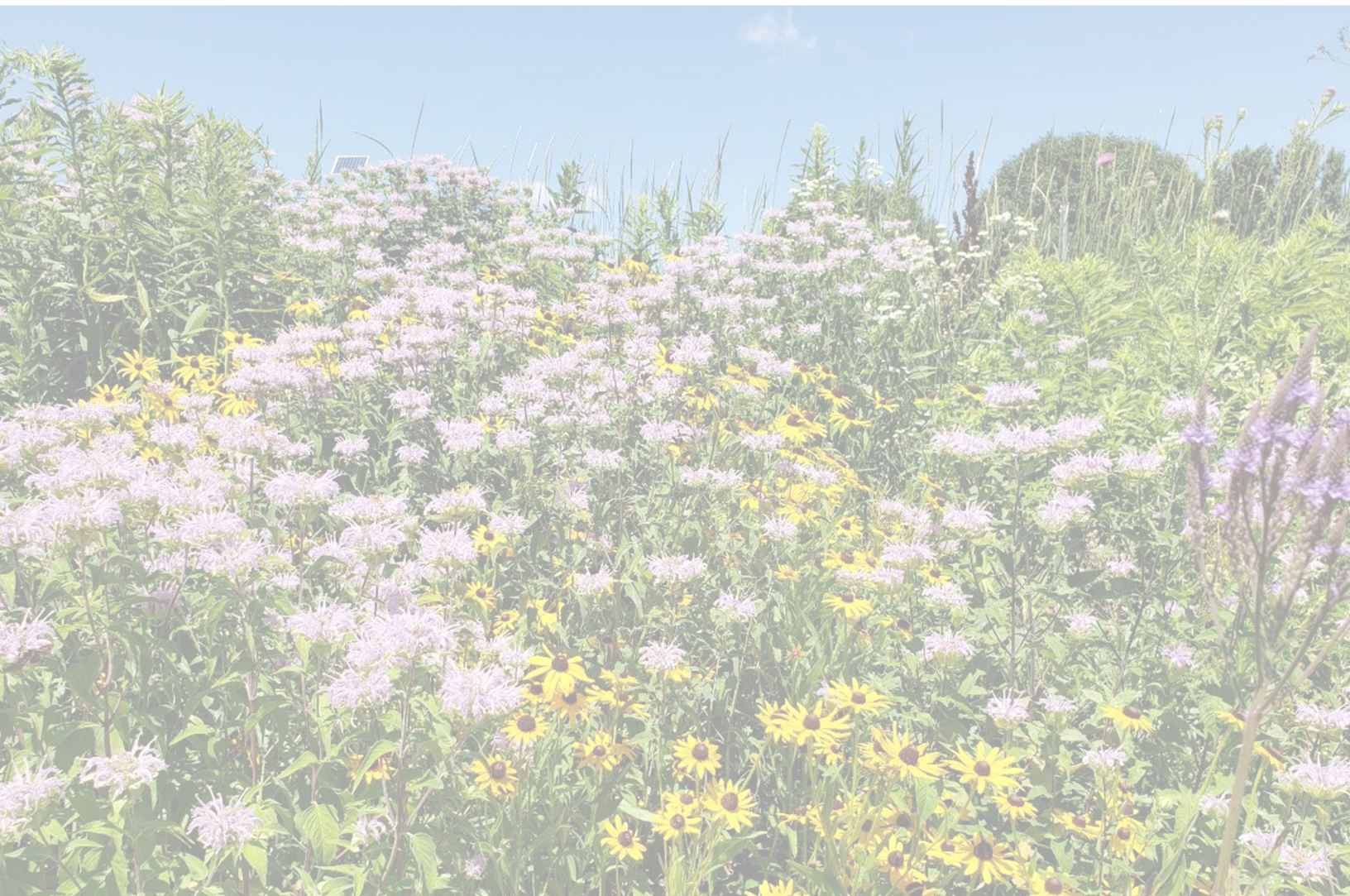


City Engineering Stormwater Utility  
Vegetation Management Plan  
DRAFT Public Engagement Report  
February 2024

City of Madison Engineering Division



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### **Attachment A – Presentation at Public Listening Sessions**

### **Attachment B – Detailed Poll Results**

### **Attachment C – Image Preferences**

### **Attachment D – Group Discussion Comments**

### **Attachment E – Detailed Online Survey Results**

### **Attachment F – Public Engagement Map**

## Summary

The City of Madison Stormwater Utility is creating a Stormwater Vegetation Management Plan (SVMP) to establish objectives and strategies for vegetation maintenance on utility owned properties as well as communicate these priorities with the public. Development of the SVMP included front-end engagement with the public to identify larger issues, community perceptions, and priorities related to vegetation management. Information in this summary includes input received at:

- Three (3) Public Listening Sessions
- Online Survey
- Table at Wisconsin Science Festival/Night Market
- Table at Sustain Dane Annual Event

## Top Concerns and Takeaways

This list below highlights key points and unique perspectives from each engagement strategy. It is not exhaustive of all the comments and concerns received in the public engagement process, nor are items listed in any order. Detailed information can be found in each specific Public Engagement Strategy section in this report, as well as in the Attachments.

- **Environmental values, but differing opinions on best solutions.** Technical knowledge related to vegetation is highly specialized and public comments include competing priorities such as both keeping existing urban woodlots as well as restoring native ecosystems as the best way to provide habitat and improve biodiversity.
- **Vegetation and ecosystem benefits and understanding is complex. There is general recognition that native plants are beneficial but less understanding of native ecological communities and their relationships to plants in that community, biodiversity, wildlife, and pollinators.**
  - Wisconsin Science Festival participants unanimously identified that the city should invest in restoring prairies, wetlands and woodlands. However, the third preferred image was a buckthorn monoculture.
  - Several comments reflected land management strategies that may not align with larger goals. For example, a comment "...increase native shrubs and plantings. Prairies are not the answer for all locations." Most native shrubs and plant species for our area reflect historic ecosystems dominating Dane County's landscape of predominately oak savanna, prairies, wetlands, marshes and require the soil/sun characteristics of these areas.
- **Types of engagement strategy yielded different results:**  
Public Listening Sessions, Wisconsin Science Festival and Sustain Dane Event takeaways include:
  - **Preferred images of a biodiverse oak savanna and biodiverse wetland for "preferred vegetation" category.**
  - **Were attended by people who strongly supported ecological restoration, whereas online input identified mixed feelings about these benefits.**

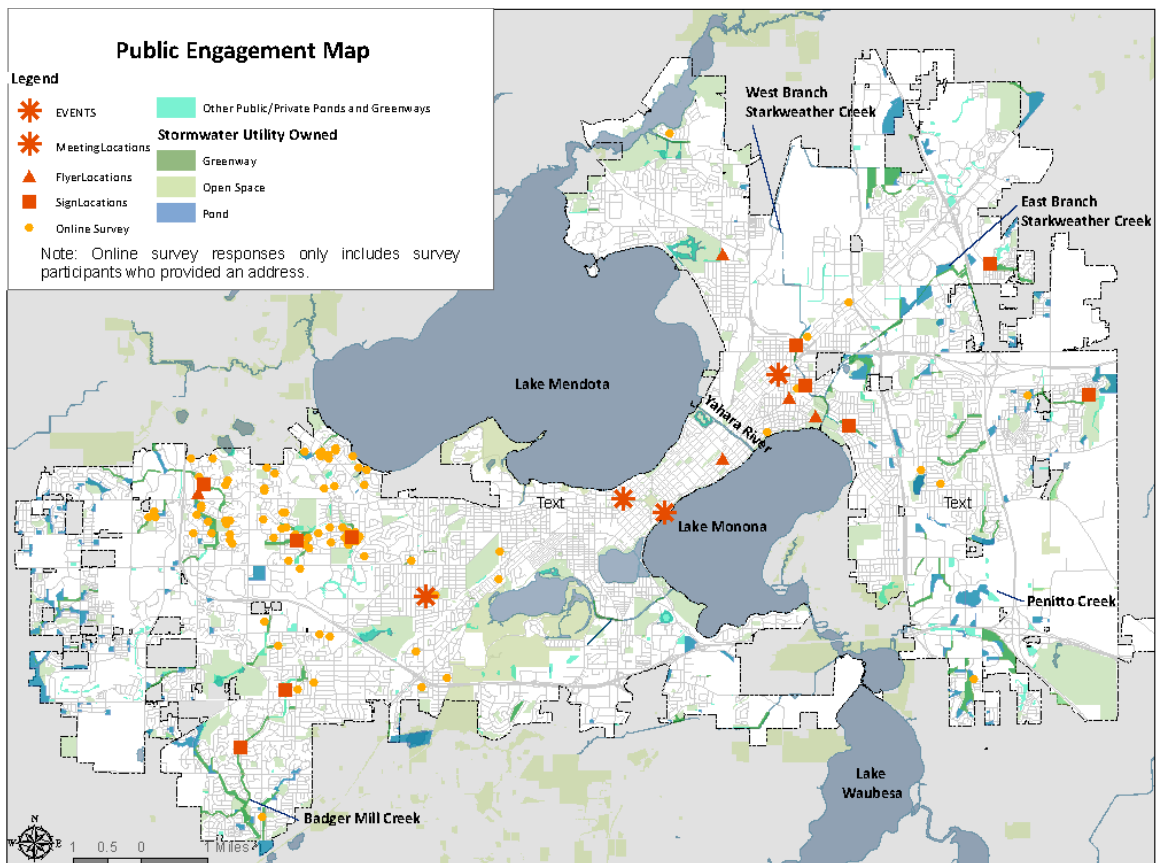


- Many of these meeting attendees were in favor of the existing direction of the Stormwater Utility – which has shifted management towards ecological restoration of native plant communities.
- Concerns about not enough existing staff and volunteer resources to manage these areas.
- Sought additional opportunities to volunteer and assistance with the technical expertise required for ecological restoration.
- Vegetation maintenance should prioritize the greatest threat to stormwater erosion, flood damage, etc. should be prioritized.

#### Online Survey

- **The majority of open-ended comments related to trees.** This may reflect recent larger reconstruction and planning projects on the west side related to tree removals. The online survey includes a higher representation of those who live on the west side based on geocoding residents who provided addresses (see Attachment F).
- **Top concerns were impacts to loss of biodiversity (66.67%), wildlife habitat and impacts (65.82%), bird habitat and impacts (66.5%), pollinators (63.92%).**
- **Top topics with highest “not concerned” rating include sequestering carbon in soils and vegetation (17.37%), herbicide on stormwater land (16.93%), and vegetation and heat islands (14.89%).**

Figure 1: Public Engagement Map





## Public Engagement Descriptions

The City executed three different of public engagement strategies. Each engagement strategy had unique results, reflective of the type of engagement and the participating audience. These results were anticipated and reflective of other citywide engagement strategies.

### Public Listening Sessions

City staff held three public listening sessions, two in person and one virtual meeting, as detailed below. A summary of the information presented at each listening session is included in **Attachment A**. The listening sessions were designed to reach a wide range of knowledge on the topic, provide education, and identify concerns, priorities, and the community's larger understanding of native ecosystems.

- Public Listening Session #1:  
November 1, 2023.  
Location: Hawthorne Library  
Meeting Attendees: 20
- Public Listening Session #2,  
November 20<sup>th</sup>, 2023.  
Location: Sequoya Library  
Meeting Attendees: 34
- Public Listening Session #3,  
November 28<sup>th</sup>, 2023.  
Location: Online Zoom  
Registrants: 58



Photo: Public Listening Session #2 at Sequoya Library

### Notifications for Public Listening Sessions

Public Listening Session notifications included emails, posting physical signs, flyer distributing, social media and website posting, and a city-issued press release. Below includes a list of all outreach methods for the public listening sessions.

#### Websites:

- [Stormwater Vegetation Management Plan Project Page](#)
- [Sustainability Plan](#)
- [City of Madison News and Updates](#)

#### Flyer Posting/Distribution: (9 locations)

Alicia Ashman Library, Hawthorne Library, Sequoya Library, Olbrich Botanical Gardens, Sustain Dane Annual Meeting, Wisconsin Science Festival/Night Market, Willy Street Co-op, Goodman Community Center, Operation Fresh Start Youth



Image: Project Flyer and Sign Design

*Email: (over 350 direct email recipients)*

- All Alders: 8/1/2023, 10/2/2023, 10/23/2023 Press Release) (20)
- Subscribers to SVMP Plan Updates (26)
- Volunteers, residents who have reached out re: stormwater vegetation (96)
- Board of Public Works (9)
- Neighborhood and community association contacts (>200)
- Notice Sent to Madison Sustainability Committee (18)
- Common Council Community Engagement Strategist (1)

*Press Release and Social Media (> 2445 subscribers)*

- Press Release 10/23/2023 (1445 email subscribers)
- Facebook Posting on 10/27/2023, 11/20/2023 (>1000 Facebook Followers)

*Signs (10 signs)*

- 1005 N High Point Road - Wexford Pond
- 5348 Regent Street – Kenosha Greenway
- 6105 Hammersley Road – East Badger Mill Creek Greenway Hammersley Road Section
- 6329 Keelson Drive – Mendota Spring Harbor Greenway Quarterdeck Section
- 7106 Carnwood Road – East Badger Mill Creek Greenway Lancaster Lane Section
- 1908 Autumn Lake Parkway – Autumn Lake Pond
- 702 McCormick Avenue – West Starkweather Creek Greenway Aberg Avenue Section
- 3537 Hargrove Street – Starkweather – Olbrich Greenway – Dennet Drive Section
- 7035 Littlemore Drive - Door Creek Park
- 2977 Milwaukee Street – Starkweather Creek West Branch – Dixon Street Section

### On-site Pop-up Engagement Session

The City of Madison conducted two information pop-up input sessions in collaboration with the City of Madison Office of Sustainability and Resilience.

- Pop-up Engagement Session #1:  
October 19, 2023.  
Science on the Square/ Madison Night Market Fusion
- Pop-up Engagement Session #2:  
November 3, 2023.  
Sustain Dane Annual Event

### Online Survey

The City of Madison developed an online survey to gauge people's top concerns about vegetation issues related to the Stormwater Utility property. The survey ran from January 24, 2024, through February 22, 2024. The survey was sent to the 20 Alders as well as people who signed up to receive communication regarding the SVMP via the project website.



Photo: Science on the Square/Madison Night Market Fusion

## Results

This section highlights key takeaways and results from each specific engagement strategy.

### Public Listening Sessions

Each session included a presentation (Attachment A) that included anonymous polling (Attachment B), an image preference exercise (Attachment C), and breakout into group discussion (Attachment D.)

### In-Meeting Polling

In person iClicker and online Zoom polling allowed participants to provide anonymous responses throughout each presentation. The results of this anonymous polling revealed that most meeting attendants were familiar with native ecosystems and highly prioritized the work spelled out in the SVMP. A combined summary of polling results at all three meetings is included in **Attachment B**.

### Discussion

Most meeting attendees were City of Madison residents (99%), who lived adjacent to a pond or greenway (62%). Approximately half of all meeting attendees volunteer to help maintain the vegetation on City pond and/or greenway property. Over 58% of meeting attendees recognizes that most vegetation in the City is not native vegetation.

- 20% had backgrounds in ecological restoration.
- 58% (majority) think most vegetation in Madison is mostly non-native plants.
- 50% think that vegetation on City Stormwater Utility property is 50/50 native and non-native.
- 70% could visually identify an image of native prairie; 30% could not.
- 82% could visually identify an image of a native woodland; 18% could not.
- 71% thought work to restore native ecosystems on Stormwater Utility land was “extremely valuable.”
- 66% thought vegetation maintenance should be prioritized based on the greatest threat to stormwater issues, including flood damage and erosion. Meeting attendees identified this was a complex topic and would like to see an “all of the above” option.
- 55% wanted to learn more about restoration techniques and methods.

Figure 2: Responses on Invasive Plant Anonymous Polling

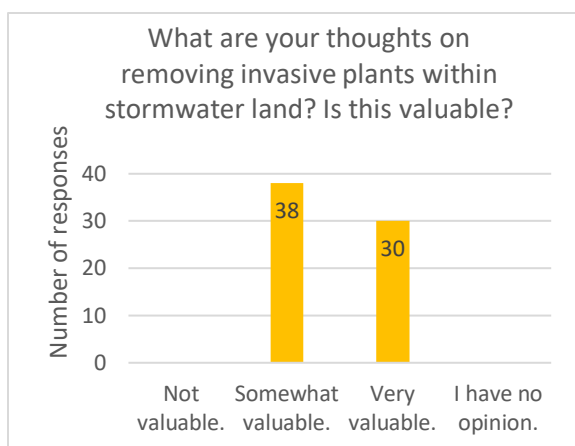
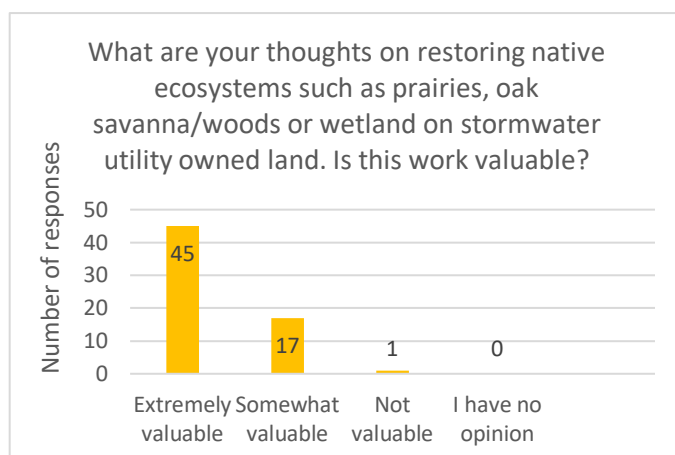


Figure 3: Responses on Native Ecological Restoration





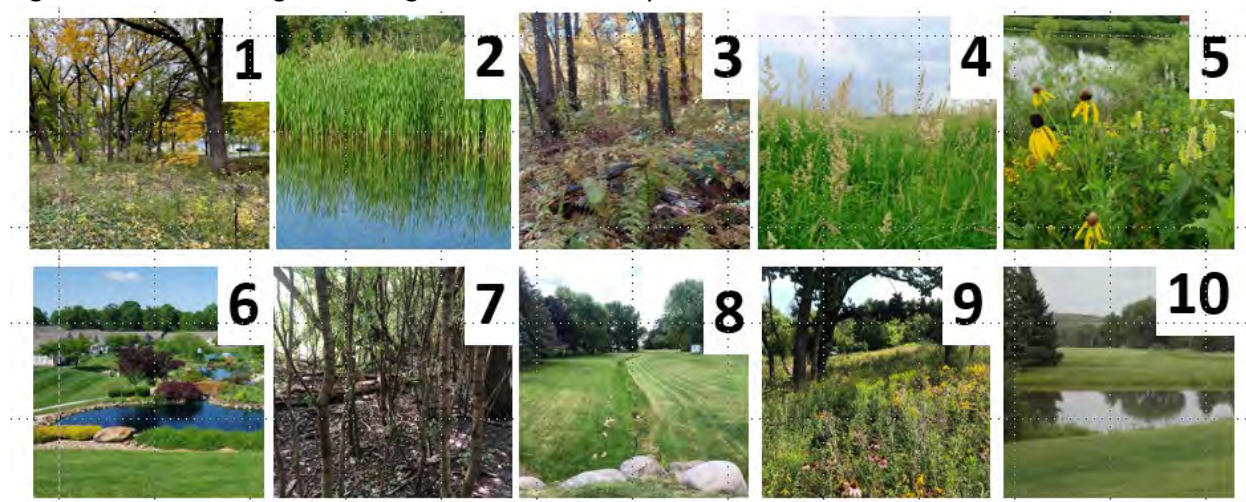
## Image Preference

At each public listening session, the City of Madison showed images of different vegetated landscapes and asked participants to rate their preferences to different questions related to landscapes.

### Questions<sup>1 2</sup>

1. The landscape I prefer from an aesthetic viewpoint is:
2. I think the landscape that is most resilient to flooding and erosion is:
3. I think the following landscapes are most beneficial to other ecosystem services (pollination, endangered species, etc.):

Figure 4: Selected Images for Image Preference Survey



This exercise modeled approaches for evaluating naturalness, biodiversity, and aesthetics in similar studies<sup>345</sup>. Each image showed a variety of common regional landscape patterns ranging from completely ornamental, naturalized invasive species, to highly biodiverse landscapes. Results of this exercise are included within **Attachment C**.

Image preference surveys conducted at the end of the presentation of the Public Listening Sessions providing context on native plants. Image preferences surveys at the Sustain Dane Event and Science on the Square/Night Market did not include a presentation.

The description of each image was not revealed until after participants answered all of the questions.

<sup>1</sup> Specific wording presented at each meeting varied based on input received from meeting attendees.

<sup>2</sup> Images at the Science on the Square/Night Market were in different locations and included additional images that represented wooded area dominated primarily by buckthorn. It also included a different image depicting reed canary grass, and pond with predominately non-native vegetation.

<sup>3</sup> What determines how we see nature? Perceptions of naturalness in design urban spaces. Helen Hoyl, Anna Jorgensen, James D. Hitchough

<sup>4</sup> Perception of the Vegetation Cover Pattern Promoting Biodiversity in Urban Parks by Future Greenery Managers. Janina Borysiak and Malgorzata Stephniewska

<sup>5</sup> Residents' ecological and aesthetic perceptions towards spontaneous vegetation in urban parks in China. Ziao-Peng Li, Shu-Xin Fan, Norbert Kuhn, Li Dong, Pei-Yao Hao

Figure 5: Descriptions of vegetation in each image, shown after image exercise completed.

<b>Image 1</b> Mixed native understory and nonnative understory.	<b>Image 2</b> Cattail monoculture – likely invasive nonnative cattails.	<b>Image 3</b> Native forest over story, with native diverse understory.	<b>Image 4</b> Close-up of invasive and nonnative reed canary grass monoculture.	<b>Image 5</b> Predominately native prairie/wetland forbs and grasses.
<b>Image 6</b> All ornamental non-native landscaping on gravel mulch bed.	<b>Image 7</b> Understory is invasive buckthorn shrubs monoculture.	<b>Image 8</b> Lawn with some likely ornamental trees in the background.	<b>Image 9</b> Native oak trees with diverse prairie/savanna herbaceous species.	<b>Image 10</b> Turf to pond edge.

### Discussion

- For aesthetics, 42% preferred the image of a restored oak savanna (Image 9), followed by 27% preferring a restored wet/mesic prairie (Image 5), and followed by 16% preferring an oak-hickory woodland (Image 3).
- For high flood resilience, top images selected included recently restored wet/mesic prairie (Image 5) at 30%; followed by an image of a recently restored oak savanna (Image 9) at 26%; and followed by an image of cattail monoculture (Image 2) at 20%.
- For multiple ecosystem services, the top image selected includes restored oak savanna (Image 9) at 50%, followed by a recently restored wet/mesic prairie (Image 5) at 35%; followed by an image of an oak-hickory woodland (Image 3) at 5%.

Image preference surveys identified that participants valued native, high biodiversity landscapes from viewpoints of aesthetics, flooding and erosion, and larger ecosystems. Interestingly, participants of the Science on the Square/Night Market had a higher preference for images that showed buckthorn-dominated urban forests for aesthetics and resiliency for stormwater. Discussions with participants that selected buckthorn-dominated urban forests revealed that they liked these areas as forested but did not realize they were buckthorn monoculture understories dominated by an invasive species and had little biodiversity.

Additionally, participants highly ranked images of invasive vegetation along a pond as highly resilient to flooding. In speaking with participants, this likely reflects that these plants were growing in water, not specifics about the species or biodiversity. However, this is also a relatively correct answer as invasive and native cattails are highly tolerant of fluctuating water with high nutrients.

Figure 6: Combined Results of Image Survey – Aesthetics

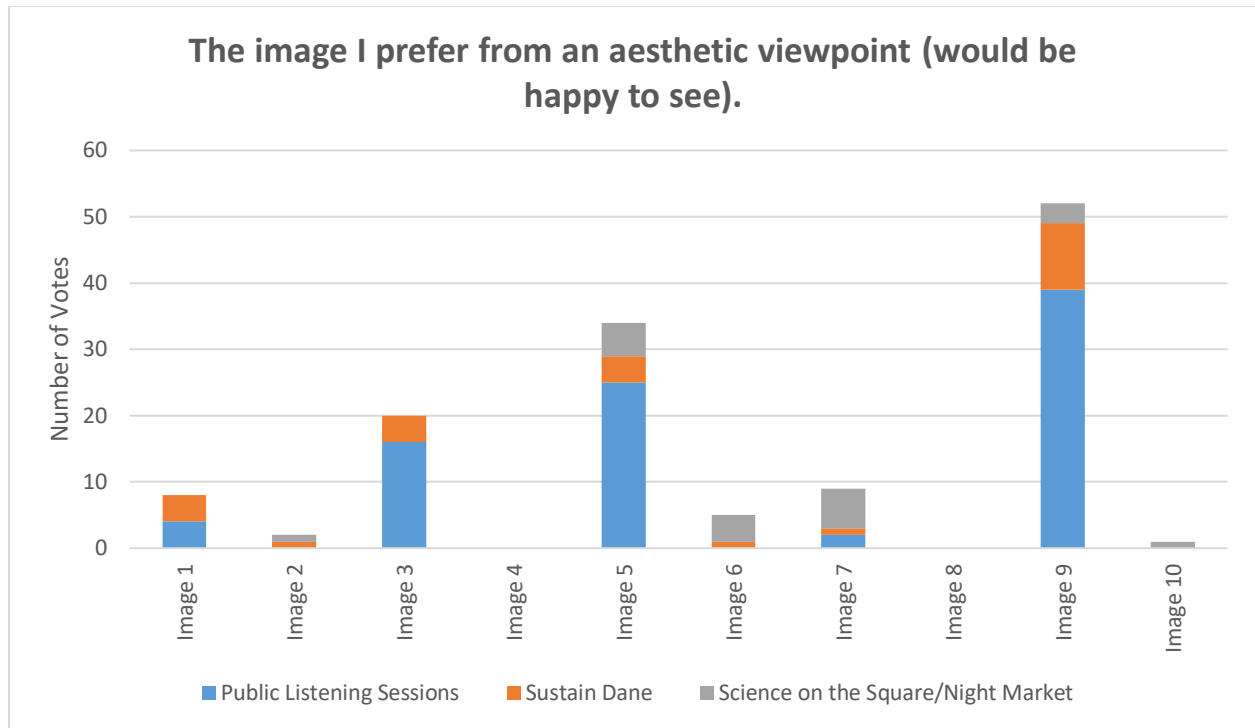


Figure 7: Combined Results of Image Survey – Resilience to Flooding and Erosion

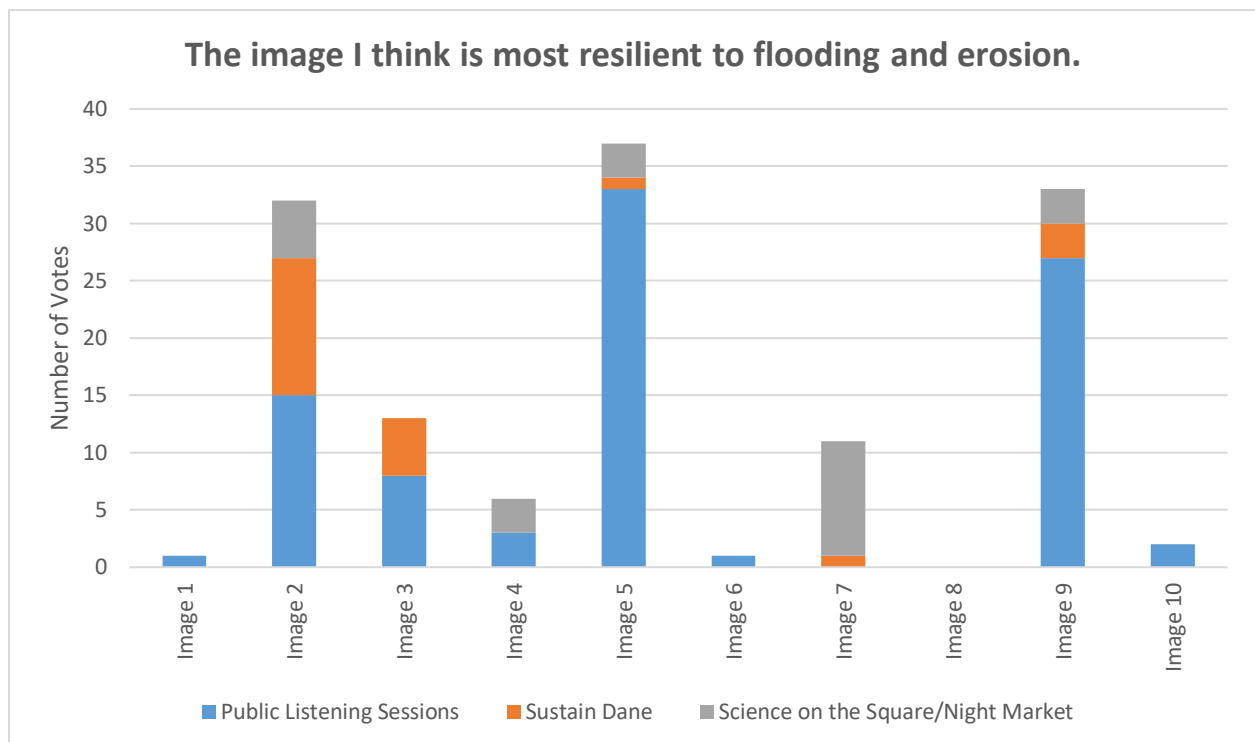
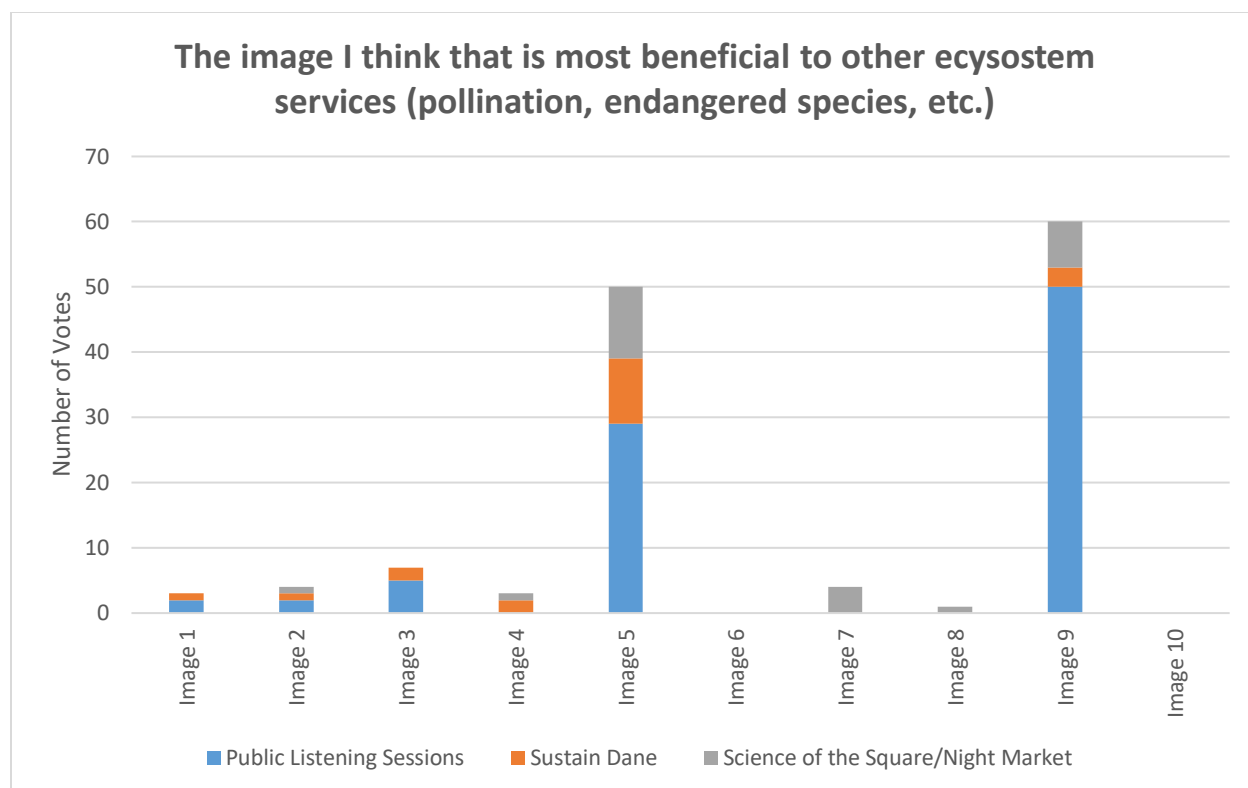




Figure 8: Combined Results of Image Survey – Other Ecosystem Services



### Group Discussions

At each Public Listening Session, meeting attendees were asked to work in small groups to discuss broader questions that included:

- What is working well with land management on stormwater utility property?
- What concerns you the most about stormwater utility vegetation?
- What aren't you sure about or want to hear more about from experts?

