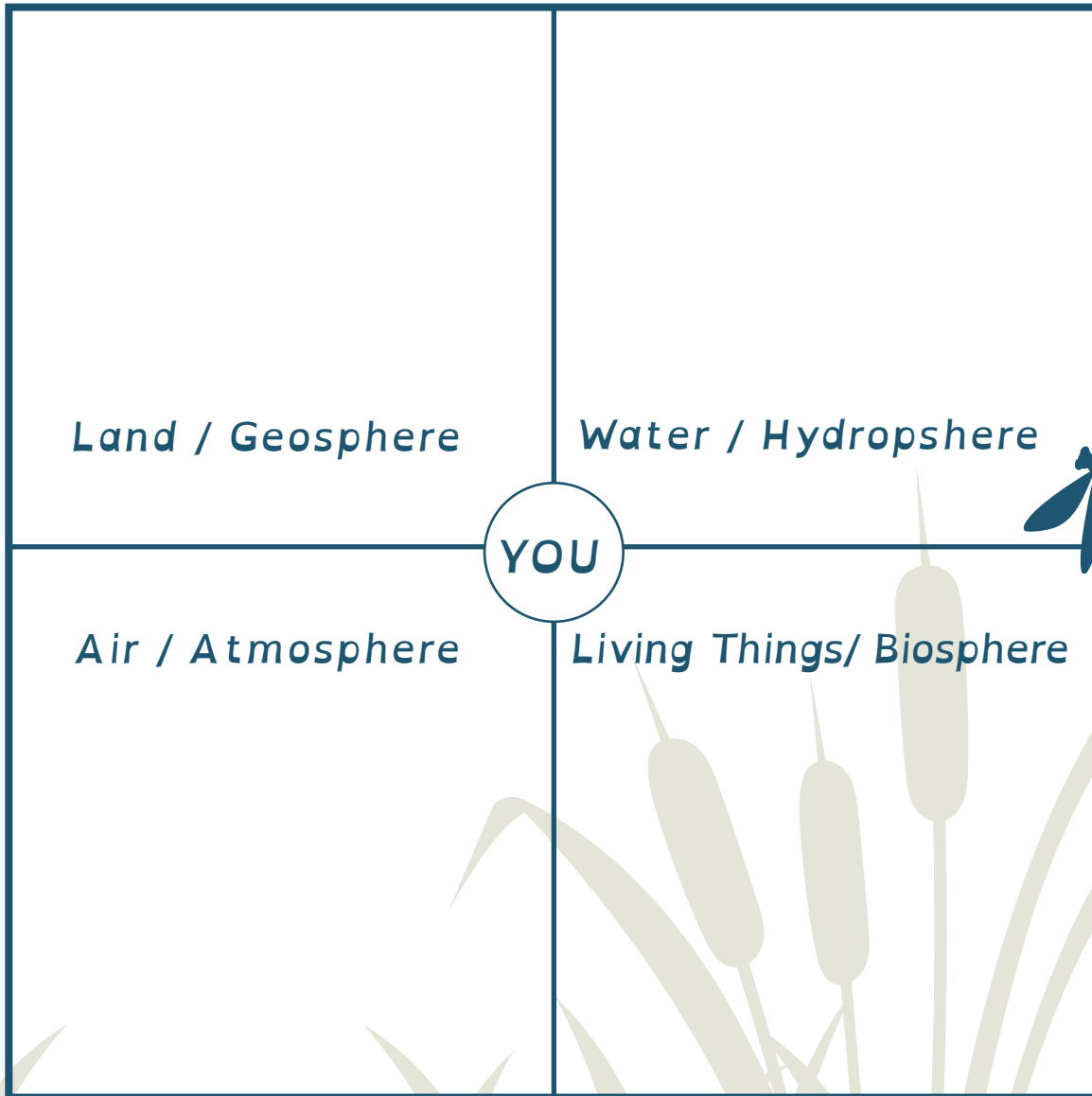


Blaine Wetland Sanctuary Springs Alive!

Systems Are Interconnected at Blaine Wetland Sanctuary



*What do you notice as you hike?
Add your ideas in words or pictures to each section.*



Why are wetlands important to you?





How can I do “belly biology” at Blaine Wetland Sanctuary?

At Blaine Wetland Sanctuary, when we lay down on our bellies to peak under the boardwalk, we call that Belly Biology. You can try it too! Draw what you find as you peak under the boardwalk in 5-10 places along the designated trail. **Please stay on the trail at all times.**

Bird Nest	Animal Tracks	Water with (aka Macroinvertebrates)



Where are the islands at Blaine Wetlands Sanctuary?

The higher land areas you see at the end of the boardwalk where trees grow into soil are considered islands because they are surrounded by wetland areas. As you can see from the map in this booklet, the land and plants on the land change from place to place at Blaine Wetland Sanctuary. The higher land, about one mile from the parking area, at the end of the boardwalk is higher and covered with trees growing into rocky, sandy, soil. On each side of the boardwalk are wet areas, including wet meadows of tall grasses and shrubs, some ponds, plus fen areas that have peat instead of soil.



