Bloomington Habitat Connectivity Plan

City of Bloomington Environmental Commission

November 2017

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Purpose

The purpose of this Habitat Connectivity Plan is to strengthen biodiversity and improve habitat connectivity by articulating the Environmental Commission's (EC) vision for the conservation, enhancement, and expansion of greenspace and habitat in Bloomington.

Introduction

Biodiversity — defined as the variety of life on Earth and the ecological processes that sustain it — is in stark decline across the planet[1], and Bloomington is no exception. For this reason, it's imperative that we conserve and enhance our existing greenspace to foster a healthy and stable ecosystem. Much of our diet consists of insect-pollinated food, so the protection of these species is especially vital[2]. In addition, the health of our local ecosystem directly affects air quality, water quality, and many other quality-of-life indicators. We are becoming increasingly aware that our well-being at every level is inextricably linked to the condition of the natural world around us.

For these reasons, the EC is proud to submit to the City of Bloomington ("the City") its Habitat Connectivity Plan. We live in a beautiful city that is growing in population by an average of almost 700 people per year[3]. To keep Bloomington beautiful when faced with rapid development and population growth, its natural areas must be conserved. To keep Bloomington thriving amidst so much growth, we must reverse the decline of biodiversity, which means going beyond conservation and entering the realm of habitat enhancement, expansion, and connectivity. In our Habitat Connectivity Plan, we present a blueprint to implement all four of these "pillars" and promote continued environmental stewardship for our city.

The EC, utilizing spatial data from the City's GIS and the 2003 City of Bloomington Environmental Resource Inventory (COBERI), has identified three critical areas of essential greenspace[4] (which we call Priority Greenspace Areas or "PGAs") that must be protected and enhanced to conserve high-quality habitat in Bloomington and Monroe County. These are (1) Griffy Lake, (2) Clear Creek, and (3) Jackson Creek, shown in

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[1] Isbell, F. (2010) Causes and Consequences of Biodiversity Declines. Nature Education Knowledge 3(10).
[2] Pollination, essential to plant reproduction, agriculture, and biodiversity, involves "the movement of pollen within or between flowers (i.e., the transfer of pollen from an anther to a stigma) and is the precursor to sexual fertilization that results in the production of fruit and seed" (United Nations IPBES).
[3] STATS Indiana (2015), "Population Estimates for Indiana's Incorporated Places, 2010-2015." http://www.stats.indiana.edu/population/sub_cnty_estimates/2015/e2015_places.asp.
[4] The EC defines greenspace as having three characteristics: (1) the area must possess a permeable surface; (2) the area must be more than one contiguous acre; and (3) the area must be more than ten feet from any manmade development, such as roads, lots, and buildings.

Figure 2 of the Methodology section. Our list is not exhaustive: these areas certainly aren't the only areas of high-quality habitat in the city. But they're important to protect, partly because of their size — about 42.6% of the total acreage of the city is in just these three areas — but also for the eponymous bodies of water they contain. We begin the substance of this report with our recommendations to the City, then provide some background on why habitat conservation and connectivity are so vital for our community's wellbeing. We end the report with our methodology and some closing thoughts.

Recommendations

The first step of a project to expand habitat in Bloomington must be to protect what we already have. Thus, the City should be proactive in conserving habitat and greenspace wherever future development is planned. Large parts of the areas, however, are relatively stable and unlikely to be developed, specifically, Griffy Lake and Jackson Creek. So in these areas, enhancing existing habitat will be our priority. The EC has developed the following five recommendations to the City:

1. Conserve habitat before, during, and after development;
2. Prioritize the habitat potential and permanent habitat connectivity of an area when making land use decisions;
3. Connect isolated areas of habitat by producing greenspace corridors;
4. Enhance habitat quality in stable areas by planting native species and removing invasives; and,
5. Inform Bloomington residents of the ecological benefits of habitat connectivity and encourage citizen involvement in habitat restoration.

Conserve habitat before, during, and after development

Mandate greenspace and habitat conservation before development occurs

Before we can enhance and expand existing habitat, we first turn our focus to conserving habitat and greenspace at all stages of development. This will be most important in Area Number 2, Clear Creek. The southwest side of the city is redeveloping quickly, so it's important that we target our efforts here to prevent habitat loss that could result from development and conserve the area's sensitive environmental features like karst, wetlands, and mature woodlands. To ensure the conservation of high-quality habitat, we recommend that the City, when considering development in this area, mandate that conservation of greenspace is not merely a top priority, but rather a

requirement of developing there. Retaining more greenspace in a development will not only provide benefits to the critical species in the area and the people who will eventually be living or working there, but also to the developers, who can boast about their efforts to preserve the natural landscape around the development and potentially produce a property with higher value.

Preserve environmentally sensitive areas

This area also includes Critical Sub-Area Number 3 State Road 37/Tapp Road from the 2002 Growth Policies Plan (GPP), which stated that the intent of the sub-area is to "foster development of medical and corporate office land uses *while ensuring the preservation of environmentally valuable and sensitive lands*" (emphasis added)[5]. Our Plan is an attempt to aid the fulfillment of this purpose and expand the idea of preservation to the rest of the city. The recent approval of the Planned Unit Development (PUD) for the property to be located at 1100 N. Crescent Drive highlights the need for enhanced protections for environmentally sensitive areas. The land on which the development will be built includes several karst features, like sinkholes, steep slopes, a creek head, and a riparian buffer. The development has severe implications for Bloomington's future, especially the impending conflict between environmental protection and affordable housing. Though the EC strongly supports the City taking action to increase the supply of affordable housing, there may come a time when its disregard for some environmental recommendations will cause real harm to the public at large, and especially the low-income and vulnerable populations at which the affordable housing is targeted.

