

A low-angle photograph of a cornfield with a wind turbine in the background, overlaid with a green tint. The text "HEALTH & SUSTAINABILITY" is centered in white, bold, sans-serif font.

HEALTH & SUSTAINABILITY

“A ruined planet cannot sustain human lives in good health. A healthy planet and healthy people are two sides of the same coin.”

—Margaret Chan

Health & Sustainability **CONTENT**

E3.3 Introduction

E3.6 Goal HS1: Incorporate health into all policies.

E3.9 Strategy HS1.1—Commit to Smart Growth Principles for Existing and Future Urban Design

E3.14 Strategy HS1.2—Aim to Become a Vision Zero Community

E3.16 Strategy HS1.3—Ensure That Recreation Options in Normal Are Varied, Relevant, and Accessible in All Four Seasons

E3.17 Strategy HS1.4—Proactively Discuss and Address Issues Surrounding Mental Health, Mental Illness, and Mental Disability

E3.18 Strategy HS1.5—Provide Access to Healthy Food for All Members of the Community

E3.19 Strategy HS1.6—Utilize Health Impact Assessments to Inform Planning and Policy Decisions

E3.19 Strategy HS1.7—Pursue Blue Zones Certification

E3.20 Goal HS2: Be a regional leader in environmental stewardship.

E3.23 Strategy HS2.1—Reduce Greenhouse Gas Emissions and Improve Air Quality

E3.25 Strategy HS2.2—Reduce Community Solid Waste Generation and Increase Recycling and Reuse

E3.26 Strategy HS2.3—Ensure a Safe, Stable, Long-Term Regional Water Supply and Healthy Regional Watersheds

E3.28 Strategy HS2.4—Adopt and Encourage Green Infrastructure Practices throughout the Town

E3.30 Strategy HS2.5—Use the Success of Uptown Normal as a Model for Sustainable Development throughout the Town





Recognizing the ways in which the health of individuals and the natural environment are intertwined—and taking actions to improve both—has become one of the defining challenges not only for Normal, but for the entire global community.

What defines a healthy community? The physical health of its inhabitants is a good starting point. One of the driving forces behind early urban planning efforts in the United States was the need to address rampant and preventable illness in urban inhabitants, caused by overcrowding, industrial pollution, and poor sanitation. In the 21st century, we have, for the most part, addressed the worst of these issues.

But progress marches on, and healthy communities today must consider a wider variety of factors than our forebears did. Today, healthy communities recognize many components that determine good health, such as active transportation, cultural and recreational opportunities, decent and affordable housing, quality education, availability of public health programs and services, access to healthy food, and more [See Figure HS1].

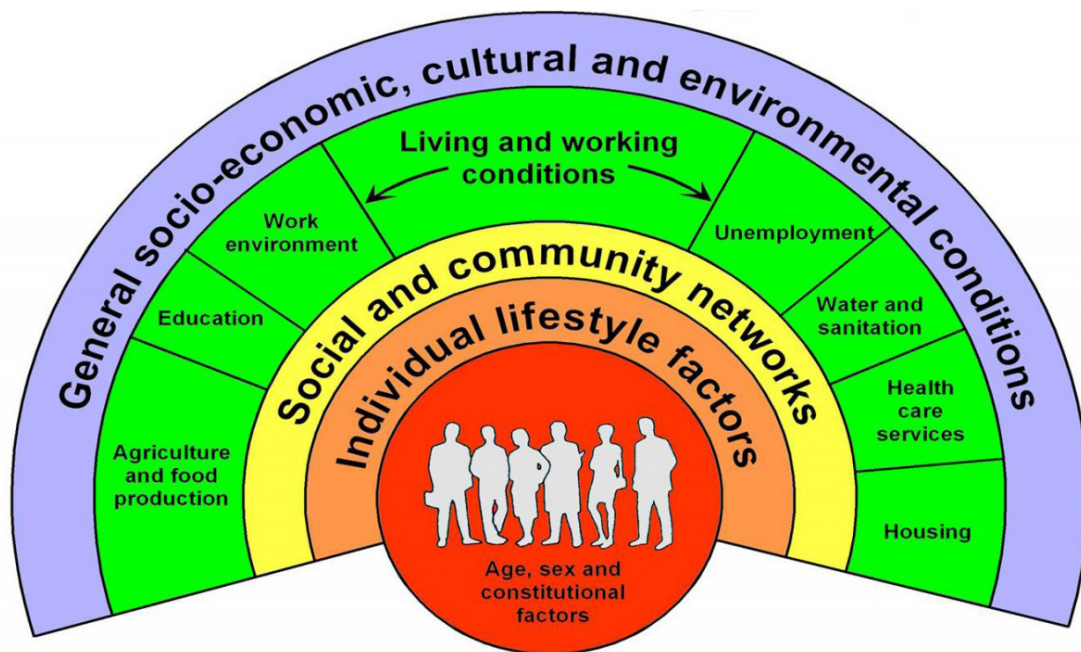


FIGURE HS1: Factors Influencing Health

Source: Dahlgren and Whitehead, 1991

This chapter focuses on the intersection between individual and environmental health, a decision driven by our evolving understanding of what a healthy community is. In addition to the considerations noted above, climate change and other human-generated environmental phenomena are reshaping our world, and we are learning that we must treat the health of our natural environment not as a separate concern, but as one inseparable from the health of our species.

This chapter cannot cover all of these issues comprehensively. For example, the 2017–2019 Community Health Improvement Plan, developed jointly by Advocate BroMenn Medical Center, the McLean County Health Department, OSF St. Joseph Medical Center, and United Way McLean County, is the community’s primary health planning resource. However, the Town of Normal Comprehensive Plan touches on a number of elements of public policy that can have significant impacts on the health of our people and our environment. This chapter supplements existing health plans by proposing a number of measures the Town of Normal can take to support health in all its policies and be an effective regional leader in environmental stewardship. These measures are united by several underlying principles:

A commitment to smart growth and sustainable transportation: One of the pillars of smart growth is compact, infill development. This type of development has a number of benefits. First, it protects our natural resources by preventing further consumption of prime farmland and open space. It also leads to closer destinations and shorter trips, greater use of active transportation options and fewer greenhouse gas emissions, and sets the stage for further development of more sustainable transportation options. Sidewalks, bicycle infrastructure, and transit networks are more heavily utilized as density increases, so smart growth not only increases the utility of current systems but incentivizes their further development.

The value of a vibrant local food system: Given the rich agricultural resources in McLean County, Normal has the potential to develop a local food ecosystem that serves as a significant economic resource while also providing environmental and health benefits. It can help reduce the associated environmental costs of importing food from other regions while being a key asset in reducing the high obesity rate in our region.

Responsible stewardship of our natural resources: Normal’s air, water, and land belong to everyone—not only those of us who live in Normal, but beyond. Being good stewards of these resources means:

- Taking steps to protect our surface water bodies and aquifers, and improving air quality by reducing vehicle use and emissions.
- Protecting and enhancing our remaining green and open spaces that have the potential to improve physical and mental health of the community while acting as showcases for environmental sustainability.
- Minimizing human impacts on the environment by reducing waste generation and increasing recycling rates.
- Promoting environmental sustainability in the built environment, both in the public and the private spheres.

Insisting on energy efficiency, water conservation, and green infrastructure in public projects has won the Town recognition for going above and beyond the call of duty. In the future, these should increasingly become the norm, with the Town's past efforts serving as a model for a sustainable future.

Fiscal sustainability: Most of the above actions are not only beneficial from the standpoint of Health & Sustainability; they are also fiscally responsible. For example, as described in the Planning Framework, compact infill development is less taxing on public resources than the sprawling growth and development patterns characteristic of the past several decades because it takes advantage of existing infrastructure rather than requiring new infrastructure to be built and maintained indefinitely. Similarly, green infrastructure is more fiscally efficient than traditional "gray" infrastructure for reducing stormwater volumes and improving stormwater quality; waste avoidance and recycling are more cost-effective than landfilling; healthy residents require less public spending on health services; and so forth.

The purpose of this chapter is to establish a conceptual framework to inform better public policy. Recognizing the connections between all aspects of community health will make Normal better equipped to meet the challenges of the coming decades.

Connection to the Vision

Supporting Framework: Sustainability

Sustainability is the practice of evaluating all costs of our actions and taking the time to identify hidden costs affecting our local, regional, and global environment. Sustainability goes beyond dictating requirements for water, energy, and material use. We should be looking at beauty, healthful environments, and creating places that we love.

Core Value 8: Well-Being. Ours is an equitable health and wellness system, ensuring the healthy choice is the easy choice.

GOALS

Goal HS1: Incorporate health into all policies.