Specific responses are included in **Attachment D**. Comments were categorized into common topics/themes that occurred during discussions.

### Discussion

Group discussions included a wide range of topics. Top ideas on what is working well included recent shifts towards ecology-based land management with supporting staff and volunteer efforts. Top concerns included available resources, budget related to long-term maintenance, and how to involve more volunteers. There were also many other comments mentioned including, but not limited to, concerns about specific sites, shapes of ponds, and Public Works contractors.

Regarding issues people want to learn more about, many commented on wanting more information on collaboration and volunteer opportunities. Other comments requested information or opportunities to learn more about native plants, maintenance practices, carbon, and herbicides.

Figure 9: Summarized Group Discussions on What is Working Well within Stormwater Vegetation Management

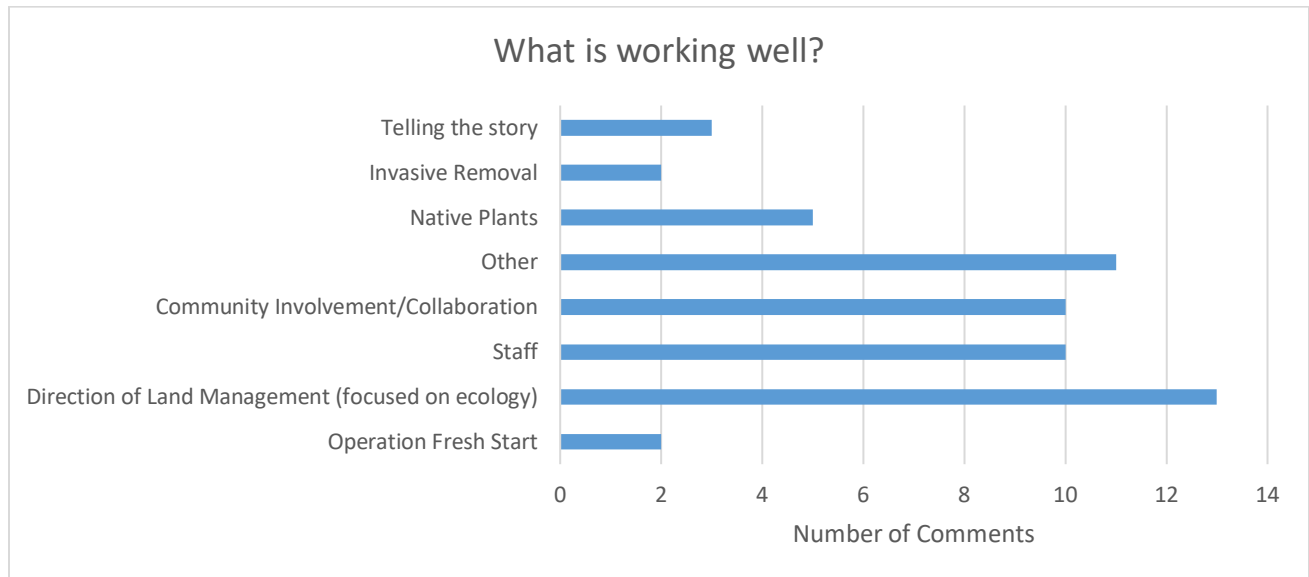


Figure 10: Summarized Group Discussions on Concerns within Stormwater Vegetation Management

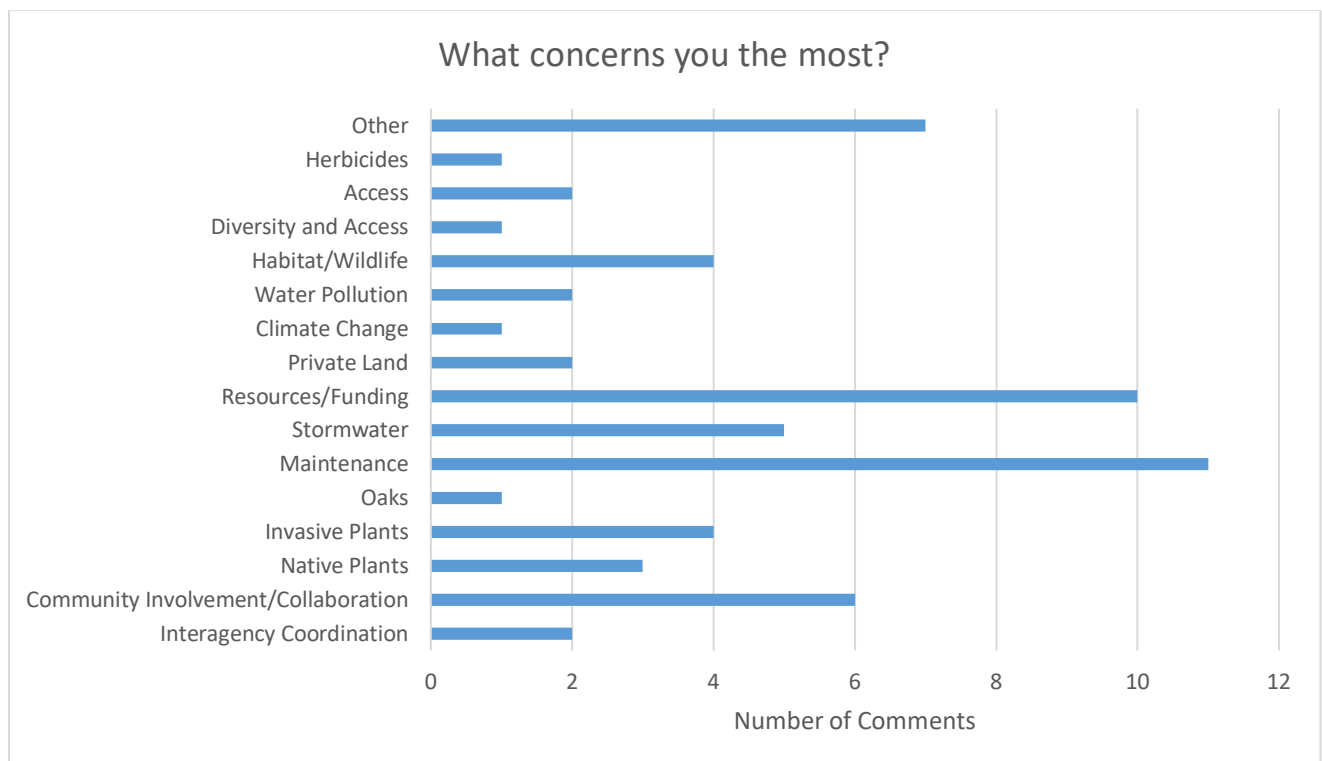
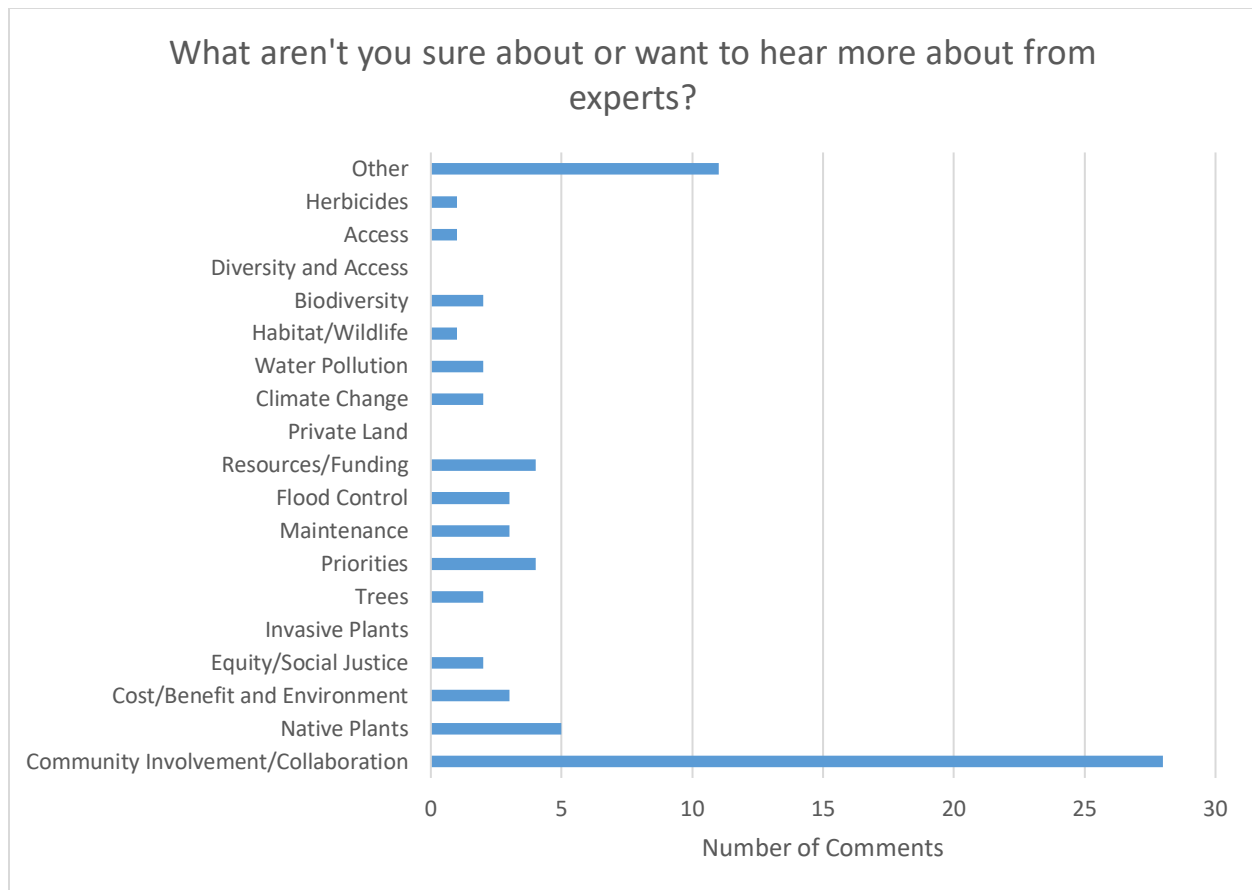


Figure 11: Summarized Group Discussions on Unknowns within Stormwater Vegetation Management





## Wisconsin Science Festival/Night Market Feedback Board

The Wisconsin Science Festival/Night Market included tabling on State Street on October 4<sup>th</sup> from 5:00 pm to 9:00 pm. During this event Engineering staff joined the City of Madison Office of Sustainability and Resilience to engage with event attendees on topics related to sustainability, stormwater and vegetation.

### Discussion

Compared to the public listening sessions, meeting attendees included higher participation from families, college students, and youth.

Figure 12: Comment Board at Wisconsin Science Festival

Most of the vegetation in Madison is comprised of native plants? Yes or No?			I think the city should invest in restoring native prairies, wetlands, and woodlands?			How do you think vegetation and stormwater are related?	Do you think invasive plants and species are helpful or hurtful to the environment? Or is it more complicated?
						Open Comment	
Yes ✓ (10/10)	No ✓ (10/10)	Other ✓ (10/10)	Yes ✓ (10/10)	No ✓ (10/10)	Other ✓ (10/10)	<p>Heavier vegetation helps maintain flood prevention</p> <p>More vegetation protects against flooding</p> <p>Also more vegetation prevents erosion (which causes problems)</p> <p>Vegetation helps filter out debris &amp; pollutants from water</p> <p>Vegetation can prevent soil erosion</p> <p>✓ Corn</p> <p>Help prevent small</p> <p>✓ (10/10)</p> <p>Vegetation with deep roots system decreases water runoff &amp; soil erosion</p> <p>Yes</p> <p>Rain gardens!</p> <p>Volunteers need to do the work. Parks should run it</p> <p>Rely on each other</p> <p>Stormwater can have polluters in it that can affect plants</p> <p>W/o plants we can get erosion</p> <p>veg helps prevent flooding</p>	<p>Helpful ✓ (10/10)</p> <p>Hurtful ✓ (10/10)</p> <p>It's Complicated ✓ (10/10)</p>
Both native & non-native						<p>Some invasive plants are helpful to the environment</p> <p>I think we should be careful to introduce plants from non-native plants. Many non-native plants are highly valued &amp; important parts of human life.</p> <p>Depends on exact species &amp; how they are introduced</p>	

Figure 13: Image Preference Board at Wisconsin Science Festival

☐ would be happy to see the following landscapes (red dots)  
☐ think the following landscapes are most resilient to flooding and erosion (blue dots)  
☐ think the following landscapes are most beneficial to other ecosystem services (pollination, habitat) (green dots)

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The images that reflected high biodiversity native landscapes scored the highest amongst all posed questions. Also scoring high for resiliency to flooding included images of cattail monocultures and urban woods with dominant buckthorn understory.

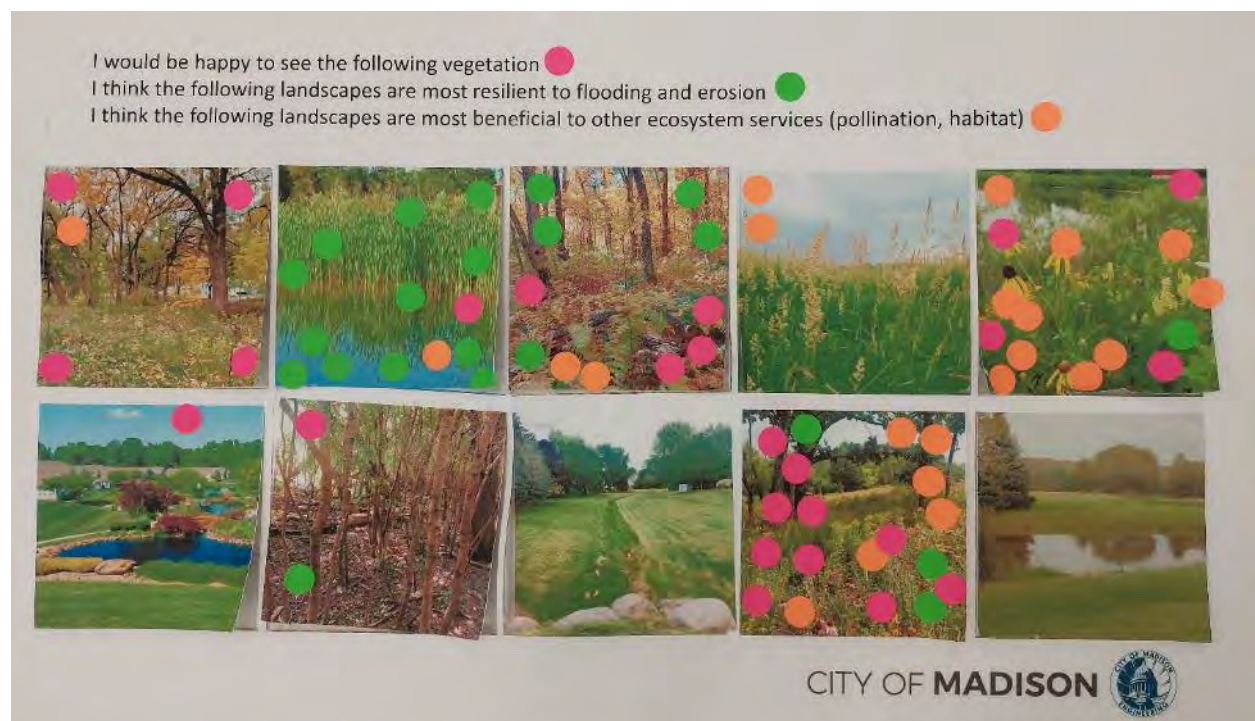
People who attended the Wisconsin Science Festival/Night Market were not provided background information in ecology, stormwater design, native plants, or invasive species prior to asking them for their opinion, unlike the meeting attendees at the Public Listening Sessions. Many attendees were in favor of conservation and land management strategies rooted in ecological restoration but simultaneously did not realize that the image of the buckthorn monoculture was not a native beneficial ecosystem. This likely is reflective that knowledge of native ecosystems, invasive species, and forest communities is typically limited to people who volunteer or have a background in this area of study, and many residents may not understand the impacts of different species compositions and their impacts.

### Sustain Dane Annual Meeting

The City of Madison Office of Sustainability and Resilience attended and managed a booth at the Sustain Dane Annual Meeting on November 3<sup>rd</sup>, 2023.

#### Discussion

Figure 14: Image Preference Board at Sustain Dane Annual Meeting



The images that reflected high biodiversity native landscapes scored the highest amongst all posed questions. Also scoring high for resiliency to flooding included images of cattail monocultures.

## Online Survey

217 people responded to the online survey. A detailed report of survey comments is included in Attachment E. The survey asked the following questions, and linked to an online map that identified all Stormwater Utility owned parcels.

1. Do you live adjacent to a stormwater utility owned pond or greenway? Click on this link to an online map to find out.
2. Do you volunteer on stormwater land (e.g. trash removal, remove garlic mustard, etc.). Click on this link to an online map for information on these locations.
3. We have heard past concerns on the below topics. As part of this plan, we will be reaching out to experts in these areas of study for additional input. Please rank your top concerns and add any additional concerns you have under "other."
  - a. Impacts to pollinator habitat.
  - b. Wildlife habitat and impacts.
  - c. Loss of biodiversity and species extinction.
  - d. Bird habitat and impacts.
  - e. Tree diseases and pests.
  - f. Invasive plants.
  - g. Herbicide on stormwater land.
  - h. Vegetation and heat islands.
  - i. Flooding and types of vegetation.
  - j. Water quality and types of vegetation
  - k. Sequestering carbon in soils and vegetation
  - l. Other \_\_\_\_\_
4. Please add any additional comments or concerns you have. Staff will use your information as part of the larger public engagement strategy to solicit additional information from experts and professionals in the field of land management, ecology, wildlife biology, entomology, climate change, stormwater engineering, sustainability, and other applicable fields.
5. How do you identify your race/ethnicity? (optional)
6. What is your age? (optional)
7. Do you own or rent your place of residence? (optional)
8. What is your address? (optional)

The survey also asked for optional address and demographic information.

## Discussion

- The online survey includes a higher representation of those who live on the west side based on geocoding residents who provided addresses. 97 respondents provided addresses. Attachment F shows the mapped address locations.
- 37% of survey respondents identified that they volunteer on stormwater land.
- Demographic information provided indicates that most survey respondents were white, own their home, and are over age 65.



Survey participants were asked to rank top concerns by topic. These topics were formed based on frequent concerns we've heard from residents. The results of this question are shown in Figure 15.

The majority of respondents top concerns on this plan include:

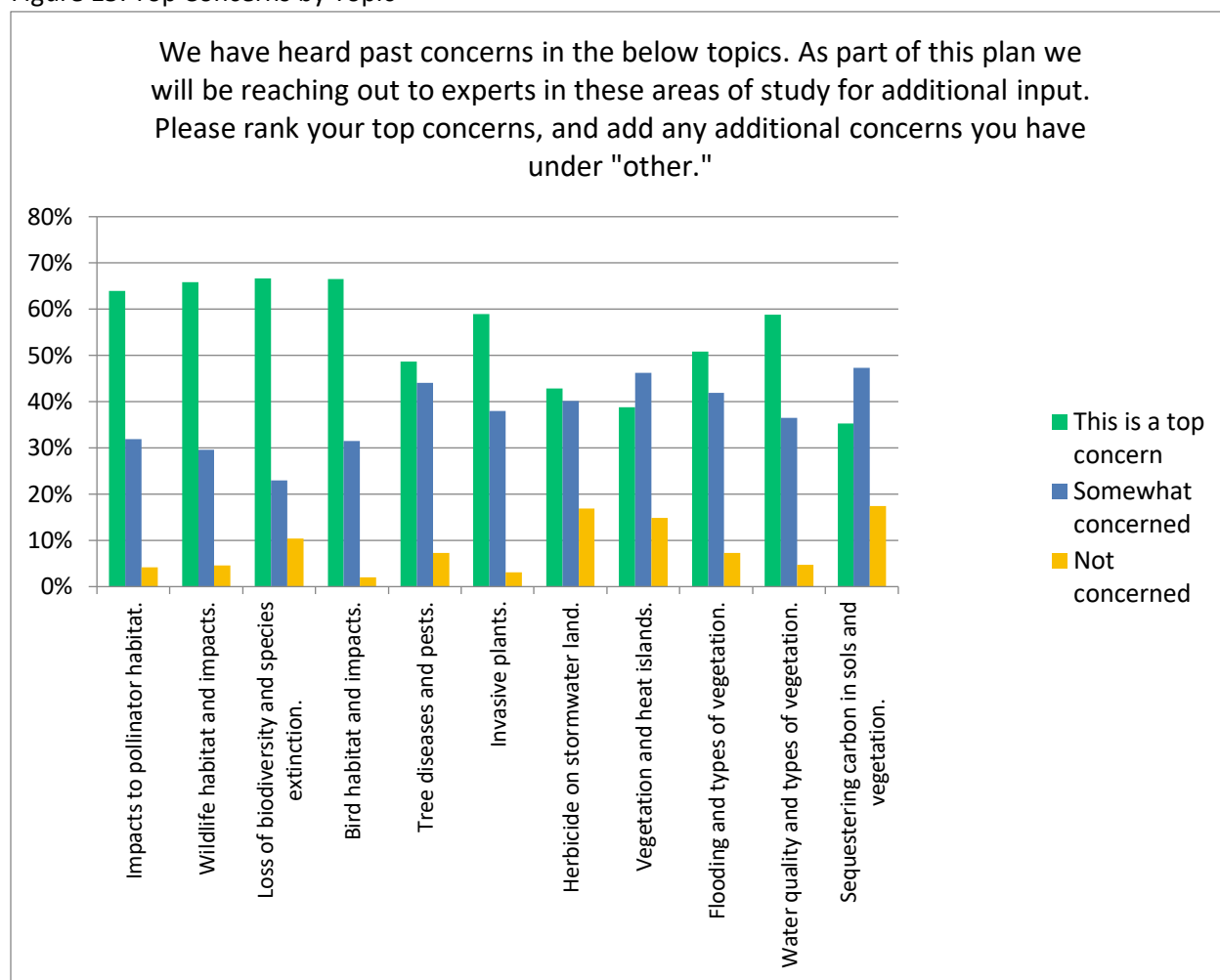
- Loss of biodiversity and species extinction (66.67%).
- Bird habitat impacts (66.50%).
- Wildlife habitat and impacts (65.82%).
- Impacts to pollinator habitat (63.92%).

The topics that had the highest "not concerned" rankings included:

- Carbon sequestration in soils and vegetation (17.37%).
- Herbicide on stormwater land (16.93%).
- Vegetation and heat islands (14.89%).

Only two topics were not universally "top concerns" amongst survey respondents: vegetation and heat islands and carbon sequestration in soils and vegetation.

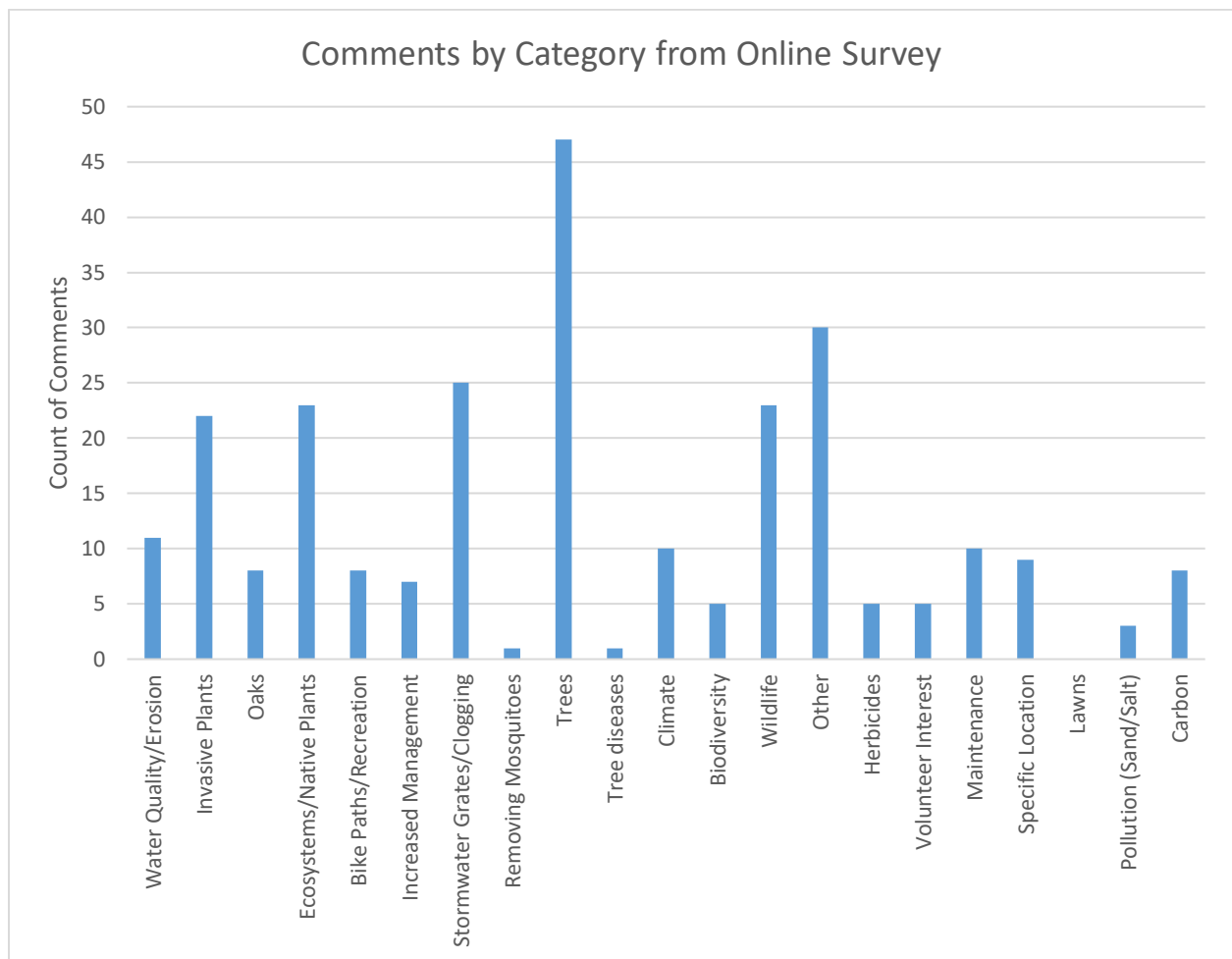
Figure 15: Top Concerns by Topic



Respondents were also invited to provide open-ended comments. These comments were organized by topic and many comments addressed multiple topics. The top comments received through the online survey were related to:

- Trees (18%)
- Specific stormwater issues (9.58%)
- Other (11.49%) related to complaints of not classifiable for vegetation management
- Wildlife/Birds (8.81%)
- Ecosystems/Native Plants (8.81%)
- Invasive Plants (8.43%)

Figure 16: Comments by Category from Online Survey



## **Attachments**

## Attachment A - Presentation at Public Listening Sessions



# **Engineering Stormwater Utility Vegetation Management**

## **Public Listening Session #3**

City of Madison Engineering Division  
November 28, 2023



# Welcome!

## We will begin shortly...

### Meeting Schedule

5:30 PM	Welcome
5:30 – 6:15	Presentation and iClicker Voting
6:15 – 6:30	Small Group Discussions
6:30 - 7:00	Come Back Together/Q&A & Wrap-Up

## City of Madison Staff at Tonight's Meeting

- **Sarah Lerner, PLA, LEED AP, ENV SP** is a licensed professional landscape architect with a degree in Landscape Architecture from UW-Madison. Currently pursuing a graduate certificate in Sustainable Cities and Communities from Harvard Extension School. Joined Madison Parks in 2010 and Engineering in 2021.
- **Maddie Dumas, Stormwater Vegetation Coordinator** has a Master's of Science from UW-Madison. She joined the City of Madison in 2018, and previously managed 660 acres of restored prairie and wetland for a non-profit.
- **Emily Jorgensen, Conservation Technician** as an Environmental Studies degree from UW-Madison. Her career in ecological restoration has involved work with multiple local non-profits, a private ecological restoration firm, the Lakeshore Nature Preserve, and UW-Arboretum where she leads volunteer workdays.
- **Janet Schmidt, PE is a Civil Engineer** and a 1994 graduate from the University of Wisconsin-Madison with a B.S. Degree in Civil & Environmental Engineering. Janet joined the City of Madison in 1995 and is currently Principal Engineer for the City Stormwater section.