Tiny Critters	Plants	Other Noticings

Complete the chart using what you know about islands before you came and what you notice about the islands on your walk today?

What islands look like in cartoons....	What the islands look like at Blaine Wetland Sanctuary...
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WALK-THE-SOLAR SYSTEM

@BLAINE WETLAND SANCTUARY

ACTIVITY BOOK

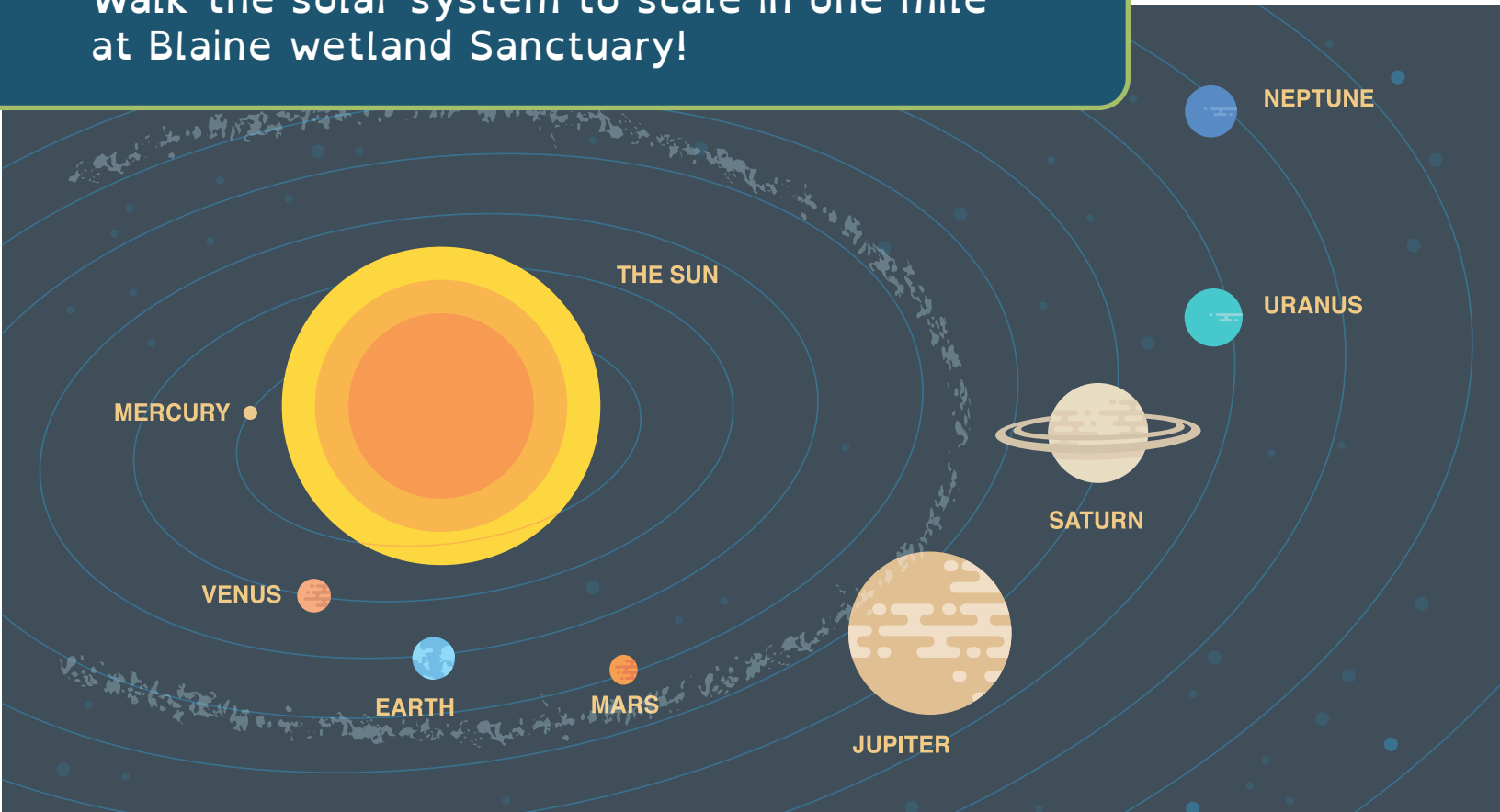
THIS LEARNING JOURNEY ALLOWS KIDS TO EXPERIENCE INTERCONNECTED SYSTEMS OF LAND, AIR, WATER AND LIVING THINGS IN BLAINE, WHILE ALSO IMAGING SPACE TRAVEL TO OTHER PLANETS.

Please stay on the trail at all times.



11980 Lexington Ave NE
Blaine, MN 55449

Walk the solar system to scale in one mile at Blaine wetland Sanctuary!