Goal HS2: Be a regional leader in environmental stewardship.

Goal HS1: Incorporate health into all policies.

Municipalities have considerable influence on many of the factors that impact health at both the individual and community levels. Specifically, they control the vast majority of land used for transportation as well as significant amounts of recreation and conservation land; provide public services such as water, sewer, refuse pick-up, emergency response, and many others; and review and approve new development and redevelopment proposals.

All of these systems greatly impact individual and community health. Through a “health in all policies” approach to operations and growth, the Town can utilize its transportation networks, public spaces, and urban design standards to help healthy choices become easy choices. This entails:

- Supporting healthy lifestyles by committing to smart growth principles for existing and future urban design. It can do this by exercising its influence in the realms of transportation, development review and approval processes, and housing policies.
- Reducing vehicular fatalities and injuries by taking steps to become a Vision Zero Community.
- Helping residents be healthier by providing and facilitating a diverse array of appealing, accessible, and all-season recreation options.
- Contributing to the broader regional effort to more effectively meet the mental and behavioral health needs of our citizens.
- Improve access to healthy food by supporting the growth of a local food ecosystem and removing distance and transportation barriers to healthy food.
- Using Health Impact Assessments to anticipate the impacts of new development on community health.
- Becoming a Blue Zone— A community that supports long and healthy lives.



Positive Contributors

- Complete Streets policy
- The Refuge Food Forest
- Constitution and Route 66 Trails
- Bike Share 309
- 50/50 Sidewalk Replacement program
- Uptown redevelopment efforts
- Good To Go Commuter Challenge
- Well-maintained parks, summer parks & rec programming
- Illinois Cottage Food Law

Challenges

- Auto-centric built environment
- Oversupplied parking
- Gaps in public park, recreation facility access as identified in the Town of Normal Parks and Recreation Comprehensive Master Plan Update
- Lack of a connected pedestrian and on-street bicycle network
- Euclidean zoning code that separates land uses
- Gaps in access to healthy food
- Insufficient cultural support for walking/biking as modes of transportation
- General lack of understanding about the impacts of community design on health
- Lack of sufficient outdoor activity opportunities during winter months
- Gaps in opportunities for individuals with special needs (autism spectrum, etc.)
- Affordable housing
- Ability to age in place

Indicators and Metrics

- Built environment
 - Population density per neighborhood (dwelling units per acre)
 - Fast food restaurants per 1,000 residents
 - Number of street trees or tree canopy over time
 - Percentage of dwelling units within 0.25, 0.5 miles of
 - Parks
 - Trails
 - Grocery stores
 - Pharmacies
 - Transit stops with at least 30-minute service
 - Percentage of dwelling units within 1 mile of
 - Elementary schools
 - Assigned elementary school
 - Acres of parkland per resident
- Personal safety
 - Transportation safety (crashes with serious injuries and fatalities)
 - Suicide rates
 - Violent crime rates
- Transportation system connectivity
 - Link-node ratio
 - Percentage of streets with sidewalks
 - Walk Score, Bike Score, and Transit Score

- Transportation system usage
 - Vehicle miles traveled per capita
 - Commute mode share (% auto, transit, bike, walk)
 - Percentage of Unit 5 students walking or biking to and from school
 - Average daily trail users at various points on the trail
- Other
 - Women, Infants and Children (WIC) and Supplemental Nutrition Assistance Program (SNAP) usage

Partners

- Activity & Recreation Center (Normal Township)
- Advocate BroMenn Medical Center
- Bike BloNo
- Community Health Care Clinic
- Connect Transit
- Friends of the Constitution Trail
- Illinois Department of Transportation
- Illinois State University
- Marcfirst
- Heartland Community College
- McLean County Government
- McLean County Regional Planning Commission
- McLean County Unit 5 School District
- McLean County Wellness Coalition
- OSF St. Joseph Medical Center
- UNITY Community Center
- Young Men's Christian Association (YMCA) and Young Women's Christian Association (YWCA)



Strategy HS1.1—Commit to Smart Growth Principles for Existing and Future Urban Design

- HS1.1a Promote Compact Infill Development
- HS1.1b Support Safe, Healthy, and Affordable Housing for All Residents
- HS1.1c Promote Programs That Encourage Walking and Bicycling
- HS1.1d Develop and Maintain a Robust Pedestrian and Bicycle Infrastructure Network
- HS1.1e Rethink Parking

Strategy HS1.2—Become a Vision Zero Community

- HS1.2a Support the Creation of a Robust Database to Track the Region's Transportation System Usage
- HS1.2b Implement Policy and Design Strategies That Prioritize Safety

Strategy HS1.3—Ensure That Recreation Options in Normal Are Varied, Relevant, and Accessible in All Four Seasons

Strategy HS1.4—Proactively Discuss and Address Issues Surrounding Mental Health, Mental Illness, and Mental Disability

- HS1.4a Design Public Spaces to Promote Mental Well-Being and Accommodate Mental Illnesses and Disabilities
- HS1.4b Promote Supportive Housing and Services That Locate Near Other Critical Amenities

Strategy HS1.5—Provide Access to Healthy Food for All Members of the Community

- HS1.5a Coordinate with Local Agencies, Organizations, and Businesses to Increase Food Access in Underserved Areas
- HS1.5b Support Local Food Systems and Healthy Food Options
- HS1.5c Support a Welcoming Regulatory Environment for Local Food Production
- HS1.5d Pursue a Grocery Store in Uptown Normal

Strategy HS1.6—Utilize Health Impact Assessments to Inform Planning and Policy Decisions

Strategy HS1.7—Pursue Blue Zones Certification

Strategy HS1.1—Commit to Smart Growth Principles for Existing and Future Urban Design

Smart Growth America, a national urban policy think-tank, established ten principles for creating more sustainable and livable cities. They focus on mixing land uses, creating a range of housing and transportation choices, encouraging compact development within existing communities, preserving open and green spaces, creating a sense of place through community and stakeholder collaboration in decision-making, and providing predictable development decisions that are fair and cost-effective.

HS1.1a—Promote Compact Infill Development

- Infill development is a guiding theme of this plan and can be found in almost every chapter; it is highlighted here as a health priority.
 - Infill development can shorten trips by bringing destinations closer together, thereby making active modes of transportation like walking and biking more practical. Compact walkable environments also create better transit environments because transit relies almost entirely on people being able to walk to a bus stop.
 - Infill efforts can be extremely beneficial to individuals with mobility challenges by providing closer access to critical amenities like grocery stores, pharmacies, and social activities.

HS1.1b—Support Safe, Healthy, and Affordable Housing for All Residents

- The physical conditions of homes, the neighborhood context in which homes exist, and the affordability of homes all have very significant health impacts on residents.

[See the Housing Element for more discussion]

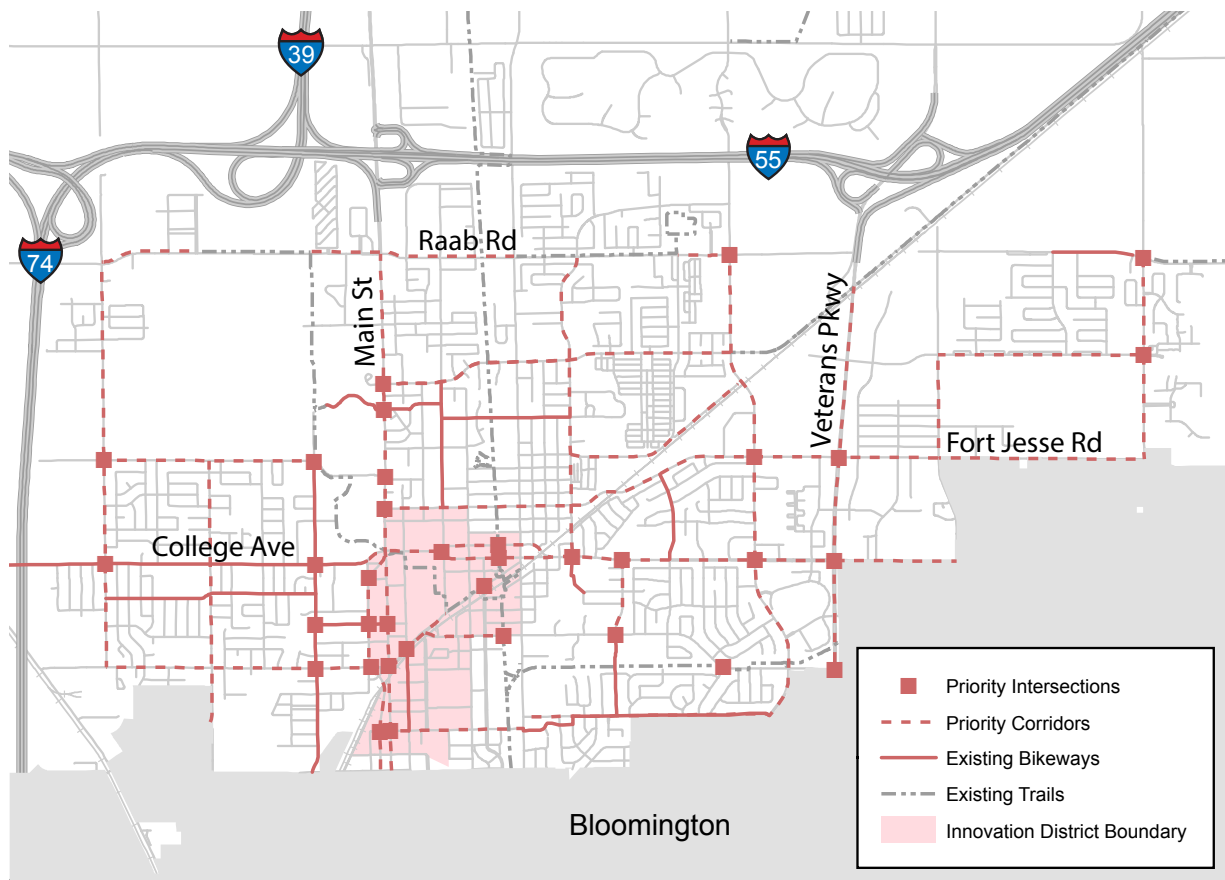
HS1.1c—Promote Programs that Encourage Walking and Bicycling