# Meeting Technical Housekeeping

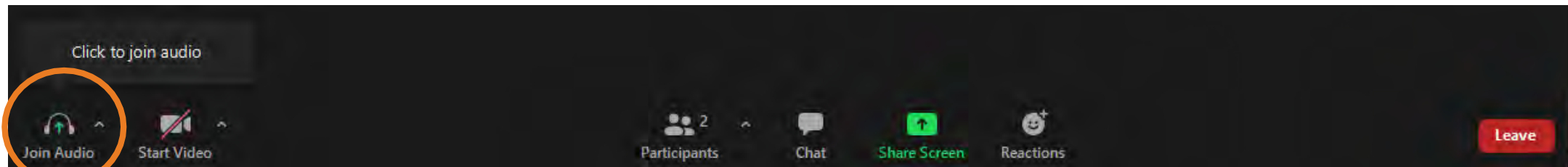
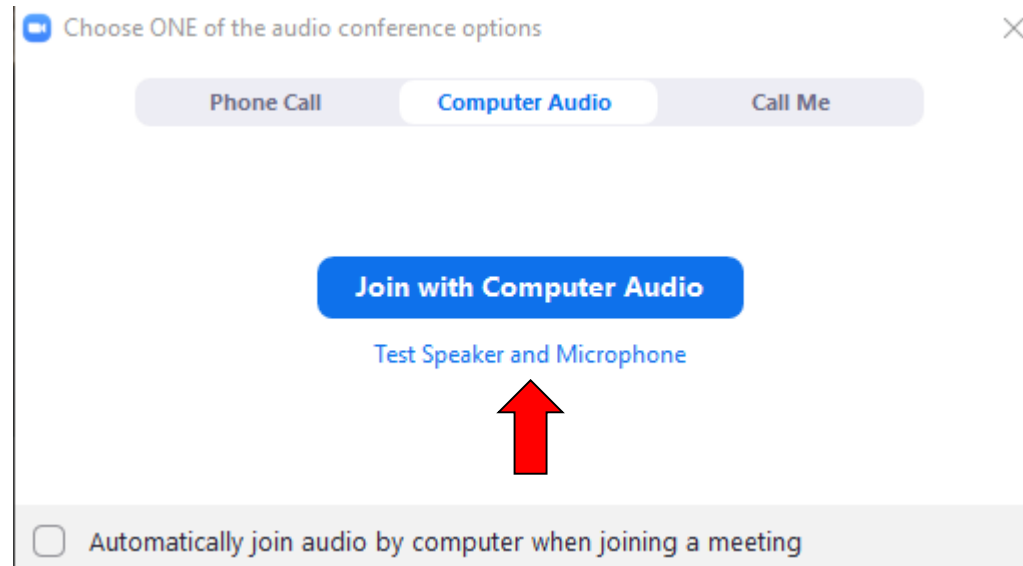
- This meeting will be **recorded** and posted to the project page.
- All attendees should be **muted** to keep background noise to a minimum.
- Use the **“chat”** button for technical issues with meeting to troubleshoot with staff to assist.
- Inappropriate questions may be dismissed.
- Use the **“raise your hand”** button to verbally ask your question. You will be prompted to unmute when it is your turn.

**This meeting is being recorded.**

**It is a public record subject to disclosure.**

By continuing to be in the meeting, you are consenting to being recorded and consenting to this record being released to public record requestors.

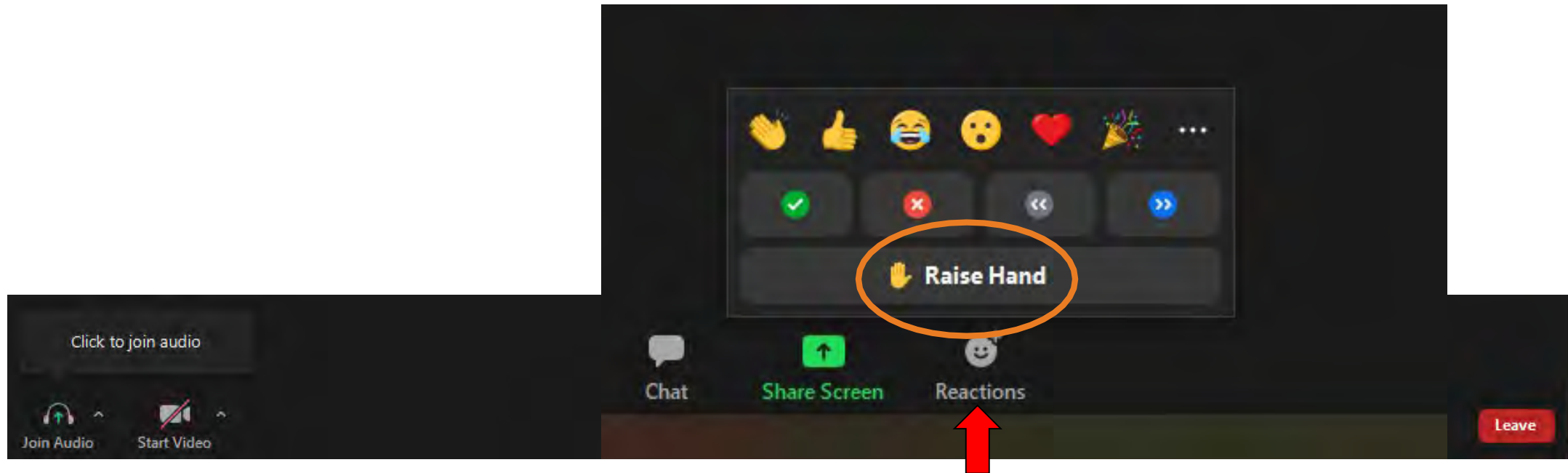
# How to Participate



Make sure to join audio

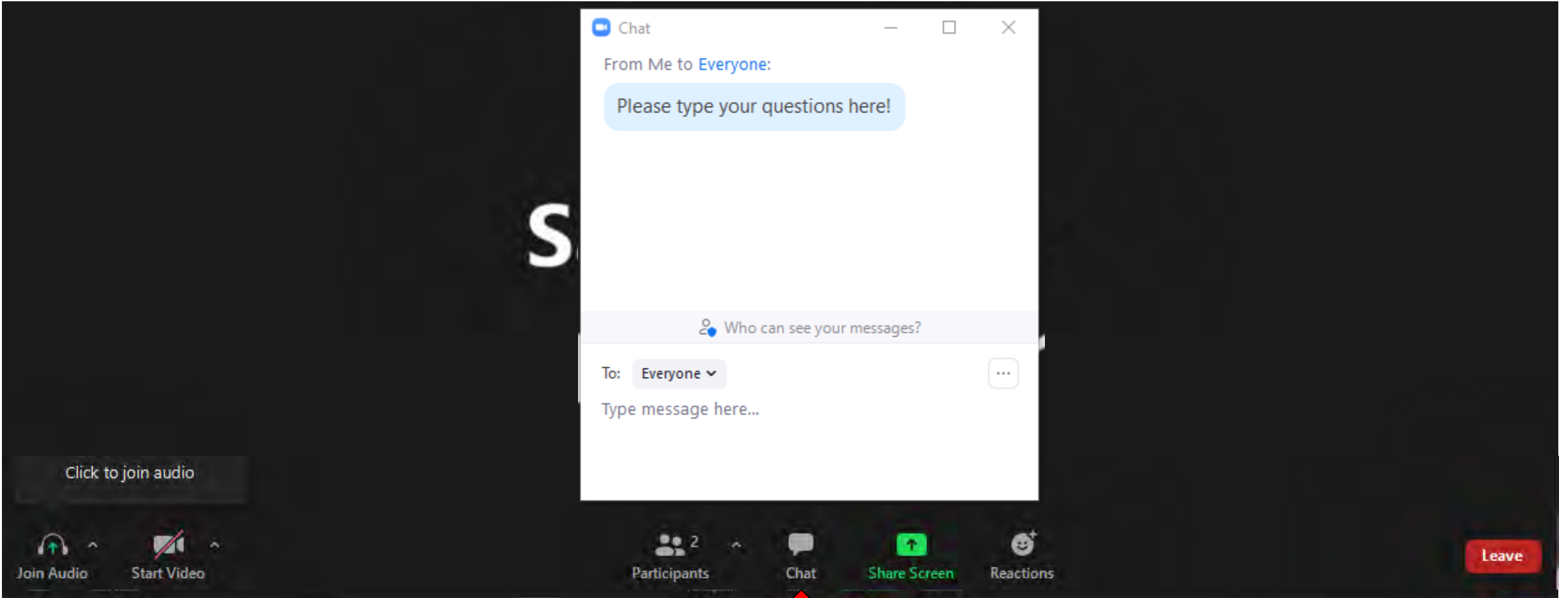
# How to Participate

Raise your hand to be unmuted  
for comments or ask additional questions.





# How to Participate



Use chat if you have technical issues or a question for the panelists.

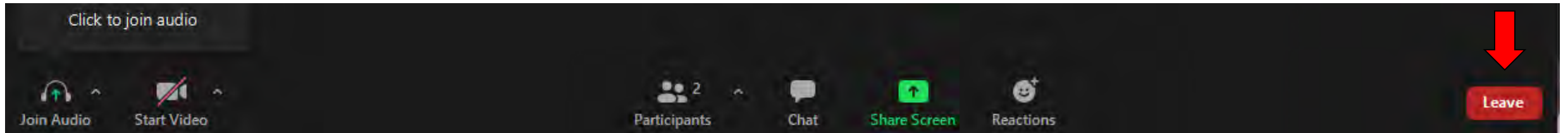
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# How to Participate

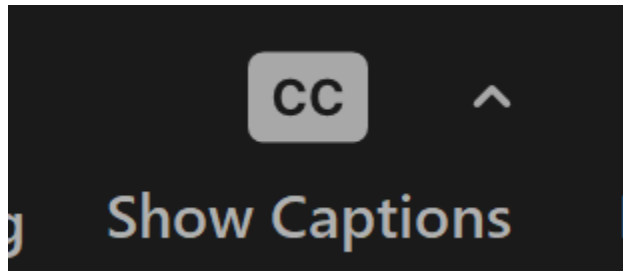
When you are ready to leave the meeting

To leave the meeting  
click here



# Closed Captioning

- If you'd like to enable closed captioning, click “show closed captions” button on the bottom of the screen.
- This may already be enabled. If this is not enabled, click the button to allow closed captioning.



# Meeting facilitation asks

- Ask clarifying questions as we go.  
(e.g. explain a term, or repeat a statement).
- Save discussion questions for the end.
- Practice putting yourself in others' shoes, but speak from your own experience.
- Be respectful. Be open to listening. Respect others in this meeting the way you wish to be respected.
- Recognize that personal opinions differ, there are often competing priorities, differing values, and perspectives.



# Today's Agenda

- Provide background on stormwater utility owned ponds and greenways
- Discuss the relationship between vegetation and stormwater
- Public Engagement. We want your thoughts!
  - Identify communities values and priorities on vegetation.
  - Gauge community perceptions of different vegetation.
  - Identify community concerns, worries, and what the community would like to learn more about or hear from technical experts.



City of Madison Stormwater Utility  
Retention Pond



# Why are we doing this?

- No existing written planning document.
- Stormwater land continues to grow
- Often Common Concerns and Competing Priorities
  - Mowing – both asking to mow, and requesting us not to mow
  - Invasive Species – both keep them, and remove them
  - Prescribed Burns – both implement, and don't implement
  - Blocked views from vegetation, as well as the opposite – wanting view-shed buffers
  - Wildlife Concerns – Increase pollinators and protect wildlife, and concerns about “nuisance” wildlife



City of Madison Stormwater Utility  
Retention Pond

# Plan purpose

- Create a **framework for vegetation management** for City of Madison Stormwater Utility Ponds and Greenways that is **resilient, sustainable, and aligns with stormwater utility goals** while providing **multiple ecosystem services**.
- Informs **financial budgeting and planning**.
- Establish priorities for land management activities specific to **invasive species, biodiversity, plantings and vegetation type**.
- Provides **transparent framework for maintenance**.
- Support justification for new requirements for new ponds and greenway restoration in areas of **future growth**.

# Your feedback is important!

- Focus Topic Workshops: Asking for expert opinions.
- Sending a technical questionnaire to professionals in land management, water resources, ecology, climate change, etc.
- Issuing a Request for Proposal for a consultant review of data, science, and trends related to the top public concerns based on feedback

# What IS included in this plan.

- Community identified values and priorities.
- Big picture goals and strategies related to vegetation management on ponds and greenways.
- Identification of priorities for fiscally and environmentally sustainable vegetation management.
- Input from ecologists, stormwater engineers, and other experts in the field of climate change, land management, and ecological restoration.

# What IS NOT included in this plan.

- Specific improvements to individual ponds or greenways.
- Recommendations for implementing green infrastructure, or larger sustainability initiatives outside of management of vegetation in stormwater utility owned lands.
- Overall vegetation within the city and road right of way.
- Vegetation on park land.
- Citywide Urban Forestry goals.
- Will not dictate a specific design, but will be a companion document guiding the process for long term vegetation management and goals.
- This plan will not determine new land to acquire or new reconstruction projects.



# Why are plants on stormwater lands important?



- These lands are connected to our water resources.
- How we manage vegetation within them can have implications to water quality, flooding, erosion, and other environmental impacts.



# What is a pond and greenway? What land are we talking about?

## Grassman Ponds





# What is a pond and greenway? What land are we talking about?



Lance-tipped darner



Burr oak seedling

## Grassman Ponds



Reed canary grass and Canada thistle bordering pond.

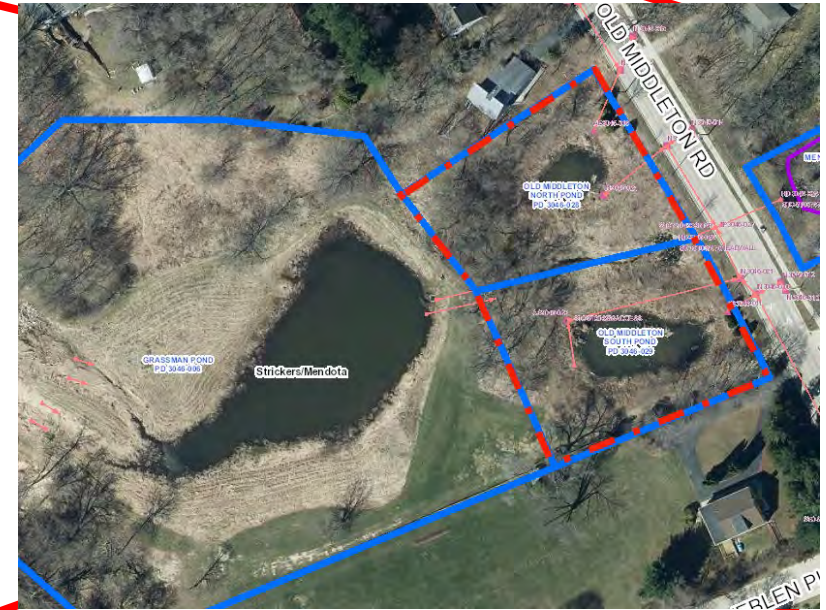
CITY OF MADISON





# What is a pond and greenway? What land are we talking about?

## Grassman Ponds



This area was greatly improved with some targeted invasive species control

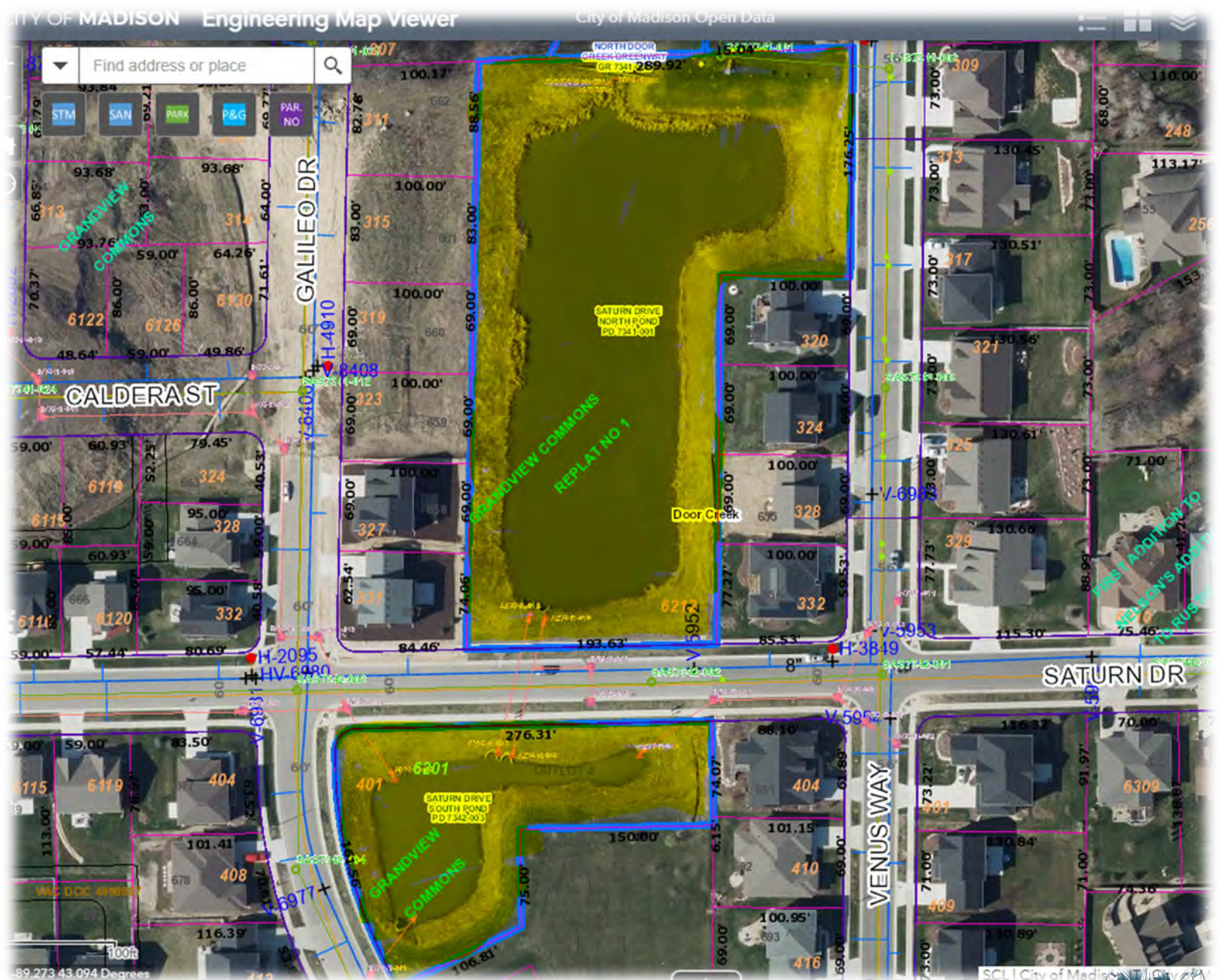
CITY OF MADISON





What is a pond  
and greenway?

What land are we  
talking about?



Saturn Drive Ponds



**What is a pond and greenway?  
What land are we talking about?**

**Saturn Drive Ponds**



**Construction in 2018**



**2020**



**2023**

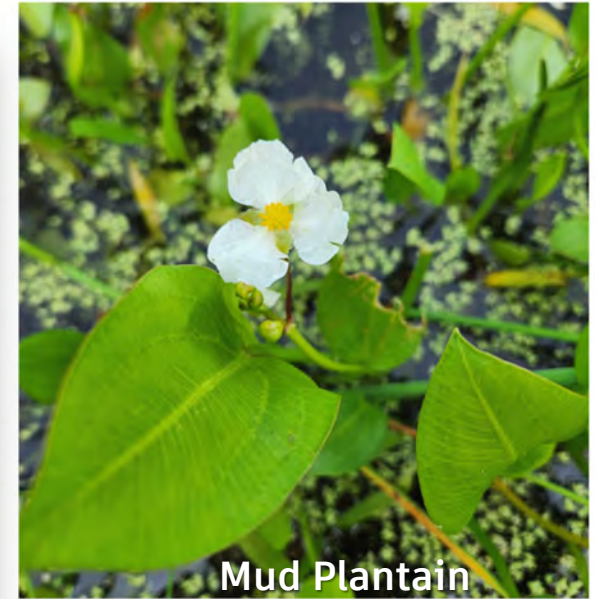


# What is a pond and greenway? What land are we talking about?

## Harrington Dr Pond



Four-lined plant bug



Mud Plantain



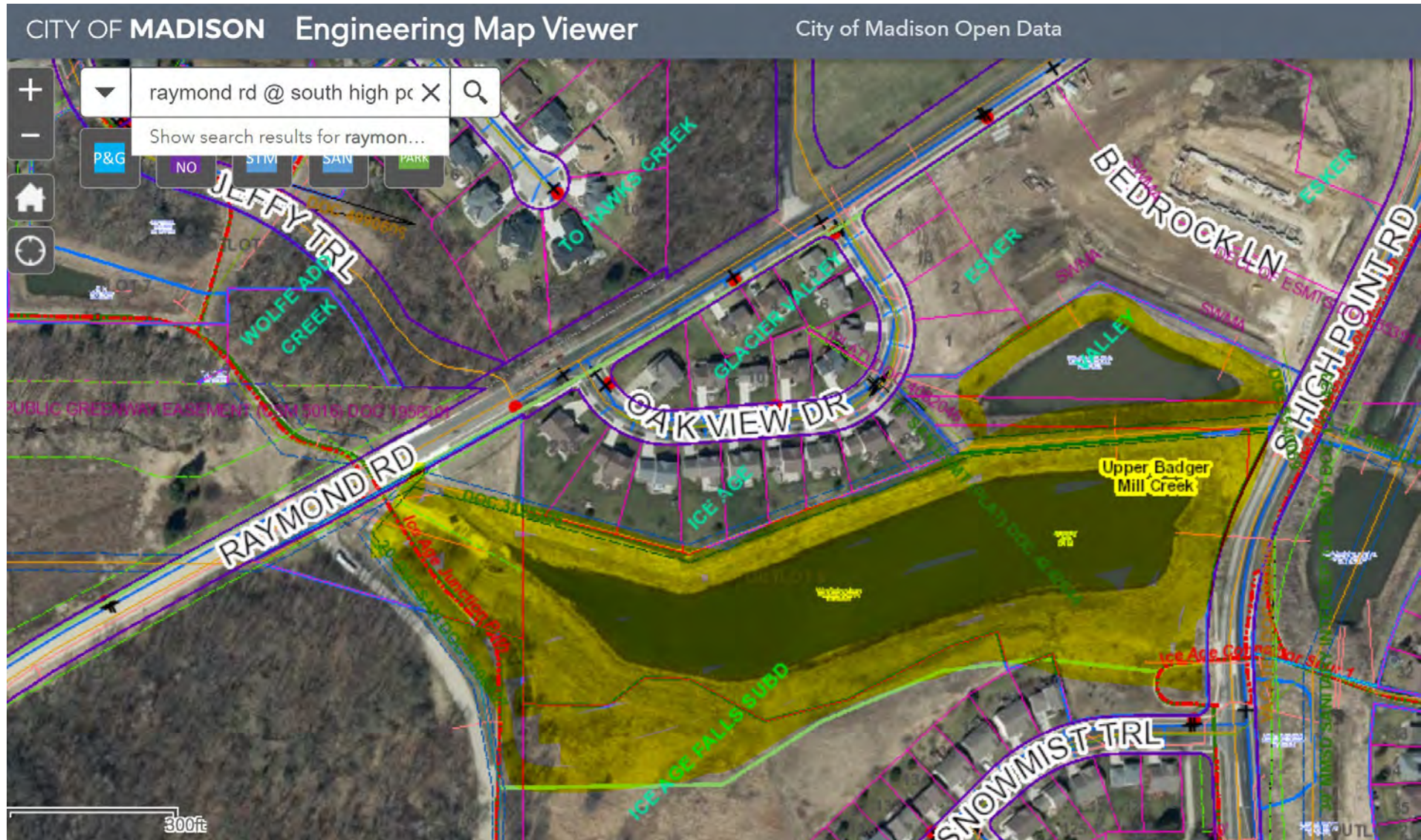
Red-banded leafhopper





# What is a pond and greenway? What land are we talking about?

## Upper Badger Mill Creek Regional West Confluence Ponds





**What is a pond  
and greenway?**

**What land are we  
talking about?**



**Upper Badger Mill  
Creek Regional West  
Confluence Ponds**





**What is a pond  
and greenway?**

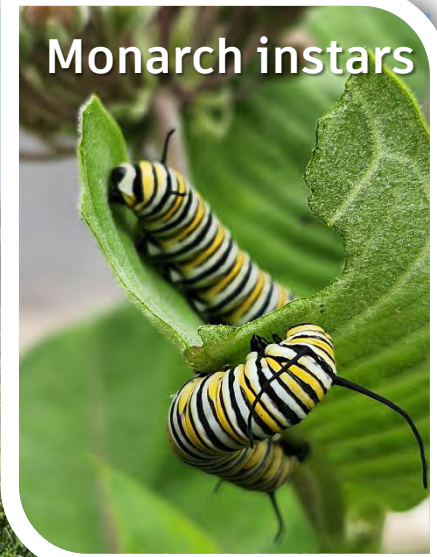
**What land are we  
talking about?**

# Upper Badger Mill Creek Regional West Confluence Ponds

American goldfinch



Monarch instars



Common green darner





**Tell us about yourselves!**



# **Q1 Are you a City of Madison resident?**

**A. Yes**

**B. No**

# **Q2 Do you live adjacent to a pond or greenway?**

**A. Yes**

**B. No**

**C. I am not sure.**



# **Q3 Do you volunteer on ponds or greenways?**

**A. Yes**

**B. No**

**C. I am not sure.**

# **Q4 Do (did) you work as a professional in the field of ecological restoration?**

**A. Yes**

**B. No**

# Background and History

- 1970's - open drainage ways conveyed water directly to wetlands or waterways, seeded with turf and grass and mowed
- 1983 - first stormwater ordinance required detention
- 1995 – engineering required ponds and greenways planted with native prairie and wetland species and had varied success
- 1990's - trees and shrubs were discouraged because they create bare groundlayer
- Prior to 2003 – vegetation maintenance limited to mowing by the Parks Division, and many areas became woody, urban woodlots with aggressive shrubs and trees
- 2003 – Engineering assumed routine maintenance and initiated program to improve overgrown ponds and greenways by removing invasive trees and shrubs with brush clearing and helped return land to mowable conditions
- 2011 – Selective Prairie Management Program to mow only targeted weed areas to preserve prairies and improve invasive control – proved to be cost effective and better option for species preservation
- 2017 – The design philosophy changed and considered including trees within greenway, as well as tree preservation
- 2018 – Greenway Vegetation Coordinator position created to manage all engineering stormwater utility lands
- 2019 – Seasonal trainee positions created for summer work
- 2022 – Conservation Technician position created to help coordinate specialized vegetation work
- 2023 – Mapped all vegetation in GIS maintained by Engineering Stormwater and developed a Tier System as part of a comprehensive analysis of all lands within the stormwater utility and their various levels of health and ecological integrity

# Where are we today?

- > 1,500 acres of land. Native restoration efforts managed by two full time ecology staff, two interns, eng mowing crews, & assistance from Operation Fresh Start.
- 82 acres of these are maintained by developers based on new requirements for establishing native ecosystems which began in 2019.
- 9,000 acres of future park and open space (includes ponds and greenways) in adopted future land use plans still to come into the City of Madison.