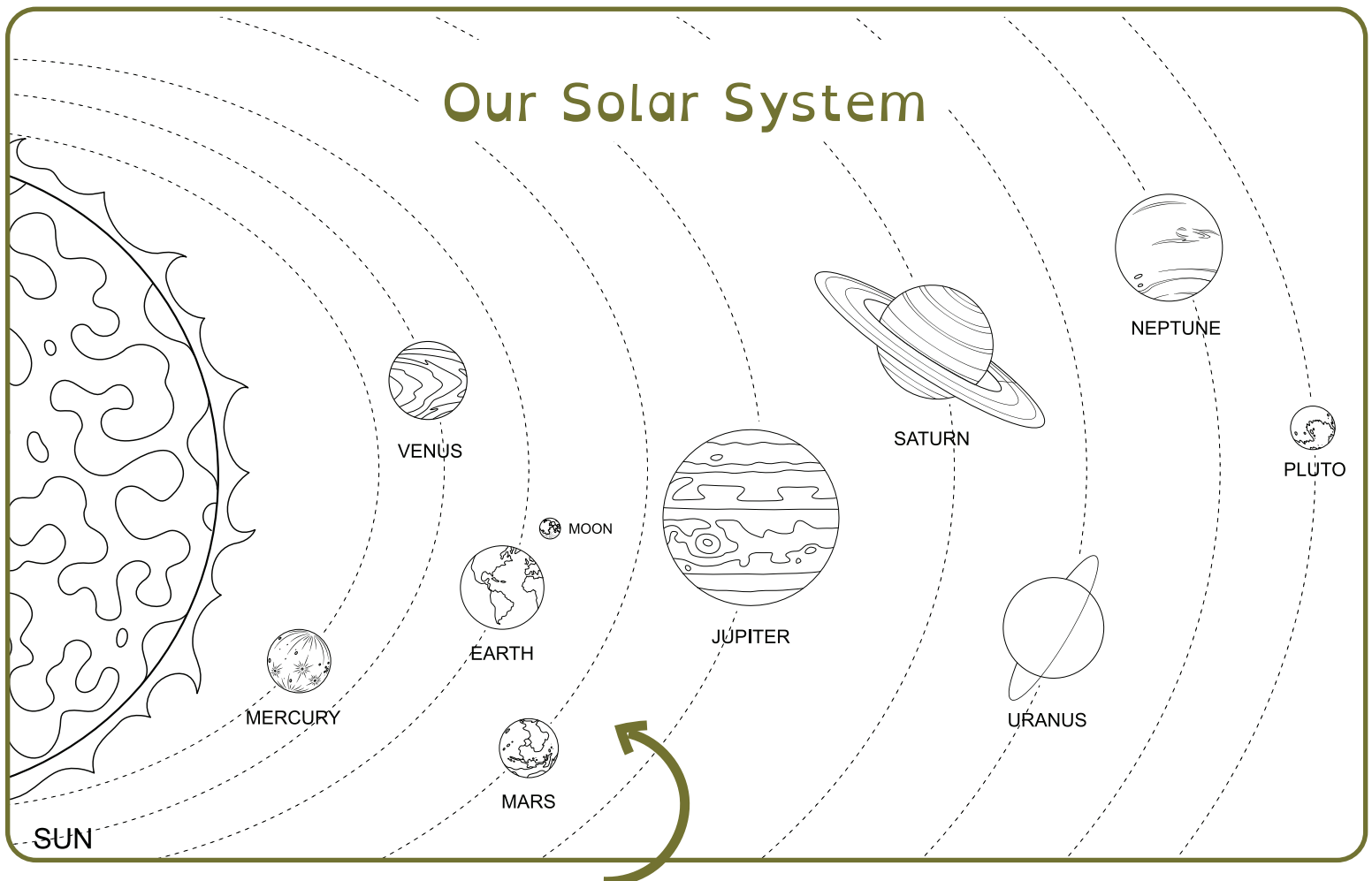
Get ready for a celestial adventure unlike any other!

This Walk the Solar System Activity is your chance to explore the wonders of our cosmic neighborhood ... on foot! This unique tour at Blaine Wetland Sanctuary lets you experience the planets, while unlocking fascinating space knowledge along the way.

Let's use the Blaine Wetland Sanctuary Trail to Walk-the-Solar-System!

On this Walk-the-Solar-System hike, we will...

- Experience the solar system in a smaller, scaled down version
- to understand why we call it 'space'!
- Think about interconnected land, air, water, and living things on Earth compared to other planets in our solar system.
- Make observations using your senses.



Color in the Solar System! Don't forget to add the Asteroid Belt.



DIRECTIONS:

Use the following pages to practice systems thinking at each stop. Look for each planet's symbol alongside the trail at each distance from the parking lot starting point. Track your journey and record your observations using this chart.

