CITY OF YPSILANTI
MASTER PLAN

MASTER PLAN FOR A SAFE, DIVERSE, SUSTAINABLE CITY

ADOPTED: 2013
UPDATED: 2021

2020-2021 PLAN UPDATE

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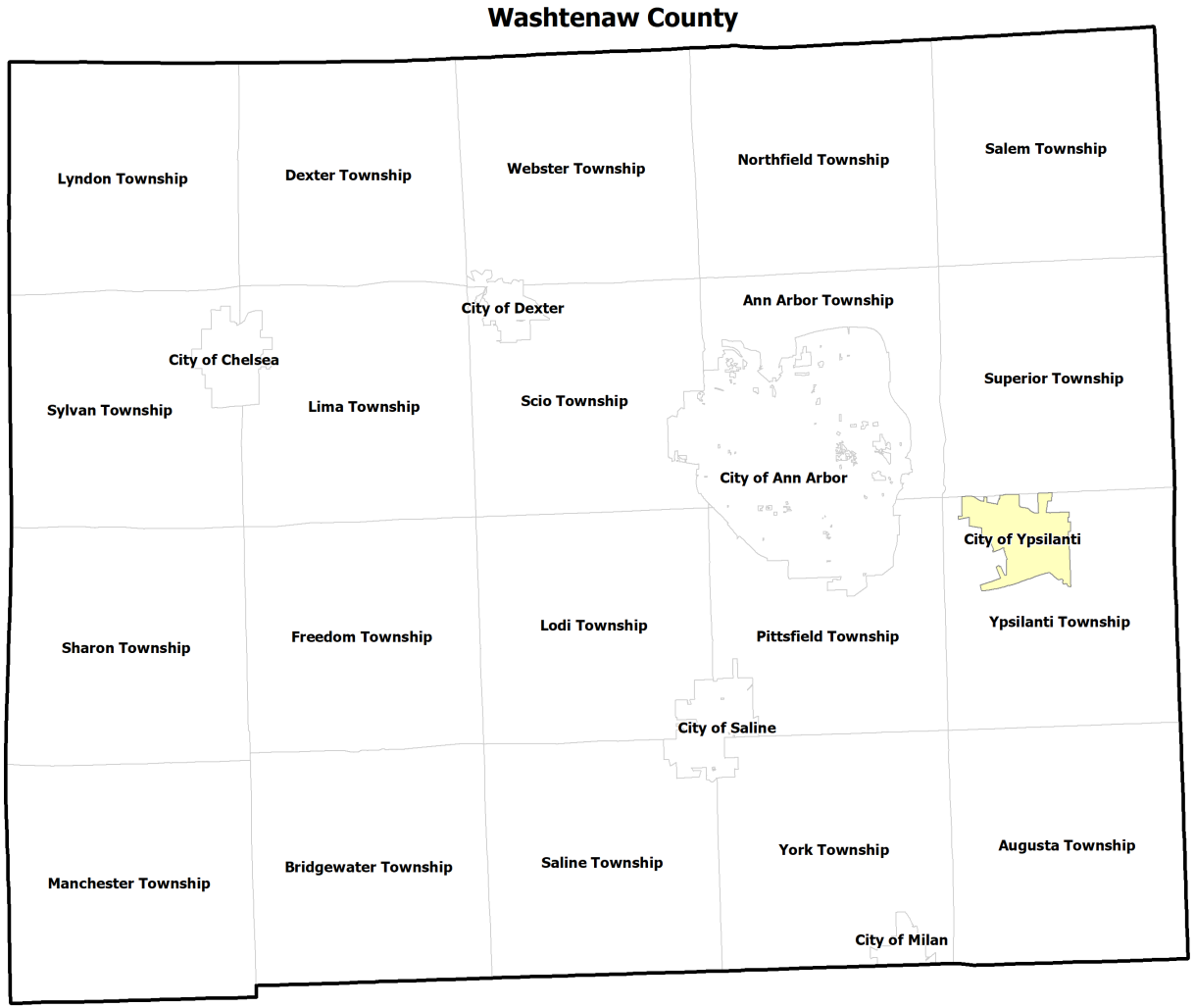
ALL WHO PARTICIPATED

Over 400 focus group and charrette participants
2,038 people who like Shape Ypsi on Facebook
128 twitter followers
1,387 people who visited ShapeYpsi.com
155 e-mail newsletter subscribers
All the people who shared in this plan in thought, word and deed

Table of Contents

Map 1: Regional Context, City of Ypsilanti



Source: Michigan Geographic Framework

Chapter 1: Small City. Unique History. New Plan.

"After careful review of many recent local plans, the City requests that respondents set aside existing templates and consider instead new approaches to a hybrid policy/land-use plan for the City of Ypsilanti." -Request for Proposal, City of Ypsilanti, July 2012

The City of Ypsilanti is a small city of 4.3 square miles in southeastern Michigan. Located in Washtenaw County, it is within 15 miles of Detroit Metro Airport, 10 miles of Ann Arbor and 35 miles from Detroit. A distinctly urban place, its population density is one of the highest in Washtenaw County, at roughly 6.4 people per acre.

Ypsilanti is a historic community. It was the second city to incorporate in the State of Michigan, and has the fifth largest historic district in the state. Eastern Michigan University (EMU) was founded here in 1849. Transportation features prominently in Ypsilanti's history, with the Chicago Road and Michigan Central Railroad driving the growth of the city's various industries through the 19th and early 20th century. In the mid-20th century, the Willow Run plant and airport, and I-94 and US-23 continued the city's location advantages, while automotive plants in and around the city tied the city's manufacturing economy to transportation as well.

EMU continues to be a major employer and economic driver. It is the largest land owner in the City and the largest taxpayers are now primarily rental property owners.

However, the City's economy has fundamentally changed with the decline of the automotive industry and manufacturing. Since 2001, Ypsilanti has lost close to 1,600 manufacturing jobs. This economic shift has caused both a reduction in real and personal property tax revenue, and an increase in vacant or under utilized industrial spaces. No single industry has emerged to replace the jobs and taxes generated by the automobile industry.

Instead, several sectors have potential to bring new vitality – small

Source: Ypsilanti DDA

manufacturing and craft production, creative economy, renewable energy, and food. Summer events are a regional draw, and more recent efforts such as the Krampus Festival and Mittenfest foster the growing arts and music communities. Solar Ypsi and other groups support renewable energy efforts, while the Historic District Commission has adopted guidelines for solar panels. A growing reputation among foodies also has helped Ypsilanti secure its place in the region for both every day and destination restaurants. Growing food in the City is supported by non-profits like Growing Hope and permaculture groups.

The City prides itself on its diversity. Ypsilanti has been a leader in civil rights, as the first City in Michigan to pass a living wage ordinance and an ordinance banning discrimination in housing, employment and public accommodation based on sexual orientation, gender identity/transgender status, or body weight. The U.S. Census analysis of 2010 population data ranked Ypsilanti as one of the top 5 Michigan Cities for gay couples.

At the same time, the City faces challenges. Approximately 40% of the City's land area is used by tax exempt owners, limiting the tax base of the City. The building stock, while historic and often a selling point for the community, can decline in value without upkeep. The foreclosure crisis and great recession of 2008 hit Ypsilanti, like many Michigan cities, with the loss of jobs and home values. The City has one of higher unemployment rates in Washtenaw County.

The first year for the merged Ypsilanti Community School District was 2013. Until the district is on its feet, the schools will have an unknown impact on housing values.

Finally, the City must pay about 10% of its current budget on bonds for the previous acquisition, building demolition, and environmental cleanup of Water Street, a redevelopment area assembled by the City more than a decade ago. The last Master Plan, adopted in 1998, assumed that industrial users would remain. The economic shifts and the housing crisis that have taken place since have changed that assumption. This plan assumes growth on a micro-economic level. It concentrates on the assets of the people, businesses, buildings, and infrastructure. It uses these assets to set the framework for future development, redevelopment and preservation in the community. The plan also lays the groundwork for form-based zoning in Ypsilanti, which will implement goals of the master plan through regulation by street type, building typology as well as use.

THE PROCESS & THE PLAN

In 2012, the City of Ypsilanti received funding to draft a master plan and zoning ordinance as part of the U.S. Housing and Urban Development Sustainable Community Challenge Grant awarded to Washtenaw County. While the City of Ypsilanti has a long history of planning (see list on this page), the last Master Plan was over a decade old. Due to the challenges facing the City, staff, elected and appointed officials requested the master plan recognize both the good and the bad, set realistic goals, and emphasize policy as well as land use.

After selecting a consultant team to assist in the process, the City launched a community-driven process, called "Shape Ypsilanti", to create the Master Plan in January 2013. The process utilized social media and a website separate from the City's own to engage, educate, and empower. Feedback from on-line sources was used as fodder for discussions and decisions at a series of events, varying in

size from interviews to two rounds of focus groups to community-wide, four-day charrettes in March and April 2013. Events were attended by more than 400 individuals. In 2018, the City of Ypsilanti decided to update its master plan to keep in line with the Michigan Planning Enabling Act of 2008 requirement to review the document every five years, to check its progress on its action items, and determine next steps for future projects. The largest update is the incorporation of a Sustainability chapter that focuses on practices and policies to build resiliency against environmental change. The City's intent in adopting a Sustainability chapter as part of the Master Plan is to use a sustainability framework in long-term land use decisions, including zoning.

The following document is the resulting Master Plan, grounded in real challenges and opportunities. The plan is divided into the following chapters:

Chapter 2 – Guiding Values
Chapter 3 – Ypsilanti Now
Chapter 4 – City Framework
Chapter 5 – Transportation
Chapter 6 – Centers
Chapter 7 – Neighborhoods
Chapter 8 – Corridors
Chapter 9 – Districts
Chapter 10 - Redevelopment Areas
Chapter 11 - Implementation
Chapter 12 - Sustainability Plan (2020/21 addition)

The solutions were created by the community for the community.

However, many of the requests brought forth - more police, cameras in high-crime areas, recreation and programs for youth, street maintenance and repair, better public schools - are not within the scope of this plan as prescribed by Michigan State Law. These pressing issues can, and perhaps should, take precedence in allocating scant municipal resources over many of the projects and plans laid out in this document.

