Bloomington, Indiana

1818 · 200 YEARS · 2018

Sustainability Action Plan

City of Bloomington • 2018

Contents

The Bloomington community has long known that caring for our natural environment, upholding the rights of all residents — including our most vulnerable — and nurturing the artistic and aesthetic elements of our daily life are ways to strengthen the fabric of our city. And those elements that contribute to the city's cultural and humanistic legacy are also a foundation of our economic health. Historically, and within certain pockets of corporate culture still, concerns for the environment and social justice have at times been considered antithetical to prosperity and development. But the City of Bloomington thinks differently, and has integrated these goals within our foremost policy documents. I am pleased to present this 2018 Sustainability Action Plan as our latest embodiment of this view.

This report builds on a foundation laid by a series of documents, reports, and plans that our City has produced over the past decades, and in particular on several recent efforts since I assumed the responsibilities of the mayor's office — from the Bloomington Comprehensive Plan (2018), distilling our vision for everything from our built landscape to our quality of life, to the Bloomington Habitat Connectivity Plan (2018) and the Greenhouse Gas Emissions Inventory (2016) — that declare our City's commitment to sustainability. Together these documents ensure that Bloomington's goals are calibrated for the long haul, and that the changes we implement now promote abundance and vitality for Bloomingtonians 20, 50, and 100 years hence.

Bloomington believes so strongly in the connectedness of environmental, cultural, and economic goals, in fact, that we have a City department that bundles the three. I am grateful to the efforts of the staff of our Economic and Sustainable Development Department — Alex Crowley, Brian Payne, Autumn Salamack, and Sean Starowitz — for your vision and expertise in developing this document, and for the efforts you consistently make to engage with thoughtful members of the Bloomington community in identifying our most pressing sustainability issues with a view toward resiliency. This document was produced with great attention to measurable goals and accomplishments, and incorporates best practices gleaned from an array of benchmarked communities grappling with forces and concerns comparable to ours.

Those of us who love this place know that Bloomington has what it takes to lead the nation in sustainable practices — from conservation efforts to measures to promote social equity. With this report, the City of Bloomington manifests our collective commitment to do so.

John Hamilton
Mayor, City of Bloomington
October 2018

Executive Summary

The City of Bloomington has a long-standing commitment to environmental sustainability and City-public partnerships. Programs related to energy conservation, renewable energy, waste reduction and the local food movement have helped establish Bloomington as a regional sustainability leader and strengthened the volunteer and entrepreneurial spirit of the community.

While the City has addressed sustainability in numerous plans and reports, this plan represents the first formal sustainability planning effort for the Bloomington community, with an explicit focus on goals and actions that address the most pressing environmental issues, with a view towards economic prosperity and social equity.

This plan is divided into eight areas of focus: climate change and adaptation, energy and the built environment, transportation, local food and agriculture, waste, water, ecosystem health and City operations. A summary of current and past sustainability initiatives is provided for each focus area, along with tables that identify short-term goals, actions, timelines, partners and estimated costs for continued progress in each area. A comprehensive list of goals and associated actions is provided below.

An asterisk (*) indicates an ongoing cost (i.e. a cost with more than a one-time expense); (CP) indicates that a similar goal or action was outlined in the 2018 Comprehensive Plan.

CHAPTER 1: CLIMATE CHANGE AND ADAPTATION

GOAL 1.1: Reduce community GHG emissions 11 percent by 2023, relative to a baseline of 1.3 million metric tons of GHG emissions in 2016			
	ACTION	**LEAD PARTNERS**	**TIMEFRAME** **COST**
1.1.a	Establish a consistent methodology for measuring and reporting community GHG emissions (CP)	Economic & Sustainable Development (ESD)	2019	$*
1.1.b	Evaluate the viability of creating a community renewable energy goal (CP)	ESD, BCOS, Utility Companies, MCEC	2019	$
1.1.c	Implement Solarize Bloomington with the Solar Indiana Renewable Energy Network (SIREN) to aid residential low-cost solar installations	ESD, SIREN, other nonprofit partner	2019	$*
1.1.d	Achieve designation as a SolSmart community by taking steps to streamline development requirements and encourage local solar markets	Planning and Transportation, ESD	2019	$
1.1.e	Educate the public about the Monroe County Solar for All campaign and geothermal installations (CP)	ESD, HAND, Monroe County Solar for All	2019	$*
1.1.f	Investigate the feasibility of becoming a Green Power Community to encourage businesses, institutions, and individuals to collectively use more clean power	ESD	2020	$
1.1.g	Facilitate habitat restoration and tree planting with proper siting on public and private properties to sequester carbon dioxide and reduce building energy needs (CP)	ESD, Parks & Recreation	2020	$$*
1.1.h	Engage local businesses to reduce GHG emissions through outreach, education, and advisory services	MCEC, ESD, Chamber of Commerce	2020	$*

GOAL 1.2: Create a community climate adaptation plan by 2022				
	ACTION	**LEAD PARTNERS**	**TIMEFRAME**	**COST**
1.2.a	Conduct a climate vulnerability assessment	ESD, IU/Environmental Resilience Institute	2020	$$$
1.2.b	Create a public campaign to educate citizens and businesses about the effects of climate change	ESD, IU/Environmental Resilience Institute	2021	$*

CHAPTER 2: ENERGY AND THE BUILT ENVIRONMENT

GOAL 2.1: Reduce building energy use in the Bloomington community 20 percent by 2023, relative to a baseline usage of 9.4 million MMBTUs in 2016				
	ACTION	**LEAD PARTNERS**	**TIMEFRAME**	**COST**
2.1.a	Develop and implement an annual work plan for the Monroe County Energy Challenge (MCEC) to improve residential and commercial energy efficiency	MCEC, Utility Companies	2019	$*
2.1.b	Establish a consistent methodolgy to monitor and report community-wide energy use (CP)	ESD, BCOS, Utility Companies	2020	$
2.1.c	Collaborate with the business community on a voluntary program to disclose energy usage and costs, to help drive future energy savings (CP)	ESD, Chamber of Commerce, BEDC	2020	$*
2.1.d	Collaborate with local utility companies to improve energy efficiency programs and sub-metering	Utility Companies, MCEC, ESD	2021	$
2.1.e	Collaborate with local landlords to establish a voluntary program for green leases that clarify landlord and tenant responsibilities for energy efficiency projects and associated energy savings	ESD, landlords	2022	$$
2.1.f	Work with private and non-profit lenders to establish low-interest loans for small-scale energy efficiency improvements and renewable energy projects	ESD, local banks, HVAC and other building professionals	2023	$$$$*