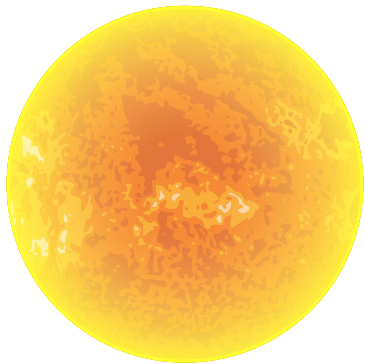
We've imagined how our solar system can fit on the path at Blaine Wetland Sanctuary by creating a scaled down version using walkable distances. To line up rulers for over half a mile would just take too long! Heres how to use estimation...

Estimation means to judge the rough size or approximate value of something. You will use estimation today in your Walk-the-Solar-System journey. To do this, compare your shoe to a 12 inch ruler, then you can use your shoe to measure shorter distances like the first four tour spots. For estimation of longer distances, measure your stride, or distance from heel of one foot to toes of the other while you are walking. For example, if your stride is 3 feet long and you need to travel 228 feet to the next tour spot, you could count 76 steps instead of lining up 228 rulers.



Tour Spot	Solar System	Solar System Model Object	Actual Distance from the Sun	Distance from Model Sun at BWS Parking	✓
1	Sun	Basketball	0 miles	0 feet- Center	
2	Planet Mercury	Pinhead	36 million miles	36 feet	
3	Planet Venus	Quilting Pin	67 million miles	67 feet	
4	Planet Earth + Our Moon	Quilting Pin +Pinhead	93 million miles	93 feet	
5	Planet Mars	Pinhead	142 million miles	142 feet	
6	Asteroid Belt	Dust	258 million miles	258 feet	
7	Planet Jupiter	Golf Ball	486 million miles	486 feet	
8	Planet Saturn + Rings	1 in superball with 2 in disks	891 million miles	891 feet	
9	Planet Uranus	Marble	1794 million miles	1794 feet	
10	Planet Neptune	Marble	2810 million miles	2810 feet	

TOUR SPOT #1 LET's Start with the SUN!



Sun

The sun is a medium sized star at the center of our solar system and is much bigger than Earth. 1.3 million Earth's could fit into the sun! Like all stars, the sun sends out energy into space. Our solar system is mostly empty space. Let's take a walk here at Blaine Wetland Sanctuary to learn more about the solar system, space, and our own lovely planet Earth.

For this activity, we will pretend that the beginning of the trail at the edge of the parking lot at Blaine Wetland Sanctuary is the sun. Use the chart, map, and pages of this activity book as your guide as we Walk-the-Solar-System at Blaine Wetland Sanctuary.



Earth's interconnected systems
and Belly Biology

Learn more about Earth's interconnected systems and Belly Biology at BWS here:

My Nature Noticings
Draw the sun and sky today.





Next, from the beginning of the trail representing the sun, walk 36 feet and find the tour spot symbol alongside the trail. On our Walk-the-Solar-System at Blaine Wetland Sanctuary, the 36 feet you just walked represents 36 million miles between the sun and planet Mercury.

You are near a group of aspen trees. Parts of the aspen trees have been used as medicine by many cultures. Aspen tree for aspirin is just one example of connection between plants and people. Where could you look to find more information about traditional ecological knowledge? What do you notice about the aspen tree leaves, bark, or shape?

TOUR SPOT #2 MERCURY

My Nature Noticings

Mercury is a solid, rocky planet with zero moons. Mercury has a solid geosphere surface that looks like Earth's cratered moon. Life on Mercury? No way! There is no water. Another reason there is no biosphere is because plants and animals cannot live in extreme temperatures. On planet Mercury, temperatures reach 800° F in the daytime and drop to -290° F at night.

Where do you notice life here? Can you list 5 to 10 plants or animals that you notice from where you are standing at Blaine Wetland Sanctuary?



Mercury

Where do you notice life here? Can you list 5 to 10 plants or animals that you notice from where you are standing at Blaine Wetland Sanctuary?



Next, from the planet Mercury spot, walk 31 feet and find the next tour spot symbol alongside the trail. On our Walk-the-Solar-System hike at Blaine Wetland Sanctuary, the 31 feet you just walked represents 31 million miles between the planet Mercury and Venus.

TOUR SPOT #3 VENUS

My Nature Noticings



Venus

Venus is similar in size to Earth, but it is a very different world. It's thick atmosphere traps heat in a runaway greenhouse effect, making it the hottest planet in our solar system. No life, or biosphere, has been found on Venus yet. No water, or hydrosphere, has been found on Venus but some scientists think there might be evidence of an ancient ocean. Scientists are working to study the rocks to find out! Glimpses below the thick clouds of Venus show volcanoes in the geosphere of Venus.



Next, from the planet Venus spot, walk 26 feet and find the tour spot symbol alongside the trail. On our Walk-the-Solar-System hike at Blaine Wetland Sanctuary, the 26 feet you just walked represents 26 million miles between Venus and Earth. You have walked past aspen trees to view an open wet meadow area. You have walked 93 million symbolic miles from the sun.