PREVIOUS PLANS REVIEWED FOR THIS PROCESS

- Olmsted Brothers Park Plan (Pre-World War II)
- 1971 Ypsilanti I, II, III
- 1993 Blueprints for Downtown
- 1996 Comprehensive Economic Development Strategy Plan
- 1998 City Master Plan
- 2001 Cross Street Neighborhood Improvement Plan
- 2008 Recreation Plan
- 2008 Downtown Blueprint
- 2010 Non-Motorized Transportation Plan
- 2012 Climate Action Plan
- Washtenaw County Consolidated Plan
- Washtenaw County Affordable Housing Needs Assessment
- Ypsilanti 2020 Task Force Report
- ReImagine Washtenaw Avenue Corridor Redevelopment Strategy (2010)
- SEMCOG & Washtenaw County Community Economic Development Plan
- South of Michigan Avenue Community Needs Assessment
- 2018 Energy Plan
- 2015 Housing Affordability and Economic Equity Analysis
- Huron Watershed Council

Chapter 2: Guiding Values

"What would you whisper into the ears of decision makers, like City Council?" -Instructions to participants in Guiding Values Focus Groups

Appointed and elected officials use the City's Master Plan as a guide when making decisions with limited resources about land use, housing, transportation, equity, quality of life, and sustainability. Traditionally, decision-makers reference the Master Plan when deciding what uses should be allowed on a parcel of land, whether and how a building can be constructed or an older building renovated; and how bicycle routes and streets are laid out. The City of Ypsilanti requested the guiding values for this Master Plan go beyond the usual scope of a land use plan and apply to budget decisions, allocation of resources, and general policy for the City. This chapter provides a list of guiding values from the community and a decision-making rubric for City leaders, not only for land use but for over arching policy.

These guiding values are based on focus group sessions held in January and February 2013 and then presented to the public in the Discover Charrette in March of the same year. The sessions were held in different locations across the city. The over 50 participants represented Eastern Michigan students, business groups, historic preservation groups, real estate developers, arts groups, event organizers, churches, youth groups and residents from neighborhoods South of Michigan and on the west side of Ypsilanti. Two Saturday sessions were also held at a downtown restaurant for the general public.

The following ten values were mentioned by all the groups when they were asked what the guiding values should be for the City:

Safety comes first

The City is dedicated to being a secure place to live, study, work, visit, and play. While budgets for safety services are separate from the Master Plan, decisions about land use, housing, transportation, equity and sustainability should protect and enhance safety.

Diversity is our strength

Ypsilanti is a multicultural city with people from different races, sexual orientations, incomes, and walks of life. The ability to be who you are attracts people to Ypsilanti. In decisions, the City will ask how actions welcome, provide opportunity for and sustain its diverse population.

Ypsilanti is sustainable

Every decision should foster the future, while replenishing resources – natural, economic and social. Efforts to make the city an environmentally sustainable place will continue. The financial viability of the city in 20 years should factor into decisions. Equity for everyone in Ypsilanti is another priority.

The Ypsilanti Sustainability Commission drafted a Sustainability Plan in 2020, which was determined by the Planning Commission to be placed in the Master Plan. This Sustainability Plan is located in Chapter 12 of this Plan.

Communication is key

Information, especially from the City, should be shared with all neighborhoods and groups in the manner that will reach them, be that on the web, in the mail or via flyers. Programs should reach out to all, giving everyone a chance.

Anyone, no matter what age or income, can find a place to call home in Ypsilanti

Housing options should match the needs of the people. Those needs will change as residents age and move. The need for safe, quality, affordable homes for all should be factored into decisions.

Anyone can easily walk, bike, drive or take transit from anywhere in Ypsilanti and to anywhere else in Ypsilanti and beyond

The citizens of Ypsilanti want a complete transportation system with room on the roads for cars, buses, bicycles, and pedestrians, including those in wheelchairs or with strollers. The City is committed to integrating into the emerging regional transit system while enhancing the walkability of the community.

Ypsilanti is a great place to do business, especially the green and creative kind

The City of Ypsilanti will create a business environment that fosters the creativity and energy personified by City's best known businesses, while attracting new businesses and fostering locally grown enterprises. Green and sustainable businesses, like those that have already developed in Ypsilanti, will be encouraged.

Everyone in the region knows Ypsilanti has great things to do in great places that are in great shape!

Ypsilanti has a wealth of beautiful places, historic buildings, and fun activities. These assets will be built upon and shouted from the rooftops. Ypsilanti's image should match its vibrancy. Vibrancy comes from preserving, using, and enriching all places. While permanent uses may not be found for vacant buildings immediately, temporary or pop-up activities should be options.

Ypsilanti is an asset of Eastern Michigan University, and Eastern Michigan University is an asset of Ypsilanti

The futures of Ypsilanti and Eastern Michigan University are entwined. The City will plan and develop policies for Ypsilanti to be a home for the university itself, as well as its students, faculty and staff. The physical planning of the community and university should be coordinated, as well as efforts to welcome and integrate Ypsilanti as treasured part of the EMU experience.

We can only achieve our vision by building a community amongst ourselves and with our neighbors

Relationships are the key to success. While each group and neighborhood needs space for themselves, the City thrives when we work together. The community includes not only those who live in the City, but those who work and study here and own businesses as well as Ypsilanti Community Schools, neighboring municipalities, the City of Ann Arbor and Washtenaw County.

The table on the following pages is a decision making rubric for elected and appointed officials, with questions and measures for each guiding value. The chapter following the decision rubric explores the current state of the City in terms of safety, diversity and sustainability, the core values to which all of the others relate.

DECISION MAKING RUBRIC

When making decisions, City of Ypsilanti officials, staff and citizens will ask if the option chosen furthers at least one, if not several of the values below, while not damaging the others. Starting with the adoption of this plan until the next master plan is written, it is incumbent upon the responsible party to track the "measures" listed as they provide some insight into whether the outcomes of City efforts are effective responses the decision-making questions.

Guiding Value	Questions	Measures	Responsible Party
Safety comes first	Does this action protect or enhance safety?	Trend in crime rates	Police Department (PD)
	Is natural surveillance, where people can see what is going on in public places from private ones, created?	% of functioning street lights	Department of Public Safety (DPS)
	Are public spaces, private spaces, and semi-public spaces easily known, so the average person knows where the street ends and someone's property begins?	Design standards that differentiate between public and private space	Community & Economic Development (CED)
	Are public spaces (parks, streets, parking lots) well lit?	Enforcement of parking lot lighting requirements	CED
	Are the places for emergency vehicles clear, accessible, and placed to best help first responders do their job?	# of pedestrians/bicyclist crashes	DPS
Diversity is our strength	Does this action welcome and/or sustain Ypsilanti's diverse population?	Changes in ethnic mix, city-wide and by neighborhood	CED
	Does this action welcome new groups to Ypsilanti?	Changes in diversity of ages by neighborhood	CED
	Does this action reward or privilege one group over another?	# of public facilities and/or buildings with universal design (accessibility measure)	DPS
	Are policies flexible enough to allow and encourage diversity?	Trends in business types (number and % of tax base)	Building Department
	Does this action create/maintain/improve the diversity of the business mix?	Change in income city-wide and by neighborhood	CED

Guiding Value	Questions	Measures	Responsible Party
Ypsilanti is sustainable	Does this action replenish resources?	Trend in greenhouse gas emissions	DPS
	Does this action make Ypsilanti a more environmentally sustainable place?	# of kilowatts produced by renewable energy installations	DPS
	Does this action improve the financial viability of the city in 20 years?	Trend in budget deficits	Finance
	Does this action create job opportunities for all residents?	Number of jobs created in Ypsilanti that pay a livable wage	CED
	Do the jobs created provide a livable wage?	Number living wage jobs produced through city contracts	Finance
	Does this action encourage, provide, or promote equity?		
	Does this action help communicate with everyone in the community?	Number of people who have signed up for the city's newsletter	CED
Communication is key	Were all members of the community told about deliberation of this action in an accessible way?	Budget devoted to communication including printing, mailing, social media participation, and website update.	Finance
	How will the results of this action be shared with the community in an accessible way?	# of website hits	CED
	Is communication infrastructure maintained and enhanced?	Change in voter particpation by ward	Clerk
	Is the City maintaining relationships to communicate to groups throughout the City?	# of social media followers	CED

Guiding Value	Questions	Measures	Responsible Party
Anyone, no matter what age or income, can find a place to call home in Ypsilanti	Does this action preserve, improve and/or create viable, safe, affordable homes? Does this action preserve/create variety in housing products in terms of size (square footage and/or # of bedrooms) and ownership/rental type? Will this action result in the continued maintenance and care of existing residences? Do residents, especially young adults and seniors, have the ability and/or resources to maintain their homes? Will this action preserve or create housing that is needed?	Change in the % of cost-burdened households	Housing Commission
		Trends in the # residential building permits by building type (single-family, 2-5 unit, 5+ unit) by neighborhood	CED
		Supply and demand for senior housing	Housing Commission
		Trends in home ownership among young professionals and pre-family households	Housing Commission
		Number of residential blight violations	CED
		Median housing values by neighborhood	Housing Commission
Easily walk, bike, drive or take transit from anywhere	Does this action preserve or create a complete transportation system with room on the roads for cars, buses, bicycles, and pedestrians? Does this action reward those taking a short trip with the City, rather than those passing through? Does this action help Ypsilanti be part of the regional transportation network?	# of miles of additional bicycle paths and sidewalk	DPS
		Increase in bus ridership from Ypsilanti residents	CED
		Amount of money spent on maintenance of streets, sidewalks, and multi-use paths	Finance
		Change in "drive alone" commuting	CED
		Traffic counts for all transportation modes of key intersections	DPS

Guiding Value	Questions	Measures	Responsible Party
Great place to do business, especially green and creative	Does this action create a business environment that fosters creativity?	# of new green/creative businesses started	CED
	Does this action attract new and/or retain existing businesses?	# and types of grants issued	DDA/CED
	Does this action foster locally grown enterprises?	Demographic data of grant recipients	CED
	Does this action reward green and sustainable businesses?	# of local business expansions	DDA/CED
		Length of time to complete the site plan and permitting process	CED
Everyone in the region knows Ypsilanti has great things to do in great places that are in great shape!	Does this action preserve, use, and/or enrich all places?	Volunteer hours/personnel hours dedicated to event planning and operation	CED & CVB
	Does this action enhance Ypsilanti's reputation as a great place?	Condition of streetscape amenities (benches, landscaping, bicycle racks)	DPS
	Does this action bring people to visit great places in Ypsilanti?	Attendance at City-sponsored events	CED & CVB
		Ratio of positive/negative feedback of events from visitors	CED & CVB
		Distance visitors traveled to attend the event	CED & CVB

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		Distance visitors traveled to attend the event	CED & CVB

Chapter 3 – Ypsilanti Now

"There are three sides to every story in Ypsilanti." -unsolicited advice e-mailed to the Consultant Team from a former City resident

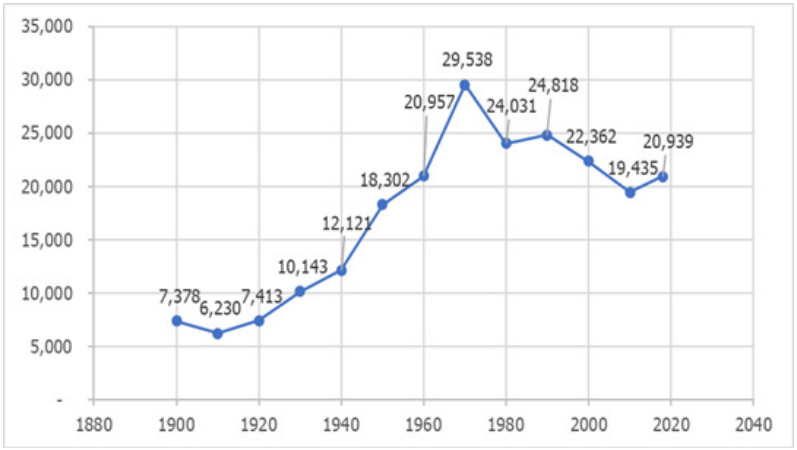
The following chapter lays out the latest facts about the City of Ypsilanti - the people, the buildings, the economy, and the transportation network (roads, buses, bicycle lanes and sidewalks). Each section ends with policy implications that have influenced the Master Plan and should be factored into future decisions.