Prioritize the habitat potential and permanent connectivity of an area when making land use decisions

Consider habitat effects when modifying land uses

According to the COBERI, the most sensitive of our three areas is Area Number 1, Griffy Lake. But considering its relative stability from land use changes, we again focus on Area Number 2, Clear Creek. Our threshold for environmentally sensitive areas is five, which means the area contains five or more sensitive features[6]. Only a small portion of

[5] City of Bloomington (2002) "Growth Policies Plan." https://bloomington.in.gov/media/media/application/pdf/49.pdf.

[6] The full list of environmentally sensitive features is (1) sensitive soils, (2) wetlands, (3) waterways, (4) floodplains, (5) karst features, (6) steep slopes (>12% grade), (7) special habitats, (8) vegetative cover (sparsely wooded or wooded areas only), and (9) high-quality vegetation.

this area is ranked five or greater — though much of Critical Sub-Area Number 3 from the GPP is — but the area could still be vulnerable to land use changes. Because it's not as environmentally sensitive as other parts of the city, conservation efforts in this area may be more difficult to justify. Thus, we present this report to show that the environmental sensitivity of an area should not be the only determining factor when considering whether to conserve it. When making land use decisions, the City must consider the habitat and connectivity potential of an area and work to ensure that species benefitting from it are minimally disturbed. Habitat connectivity is critical to slowing the decline of biodiversity, and land use that prioritizes conservation of functional habitat is one of the first steps of promoting connectivity.

Connect isolated areas of habitat by producing greenspace corridors.

Produce linkages to connect disparate habitats

The next step of promoting connectivity is to produce natural features to connect isolated habitats. The problem of habitat fragmentation is a serious one, and makes species more vulnerable to land use changes, disease, climate change, and more. Therefore, habitat connectivity is just as important for biodiversity as greenspace and habitat conservation, which we hope to achieve through expanding greenspace and producing habitat corridors to link our three priority greenspace areas. The best potential for a corridor is between areas Number 1 and Number 2, shown in Figure 6. We elaborate on how we come to this conclusion below and in our methodology section, but in a nutshell, we decided this because there's already a significant amount of greenspace between these two areas. By expanding greenspace northeast of Twin Lakes Sports Park and southwest and northeast of Rev. Ernest D. Butler Park and Crestmont Park, a corridor will be created that species can use to traverse between areas Number 1 and Number 2 (see Figure 6 on page 18). A high-quality corridor will improve biodiversity because it will make it easier for species from different parts of the city to breed. Genetic diversity is important to maintaining the level of ecological services the species provide. Crucially, a high level of genetic diversity also makes the species more resilient to threats, such as land use changes, habitat loss and degradation, pesticide use, pollution, invasive species, climate change, and extreme weather events likely to increase because of climate change.

Increase utilization of green infrastructure

Producing high-quality links between greenspace areas will involve not only expanding greenspace but also installing green infrastructure[7] — like plants, trees, rain gardens, and green roofs — that support pollinators and other wildlife, in addition to providing various ecological benefits on their own. Riparian buffers can do double-duty here: not only do they protect waterbodies from stormwater runoff and contamination, they also provide habitat connectivity for pollinators and many other wildlife species. Native flora, because of the direct evolutionary connection between native plants and insects, should be used to support the greatest diversity of species. Natives also happen to be easier to maintain than non-natives, so it's a win-win for the City's maintenance staff and the species.

Enhance habitat connectivity without having to acquire new land

When we reduce the COBERI threshold from five to four, the amount of land we consider environmentally sensitive increases in acreage by 60%: from 1,093 acres to 1,739. It also highlights the role waterbodies and wetlands play as corridors that connect greenspace throughout Bloomington. This is illustrated by the yellow along some waterways in Figure 4. In addition, the spattering of yellow between the Clear Creek and Griffy Lake PGAs shows the beginnings of a corridor that can be improved upon to connect these two areas by expanding and enhancing greenspace to better support pollinators. Because there's already some open space in this area, like Crestmont and Rev. Butler Parks, as well as Bloomington Housing Authority-owned greenspace, it shouldn't be too difficult to improve it to provide more connectivity. Planting native wildflowers and trees along sidewalks and roads, creating small wildlife gardens, and converting some grassy areas to prairie habitat are good first steps to achieving connectivity that don't require the City to acquire any land.

Expand upon naturally occurring corridors

Finally, we reduce the COBERI threshold again from four to three outside our priority areas but retain the threshold of four within them. This map is shown in Figure 5, with COBERI level three and above in blue. There is now significantly more land considered environmentally sensitive: a total of 2,465 acres, which represents a 42% increase over the previous threshold. Using the lower threshold also reveals even more potential corridors to improve connectivity, especially between Clear Creek and Griffy Lake. The

[7] The Conservation Fund defines a green infrastructure network as "an interconnected system of natural areas and open space that conserves ecosystem values, helps sustain clean air and water, and provides benefits to people and wildlife."

long streak of blue on the west side is along railroad tracks, which provide an excellent opportunity for connectivity. Unfortunately, these tracks are not owned by the City, so, for the moment, the land on which they're built cannot be enhanced to create a corridor. However, north of the railroad is another spattering of blue that could potentially be enhanced to provide more connectivity on this side of the city. Another potential corridor is beginning to form along the B-Line Trail, which could be enhanced by planting more native trees and plants beside the trail, improving both biodiversity and aesthetics. Additionally, most major waterways in the city are colored in blue, further highlighting the important role they play in providing connectivity. Both the waterways and other areas of environmental sensitivity should be conserved and enhanced to increase connectivity, which could be accomplished by improving riparian buffers and removing invasive species, among other actions.