- Coordinate with the McLean County Regional Planning Commission (MCRPC) and McLean County Unit 5 School District to create a Safe Routes to Schools program. (Q)
- Monitor the success of the public bike share program and, where feasible, work with partners to expand it. (Q)
- Continue to promote and participate in sustainable transportation initiatives, such as the Good to Go Commuter Challenge. (Q)
- Work with MCRPC to develop a user safety educational program for a multimodal transportation system. (Q)
- Collaborate with local businesses and institutions to provide subsidized transit passes to employees.
- Partner with MCRPC and other institutions to pursue a regional rideshare or car share system for the community.

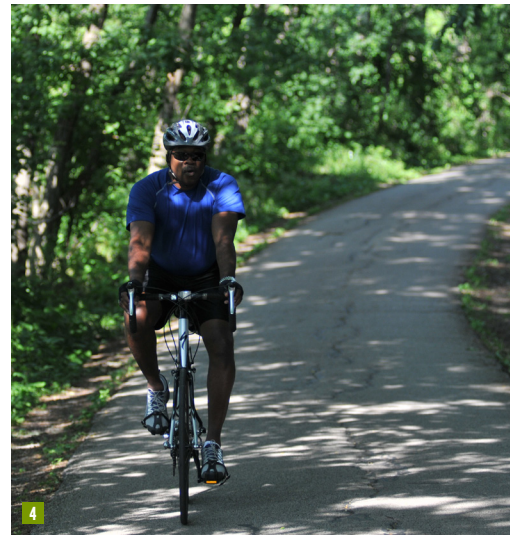
HS1.1d—Develop and Maintain a Robust Bicycle and Pedestrian Infrastructure Network

- Continue to implement the recommendations presented in *Main Street: A Call for Investment*, *Uptown Normal Master Plan Update*, *Town of Normal Bicycle and Pedestrian Master Plan*, and *McLean County Regional Greenways Plan* when capital improvement projects are scheduled.
 - Map HS1 proposes high-priority corridors and intersections to prioritize for pedestrian and bicycle improvements based on the recommendations of the aforementioned plans as well as the vision set forth for this plan.

MAP HS1: Priority bicycle and pedestrian corridors, intersections, and zones.



These priorities were established based on: proximity to schools, parks, transit stops, trail connections, grocery stores, and pharmacies; recommendations contained in adopted plans like the *Bicycle and Pedestrian Master Plan*, *Main Street: A Call for Investment plan*, and *Uptown Normal Master Plan Update*; Long Range Transportation Plan (LRTP) public survey comments; and the Illinois Department of Transportation (IDOT) crash records for corridors and intersections. Please note that this map does not replace but prioritizes the recommendations outlined in the aforementioned documents.



1: "Share The Road" sign on W Lincoln St; 2: Light The Night 2014; 3: A bike parking shelter in Uptown; 4: Constitution Trail; 5: Map of the Constitution Trail; 7: Bike Rodeo event in Uptown

- Consider updating the Town’s sidewalk design standards to require a wider minimum width and buffers between sidewalks and roadways.
 - Federal Highway Administration (FHWA) and the National Association of City Transportation Officials (NACTO) best practices recommend five feet as a minimum sidewalk width and at least two feet for sidewalk buffers.
 - The existing network of sidewalks in Normal (including marked and unmarked crosswalks) has been inventoried as part of this plan. The Town should consider collecting data on width, condition, usage, and other attributes to help determine where sidewalks need maintenance or updating. (Q)
- Consider expanding the 50/50 Sidewalk Replacement Program funding level and incorporating methods to help low-income households utilize the program.
- Consider adopting a snow and ice removal ordinance for public sidewalks.¹ Utilize University Influenced Neighborhoods and Centers, where pedestrian traffic is heavy, to pilot this project.

Snow and Ice Removal Ordinance

The City of Urbana, IL utilizes its Sidewalk Snow Removal ordinance to ensure sidewalks are safe and passable for pedestrians to travel on. Within 24 hours of a winter storm, all property owners are required to clear snow and ice from any public sidewalks adjacent to their property. In the case of non-compliance, City staff or contractors will clear the sidewalks and property owners will be fined to cover the City’s expenses. *[See City of Urbana’s website for more information.]*

HS1.1e—Rethink Parking

A considerable (and growing) body of literature is shedding light on the many negative consequences that municipalities are facing as a result of too much parking prescribed by their zoning codes. Consequences include fragmented downtowns and other centers, induced demand for automobile use, sedentary lifestyles, reduced housing options, higher monthly rental rates for commercial and residential tenants, and a significant opportunity cost on property taxes.

- Consider reducing and/or eliminating minimum parking requirements.
 - Minimum parking requirements have been shown to force developers to set aside space for parking that would have otherwise been used for additional residential or commercial space.
 - Parking expenses include the costs of land, construction, and maintenance. Those expenses are passed along to tenants in the form of higher rents.
 - Eliminating the minimum requirement would not result in developers underbuilding on parking; instead, they would build just enough to ensure a property’s success.



Removing Parking Minimums

Many communities across the nation have revisited their minimum parking requirements. Green pins signify parking minimums completely eliminated in at least one area of the city, blue pins signify parking minimums lowered or removed for certain uses, and orange pins signify cities currently discussing their parking minimum laws. Source: Strong Towns.

Donald Shoup (www.shoupdog.com), a distinguished research professor of urban planning at the University of California, Los Angeles (UCLA), conducted extensive research on the effects of parking requirements. He points out that most minimum parking requirements are not based on data or evidence and categorizes them as arbitrary. He estimates that parking adds upwards of sixty percent to total project costs depending on the city and the type of parking. He argues that removing minimum parking requirements could result in compact growth, mixed use, and more affordable developments.

- ☐ Use technology to increase parking efficiency. Examples include multi-space metering on streets and vehicle counting systems in parking decks.
- ☐ Conditionally allow adjacent land uses to share parking facilities at reduced requirements, provided the land uses are complementary.
- ☐ Utilize the proposed Innovation District and neighborhood commercial areas as civic innovation labs to pilot the suggested actions for parking. (Q)
- ☐ Evaluate the effectiveness of on-street parking as a tool to calm traffic where feasible.
- ☐ Identify areas where underused on-street parking impedes the installation of on-street bike infrastructure.

Strategy HS1.2—Aim to Become a Vision Zero Community

Originating in Sweden in 1997, Vision Zero is a traffic safety project that has spread throughout Europe and North America. Its purpose is to achieve a transportation system with zero fatalities or serious injuries. More than any other, life and health are the most important features of a transportation system; thus, responsibility for safety is on both the individual user and the system as a whole. Through a Vision Zero lens, traffic crashes and deaths are not “accidents.” They are preventable incidents that would be less likely to occur through proper policy and design decisions.

As a policy and an approach to transportation planning, Vision Zero must be present at all levels of governance. Currently, the draft 2040 Long Range Transportation Plan (LRTP) outlines Vision Zero as a key approach to transportation safety. The Town should collaborate with MCRPC, the local MPO, to implement it in Normal.