GOAL 2.2: Increase the percentage of residential and commercial buildings using sustainable building certification programs and incentives by 2023, relative to a 2019 baseline

	ACTION	LEAD PARTNERS	TIMEFRAME	COST
2.2.a	Update the Sustainable Development Incentive program and develop a mechanism to track utilization of the program and post data to BClear	Planning and Transportation, IT	2019	$*
2.2.b	Develop an educational program on sustainable building certifications and incentive programs in collaboration with the business community	ESD, Planning & Transportation, Chamber of Commerce, Living Building Collaborative (LBC)	2019	$*
2.2.c	Evaluate the development of a SMART goal for increasing the use of sustainable building certification program, per the development of a 2019 baseline	Planning & Transportation, ESD	2020	$
2.2.d	Develop a list of sustainable building projects to establish a baseline for 2019, and a mechanism for tracking this data moving forward	ESD, Planning & Transportation, LBC	2020	$
2.2.e	Create annual sustainable building tour for commercial builders	ESD, Planning & Transportation, LBC	2020	$*
2.2.f	Complete at least one Living Building Challenge petal certification project	Planning & Transportation, LBC, developers	2021	$$$$
2.2.g	Host an annual green home show to showcase sustainable building features and programs	ESD, Planning & Transportation, LBC, other community partners	2021	$$*

CHAPTER 3: TRANSPORTATION

	Goal 3.1: Ensure Five Urban Village Centers meet the criteria established in the Comprehensive Plan by 2023 (CP)			
	ACTION	**LEAD PARTNERS**	**TIMEFRAME**	**COST**
3.1.a	Establish an inter-departmental team to organize resources and expertise needed to establish Urban Village Centers and identify five priority focus areas that would have maximum community impact and improve social equity	Planning & Transportation, ESD, Housing & Neighborhood Development (HAND), Public Works, City Utilities, Bloomington Economic Development Corp (BEDC)	2019	$
3.1.b	Incorporate electric vehicle charging stations into sustainable development incentives to influence common infrastructure at Urban Village Centers	Planning & Transportation	2019	$$*
3.1.c	Establish an infill development program to inventory vacant or underused lots, help ensure infill areas are build-ready when possible, and offer financial incentives to spur development of compact communities and prevent urban sprawl	Planning & Transportation, ESD	2020	$$$*
3.1.d	Attract a variety of amenities to locate in or near priority Village Centers	ESD, BEDC	2023	$
3.1.e	Implement appropriate multi-modal projects in priority Village Centers, emphasizing those identified in the 2018 Bloomington Transportation Plan; with streets that provide safe access for visitors of all levels of ability	Planning & Transportation, Public Works	2023	$$$$
3.1.f	Locate planned affordable housing within or nearby Village Centers or collaborate to pilot affordable housing in the vicinity	Planning & Transportation, ESD, HAND, South Central Indiana Housing Opportunities	2023	$

GOAL 3.2: Shift the Bloomington Community transportation commute mode split to 60 percent Single Occupancy Vehicle by 2022, compared to a baseline of 62.8 percent in 2016 (as measured in the American Community Survey)

	ACTION	LEAD PARTNERS	TIMEFRAME	COST
3.2.a	Work with businesses to expand bicycle parking and encourage participation in the American League of Cyclists Bicycle Friendly Business program	Planning & Transportation, ESD, Chamber of Commerce	2019	$$*
3.2.b	Expand the use of marketing efforts for bike share program	Pace bike share, Planning & Transportation, ESD, IU	2019	$
3.2.c	Create a campaign to encourage use of car share programs in lieu of automobile ownership through marketing and incentives	IU, ESD, Planning & Transportation	2019	$*
3.2.d	Develop a program to encourage local businesses and major empoloyers to establish commute trip reduction programs, including incentives for multi-modal transportation and an emergency ride home program for individuals who don't drive to work alone	ESD, Chamber of Commerce, IU	2021	$$*

GOAL 3.3: Achieve bicycle and pedestrian fatality rates of zero by 2023

	ACTION	LEAD PARTNERS	TIMEFRAME	COST
3.3.a	Encourage citizen use of UReport mechanism to report safety issues	Planning & Transportation	2019	$
3.3.b	Adopt a Vision Zero Policy to signal commitment to zero safety incidents in the community	Planning & Transportation	2020	$$
3.3.c	Develop schedule for improvements and implement at most dangerous intersections, as identified by the Bloomington Monroe County Metropolitan Planning Organization	Planning & Transportation	2020	$$$*
3.3.d	Implement a 4 to 5 second vehicle traffic signal delay after pedestrian lights indicate "walk" so that pedestrians and cyclists have time to become visible before automobiles are given the green light	Public Works, Utility Companies	2022	$$

GOAL 3.4: Achieve the Walk Friendly Communities Platinum level designation by 2022			
ACTION	**LEAD PARTNERS**	**TIMEFRAME**	**COST**
3.4.a Host a "Walking to Platinum" community summit to identify priority actions and opportunities to enhance walkability in Bloomington	Planning & Transportation, ESD	2020	$
3.4.b Focus priorities for infrastructure investment using Walk Scores, Urban Village Center designations and socio-economic data	Planning & Transportation, ESD, Public Works	2020	$$$$*
3.4.c Implement recommended projects in 2018 Transportation Plan to increase the miles of pedestrian pathways and sidewalks that support multi-modal transportation (CP)	Planning & Transportation, MPO, Public Works	2020	$$$$*