Population

Like many of Michigan's older industrial towns, Ypsilanti saw rapid mid-century population growth, followed by more recent declines (Figure 1). The city has a sizable African-American population, though as captured in the "Percent Minority" map, the city remains racially segregated by neighborhood. The city's industrial heritage has also left the city's population vulnerable to the past decades of deindustrialization, with pockets of high poverty and unemployment.

The historic core of Ypsilanti was a mature industrial town of nearly 7,500 people by the beginning of the 20th century, with population changing only modestly over the next 30 years. However, both the industrial mobilization of World War II and the auto industry's post-war boom were reflected in population growth, with the Census reporting a peak of 29,538 residents in 1970.

Figure 1: Population History



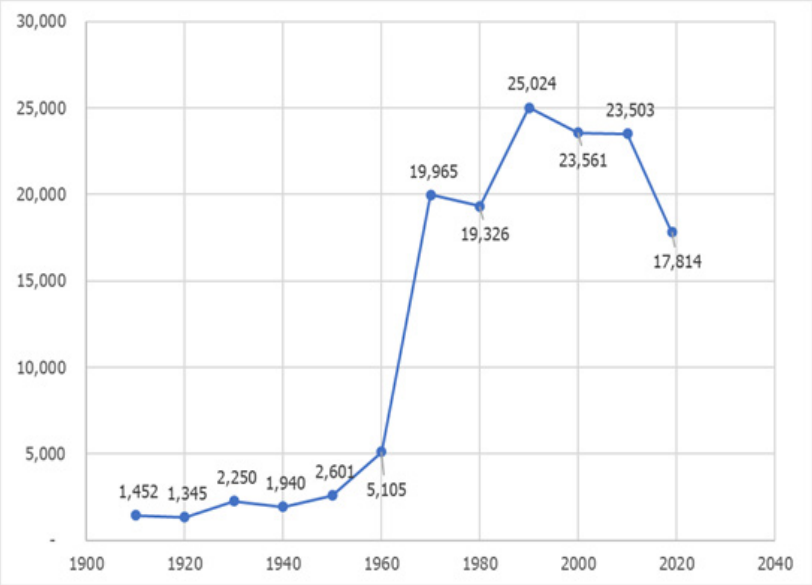
Since that time, the city's population has shrunk to 19,435 in 2010 and an estimated 20,939 in 2018 per American Community Survey (ACS) 5-year estimates— only slightly higher than the city's 1950 population. Population forecasts by ESRI, a proprietary software program, projects that the population will increase to about 21,443 by 2024.

Ypsilanti, like the nation as a whole, has seen household sizes decline over time. Societal trends, including delaying marriage and childbearing, have led to more householders living alone or as married couples without children. In Ypsilanti, the household size declined from 2.38 in 1990 to 2.29 in 2000 to 2.06 in 2010. Yet, as of 2018 ACS 5-year estimates, the trend has reversed: household size has increased again to 2.29. Additionally, rental households had fewer average residents than owner-occupied households: 2.20 compared to 2.49, perhaps contrary to popular belief. The same is true at the county and state level.

Age, Educational Attainment & University Influence

When analyzed at a City level, the City of Ypsilanti has a younger population (see Figure 3) than its neighbors, the region, and the state of Michigan overall. However, when broken down by census tract, younger populations are clustered around the Eastern Michigan campus (Map 2). The enrollment numbers of Eastern Michigan University have increased (see Figure 2) since 1960, with a few dips and a slight decline in enrollment over the past two decades – as of the 2019 fall semester, Eastern Michigan has a total

Figure 2: Eastern Michigan University Enrollment



enrollment of 17,784 students.[1] The same pattern emerges for educational attainment. Ypsilanti's population overall has a relatively high level of educational attainment, especially compared to the region and state. However, Maps 2-5 show a large geographic disparity, with residents holding a bachelor's degree ranging from 57% in the northwest part of the city to 14% in the southwest portion. With the current emphasis on education as the key to individual and community prosperity, this education gap has troubling implications for the city's ability to fully participate in the knowledge economy.

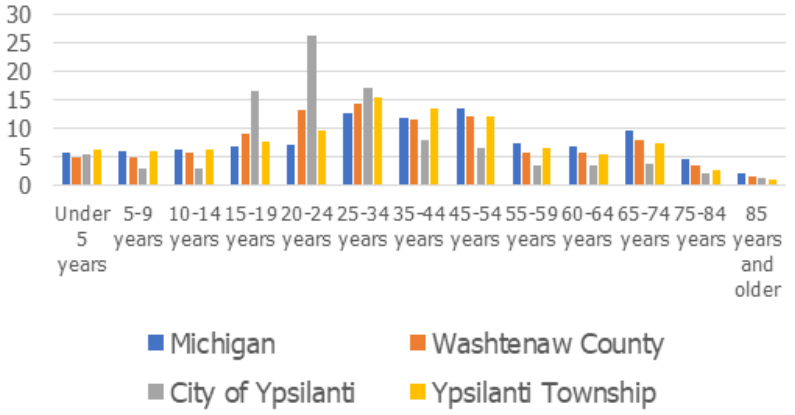
The University presence appears to counter the declining industrial sector, when the city is viewed as a whole. However, these two trends have impacted different parts of the population: the educational influence in some ways masks, rather than mitigates, the impacts of deindustrialization.

Equity, Race, Ethnicity & Income

Ypsilanti is a diverse community in terms of race, ethnicity, and disability. The city prides itself on its reputation as welcoming to all, as evidenced in its guiding values.

The city has a sizable African-American population, comprising about 29.8% of the city's population as of 2018– a slight decline since 2010 (31.9%). Approximately 4.6% of residents identified as Hispanic and 3.2% Asian in 2018—while these numbers are relatively small, they have grown or stayed the same since 2000 Census and the 3.9% Hispanic and 4.3% Asian in the 2010 Census. That is to say, that as the city grows and shrinks, it is staying racially and ethnically diverse.

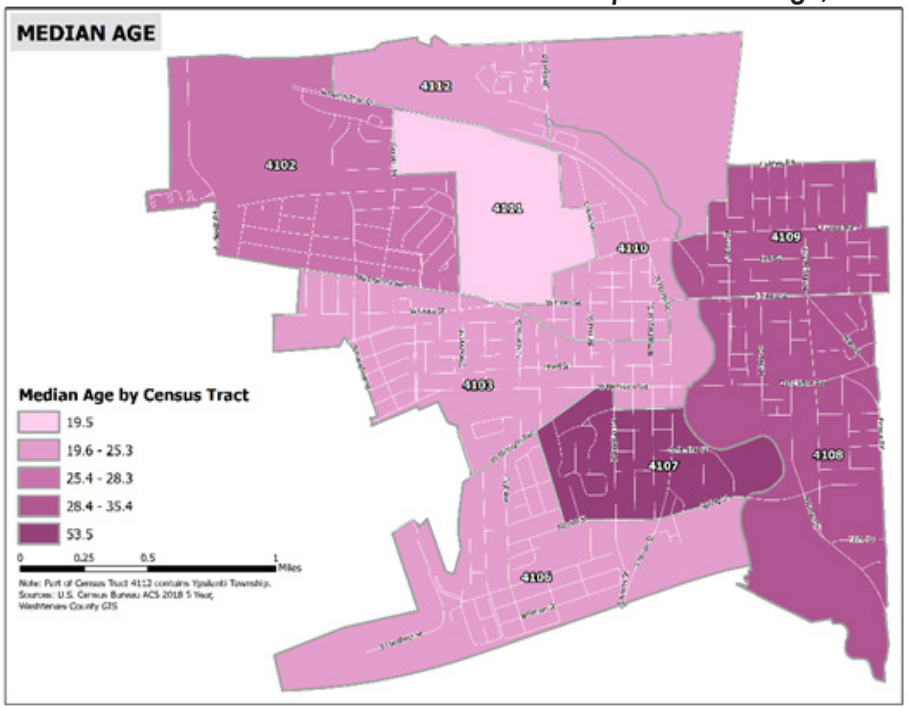
Figure 3: Age, Ypsilanti and Area Communities, 2018



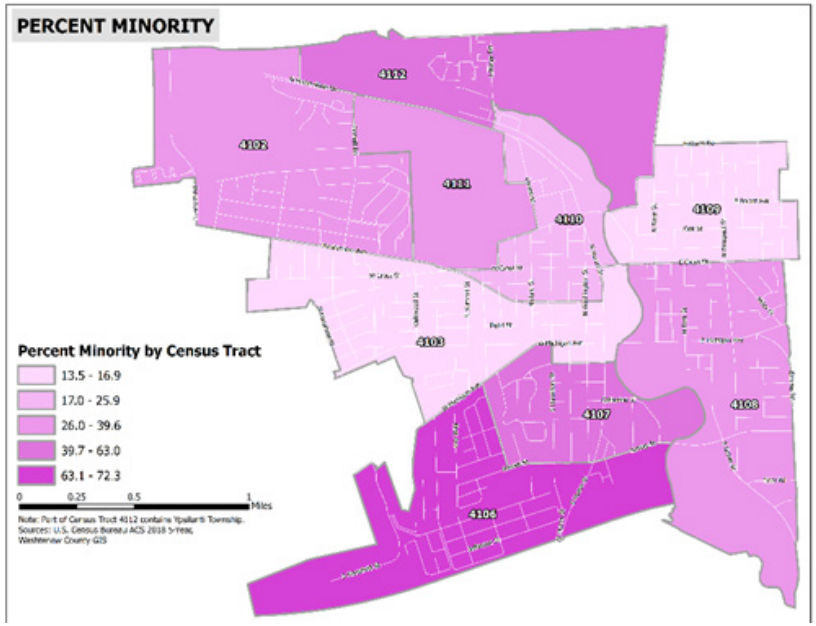
African-American residents predominantly live in the southwestern portion of the city—2018 ACS 5-year estimates show around 70.7% of residents of the southwest census tract to be African-American. This is down from 80% in 2010 and from 90% in 2000, showing a steady change in racial composition over the past two decades. Regardless of this change, when combined with data also showing lower educational attainment levels and household income, a distinct racial, economic, and educational segregation exists even in a small city like Ypsilanti. The city needs to focus on ensuring the residents of challenged areas receive a sufficient share of public resources to maintain equity.