City of Madison Stormwater Utility  
Retention Pond



# Vegetation maintenance is now...

- Monitoring
- Mowing
- Targeted Invasives Control
- Prescribed Burns
- Browsing (Goats!)
- Ecological Restoration Contractors
- Native Seeding
  - Collected 275 lbs of native seed with over 90 different plant species in 2022!
- Planted over 7,000 native plants in 2022
- Propagation of our own plants

Goats at Robin Greenway.



Staff collecting native seed.



Prescribed Burn conducted by staff

# Racial Equity and Social Justice

- Inter-agency team using City of Madison RESJ Toolkit
- Discussions so far related to stormwater land:
  - Implementing native landscapes/trees is costly for private owners, requires technical expertise, but vast majority of Madison's vegetated landscape is owned privately.
  - Varying perspectives on vegetation: a perceived urban forest oasis for some, may be seen as a scary dangerous place for others.
  - Property values near parks and greenspaces tend to be higher – and less affordable for people of low income.
  - Owners of single family homes vs renters and high density and access to natural spaces.
  - City staff are contacted more often by owners, over renters.
  - Above practice reinforces disparities in connections to the benefits of these natural spaces, further increasing native landscaping as something people don't have day-to-day experiences with – which contributes to lack of understanding of our environment.

# Q5 Most of the vegetation in Madison is...

- A. All native plants, native to Dane County, the State of Wisconsin and/or Midwest.
- B. Mostly native plants, it is a mixture of native and non-native plants from other countries and parts of the United States.
- C. About half native vegetation, and half non-native plants.
- D. Mostly non-native plants.
- E. All non-native plants.



# Q6 Most of the vegetation on stormwater-utility property is...

- A. All native plants, native to Dane County, the State of Wisconsin and/or Midwest.
- B. Mostly native plants, it is a mixture of native and non-native plants from other countries and parts of the United States.
- C. About half native vegetation, and half non-native plants.
- D. Mostly non-native plants.
- E. All non-native plants.

# By the numbers....

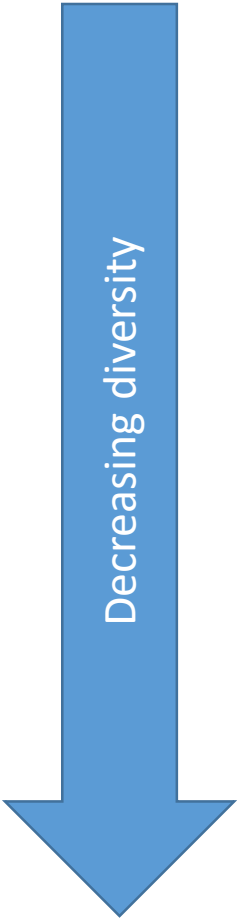
- Stormwater modeling data shows there is approximately **42,600 acres of landscaped areas in the City of Madison.**
- The stormwater utility owns approximately **1,500 acres of vegetated land (3.5%).**
- The Parks Division includes > 5,500 acres of parkland (12.9%)
- **85% of the trees in Madison are on private property** (Urban Forestry Task Force Report, 2019)

# Vegetation on ponds and greenways

Type of Land	Acres
Mixed Herbaceous Vegetation	713
Native Vegetation	257
Other	<1
Turf	36
Unknown	145
Unmanaged Woods	237
Grand Total	1391

# What status are they in?

Tier 1: Most biodiversity and native ecosystem.



Tier 5: Invasive species monoculture.

Tier Category	Acres
Tier 1	7
Tier 2	120
Tier 3	106
Tier 4	227
Tier 5	924
Tier 6	2

# Funding

- All stormwater related operations and capital expenses are funded through a charge on your monthly water bill called “stormwater”.
- The average single family house pays **\$11/month** which is used to fund **ALL the operations of the entire stormwater sewer system as well as funding capital projects.**
- Not funded from property taxes.

CUSTOMER NUMBER		107188156		ACCOUNT NUMBER		00057389		BILL NUMBER		827588		E	
LANDFILL				RATES WENT INTO EFFECT 06/01/2023									
Landfill Remediation												\$0.50	
SEWER				RATES WENT INTO EFFECT 06/01/2023								(608) 266-4751	
City Sewer Demand 5/8" Meter												\$7.87	
MMSD Trtmt Demand 5/8" Meter												\$7.36	
City Sewer Service				3,426	gallons at	0.001308						\$4.48	
MMSD Treatment Service				3,426	gallons at	0.003439						\$11.78	
Sewer Sub Total												\$31.49	
SPECIAL CHARGES				RATES WENT INTO EFFECT 01/01/2023								(608) 243-5899	
Urban Forestry-Residential												\$6.38	
Resource Recovery												\$4.08	
Special Charges Sub Total												\$10.46	
STORMWATER				RATES WENT INTO EFFECT 05/01/2023								(608) 266-4751	
Stormwater Base												\$2.15	
Stormwater Impervious				1,709	sq. ft. at	0.003470						\$5.93	
Stormwater Pervious				8,569	sq. ft. at	0.000260						\$2.23	
Stormwater Sub Total												\$10.31	
WATER				RATES WENT INTO EFFECT 03/01/2023								(608) 266-4641	
Water Base Charge 5/8"												\$14.00	
Water Consumption Tier 1				3,000	gallons at	0.004600						\$13.80	
Water Consumption Tier 2				426	gallons at	0.006100						\$2.60	
Water Sub Total												\$30.40	
CURRENT CHARGES												\$83.16	



# Why are plants important in the stormwater lands?

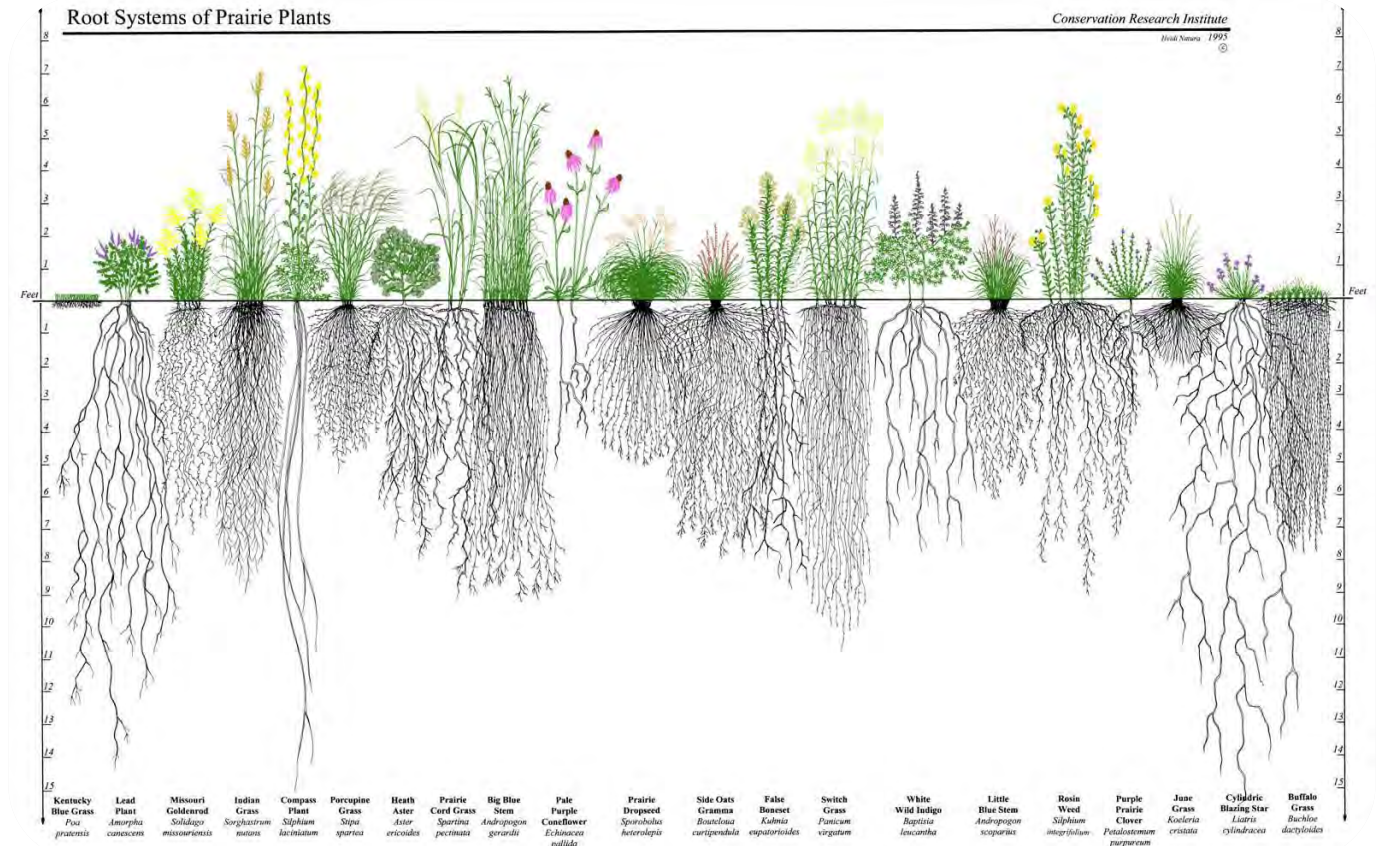
- Infiltration
- Slope Stabilization and Erosion Control
- Decreasing Flooding (increased stormwater concentration time)



City of Madison Stormwater Utility  
Retention Pond

# Infiltration

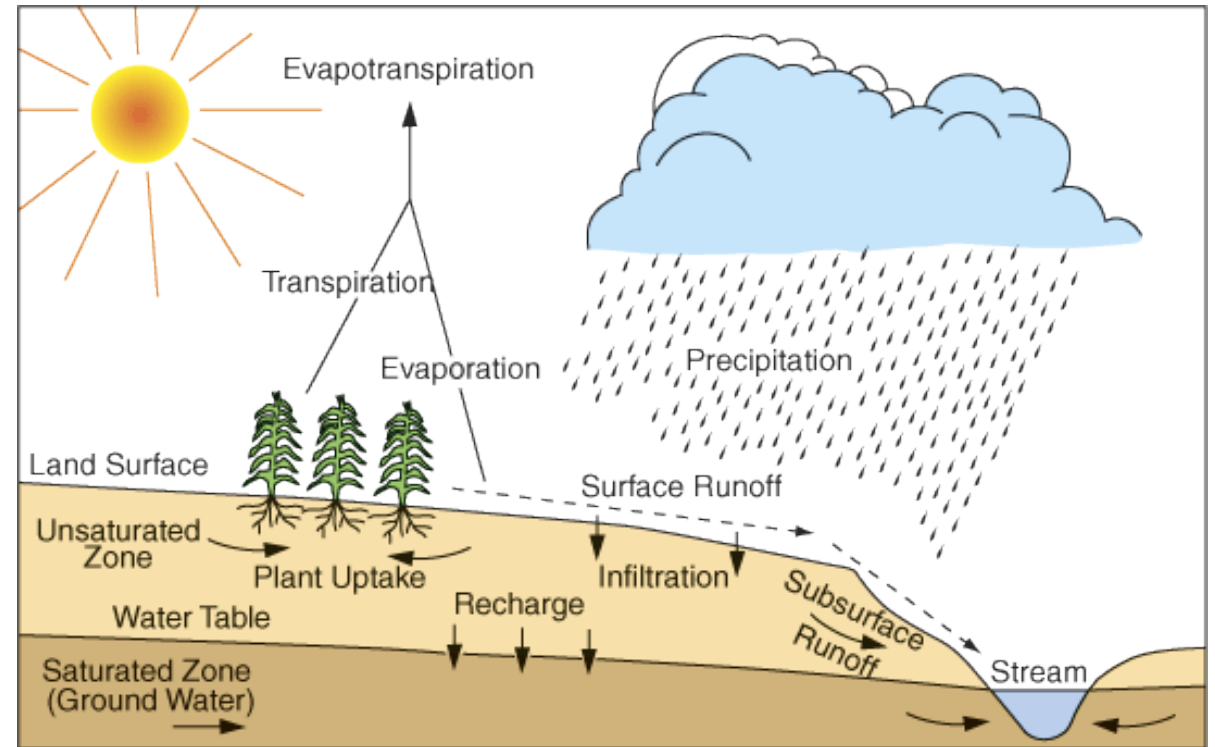
- Deep root systems improve the soil's ability to infiltration stormwater. Prairie root systems can grow up to 16' deep!
- Lots of fibrous roots create channel through the soil increasing soil porosity.
- Reduces compaction.
- Native switchgrass 7.5in/hr compared to urban turf at .29 in/hr





# Why this is important.

- Decreases stormwater runoff flow rates = how much & how fast runoff moves
- Decreases the volume of stormwater runoff = how much is runoff
- Preserves stream base flows
- Reduces thermal impacts of runoff
- Reduces pollutant loading directly into waterways from runoff
- Recharges groundwater
- Promotes retention and breakdown of contaminants in soil, before entering aquifer or waterway
- Reduces soil erosion which leads to decreased water quality



# Slope Stabilization and Erosion Control

- Deep root systems stabilize soil and erosion.
- Root systems hold onto soil.
- Herbaceous groundlayer can hold together soils on slopes, with low susceptibility to uprooting.
- Shallow rooted species can contribute to infrastructure damages during flood events.
- Dense heavily wooded woodlots that do not let light reach the understory are not good for stormwater. The increase erosion and sediment loss – contributing to nutrient loading in our waterways.



Tenney Park  
Lagoon Shoreline  
Erosion - Before



Tenney Park  
Lagoon Shoreline  
Erosion - After

# Decreasing Flooding by Increasing Storm Concentration Time

- Vegetation intercepts water, and slows the velocity.
- This increases the amount of water that will infiltrate soil, compared to runoff.
- This also allows particulates to settle out of the water, keeping them from entering our waterways.





# What are other ecosystem services they provide?

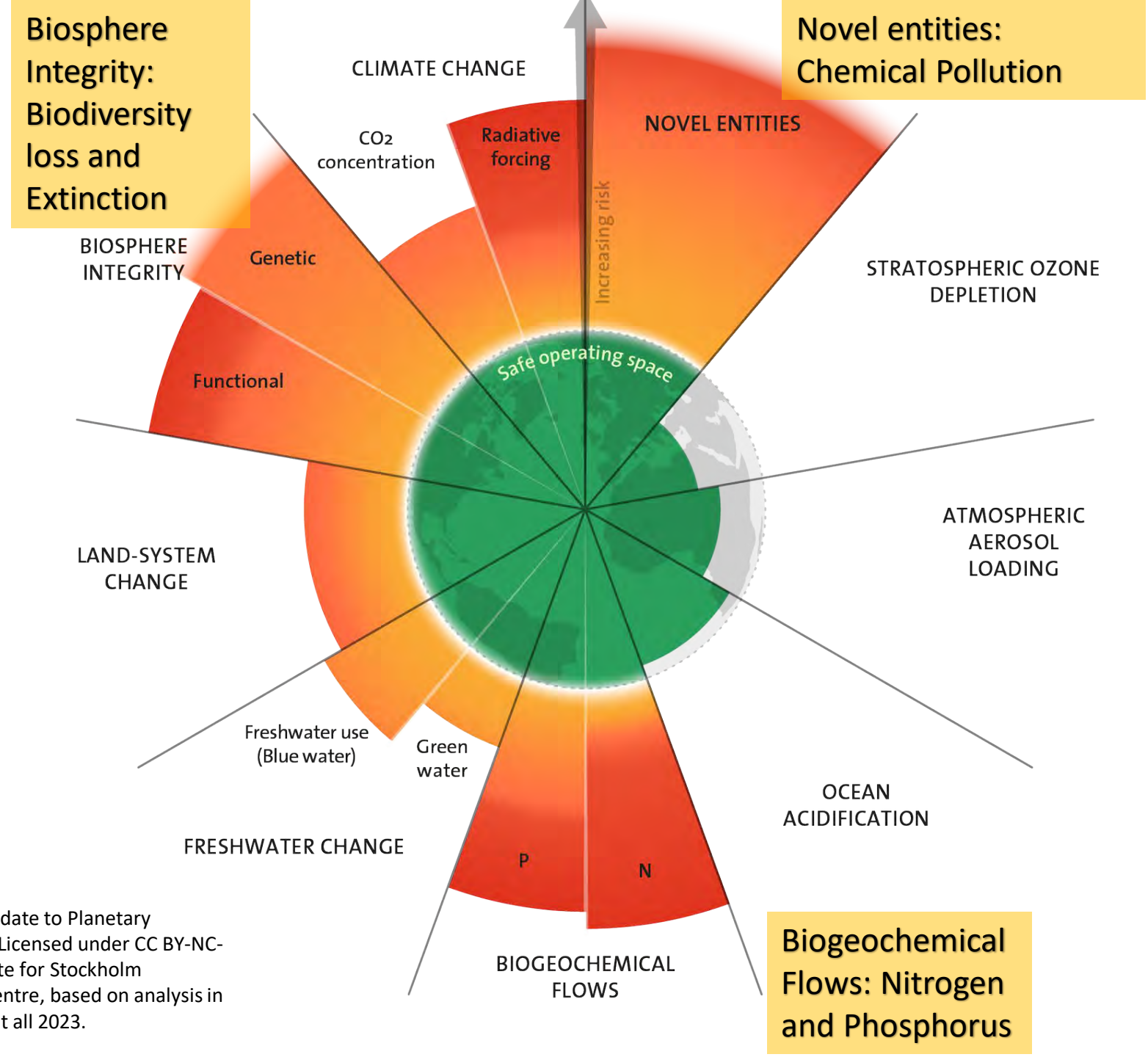
- Urban Canopy: Dane County Office of Energy & Climate Change Tree Working Group created [online mapping tool](#) to identifies communities that could most benefit from increased tree canopy
- Pollinator Habitat: The greatest threat to native pollinators is habitat loss, degradation and fragmentation – Wisconsin DNR
- Carbon storage: [prairie systems contain more soil organic carbon than any other ecosystem](#) – MN Board of Water and Soil Resources
- Biodiversity – United Nations Climate Action Group calls Biodiversity [“our strongest natural defense against climate change”](#)
- Wildlife Habitat – [Urban Refuge: How Cities Can Help Solve the Biodiversity Crisis](#) - Yale Environment 360

# We live in an increasingly more complex world.

## Planetary Boundaries

“Crossing boundaries increases the risk of generating large-scale abrupt or irreversible environmental changes. Drastic changes will not necessarily happen overnight, but together the boundaries mark a critical threshold for increasing risks to people and the ecosystems we are part of.”

The 2023 Update to Planetary Boundaries. Licensed under CC BY-NC-BY 3.0. Azonte for Stockholm Resilience Centre, based on analysis in Richardson et al 2023.



# We live in an increasingly more complex world.

- What is the most important local environmental priority? There are many and they sometimes seem to contradict each other. Not necessarily always a good vs bad option. Examples:
  - Leave all trees as carbon storage regardless of species.
  - Remove invasive and non native aggressive trees to restore biodiverse ecosystems and prevent species extinction.
  - Establish urban canopy throughout the city to improve air quality.
  - Reduce the amount of leaves that enter our waterways to improve water quality.
  - Expand beekeeping ordinances to increase honeybees for food systems.
  - Expand habitat for native pollinators that are competing with honeybees.



# We live in an increasingly more complex world.



UC DAVIS



## Invasive Species Aren't Always the Bad Guys

For some plants struggling to keep up with climate change, invasive species may be the lifeline they need

Buy

RESEARCH

## WHY CONFRONTING INVASIVE SPECIES IS ONE OF THE BEST WAYS TO PREPARE FOR CLIMATE CHANGE

New study, led by UMass Amherst, is first to examine ecological impacts from invasive species combined with warming, drought and nitrogen deposition

# How can we move forward?

Your help!

- We will ask a series of questions related to community values and priorities.
- We will break out into groups to discuss concerns, issues and report out.

Feedback from these meetings will be used to seek additional expertise on the communities top concerns.



# Good Invasive? Bad Invasive?





# Q7 Which of these pictures is all or primarily native vegetation?

Image A

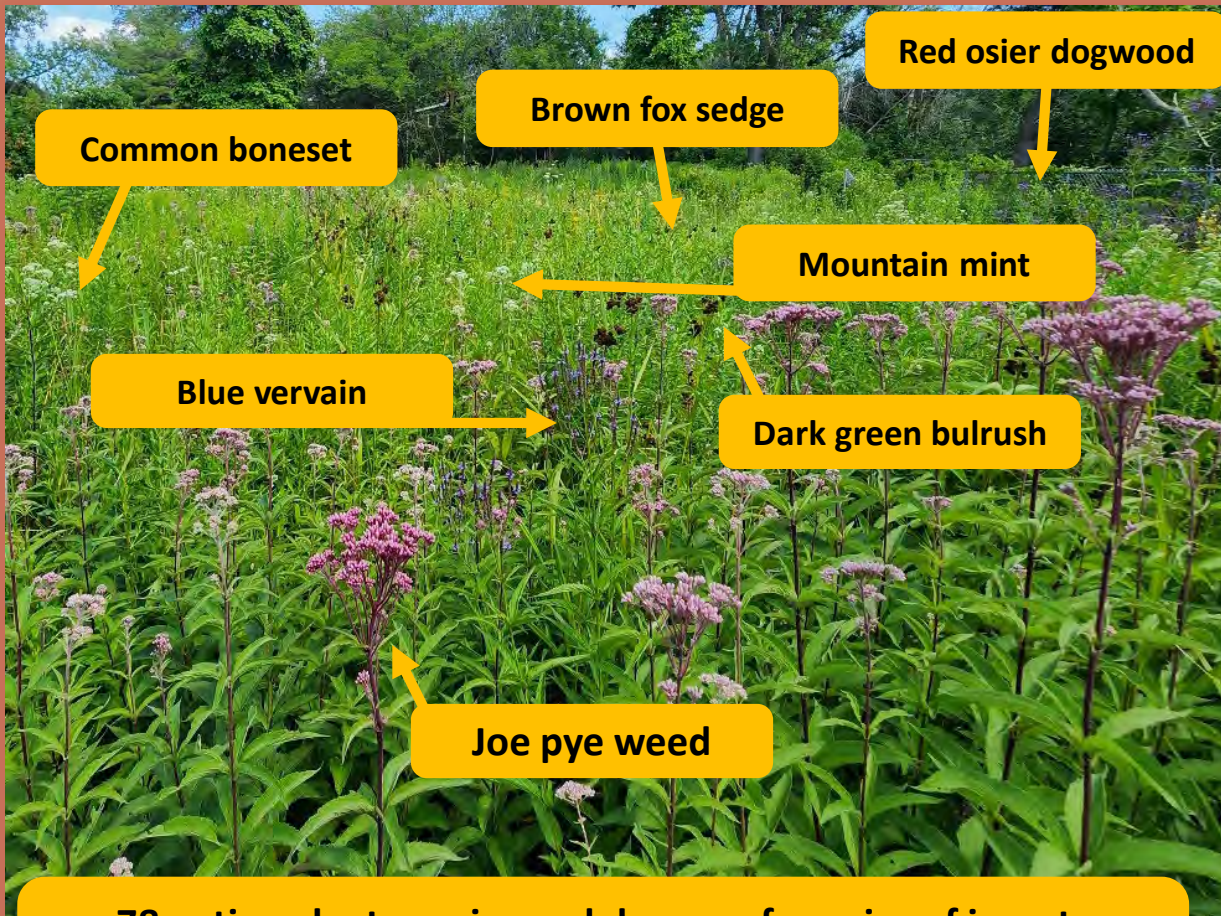


Image B

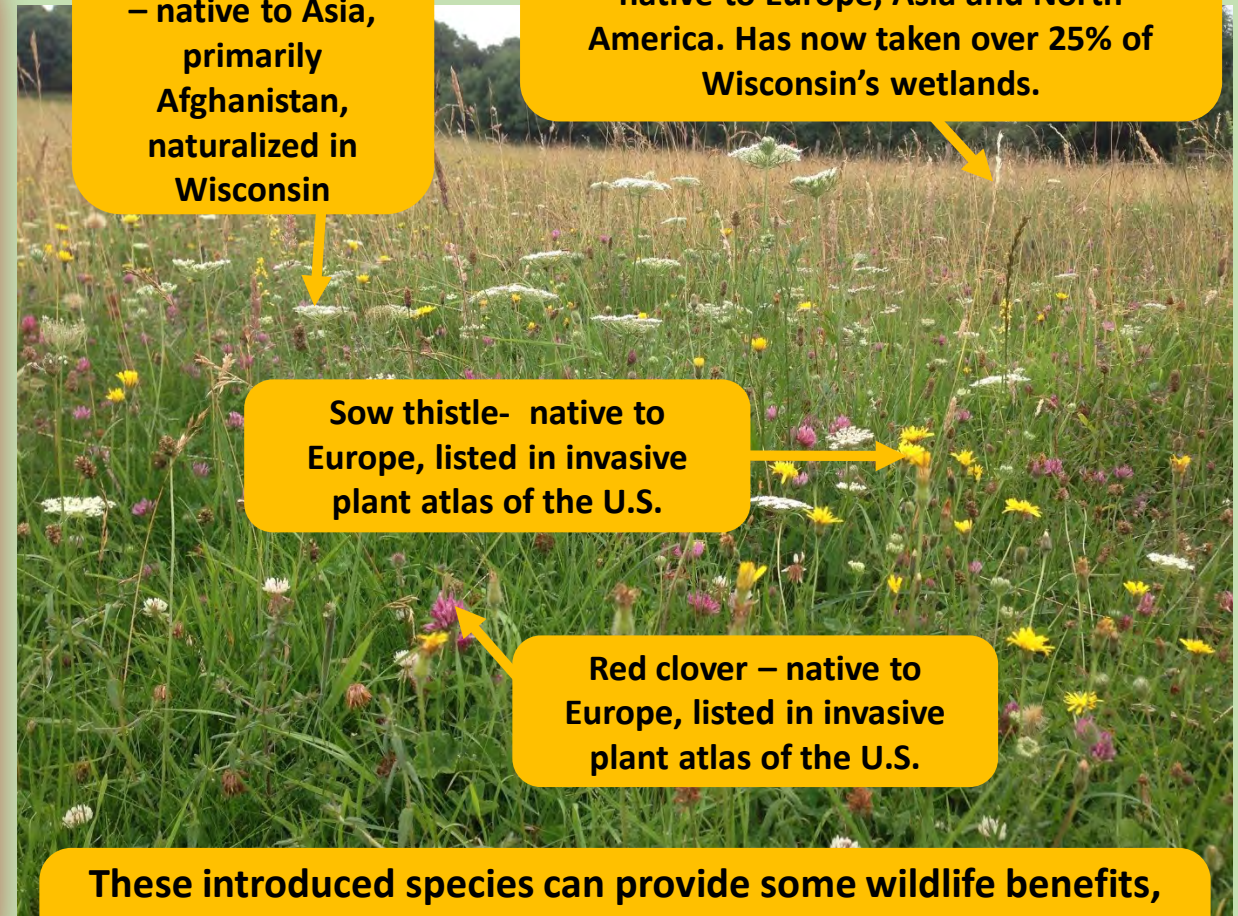




# Which of these pictures is all or primarily native vegetation?



78 native plant species and dozens of species of insects observed here



Queen Anne's lace  
– native to Asia,  
primarily  
Afghanistan,  
naturalized in  
Wisconsin

Reed canary grass – extremely invasive,  
native to Europe, Asia and North  
America. Has now taken over 25% of  
Wisconsin's wetlands.

Sow thistle- native to  
Europe, listed in invasive  
plant atlas of the U.S.

Red clover – native to  
Europe, listed in invasive  
plant atlas of the U.S.

These introduced species can provide some wildlife benefits,  
but nowhere near what a diverse ecosystem of native plants  
supports – specialist insects!



