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# City of Bloomington Sustainability Action Plan Environmental Quality and Natural Systems Working Group Meeting #4

**SPEA**

Lead for the Greater Good





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## Agenda

- 6:00 pm – 6:10 pm:** Review of Sustainability Definition and Vision Statement
- 6:10 pm – 6:25 pm:** Review of Meeting 2 and 3 Recommendations
- 6:25 pm – 6:50 pm:** Presentation on Stormwater and Wastewater Management
- 6:50 pm – 7:10 pm:** Remarks from Utilities Department
- 7:10 pm – 7:30 pm:** Root Challenges of Stormwater Management in our Community
- 7:30 pm – 8:00 pm:** Possible Goals, Actions, Metrics, and Partners
- 8:00 pm – 8:10 pm:** Break
- 8:10 pm – 8:25 pm:** Voting
- 8:25 pm – 8:30 pm:** Wrap-up and Next Steps



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# City of Bloomington Sustainability Action Plan

## Agreements to Foster Civil Discourse\*

*\*Information provided by Lisa Marie-Napoli of Indiana University's Political and Civic Engagement (PACE) Program and based on work by Martin Carcasson of the Kettering Foundation*

- Be honest and respectful
- Be careful not to make assumptions
- Listen to understand
- It's okay to disagree, but do so with curiosity, not hostility
- Be brief and concise so everyone can participate
- Refrain from interrupting



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## Definition of Sustainable Community (Version 2.0)

A sustainable community works together to manage its environmental, social, and economic resources to ensure a healthy and just society for existing and future generations everywhere.



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## **Vision Statement for Sustainability Action Plan (Version 2.0)**

The City of Bloomington, Indiana will be recognized as a sustainability leader by working collaboratively with the community to preserve our natural resources, build a diverse and growing economy, and ensure a healthy and equitable standard of living while inspiring other cities and towns to do the same.



## Comprehensive Plan Goals Related to Ecosystem and Biodiversity Protection

**Goal 3.4: Increase the areas of native shrubs, trees, and herbaceous plants to increase ecosystem services associated with green infrastructure, including improved soil, air, and water quality and increased carrying capacity of pollinators, birds, and other wildlife.**

- *Policy 3.4.1: Create a vegetated-habitat connectivity plan.*
- *Policy 3.4.2: Eliminate, to the greatest extent feasible, invasive plant and animal species.*
- *Outcome: Green space has increased.*

*Indicators: Parks and green space area, vegetative cover in the downtown area, percentage of tree canopy coverage, number of community garden plots used and available, square footage of green roofs*



# Comprehensive Plan Goals Related to Ecosystem and Biodiversity Protection

**Goal 3.4: Increase the areas of native shrubs, trees, and herbaceous plants to increase ecosystem services associated with green infrastructure, including improved soil, air, and water quality and increased carrying capacity of pollinators, birds, and other wildlife.**

- *Programs:*

- Develop a method to appropriately manage the population growth of urban wildlife.
- Create an action plan to evaluate and prioritize strategies that reduce or eliminate invasive plants and animals.
- Assess rules and regulations that restrict the planting of invasive plant species and curtail the dumping of aquarium plants in any waterways.
- Measure baseline tree canopy coverage and explore options to expand baseline coverage.
- Amend existing tree protection rules to better protect existing trees during construction.
- Encourage the creation of small, neighborhood-scaled “pocket parks.”
- Secure additional property to preserve urban green space.
- Evaluate regulations for new developments to increase vegetative cover and utilize alternatives such as green roofs in very dense or urban contexts.
- Identify existing vegetated areas and the connections between them.
- Develop a greenspace per capita goal.
- Gradually purchase or protect key properties to improve connections and ecological quality between vegetated areas.



# Recommendations for Ecosystem and Biodiversity Protection from Meetings 2-3

## Invasive Species

- Tax invasive species
- Use technology to track invasive species (e.g. drones)
- Encourage use of App for reporting and mapping species and offer training on App
- Require invasive species codes for those remodeling their properties
- Prioritize species
- Identify tools and limitations for eradication methods
- Support MC-IRIS in identifying new invasive species
- Backyard Habitat-type program to control invasive species and incentivize good behavior
- Refer to nuisance concepts of business law to curb neighbor's behavior
- Draw down and freeze aquatic invasives
- Create flyer to education residents about not dumping aquariums into waterways





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# Recommendations for Ecosystem and Biodiversity Protection from Meetings 2-3