As a whole, the estimated 2018 per capita income for the City is $24,562 which is less than the state as a whole at $30,336. In comparison, Washtenaw County's per capita income is $39,486, showing that Ypsilanti's residents earn about 62% of the County's per capita income. Only one census tract (tract 4102) in the City is above the state per capita level, compared to three census tracts in 2013. One of the City's tracts earns less than half of the state per capita income: census tract 4106.

Map 2: Median Age, 2018



Maps 3-5: Sensitive Population Analysis: Minority, Education, & Income

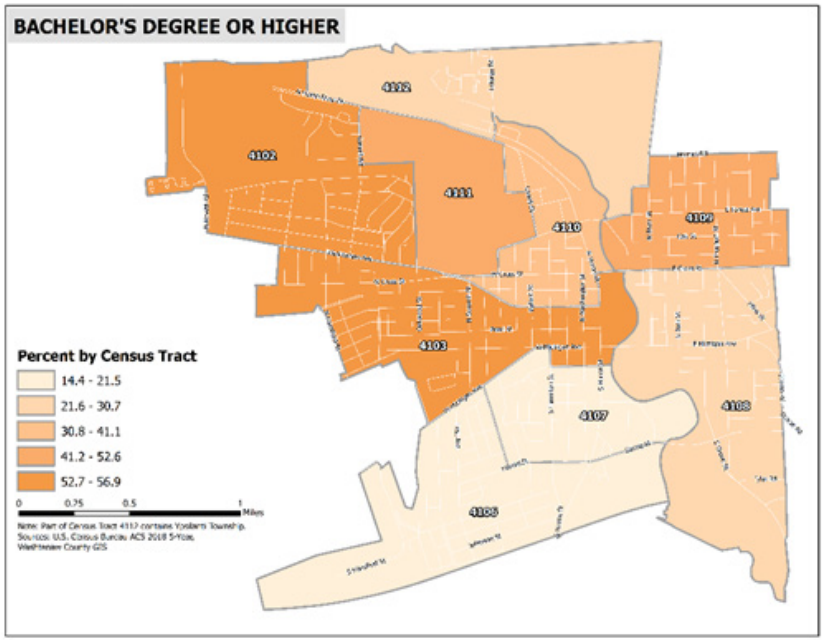


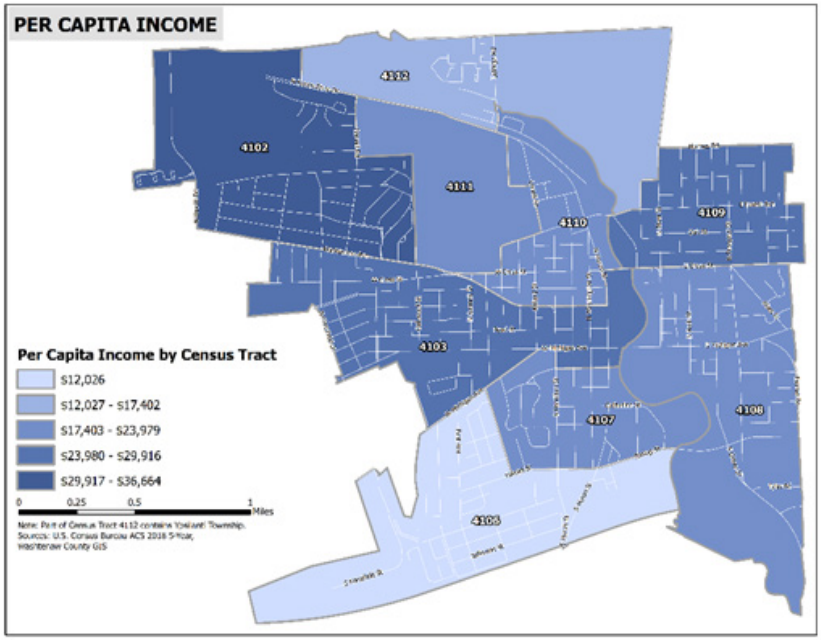
The maps 3-5 tell multiple stories:

- Compared to the state of Michigan overall, Ypsilanti is a racially diverse city, with a range of education levels and incomes. It should be poised to take advantage of the knowledge economy of the 21st century given its proximity to knowledge-based sectors.

- The City of Ypsilanti is as racially diverse as Ypsilanti Township. However, its per capita income is lower than the adjoining municipalities with Ypsilanti Township having the lowest educational attainment. In attracting knowledge economy firms, the City competes regionally with its neighbors. Ann Arbor, to the west, is home to the University of Michigan and has more residents with college degrees and higher incomes.

- Within the city itself, race, income, educational attainment, and location are interconnected. The differences in educational attainment and income mean that one size cannot fit all in terms of policy for the entire City. When implementing policies to achieve safety, diversity and sustainability for the City, the needs and strengths of residents in each neighborhood must be taken into account because they are different.





HOUSING

Ypsilanti has strong, stable neighborhoods, historic architecture, and a ratio of rental-to-owner occupancy higher than the national average, but typical of a college town. As of 2018, 68.7% of occupied dwelling units were renter-occupied and 31.3% owner-occupied. This split is nearly opposite the national owner-occupancy rate of 63.8%, the state rate of 71% and the county rate of 60.7%. However, it is similar to other college towns in the region, as shown in Figure 4.

Only about 36% of occupied dwelling units in the city are detached single-family structures. About 44% of housing units are in structures that contain more than 5 dwelling units, and 29% of dwelling units are in structures that contain 10 or more units. By comparison, Washtenaw County as a whole has 58% of total dwelling units found in detached single-family family structures, 27% in structures with at least 5 units, and only 16% in structures with at least 10 units.

Occupancy and housing type are strongly related, as shown in Maps 6 and 7. While the city does have some single-family rental housing and some owner-occupied units in multi-unit structures, 92% of detached single-family homes in the city are owner-occupied, according to 2020 assessment data.
The clustering of rental units in large on-campus and near-campus student apartments complexes, and a few other large multi-family properties compared to the owner-occupied dominance of single-family homes means that focusing only on the percentage of units that are rental-occupied may exaggerate the impact of rental housing on Ypsilanti neighborhoods: when measured on a parcel basis, rather than by dwelling units, 66.7% of Ypsilanti's residential properties were owner-occupied residences in 2010, and an additional 2.6% partially owner-occupied (e.g. multi-unit houses with the owner living on-site). On a land area basis, single-family homes make up 64.4% of the city's residential property area.

The amount of rental housing in the city is also strongly related to the city's relatively young population, including student households: 50% of households in the city are headed by a householder aged under 35 years old; of these households, 68% rent their homes. Another 13% of households in the city are headed by a householder aged 35-44 years old, however only 10% of those are renters. See Figure 5.

Ypsilanti has a historic core of neighborhoods built before 1900.

Figure 4: Housing Tenure for University Towns

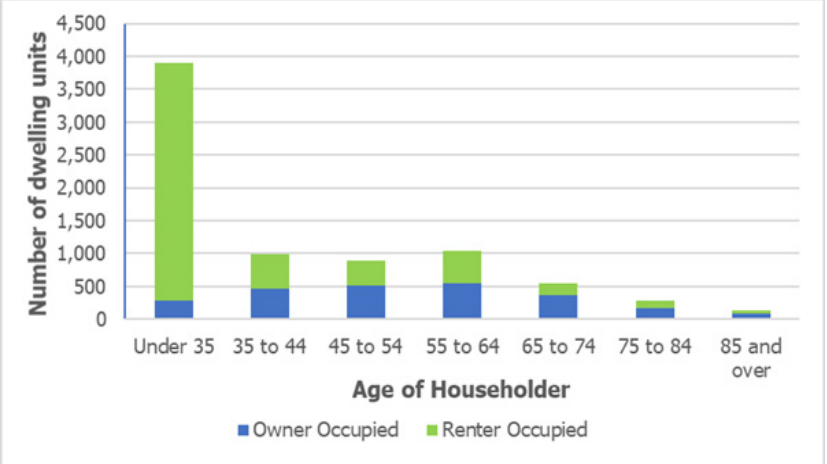
City	Occupied housing units (2017)	Percentage Rental (2017)
Athens, Ohio	6,887	71.4
Oxford, Ohio	6,006	69.4
Ypsilanti	7,865	69.2
East Lansing	13,585	66.2
Bowling Green, Ohio	11,291	62.2
Mt. Pleasant	8,027	60.9
Kalamazoo	28,996	55.2
Ann Arbor	47,524	54.1
Marquette	7,587	50.8
Muncie, Indiana	27,666	48.6
Sault Ste. Marie	5,581	45.2

Source: ACS 2013-2017 5-Year estimates

Developed before the advent of the automobile, they were designed for pedestrians with parks, business districts, and the community within comfortable walking distance from housing. Over the years, many of the homes were subdivided for worker housing during World War II or later as student housing. The early 2000s saw the greatest change in the city's housing stock since the 1970s, with building permit data showing a nearly 5% increase in housing units in the first half of the decade. Most of this was multi-family construction, though of diverse types.

Despite Ypsilanti's base of strong historic neighborhoods, the 2015 Housing Affordability and Economic Equity Analysis for Washtenaw County indicates that the City of Ypsilanti's housing market is "fundamentally weak." According to the report, there is increasing inequity within the County between the Ann Arbor area and the Ypsilanti area (City and Township). Property values are increasing in the Ann Arbor housing market to unaffordable levels, displacing Ann Arbor residents to Ypsilanti, creating an increasingly imbalanced market. More affordable housing values are resulting in higher concentrations of struggling families in the Ypsilanti area. Many of the subsidized housing units in the County are concentrated in Ypsilanti, a trend that this report recommends reversing – dispersing subsidized housing throughout the County will help lessen the increasing concentration of cost-burdened households in Ypsilanti.[2] The size of dwelling units and lot sizes is one tool that cities have to try to create a range of market rate housing options for people of all incomes and life stages. The City has been proactive in updating its zoning ordinance to permit a greater variety of housing.