# Q8 Which of these pictures is all or primarily native vegetation?

Image A

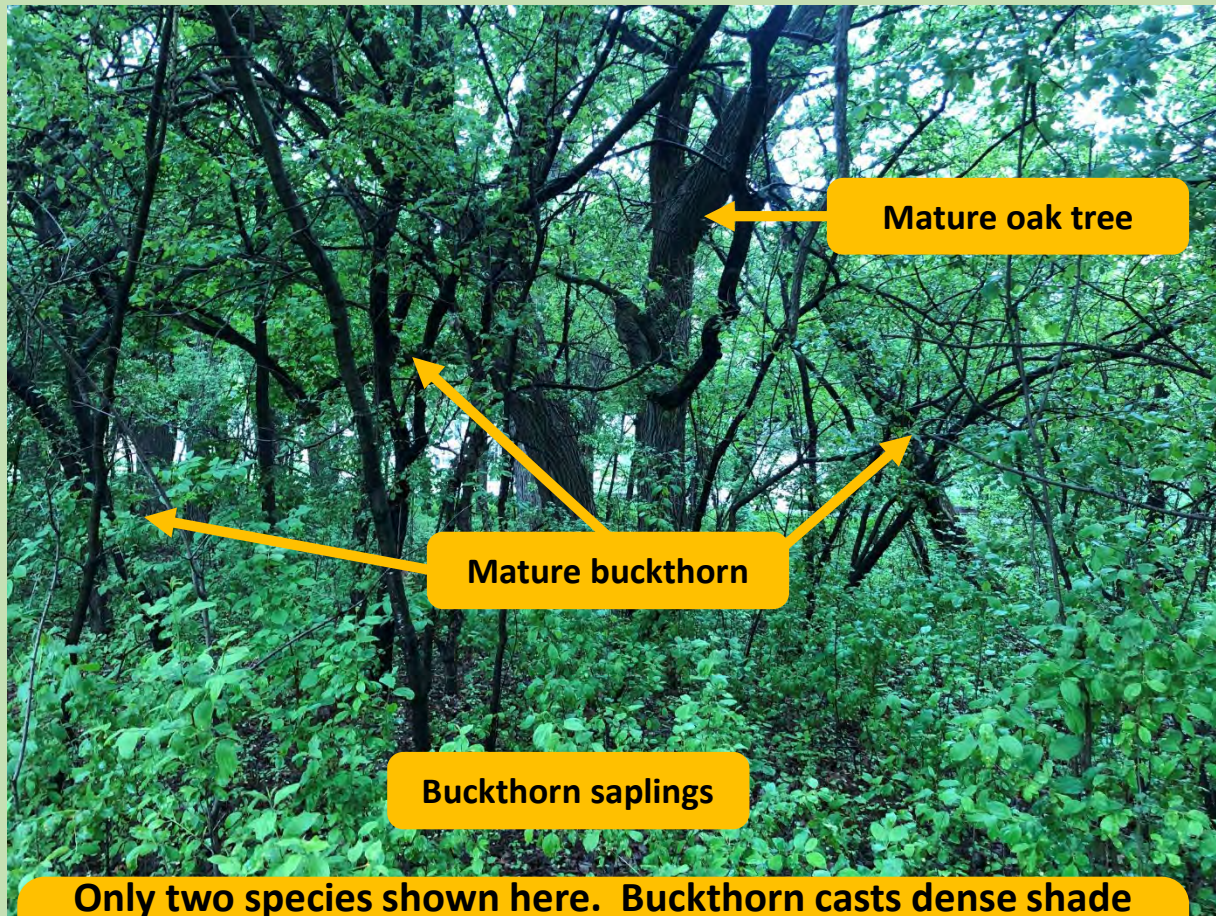


Image B





# Q8 Which of these pictures is all or primarily native vegetation?

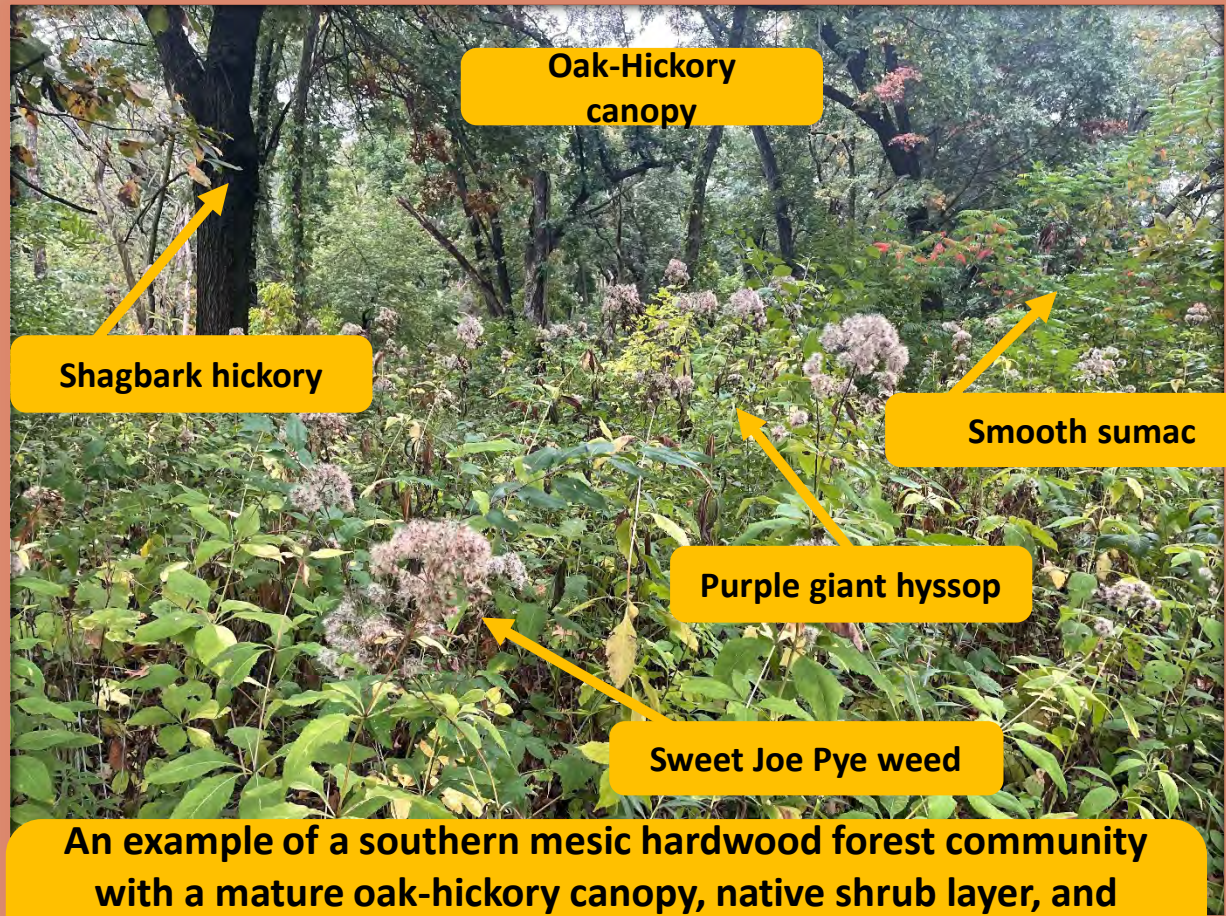


Mature oak tree

Mature buckthorn

Buckthorn saplings

Only two species shown here. Buckthorn casts dense shade and exudes allelopathic chemicals that prevent germination of understory species and suppresses oak regeneration.



Oak-Hickory canopy

Shagbark hickory

Smooth sumac

Purple giant hyssop

Sweet Joe Pye weed

An example of a southern mesic hardwood forest community with a mature oak-hickory canopy, native shrub layer, and native herbaceous understory. Dappled light allows for diverse layers of species.



# Vegetation perceptions and values

Going to give everyone 10 minutes here to fill out the image mapping we have and place dots on the map, then we are going ask a series of questions.

Answer the following:

- The landscape I prefer from an aesthetic viewpoint.
- The landscape I think is the most resilient to flooding and erosion.
- The landscape I think is the most beneficial to multiple ecosystem services (pollination, endangered species, habitat, etc.).



# Q9 The landscape I prefer from an aesthetic viewpoint is:



1



2



3



4



5



6



7



8



9



10



# Q10 I think the landscape that is most resilient to flooding and erosion is:



1



2



3



4



5



6



7



8



9



10



**Q11 I think the following landscapes are most beneficial to other ecosystem services (pollination, endangered species, etc)**



**1**



**2**



**3**



**4**



**5**



**6**



**7**



**8**




**9**



**10**




## Q12 Based on the description of these areas, would any of your answers change? Is there an image you would select for all 3?




Mixed native and non native species, several native oak trees, mixed native and non native understory.



Cattail monoculture – likely invasive non-native cattails.



Native forest overstory, with native diverse understory.



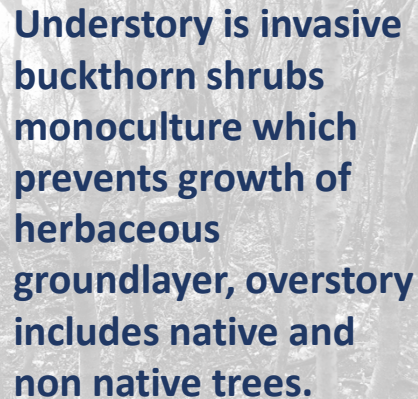
Close-up of invasive and non native reed canary grass monoculture.



Predominately native prairie/wetland forbs, grasses



All ornamental non-native landscaping on gravel mulch bed.




Understory is invasive buckthorn shrubs monoculture which prevents growth of herbaceous groundlayer, overstory includes native and non native trees.



Lawn with some likely ornamental trees in background



Native oak trees with diverse prairie/savannah herbaceous species



Turf up to pond edge



# Vegetation perceptions and values

- Does anyone want to share which images they selected and why?

Q 13 What are your thoughts on restoring native ecosystems such as prairies, oak savanna/woods or wetlands on stormwater utility owned land?

Is this work valuable?

- A. **Extremely valuable.** I think we should focus on restoring all stormwater utility land to native ecosystems.
- B. **Somewhat valuable.** I am more in the middle. I think some areas should be managed for high ecological value, and others should not.
- C. **Not valuable.** I do not think we should manage land. We should allow landscapes to grow without human management.
- D. **I have no opinion.**



# Q14 What are your thoughts on removing invasive plants within stormwater utility land?

## Is this work valuable?

- A. **Not valuable.** I do not think the city should be removing any non-native invasive plants.
- B. **Somewhat valuable.** I prefer that the city remove only some invasive plants.
- C. **Very valuable.** I prefer the city remove all invasive plants.
- D. **I have no opinion.**

# Q15 How would you prioritize vegetation maintenance.

- A. Improve ecosystems **from a racial equity and social justice perspective** based on demographics and census data.
- B. Maintain existing **high quality ecosystems as top priority.**
- C. Improve ecosystems **across all areas, regardless of existing conditions.**
- D. Improve areas that pose the **greatest threat to increased flooding and decreased water quality.** Such as **avoiding erosion and flood damage from stormwater flows.**
- E. I have no opinion.

# Q16 What would you like to learn more about?

- A. Pollinators? Biodiversity?
- B. Restoration techniques and methods?
- C. Invasive Plants?
- D. Tree diseases and issues?
- E. Carbon and vegetation?

Other? Fill out the online form at the end of the meeting.



# Breakout Discussion – 15 Minutes

- Issues and Opportunities – 15 minutes
  - In each breakout room identify:
    - What is working well with existing stormwater vegetation maintenance.
    - What concerns you the most with existing stormwater vegetation maintenance.
    - What aren't you sure about? Or you want to hear more from experts.
- Return to Group Discussion and Discuss

# Questions?



# Next Steps

- Please fill out the comment card, asking you to rate how this meeting and so we know what to work on, also let us know what you would like to hear more about..
- Online Survey
- Comment Form – Please Complete and Turn In  
<https://www.surveymonkey.com/r/9697VCM>
- Staff will Review “What we Heard”
- Update the Board of Public Works
- Solicit Input from Technical Experts in the field of ecology, stormwater, climate change, vegetation, land managers, etc.



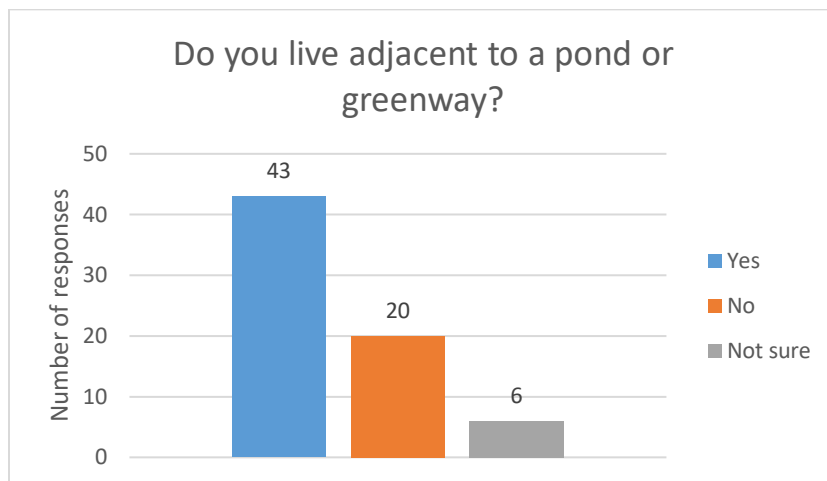
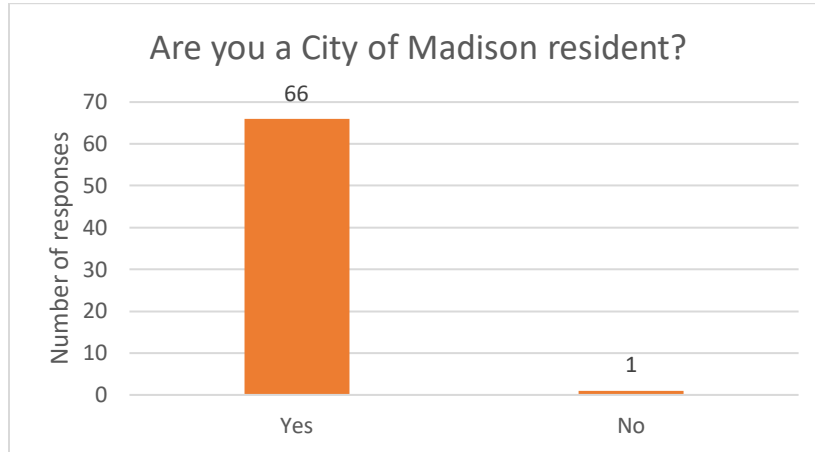
# Contact

- [ENland@cityofmadison.com](mailto:ENland@cityofmadison.com)
- Project Webpage:  
<https://www.cityofmadison.com/engineering/projects/StormVMP>
- Public Information Officer: Hannah Mohelnitzky,  
[hmohelnitzky@cityofmadison.com](mailto:hmohelnitzky@cityofmadison.com)
- Sign-up for project email updates on the website
- Everyday Engineering Podcast
- Facebook – City of Madison Engineering
- Twitter – @MadisonEngr

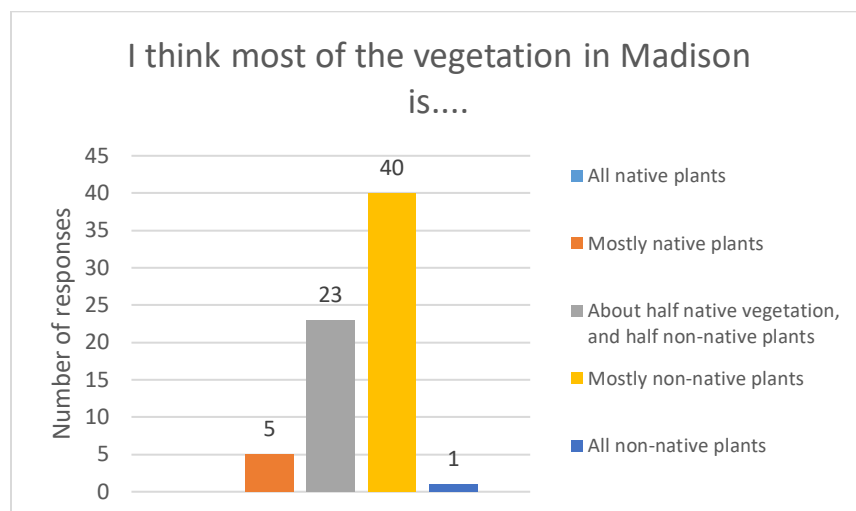
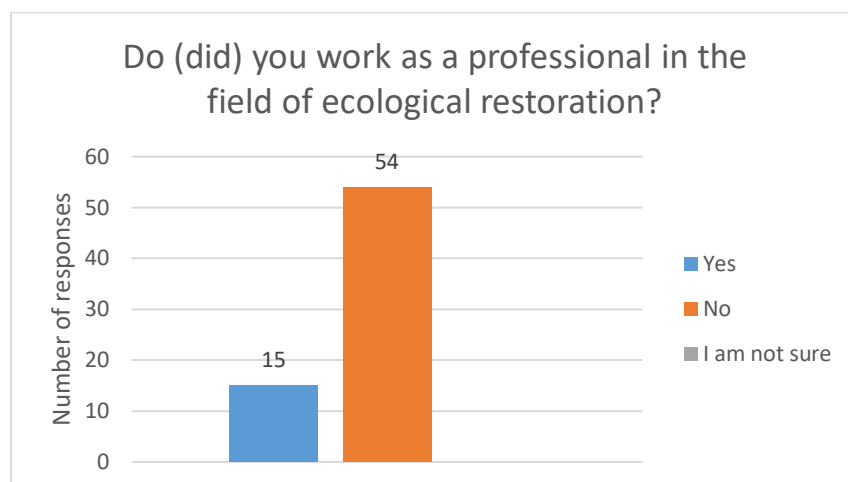
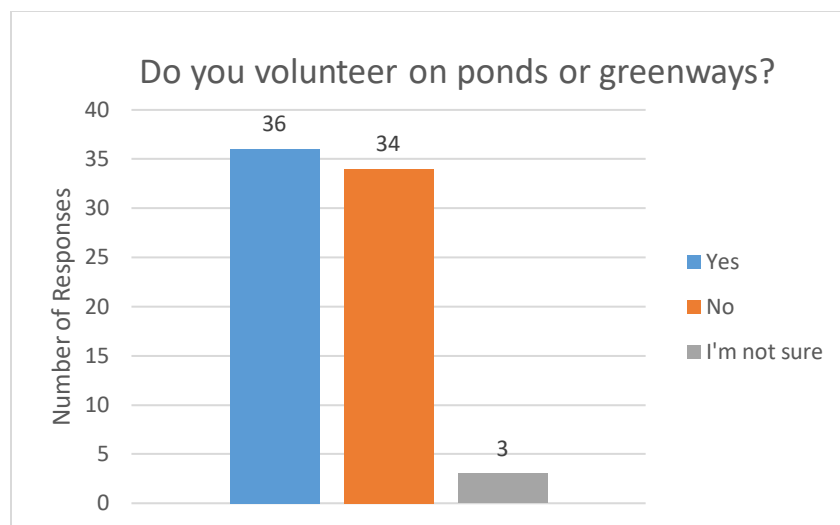
## Attachment B - Detailed Poll Results

## Attachment B: Detailed Poll Results

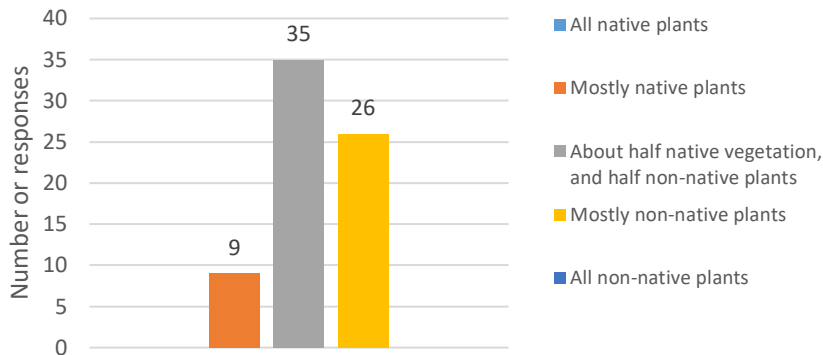
### Combined Results from Public Listening Sessions



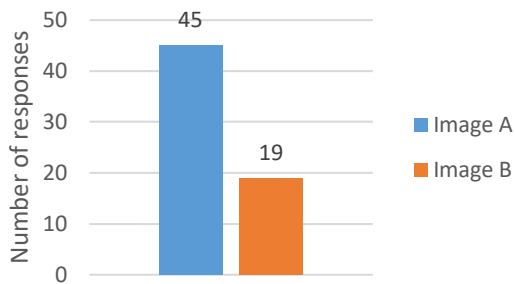




I think most of the vegetation on stormwater utility property is....



Which of these pictures is all or primarily native vegetation?



Which of these pictures is all or primarily native vegetation?

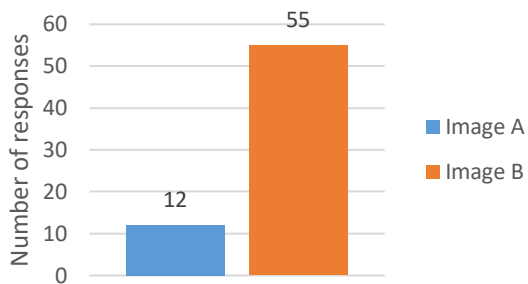
iClicker Option: A



iClicker Option: B

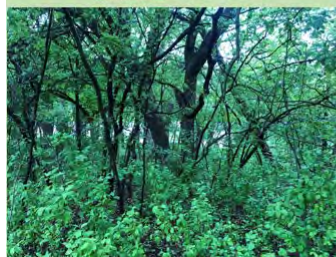


Which of these pictures is all or primarily native vegetation?



Which of these pictures is an image of native vegetation?

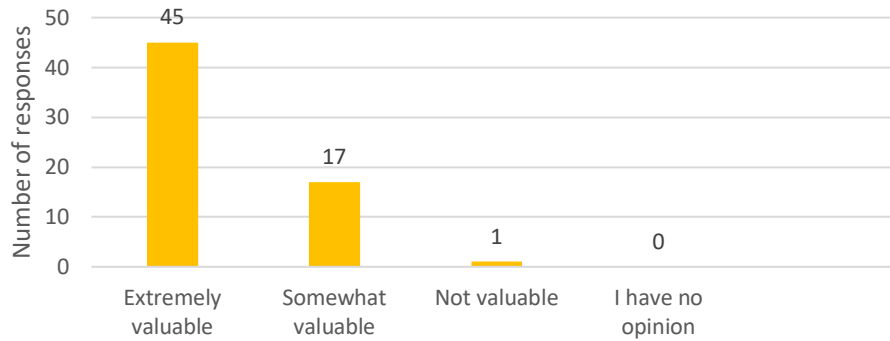
iClicker Option: A



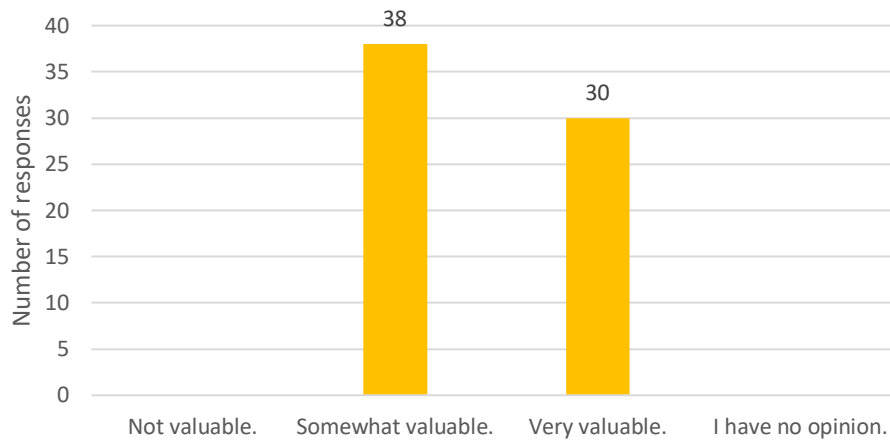
iClicker Option: B



What are your thoughts on restoring native ecosystems such as prairies, oak savanna/woods or wetland on stormwater utility owned land. Is this work valuable?

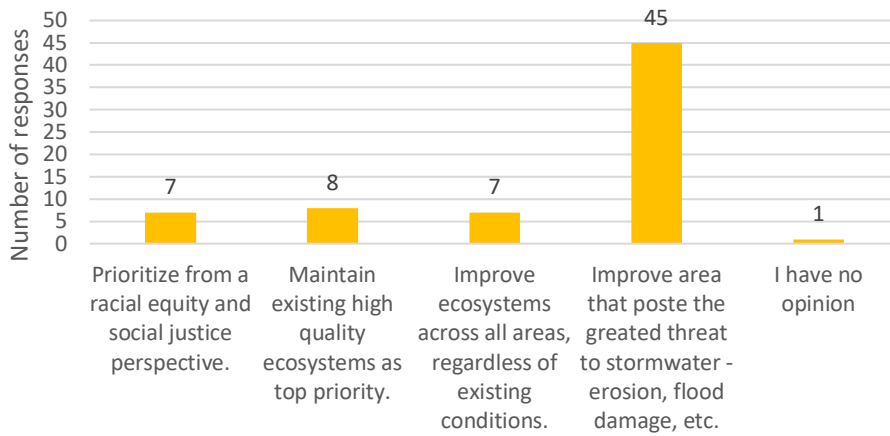


What are your thoughts on removing invasive plants within stormwater land? Is this valuable?