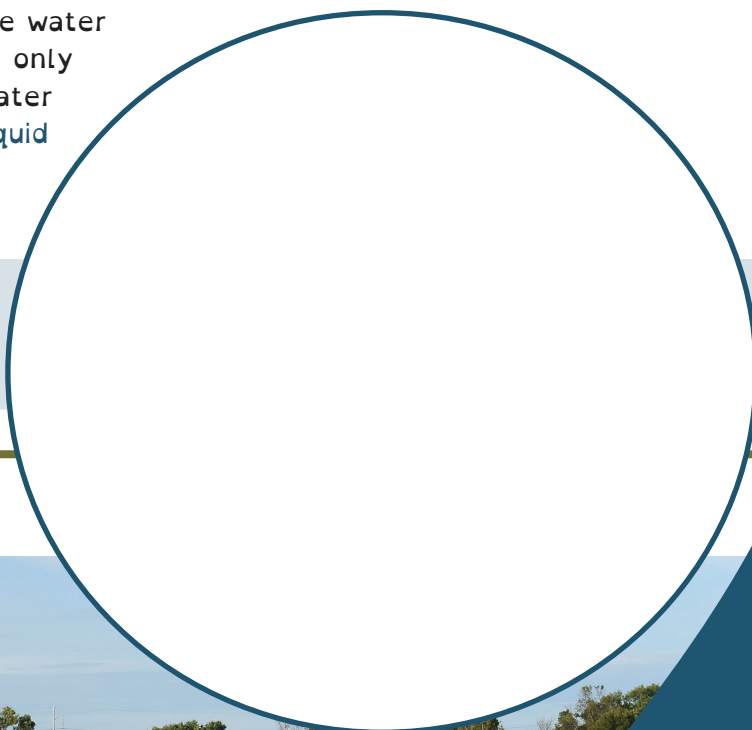
TOUR SPOT #4 EARTH

Earth is the biggest of the four planets closest to the Sun. Earth's geosphere core is mainly iron. Our atmosphere protects us from incoming meteoroids. Earth is the only planet known to have life as we know it. Earth's biosphere depends on the gasses in the atmosphere and the water in our hydrosphere. Earth is the only planet we know to have liquid water at it's surface. **Where is there liquid surface water today at Blaine Wetland Sanctuary?**

The plants here also filter and clean our water. **How many different types of plants do you see from this spot?**



Earth



Where do you see water above you?
How does water here get stored?

The plants in this fen wetland act like a giant sponge to hold water and reduce flooding.

Earth's Interconnected Ecological Spheres



My Nature Noticings



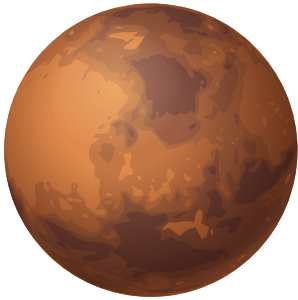


Next, from the planet Earth spot, walk 49 feet and find the Mars tour spot symbol alongside the trail. On our Walk-the-Solar-System hike, the 49 feet you just walked represents 49 million miles between Earth and Mars. You have now walked 142 million symbolic miles from the sun.

The four planets closest to the sun are called the inner planets. All four inner planets are made of mostly metal and rock. Mars is often called the red planet because the iron red rocky geosphere looks red from space. Earth is often called the “blue marble” because of the mixture of blue hydrosphere and green biosphere can be viewed from space.

On the surface, earth’s land to water ratio is 29% land to 71% water.

TOUR SPOT #5 MARS



Mars

The fourth planet from the Sun is Mars. Mars is a dusty, cold, desert. This dynamic planet has seasons, polar ice caps, extinct volcanoes, canyons and weather. Humans have sent four robots, called rovers, to Mars. The rovers have found evidence that Mars was much wetter and warmer, with a thicker atmosphere, billions of years ago. Scientists are studying Mars’ past and future potential for life.

Where do you see red, blue, green, and other colors right now at Blaine Wetland Sanctuary?



Next, from the planet Mars spot, walk 116 feet and find the next tour spot. On our Walk-the-Solar-System hike, the 116 feet you just walked represents 116 million miles between Mars and the asteroid belt in our solar system. A metal piece along the trail marks the transition from boardwalk to asphalt and in our journey it marks the asteroid belt! You have now walked 258 million symbolic miles from the sun.

TOUR SPOT #6 What we know about the ASTEROID BELT

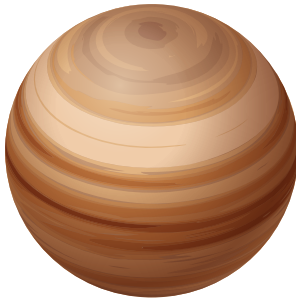
There are thousands of asteroids in our solar system. Most of them live in the main asteroid belt—a region between the orbits of Mars and Jupiter. Asteroids are leftovers from that time long ago when planets formed. Asteroids are small, rocky objects that orbit the Sun. They are much smaller than planets. Most asteroids are made of different kinds of rocks, but some have clays or metals, such as nickel and iron.