Enhance the habitat quality of stable areas

Codify habitat conservation and enhancement as City policy

Just because an area is unlikely to be developed in the near future doesn't mean its current use is as ecologically beneficial as possible. For this reason, evaluation of our stable areas is essential to identify where improvements can be made in their habitat and greenspace offerings. For example, the overabundance of white-tailed deer at Griffy Woods is stripping the understory of native plants, eliminating beneficial flora and fauna while also eradicating habitat for birds, insects, and other species that rely on a lush understory. This plan doesn't provide any recommendations for controlling the deer population near Griffy Lake, but we use the example to emphasize that even stable areas of habitat must be enhanced and actively managed to ensure they continue to benefit wildlife. Some management is already occurring, but habitat conservation and enhancement must be explicit components of the City's comprehensive greenspace management program. This may necessitate the hiring of additional Parks & Recreation staff to carry out habitat management activities, especially relating to invasive species removal and replacement with natives.

Eliminate invasive species and contamination from waterbodies

Water quality is also important in this regard. It's easy to identify, with GIS or in-person, where greenspace or habitat should be improved or expanded. But underwater, there's an entirely different ecosystem with different concerns that are often more challenging to identify. Water quality can signal the overall health of the environment because it's influenced by so many factors, like air quality, stormwater runoff, and vehicle emissions.

Griffy Lake has long been infested with invasive species such as Eurasian watermilfoil, which prevents beneficial aquatic plants from receiving sunlight, reducing the habitat quality of the lake[8]. A targeted treatment of invasive species hasn't occurred in the lake since 2009, and the City's concern about watermilfoil and curly-leaf pondweed, among other invasives, led to the preparation of the Griffy Lake Aquatic Vegetation Management Plan 2017-2021[9]. Invasive species and contamination are present in many of Bloomington and Monroe County's bodies of water, including in our other stable area, Jackson Creek. It's important to mitigate the negative effects of invasives and contamination in the city's waterbodies, an effort that will be well worth it as Bloomington enters its 200th year and beyond.

Encourage citizen involvement in habitat restoration

Launch an educational campaign about the risks of biodiversity loss

The Habitat Connectivity Plan must also include a participatory and educational component. Many Bloomington residents may not know what biodiversity is and why it's important. Thus, we recommend that informational signage be placed near habitat areas to educate visitors about the negative implications of declining biodiversity for our community, and how they can help improve it. During greenspace enhancement or expansion, signs could say something like "ecological restoration in progress," so residents aren't concerned that these activities are harmful. More in-depth literature describing why such greenspace expansion and enhancement is important could be left at front desks at City departments, for example.

Enable community members to improve local habitats where they can

Similar habitat enhancement initiatives around the country have been implemented by private citizens[10]. We want community involvement in ours too, so we ask the City to encourage individuals and organizations to create pollinator habitat using native plants in their landscaping or yards. Even small plantings can have a significant impact on biodiversity if they're close together, because they form corridors that pollinators use for

[8] City of Bloomington Environmental Commission (2012), "Bloomington Environmental Quality Indicators (BEQI)." http://bloomington.in.gov/documents/viewDocument.php?document_id=3013.
[9] Aquatic Control, Inc., for the City of Bloomington Dept. of Parks & Recreation (2017), "Griffy Lake Aquatic Vegetation Management Plan 2017-2021."
[10] In Portland, OR, a program called "Pollinator Parkways" was started because of one neighborhood's concern for the local bee population. The group has produced extensive educational materials about how residents can convert their parking strips, or the area of grass in between the sidewalk and street, into pollinator habitat using native plants and going pesticide free. Visit pollinatorparkways.weebly.com for more information.

foraging and rest as they journey through Bloomington. If the City is truly committed to our recommendations, community involvement could happen organically: when residents living near one of our three areas become aware of the conservation taking place, they might be inspired to enhance their own yards to create high-quality habitat. Small-scale habitat improvements like this could have reverberating effects as more Bloomington residents participate and visibility of the program increases. Residents may also be motivated to do other things to improve biodiversity, like installing bee boxes, removing invasives from their land, or mowing less often. Numerous small plantings by individuals and organizations also have the advantage of requiring no public subsidy. An initial investment by the City in enhancing and expanding habitat, if sufficient, could pay substantial dividends in the future by encouraging grassroots conservation efforts by residents and reducing the need for the City to finance them.

The Significance of Biodiversity

Human behavior has drastically altered Bloomington's landscape, which threatens biodiversity and puts a strain on local flora and fauna by simultaneously removing habitat and demanding more of the web-of-life services they provide, like pollination, climate regulation, and stormwater management, among many others. Habitat that has not been removed by development is left fragmented, and, as a result, local populations dwindle and in many cases reach unsustainably low levels. This has grave implications for the city's local food systems, aesthetics, public health, and economy.

How can we improve biodiversity in Bloomington?

Thankfully, there are steps we can take to reverse the decline of biodiversity that will improve wildlife habitat and enhance Bloomington's reputation as a green city. Retention and expansion of quality greenspace can occur in a number of proven and manageable ways. Increased planting of native shrubs, trees, and perennials allows greater carrying capacity of pollinators, birds, and other wildlife. Utilizing vegetated riparian buffers along streams provide habitat connectivity while also capturing runoff from stormwater and pollutants and reducing erosion. Encouraging residents to expand the wildlife-friendly components of their yards by various means can inspire grassroots citizen efforts to "bring nature home[11]." Accelerated removal of invasive, non-native species allows the restoration of healthier ecosystems throughout the city. These and

[11] In Doug Tallamy's book *Bringing Nature Home: How Native Plants Sustain Wildlife in our Gardens*, he emphasizes the importance of native plants in residential gardens to "bring nature home." In his afterword, he delivers a sobering call to action for gardeners: "We can each make a measurable difference almost immediately by planting a native nearby. As gardeners and stewards of our land, we have never been so empowered — and the ecological stakes have never been so high."

other actions will have lasting positive effects for Bloomington and its many residents — human and non-human — for generations to come.