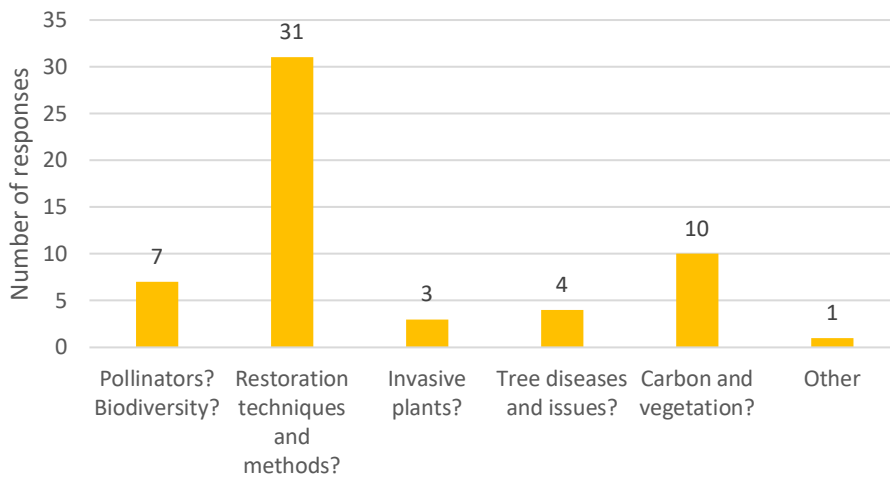




### How would you prioritize vegetation maintenance?



### What would you like to learn more about?



## Attachment C - Image Preferences

## Attachment C

### Image Preferences

Public Listening Session 11/2/2023

#### Image Board One

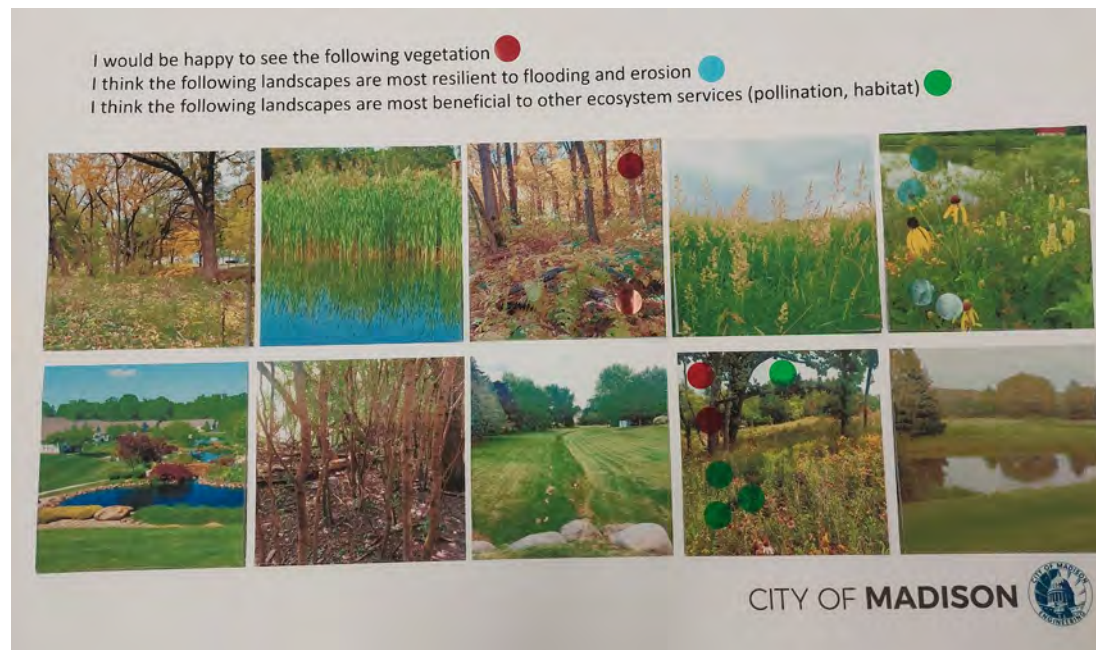


#### Image Board Two

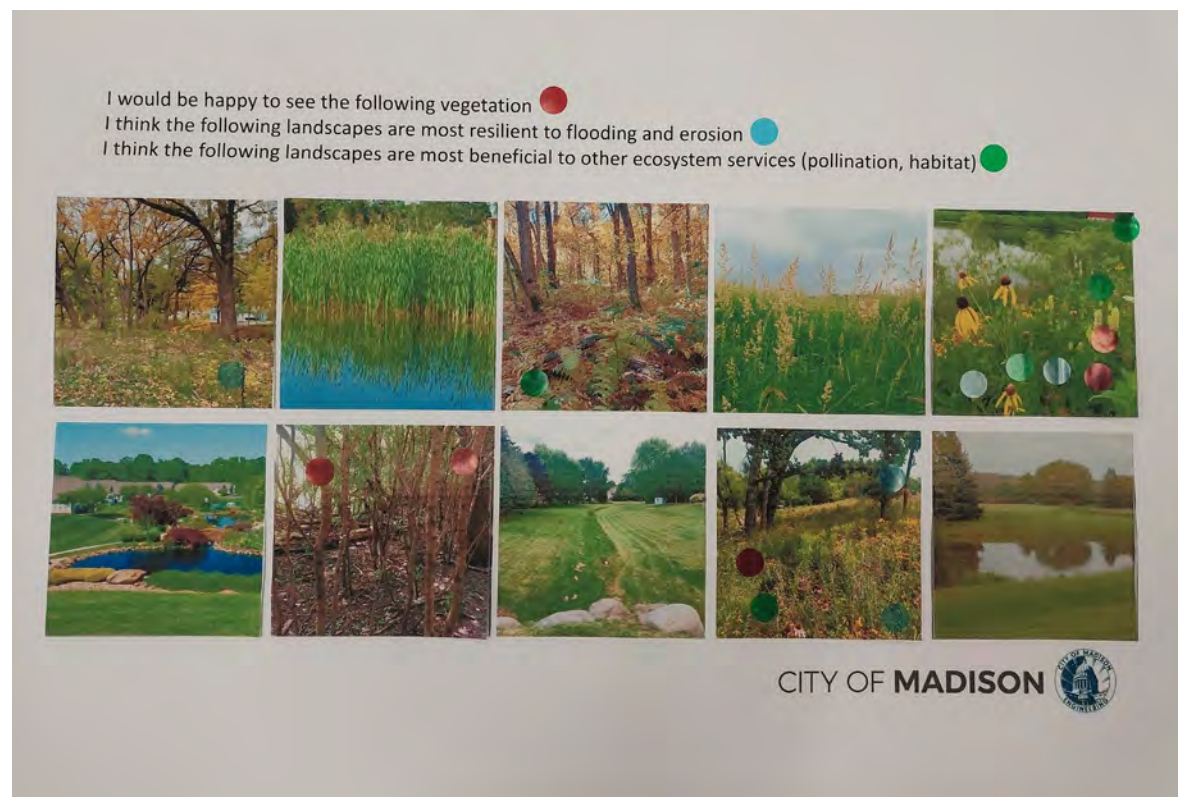




### Image Board Three



### Image Board Four



## Image Board 5

I would be happy to see the following vegetation ●

I think the following landscapes are most resilient to flooding and erosion ●

I think the following landscapes are most beneficial to other ecosystem services (pollination, habitat) ●



CITY OF MADISON





Public Listening Session 11/20/2023

Image Board 1

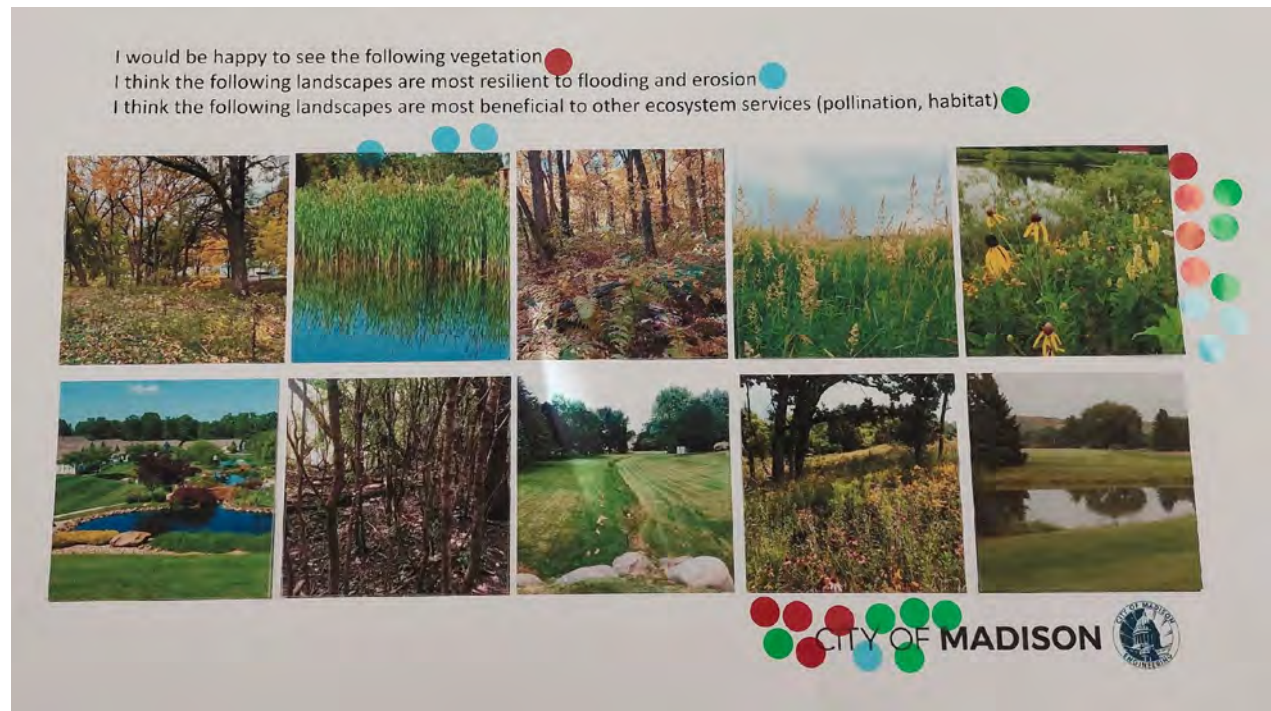
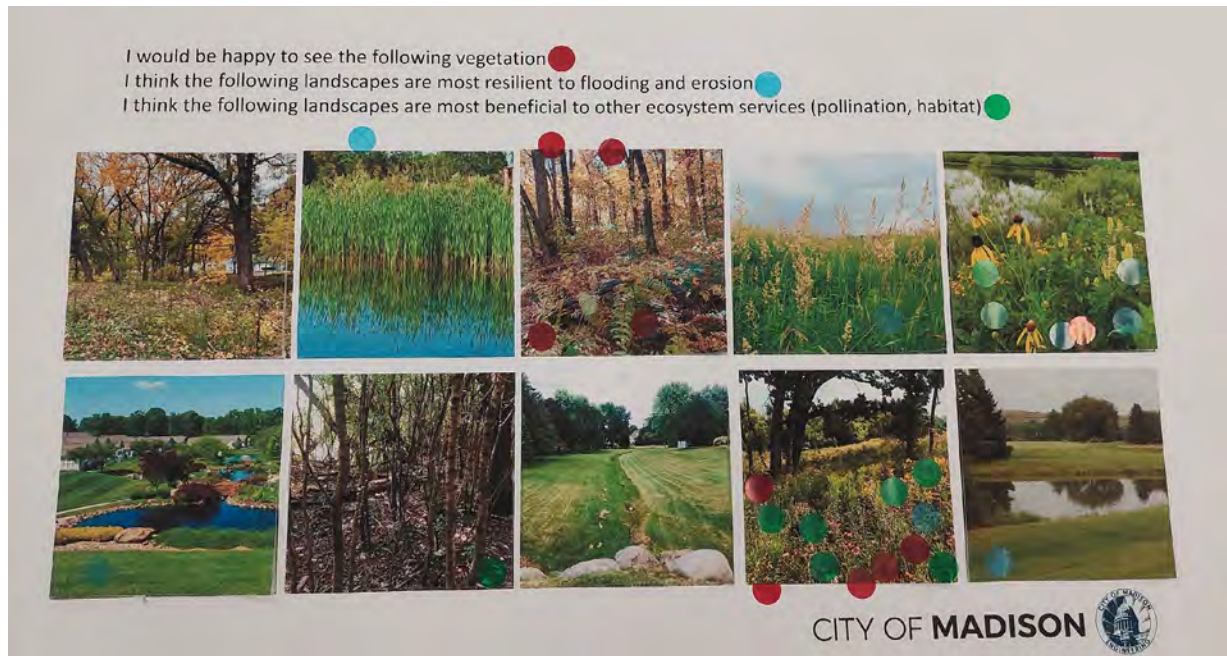


Image Board 2

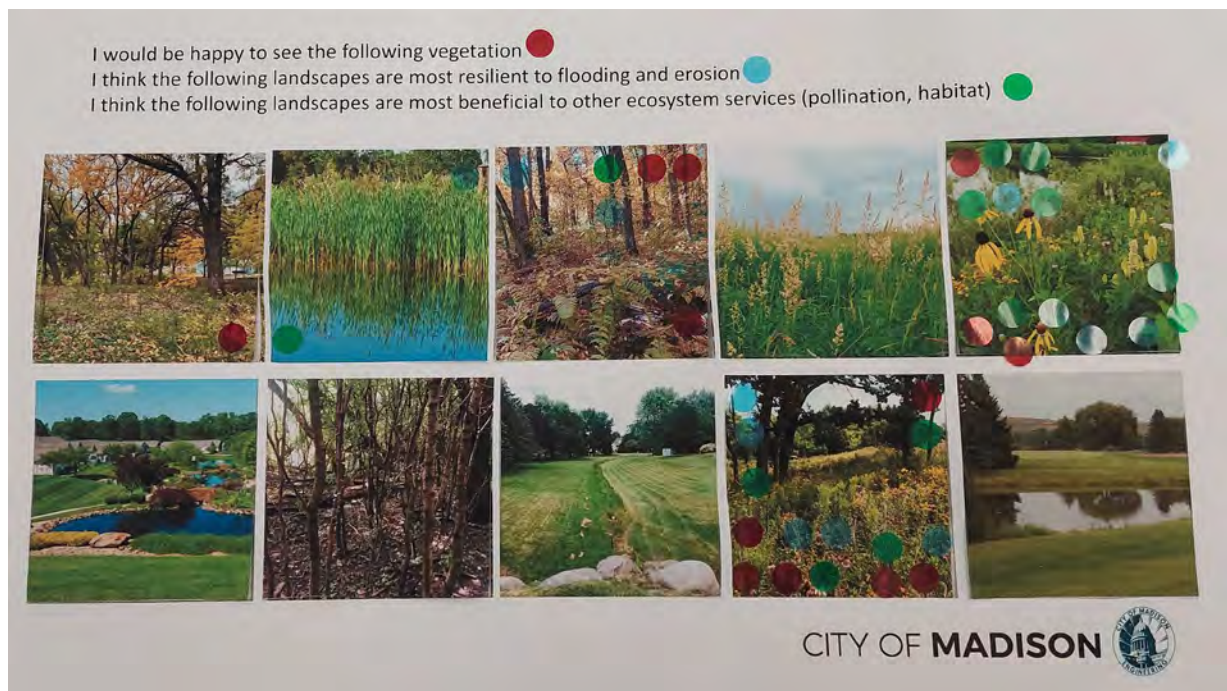




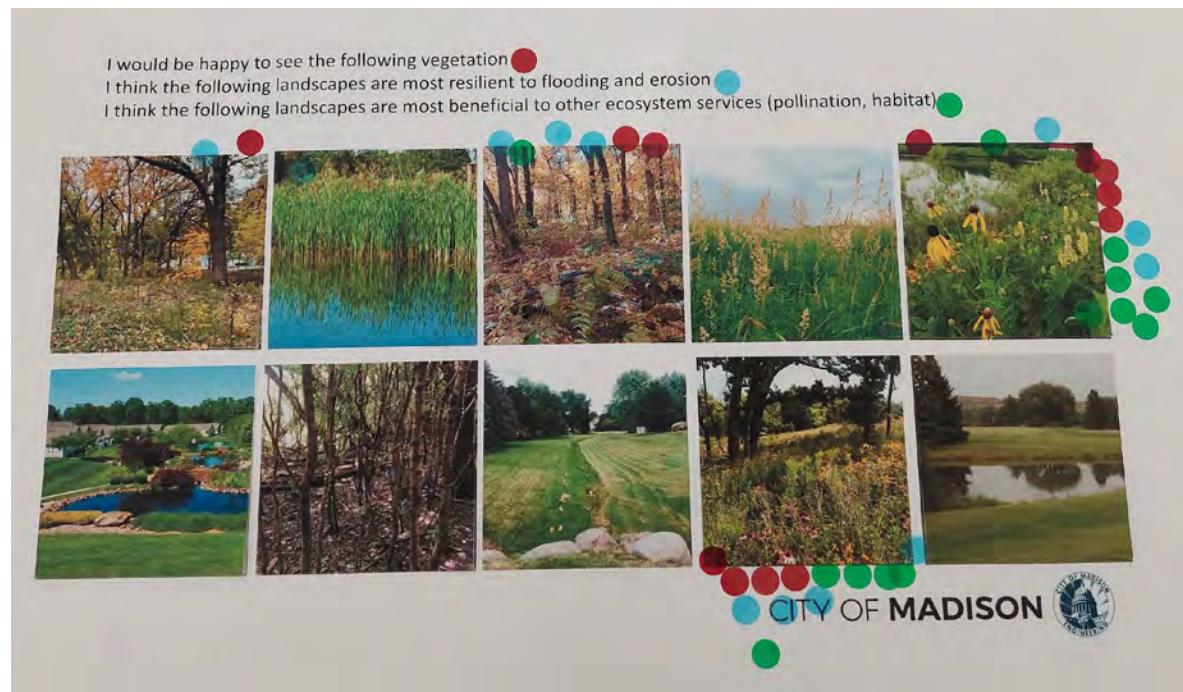
### Image Board 3



### Image Board 4



## Image Board 5

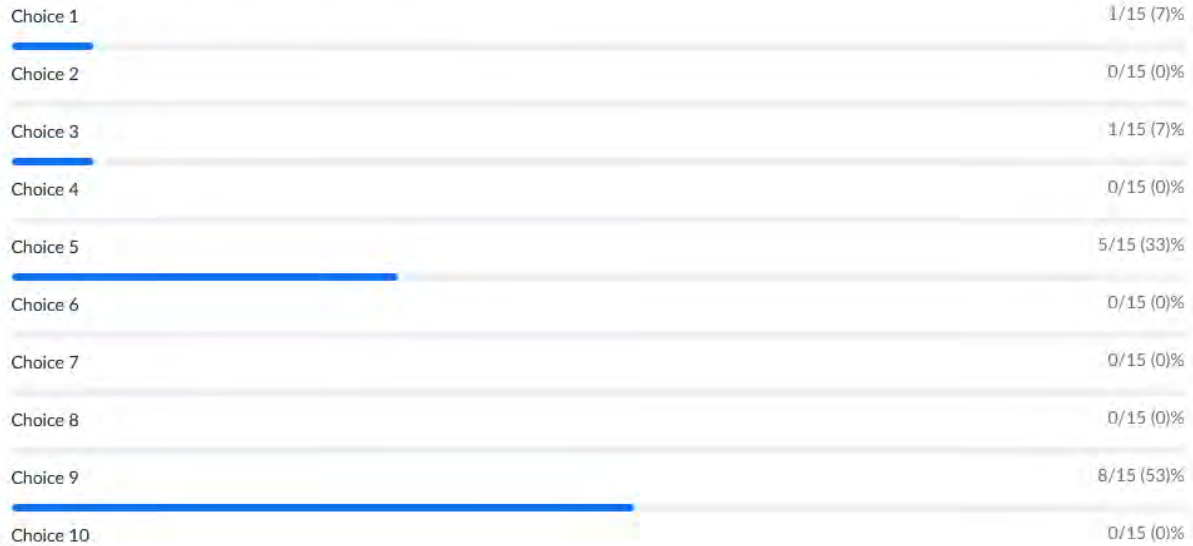




## Public Listening Session 11/28/2023

### 1. The landscape I prefer from an aesthetic viewpoint is: (Single Choice)

15/15 (100)% answered



### Q9 The landscape I prefer from an aesthetic viewpoint is:



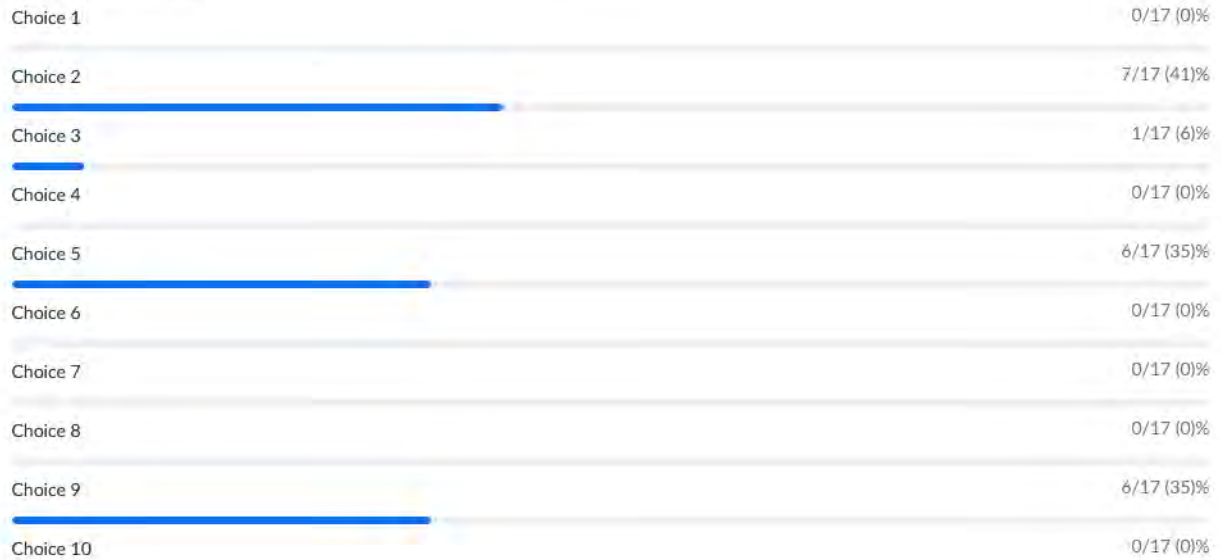
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1. I think the landscapes that is most resilient to flooding and erosion is: (Multiple Choice)

17/17 (100)% answered



**Q10 I think the landscape that is most resilient to flooding and erosion is:**

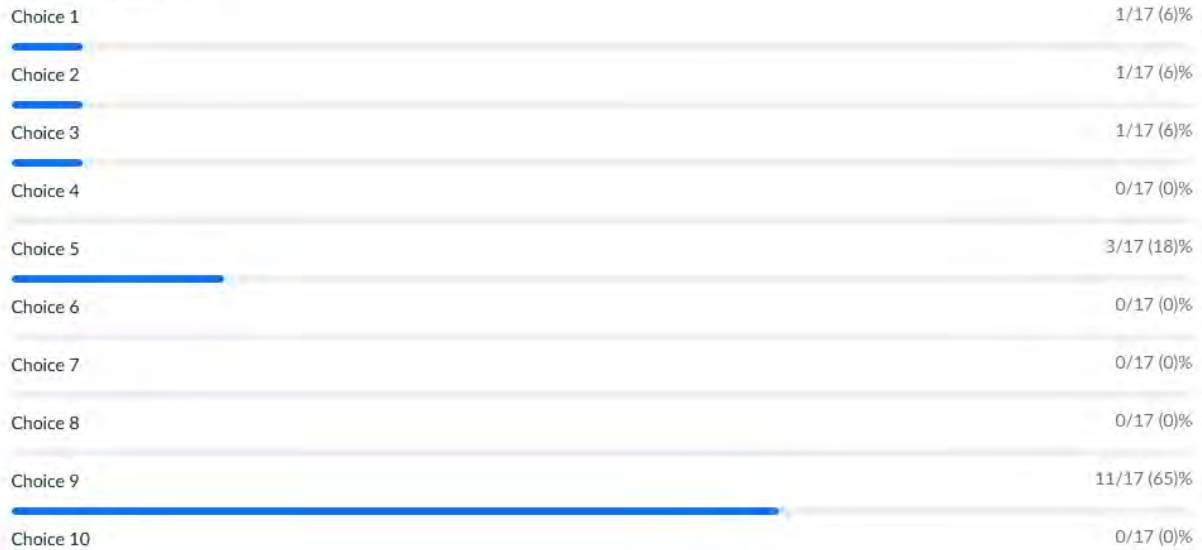


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1. I think the landscape most beneficial to multiple ecosystem services (pollination, endangered species, habitat, etc.) is: (Single Choice)

17/17 (100)% answered



**Q11 I think the following landscapes are most beneficial to other ecosystem services (pollination, endangered species, etc)**

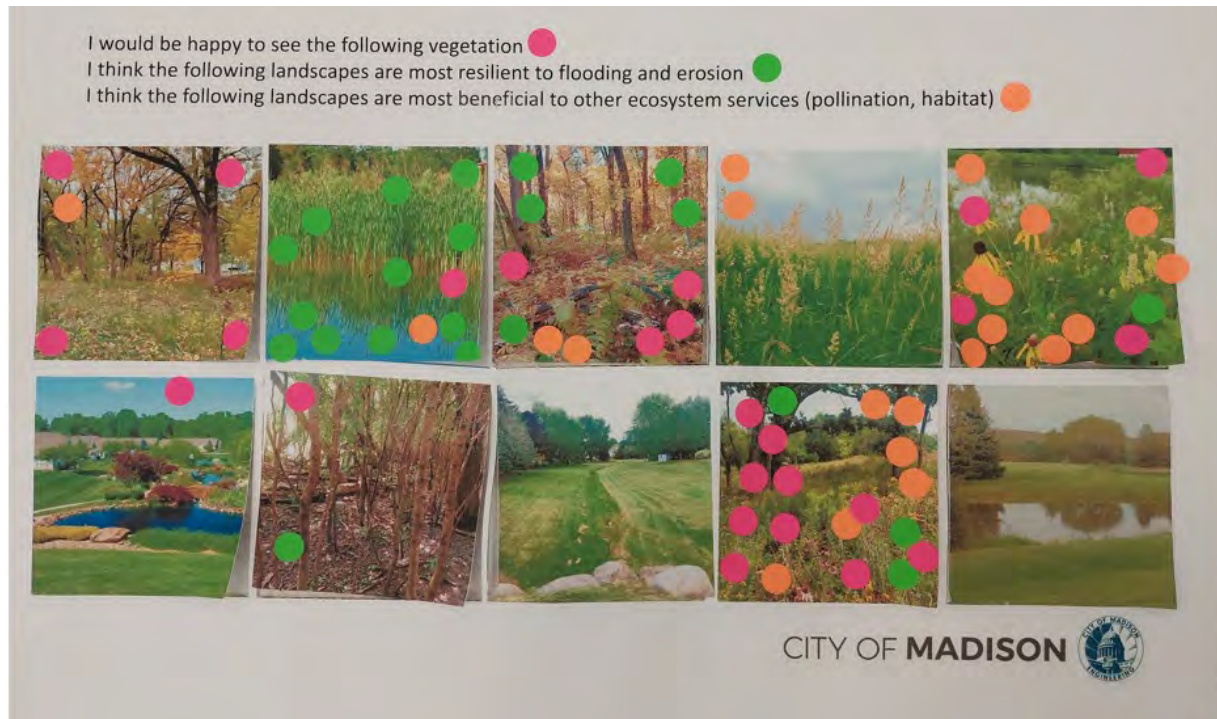


CITY OF MADISON

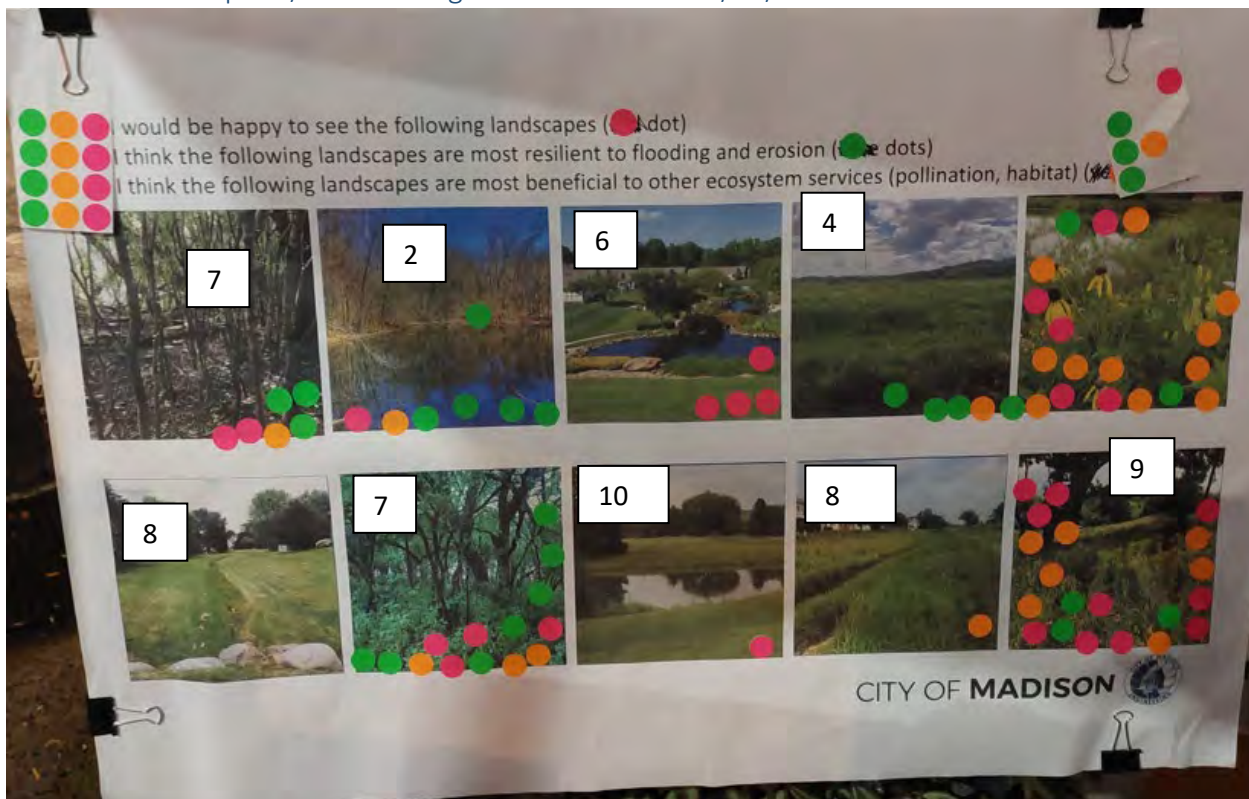




Sustain Dane Annual Meeting 11/3/2023



Science on the Square/Madison Night Market Fusion 10/19/2023





## Attachment D - Group Discussion Comments

Attachment D  
Group Discussion  
Comments

Public Listening Session 11/2/2023

Below are the combined written comments from the group discussions. Meeting participants wrote down their comments on each topic. Each table had one large 24"x36" sheet of paper to write down comments.

Topic: What's working well.

People seem to becoming more interested and aware of the importance of native plants and ecosystems. Outreach is working in some communities. Get volunteers to help with outreach.
People seem to becoming more interested and aware of the importance of native plants and ecosystems. Outreach is working in some communities. Get volunteers to help with outreach.
Leaf free streets.
Hiring qualified staff.
Maddie as a vegetation coordinator.
Current practices and movement forwards.

Topic: What concerns you the most?

How would we train/work with volunteers - we have not done a lot of training yet.
Can we keep the water table in good shape?
Doesn't sound like stormwater has adequate funding for doing this super important work [ecological restoration]. High quality stormwater management systems must save lots of money – they are worth funding.
Private shorelines – homeowners should be incentivized to install buffer areas.
Worried about loss of wildlife on stormwater property.
Lack of continuing maintenance now and following restoration/renewal projects.
Budget
Coordination between divisions (ex. Parks vs stormwater vs general engineering vs streets)
Are stormwater contractors held accountable by the city?
Climate change.
Community education/ownership.
Engineering needs more money and resources especially if acreages will increase.
Post site establishment and early maintenance.
PFAS and chloride pollution.
The mowers don't understand or share vegetation resources goals and plans.

Topic: What aren't you sure about, or want to hear more about from experts?

Can we get a cost breakdown of lawn vs natives, including the ecosystem service value of both? Might be interested for folks who are concerned about how the city spends its money.
It would be interesting to hear more about how road salt impacts the greenway vegetation.
Would also like to hear more about potential for adding edible native plants to greenways.
Raise public awareness of public access to stormwater land-trails, signs, etc. Make them accessible if possible but always make sure it is clear they are public (this ties into social justice goals too).
Homeowner incentives for native plantings on a "large" scale (whole yard) or pervious solutions to impervious areas.
How to conserve more land/put restoration into city projects?
How would this help with flood control?
Volunteer opportunities.
How can an average person make a difference?
How to educate others (e.g. salt use, stormwater, leaves, etc.)
How to promote more use of nature areas & ponds.
As a homeowner who wants a native plant lawn that could improve the soil and water absorption – can you educated me how to make that happen with an easy affordable solution?
Expert educators telling people what is damaging and what can be done to improve their neighborhoods.
Are the same or more number of trees planted for those removed?