HS1.2a—Support the Creation of a Robust Database to Track the Region’s Transportation System Usage

The Census Bureau has estimates for commute mode share, and the Illinois Department of Transportation (IDOT) maintains crash records and vehicle statistics like Average Annual Daily Traffic, but data regarding walking and biking trips are almost non-existent. The Town should continue to collaborate with MCRPC, City of Bloomington, Connect Transit, McLean County, and others to address these gaps in data.

Examples of information to include in a regional transportation database:

- For walking and biking trips—the number of non-commute trips, location of popular destinations and popular routes, and trip time-of-day.
- For auto trips—the extent of ridesharing, ride-hailing, and car-sharing service in Normal, percentage of trips via single-occupancy vehicle, parking supply vs. parking demand throughout the day, and extent of freight transportation in Normal.
- Transit use (Connect Transit and Amtrak) and airport use (Central Illinois Regional Airport).

HS1.2b—Implement Policy and Design Strategies That Prioritize Safety

Consider implementing the following policies in the Innovation District and University Influence Zone (UIZ), where non-vehicular traffic is highest.

- ☐ Reduce the speed limit. A growing number of municipalities are lowering speed limits to 20 mph on residential streets and 25 mph on other streets that aren't major roadways.
- ☐ Adopt a No Right Turn on Red policy.
- ☐ Explore opportunities for incorporating traffic calming elements such as narrower vehicle lanes, curb extensions at intersections, traffic circles, curbside trees/vegetation, raised bicycle/pedestrian crossings, and public art.



Public art and curbside planters act as traffic calming elements at this intersection.

Source: Flickr user annethelibrarian



Curb extensions and landscaping act as traffic calming elements at this intersection.

Source: Flickr user drdul

- ☐ Where possible, incorporate barriers between on-street bicycle space and vehicle space. FHWA and NACTO best practices recommend that barriers be at least two feet wide.
- ☐ In areas where no bike lanes exist and travel lanes are too narrow for bicycles and vehicles to operate side by side, “Bicycles May Use Full Lane” signage should be used instead of “Share the Road” signage.



The “Bicycles May Use Full Lane” sign found in FHWA’s Manual on Uniform Traffic Control Devices.

Educational programs like CarFit cater to seniors who still wish to drive. CarFit is a program sponsored by AAA, American Association of Retired Persons (AARP), and the American Occupational Therapy Association. It seeks to help older drivers maintain safe driving skills and keep their vehicle tuned to their personal needs.

Strategy HS1.3—Ensure That Recreation Options in Normal Are Varied, Relevant, and Accessible in All Four Seasons

In 2015, the Town updated its *Parks and Recreation Comprehensive Master Plan* to ensure that the Town provides parks and programming that are varied, relevant, and accessible in all four seasons. The parks plan update outlines a series of policy recommendations, infrastructure design upgrades, and programming targets for the Parks and Recreation Department as well as several major needs for Normal. Land use planning can support the goals of the updated parks plan, particularly by enhancing pedestrian and bicycle access to parks.

- ☐ Prioritize bicycle and pedestrian safety improvements near parks [See Map HS1].
- ☐ Utilize temporary solutions such as pop-up parks and play streets as alternative recreational spaces in under-served areas.



The Crowdus Park, a pop-up park in Dallas, Texas that took over one block of Crowdus Street for four days.

Source: Flickr user steevithak



A Play Street in Seattle, Washington. The street was temporarily closed off to vehicle traffic to allow activities in the street.

Source: Flickr user sdot_photos

Strategy HS1.4—Proactively Discuss and Address Issues Surrounding Mental Health, Mental Illness, and Mental Disability

Mental health, mental illness, and mental disability are issues that are slowly gaining the attention they need. Land use planning can play a support role in meeting the needs of people with these special needs.

In 2015, the McLean County Board adopted a *Mental Health Action Plan* that outlines five focus areas for improvement: Collaboration and Coordination, Access to Medical Services and Medical Management, Juvenile Services, Housing, and Crisis Services. In 2016, the McLean County Health Department partnered with OSF St. Joseph Medical Center, Advocate BroMenn Medical Center, and United Way of McLean County to complete the first joint *Community Health Needs Assessment*. Behavioral Health (including Mental Health and Substance Abuse) was identified as one of three health priorities for the community. The Assessment's counterpart, the *2017–2019 Community Health Improvement Plan*, outlines two major goals to address the Behavioral Health priority: increase coping skills in order to reduce suicide, self-inflicted injury, and alcohol abuse; and reduce the stigma surrounding behavioral health in order to promote earlier access to care.

HS1.4a—Design Public Places to Promote Mental Well-Being and Accommodate Mental Illnesses and Disabilities

- Promote access to green, active, social, and safe spaces as a way to reduce depression, anxiety, stress, and other mental illnesses.
- Consider multisensory design elements in parks and green spaces that appeal to individuals of all abilities. (Q)
 - Example: Natural playgrounds have been shown to facilitate the development of social and motor skills, boost creativity and problem-solving skills, increase attention span, and build stronger sensory memories and connections to nature. They do not equate to simple fields of grass, rather they are playgrounds that pull design inspiration from nature. Common components include hills with climbing walls, wood structures, tree forts, boulders, and a variety of plants. Some even have water features.

HS1.4b—Promote Supportive Housing and Services That Locate Near Other Critical Amenities

- Walkable infill housing near amenities like grocery stores, pharmacies, and support services can facilitate personal independence.
- Multi-unit housing gives residents opportunities for social interactions and relationship-building in safe and comfortable settings.
- Housing with supportive services should range in the type and level of care provided.

[See *Housing Element* for additional information.]

Strategy HS1.5—Provide Access to Healthy Food for All Members of the Community

Communities have traditionally taken a passive approach to food access. For many decades the industry has favored large-format grocery stores clustered along auto-oriented thoroughfares such as Veterans Parkway. Not all residents can access these stores physically or financially; instead, they turn to convenience stores and fast-food restaurants where healthy options are minimal. Through proactive strategies the Town has a role to play in improving access to healthy food for all residents.

HS1.5a—Coordinate with Local Agencies, Organizations, and Businesses to Increase Food Access in Underserved Areas

- ☐ Explore opportunities for mobile grocery stores or other alternatives, in places where attracting brick and mortar grocery stores proves to be challenging.

HS1.5b—Support Local Food Systems and Healthy Food Options

- ☐ Identify and minimize regulatory barriers that businesses and institutions face in selling and sourcing locally grown or produced food. *[See the Economic Vitality Element for more information on a local food system plan.]* (Q)
- ☐ Take an active role in supporting pollinators through continued participation in programs such as the Mayors' Monarch Pledge. (Q)
- ☐ Increase availability of healthy food and beverage choices in public venues, locally sourced when possible.
- ☐ Consider expanding community gardens within the Town's park network. (Q)
- ☐ Where feasible, plant edible landscapes in public parks and along the Constitution Trail.

HS1.5c—Support a Welcoming Regulatory Environment for Local Food Production

- ☐ Clarify zoning code provisions as they pertain to permitted locations for residential gardening, hoop houses, and rooftop gardens. (Q)
- ☐ Revisit urban agriculture regulations.

HS1.5d—Pursue a Grocery Store in Uptown Normal

Both the original Uptown Master Plan and the Uptown 2.0 Plan cite a grocery store as a critical need in Uptown Normal. While an Uptown grocery would serve an economic development purpose, it would also address the Uptown's status as a "food desert" as determined by the United States Department of Agriculture (USDA). Food deserts are defined as census tracts that contain at least 500 people or at least 33 percent of the census tract's population who live more than one mile from a supermarket or full-service grocery store.

Strategy HS1.6—Utilize Health Impact Assessments to Inform Planning and Policy Decisions

A Health Impact Assessment (HIA) is a proactive tool for informing plan, project, or policy decisions regarding their impacts on public health. HIA's coordinate decision-makers, elected officials, planners, public health officials, and community members to create a holistic analysis and encourage public participation and education.

Intergovernmental Review

Currently, MCRPC coordinates an intergovernmental and interagency consistency review process for development proposals in the Bloomington-Normal community. McLean County Health Department, MCRPC, and the McLean County Wellness Coalition should explore strategies for incorporating HIA's into this process.

Strategy HS1.7—Pursue Blue Zones Certification

“Blue Zones” are the handful of communities in the world where people live disproportionately long and healthy lives. The common features of these communities include active environments in which walking and active lifestyles are facilitated by community design, simple and healthy diets, and social interaction. Planning principles can be applied in Normal to reach Blue Zone outcomes. An applicant for Blue Zone certification must bring residents, businesses, restaurants, grocery stores, community groups, and public agencies together in a commitment to healthier decision-making throughout the community. The Town should consider applying for a Blue Zone certification.