Why should we care to expand greenspace and wildlife habitat?

There's a growing body of research that suggests natural areas have profound effects on psychological well-being, including stress relief[12], mood enhancement[13], increased creativity[14], and higher levels of kindness and generosity[15]. As more people than ever live in urban areas — about 50% of the population now and expected to increase to 70% by 2050[16] — it's important not to overlook the many benefits of natural settings on human psychology. City governments must work to incorporate the natural world into urban areas to take advantage of these benefits. Bloomington is already halfway there: our compact city is surrounded by rural areas and has extensive parks and greenspace. There's always room for improvement, so the City must adopt policies and procedures that prioritize greenspace enhancement and habitat retention and connectivity as cornerstones of sustainable growth.

Why isn't greenspace and habitat in the outskirts enough?

Rapidly declining pollinator populations could have severe impacts on food security as global population swells and climate change threatens to elicit mass migration from the coast. In the United States alone, pollinators contribute more than $24 billion to the economy through their indispensable role in the production of fruits, nuts, and vegetables[17]. Increasing the pollinator population through conservation and expanding habitat connectivity could certainly do some good for our local food system, improving public health and the economy in tandem. The ecological services provided by these species are so essential to a thriving ecosystem and local economy that we can't afford further decline in biodiversity within the city limits. Functional habitat in only the outskirts of the city is not enough to stop this decline. A 2004 study by the EC found

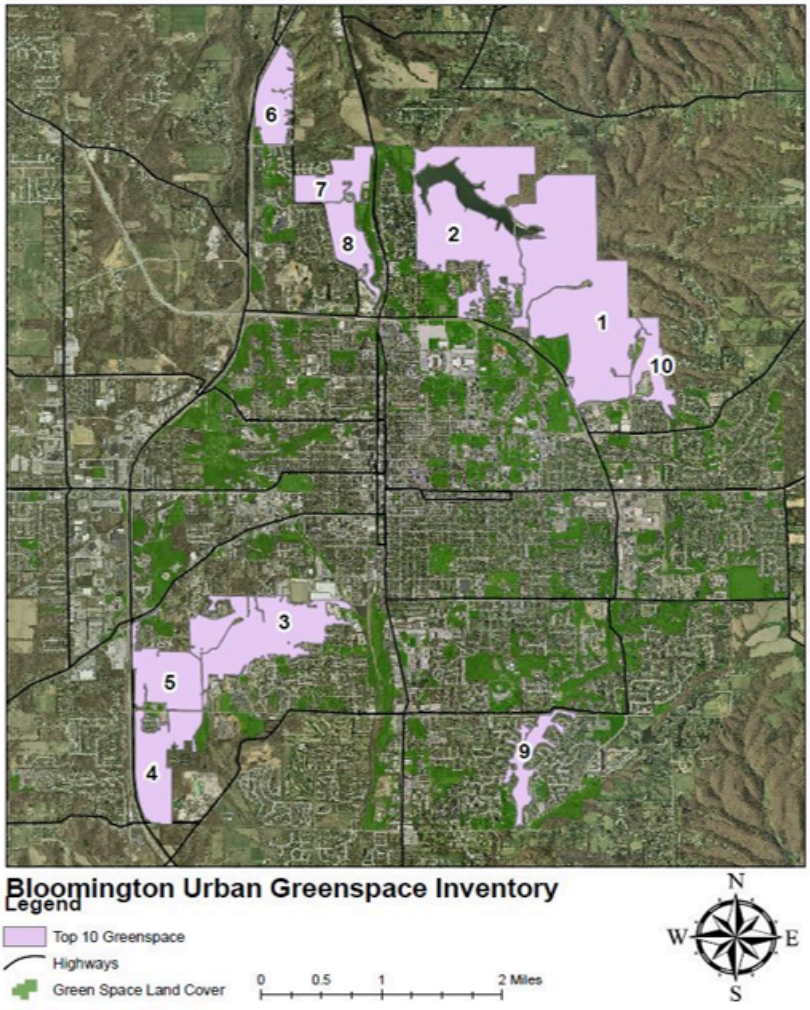
[12] See Lee, et al. (2014); Tyrväinen, et al. (2014); Ulrich, et al. (1991).
[13] See Bratman, et al. (2015).
[14] See Atchley, et al. (2012); Berman, et al. (2008).
[15] See Zhang, et al. (2014).
[16] Bratman G, Hamilton J, Hahn S, Daily G, Gross J (2015) "Nature experience reduces rumination and subgenual prefrontal cortex activation." *PNAS* vol. 112 no. 28. doi:10.1073/pnas.1510459112.
[17] The White House (2014) "Fact Sheet: The Economic Challenges Posed by Declining Pollinator Populations." https://www.whitehouse.gov/the-press-office/2014/06/20/fact-sheet-economic-challenge-posed-declining-pollinator-populations.

that parks and greenspace within the city limits may also have a positive effect on property values[18], so the benefits of conservation and enhancement of habitat and greenspace in Bloomington are numerous.

Methodology

Using City GIS layers compiled from the EC's "2007-2011 Greenspace Trends Report," we first determined the ten largest areas of greenspace within the city, represented by the pink polygons in Figure 1. Smaller areas of greenspace are shown in dark green.