#### Public Listening Session 11/20/2023

Below are the combined written comments from the group discussions. Meeting participants wrote down their comments on each topic. Each table had one large 24"x36" sheet of paper to write down comments.

Topic: What's working well.

Maddie and Emily
Using OFS
Such great strides in the past few years
Having these meetings
Thank you to city for creating teams focused on integrating engineering, stormwater, urban forestry, etc.
Some water retention and improved water quality (limited by city of stormwater infrastructure)
Good focus on native plants and mindset on how to prioritize removing of invasive versus establishing new native communities.
Great collaboration with Engineering and Kenosha Greenway volunteers to remove buckthorn and other invasives.
Staff increase from 1 to 2!
Yeah for Maddie and Emily!
Removal of invasives through neighborhood involvement.
Neighborhood volunteers – how to organize it.
Areas currently with high species diversity.
Volunteers and neighbors are doing all of the maintenance and probably would continue.
Good community involvement (volunteers)



Partnership with Maddie and team allowing us to work together to improve greenway.
--

Topic: What concerns you the most?

Agency or multi-agency coordination for effective resource, staffing and volunteer use.
Better sedimentation/dredging schedules for some retention ponds
Believe prescribed burns should do ~25% of area each year. Many intact species have a life stage potentially killed with burning. Burning as done now is for vegetation management not ecosystem management.
Greenspace corridors should be created and maintained to aid the movement of species between habitats
Resources should be allocated to integrate habitat protection in all aspects of stormwater management.
Greenspace, ponds should be part of all urban planning
Not enough maintenance
Residential ignorance about invasives and about herbicides.
Lack of historic forest management (maintenance) in Sauk Creek Greenway has led to serious bank erosion and drainage to Sauk Creek and associated greenway.
Kenosha greenway suffered from years of benign neglect. Is the city going to change its focus and apply resources to continued improvement and maintenance of gains made with help of volunteers?
The current small staff and low level of funding.
Lack of native trees and understory
Dying oaks
Less mowing, more seeding.
I haven't seen any maintenance in the stormwater locations near me.
Too many acres of invasive woody vegetation.
Same as above "too many acres of invasive woody vegetation".
Trees and vegetation are reduced, sometimes drastically for impermeable surfaces. Let's minimize or eliminate impermeable surfaces.
Trees and invasives taking over ponds.
Don't know how to be most helpful.

Topic: What aren't you sure about, or want to hear more about from experts?

How to fund needed stormwater and maintenance
What is going to happen with the consultants proposal for Kenosha Greenway
I'd like to see more outreach to diverse communities – tours, introduction to plantings, answering questions instead of assuming cultural/racial beliefs are fixed, immutable and intrinsic. It's a lack of exposure and experiences.
I am curious about the trade-offs between stormwater management and quality of life measures when prioritizing vegetation maintenance. I am thinking whether a social equity framework could be beneficial in a holistic way for the future.
I am curious about the trade-offs between stormwater management and quality of life measures when prioritizing vegetation maintenance. I am thinking whether a social equity framework could be beneficial in a holistic way for the future.

I want to hear more about adaption to climate changes in plant tolerance, species movement north, but also role of genetic diversity (vs. cultivars).
Tree stuff!
The stormwater plan that calls for building the Kenosha greenway
How does management take disease and fungal infestations of plants into account.
Which plants are the best/highly loaded for support of the most diversity in animal life.
How to go from grass/mowed to native prairie?
Effects of warming climate change on stormwater and projections for next 50 years.
What citizens can do to help.
What causes ponds to get covered in green scum?
What should be our priorities?
Could we have a yearly meeting to discuss a plan for the season and following seasons?

### Public Listening Session 11/28/2023

Below are comments from the group discussions. This meeting occurred online. Meeting participants discussed each topic in an online breakout room with one person writing down comments.

Topic: What's working well.

Acknowledging competing interests and desires.
Terrace rain gardens.
Surprised about the nuance about how we are managing for ecosystem and stormwater function.
Like it when Engineering mows greenways.
Dixon gway – good collaboration w/ volunteers along w/ professional staff.
Volunteers and collab with city helps get general understanding on how system works and helps connects neighbors.
Having stormwater vegetation maintenance—coordination with utilities
Awesome that we're focusing on planting native plants and moving away from turf grass and mowing—old imperialistic French turf
Flower lawn—wildflower mix instead of lawn
Nice to see vegetation given a fair shake not just an afterthought! Thanks for this meeting.
Didn't know what to expect - we are doing a good job.
Wanted to say how much I appreciate and have learned from these sessions. Often times City Engineering makes it into the news when there is neighborhood pushback on a project, but it would be great to have more of this kind of community outreach/interaction. Giving neighbors the opportunity to provide more input and have more ownership is helpful.
Hiring Maddie, someone with an ecology perspective.
Operation Fresh start
Impressed with existing work, just need more of it.
Telling the story that it is complex and nuanced.

Topic: What concerns you the most?

Want to hear more about Robin Greenway.
Different types of landscapes on SWU properties – example West Town ponds and geese issues (contamination).

As redo some areas that financing down the road is intact – make sure can maintain over time and budget accordingly.
Diversity and access... want to appear accessible to everyone in the community. Make sure people are able to utilize areas. Maybe adding more signage on how lands can be used and accessed by the community.
Issues with mowing for invasives – hoping area that are mowed purposefully – demarcate areas so know what should be mowed and what should not be. Using care with how managed (may inadvertently mow down areas that are trying to be actively managed)
When work is done on SWU land—sometimes the canopy is disturbed and there is not the ensuing work to maintain the understory—buckthorn, thistles, burdock. Don't take down the canopy if you don't have the resources to do ongoing maintenance. Would like this work prioritized.
Pollutants in water—heavy metals: I don't see a lot being done about filtering out metals/pollutants. Chlorine and salt. Nutrient and pollutant input especially in wetland systems altering ecosystem dynamics, changing which plants can survive. Would like to see phytoremediation and myco-remediation.
DNR going away from flood storage in times of high water—concern for flooding (moving towards systems that move water along)—Jojo Sauk Creek
My priority is managing the stormwater—there has been more and more water in our neighborhood coming down the street. How do we get this water where it belongs as opposed to flooding?
Because of how greenways are an extension of people's back yards. How do we balance and show that lands are part of public lands and open for use. Would like a path through Robin Greenway (and likely other of those style of greenways- Glen Oak...)
Residents recognized there are lots of competing interests - how do we decide which greenways get priority for limited resources and how do we get neighbors involved.
If there are enough resources, natural areas are important for people and nature to be together and to restore both humans and wildlife.
Would like to have more ways for community groups to help educations.
Would like to have more volunteer resources and ways to utilize them.
Stormwater ponds are rectilinear; they should be built more ecologically sound.
Overwhelming number of invasive species.
City budget and not enough resources allocated to this.
Concerns about herbicides, can we do more with integrative pest control and reduce herbicide use.

Topic: What aren't you sure about, or want to hear more about from experts?

Came in late and wanted a better explanation of what we are currently doing for maintenance efforts.
Surprised about the nuance about how we are managing for ecosystem and stormwater function.
How would we train/work with volunteers - we have not done a lot of training yet.
Are we interested in working with more/ bigger volunteer groups?
Would we work with UW class to do a test plot?
Do we test for mercury in leaves or other heavy metals?
Education abilities/opportunities on what they can do on their own properties (property owner living adjacent to a pond) Perhaps a workshop? Use spaces for education (infiltration, erosion, water quality...what can you do on your own properties to help with the overarching city goals.
Role of fungi and microbial communities in native communities—important to reintroduce microbial communities during restoration

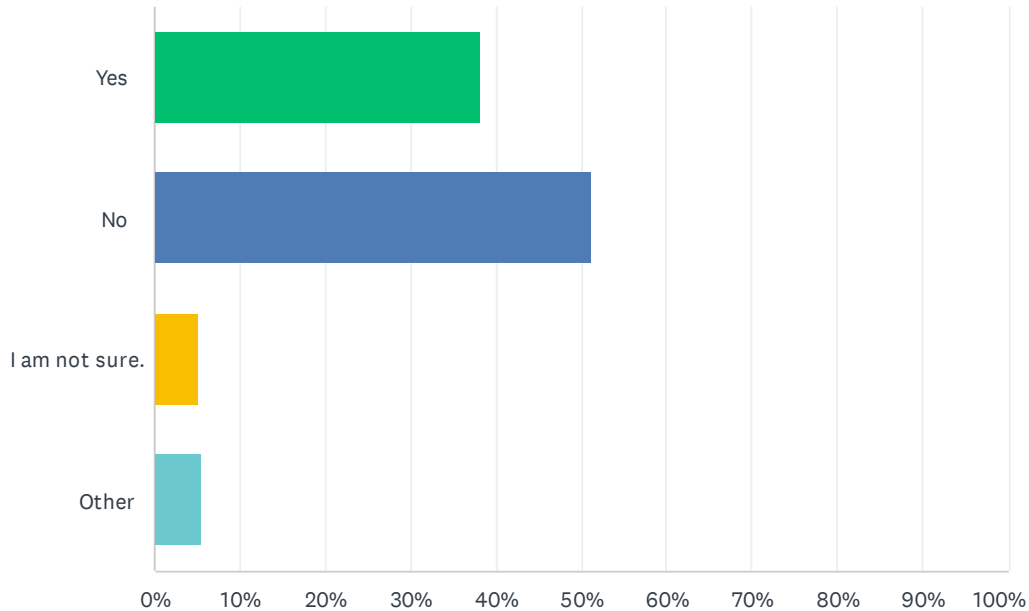


Thinking about diff. amendments, we can add to soil/systems there may be inexpensive amendments we can add, but more research is needed.
Would like to see an assessment of COM SW land that are particularly vulnerable to erosion and environmental degradation.
Benthic organisms mapping in relation to stormwater vegetation management.
Do you consider long-term stability of a system when you undertake veg. maintenance on a site? Is long-term stability a consideration, and eventual decrease of resource inputs?
We need to start with the idea of nature in our urban setting is important, and we need to whatever we can to preserve and restored.
Not sure how much more we could get from volunteer groups.
Would take more resources to coordinate volunteers.
How would we train/work with volunteers - we have not done a lot of training yet.
Got input on stormwater pond (engineering may be more complex than 'layperson' may understand).

## Attachment E - Detailed Online Survey Results

# Q1 Do you live adjacent to a stormwater utility owned pond or greenway? Click on this link to the online map to find out.

Answered: 217   Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	38.25%	83
No	51.15%	111
I am not sure.	5.07%	11
Other	5.53%	12
TOTAL		217

#	OTHER (PLEASE SPECIFY)	DATE
1	live nearby	2/7/2024 12:00 PM
2	Next to one that will be part of Madison in 3 years	2/7/2024 11:42 AM
3	NO, but these structures are within my neighborhood	2/1/2024 10:23 AM
4	Greenway within short distance to retention pond	2/1/2024 8:27 AM
5	1 block away.	2/1/2024 8:18 AM
6	not adjacent but same neighborhood	2/1/2024 5:28 AM
7	M property is backed by another year that is adjacent to the greenway. There is no structure or obstruction between my property and the greenway.	1/31/2024 10:47 AM
8	Not strictly adjacent, but < 1/4 mile away and access daily for walks	1/31/2024 10:45 AM
9	Close, within a few blocks, of two, but not exactly adjacent	1/30/2024 12:37 PM
10	I live on Merry St. When it was redone, we gladly agreed to a rain garden at the dead end. I	1/29/2024 10:49 PM



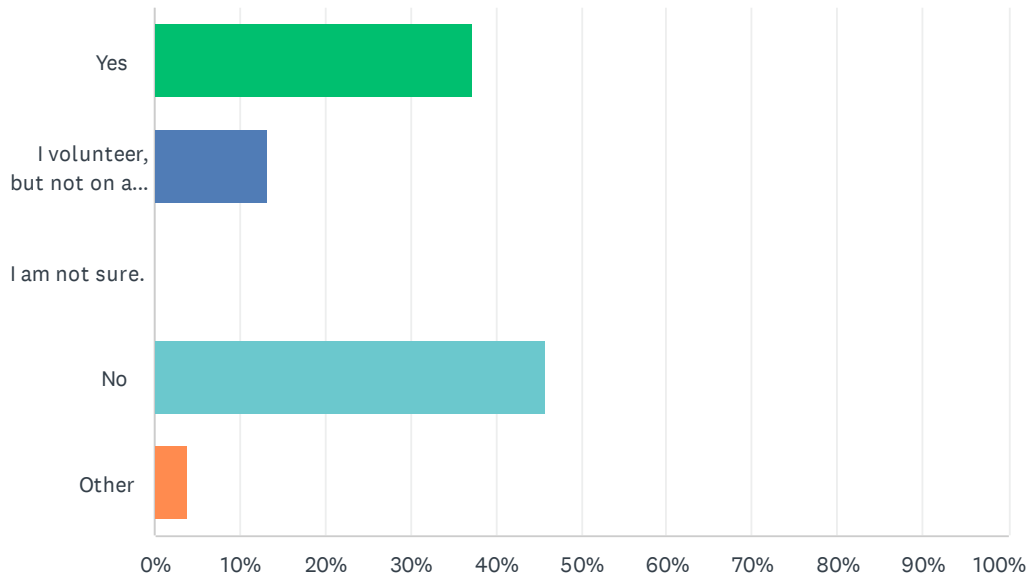
## Vegetation Management on Stormwater Utility Owned Lands

was ready to help plant and tend it. What we got was a too-deep-to-tend hole that doesn't clean runoff. I'd gladly speakw. DOOE about a re-design. Karolyn: 246-0222

11	I live very close (1 block away) but not strictly adjacent	1/29/2024 5:49 PM
12	Outline of stormwater utilities was not clear, but I think we have 2 very close to us.	1/29/2024 4:02 PM
13	Close but not adjacent	1/29/2024 3:13 PM
14	nearby	1/29/2024 2:24 PM
15	No, but I walk the dog next to one daily.	1/29/2024 1:51 PM
16	Near, but not adjacent. Corner of YS and Mineral Point Road	1/29/2024 1:20 PM
17	about 200 ft away	1/29/2024 10:16 AM
18	1 house between me and Kenosha Greenway	1/27/2024 3:31 PM
19	A bit over a block away	1/24/2024 8:46 PM
20	Across street	1/24/2024 6:30 PM

Q2 Do you volunteer on stormwater land (e.g. trash removal, remove garlic mustard, etc.)? Click on this link to an online map for information on these locations.

Answered: 212 Skipped: 5



ANSWER CHOICES	RESPONSES	
Yes	37.26%	79
I volunteer, but not on a pond or greenway (could be a park, adopt a median, etc.)	13.21%	28
I am not sure.	0.00%	0
No	45.75%	97
Other	3.77%	8
<b>TOTAL</b>		<b>212</b>

#	OTHER (PLEASE SPECIFY)	DATE
1	I don't but want to	2/9/2024 8:33 PM
2	I remove invasive species in the Arboretum	2/8/2024 6:41 AM
3	I'm not aware there was such a group	2/5/2024 11:29 AM
4	Was not aware of volunteers for these areas	2/1/2024 9:58 AM
5	Just moved to our home this year. Would be available to volunteer this year.	2/1/2024 8:30 AM
6	I would volunteer if made aware of opportunities	1/31/2024 11:21 PM
7	Just naturally improve the greenway when I see problems...trash, branches blocking paths etc.	1/31/2024 10:48 AM
8	No, but would be interested - never aware of opportunities	1/31/2024 10:46 AM
9	We always pick up trash when out for walks on/near s.w. land	1/30/2024 12:39 PM

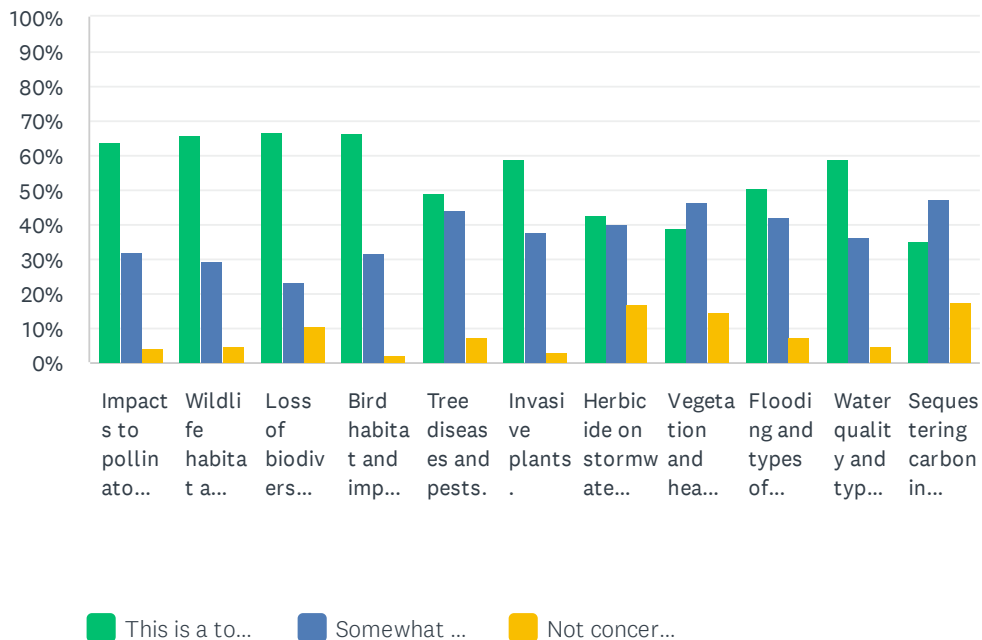
## Vegetation Management on Stormwater Utility Owned Lands

10	I have volunteered and worked in a park in the past	1/30/2024 10:15 AM
11	City Alder	1/29/2024 6:15 PM
12	I've worked on tree planting in greenways	1/29/2024 10:16 AM
13	We have joined neighbors in attempts to rid our green space of buckthorn and other invasive plants, and the planting of native plants.	1/27/2024 6:45 AM
14	Crew Chief of Prospect Prairie Gardens; one of several along the SW Path.	1/24/2024 7:59 PM
15	I am a walker and volunteer in many areas of Madison to remove trash and garlic mustard.	1/24/2024 6:58 PM



Q3 We have heard past concerns in the below topics. As part of this plan we will be reaching out to experts in these areas of study for additional input. Please rank your top concerns, and add any additional concerns you have under "other."

Answered: 201 Skipped: 16



## Vegetation Management on Stormwater Utility Owned Lands

	THIS IS A TOP CONCERN	SOMEWHAT CONCERNED	NOT CONCERNED	TOTAL
Impacts to pollinator habitat.	63.92% 124	31.96% 62	4.12% 8	194
Wildlife habitat and impacts.	65.82% 129	29.59% 58	4.59% 9	196
Loss of biodiversity and species extinction.	66.67% 128	22.92% 44	10.42% 20	192
Bird habitat and impacts.	66.50% 131	31.47% 62	2.03% 4	197
Tree diseases and pests.	48.70% 94	44.04% 85	7.25% 14	193
Invasive plants.	58.97% 115	37.95% 74	3.08% 6	195
Herbicide on stormwater land.	42.86% 81	40.21% 76	16.93% 32	189
Vegetation and heat islands.	38.83% 73	46.28% 87	14.89% 28	188
Flooding and types of vegetation.	50.78% 98	41.97% 81	7.25% 14	193
Water quality and types of vegetation.	58.85% 113	36.46% 70	4.69% 9	192
Sequestering carbon in sols and vegetation.	35.26% 67	47.37% 90	17.37% 33	190

#	OTHER (PLEASE SPECIFY)	DATE
1	Pest plants e.g. poison ivy	2/13/2024 6:35 PM
2	Loss of greenspace for development.	2/5/2024 8:47 PM
3	All of this he above. I care the most about water quality.	2/4/2024 7:10 PM
4	I am extremely concerned over the loss of our tree canopy, especially considering how close we are to the beltline. From a 40% canopy to only 23% left in Madison. We were the "City of trees" ....	2/3/2024 6:29 PM
5	You have a spelling error. The City quotes concerning erosion and tree cover are not supported by scientific literature. I'm very concerned that the city is impacting floodplain and riparian soils and constricting and speeding up runoff, leading to flooding, erosion, and water quality and habitat degradation within and downstream of the areas with vegetation removal.	2/3/2024 5:16 PM
6	Removal of mature trees from greenways for stormwater management.	2/3/2024 4:00 PM
7	Loss of tree canopy	2/1/2024 5:59 PM
8	The beauty of the natural environment, particularly the value of the tree canopy.	2/1/2024 10:27 AM
9	Increasing the tree canopy to 40% from the current 23% is a key component to all of the concerns above. We shouldn't be adding impervious surfaces such as concrete or asphalt in lieu of improving the biodiversity of these areas.	2/1/2024 8:38 AM
10	Organic runoff into Yahara Lakes.	2/1/2024 6:55 AM
11	Not cutting down healthy mature shade trees and selling? as saw logs when we need all the shade trees we can get. Don't roots hold soils from washes down inclines. Eg what's been done in recent spring harbor clear cutting to Lake Mendota. As seems all too frequent not, a plan is made and executed before other departments and taxpayers have any input as to potential problems with the plan. If you already know there were issues with this plan, it seems	2/1/2024 5:43 AM

## Vegetation Management on Stormwater Utility Owned Lands

that now you are attempting to justify what you already done.(that means what you've already RUINED!)

12	I do not think these areas are going to meaningfully impact carbon sequestration, as they're too small	1/31/2024 8:07 PM
13	I have grave concerns over losing our tree canopy which is crucial in carbon sequestration, animal and bird habitat, heat/cold and noise abatement. Another point, trees have been proven to reduce flooding and shore up the water way banks with their roots. Following latest scientific approaches to waterway restoration is crucial for the least tree removal. Cheapest and quickest methods have longterm negative impacts on the environment.	1/31/2024 11:11 AM
14	Many of these are subtopics of other items in the list, leading to so many being marked as "top concern"	1/31/2024 10:49 AM
15	erosion undercutting tree roots, and causing large decades old trees to fall over. The stream needs to be rip-rapped to stop the erosion.	1/30/2024 1:44 PM
16	Removal of trees and wild animal habitat. Loss of biodiversity. Loss of "wild" habitat and scenery.	1/30/2024 12:26 PM
17	All are important. I checked only the project I am involved in at the Attic Angel greenway and ponds.	1/30/2024 10:57 AM
18	The one on Nautilus is ugly and caused a wild area to be removed that was fun to play in with our grandchildren. It looks like the water management utility that it is--not a park.	1/29/2024 6:10 PM
19	Preservation of historic trees and mature landscapes, restoration of native savannah habitat.	1/29/2024 5:51 PM
20	Bat habitat, Aesthetics-woods better than weeds, trees not asphalt paths. We have lots of prairies, we do not have have many dense woodlands left in City of Madison. We love our trees!! Madison does not have a great record on maintenance, they just seems to mow all of the weeds down once a year, expecting volunteers (which are getting harder to find) to maintain green spaces. Trees keep the weeds down, the trails allow sunshine and the weeds and noxious trees to grow along the trails.	1/29/2024 5:45 PM
21	Not familiar with some of these - thus the no-concern	1/29/2024 5:31 PM
22	Concern that it wont be maintained and invasive plants will take over	1/29/2024 3:41 PM
23	These are all top concerns!	1/29/2024 3:13 PM
24	The city engineering report on what happens to the water on the corner of Island and South Hill and Nautilus overestimates how much water came through in the large storm of I believe 2018. That spillway contributes very little water to downstream compared with what comes from the Yellowstone spillway along the path from Memorial to Inner. Loss of tree canopy by cutting down mature trees that help with water removal and provide habitat along Island Drive - or anywhere in city. The Nautilus Park pond plantings are sparse and not healthy and the area looks terrible.	1/29/2024 2:43 PM
25	There's lots of storm water backup at Buffalo Trail and Eau Claire Ave by the swimming and into Rennebohm Park - why don't you work on that??	1/29/2024 1:39 PM
26	Space for recreation - bird watching, people "exploring" (when not flooded) enjoying beauty. *what we do with stormwater areas in Madison seems highly unlikely to affect "Extinction" or total carbon sequestration	1/27/2024 3:42 PM
27	Creating an attractive, user-friendly environment for both people, birds and animals ( both wild and pets).	1/27/2024 6:49 AM
28	Loss of mature trees on public land in general is a large concern due to their need in order to sequester carbon and provide a cooling effect in the urban environment. Oaks in particular are also a keystone species for their support of insect biodiversity, and should be preserved wherever possible.	1/26/2024 10:56 AM
29	restoring wetland, wet prairie, savanna, tallgrass/shortgrass prairie and sedge meadows ecosystems is extremely important to me.	1/25/2024 7:52 AM
30	I think maintaining the tree canopy is extremely important, especially in Madison where we are losing so many trees to development and disease. Having areas of trees and forest is also	1/24/2024 10:08 PM



## Vegetation Management on Stormwater Utility Owned Lands

good for the emotional health of residents. I hate to see the loss of any trees in the neighborhood.

31	How to maintain prairie gardens along the SW Path; long term.	1/24/2024 8:01 PM
32	The removal of trees and bushes that provide cover for wild animals. It is a joy to observe deer, fox, turkeys in the City. Elimination of invasive shrubs often comes at the removal of their habitat. The City removes more trees than it replaces. We need to preserve our mature trees.	1/24/2024 7:02 PM
33	I strongly support appropriate herbicide use for restoration activities	1/24/2024 6:32 PM
34	Safety when water flow is very intense, as with the major flooding event a few years ago. This isn't frequent but in our 5 years here I have seen 2-3 times when the water was scarily high and fast. Plantings that could help slow down this flow seem like they could be beneficial.	1/24/2024 6:27 PM
35	Opportunity for human enrichment	1/24/2024 4:56 PM

**Q4 Please add any additional comments or concerns you have. Staff will use your information as part of the larger public engagement to solicit additional information from experts and professionals in the fields of land management, ecology, wildlife biology, entomology, climate change, stormwater engineering, sustainability, and other applicable fields.**

Answered: 108 Skipped: 109

#	RESPONSES	DATE
1	Stormwater properties should be planted with appropriate native species and must be maintained. Invasive species in stormwater ponds and adjacent properties need to be controlled. Prescribed fire should be used in vegetation management. The discrete use of herbicides should be used to control invasive species.	2/21/2024 6:08 PM
2	All things ecological are important to me. I have extensive education in chemistry, ecology, and climate change. I just answered a political poll yesterday and my number one concern my entire life has been environmental issues. They are always under valued.	2/18/2024 1:01 PM
3	Noted "no concern" for herbicide use, assuming that it's used appropriately	2/14/2024 3:35 PM
4	Thanks for prioritizing native trees and vegetation that support healthy urban biodiversity!	2/14/2024 12:08 AM
5	More efforts to control invasive plants such as canary weed grass. Also more control of lose vegetation accumulation on water grates after large rainfalls. Possibly more frequent burns in areas of concern.	2/11/2024 11:10 AM
6	Not creating mosquito habitats since with climate change they will spread more disease!	2/9/2024 8:36 PM
7	do not want any mass removal of trees or concrete to direct water.	2/8/2024 12:40 PM
8	Please maximize the amount of native plantings on stormwater land and increase public awareness of the problems invasive pose. Would also like to see more action to prevent turtle strikes in Madison. They're terrible on Fish Hatchery by Wright Middle School, Nakoma Rd/Monroe St. intersection near the Arb, and Seminole Hwy.	2/8/2024 6:47 AM
9	Thank you for all the good work your teams do! During design phase, please leave a buffer between my property line and the "stormwater engineering"	2/7/2024 7:46 PM
10	I wish that Madison would ban the use of RoundUp. My HOA landscaping staff use it. I have tried to get the Board to stop having it use, but they don't care and don't see it as a problem even though we are on a greenway.	2/7/2024 4:16 PM
11	I would love to have volunteer training and work crews organized to help maintain here areas.	2/7/2024 11:46 AM
12	Erosion and sedimentation of our waterways (Starkweather Creek)	2/7/2024 9:45 AM
13	Less lawns and mowing.	2/6/2024 8:03 PM
14	I believe it's more important to listen to the actual experts and scientists instead of people who have a vested interest in maintaining the status quo (i.e. they live next to stormwater parcels and don't want invasive plants removed if it spoils their view)	2/6/2024 7:05 PM
15	It would be helpful to know what specific invasive plants are being targeted with herbicides. I would much rather support through hand pulling in the space behind our yard	2/6/2024 11:41 AM
16	it's great these are being considered. I've also seen recent concerns over fencing in stormwater retention ponds to help with accidental drownings like the on in Sun Prairie, not sure if that's on the Madison radar	2/6/2024 9:21 AM
17	Thank you for planting storm water land with native plants. Please do not approve private encroachments on public land.	2/6/2024 8:55 AM

## Vegetation Management on Stormwater Utility Owned Lands

18	Specifically increasing milkweed plants for Monarch butterflies.	2/5/2024 9:12 PM
19	I am concerned about building on our remaining greenways instead of areas that could be redeveloped--for instance building into the greenways near Zeier Rd and East Springs Dr instead of redeveloping the area around East Towne Mall that is mostly empty parking lot.	2/5/2024 8:49 PM
20	I live in the Elvehjem Neighborhood on the east side of Madison, and I walk daily at the Acewood Pond rainwater retention basin. I hope that space can be the healthiest space as possible for all living beings.	2/5/2024 6:44 PM
21	Seems there is a general lack of maintenance (trees and branches falling down).	2/5/2024 11:32 AM
22	I'm concerned about so much sand and salt going into the storm drains and stormwater ponds. Wishing there were a way to capture it before it gets to the ponds.	2/4/2024 8:01 PM
23	I enjoy volunteering. I would like more involvement and/or the ability to access resources and assistance. (Private/public partnerships)	2/4/2024 7:13 PM
24	We need more Oaks, Hickory, Walnut, River Birch, etc. ; and less of the invasive trees.	2/4/2024 2:18 PM
25	The city has said it will not take down many trees behind WALGREENS ON Mineral Park and in Oakbridge and in Shorewood so we don't trust them to manage our lands and creeks.	2/4/2024 10:50 AM
26	Can't we preserve our precious resources? Will Madison become a vast city of barren land full of apartment complexes?	2/3/2024 6:31 PM
27	I'm concerned that City Engineering is using outdated techniques from the 1960s that channelize water and cause additional erosion, loss of habitat, and downstream flooding. Please, please, get some grants and hire consultants that know what they are doing with natural flood management, habitat protection, and water quality. Of special concern is the prolific addition of stormwater outfalls directly to the lake, with no concern for water quality and habitat impacts, including fish spawning and mussel beds.	2/3/2024 5:19 PM
28	We would like to see a partnership with city engineering and the stormwater utility. At the present time we are concerned that major changes will occur that we don't want and for which we will have had no input. We believe that a cooperative relationship is possible.	2/3/2024 4:07 PM
29	Include other scientists: foresters, hydrologists, botanists, soil scientists. Manage greenways for overall health, not just utility and ease of maintenance. Save as many trees as possible. "A piece of land can't be all things to all people." Recreation such as bike paths should be secondary to carbon sequestration and sustainability.	2/1/2024 6:10 PM
30	I feel the experts at the City are doing a fine job in attempting to balance the stormwater and erosion issues with the need to maintain tree coverage to the extent possible.	2/1/2024 5:53 PM
31	Help Madison increase tree canopy percentage.	2/1/2024 2:45 PM
32	I'm particularly concerned about invasive species particularly buckthorn, garlic mustard and "trash" trees that do not advance the ecosystem nor provide protection of our watersheds.	2/1/2024 1:26 PM
33	Love my views through the trees in all seasons. Seeing wildlife. Walking the woods and mushroom hunting. Was told by city when I built my house in 1979 this would always be preserved.	2/1/2024 1:05 PM
34	I strongly support city management to maintain operational function of stormwater utility systems. I also support best management practices to maintain quality of the vegetation and trees on these lands. This may require the removal of invasive and low quality species.	2/1/2024 10:28 AM
35	Madison is such a beautiful city. I hope that plans will include preservation of our natural assets as well as accommodating future growth.	2/1/2024 10:28 AM
36	Organizing "Friends" groups to more regularly handle clean up and invasive species control	2/1/2024 10:23 AM
37	Suggest contact with The Nature Conservancy Wisconsin Chapter located in Madison	2/1/2024 10:00 AM
38	Primary concern is loss of wildlife habitat, including tree loss but also ground vegetation due to over engineering/culling and opening up of green space for recreational or access purposes	2/1/2024 9:09 AM
39	Oak savannas and prairie plantings cannot replace the benefits of a diverse forest canopy. While stormwater management is important, care should be taken not to further damage the existing tree canopy with unnecessary and unneeded impervious surfaces and artificial	2/1/2024 8:51 AM



## Vegetation Management on Stormwater Utility Owned Lands

plantings for convenience. Once the land is covered with concrete, asphalt or prairie, it becomes part of the problem, not the solution.