GOAL 3.5: Achieve the League of American Bicyclists Platinum Rating by 2022 (CP)			
ACTION	**LEAD PARTNERS**	**TIME-FRAME**	**COST**
3.5.a Develop a new Complete Streets Policy and Design Guidebook	Planning & Transportation	2020	$$$
3.5.b Develop and implement a plan for improved lighting on bicycle paths	Planning and Transportation, Parks & Recreation	2020	$$$
3.5.c Encourage people walking and bicycling to report lighting issues and maintenance needs and issues (i.e., pothole repair and debris removal) with the UReport app	Planning & Transportation	2021	$
3.5.d Increase safe and secure bicycle parking through covered parking and indoor options (CP)	Planning & Transportation	2021	$$$
3.5.e Increase the miles of bicycle facilities, including those recommended in the 2018 Transportation Plan and Transform 2040 Plan (CP)	Planning & Transportation, MPO, IU	2023	$$$$*

GOAL 3.6: Increase the use of the Bloomington Transit system 5 percent by 2023, relative to a baseline of 3.3 million transit users in 2017			
ACTION	**LEAD PARTNERS**	**TIMEFRAME**	**COST**
3.6.a	Expand "Way-To-Go" user-training program offered by BT and monitor participation rates	BT	2018	$*
3.6.b	Assess Walk Score ratings for public transit for Bloomington's 56 neighborhoods to determine needed route improvements	BT	2019	$
3.6.c	Create a marketing campaign to minimize first-time user apprehension, such as online "how-to" guides for safe use of public transit, a mentor program to partner first-time transit users with experienced riders, and educational campaigns designed specifically for youth riders	BT	2019	$
3.6.d	Make all youth tickets on BT free	BT	2020	$$$*
3.6.e	Collaborate with employers to provide transit benefits programs that promote use of public transit	BT, Major Employers, Chamber of Commerce, ESD, IU	2020	$$*

CHAPTER 4: LOCAL FOOD AND AGRICULTURE

	GOAL 4.1: Increase access to healthy, local food relative to 2019 baseline levels, as defined by a community survey developed in coordination with the City and community partners			
	ACTION	**LEAD PARTNERS**	**TIMEFRAME**	**COST**
4.1.a	Develop an annual community survey designed to evaluate changes in healthy food access over time	ESD, Community Partners	2019	$*
4.1.b	Develop a food system asset map of existing groups and efforts related to the functional food system (transportation, etc.) and social support services (restaurants, food banks, etc.)	ESD, Community Partners	2019	$
4.1.c	Coordinate community efforts to address root causes of food insecurity, healthy food access, productive reuse of vacant land, and economic opportunities and education around the local food system	ESD, Community Partners	2019	$*
4.1.d	Design and host quarterly, community Healthy Food Fairs, where people can sign up for SNAP and MCCSC food programs, learn about local food resources, etc., and supplement fairs with a web presence to provide access to all resources in one spot	ESD, Community Partners, Purdue Extension Monroe County	2019	$*
4.1.e	Evaluate the development of a SMART goal for increasing access to healthy, local food per the results of the 2019 survey and baseline development	ESD, Community Partners	2020	$
4.1.f	Implement the Stock Healthy, Shop Healthy community program to improve access to healthy, affordable foods by working with small food retailers	ESD, Community Partners	2020	$*
4.1.g	Establish a refrigerated food truck program to transport healthy foods to food deserts	ESD, Monroe County Soil and Water	2020	$$*
4.1.h	Collaborate with convenience stores to expand healthy food offerings	ESD, Community Partners	2020	$*
4.1.i	Recruit organizations located in/near food deserts to host community gardens and/or pop-up farm stands	ESD, Community Partners	2020	$*
4.1.j	Determine the potential for produce prescription program to enable doctors to prescribe produce for health issues experienced among individuals with low access to healthy, local food, and implement if feasible	ESD, Food Policy Council, Volunteers in Medicine, Bloomington Health Foundation, Community Foundation of Bloomington & Monroe County	2021	$$$*

GOAL 4.2: Increase the area of food gardens within the community, compared to a 2019 baseline (CP)			
ACTION	**LEAD PARTNERS**	**TIMEFRAME**	**COST**
4.2.a Establish a 2019 baseline for the number and size of gardens in the community used to grow food for personal consumption or sale, and a mechanism for tracking this data moving forward	Parks & Recreation, Food Policy Council, Monroe County Soil & Water (MCSW)	2019	$
4.2.b Develop a consultation and implementation program to create additional gardens at community locations interested in sponsoring a garden for individuals affiliated with their organization (e.g. churches, neighborhood associations) (CP)	Hilltop Gardens, Mother Hubbard's Cupboard, MCSW, Purdue Extension Monroe County	2019	$*
4.2.c Evaluate the development of a SMART goal for increasing the area of food gardens in the community, per the results of the 2019 survey and baseline development	ESD, Community Partners	2020	$
4.2.d Add 39 raised garden beds at Switchyard Park	Parks & Recreation	2020	$$
4.2.e Place a garden in all committed elementary schools and other organizations and provide consultation on establishment and maintenance	MCCSC, ESD, Parks & Recreation, Hilltop Gardens, Mother Hubbard's Cupboard, MCSW, Purdue Extension Monroe County	2020	$$$*
4.2.f Collaborate with Bloomington Housing Authority (BHA) to ensure public housing residents have access to sufficient gardening space, tools, and other resources needed to be successful (CP)	BHA, Food Policy Council, Mother Hubbard's Cupboard	2020	$*
4.2.g Facilitate a guided tour of farms and gardens within city limits to inspire and encourage acceptance of vegetative alternative practices	Parks and Recreation, Food Policy Council	2021	$*