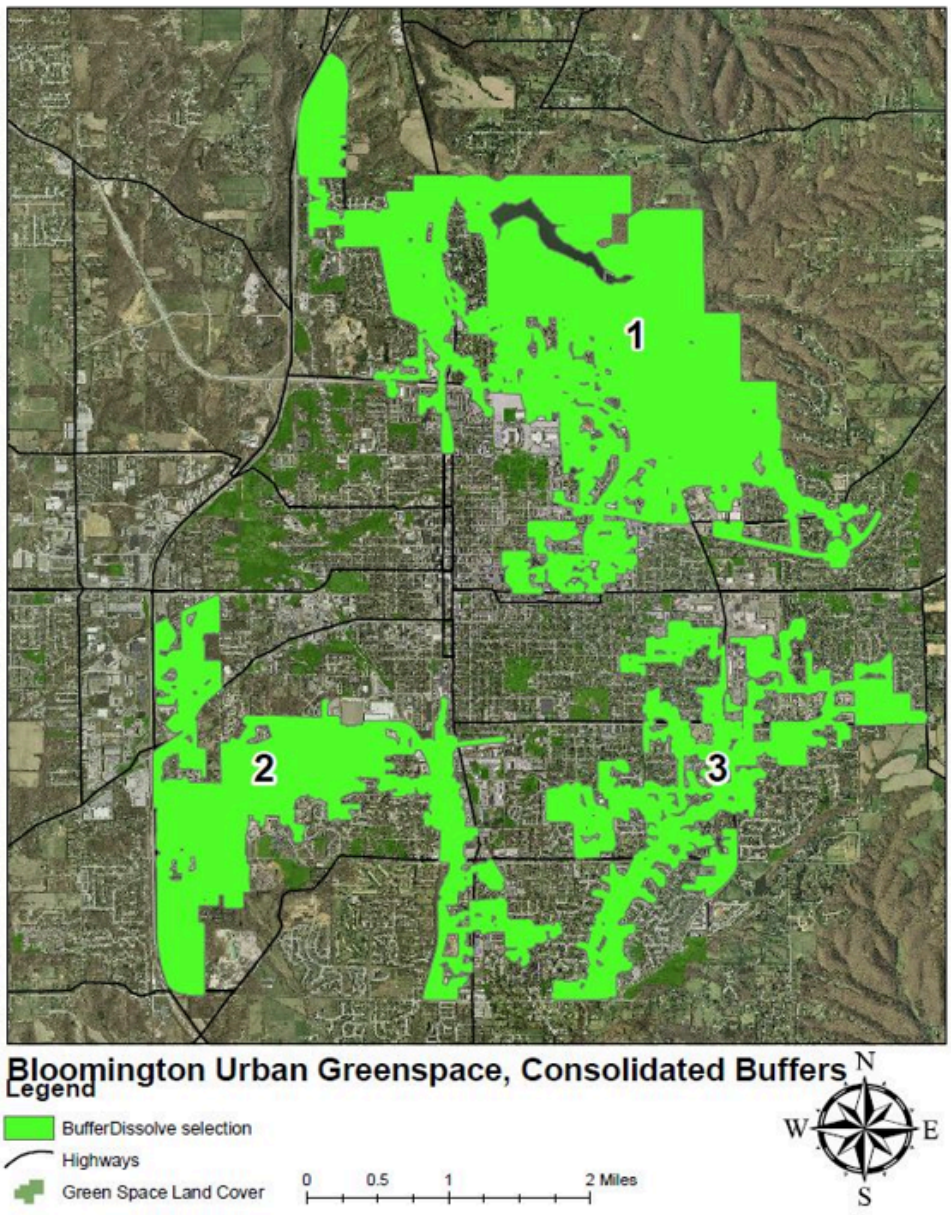
Figure 1: Top 10 Areas of Greenspace in Bloomington



[18] City of Bloomington Environmental Commission (2004) "An Analysis of the Relationship Between Proximity to Parks and Property Values for Bloomington, In."

It's clear from the above map that many of the large areas of greenspace are close together and even contiguous. Using this information, we combined these polygons and added a 100-foot buffer around them to recognize that the services of greenspace and functional habitat extend beyond their edges.