Figure 5: Household Tenure by Age, 2018

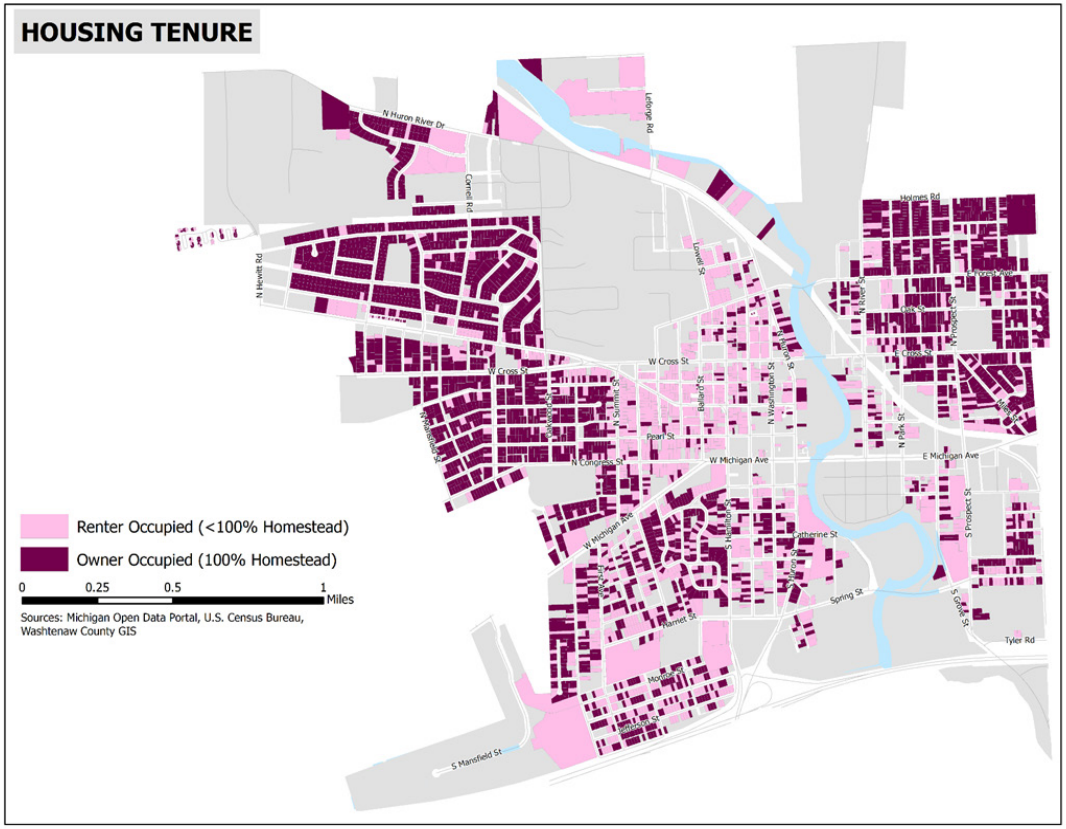


Housing Data Summary

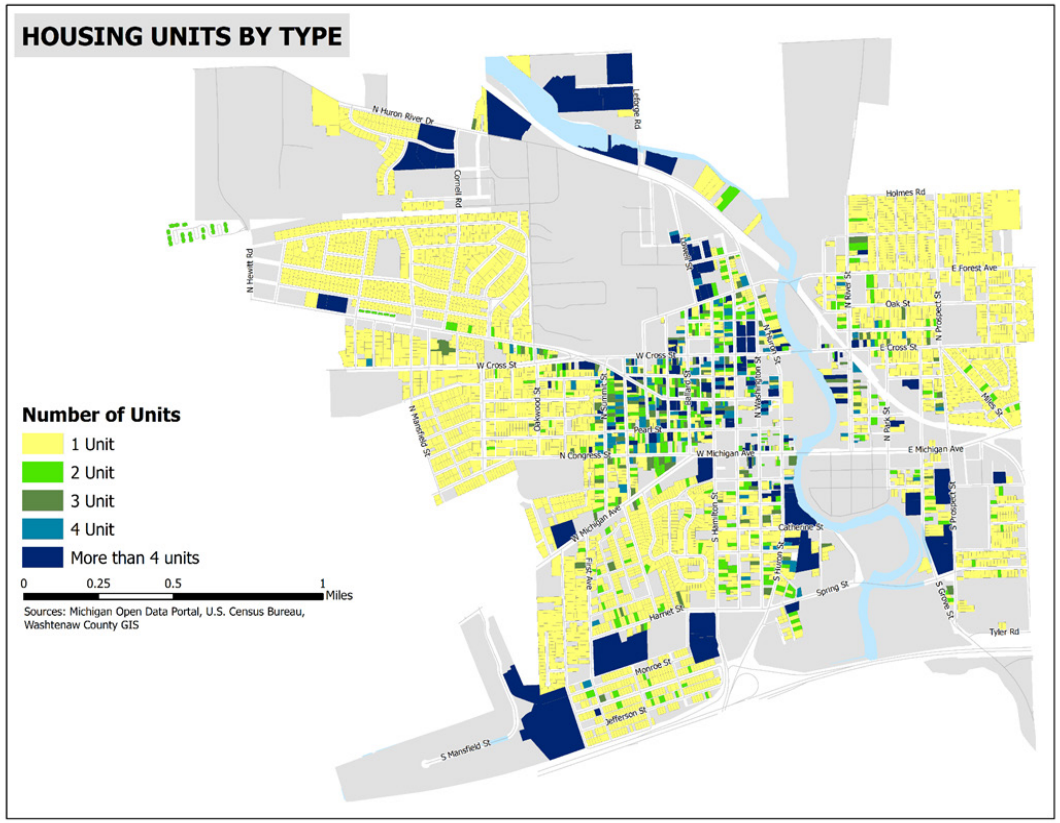
The following factors are key to the Master Plan:

- The majority of housing units are leased, rather than owner-occupied, which tracks with the housing mix in other college towns.
- Census data shows concentrations of renters in the same tracts with a higher percentage of younger adults, under the age of 24, indicating the influence of EMU students on the housing market.
- Most single-family homes are owner-occupied.
- Neighborhoods near EMU and the historic downtown were built, earlier, have a mix of rental and owner-occupied units as well as larger houses
- Housing built post-World War II is smaller, either mostly rentals or mostly owner-occupied and has fewer conversions to multiple-family and other uses.
- Census tracts 4102, 4107, and 4109 have aging populations, which means they will need services to stay in their homes or they will move to a different residence within the next 10-20 years.
- EMU will continue to bring residents - students to the Midtown and Riverside neighborhoods, and faculty/staff to the College Heights and Normal Park neighborhoods. However, both groups reside in all areas of the City.
- Rail service at Depot Town will increase housing values and demand for housing within a 10-minute walk, approximately a half-mile radius, of the stop.
- Heritage Park and Worden Gardens are where first-time home buyers and income property purchasers are most likely to purchase houses.
- Well-maintained, historic neighborhoods have continued to hold their value and will likely in the future.

Map 6: Rental & Occupied Housing



Map 7: Housing Units by Type



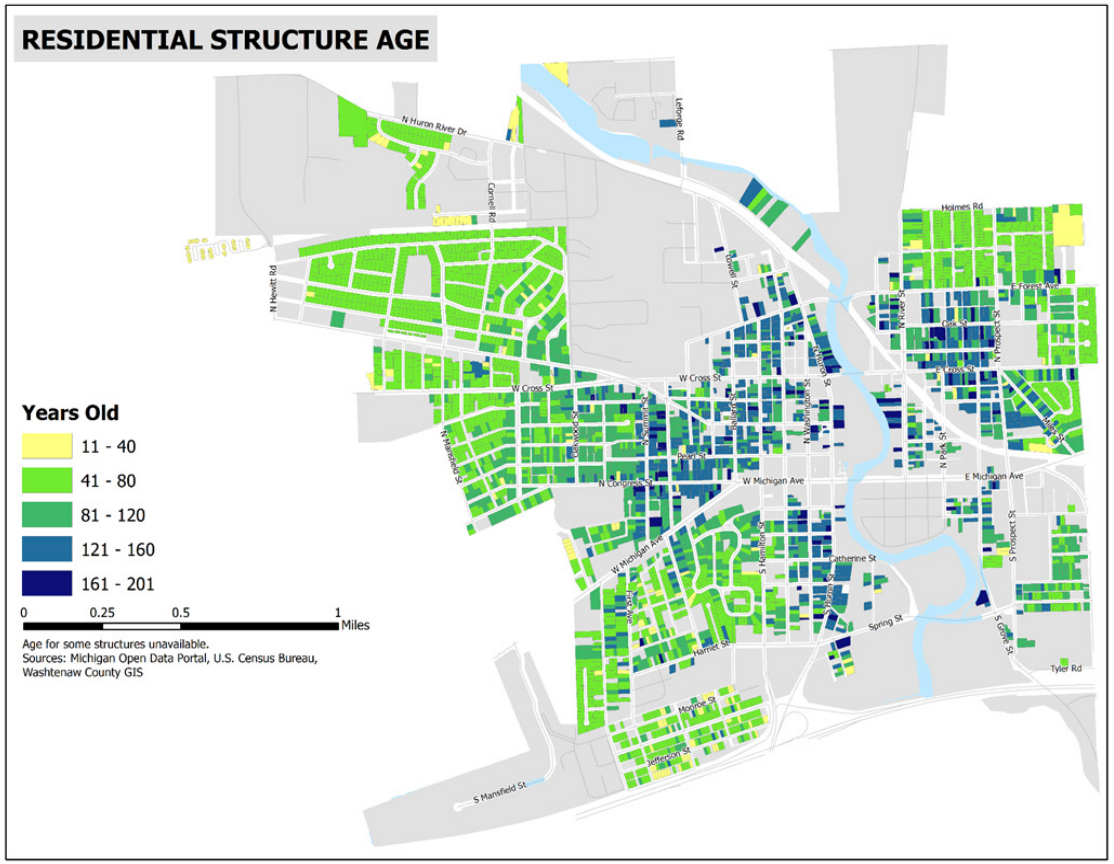
- Housing inequity within Washtenaw County is increasing with a growing divide between the strengthening Ann Arbor market and Ypsilanti's weaker market.

ECONOMY

The decline of manufacturing's prominence has changed the list of major employers in the area. The current list of the top 20 major employers (defined as having at least 500 employees in the Washtenaw County) along with the list in the City's 1998 and 2013 Master Plans shows an absence of manufacturing firms. Instead, educational and medical employers dominate the list, of the top 10, eight of the major employers are related to education, health care, or government, most of which are located in Ann Arbor (see Figure 8). Faurecia North America has grown immensely over the last few years, a testament to a growing economy in comparison to 2013. Still, the trajectory for manufacturing, while still an important component of Michigan's economy, is predicted to shrink.[3] Ypsilanti is growing farther apart from its industrial past.