GOAL 4.3: Increase the percentage of food that large institutional buyers purchase from local farmers (defined as farmers in the state of Indiana) by 2023, compared to a 2019 baseline				
	ACTION	**LEAD PARTNERS**	**TIMEFRAME**	**COST**
4.3.a	Establish a 2019 baseline measurement of total value and percentage of local food purchases for large institutional buyers, and a mechanism for tracking this information moving forward	ESD, IU, Cook, Ivy Tech, MCCSC, IU Health	2019	$$
4.3.b	Hire a local full-time value chain coordinator for the City of Bloomington to assist with initiatives to create economic opportunities for farmers and gardeners	ESD, MCSW	2019	$$*
4.3.c	Host a community meeting with institutional buyers and local growers to identify challenges and opportunities for collaboration	ESD	2019	$
4.3.d	Evaluate the development of a SMART goal for increasing the percentage of food purchased by large institutional buyers from local farmers, per the development of a 2019 baseline	ESD, Community Partners	2020	$
4.3.e	Conduct research on locations of nearby processing facilities to determine how shared community resources (i.e. grain mills, mobile abattoirs, food storage, root cellars, refrigeration) are structured in other communities to provide support for small local farmers	ESD, Food Policy Council	2020	$

CHAPTER 5: WASTE

GOAL 5.1: Divert at least 40 percent of the volume of residential waste collected by City Sanitation from being landfilled by 2023[14]			
ACTION	**LEAD PARTNERS**	**TIMEFRAME**	**COST**
5.1.a Conduct a waste characterization study of sample households in Bloomington, with an associated education and outreach campaign for improved recycling techniques and reduced contamination levels	Public Works, ESD, Volunteers (AmeriCorps), IU	2019	$$$
5.1.b Provide community support for the annual Hoosier to Hoosier Community Sale	ESD, IU, Nonprofit Organizations	2019	$*
5.1.c Create a community waste reduction campaign targeted at businesses and citizens	ESD, Center for Sustainable Living, IU, Chamber of Commerce, Bloomington Commission on Sustainability (BCOS)	2020	$
5.1.d Create and implement a sustainable business certification program that includes opportunities to report recycling rates and offers sectoral guidance for sustainable business practices	ESD, BCOS, Chamber of Commerce	2020	$$
5.1.e Develop a prioritized plan for expanding participation in the Green Business Network, focusing on increased recycling participation by multi-family and commercial participants	MCSWMD, ESD	2021	$
5.1.f Establish a voluntary program with the construction industry to divert construction waste from the landfill and provide incentives and recognition for participants	MCSWMD, ESD, Building Association of South Central Indiana	2021	$$
5.1.g Create a composting program for both residential and commercial food waste	Public Works, MCSWMD	2022	$$$$*
5.1.h Explore the long-term opportunity for a Materials Recovery Facility in Bloomington	MCSWMD	2023	$

CHAPTER 6: WATER

GOAL 6.1: Reduce Per Capita Daily Water Consumption 20 percent by 2023, relative to a baseline of 96.2 gallons in 2016 (CP)				
	ACTION	**LEAD PARTNERS**	**TIMEFRAME**	**COST**
6.1.a	Develop an enhanced public education campaign to encourage water conservation, with a focus on peak summer month water use (CP)	CBU, Rural Water Cooperatives, Parks & Recreation	2019	$$
6.1.b	Develop home leak detection repair program for low-income individuals	CBU, Housing & Neighborhood Development, South Central Community Action Program	2020	$$
6.1.c	Implement advanced metering infrastructure to allow remote meter readings, assist with identification of leaks, and provide customers with more detailed usage data	CBU	2020	$$$$*
6.1.d	Review and update drought contingency policies in the event of future emergencies	CBU, Parks & Recreation	2020	$
6.1.e	Establish rain sensor irrigation rebate program and provide information on appropriate sensor settings	CBU, Parks & Recreation	2021	$$*
6.1.f	Explore options for implementing water rates to encourage conservation	CBU, City Council	2021	$$

GOAL 6.2: Participate in at least two partnerships designed to improve surface water quality in Monroe County by 2023				
	ACTION	**LEAD PARTNERS**	**TIMEFRAME**	**COST**
6.2.a	Pursue Clean Water Act 319 grants for efforts to clean and protect Bloomington area watersheds through collaborations with community partners	MCSW, IU, Parks & Recreation, Friends of Lake Monroe	2023	$$$
6.2.b	Begin implementation of approved Clean Water Act 319 programs and monitor progress by assessing populations of pollution intolerant invertebrates	MCSW, IU, Parks & Recreation	2023	$$$$*

GOAL 6.3: Expand participation in City-led surface water quality programs, compared to a 2019 baseline			
ACTION	**LEAD PARTNERS**	**TIMEFRAME**	**COST**
6.3.a	Establish a 2019 participant baseline for participation in City-led water quality programs, such as the Hoosier RiverWatch and Adopt-a-Stream programs	CBU, Parks & Recreation	2020	$$
6.3.b	Evaluate development of a SMART goal for increasing the participation in City-led surface water quality programs, per the development of a 2019 baseline	CBU, Parks & Recreation	2020	$
6.3.c	Sponsor promotional efforts aimed at increasing participation in these educational programs	CBU, Parks & Recreation	2020	$$*

GOAL 6.4: Increase the number of green infrastructure features in the Bloomington community to improve stormwater quality, compared to a 2019 baseline			
ACTION	**LEAD PARTNERS**	**TIMEFRAME**	**COST**
6.4.a	Establish a 2019 baseline for the number of community green infrastructure features designed to improve stormwater quality by encouraging the community to report green infrastructure on the Green Spots or other relevant website	Planning & Transportation, CBU, SWEET	2019	$
6.4.b	Evaluate the development of a SMART goal for increasing the number of community green infrastructure features, per the development of a 2019 baseline	Planning & Transportation, CBU	2020	$
6.4.c	Develop an educational program and hands-on demonstrations teaching resident responsibility regarding stormwater management, best practices for stormwater pollution prevention, and financial assistance programs	CBU, Parks & Recreation, SWEET	2020	$$*
6.4.d	Conduct rain garden, stormwater and green infrastructure tours	CBU, Planning & Transportation, SWEET, Parks & Recreation	2021	$*
6.4.e	Offer stormwater billing credits for residents who implement green infrastructure projects	CBU	2021	$$*