Figure 2: Consolidated and Buffered Top 3 Greenspace Areas



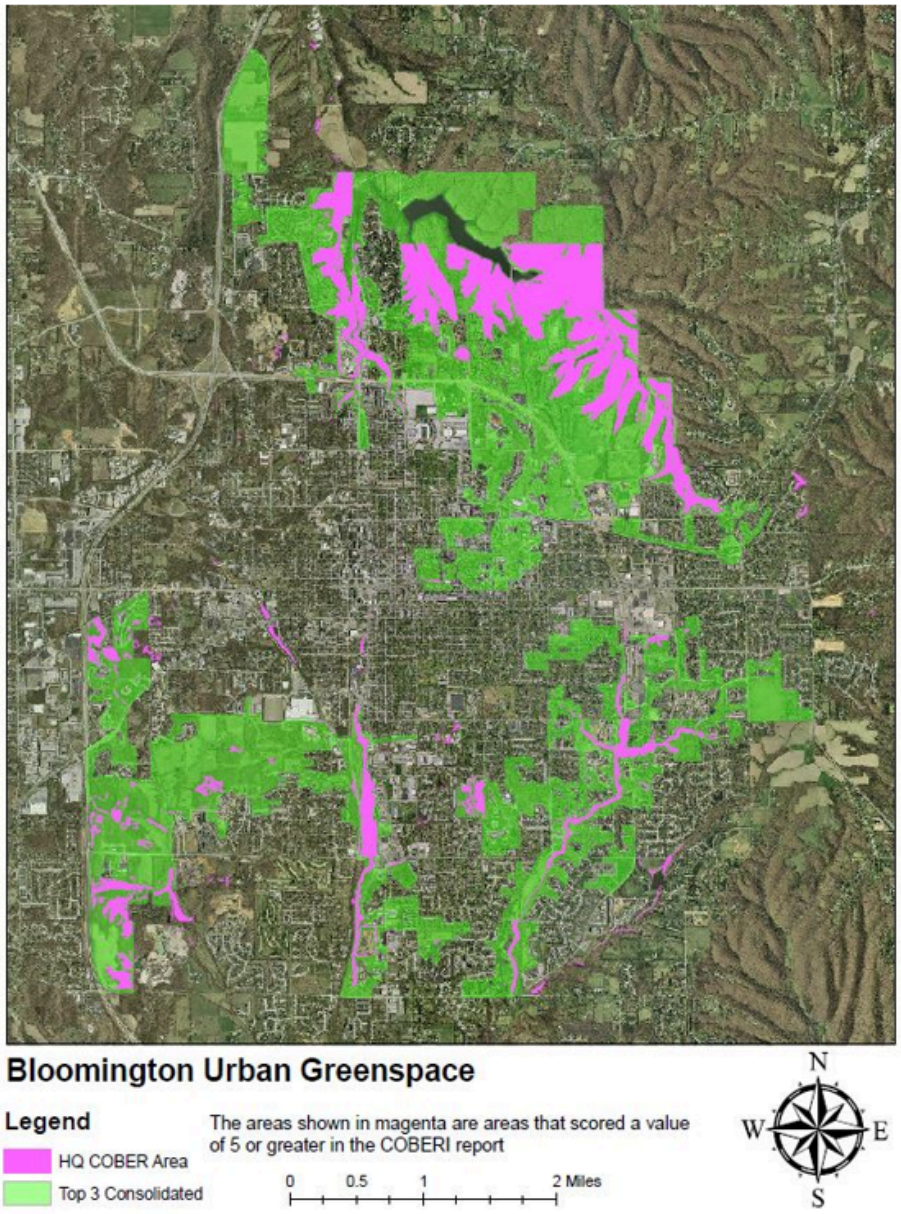
From this map, we derived the three largest critical areas of greenspace mentioned at the beginning of the plan. Because of steep slopes that limit development, wetlands, and the ecological and recreational value of the areas, PGAs Number 1 and Number 3

were determined to be relatively stable. To provide more evidence for this determination, we used the COBERI data to produce a new map in which the most environmentally sensitive areas are highlighted in magenta, shown in Figure 3.

The COBERI report ranked areas from 0 to 9 based on the presence of certain environmental features, with higher numbers representing more sensitive areas and lower numbers representing less sensitive areas. For our initial determination, we recognize an area as sensitive if its ranking is five or higher, which means it contains at least five sensitive environmental features. These areas are highlighted magenta in the map below. Again, the full list of environmental features includes (1) sensitive soils, (2) wetlands, (3) waterways, (4) floodplains, (5) karst features, (6) steep slopes (>12% grade), (7) special habitats, (8) vegetative cover (sparsely wooded or wooded areas only), and (9) high quality vegetation[19].

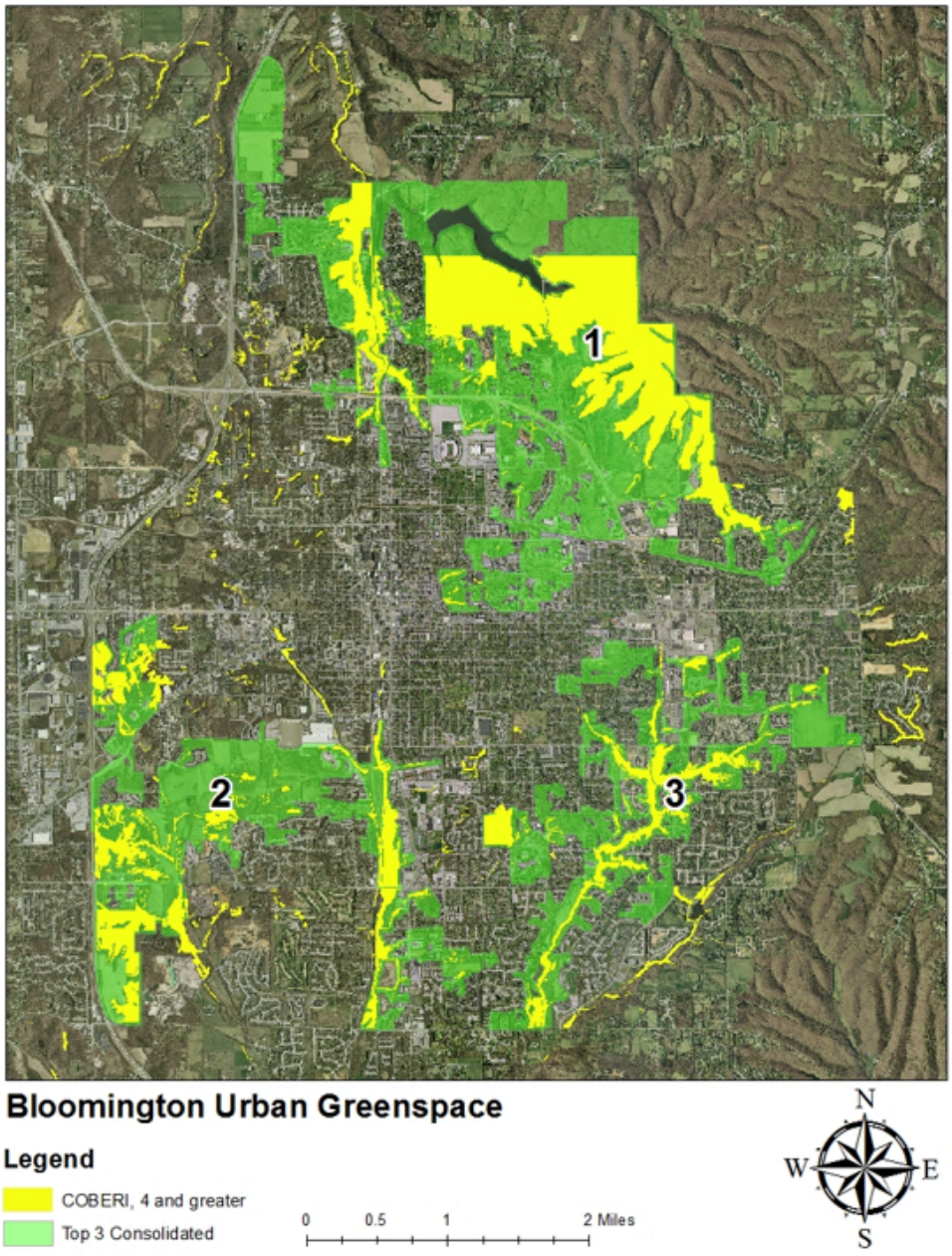
[19] City of Bloomington Department of Planning (2003) "City of Bloomington Environmental Resource Inventory (COBERI)," 25 http://bloomington.in.gov/media/media/application/pdf/45.pdf.