## Invasive Species

- Create incentives for the use of native species
- Promote MC-IRIS invasive plant education efforts
- Create App to photo and tag native species
- Identify projects for high school students



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# Recommendations for Ecosystem and Biodiversity Protection from Meetings 2-3

## **Invasive Species – Potential Metrics**

- Area coverage
- Number of invasive species in the area
- Number of bags of garlic mustard pulled during Garlic Mustard challenge

## **Invasive Species – Potential Partners**

- MC-IRIS
- The Nature Conservancy
- Sycamore Land Trust
- Relevant classes at IU
- K-12 Schools
- Hoosier National Forest
- Ivy Tech



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# Recommendations for Ecosystem and Biodiversity Protection from Meetings 2-3

## Deer Management

- Change zoning ordinances to allow for up to 10 feet tall fences
- Encourage HOAs to change covenants re: fence height
- Pass ordinance to prevent feeding of deer year-round
- Education re: deer-resistant plants
- Managed hunts at Griffy Lake
- Establishment of Urban Deer Zones and planned hunts with permission of nearby neighbors
- Public education re: biodiversity and economic loss caused by deer



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# Recommendations for Ecosystem and Biodiversity Protection from Meetings 2-3

## **Deer Management – Potential Metrics**

- Number of vehicle-deer collisions
- Existence of neighborhood plan to address deer
- Public perception survey re: deer population
- Losses of urban agriculture
- Lyme disease incidents
- Attacks on pets and people
- Browse line



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# Recommendations for Ecosystem and Biodiversity Protection from Meetings 2-3

## **Deer Management – Potential Partners**

- Nurseries
- HOAs
- Landscaping companies
- Extension services
- Outdoor recreation/environmental nonprofits



# Recommendations for Ecosystem and Biodiversity Protection from Meetings 2-3

## Biodiversity/Ecosystems

- Need to recruit qualified professionals (e.g. scientists) to help with ongoing recommendations
- Identify indicator species for biodiversity
- Enforce existing rules related to ecosystem protection
- Create demonstration spaces of native habitats
- City becomes a Backyard Habitat partner
- Create Monarch butterfly weigh stations in parks and neighborhoods
- Map land and natural systems in the city
- Create ecosystem and biodiversity inventories/possibly Bio-Blitz
- Educate the public on illicit discharges
- Create way of reporting residents who engage in illicit discharges
- Sponsor stream and river clean-ups
- Communicate goals and actions to IU to encourage collaboration
- Use Habitat Connectivity Plan to identify priority conservation areas



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# Recommendations for Ecosystem and Biodiversity Protection from Meetings 2-3

## **Biodiversity/Ecosystems**

- Purchase property to create habitat connectivity corridors
- Encourage residents to plant fruit trees at edge of property to encourage pollinators



# Recommendations for Ecosystem and Biodiversity Protection from Meetings 2-3

## **Biodiversity/Ecosystems – Potential Metrics**

- Population of indicator species
- Number of education programs
- Number of homes that are Backyard Habitats
- Tree canopy cover

## **Biodiversity/Ecosystems– Potential Partners**

- IU classes
- IU Corps
- U.S. Fish and Wildlife Service
- Sycamore Land Trust
- High Schools





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## Recommendations for Waste Minimization from Meeting 3

- Educate businesses through sectoral guidebooks with waste reduction tips and training on life cycle costs
- Educate citizens regarding Hoosier to Hoosier sale
- Educate people on how to reduce waste through "fix it" workshops, consumerism, hands-on activities at schools
- Create green business certification program
- Encourage group purchases of green products
- Develop incentive programs, such as tax benefits and public recognition
- Encourage grocery stores to create incentives for reusable bags
- Track waste and charge by weight rather than lump-sum charge



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# Recommendations for Waste Minimization from Meeting 3

## Potential Metrics

- % Waste
- Number of business reached
- Number of participants in training courses
- Value of incentives
- Pounds of waste/fees collected

## Potential Partners

- Chamber of Commerce
- Industry groups
- Local businesses



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## Recommendations for Waste Management from Meeting 3

- Sponsor public education regarding recycling
- Encourage competition
- Analyze waste stream
- Develop city composting program



# Recommendations for Waste Management from Meeting 3

## Potential Metrics

- Number of participants in training courses
- Number of programs/outreach programs
- Number of disposal options/alternatives
- Amount of waste going to place of final disposal vs. diverted

## Potential Partners

- Private waste management companies
- Local businesses
- Schools
- Nonprofit organizations