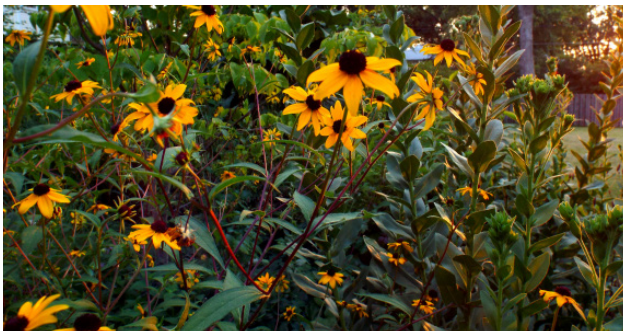
Goal HS2: Be a regional leader in environmental stewardship.

The health of our natural environment is dependent on the individual and collective actions of our municipalities, institutions, and residents from across all our area communities. The Town has a history of working closely with City of Bloomington, McLean County, public and private institutions, and the residents of the entire region to ensure clean water, clean energy, and safe natural environments.

The Town reiterated its commitment to environmental sustainability during the Uptown redevelopment process. Uptown was one of the first places in the nation to receive a Leadership in Energy and Environmental Design Neighborhood Development (LEED ND) designation. Uptown Circle received a national award for smart growth from the United States Environmental Protection Agency (US EPA) in 2012. In 2016, the Town raised the bar again for environmental sustainability when it registered Uptown South as a Living Communities Challenge project, which aims to create restorative developments that give back to the environment.

The Town should keep pushing the envelope by increasing its efforts beyond Uptown and being a leader in broader regional efforts.

Much of the work needed to reach this goal was established in the Town's Sustainability Plan, adopted in 2011. As outlined in the *Community Snapshot and Outreach Report*, a good deal of progress has already been made. Going forward, the Town should continue to support energy efficiency, reduce greenhouse gas emissions, and improve air quality; reduce solid waste generation and increase recycling; protect and conserve regional water resources; adopt and encourage green infrastructure practices; and promote sustainable development practices that build on the successes of Uptown Normal.



Courtesy Ecology Action Center

Positive Contributors

- Existing/underway plans and studies
 - Community-Wide Sustainability Plan and 2035 Report
 - Bloomington-Normal Greenhouse Gas Inventories, Bloomington-Normal Community Energy Strategic Plan (BNCESP), Facilities and Energy Management Plan
 - Solid waste Planning: Integrated Solid Waste Management Plan (ISWMP)
 - East Central Illinois Water Supply Plan, City of Bloomington Interim Water Supply Plan (potentially relevant to Normal's long-term water supply situation)
 - Regional Greenways Plan, Town of Normal Bike and Pedestrian Master Plan
- Existing programs, policies, and practices that promote sustainability
 - Public garbage and single-stream recycling services
 - Stormwater utility fee
 - Uptown Normal plans
 - Sustainable projects and initiatives such as EVTown, Mayors Climate Protection Agreement, and the Mayor's Monarch Pledge
 - Mahomet Aquifer Advocacy Alliance
 - Rebates for energy efficiency upgrades: Ameren, Corn Belt, and Nicor Gas all provide energy efficiency rebates for both residential and commercial users.
 - Net metering

Challenges

- Climate change
- Lack of funding capacity (local, state, and federal)
- Lack of local control due to federal or state preemption

Partners

- Bloomington and Normal Water Reclamation District (BNWRD)
- Connect Transit
- Greenways Advisory Committee
- Mahomet Aquifer Consortium (MAC)
- McLean County Soil and Water Conservation District (SWCD)
- Watershed Management Oversight Committee
- State of Illinois agencies; e.g., Illinois Department of Natural Resources (IDNR)
- Unit 5
- Higher educational institutions
- Audubon Society (local John Wesley Powell chapter)
- Bike BloNo
- Ecology Action Center (EAC)
- Friends of the Constitution Trail
- Friends of Everbloom
- Illinois Prairie Community Foundation (IPCF)
- ParkLands Foundation
- Prairielands Preservation Foundation
- Ride Illinois
- The Nature Conservancy (TNC)
- National developers focused on smart growth. Example LSTAR VENTURES, <https://www.lvnt.com>

Indicators and Metrics

- Community-wide energy use and fossil fuel emissions [*See the Health & Sustainability Appendix for more information.*]
- Community recycling rate [*See the Health & Sustainability Appendix for more information.*]
- Community water consumption
- Water quality
 - Nitrate, phosphorous, and chloride concentrations; Total Suspended Solids
 - Aquatic habitat ratings as determined by the Illinois Environmental Protection Agency (EPA), professional environmental consultants, environmental groups, academic researchers, etc.
- Air quality
 - Concentrations of air pollutants regulated by the federal government under the National Ambient Air Quality Standards (NAAQS) (particularly ground-level ozone and particulate matter)
 - Greenhouse gas emissions
- Green space and ecological protection
 - Amount of land designated as Conservation Zones
 - Street trees (number of trees, area of tree canopy, diversity of species)
 - Amount of chemicals applied to Town property
- Development standards and metrics
 - Green building certifications
 - Green neighborhood certifications
 - Runoff volume reduced through green infrastructure
 - Minimum or maximum parking requirements (or lack thereof)

Strategy HS2.1—Reduce Greenhouse Gas Emissions and Improve Air Quality

- HS2.1a Implement the Recommendations of the Bloomington-Normal Community Energy Strategic Plan
- HS2.1b Investigate and Minimize the Impact of the Town's Vehicle Use on Local Air Pollution
- HS2.1c Work with the Town's Institutional Partners—Connect Transit, ISU, Heartland, Non-Profits, and Businesses—to Encourage Them to Adopt More Sustainable Fleet Management Practices

Strategy HS2.2—Reduce Community Solid Waste Generation and Increase Recycling and Reuse

- HS2.2a Implement the Recommendations of the Integrated Solid Waste Management Plan
[See Health & Sustainability Appendix]

Strategy HS2.3—Ensure a Safe, Stable, Long-Term Regional Water Supply and Healthy Regional Watersheds

- HS2.3a Continue to Engage with Other Communities in the Mahomet Aquifer Region to Ensure a Safe and Stable Long-Term Water Supply
- HS2.3b Incentivize and Promote Water Conservation Measures in Public and Private Facilities
- HS2.3c Monitor, Protect, and Restore Town Waterways and Watersheds, and Support Broader Regional Watershed Protection

Strategy HS2.4—Adopt and Encourage Green Infrastructure Practices throughout the Town

- HS2.4a Identify Opportunities for Green Infrastructure Projects throughout Normal
- HS2.4b Strive to Make a Net Positive Impact on the Natural Environment through Normal's Park System

Strategy HS2.5—Use the Success of Uptown Normal as a Model for Sustainable Development throughout the Town

- HS2.5a Reduce Energy Usage in Town Facilities
- HS2.5b Set High Green Building Standards for New Municipal Buildings and Major Upgrades of Existing Municipal Buildings, Including Outside the Uptown Area
- HS2.5c Work with Anchor Institutions (ISU, Advocate BroMenn) to Use the Innovation District as a Showcase for Sustainability Efforts
- HS2.5d Use Integrated Technology Systems and Robust Data Collection and Analysis to Achieve More Sustainable Outcomes
- HS2.5e Expand Neighborhood-Level Sustainability Efforts
- HS2.5f Support Green Infrastructure and Sustainable Development with Appropriate Regulatory Tools

Strategy HS2.1—Reduce Greenhouse Gas Emissions and Improve Air Quality

The most important long-term goal of reducing greenhouse gas concentrations is to slow and eventually reverse global climate change, an effort that will take many years to produce a significant impact.

A more immediate benefit will be to reduce the prevalence of chemical compounds that more directly affect human health. Fossil-fuel-burning vehicles, industrial facilities, certain agricultural operations, and other sources of greenhouse gases add to local concentrations of ground-level ozone, fine particulate matter, and other air pollutants that cause and exacerbate respiratory diseases. Promoting more compact development patterns, facilitating a shift to a less auto-centric transportation system, and working with partners with more direct influence on agricultural practices to reduce their impact on regional air pollution will all reduce local contributions to climate change and lead to cleaner air.

Addressing air quality now will also help keep Normal within the ever-tightening federal air quality standards. If the Town were to fall into “nonattainment status,” indicating that air quality had fallen below federal standards, a new set of federal regulations would kick in and impact the Town’s future growth and redevelopment plans.

The primary way Normal can reduce greenhouse gas emissions and improve air quality is by reducing vehicle emissions, the leading generator of ground-level ozone and particulate matter pollution across the country. Compact land development and sustainable modes of transportation—both of which will reduce vehicle usage by making it easier to get around without a car—are therefore critical to improving regional air quality.