*Figure 3: Environmentally Sensitive Areas within Priority Greenspace Areas at Threshold of **Five***



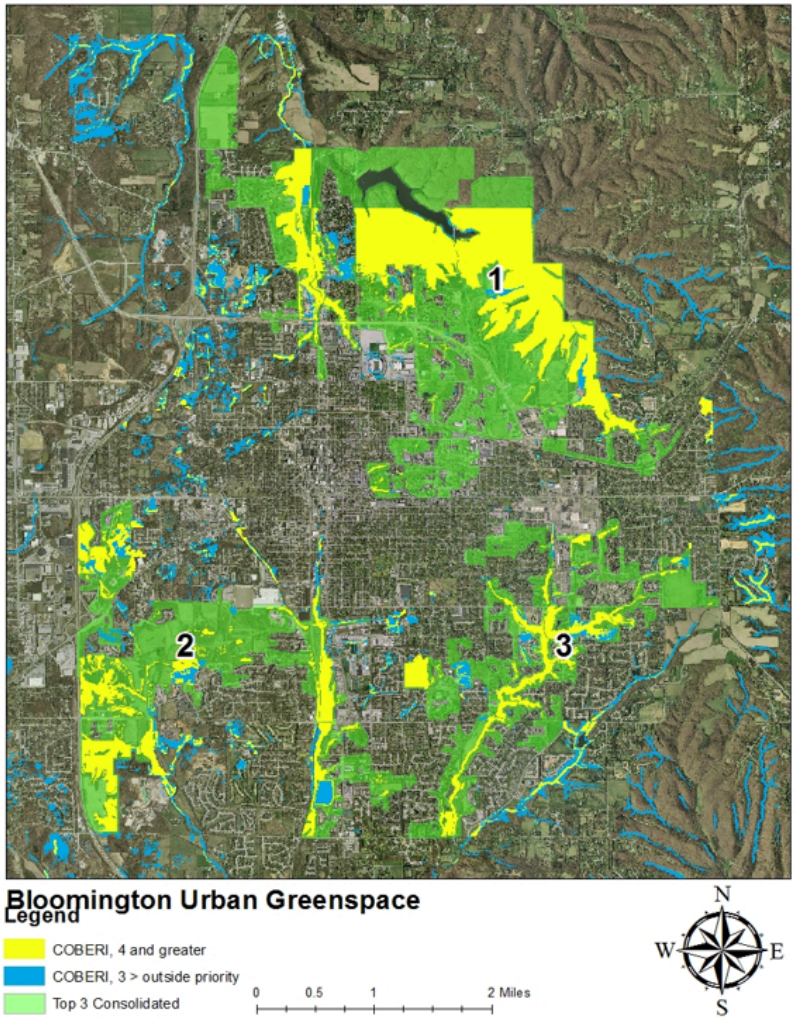
Lowering the threshold to four illuminates the importance of wetlands and waterbodies for promoting habitat connectivity. At this level, we also begin to see other areas that could be expanded to provide functional habitat, such as the far east side of the city, south of Jackson Creek, and in between areas Number 1 and Number 2.

Figure 4: Environmentally Sensitive Areas within and outside Priority Greenspace Areas at Threshold of ***Four***