40	The deforestation that is occurring throughout the city is alarming. There has to be a concerted effort to save as many mature trees as possible, and when trees are removed, they should be replaced with others. cutting trees down and replanting savanna grasses will have a long-term negative impact on the carbon sequestration effort.	2/1/2024 8:10 AM
41	Whatever can be done to conserve, restore and minimize impact to the environment in general is very much appreciated.	2/1/2024 5:57 AM
42	I'm concerned average folks are not prioritizing the highest impact items or things that are most important. There needs to be more systems thinking and less 'what does my backyard look like'	1/31/2024 8:08 PM
43	Need to protect greenways. Save the trees. No bikepaths in greenways.	1/31/2024 7:39 PM
44	Please be more judicious about removing greenways for flood control. You are eliminating a tremendous amount of canopy and creating "eye-sores" in those neighborhoods.	1/31/2024 3:40 PM
45	See former answer.	1/31/2024 11:11 AM
46	I am against building bike paths in areas areas of mature trees	1/31/2024 11:06 AM
47	Deforestation should be avoided whenever possible and native grasses replanted after construction, especially on the edges of wooded areas so that they are not grass-seeded by adjacent homeowners to avoid the invasive weeds	1/31/2024 10:54 AM
48	Main concern is flooding	1/31/2024 10:38 AM
49	The city has been difficult to get to listen on maintaining trees in our city. We had direct experience with this during recent major road construction on our street. The city wanted to cut down over 150 trees. It took multiple meetings to get this reduced to approximately 90	1/30/2024 4:53 PM
50	Functioning wetlands are crucial. There should not be concrete liners to move water away but deep-rooted native vegetation to facilitate absorption. Small habitats that encourage frog and salamanders would be nice and a range of hosts plants for native butterflies and insects, some of which would be bird food. Hopefully colorful diverse interesting flowering plants native to southern Wisconsin to enjoy.	1/30/2024 4:16 PM
51	QA 13 foot retention pond at 129 Nautilus Dr would require a 13 foot dike for several lots above that address to prevent flooding in basements.	1/30/2024 1:46 PM
52	I am concerned about clear cutting greenway spaces to prevent flooding. We are in a climate crisis and we need all the trees we have. Also, Madison is known for our green spaces and tree canopy. This shouldn't be the first choice or knee jerk reaction in flood prevention- we should be looking into and exhausting other possibilities before we clear cut trees. This changes whole neighborhoods! Please take care in these decisions and take into consideration how everyone is affected.	1/30/2024 1:21 PM
53	Don't create solutions that are excessively carbon intensive to build or maintain for example large spans of concrete water mgmt structures or fields that require constant mowing.	1/30/2024 1:14 PM
54	While stated concerns are important, stormwater land is a miniscule fraction of our environment. Most important is that we are ready for a repeat of 8/18/2018. Meanwhile, I'll build a composter and plant a tree/wildflowers in my yard.	1/30/2024 12:47 PM
55	I am concerned that we will be too short-sighted in our management and restoration goals. And the City will be too influenced by adjacent property owners who do not want short-term changes.	1/30/2024 11:56 AM
56	Promote native plants, support native wildlife especially diversity of birds.	1/30/2024 11:33 AM
57	Our group has made the request for this area to be burned more often. This makes a big difference in clearing dead plants to prevent flooding due to a plug grate. I know grate maintenance was finally done. When Maggie was here working she checked the grate and your crew was sent out because it was plugged. It also helps to protect the work we have done. Several trees were removed on the north side on condo property. Pat Brennan saw hundreds of these trees popping up in the greenway. Thank you Pat for working on this. What is the cost to	1/30/2024 11:08 AM

## Vegetation Management on Stormwater Utility Owned Lands

burn? Could the area from Blackwolf down to the retention pond be burned more often? That is the biggest problem area.

58	I am dismayed by the clear cutting of trees in many greenways in Madison. I am concerned about animal corridors which Madison sorely needs. Humans do not need access to every green space in the city of Madison. I am a walker and avid bicyclist and respect the need for quiet spaces for animals. Please reconsider taking every non native tree down when improving water management in these areas. With the resurfacing and installation of large storm water pipes on Lake Mendota Dr. we stopped the removal of several trees due to non creative alternatives to removal. In Turtle garden they planned to take down a large oak but with some brain storming with neighbors they realized a solution was possible to save the tree. Madison is losing too many trees on private and public land!!	1/30/2024 11:03 AM
59	Your biggest challenge won't be compiling the massive and diverse amounts of information from qualified individuals. It'll be getting already passionate people to listen with open minds and the non-engaged folks to engage at all.	1/30/2024 10:24 AM
60	I support saving old trees, especially oaks, but ok with removal of young trees and invasive species to promote biodiversity and enhance storm storage and capacity. My family experienced severe flooding of our home in 2018 related to overflow from stormwater utility owned greenway on Kenosha Dr. I am sensitive to the urgent need to improve flood resilience in the City. I also have observed stormwater projects that resulted in the removal of 100s of mature oaks, which I would like to avoid or minimize in the future. Adapting to climate change will require big investments, and there may be trade-offs, but green infrastructure and nature based solutions can provide win-wins.	1/30/2024 8:42 AM
61	Too many trees not sufficiently protected (need to protect root zones) during construction. Too many trees removed. Not enough trees planted. City forestry needs to encourage private owners to better protect root zones and reduce removals of large trees as a part of construction plan review - especially during bird nesting periods. Also, increase natural and native shrubs. Prairies are not the answer for all locations.	1/30/2024 8:18 AM
62	Mostly concerned with flooding.	1/30/2024 6:56 AM
63	Existing trees have been there, in forest habitat, now for about 80 years or more. Those trees must be preserved not only for their value of continuing the forest as natural succession from prairie and fields, but also for cooling the city and providing privacy for and from houses and for walkers. This tree ecosystem is well developed, although could use a little help where there are thickets of buckthorn and honeysuckle. However, all invasive shrubs should not be drastically removed. They will need monitoring every few years, but that's a lot less work than trying to re-establish and continually maintain oak savannas, which are no longer natural or desirable in an urban environment.	1/29/2024 8:41 PM
64	When possible, make these areas accessible to neighbors (walking or biking trails, attractive sights.) Ensure as much diversity as possible, in part to educate people in their own neighborhoods.	1/29/2024 8:13 PM
65	Storm water runoff and control in areas around Old Sauk road as highlighted in the 2018 report after the major rain event.	1/29/2024 6:27 PM
66	Greenways should be preserved as natural spaces with park like access for residents. They should allow water to move through an area with out the need for retention ponds.	1/29/2024 6:19 PM
67	I'd like the city to consider the impact of clear-cutting trees on the neighborhood in which those trees exist. They're a big part of the appeal, and should be preserved, if possible. If there are ways for the neighbors to help volunteer our time to identify and mitigate invasives or undesirable trees, shrubs, and weeds, we'd love to help, we just need some direction.	1/29/2024 5:55 PM
68	We need to work towards a biodiverse 40% tree canopy. Trees not asphalt paths. We have lots of prairies, we do not have have many dense woodlands left in City of Madison. We love our trees!! Madison does not have a great record on maintenance, they just seems to mow all of the weeds down once a year, expecting volunteers (which are getting harder to find) to maintain green spaces. Tree/woodlands keep the weeds down, the trails allow sunshine and the weeds and noxious trees to grow along the trails, and spread onto the woodlands. Need to get objective, current, storm water management experts to advise on dealing with the multiple Watersheds, not just a group that will recommend what City Engineering already plan to do, cut down valuable trees and plant weeds to mow down, and add impervious asphalt bike paths.	1/29/2024 5:51 PM

## Vegetation Management on Stormwater Utility Owned Lands

69	Just conversed with a friend today and a different one yesterday. We've lost all confidence in the city and county actually listening to very educated citizens. We feel that it is chronic lip service that we get "we want to hear from you" but then the city/county is on full speed to push thru "THEIR" agenda. This is chronic in all the people I speak with. We are many long time residents that are active in helping protect the environment and know our neighborhoods very well - and no one is 'really listening'.	1/29/2024 5:15 PM
70	This is an extremely important subject and I would hope, given the proximity of the UW, that city staff would take advantage of local expertise and get this RIGHT!	1/29/2024 4:08 PM
71	Drainage in green spaces needs to be maintained. Current populations of deer and turkey in my area need to be culled....seen frequently in my back yard In past 2 years....same residence past 30 years. Looking forward to seeing results of current project in "my"greenspace.	1/29/2024 4:03 PM
72	The city needs to address All stormwater flow issues together not isolate each problem independently	1/29/2024 3:49 PM
73	Put emphasis on utilization of native plants and shrubs. Community access to greenway and Lake Mendota.	1/29/2024 3:47 PM
74	While planning and directing storm water is important and the primary reason for this land, the vegetation is THE MOST important long term activity for absorbing and handling run-off. With global warming, we will need to better keep water as close to the location where it originated rather than rapidly getting water to the lake by the quickest path.	1/29/2024 3:16 PM
75	There has to be additional ways of managing water other than cutting down all the trees to build a retaining pond that is used every 100 years. The plan from the city for along Island Dr is to cut every tree. This is not a sustainable, environmental approach. Please do more figuring about how much water actually could come down from the nautilus park area since those ponds were put in.	1/29/2024 2:47 PM
76	Negative climate change impacts due to tree removal as well as anticipated maintenance of area (e.g. removing trees which increases grass areas that would be mowed.)	1/29/2024 2:01 PM
77	We've got a lot of garlic mustard and porcelain berry vine at the greenway behind our house, and have been doing what we can/working with the DNR to remediate.	1/29/2024 2:01 PM
78	You've already cut down a huge number of trees in the Skyview Park Watershed. It seems a little late to ask our opinions now.	1/29/2024 1:59 PM
79	Humans ju at need more natural space. We are healthier wirh more of it around us. Please keepore natural/wild space around us.	1/29/2024 1:54 PM
80	I want to ensure we do not loose our utility owned lands	1/29/2024 1:45 PM
81	Loss of trees on stormwater greenways. Please don't clear cut them!	1/29/2024 1:43 PM
82	There needs to be storm water management at Rennebohm Park and by the Hill Farm Pool. The city tried to "fix" it but it's still a massive flood, the storm drains are huge and consequently allow all kinds of garbage into the lakes - doesn't anyone care????	1/29/2024 1:42 PM
83	Thank you for managing our public lands in an environmentally friendly way that prioritizes wildlife health and keeps pollutants out of our water ways	1/29/2024 1:41 PM
84	I think that increasing biodiversity and managing for healthy high quality natural communities is top priority (after stormwater management). This requires removal of invasive trees and with low value for biodiversity.	1/29/2024 1:39 PM
85	With city reduction of trees & plants behind my house, we are noticing more water infiltration from storms.	1/29/2024 1:31 PM
86	The primary concern should be to allow stormwater infiltration and to reduce flooding. Secondary concerns include preserving/improving wildlife habitat and preserving these areas for public use (kids exploring in the woods, etc.)	1/29/2024 1:26 PM
87	Among the experts listed above, I'd recommend including arboriculture/urban forest. This management plan should define "tree" v.s "woody vegetation" so that buckthorn, honeysuckle, etc removal are not considered tree removals. Trees to be considered invasive should be defined. Native trees such as hackberry, black cherry, silver maple. black walnut, elm should not be considered invasive. Management of these native species should not include their	1/29/2024 10:32 AM



## Vegetation Management on Stormwater Utility Owned Lands

wholesale removal as happened in the southern end of Owen Park. Removal specifications for invasive species should be standardized. Trees should be considered from a risk perspective in terms of the likelihood of channel blockage and harm to people and property. Tree planting needs across the greenway system and for individual sections should be determined and implemented. Thanks

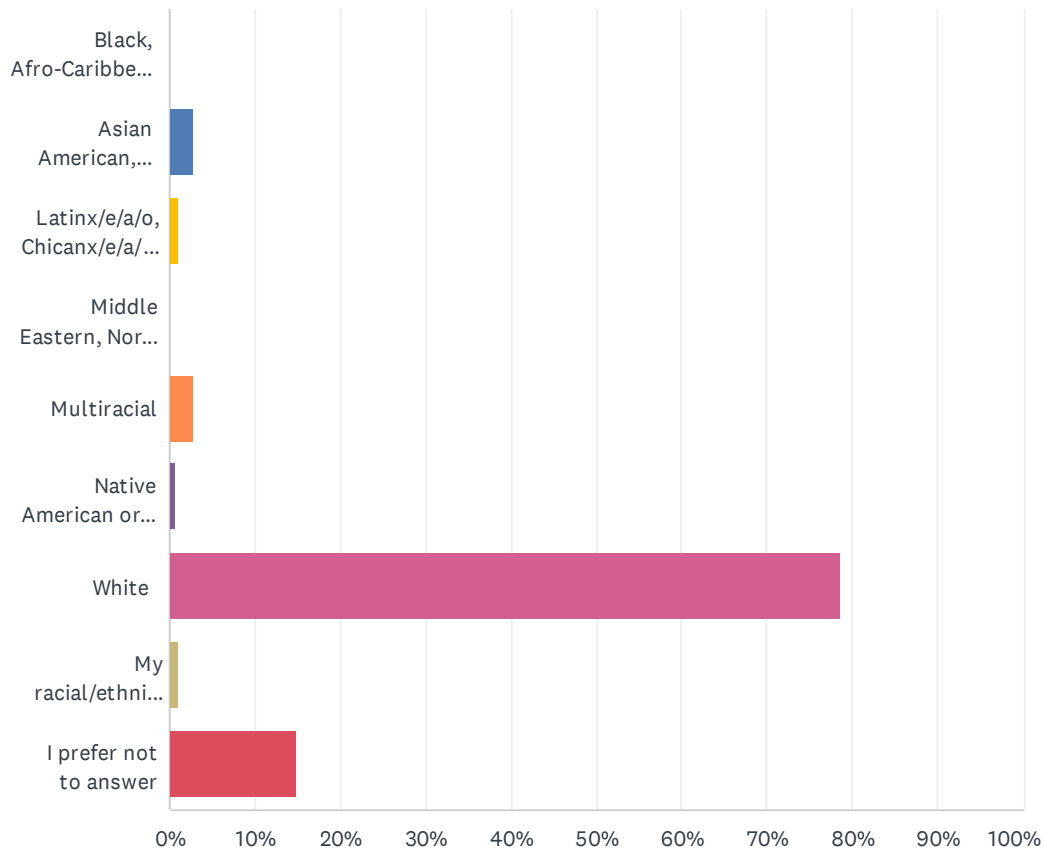
88	Greenways need to be maintained once they are planted or invasives will end up taking over.	1/29/2024 7:16 AM
89	We have watched the decimation of our Greenway natural habitat since it was taken over by Madison stormwater. No more owl, no more kids playing there. It has been very sad to live near a Greenway managed by Madison stormwater. Just lots of soil running off into the street with every rain from the compaction of all the heavy equipment and tree removals.	1/28/2024 9:03 AM
90	I prefer more naturalistic spaces. Playing fields (near West Towne) are another excellent use - low infrastructure cost (no buildings etc.) and mulit-use most of the time.	1/27/2024 3:45 PM
91	Create more native plantings. How about sporadic tree planting white pine, sugar maple? Could some walking trails be cut in so people can enjoy the space on a more intimate level? I leave near the green space between Hammersley and Barton roads.	1/27/2024 10:33 AM
92	We enjoy living opposite a green space, but are also aware of the downside that they can pose. In recent years, three trees have fallen across the street into our and a neighbor's yards, bringing down a beautiful 10 year old sugar maple (planted by the city), and posing a worrisome hazard to the people and pets who enjoy our sidewalks. While appreciating the fact that wildlife makes good use of aging trees, we would appreciate the city's help in managing them.	1/27/2024 7:00 AM
93	Very concerned about flood control in the S. Kenosha area. Do not destroy our S. Kenosha greenway!	1/26/2024 10:51 AM
94	WOULD LIKE TO SEE A FOUNTAIN IN THE RETENTION POND TO HELP WITH WATER CLARITY AND OXYGEN IN THE WATER	1/25/2024 3:40 PM
95	I've lived across from the Kenosha Blvd for 37 years, enjoying nature, the shade from the tree canapes and privacy. I understand that it aids in the stormwater run off that has increased with the constant new building in the industrial park and that it services the east side of Whitney Way also. I believe there should be compromises that allows the neighbor to enjoy the nature beauty of the blvd but helps with the stormwater drain off.	1/25/2024 10:59 AM
96	the greenway at Kenosha has many mature oak trees that need to be maintained Why don't you dredge the stormwater pond at Garner park to aid in flood mitigation Also worried about development in research park increasing runoff downhill.	1/25/2024 9:09 AM
97	There needs to be a wider public education regarding trees and native ecosystems and how perennial root systems store far more carbon and WHY we need to cut down invasive/non native trees and even native trees to let in light for our keystone species that so many ecosystems depend on and how it all relates to climate change and biodiversity	1/25/2024 7:55 AM
98	I am continually disappointed by city engineering's heavy hand with these last 'natural' islands of land in the city. While invasives, tree health, etc. are important, the policy for these Greenways cannot be to raise them and start over. There is too much maturity in these locations (large trees, wild animals, etc.) to take this approach, regardless of invasive populations or preferred use of heavy machinery to do all work. I feel like it would be a lot more effective to let the surrounding neighborhoods that enjoy these locations participate in gentler, longer term management of these lands. Education from Maddie and others on how to do this and local organization is far more preferable to Engineerings current bulldozer tactics.	1/25/2024 7:52 AM
99	Reduce the amount of Herbicide used	1/25/2024 7:51 AM
100	Trees and woodland areas are of vital importance to residents, to wildlife, and to the environment!	1/24/2024 10:10 PM
101	You guys do such a great job already. I know it must be a huge challenge to plan with climate projections and much more extreme weather. The projects you have done really seem to be well thought out and are helping our natural world and our human world.	1/24/2024 8:48 PM
102	Over the long term, how to encourage private land owners to support policies and practices implemented on stormwater utility owned land. I realize that budgets are tight, yet who's thinking about the wider context which includes private land owners, corporations, etc?	1/24/2024 8:05 PM

## Vegetation Management on Stormwater Utility Owned Lands

103	Please be more transparent about your plans rather than designing surveys with a bias to support your plans.	1/24/2024 7:03 PM
104	Seems like the Grassman Pond area might be a good place to experiment with wildlife corridors...You could set something up that went from Owen Conservation Park into the Highlands neighborhood, across the train tracks and all the way to Lake Mendota that created safe passageways for animals to move back and forth. Animals already use the drainage tunnels to go under the roads, I think, but I'd love to see a way for, say, the many toads who all come mate in the Grassman ponds every spring be able to cross the roads without getting squashed--and protect the barred owls who fly down to catch them but then get hit by cars. I see many run-over toads every year on Old Middleton Road on Toad Mating Day and last year also found a dead owl by the road which was probably the same one I saw going after the toads the night before and almost hit myself : (. I realize this is probably not on Engineering's top 10 list! but whenever new infrastructure goes in, or old stuff is repaired, it would be great to include animal protection and movement in the design.	1/24/2024 6:38 PM
105	I am thrilled that the city has a veg manager for storm water properties and hope they give Maddie a giant raise and increase her yearly budget by 10x. Keep up the great work!	1/24/2024 6:34 PM
106	Removing trees should not be knee jerk solution to past flooding troubles.	1/24/2024 4:57 PM
107	Concerned about extensive tree removal plans without replacement plans or neighborhood involvement. Glad to see increase in community engagement. Build capacity/skills in community engagement and volunteer action to stretch the staff capacity & budget. INVEST in spongy month control in Kenosha Greenway and beyond aggressively before it reaches OWEN Conservancy, and possibly before all our oaks are lost. This city failure has a huge financial impact on West Hill Farms residents.	1/24/2024 4:57 PM
108	It's important for all of us to play a role in our environment management	1/24/2024 4:38 PM

## Q5 How do you identify your race/ethnicity? (optional)

Answered: 187   Skipped: 30



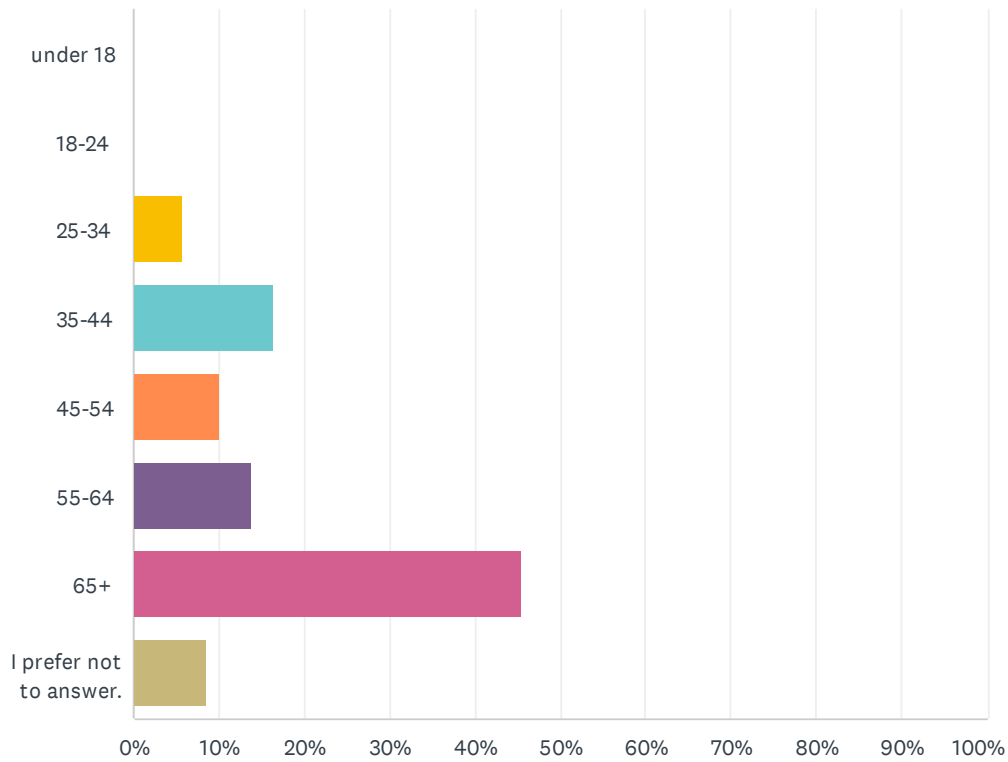
ANSWER CHOICES		RESPONSES	
Black, Afro-Caribbean, African or African American		0.00%	0
Asian American, Native Hawaiian, or Pacific Islander		2.67%	5
Latinx/e/a/o, Chicanx/e/a/o, or Hispanic		1.07%	2
Middle Eastern, North African, or Arab American		0.00%	0
Multiracial		2.67%	5
Native American or Alaskan Native		0.53%	1
White		78.61%	147
My racial/ethnic identify is not listed		1.07%	2
I prefer not to answer		14.97%	28
Total Respondents: 187			

#	I PREFER TO SELF DESCRIBE.	DATE
1	Alive	1/30/2024 6:57 AM



## Q6 What is your age? (optional)

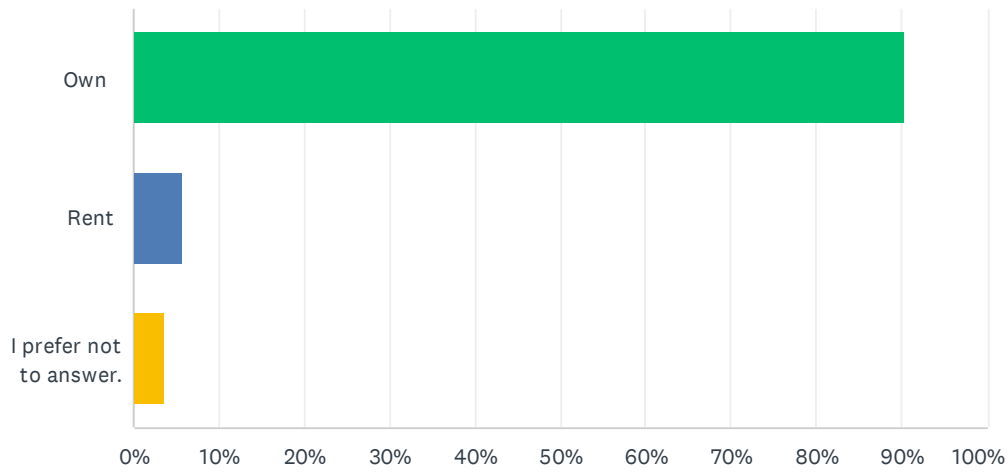
Answered: 189 Skipped: 28



ANSWER CHOICES	RESPONSES	
under 18	0.00%	0
18-24	0.00%	0
25-34	5.82%	11
35-44	16.40%	31
45-54	10.05%	19
55-64	13.76%	26
65+	45.50%	86
I prefer not to answer.	8.47%	16
<b>TOTAL</b>		<b>189</b>

## Q7 Do you own or rent your place of residence? (optional)

Answered: 188 Skipped: 29



ANSWER CHOICES	RESPONSES	
Own	90.43%	170
Rent	5.85%	11
I prefer not to answer.	3.72%	7
TOTAL		188

## Attachment F - Public Engagement Map



# Public Engagement Map

## Legend

- EVENTS
- MeetingLocations
- FlyerLocations
- SignLocations
- Online Survey
- Other Public/Private Ponds and Greenways
- Stormwater Utility Owned**
  - Greenway
  - Open Space
  - Pond

Note: Online survey responses only includes survey participants who provided an address.