While many jobs are still located in or relatively close to Ypsilanti, these jobs may require a higher level of education on average than the previous manufacturing jobs. This trend is a concern because, as noted previously, parts of the City have extremely low educational attainment rates. These parts of the community are at-risk for being left behind by the changing character of the job market and the shift from manufacturing to a knowledge economy.

Map 8: Residential Structure Age



Commercial Assessment

In the 2013 master plan, a commercial assessment estimated that $59,687,099 of potential sales leaves the City, accounting for 55% of the total sales potential for the Ypsilanti market area. While the same analysis was not conducted, similar estimates from ESRI for the "retail gap" in 2017 show the trend in lost sales has shrunk to $34,553,228, which shows that more money is being captured locally and potential drawing more visitors in. Most of the surplus in spending is coming from sales in "food and drink." This is a positive trend and an indication to continue tailoring economic development efforts to reduce the retail gap in areas where there is major "leakage": food and beverage, general merchandise, clothing and accessories, furniture and home furnishing, and electronics and appliances.

The following commercial markets were identified for potential growth:

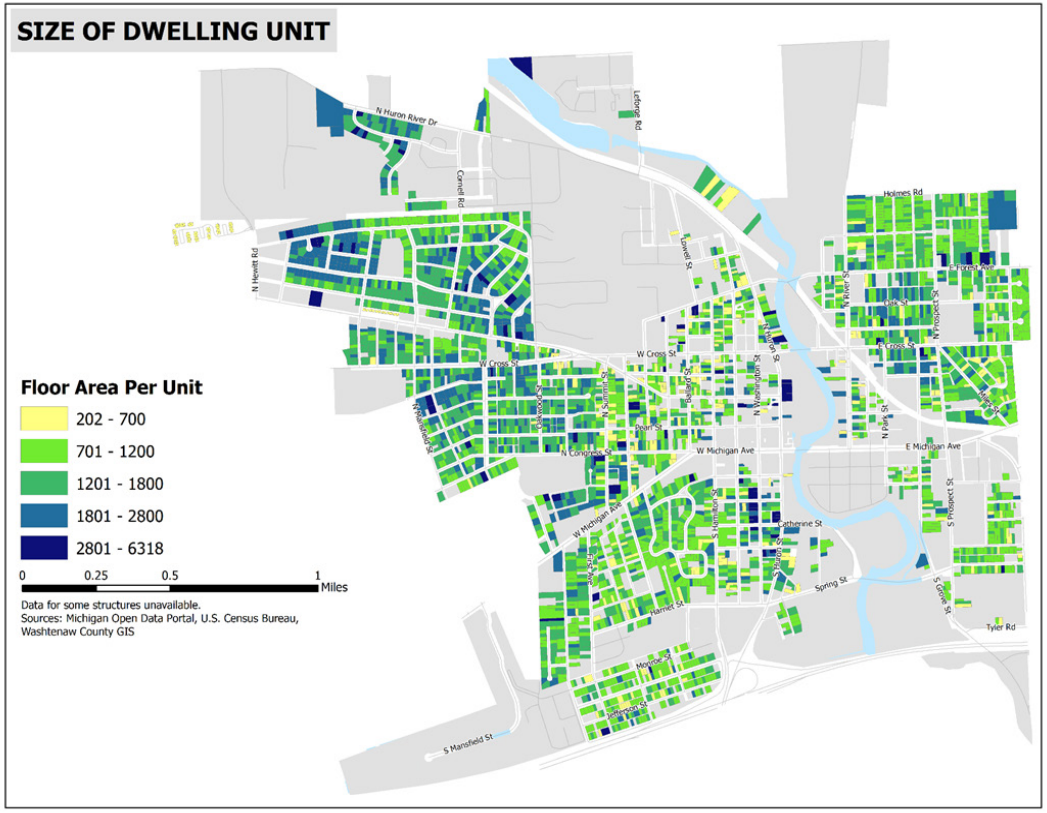
- The Ypsilanti Competitive Market: In 2013 focus groups, residents expressed a fierce devotion to local businesses. Also, many wanted to be able to walk or bike to get daily items. Frustration was continually expressed about the lack of a full-line

[1] Eastern Michigan University. Fast Facts. July 2020. https://www.emich.edu/facts/index.php
[2] 2015 Housing Affordability and Economic Equity Analysis for Washtenaw County. czb Report Prepared for the Office of Community and Economic Development, Washtenaw County. January 2015. https://www.washtenaw.org/DocumentCenter/View/2313/Housing-Affordability-and-Economic-Equity-Analysis-PDF
[3] Marketwatch. "Factory Jobs Are Again Shrinking in Industrial Midwestern States." October 1 2019. https://www.marketwatch.com/story/factory-jobs-are-again-shrinking-in-industrial-midwestern-states-2019-09-25

grocery store and specialty food markets in the City limits.

- Underestimated College Student Market: EMU students are a recession-proof market. However, their spending patterns are different than non-student households with similar incomes. They tend to spend a greater percentage of their money on electronics, food away from home and consumer items, than family households in the same earning classification.
- Neighboring Medical Center Market: The St. Joseph Mercy Ann Arbor Hospital is located in Superior Township, near the City's border. The staff, estimated to exceed 5,000 people, and the visitors to the complex are an untapped market for the City's retail businesses, including restaurants and entertainment.

Map 9: Size of Dwelling Unit



Emerging Sectors

While no one sector has replaced the manufacturing jobs lost in the City, several sectors have emerged: small manufacturing and craft production, creative economy, renewable energy, and food. Each of these sectors are rooted in companies that have started in Ypsilanti.

Small and craft manufacturing has been a part of the City's economy since the beginning of the automobile industry. Small craft shops clustered around the larger manufacturing facilities supplying parts and prototypes. Marsh Plating was founded over forty years ago, located near the downtown, is an example of an automobile supplier in the City. Michigan Ladder is another example of a small manufacturing facility in the City. The 119-year old company has recently expanded its manufacturing space, where wood and fiberglass ladders are assembled and hopes to add 6 new jobs to its workforce between 2013 and 2015. The challenge for the City is to make these industries operation and expansion possible while meeting the values of the community.

Figure 8: Change Number of Employees in Washtenaw County

Company	Location (Primary)	2019	2013	2010	1998	Trend
University of Michigan	Ann Arbor	33,225	16,143	26,241	11,118	↑
University Health Systems	Ann Arbor		12,000	19,614	6,742	
Trinity Health	Livonia	7,435				----
Federal government	Detroit	3,147				----
Ann Arbor Public Schools	Ann Arbor	2,225	3,578	2,659		↓
Integrated Health Associates	Ann Arbor	1,664				----
Eastern Michigan University	Ypsilanti	1,559	1,976	1,950	1,991	↓
Faurecia North America	Saline	1,442	800			↑
Thomson Reuters	Ann Arbor	1,300	1,100	1,800		↓
Washtenaw County	Ann Arbor	1,264	1,339	1,345	1,200	↑
Terumo Cardiovascular Group	Ann Arbor	1,100				----
Toyota Technical Center	York Township	1,095	1,500	1,036		↑
St Joseph Mercy Chelsea	Chelsea	1,082				----
Domino's Pizza	Ann Arbor Twp	865				----
IBM Watson Health	Ann Arbor	850				----
City of Ann Arbor	Ann Arbor	712	710	766	951	↓
Ford Motor Company	Ypsilanti	700	823	800	1200	↓
Zingerman's Family of Business	Ann Arbor	700				----

Table Data Source: 2013 & 2019 figures - Ann Arbor Spark; 2010 - Draft AAATA Transit Audit Needs Assessment; 1998 - Washtenaw Economic Development Council-Crain's Detroit Business

The creative economy - defined as advertising, architecture, art, crafts, design, fashion, film, music, performing arts, publishing, research and development, software, toys and games, television and radio, and video games - has gained a foothold in Ypsilanti. Various businesses have started in or relocated to Ypsilanti, such as VGKids. VGKids is a screen printing company that has consolidated operations in the City, after closing a manufacturing facility in California. The company also provides studio space to small creative businesses. More recently, Grove Studios and Ypsi Alloy Studio have opened, the former a 24/7 music rehearsal space and the latter is a shared space to create and collaborate on visual arts. While these types of businesses can generally use many types of buildings, the building stock is not always suitable. The current zoning ordinance is friendly to creative enterprise as they are permitted in several commercial and industrial zones, but mid-size facilities for growing companies to move into - either office or small manufacturing - are difficult to find.

While no privately held renewable energy company is operating in Ypsilanti, the efforts of individuals and groups have given the City of Ypsilanti a reputation as a leader in sustainable energy. An example of the momentum within the City is SolarYpsi, a volunteer effort to bring solar energy generation to the City of Ypsilanti. The group has helped win grants to fund and/or help install four solar facilities in the City and maintains a website that reports in real time the amount of energy being generated by solar installations in and around the City.

Figure 9: Major Taxpayers, 1999-2020

Major Taxpayers	2020			2013			2009			1999		
	Taxable Value (in 1,000s)	City Rank	% of total	Taxable Value (in 1,000s)	City Rank	% of total	Taxable Value (in 1,000s)	City Rank	% of total	Taxable Value in 1,000s)	City Rank	% of total
Arbor One 18, LLC	$5,650	1	2.33%									
LeForge Station II, LLC	$5,353	2	2.21%	$8,249	1	2.84%	$9,148	3	2.27%			
Barnes & Barnes Prop. LLC	$5,212	3	2.15%	$2,918	4	1.01%	$3,046	7	0.76%			
DTE Electric Company	$5,019	4	2.07%	$3,360	2	1.16%	9,537	2	2.37%	$4,265	2	1.54%
River Drive Prop. LLC	$3,191	5	1.32%	$2,921	3	1.01%	3,400	5	0.84%	$3,267	5	1.18%
DTE Gas Company (formerly Mich Con Utility)	$2,687	6	1.11%	$2,900	5	1.00%	-			$3,641	4	1.31%
Forrest Knoll Apts.	$2,023	7	0.84%	$1,849	6	0.64%						
Ypsilanti Realty Holdings, LLC	$1,711	8	0.71%									
Erie Investments No. 15, LLC	$1,639	9	0.68%									
Cross Street Village	$1,638	10	0.68%									
Asad Khailany	-			$1,811	7	0.62%	$1,811	9	0.45%	$1,413	10	0.51%
Forest Health Medical (formerly Beyer Hospital)	-					0.82%	$3,304	6	0.82%	$1,904	0	0.69%
Beal Properties	$1,221			$2,369	8	0.55%						
Huron View Apartments	$1,594			$1,587	9	0.50%	$1,706	10	0.42%			
Angstrom USA, LLC (formerly Visteon)	-			$1,460	10		28,266	1	7.02%	$42,470	1	15.33%
River Rain Apartments	$1,518					0.46%	$2,232	8	0.55%	$1,939	8	0.70%
Reichuang, LLC (formerly Exemplar Manufacturing)	$1,118			$862						$4,151	3	1.50%
Crown Paper Company Manufacturing	-			$1,334						$2,935	6	1.06%
Eastern Village Apartments	-			-		0.00%				$1,261	7	0.46%
Total of top ten taxpayers	$34,123		14.09%	$29,424		6.47%	$66,262		16.45%	$67,246		24.28%

In 2016, DTE Energy completed the installation of a solar array on Ypsilanti's Highland Cemetery. The approximately 2,520 solar panels are enough to power 150 homes![4] City government can use this effort and others as a marketing tool to attract renewable energy manufacturers or installation companies to the City. The City has revised its ordinances and been awarded a SolSmart Gold award for having an online permitting checklist, permitting solar by-right as an accessory use in all zones, cross-training inspection and permitting staff, and a streamlined permitting process for small photovoltaic systems (more detail in the Sustainability Section).[5] The city is proud to be the first in Michigan to receive this award from a national program.