GOAL 6.5: Decrease the number of impaired water bodies in Monroe County by 2023, compared to a baseline number of 21 in 2016

	ACTION	LEAD PARTNERS	TIMEFRAME	COST
6.5.a	Expand educational programs to educate residents, businesses and schools about stormwater management responsibilities and issues using the "Only Rain Down the Drain" campaign as reference (CP)	CBU, SWEET	2019	$$*
6.5.b	Engage in marketing efforts to increase participation in voluntary stormwater pollution prevention programs	CBU	2019	$*
6.5.c	Develop UReport mechanism for reporting of illicit discharges and promote citizen reporting capability	CBU, Monroe County Stormwater	2020	$
6.5.d	Inventory and begin necessary infrastructure improvements to the stormwater system	CBU, Monroe County Stormwater	2020	$$$$*

GOAL 6.6: Eliminate all chronic sewer overflow locations, up to a certain magnitude storm event (exact metric to be determined by CBU staff)

	ACTION	LEAD PARTNERS	TIMEFRAME	COST
6.6.a	Continue to be vigilant about grease and sewer inspections to prevent one-time overflow events	CBU	2019	$$*
6.6.b	Invest in an Inflow and Infiltration Program to eliminate leaks in sewer mains	CBU	2020	$$*
6.6.c	Implement a Clear Water Program, possibly including ordinance changes, to eliminate illicit connections of sump pumps, downspouts and other illegal connections to sanitary sewers	CBU	2020	$$$$*
6.6.d	Invest in major infrastructure improvements to increase collection capacity and eliminate locations of chronic overflows, e.g. the College Mall Rd. sewer interceptor	CBU	2023	$$$$*

CHAPTER 7: ECOSYSTEM HEALTH

GOAL 7.1: Conserve greenspace and enhance 100 acres of habitat in priority areas surrounding Clear Creek, Griffy Lake, and Jackson Creek by 2023				
	ACTION	**LEAD PARTNERS**	**TIMEFRAME**	**COST**
7.1.a	Ensure consideration of smart growth principles in future land use decisions to preserve important green spaces	Planning & Transportation, Plan Commission	2019	$
7.1.b	Establish a volunteer program to assist with habitat restoration plans on public and private properties	Parks & Recreation, MCSW, MC-IRIS, Sycamore Land Trust, IU	2020	$*
7.1.c	Develop and implement a plan for restoration in each priority area and establish a habitat corridor between Griffy Lake and Clear Creek, pursuing funding from Clean Water Indiana for implementation assistance (CP)	MCSW, Parks & Recreation, Sycamore Land Trust, IU, Bloomington Housing Authority	2023	$$$*
7.1.d	Create and implement a public education campaign highlighting benefits of biodiversity and habitat connectivity, the National Wildlife Federation certified habitat program, and reporting on the GreenSpots website	MCSW, Parks & Recreation, Planning & Transportation, IU	2023	$$*

GOAL 7.2: Remove 100 acres of invasive plants on public lands and 100 acres on private lands by 2023 (CP)			
ACTION	**LEAD PARTNERS**	**TIMEFRAME**	**COST**
7.2.a Begin mapping acreage of invasive species removal with Garmin system and report on Green Spots Website to track progress over time	MCSW, Parks & Recreation	2019	$*
7.2.b Develop a public education program to enhance public participation in invasive removal efforts through reporting species via the EDDMap application and the Adopt-an-Acre program	MCSW, Parks & Recreation	2020	$*
7.2.c Include requirements for native plants in all future landscaping plans	Planning & Transportation	2020	$$*
7.2.d Create native plants demonstration and education sites with plant details at Switchyard Park and/or other City parks	Parks & Recreation	2020	$$
7.2.e Develop coordinated community campaign encouraging removal of invasive plants, communicating benefits of native plants, and encouraging reporting on the Green Spots website	Parks & Recreation, MCSW, MC-IRIS, INPAWS, Purdue Extension, Bloomington Environmental Commission	2020	$*
7.2.f Create an educational campaign on the most effective methods of deer management and deer-resistant plants	MCSW, Parks & Recreation	2020	$
7.2.g Develop and implement prioritized plans for removal/management of invasive species on public properties, emphasizing Griffy Lake, Leonard Springs, Upper Cascades, Lower Cascades, and Olcott Park	Parks & Recreation	2023	$$$$*

CHAPTER 8: CITY OPERATIONS

GOAL 8.1: The City of Bloomington will reduce GHG emissions from municipal operations 12 percent by 2023, relative to a baseline of 33,702 metric tons of GHG emissions in 2015				
	ACTION	**LEAD PARTNERS**	**TIMEFRAME**	**COST**
8.1.a	Select a consistent methodology and reporting process for GHG emissions inventories and develop an updated Greenhouse Gas Emissions Inventory for City operations every two years	ESD	2019	$*
8.1.b	Evaluate the viability of creating a renewable energy goal for City operations	ESD, Public Works, Parks & Recreation, CBU, Fire, Police	2019	$
8.1.c	Identify locations for future renewable energy installations at City-owned properties	Public Works, Parks & Recreation, CBU, Fire, Police, ESD	2021	$

GOAL 8.2: The City of Bloomington will reduce non-renewable energy use in City owned and operated facilities 12 percent by 2023, relative to a baseline usage of 155,282 MMBTUs in 2015				
	ACTION	**LEAD PARTNERS**	**TIMEFRAME**	**COST**
8.2.a	Establish a consistent methodology and process for monthly reporting of individual building energy usage and cost data	ESD, Public Works, Parks & Recreation	2019	$
8.2.b	Develop an implementation plan to achieve energy use reductions outlined for this goal	Public Works, Parks & Recreation, CBU, ESD	2019	$
8.2.c	Achieve an ENERGY STAR score of 75 or better for all eligible City buildings	Public Works, Parks & Recreation, CBU, BT	2023	$$*
8.2.d	Identify and implement air process upgrades, improving energy wastewater treatment plant efficiency	CBU	2023	$$$$