Next, walk 228 feet and find the Jupiter tour spot symbol alongside the trail, where there is a clear view of a pond. On our Walk-the-Solar-System hike, the 228 feet you just walked represents 228 million miles between the asteroid belt and planet Jupiter in our solar system. You have now walked 486 million symbolic miles from the sun.

TOUR SPOT #7 JUPITER



Jupiter

Jupiter has no land, or geosphere, because Jupiter is all gasses. Jupiter has an atmosphere of windy clouds of ammonia and water floating on top of hydrogen and helium gasses. The different gasses in Jupiter's atmosphere look like stripes of colors.

Blaine Wetland Sanctuary has few rocks, but **MANY** plants that act to soak up and clean Earth's water.

My Nature Noticings

What different types of geosphere do you see right now at Blaine Wetland Sanctuary? Do you see rocks, soil, or sand? What life do you hear, smell or see as you view the pond from the trail today?

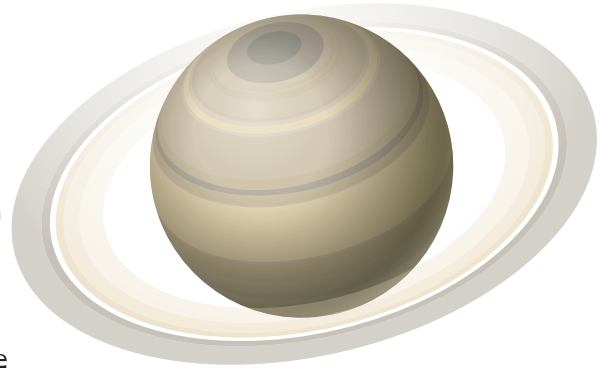




Next, walk 405 feet and find the tour spot symbol alongside the trail. You should see another group of aspen, some willows and wild rubus berry plants...but you are not to the bridge yet! On our Walk-the-Solar-System hike, the 405 feet you just walked represents 405 million miles between Jupiter and Saturn in our solar system. You have now walked 891 million symbolic miles from the sun.

TOUR SPOT #8 SATURN

According to NASA.gov the moons of planets may have hydrospheres too! "Icy moons of Jupiter and Saturn that show strong evidence of oceans beneath their surfaces: Ganymede, Europa and Callisto at Jupiter, and Enceladus and Titan at Saturn." Jupiter and Saturn are made up of mostly gasses, also known as atmosphere. Jupiter and Saturn are made mostly of hydrogen and helium. Adorned with thousands of beautiful ringlets, Saturn. It is not the only planet to have rings—made of chunks of ice and rock—but none are as spectacular or as complicated as Saturn's.



Saturn

Would you rather study rocks from space, ice from Saturn's rings, or plants and peat from Blaine Wetland Sanctuary?

Blaine Wetland Sanctuary is a type of wetland called a fen. This means that plant material called peat builds up over hundreds of years and can be more than 50 feet deep. The scientists that study Blaine Wetland Sanctuary suggest that ice could be year round here in the fen, just fifty feet underground, insulated by the peat layers. On both sides of the boardwalk, this wetland is absorbing and cleaning water...like a GIANT sponge.

My Nature Noticings

Vast means big, wide, or open. Where you are right now at Blaine Wetland Sanctuary the view is vast. Take a moment to sketch the big, open, vast view of the wetland.

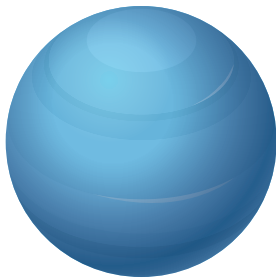


Next, walk 903 feet and find the Uranus tour spot symbol alongside the trail. On our Walk-the-Solar-System hike, the 903 feet you just walked represent 903 million miles between Saturn and Uranus in our solar system. You have now walked 1,794 million symbolic miles from the sun. Using our Walk-the-Solar System scale, the bridge over the ditch is about halfway between Saturn and Uranus.

Try ‘belly biology’ by laying on your belly and peeking under the boardwalk for critters! How are wetlands restored and managed? Read the sign along the boardwalk to find the answer.



TOUR SPOT # 9 URANUS



Uranus

No plants or animals, known as biosphere, have been found on Uranus...yet! Uranus is an ice giant. Uranus has stinky clouds in it’s atmosphere. How stinky? As stinky as rotten eggs! In April 2017, a space research team found hydrogen sulfide, the smelly gas that most people avoid, in Uranus’ clouds. What scents temperature, wind speed do you notice in Earth’s atmosphere today?