A number food-based businesses have opened in Ypsilanti in the past five years. Multiple new restaurants have opened in the Historic Downtown. The farmers market was recently established in Historic Downtown. Many vendors are Ypsilanti residents who produce value-added products, like baked goods and jams, out of their home kitchens under the Michigan Cottage Food Law. Also, more residents are growing and/or raising their own food. Growing Hope, an Ypsilanti-based non-profit, is a leader in the local food movement in the region and provides technical support to beginning and experienced gardeners as well as children. Restaurant Depot, in Ypsilanti Township, supplies wholesale food, beverages, and equipment to restaurants and plays a role in the growth of this sector. Like the creative economy businesses, food-based businesses have challenges when they expand in scale. Home entrepreneurs reach a point where a commercial kitchen is needed. Restaurants need a larger space. The City has permitted hoop houses and greenhouses to create more space in park and residential districts to encourage urban agriculture. The City can continue to foster growth of food-based businesses by permitting incubator kitchens as an intermediate step for entrepreneurs in this field.

In 2018, recreational marijuana was passed by Michigan voters and sales are now legal. Ypsilanti adopted its own business ordinance and zoning ordinance, which means that provisioning centers that sell marijuana for recreational uses are permitted. Within the last five years, over a half a dozen grow facilities and dispensaries emerged under the medicinal legislation. Because sales for recreational use just went into effect, it is too soon to say what affect this may have. Like other businesses, they are subject to the market, however, because hundreds of communities have banned such sales, it may produce certain hot spots in the state.

The City should align its policies and regulations to give each of these emerging sectors physical space and economic incentives to start or locate and then grow in the City. Zoning should allow these uses in various sizes and formats, while being cognizant of impacts on neighbors. Economic incentives, such as tax abatements, should be used to continue the growth of these sectors.

City Budget

Over the last decade, the city's industrial tax base has declined, both in total dollar value and in share of the total, with residential property making up a greater portion of the tax base. The foreclosure crisis in turn contributed to a substantial loss of residential taxable value, beginning in 1998. As of July 2019, the City's total taxable value is $242,124,962.

The character of the city's tax base has shifted towards residential rental property, with most of the city's top 10 taxpayers in 2019 being property management companies, which has been a

significant change over the past two decades (see Figure 9). The top ten taxpayers represent about 14% of the City's tax base, which has risen from less than 9% in 2013, though is still lower than in 1999 when the top ten taxpayers represented almost a quarter of the City's tax base. Since 2013, however, the total taxable value of the top ten taxpayers in the City has increased.

In addition, payment on bonds for the acquisition and remediation of the Water Street property began in the late 1990s and account for 10% of the City's general fund budget. According to the City Manager's 2012-2017 Recovery Plan, the City could pay for few capital expenditure in that time period unless additional, new sources of funds could be found. In 2017, voters passed a 2.3-mill through 2031 to pay down the City's $7.4 million debt on the Water Street property.[6] Meanwhile, the City would like to sell the property and see development occur that meets the master plan goals. A biking and walking trail along the Huron River frontage, known as the River's Edge Trail, connects Riverside Park to the north with Waterworks Park to the south. It is a part of a 37-mile-long Border-to-Border Trail running through Ann Arbor, Ypsilanti, and adjacent communities. The River's Edge Trail is a protected trail that will not be sold as part of Water Street.

Economics Summary

The following factors are key to the Master Plan:

- The economy of the City of Ypsilanti has fundamentally shifted in the past decade, shifting the economy from industrial to property management and knowledge-based sectors.
- Portions of the City, both property and population, have been left behind due to economic change. Instead of working in factories, residents with lower educational attainment work in retail or service sector jobs, often outside the City, often for low wages. Many need bus or transit to get to work.
- The commercial market is underserved, showing a need not only for more businesses but also for marketing of the community as a place to shop to the larger region and targeted nearby populations, EMU students and staff and visitors to St. Joseph Ann Arbor Hospital.
- Several sectors are building momentum in the City of Ypsilanti - small manufacturing, creative economy, renewable energy, and local food. Each one has the potential to create dozens of jobs, not the hundreds in manufacturing previously. However, these are local entities with a commitment to the City. The challenge is to foster growth of these sectors despite the physical constraints of the City's land; very few properties are suitable for large scale operations.
- The City budget has suffered due to several reasons. Originally, the economic shift and ongoing debt played a role. But more recent challenges include the inability for city property tax revenues to reflect the increases in property value, post-recession, due to the Headlee Amendment and Proposal A.

[4]Mlive. "Solar panel array proposed for Ypsilanti Cemetery." July 23, 2015. https://www.mlive.com/news/ann-arbor/2015/07/solar_panel_array_proposed_for.html
[5]SolSmart. Ypsilanti Designation Level. DTE. Newsroom. "DTE Energy Begin Operation of Ypsilanti's Largest Solar Array." November 2016. https://www.prnewswire.com/news-releases/dte-energy-begins-operation-of-ypsilantis-largest-solar-array-300365543.html Viewed on November 13 2019. https://www.solsmart.org/communities/ypsilanti-mi/
[6]Mlive. "Ypsilanti Voters Approve Water Street Millage After Multiple Past Rejections." August2017. www.mlive.com/news/ann-arbor/2017/08/ypsilanti_voters_approve_water.html

TRANSPORTATION

The street and park structure of the City today was laid out in the early 20th century. However, the function of streets changed in the mid 20th century with the creation of one-way streets when an interchange for Ypsilanti was constructed at Interstate 94 and Huron. At the time, a large workforce commuted to the factories in the southern end of the City quickly in and out. Today, those factories either no longer exist or employ a small percentage of the workers than in the past.

In addition, the transportation options available within Ypsilanti are changing. Washtenaw County is planning for rapid bus service along Washtenaw Avenue, increasing the capacity and decreasing the travel time along the most heavily travelled bus line for The Ride.

The Border-to-Border (B2B) trail that spans Washtenaw County has completed 35 miles of the Huron River Greenway connecting Dexter, Ann Arbor, and Ypsilanti along the Huron River through paved, ADA compliant, shared-use pathways. In 2015, the B2B trail was incorporated in Michigan's Iron Belle Trail, a network 2,000 miles long that spans the state.

Non-Motorized Network

Ypsilanti's historically compact core and existing sidewalk network make the city generally friendly to non-motorized traffic like bicycles, pedestrians, and wheelchair users. Over the past decade, this has been improved upon by several efforts:

- The City has participated in the County's Greenway Advisory Committee and regional "Border to Border Trail" (B2B) effort.

Figure 10: Non-motorized Deficiencies, 2013

Sidewalk		Bike facility	
		Off-roadway	Roadway
Existing miles	98.49	5.55	3.71
Deficient miles	23.37	n/a	39.33
Deficient %	19.2%		

Data Source: Washtenaw Area Transportation Study

- Bike lanes have been added to several streets during resurfacing projects.
- Sidewalk curb ramps are being upgraded to ADA standards throughout the city.
- Bike racks have been installed in Depot Town, the Historic Downtown, and West Cross.

The 2006 Washtenaw Area Transportation Systems (WATS) Non-motorized Plan quantified the city's non-motorized accessibility to be over 80% of the city's roadway miles. The plan concluded that the City provided for pedestrians adequately, but that a much higher portion of bicycle needs were not met (see Figure 11). Since this analysis was completed, no major progress has been made to reduce those deficiencies.

Many of the City's efforts, while positive, have been done on an ad hoc, disconnected basis, occasionally leading to problems. Bike lanes on First Avenue, for example, were created during a resurfacing project without ample coordination with other projects or communication with the residents, leading to their later removal in favor of a parking lane.

In 2010, the City adopted a non-motorized plan with a more comprehensive treatment of non-motorized transportation policies

and infrastructure – including the incorporation of deficiencies identified in the county-wide non-motorized plan developed by WATS – and the Planning Commission created a Non-Motorized Transportation Subcommittee to guide its implementation. Currently, the non-motorized plan is being updated. In 2011, the City passed a Complete Streets Ordinance, which requires non-motorized components be considered as part of any road project.

Transit & Regional Transportation

Due to the high percentage of renters, young population and recent trends from automobile use either by choice or economic need, regional transportation is essential to the long-term stability, growth and prosperity of Ypsilanti. Be it rail or bus, Ypsilanti is a leader in participation and further development of a regional transportation system within Washtenaw County and the Detroit metropolitan area.

The City has long been a user of public transit, in past years purchasing service from the Ann Arbor Area Transit Authority (AAATA), and more recently becoming a member of the Authority, now called The Ride. Prior to 2013, the City operated under a purchased of service agreement. In 2010, in response to budget pressures, the City passed a voter-approved charter amendment to dedicate funding to the purchase of transit service. In 2013 the City was added as a charter member. As a new member of The Ride, no purchase agreement is required with the dedicated millage being passed along to The Ride.