GOAL 8.3: The City of Bloomington will reduce non-renewable City fleet vehicle fuel use 5 percent by 2023, relative to a baseline usage of 40,540 MMBTUs in 2015

	ACTION	LEAD PARTNERS	TIMEFRAME	COST
8.3.a	Establish consistent methodology and process for monthly reporting of fleet fuel usage and cost data	Public Works, Parks & Recreation, CBU, Police, ESD	2019	$
8.3.b	Conduct analysis of fleet to right-size vehicles and fleet size; identify near-term opportunities for fuel-efficient and lower-emission vehicle replacements	Public Works, Parks & Recreation, CBU, Fire, Police	2020	$$$
8.3.c	Develop and implement a policy to maximize fuel efficiency by vehicle type, eliminate unnecessary vehicles and usage, and prioritize electric and hybrid vehicles	Public Works, Parks & Recreation, CBU, Fire, Police, ESD	2020	$*

GOAL 8.4: Bloomington Transit will reduce non-renewable fuel use 5 percent by 2023, relative to a baseline usage of 31,417 MMBTUs in 2015

	ACTION	LEAD PARTNERS	TIMEFRAME	COST
8.4.a	Begin testing alternative fuel/electric buses; make recommendations for changes to fleet to reduce fuel use and associated emissions (CP)	Bloomington Transit	2023	$$$$*

GOAL 8.5: The City of Bloomington will establish a water conservation goal by 2019

	ACTION	LEAD PARTNERS	TIMEFRAME	COST
8.5.a	Establish 2018 water use baseline for all City facilities	ESD, CBU	2019	$
8.5.b	Develop a quarterly reporting system for water use in all City facilities	ESD, Public Works, Parks & Recreation	2019	$*
8.5.c	Develop a mechanism through UReport to allow citizens and employees to report water leaks in government buildings	City IT department	2019	$*
8.5.d	Complete water audits of all City facilities and make recommendations for indoor and outdoor water conservation measures	CBU	2021	$

GOAL 8.6: The City of Bloomington will establish a baseline and waste diversion rate for applicable City facilities by 2020

	ACTION	LEAD PARTNERS	TIMEFRAME	COST
8.6.a	Conduct waste audits for all applicable, occupied City facilities	Public Works, ESD, Parks & Recreation	2019	$
8.6.b	Establish a consistent methodology and process for quarterly reporting of waste generation and diversion rates in City facilities	Public Works, Parks & Recreation, ESD	2019	$
8.6.c	If the City Hall pilot succeeds, expand composting opportunities to at least two additional City facilities	ESD, Public Works, Parks & Recreation	2019	$$*
8.6.d	Identify additional opportunities for recycling at City facilities	ESD, Public Works, Parks & Recreation	2020	$

GOAL 8.7: The City of Bloomington will review and revise the City Hall Sustainable Purchasing Policy, expand to other facilities and track compliance by 2021

	ACTION	LEAD PARTNERS	TIMEFRAME	COST
8.7.a	Establish annual reporting process for Sustainable Purchasing Policy (SPP) compliance through City of Bloomington Data Portal	Controller's Office, ESD	2019	$*
8.7.b	Establish 2019 baseline for compliance with existing SSP	Controller's Office, ESD	2020	$
8.7.c	Develop a list of standard recommended consumable products for compliance with the SPP	Controller's Office, ESD	2020	$
8.7.d	Develop and implement a plan to communicate SPP requirements to City employees at all facilities	Controller's Office, ESD	2020	$

GOAL 8.8: The City of Bloomington will use sustainable building and green infrastructure practices at all applicable City facilities

	ACTION	LEAD PARTNERS	TIMEFRAME	COST
8.8.a	Develop an inventory of sustainable building projects implemented at City facilities since 2009	ESD, Public Works, Parks & Recreation, CBU	2018	$
8.8.b	Develop a mechanism for tracking the review of all Green Building Program Ordinance eligible projects pre- and post-implementation	Public Works, Parks & Recreation, ESD, Controller's Office	2020	$*
8.8.c	Develop an inventory of green infrastructure elements on city properties and a mechanism for annual reporting on the Green Spots or other relevant website	ESD, CBU, Public Works, Parks & Recreation	2020	$
8.8.d	Adopt and implement policy to plant low-mow lawns and low-maintenance native trees with high capacity for carbon dioxide absorption, and restore native habitats on City properties to sequester carbon dioxide emissions (CP)	Parks & Recreation, Public Works, CBU, IU	2020	$$$$
8.8.e	Inventory all City properties to determine the need for and appropriate siting of green infrastructure elements	ESD, Public Works, CBU, Parks & Recreation	2021	$$
8.8.f	Create and implement a Green Infrastructure Plan for City government buildings (CP)	ESD, Public Works, CBU, Parks & Recreation	2023	$$$*
8.8.g	Complete at least one Living Building Challenge petal certification project	ESD, Public Works, CBU, Parks & Recreation	2023	$$$$

GOAL 8.9: The City of Bloomington will decrease the percentage of employees commuting to work in single-occupancy vehicles to 80 percent by 2023, compared to a baseline of 82 percent in 2018

	ACTION	LEAD PARTNERS	TIMEFRAME	COST
8.9.a	Establish an employee commuter program to decrease use of single-occupancy vehicles for employee travel to and from work	Human Resources, ESD, Planning & Transportation	2020	$$*
8.9.b	Review and improve commuter benefits for non-single-occupant vehicle modes of commuting (i.e., not driving alone)	Human Resources, ESD	2020	$

GOAL 8.10: The City of Bloomington will eradicate all invasive plants from priority municipal building landscapes by 2023