Greenhouse gases (GHG) can also be reduced by decreasing energy consumption in homes, businesses, and public facilities.

HS2.1a—Implement the Recommendations of the Bloomington-Normal Community Energy Strategic Plan (BCESP)

The Bloomington-Normal Greenhouse Gas Inventory, performed by the Ecology Action Center (EAC) [See Ecology Action Center call out box] in 2014, quantified and categorized GHG emissions in Bloomington-Normal using 2008 data. The inventory determined that in 2008 roughly 78% of GHG emissions were attributable to stationary energy usage (buildings), including electricity generation and heating/cooling; 20% to vehicular transportation; and 3% to landfilled waste, wastewater treatment, and rail transportation combined.

Based on the 2014 inventory, the Town of Normal (in cooperation with the City of Bloomington) has commissioned the EAC to complete a second inventory and subsequent Energy Strategic Plan. That plan will provide specific recommendations to reduce greenhouse gas emissions, both by reducing energy consumption and reducing the use of fossil fuels in particular.

HS2.1b—Investigate and Minimize the Impact of the Town’s Vehicle Use on Local Air Pollution

Since the adoption of the Sustainability Plan, the Town has worked to support greater adoption of electric vehicles throughout Bloomington-Normal (part of the “EVTown” initiative). As part of these efforts, Normal has installed 48 Level 2 charging stations and one Level 3 “Quick Charge” station at various locations around Bloomington-Normal, while Tesla has installed four Supercharger stations.² The Town has also integrated six electric cars into its fleet. The Town can further lead by example by more significantly reducing the impact of its own vehicle usage on regional air quality:

- Assess the Town’s current fleet in terms of mileage, fuel efficiency, and emissions.
- Engage in more sustainable fleet management practices.
 - Phase out vehicles and fuel types that have particularly harmful effects; phase in more efficient vehicles with fewer greenhouse gas and criteria air pollutant emissions.
 - Use technology to monitor vehicle usage and identify ways to reduce emissions.

Case study: The New York City Clean Fleet plan (2015) analyzes the various ways New York City can reduce GHG, nitrogen oxide, and particulate emissions from fleet vehicles, in order to improve air quality and help reach the city’s ambitious target of an 80% reduction of GHG emissions by 2050.

HS2.1c—Work with the Town’s Institutional Partners—Connect Transit, ISU, Heartland, Nonprofits, and Businesses—to Encourage Them to Adopt More Sustainable Fleet Management Practices

Ecology Action Center

According to its mission statement, “The Ecology Action Center (EAC) is a not-for-profit environmental agency with a mission to inspire and assist residents of McLean County in creating, strengthening, and preserving a healthy local environment.” The EAC’s broad purview includes education, advocacy, planning, and technical services in the realms of solid waste and recycling, clean energy, water conservation, stormwater management, and more. It sponsors residential electronics and computer recycling, household hazardous waste events, water monitoring and testing, distribution of rain barrels, instruction on rain garden construction and workshops on recycling, renewable energy programs, eco-responsible lawn care, and clean water initiatives.

As a not-for-profit, the EAC relies on the financial support and backing of local organizations, grantors, and business partners to provide programs and environmentally responsible resources. The EAC also operates under several intergovernmental agreements through which it provides vital services for local governments. It is a member of and works in concert with local environmental committees, including the Lake Bloomington and Evergreen Lake Watershed Management Oversight Committee and the McLean County Greenways Advisory Committee.

The EAC also partners with Illinois State University, Illinois Wesleyan University, Heartland Community College, the McLean County Health Department, and Home Sweet Home Ministries, among others. Statewide partnerships include the Illinois Recycle Association, the Illinois Green Business association, the Illinois Environmental Council, and Faith in Place.



Strategy HS2.2—Reduce Community Solid Waste Generation and Increase Recycling and Reuse

HS2.2a—Implement the Recommendations of the Integrated Solid Waste Management Plan

Solid waste management is coordinated at the regional level by the Ecology Action Center (EAC) through the McLean County Solid Waste Program. The Solid Waste Program is funded through the McLean County Solid Waste Fund, which is maintained by contributions from the City of Bloomington, Town of Normal, and McLean County under an intergovernmental agreement. Through this program, the EAC provides “education and outreach, solid waste planning through the Integrated Solid Waste Management Plan (ISWMP), administration of nontraditional recycling programs, coordination of household hazardous waste collection, and technical services such as annual calculation of community wide waste generation and recycling rates.”¹

The *Plan* recognizes the need for prompt attention to the issues identified in the new ISWMP. Those include:

- The impending closure of McLean County Landfill #2, which is expected to reach full capacity in early 2018.
- A stagnating community-wide recycling rate. The 2012 ISWMP set a goal to recycle 40% of all solid waste generated in McLean County. After years of steady increases [see *Table: McLean County Recycling Rate, 2007-2015*], the rate appears to have plateaued a few percentage points short of that target.

TABLE HS1: McLean County Recycling Rate, 2007-2015³

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total MSW Recycled (tons)	93,065	98,220	80,217	80,541	71,099	66,737	73,833	85,196	91,866
Total MSW Landfilled (tons)	164,101	163,202	148,089	134,325	136,927	116,290	121,991	141,068	159,989
Total MSW Generated (tons)	257,166	261,422	228,306	214,866	208,026	183,027	195,824	226,264	251,855
Percent Change from Previous Year	9.3%	1.7%	-12.7%	-5.9%	-3.2%	-12.0%	7.0%	15.5%	11.3%
Recycling Rate	36.2%	37.6%	35.1%	37.5%	34.2%	36.5%	37.7%	37.7%	36.5%
Percent Change from Previous Year	12.1%	3.8%	-6.5%	6.7%	-8.8%	6.7%	3.4%	-0.1%	-3.1%

- Increased demand for more recycling options, including:
 - Commercial recycling;
 - Construction and demolition recycling;
 - Multifamily housing recycling;
 - Composting of food waste;
 - Electronics recycling
- A permanent collection facility for household hazardous waste (HHW). The EAC presently collects HHW every other year at a one-day event. A permanent facility would allow for community to capture a greater portion of HHW and serve as a significant regional asset.
- A need for increased outreach and technical assistance.

Strategy HS2.3—Ensure a Safe and Stable Long-Term Regional Water Supply and Healthy Regional Watersheds

HS2.3a—Continue to Engage with Other Communities in the Mahomet Aquifer Region to Ensure a Safe and Stable Long-Term Water Supply

Normal is fortunate to have access to the Mahomet Aquifer, which appears likely to remain a safe and plentiful water source for the foreseeable future. However, Normal shares the aquifer with other communities across 15 counties in East-Central Illinois, and the apparent dependability of the aquifer does not preclude the need for coordination and planning.

The Town must maintain its status as a strong regional partner in protecting the Aquifer. Part of this task will include supporting further scientific research and ongoing monitoring.

To those ends, Normal should maintain its presence in the Mahomet Aquifer Advocacy Alliance (MAAA), a coalition of local governments and stakeholders that has existed since 2011, when it came together to successfully oppose the disposal of polychlorinated biphenyls (PCBs) in the Clinton Landfill. The MAAA also successfully lobbied the United States Environmental Protection Agency (US EPA) to designate the Mahomet Aquifer as a “Sole Source” aquifer, which requires federally funded projects, landfills, and landfill expansion projects above the Aquifer to meet stronger federal and state standards. The Town should also coordinate with the City of Bloomington, which is a member of the Mahomet Aquifer Consortium—a separate group that focuses more on research than advocacy—to stay abreast of any relevant information from that group.

With regard to planning, the Town’s Sustainability Plan and 2035 Report identified a need for more coordinated water supply planning and proposed strategies to achieve that goal. Among the Sustainability Plan’s recommendations was to implement “A Plan to Improve the Planning and Management of Water Supplies in East-Central Illinois”, a 2009 report by the Regional Water Supply Planning Committee (RWSPC) for East Central Illinois (a planning committee commissioned by the Illinois Department of Natural Resources as an organ of the MAC). Both the Sustainability Plan and the regional water supply plan remain relevant today.

Water Supply Issues in Bloomington-Normal

Normal and Bloomington have different sources of potable water. Normal draws its water from 15 wells in the Mahomet Aquifer, while Bloomington relies on two manmade surface reservoirs: Lake Bloomington and Evergreen Lake. These reservoirs derive their water from Money Creek and its tributaries (in the case of Lake Bloomington) and Six Mile Creek and its tributaries (in the case of Evergreen Lake). Land use within these two watersheds is primarily agricultural, though both overlap slightly with northeastern Normal and are therefore to some degree impacted by land use in Normal.