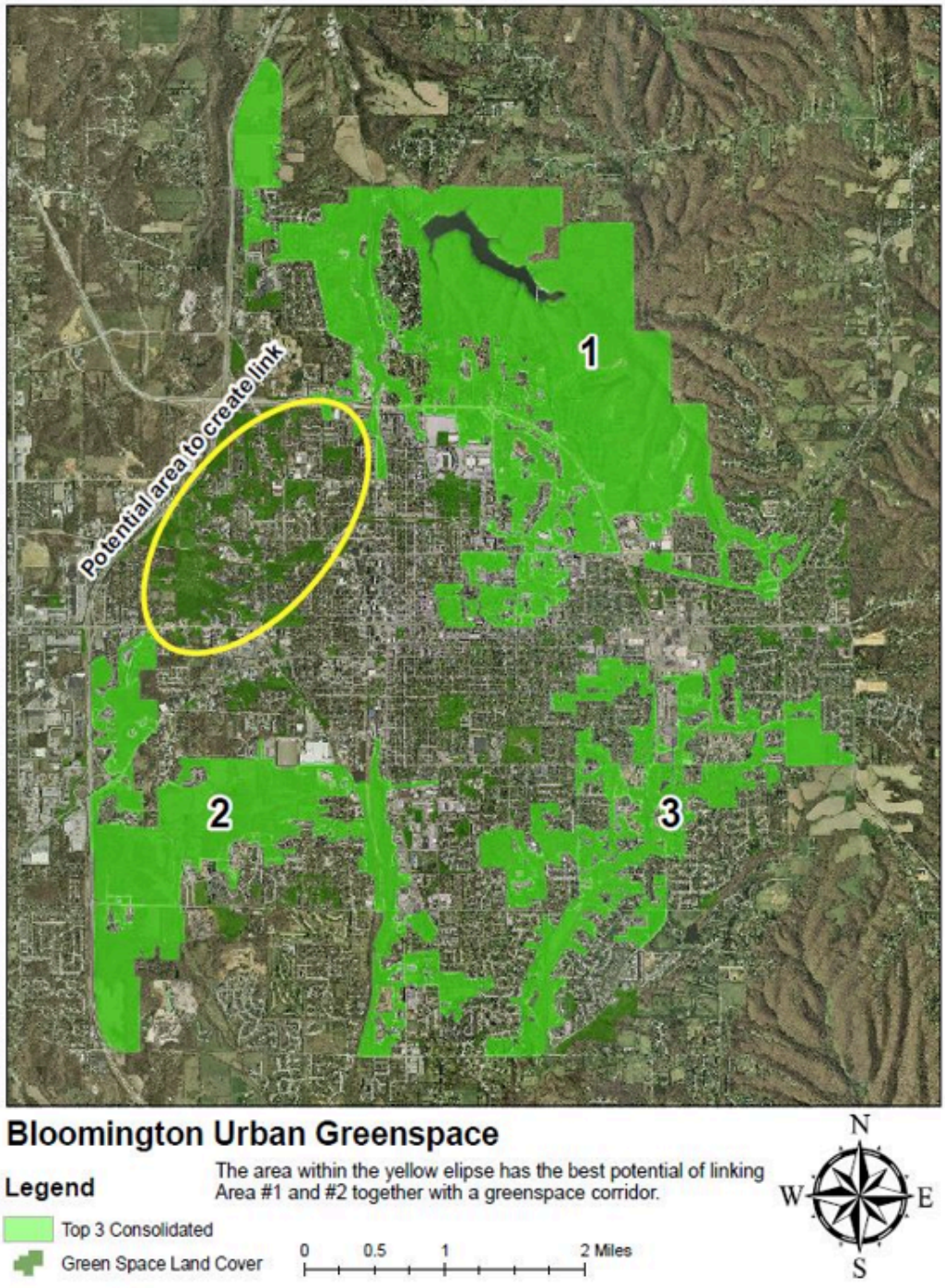
One can easily see from the maps that the most environmentally sensitive area is Number 1, Griffy Lake. Area Number 3, Jackson Creek, is also sensitive enough that we can consider it to be stable, for the most part. But Area Number 2 — except for Critical Sub-Area Number 3 State Road 37/Tapp Road from the GPP, the future Switchyard Park development, and Clear Creek — doesn't contain as many sensitive features, so it's likely less stable.

*Figure 5: Environmentally Sensitive Areas (ESAs) within Priority Greenspace Areas at Threshold of **Four**, and ESAs outside Priority Greenspace Areas at Threshold of **Three***



The above map shows a COBERI threshold of three outside our PGAs, but retains the threshold of four within them. The substantial amount of blue between Clear Creek and Griffy Lake further emphasizes the role of waterways in providing connectivity between greenspace areas.

Figure 6: Potential Link between Priority Greenspace Areas No. 1 and No. 2



Finally, we created another map with a potential corridor highlighted. We chose this area to create a link because it connects the largest, most sensitive area (Griffy Lake) with the smallest, least sensitive area (Clear Creek). There's also already quite a bit of greenspace here — shown in dark green — so the foundation for a corridor is nearly

there. A high-quality corridor will promote increased genetic diversity, as species from different parts of the city (and thus different populations) will be able to interbreed more easily. This will grow the local pollinator population and make it more resilient to land use changes, significant weather events, and climate change, strengthening biodiversity and improving the ecological services the species provide.

Conclusion

The EC has developed five recommendations to the City of Bloomington that we believe will strengthen local biodiversity by conserving, expanding, and enhancing high-quality greenspace and promoting habitat connectivity.

1. Conserve habitat before, during, and after development;
2. Prioritize the habitat potential and permanent habitat connectivity of an area when making land use decisions;
3. Connect isolated areas of habitat by producing greenspace corridors;
4. Enhance habitat quality in stable areas by planting native species and removing invasives; and,
5. Inform Bloomington residents of the ecological benefits of habitat connectivity and encourage citizen involvement in habitat restoration.

It's important that the City adopt policies and practices that consider the great diversity of species living within its borders. Indeed, each of the EC's recommendations would be mutually beneficial to our community's human and non-human residents. Restoring biodiversity, which is the primary goal of the Habitat Connectivity Plan, is even more essential during periods of rapid development and population growth, like the one Bloomington is experiencing.

The EC, by submitting this Plan, hopes to emphasize the significance of being proactive in conserving habitat and greenspace before development is planned. If the City takes our recommendations and decides to designate the Clear Creek area, for example, as a priority greenspace area, then conservation and habitat connectivity will be much easier goals to achieve than if it were to wait until after the area was already heavily developed. This could even be too late; habitat may be too fragmented and degraded by this time to sufficiently restore it. This could have grave consequences for our city's environment, economy, aesthetics, and public health.

The EC's chief motivation in creating this document is that we love Bloomington and want it to retain its character for future generations. We want to stress the prominence of natural surroundings in maintaining a sense of place. The iconography of

Bloomington is not rooted only in its built environment; the Sample Gates, the Indiana limestone buildings that permeate the IU campus, Courthouse Square, and so many other classic Bloomington sights would mean nothing if not for the natural world in which they're embedded. Conserving and enhancing this nature — which has been in Bloomington for much longer than we have — is not only paramount to keeping our community beautiful, but also to keeping its residents, of all species, healthy and prosperous.