	ACTION	LEAD PARTNERS	TIMEFRAME	COST
8.10.a	Develop an inventory of invasive plants for removal at all prioritized City facilities and properties	Parks & Recreation	2020	$$$
8.10.b	Replace invasive plants with native species at prioritized City facilities and properties	Parks & Recreation	2021	$$$

GOAL 8.11: The City of Bloomington will develop an employee education plan to facilitate implementation of the Sustainability Action Plan by June 2019

	ACTION	LEAD PARTNERS	TIMEFRAME	COST
8.11.a	Develop a clear framework for Team Green and solicit members from all departments	ESD	2018	$
8.11.b	Hold monthly Team Green meetings to facilitate implementation of employee education plan	ESD	2019	$*
8.11.c	Develop employee education and training opportunities related to each element of the SAP, with an annual schedule of activities, events, and key messaging	Team Green	2019	$*
8.11.d	Offer trainings on social equity, diversity, and inclusion for all City staff	Human Resources, HAND	2019	$$*
8.11.e	Evaluate the potential to create a funding mechanism for employee-led sustainability projects at City facilities	ESD, Team Green, Controller's Office	2021	$

Introduction

This Sustainability Action Plan (SAP) represents the first formal sustainability planning effort for the City of Bloomington, Indiana. It gives the Bloomington community an opportunity to strengthen existing sustainability efforts, identify and communicate goals that are both actionable and measurable, and establish a mechanism for annual progress reports.

Community members who participated in the development of this plan agreed that a sustainable community works together to manage environmental, social, and economic resources to ensure a healthy and just society for existing and future generations everywhere. The City addresses sustainability through careful attention to environmental, economic, and social equity issues, and looks for linkages among those issues. For example, increasing access to affordable, locally grown foods helps reduce greenhouse gas (GHG) emissions associated with transporting goods, while strengthening the local farming economy and making healthy food more accessible for residents. While this plan focuses primarily on goals related to environmental quality, it was shaped with a strong view toward actions that can simultaneously improve social equity and economic prosperity.

PROCESS

The plan was developed over an eight-month period by Gnarly Tree Sustainability Institute (GTSI), in coordination with the City's Department of Economic and Sustainable Development (ESD) and with substantial input from City employees and community stakeholders. It provides a five-year framework for Bloomington's sustainability strategy

VISION

as developed by Bloomington community members:

The City of Bloomington, Indiana, will become a sustainability leader by working as a community to preserve our natural resources, maintain our distinct culture, build a diverse and thriving economy, and ensure a healthy and equitable standard of living.

that identifies both short- and long-term goals and actions in City operations and within the broader community. From February through August 2018, more than 200 community members participated in the development and review of this plan.

Community Outreach

Two open houses were held in February to review the planning schedule and solicit public feedback on thematic areas. An online survey was also shared through the City website and social media to solicit public opinion regarding the most pressing sustainability issues facing the community. A draft of the SAP was posted online for public review in late August, with four additional community events to solicit additional public feedback before the plan was finalized.

Advisory Board

An advisory board comprised of City staff, members of citizen commissions, and Indiana University representatives formed in February

Environmental Resources
A primary environmental focus within Bloomington today is reduced GHG emissions from energy use. The community has implemented successful programs to both reduce energy use in homes and increase energy independence with the installation of solar photovoltaic (PV) panels at many homes, churches, businesses, and City facilities.

Social Equity
The City has a responsibility to address social equity and justice issues such as affordable housing, racial equity, access to child care, and the availability of fresh foods for all community members. City staff are currently tackling the issue of affordable housing and are developing equity-and-inclusion staff trainings to enhance interactions with, and development of programs and policies for, all citizens of Bloomington.

Economic Prosperity
The City has codified the relationship between economic prosperity and sustainability with the creation of a Department of Economic and Sustainable Development (ESD) and programs that provide both environmental and economic benefits (like Solarize Bloomington). ESD's mission is to foster a livable and economically resilient community through partnerships, collaboration, and outreach. Through strategic initiatives that expand economic opportunities, ESD aims to preserve the health of our environment, enhance social equity for citizens, and advance the principles of sustainable development.

Environmental Resources

Social Equity

Economic Prosperity
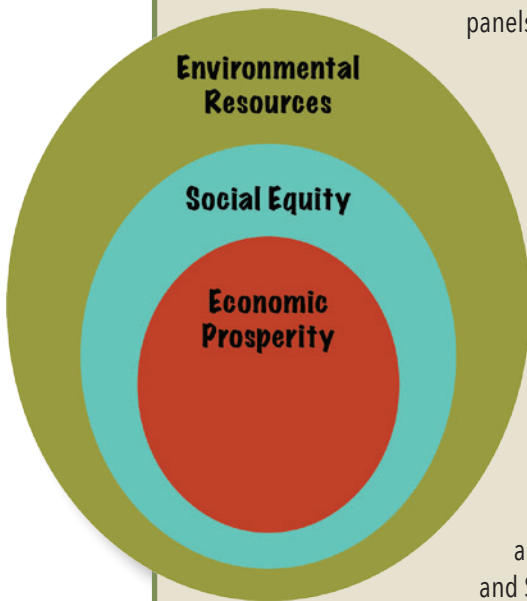
2018 to advise the SAP development process and offer input on draft documents. The board met in February, March, and May to discuss preliminary planning efforts. It also participated in a mini-course on Community Sustainability Planning, during which Dr. Kenneth Richards, a sustainability consultant and SPEA faculty member, introduced relevant concepts, including definitions of sustainability, metrics and frameworks, and SMART (specific, measurable, attainable, realistic, timebound) goals.

Working Groups
To allow for meaningful public input and to facilitate collaboration between public, private, and nonprofit sectors, the SAP team established four working groups focused on: Climate, Energy, and the Built Environment; Environmental Quality and Natural Systems; Local Food and Agriculture; and Transportation. These themes were further refined for inclusion in the SAP. Each group met four times between March and May 2018 and identified priority issues for discussion, along with possible goals and actions relevant to targeted sustainability issues. During each group's final meeting, members voted on the top five most critical community actions for the next five years, per their respective working group themes. Those recommendations were presented to the SAP Advisory Board in May 2018 and were reviewed thoroughly as the final plan took shape. In August 2018, group members received a draft copy of the SAP and were invited to submit written comments for consideration in the final plan. Notes from all working group and Advisory Board meetings are available on the City of Bloomington's website.