There is no present indication that Normal’s withdrawal rate from the aquifer is in any danger of exceeding the aquifer’s recharge rate. Water quality, likewise, is not an issue at present. Bloomington, however, has for decades experienced water quality issues in its reservoirs, due primarily to agricultural land use within the lakes’ watersheds. Bloomington has commissioned various studies over the years to determine alternative sources of water, including the Mahomet Aquifer in western McLean County. If Bloomington is ever forced to tap into the Mahomet Aquifer, the City’s water supply issues may become very relevant to Normal.

HS2.3b—Incentivize and Promote Water Conservation Measures in Public and Private Facilities

The Sustainability Plan includes a number of recommendations on water conservation. The Town should evaluate progress and pursue unattained objectives within that plan. In addition the Town should:

- ☐ Expand the use of smart meters to help users be more efficient and contribute to a Town-wide “Smart City” network. (Q)
- ☐ Incentivize the use of rainwater harvesting systems in public and private buildings. Consider the use of graywater recycling systems in public facilities, to the extent permitted by state regulations.
- ☐ Increase education and outreach efforts to encourage water conservation in both the public and private sectors.

HS2.3c—Monitor, Protect, and Restore Town Waterways and Watersheds, and Support Broader Regional Watershed Protection

Normal’s top priority surface watershed is Sugar Creek. Though McLean County residents do not consume water from Sugar Creek, it flows through much of Bloomington-Normal and southwestern McLean County before merging with Salt Creek in an adjoining county. Salt Creek in turn finds its way to the Sangamon River, which flows into the Illinois River, which flows into the Mississippi, which empties into the Gulf of Mexico. Sugar Creek also serves a limited recreational purpose and has potential to grow in that regard over time if water quality and habitat issues are addressed and a planned trail along the creek is built.

[See Planning Framework - Natural Corridors section for specific recommendations.]

Greenways Advisory Committee

What are greenways?

Greenways are narrow bands of open space that provide habitats for wildlife and essential routes for species migration; filter pollutants from water; enhance scenic and aesthetic qualities; and in many instances expand recreational as well as social, cultural, and economic opportunities. Greenways can run along natural corridors such as streams or manmade corridors such as roads and old rail lines.

McLean County Greenways Plan

The 2009 *McLean County Greenways Plan* presents a vision for greenways and provides a framework for the establishment of a regional system of interconnected greenways throughout McLean County. It identifies local greenways resources including streams, watersheds, forested areas, parks, and other open spaces that can be developed or utilized for recreational purposes or conservation. It also suggests goals, objectives, and strategies for maintaining and developing open spaces in the future for recreation or conservation as well as suggesting methods and responsibilities for local greenway implementation. It identifies high-priority greenways along with strategies for acquisition, implementation, and regulation of greenways.

Greenways Advisory Committee

The Greenways Advisory Committee is an umbrella organization for local government staff, local agencies, and individuals with interests in the development of a regional greenway system. The Town of Normal is currently playing an active role on the Committee and should continue to do so. Ongoing and near-future initiatives include: walking and biking trails, watershed planning and protection, education and advocacy, and coordination with Bloomington and Normal Water Reclamation District on wastewater and stormwater management.

Strategy HS2.4—Adopt and Encourage Green Infrastructure Practices throughout the Town

“Green infrastructure” is a combination of “living ecologies functioning cooperatively with technology to optimize the performance of an entire system to balance water, carbon cycling, energy, and nutrients.”⁴ Green infrastructure complements and, in some cases, replaces “gray infrastructure”—the more traditional manmade structures such as pipes, pumps, and treatment facilities.

The benefits of green infrastructure are numerous and interconnected, and include the following:

- Less up-front investment than traditional gray infrastructure;
- Reduced stormwater runoff volumes and rates, thus reducing water pollution and easing the burden on stormwater infrastructure;
- Improved water quality and ground water recharge through infiltration;
- Provision of wildlife and pollinator habitat areas;
- Enhanced attractiveness of the built environment;
- Improved air quality;
- Reduced greenhouse gas emissions

Selected Green Infrastructure Practices

The US EPA identifies several common green infrastructure measures and defines them as follows:¹

Bioswales are vegetated, mulched, or xeriscaped channels that provide treatment and retention as they move stormwater from one place to another. Vegetated swales slow, infiltrate, and filter stormwater flows. As linear features, vegetated swales are particularly suitable along streets and parking lots.

Downspout Disconnection refers to the rerouting of rooftop drainage pipes to drain rainwater to rain barrels, cisterns, or permeable areas instead of the storm sewer.

Green Parking: Many green infrastructure elements can be seamlessly integrated into parking lot designs. Permeable pavements can be installed in sections of a lot, and rain gardens and bioswales can be included in medians and along the parking lot perimeter. Benefits include mitigating the urban heat island effect and a more walkable built environment.

Green Roofs are covered with growing media and vegetation that enable rainfall infiltration and evapotranspiration of stored water.

Green Streets and Alleys integrate green infrastructure elements into the street and/or alley design to store, infiltrate, and evapotranspire stormwater.

Land Conservation: Protecting open spaces and sensitive natural areas within and adjacent to cities can mitigate the water quality and flooding impacts of urban stormwater while providing recreational opportunities for city residents.

Permeable Pavements are paved surfaces that infiltrate, treat, and/or store rainwater where it falls. Permeable pavements may be constructed from pervious concrete, porous asphalt, permeable interlocking pavers, and several other materials.

Planter Boxes are urban rain gardens (see below) with vertical walls and either open or closed bottoms. They collect and absorb runoff from sidewalks, parking lots, and streets and are ideal for space-limited sites in dense urban areas and as a streetscaping element.

Rain Gardens are shallow, vegetated basins that collect and absorb runoff from rooftops, sidewalks, and streets. Rain gardens mimic natural hydrology by infiltrating and evapotranspiring runoff.

Rainwater Harvesting Systems collect and store rainfall for later use. When designed appropriately, rainwater harvesting systems slow and reduce runoff and provide a source of water.

Urban Tree Canopy: Trees reduce and slow stormwater by intercepting precipitation in their leaves and branches. Many cities have set tree canopy goals to restore some of the benefits of trees that were lost when the areas were developed.

HS2.4a—Identify Opportunities for Green Infrastructure Projects throughout Normal

Across the Town of Normal, there are underutilized spaces that could, in individually small but collectively significant ways, provide a net positive impact with regard to sustainability, public education with respect to environmental issues, aesthetics, and recreation. *[See Planning Framework - Natural Corridors section for specific recommendations.]*

HS2.4b—Strive to Make a Net Positive Impact on the Natural Environment through Normal's Park System

Normal's parks offer some of the highest visibility and largest-scale opportunities for initiatives relating to environmental sustainability.

[See Planning Framework - Natural Corridors section for specific recommendations]



Strategy HS2.5—Use the Success of Uptown Normal as a Model for Sustainable Development throughout the Town

The original Uptown redevelopment achieved LEED ND Silver Certification. The Uptown Normal Master Plan Update (a.k.a. Uptown 2.0) is aiming for LEED ND Platinum, a more stringent certification level. Uptown 2.0 was also one of the first projects in the world to be registered with the Living Communities Challenge (LCC), a highly robust program aimed at not only avoiding harm to the environment, but having a net-positive impact [see Figure HS2: “How LCC Petal Certification Works”].

FIGURE HS2: How Petal Certification Works



Having established Uptown Normal as a model of sustainability, the next, and more challenging, step is to do the same for the rest of the Town.

HS2.5a—Reduce Energy Usage in Town Facilities

- ☐ Implement the recommendations of the Facilities and Energy Management Master Plan (2014). Identify similar best practices for facilities not covered by that plan.

HS2.5b—Set High Green Building Standards for New Municipal Buildings and Major Upgrades of Existing Municipal Buildings

HS2.5c—Work with Anchor Institutions (ISU, Advocate BroMenn) to Use the Innovation District as a Showcase for Sustainability Efforts

[See the Economic Vitality Element for more on the Innovation District]

- Work with the Illinois State University (ISU) Office of Sustainability to make the Innovation District a civic innovation lab for green infrastructure and green technology.
- Encourage new developments and redevelopments in the Innovation District to meet strong green building standards.
- Support green technology startups within the district's boundaries.

HS2.5d—Use Integrated Technology Systems and Robust Data Collection and Analysis to Achieve More Sustainable Outcomes

- Per Strategy 2.3 in the Economic Vitality Element, build “Smart Urban Systems” to help the Town achieve sustainability goals. Smart Urban Systems include building-scale as well as community-wide energy, transportation, water, wastewater, and solid waste systems that use sensors and software to increase decision-makers’ and the public’s access to real-time information and provide services more efficiently and sustainably.
- Conduct an assessment of the existing urban tree canopy to identify gaps in the canopy. New software such as iTree,⁴ a free tool set from the USDA Forest Service, provides urban and rural forestry analysis and benefits assessment tools.
- Implement smart light fixtures to reduce the environmental impact of lighting and provide a network of digital infrastructure hubs. Well-designed street lights can minimize environmental impact and serve as digital infrastructure hubs. The International Dark Sky Association, Smart Cities Council, and a number of other entities have produced free resources that help find the best balance.