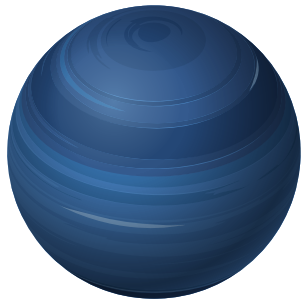
Draw any signs of life that you notice:

Animal Tracks	Green Leaves	Insects
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Next, walk 1,016 feet and find the tour spot symbol for Neptune alongside the trail. On our Walk-the-Solar-System hike, the 1,016 feet you just walked represents 1,016 million miles between Uranus and Neptune in our solar system. You have now walked 2,810 million symbolic miles from the sun. Your estimation is correct if a rest area along the boardwalk is just ahead of you and nettles, willows, and sedges are growing along the boardwalk beside you.

TOUR SPOT #10 NEPTUNE



Neptune

Neptune is an ice giant planet, eighth from the sun, and most the distant planet in our solar system. Neptune’s atmosphere is dark, cold and whipped by supersonic winds. Neptune has a combined geosphere and hydrosphere, because most of its mass is a hot, dense fluid of “icy” materials – water, methane and ammonia – above a small rocky core. Neptune has no biosphere– it cannot support life as we know it. Neptune has 6 rings and 13 moons.



WALK-THE-SOLAR-SYSTEM
TOUR SPOTS:

- #1 SUN
- #2 MERCURY
- #3 VENUS
- #4 EARTH
- #5 MARS
- #6 ASTEROID BELT
- #7 JUPITER
- #8 SATURN
- #9 URANUS
- #10 NEPTUNE

Hard Trail
.46 mile

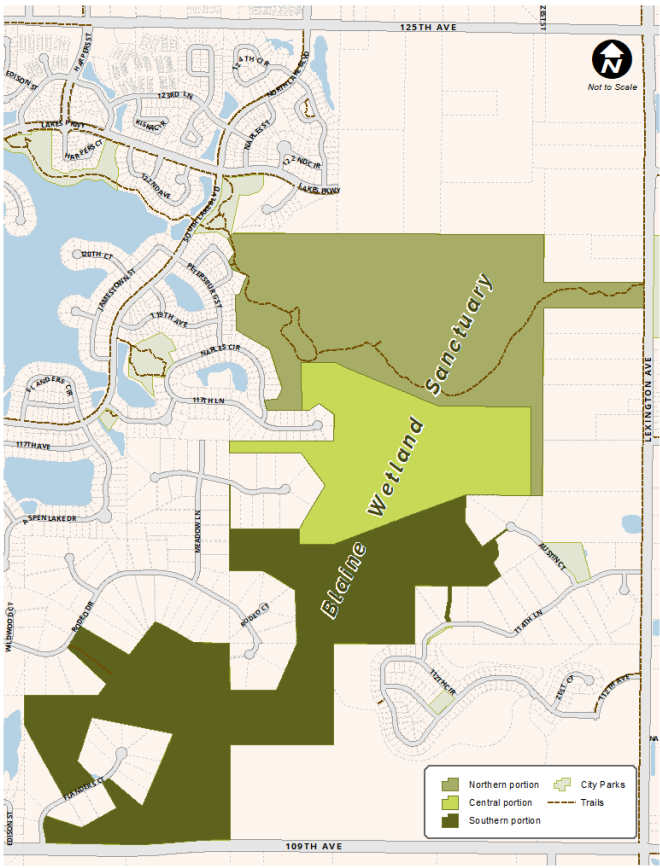
Hard Trail
Loop
.35 mile

BLAINE WETLAND
SANCTUARY

Mixed Surface
.95 mile

WHAT ARE SOME TIPS
FOR EXPLORING BLAINE
WETLAND SANCTUARY?

- Stay on all paved trails and wooden boardwalks.
- Bring water.
- Dress for the weather.
- Share the trail with others.
- Use activities, QR codes, and informational signage to learn more.



LEXINGTON AVE NE

LEXINGTON
ATHLETIC COMPLEX





City of Blaine Staff Report

File Number: 2024-370

Agenda Date	Status
August 20, 2024	
In Control	File Type
Natural Resources Conservation Board	Report

New Business -

Agenda Item # 5.3

Review of Wetland Bank Concept Signage from Metro Blooms

Background

Staff will review with the board conceptual signage for wetlands that was designed by Metro Blooms.

Recommendation

Information

Attachment List

1. City of Blaine Wetland Signage v2

WELCOME TO BLAINE WETLAND SANCTUARY!

Wetlands soak up harmful toxins, keeping water and air clean. Water on the surface is filtered as it soaks in and recharges groundwater, which is where the City of Blaine gets its drinking water supply. Nature is not separate from communities, it is all interconnected.

This 500 acres of wetland are located in the Rice Creek Watershed, which flows into the Mississippi River. Our neighborhoods are connected by these water systems.