Over the course of this eight-month process, working groups reviewed more than 20 existing City documents and studies, including

- Bloomington Comprehensive Plan (2018)
- Bloomington Habitat Connectivity Plan (2018)
- Transform 2040 Plan
- Bloomington Food Policy Council Food Charter
- BCOS Annual Sustainability Assessment (2017)
- Bloomington Environmental Action Plan (2017)
- Water Quality Reports
- Parks and Recreation Master Plan (2016)
- Greenhouse Gas Emissions Inventory (2016)
- Local Government Operations Energy Use and Emissions Inventory (2015)
- Peak Oil Task Force Report (2009)

The following were treated as peer cities for benchmarking purposes: West Lafayette, Indiana; Lawrence, Kansas; Iowa City, Iowa; Columbia, Missouri; Ann Arbor, Michigan; and College Station, Texas. Lastly, two frameworks helped shape recommendations: Sustainability Tools for Assessing and Rating Communities (STAR), and International Standards Organisation (ISO) 37120: Sustainable Development of Communities.

Background Research
GTSI enlisted the research support of Indiana University School of Public and Environmental Affairs (SPEA) Masters students to review more than 20 existing City reports and plans related to sustainability, review relevant metrics and actions included in community frameworks, and compare sustainability initiatives in six college towns of similar population to Bloomington. The students presented their research findings at each working group meeting and provided GTSI with a final report at the end of the spring 2018 semester.

PLAN STRUCTURE

This SAP is divided into eight chapters:

1. Climate Change and Adaptation
2. Energy and the Built Environment
3. Transportation
4. Local Food and Agriculture
5. Waste
6. Water
7. Ecosystem Health
8. City Operations

The areas of focus in each chapter are based on an evaluation of national benchmarks, discussions with local stakeholders, and alignment with the 2018 Bloomington Comprehensive Plan. The Comprehensive Plan is the City's long-range plan for land use and development, and the 2018 update included an emphasis on climate change goals and mitigation strategies. The SAP was developed, in part, to clearly articulate actions and measures of success that are inclusive of environmental, social, and economic well-being in support of the Comprehensive Plan.

Each chapter includes a description of current community conditions and an inventory of past sustainability programs and successes, followed by area-specific goals, activities, timelines, partners, and estimated costs. Each chapter also includes tables that outline **goals** supported by education, outreach, and engagement activities, and identifies opportunities to collaborate across community sectors. **Actions** include activities already planned or underway, along with new, carefully considered initiatives recommended with respect to feasibility, impact on established goals, estimated costs, and community interest. **Lead partners** indicate City departments and community entities who would partner on implementation. **Timeframes** project expected completion dates (by end of stated year). **Cost** estimates represent hard costs only and are based on previous experience and on conversations with peer communities, City staff, and community stakeholders, using the following scale:

Cost parameters for actions

$	$0 – $5,000
$$	$5,001 – $25,000
$$$	$25,001 – $100,000
$$$$	$100,001+

An asterisk (*) in the cost column indicates an ongoing, i.e. more than one-time, cost

Sustainability metrics referenced in the SAP are based on a review of recommended and historically established metrics used by the City of Bloomington, peer communities, and STAR or ISO sustainability frameworks. Likewise, goals and actions recall best practices from peer cities, existing sustainability frameworks, relevant climate change agreements (e.g., the Mayors National Climate Action Agenda and the U.S. Mayors' Climate Protection Agreement), working group discussions, and previous reports and plans developed for the City. Within chapters, notes indicate where goals and actions overlap with these sources of inspiration and best management practices.

CITY SUSTAINABILITY RANKINGS

As stated in our vision, the City of Bloomington is committed to being a national leader in community sustainability. One way to accomplish this goal is to participate in a national

benchmarking program, such as the LEED for Cities framework. LEED (Leadership in Energy and Environmental Design) for Cities is being updated to reflect performance standards and actions previously included in the STAR Communities framework. LEED for Cities allows communities to benchmark sustainability progress with verification, certification, and recognition. Bloomington is committed to achieving LEED for Cities certification by the end of 2020.

MOVING FORWARD

The SAP provides a summary of past community sustainability initiatives and lays the groundwork for future goals and successes. While social equity was an inherent part of the community conversation during the development of this plan, a much stronger effort is needed to address equity in future planning efforts. This plan represents a first step in a community conversation about what a comprehensive sustainability framework includes but additional work is needed to address issues such as affordable housing, living wages, and racial equity that are closely tied to the areas of focus in this plan.

The SAP does not include an exhaustive list of all possible actions the community could undertake in the next five years. Rather, it reflects current community priorities, programs, and technologies with the greatest perceived benefits, and is intended to be a living document that will grow and adapt to our changing community needs over time.

The City is committed to leading by example, through its pursuit of goals and actions identified in the "City Operations" chapter. Staff will also track progress toward achieving goals and create an annual progress report for public review. However, the City alone cannot implement all of the actions outlined in this plan.

Community members must be active partners in this endeavor, working collaboratively toward the goals laid out in the chapters that follow. Together, they must carefully manage environmental, social, and economic resources for current and future residents of Bloomington.

Please reach out to the City's Department of Economic and Sustainable Development at sustain@bloomington.in.gov if your household, business, or organization is interested in partnering with the City to help drive sustainability improvements in our community.

February 2018	March 2018	March–May 2018	July 2018	August 2018	October 2018	
Two open houses; Advisory Board formed	Mini-course with Advisory Board & Working Groups	Working groups & City department meetings	1st draft SAP to Advisory Board for review	2nd draft SAP to Working Groups & public for review	Final SAP to City	Public release of final SAP