HS2.5f—Expand Neighborhood-Level Sustainability Efforts

- Build closer relationships with neighborhood organizations to develop neighborhood-level action plans and establish implementation and maintenance programs with clearly-established standards. Utilize a certification program such as LEED ND or one of several similar standards to guide these efforts and quantify success [See Figure HS3].⁵
- Partner with environmental groups, organizations that support neighborhood-level community development (e.g., NeighborWorks or Center for Neighborhood Technology), and area businesses to share the costs of planning, certification, implementation, and maintenance.

FIGURE HS3: Neighborhood Rating Tools Map



HS2.5g—Support Green Infrastructure and Sustainable Development with Appropriate Regulatory Tools

Selected Implementation and Funding Strategies

- Adopt a **“Fix It First” approach to transportation planning**. This means prioritizing fixing and improving existing right-of-way to increase connectivity over building new roads, designing the system to be multimodal for people and freight, etc.
- **Impact Fees** are a way to generate revenue for specific public services that are impacted by additional development.
- State, Federal, and non-governmental **grants** such as Surface Transportation Program, Highway Safety Improvement Program, Transportation Enhancements program, Safe Routes to School Program, New Freedom Initiative, and Community Development Block Grant (CDBG).
- **Align existing fees to incentivize sustainable practices**. For example, solid waste collection is currently not paid for entirely by the garbage fee collected from residents. It is partially subsidized through the General Fund. Rather than subsidizing all solid waste collection, the Town should consider incentivizing recycling by removing the fee for recycling carts, which could be a barrier to participation in the curbside recycling program for some households. Consider implementing a “pay-as-you-throw” (PAYT) garbage fee structure, accounting for concerns about illegal dumping and trash compacting (the latter in volume-based systems).
- **Energy Performance Contracting (EPC)** for public buildings. In EPC clients work with an Energy Service Company (ESCO) to identify energy-saving improvements. The ESCO then pays the upfront cost of making the improvements, and the client pays the ESCO back over time out of the resulting energy savings. See <https://energy.gov/eere/slsc/energy-savings-performance-contracting>, among other sources, for more information on this subject.
- **Revolving loan funds (RLFs)**. An RLF is a self-sustaining method of financing capital investments. Making sustainable infrastructure upgrades that pay for themselves over time—often through reduced energy costs—is a common use for RLFs. After an initial capitalization, green projects are paid for up front using loans from the RLF. A portion of the savings from these projects is then reinvested into the RLF; in this way, one project pays for another.
- **Renewable Energy Credits (RECs)**. RECs are tradable certificates representing one megawatt-hour (MWh) of renewable energy generation. Producers of renewable energy can sell the credits on a market to both public and private customers, either directly or through third parties. RECs allow purchasers to support renewable energy beyond their capacity to generate it themselves. The Town of Normal uses RECs to offset the non-renewable energy purchased through its municipal electric aggregation program, through which it purchases electricity for the whole community.
- **Property-assessed Clean Energy (PACE)**. In a PACE program, the entity administering the program pays the upfront costs of energy-saving improvements to private property, which the property owners pay back over time through property assessments. Commercial PACE programs are more common than residential and avoid certain regulatory issues faced by residential programs (U.S. Department of Energy).⁶
- **Community Solar**. Community solar, also known as “shared solar,” is a solar power facility that provides energy to multiple users. Legislation in Illinois, passed in 2016, provides support for community solar projects, including in low-income neighborhoods.⁷
- **Green Bonds**. Green bonds are bonds issued for the purpose of financing environmentally sustainable development projects. They are issued by governments, environmental groups, and even some for-profit companies.⁸

TABLE HS2: Green Infrastructure Funding and Financing Mechanisms

Funding Source	Description	Advantages	Disadvantages
Taxes/ General Funds	<i>Funds raised through taxes such as property, income, and sales that are paid into a general fund.</i>	<ul style="list-style-type: none"> ■ Consistent from year-to-year ■ Utilizes an existing funding system 	<ul style="list-style-type: none"> ■ Competition for funds; ■ Tax-exempt properties do not contribute ■ System is not equitable (does not fully reflect contribution of stormwater runoff)
Fees	<p><i>Funds raised through charges for services such as inspections and permits.</i></p> <p><i>Funds raised through developer impact fees are one-time charges linked with new development.</i></p>	<ul style="list-style-type: none"> ■ Specific permit and inspection fees allow for more direct allocation of costs for services provided. ■ Addresses potential stormwater impacts related to new construction. 	<ul style="list-style-type: none"> ■ Funding not available for larger projects or system-wide improvements ■ Developer impact fees may be an unreliable source when development slows (due to market downturns/contractions) ■ Requires administrative framework to assess and manage
Stormwater Utility	<i>A stormwater utility generates its revenues through user fees and the revenue from the stormwater charges will go into a separate fund that might be used only for stormwater services.</i>	<ul style="list-style-type: none"> ■ Dedicated funding source ■ Directly related to stormwater impacts ■ Sustainable, stable revenue ■ Shared cost ■ Improved watershed stewardship ■ Addresses existing stormwater issues 	<ul style="list-style-type: none"> ■ Feasibility study required for implementation, fee structure, and administration of utility ■ Approval by vote of the local legislative body ■ Perception of the public of a “tax on rain”
Grants	<i>State and federal grants provide additional funding for water quality improvements.</i>	<ul style="list-style-type: none"> ■ Existing sources available for stormwater-related funding ■ Does not require repayment 	<ul style="list-style-type: none"> ■ Competitive ■ Typically one-time, project-specific, or time-constrained funds ■ Often requires a funding match
Bonds	<i>Bonds are not a true revenue source, but a means of borrowing money. “Green” bonds are a new source of funding dedicated to environmentally friendly projects, including clean water projects.</i>	<ul style="list-style-type: none"> ■ Existing sources available for stormwater-related funding ■ Can support construction-ready projects ■ Can provide steady funding stream over the period of the bond 	<ul style="list-style-type: none"> ■ One-time sources of funds ■ Requires individual approval for each issuance ■ Requires full repayment ■ Possible interest charges ■ Requires dedicated repayment revenue stream ■ May require design-level documents to be prepared in advance ■ Likely requires voter approval ■ Can have high transaction costs relative to requested amount ■ May require significant administrative preparation to issue
Loans	<i>Low-interest loans may be secured, but are generally used for planning and capital projects.</i>	<ul style="list-style-type: none"> ■ Existing sources available for stormwater-related funding ■ Offers low- or no-interest financing 	<ul style="list-style-type: none"> ■ One-time source of funds ■ Requires full repayment
Public-Private Partnerships	<i>Contractual agreement between a public agency and a private sector entity that allows for the private sector participation in the financing, planning, design, construction, and maintenance of stormwater facilities.</i>	<ul style="list-style-type: none"> ■ Can reduce costs for government ■ Significantly leverages public funding and government resources ■ Ensures adequate, dedicated funding ■ Improved O + M ■ Shared risk 	<ul style="list-style-type: none"> ■ Perceived loss of public control ■ Assumption that private financing is more expensive and belief that contract negotiations are difficult

Source: USEPA, 2014. “Getting to Green: Paying for Green Infrastructure: Financing Options and Resources for Local Decision-Makers.”

Endnotes

1. Champaign, Illinois sidewalk snow removal ordinance in the University District: <http://champaignil.gov/public-works/find-a-service/streets-sidewalks-3/snow-ice-removal>
2. Information from the NC Clean Energy Technology Center's Database of State Incentives for Renewables and Efficiency (DSIRE). Illinois listings are at <http://programs.dsireusa.org/system/program?fromSir=0&state=IL>
3. https://www.arl.noaa.gov/Forecast_Ozone_PM.php
4. Ecology Action Center, <https://ecologyactioncenter.org>
5. Patchett, Jim, Raj Rajaram, and Ron Doetsch. "Gray or Green: The Role of Watershed-Scale Infrastructure Systems for Waste Water Treatment." November 10, 2016. Presentation given to the Greenways Advisory Committee.
6. Uptown Normal Master Plan Update (2015), p. 72.
7. i-Tree, <http://www.itreetools.org>
8. Eliot Allen, 2014. "How Green is My Neighborhood? Let Me Count the Ways." Planetizen. <https://www.planetizen.com/node/69022>