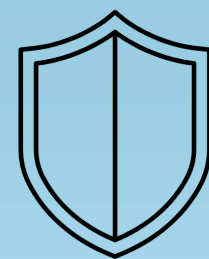


LOOK OUT FOR THESE AMAZING WETLAND SPECIES:



Wetlands are HOMES

providing habitat for all life stages of many species of plants and animals, including rare, threatened, and endangered species.



Wetlands are LANDSCAPE PROTECTORS

reducing the impact of flooding and erosion.



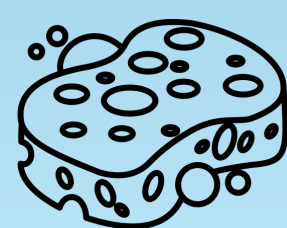
Wetlands are HAPPY PLACES

granting open space for us to enjoy and connect with our natural world.



Wetlands are RECYCLERS

decomposing organic matter and cycling important elements through plant and animal life.



Wetlands are FILTERS AND SPONGES

soaking up excess nutrients and pollutants, replenishing surface and groundwater.



Wetlands are BIOLOGICAL SUPERMARKETS

productive ecosystems, creating food at the base of the food web to support other living things.



Scan to learn more!



40% of all plant and animal species live or breed in wetlands!



Sundew
(Drosera)



Twisted Yelloweyed Grass
(Xyris torta)



Green Darner Dragonflies
(Anax junius)



Native Bees



Native Butterflies



Lance-leaved Violet
(Viola lanceolate)



Pileated Woodpeckers
(Dryocopus pileatus)



Sand Hill Cranes
(Grus canadensis)



Blanding's Turtles
(Emydoidea blandingii)



City of Blaine Staff Report

File Number: 2024-357

Agenda Date	Status
August 20, 2024	
In Control	File Type
Natural Resources Conservation Board	Report

New Business -

Agenda Item # 5.4

Volunteer Opportunities

Background

Recommendation

Attachment List

1. Summer and Fall 2024 ACD Volunteer Events (1)



ACD HABITAT RESTORATION VOLUNTEER OPPORTUNITIES

Find event details at the RSVP links.
RSVPs are encouraged, but not required!

Monitor Monarch Butterflies and their Habitats!

Monitor blooming plants and search for monarch butterfly eggs, larvae, and adults at Cedar Creek Conservation Area.

August 21
1:00-4:00pm

[RSVP Here](#)



September 14
9:00am-Noon

[RSVP Here](#)

Pollinator Garden Planting!

Help plant a new pollinator garden at Ehlen Park in Anoka. We will plant over 2,000 native wildflowers and grasses.



Pollinator Garden Planting #1!

Help plant several pollinator gardens at River's Bend Park in Ramsey. We will plant native wildflowers and grasses to fill in areas that were seeded last fall.

September 16
4:30-6:30pm

[RSVP Here](#)

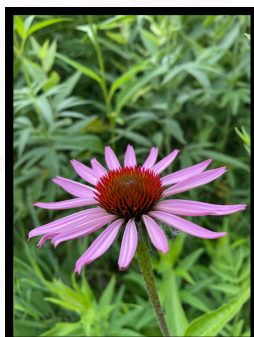


September 19
9:00-11:00am

[RSVP Here](#)

Pollinator Garden Planting #2!

Help plant several pollinator gardens at River's Bend Park in Ramsey. We will plant native wildflowers and grasses to fill in areas that were seeded last fall.



Collect Wildflower Seed!

Collect wildflower seed from the prairies at Gordie Mikkelson Wildlife Management Area in Linwood for use in habitat restoration projects across the county.

September 24
4:00-6:00pm

[RSVP Here](#)



October 3
4:00-6:00pm

[RSVP Here](#)

Pollinator Meadow Planting!

Help plant more native wildflowers and grasses in the new pollinator meadow at Laddie Lake Park in Blaine.



Independent Seed Collection

ACD is seeking native wildflower seed for our restoration efforts! Send us native seed in the mail or drop it off at our office: 1318 McKay Dr NE, Suite 300 Ham Lake. **Seed collection guidelines:** Never collect more than 1/3 of the seed available in an area. Ask permission before collecting seed from private property or parks. Label seed with the species, location, and date collected.

Interested in other volunteer
opportunities with ACD?

Sign up to receive notices of volunteer events in your area of interest on our website, www.AnokaSWCD.org



City of Blaine Staff Report

File Number: 2024-369

Agenda Date	Status
August 20, 2024	
In Control	File Type
Natural Resources Conservation Board	Report

New Business -

Agenda Item # 5.5

NRCB Updates

Background

Blaine Wetland Sanctuary Consultant: Stantec proposal will be brought forward to the City Council
Eagle Scout Brayden Samuelson Project: Three Benches at Sunrise Ponds Open Space
Dottie McKinley's Memorial Bench at Pioneer Park

Recommendation

Informational

Attachment List

1. Eagle Scout
2. Eagle Scout 2
3. Eagle Scout 3