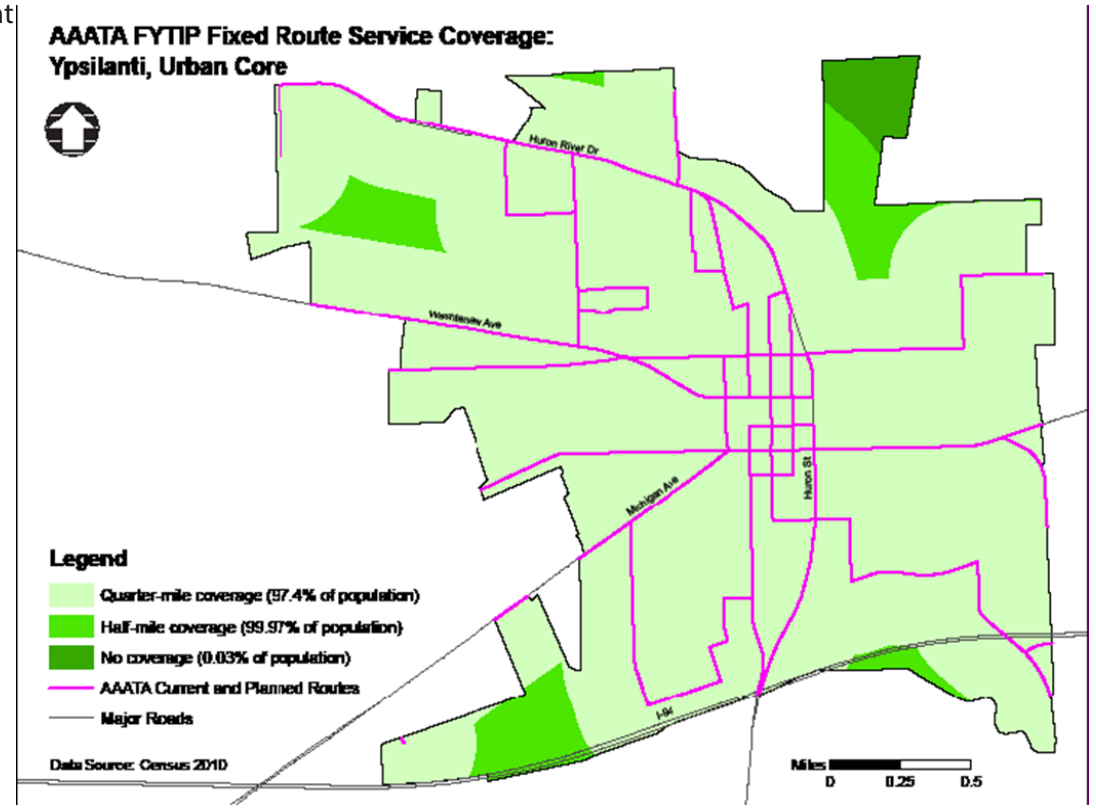
The Ride has conducted long-range planning for the county beginning with a 30 year plan drafted in 2010. In 2014, voters passed a 0.7 mill tax to support AAATA services, and in 2018, renewed the millage with 83% support. As of 2017, ridership numbers hit 6.9 million trips that year after the millage helped increase services by 8,500 service hours in Ypsilanti.[7] The millage will be levied through 2024; it is important that transit services continue. As of 2019, four routes run between Ann Arbor and the downtown Ypsilanti Transit Center; four more run from downtown into Ypsilanti Township.

Eastern Michigan University additionally contracts with The Ride for a circulator shuttle around the main campus and to the business school in the Historic Downtown. EMU uses a separate transportation provider to provide shuttle service from a west-side parking lot on Hewitt to the main campus.

This portion of The Ride's system saw a 10% increase in ridership from 2002 to 2009. Since becoming a regional bus service, The Ride no longer keeps track of individual jurisdiction's ridership as it can be easily skewed. An increase in ridership is consistent with The Ride's system-wide ridership trends, but also reflects state-wide and national trends of growing local and inter-city transit use. These trends, based on cost-consciousness around rising fuel prices, increased environmental awareness, and other factors, have contributed to interest in new modes of transportation. The map "AAATA Fixed Route Service Coverage in Ypsilanti" shows that about 97% of households are within a quarter-mile from one of The Ride's routes.

The City of Ypsilanti was selected to be a test community for Miovision, a company devoted to developing smart cities. Miovision uses technology to monitor and collect transportation data; and as a test community, Ypsilanti now has access to this data. Figure 12 provides a summary of five Ypsilanti intersections and the various transportation modes using them. Based on this initial

Map 10: AAATA Fixed Route Service Coverage in Ypsilanti



data, motor vehicles continue to be the dominant mode of transportation, though there is a noticeably larger number of pedestrians at both the LeForge Road and Huron River Drive intersection (4.62% mode share) and the Oakwood Street and Huron River Drive intersection (3.69% mode share), perhaps indicating priority intersections for improving pedestrian amenities.

When discussing ride-sharing apps in the subsequent Cars, Trucks, and Streets section, it is important to note that ride-sharing cannot fully replace transit as ride-sharing is not as accommodating to persons with children, persons with disabilities, and persons without smartphones. Ride-sharing, car-sharing, bike-sharing, etc. should not be intended to replace transit.

In the near term, Ypsilanti and the other communities along Washtenaw Avenue are considering improved transit service along that corridor, beginning with additional bus service and potentially growing into bus rapid transit or light rail service. Known as the "Reimagine Washtenaw" project, the upgrade would include key elements such as transit signal priority, queue jump lanes, limited stops, and super stop stations. If the full bus rapid transit were implemented, it is expected to cut 19 minutes off the trip from Ypsilanti to Ann Arbor. [8]

While Ypsilanti has not had passenger rail service since the 1980s, work is underway on Ann Arbor to Detroit commuter rail service that may propose a stop in Depot Town, along with service to Detroit Metro Airport and Dearborn. The system would also provide access from Ypsilanti to Amtrak service on the Chicago-Detroit-Pontiac line, which is planned for improvements as part of the Midwest High- Speed Rail Initiative. It is important to continue to

consider future opportunities for both commuter and passenger rail.

Cars, Trucks, and Streets

Ypsilanti has seen an overall decrease in traffic over the past couple decades, due in large part to major industrial employers reducing their workforce or closing. The exception is the northern part of the City, where growth on the EMU and St. Joseph Mercy Hospital campuses has contributed to increased traffic. The County and Region have experienced a decrease in Vehicle Miles Travel (VMT) between 2002 and 2012. Long-range modeling done as part of the WATS 2045 Regional Transportation Plan forecasts an increasing population and employment opportunities which means an increase in traffic and congestion over the next quarter century. In a high growth scenario, vehicle miles traveled during peak morning and evening hours could increase by 30% and 33%, respectively after the addition of an estimated 2,000,000 more daily vehicle miles traveled. The encouraging news that 48.8% of trips made in 2015 were between zero to three miles,[9] which means that improvements to nonmotorized infrastructure and increased bus service could help to remove vehicles making short trips from the road.

While traffic counts are done sporadically and are individually difficult to draw conclusions from, a sampling of recent and past counts from around the city shows that traffic volumes have been stagnant or declining somewhat over the 1990s and 2000s (see Figure 11). As noted, increases in traffic are largely attributed to the main traffic generators in the area, primarily Eastern Michigan University but also Washtenaw Community College and St. Joseph's hospital. Washtenaw County, as part of the Reimagine Washtenaw effort, is working with these institutions and others in the area to look at Traffic Demand Management practices that could further reduce vehicle miles traveled through programmatic changes and behavioral shifts to car-pooling, transit usage, walking, biking, etc.

Some of these trends are captured in Figure 11 that shows that most of the 19 intersections have reduced traffic volumes when compared to counts from five to ten years ago, and only modest increases in the remaining six. Interestingly, the newer counts would include trips made from ride-sharing apps, despite research showing that in larger cities ride-sharing increases congestion. There is little consensus on how ride-sharing apps affect car ownership but there is speculation that the original ownership model is less popular among youth. Financially, in some cases it is more affordable to forgo monthly payments for pay-as-you-go rides.[10] However, because the data is collected by private companies, cities are somewhat in the dark about the extent to which these services are being used. This is trend worth watching closely because it may help determine how streets are shaped, for example, the development of drop-off and pick-up zones as opposed to parking lot requirements. Car-sharing, electric vehicle charging and bike parking can be practical first steps in terms of existing infrastructure. The zoning ordinance was updated to incentivize these alternatives, as Walkable Urban Districts offer parking requirement discounts for including such infrastructure.

In recent years, traffic safety in Ypsilanti has improved both on in terms of number of crashes at major intersections and relative to the Washtenaw County region. Some of this may be attributed to flat or declining traffic volumes in the city, compared to growing volumes elsewhere in the County. As shown in Figure 13, the City has five of the forty highest-ranked intersections in Washtenaw County in terms of annual average crash rate. Since the adoption

of the Master Plan in 2013, the top two have shifted only slightly in their relative ranking, however the top three thru five have significantly fallen, implying these intersections have become safer relative to the rest of the County. Hamilton St. and Huron St. remain common occurrences as one-way streets making this ranking.

Transportation Summary

The following transportation factors have implications for policies in the Master Plan:

- The non-motorized network has a number of deficiencies. Public input during the process asked for better bicycle lanes and access throughout the City.
- More transit riders are using The Ride bus routes in the City. The City should continue to support and strengthen- and if possible, expand- the service.
- The City should implement designs for streets to be safe and comfortable for pedestrians, focusing on intersections with higher pedestrian counts.
- Daily train service, while the time line is uncertain and likely several years off, would have major positive impacts for Ypsilanti's core. More demand for housing would be expected within a quarter mile radius, an easy 10-minute walk, of the train depot.
- The volume of vehicle traffic and the number of crashes has decreased. Improvements should continue to make streets safer but also should recognize that cyclists and pedestrians use the roadways as well, and not default to vehicular improvements over those for non-motorized users.
- Crashes are concentrated on the one-way streets. The speed limit of some of those streets were recently raised by the State of Michigan. The past Master Plan recommended these streets return to two-way traffic, with phasing of the work taking place. See Chapter 5- Transportation for details of the phasing approach.

[8]The Ride. Washtenaw Avenue Bus Rapid Transit Study Update. https://www.theride.org/about/leadership/projects/reimagine-washtenaw
[9]WATS Policy Committee. Washtenaw Area Transportation Study: 2045 Long Range Plan. 2019. https://static1.squarespace.com/static/524e0929e4b093015db69c07/t/5c892d277817f7c82eae97bb/1552493920366/Draft+2045+LRP.pdf
[10]Nationwide. Vehicle - Technology and Trends. "How Ridesharing is Changing the Future of Car Ownership." https://blog.nationwide.com/ridesharing-services-and-auto-industry-trends/

Figure 11: Intersection Traffic Volumes

Street	Location	Year	Daily Volume	Comparison Year	Comparison Volume	% change	Annual % change
Michigan Avenue	East of Huron	2015	21,800	2010	21,325	2.23%	0.44%
	East of Hamilton (downtown)	2018	19,100	2009	22,484	-15.05%	-1.80%
	SW of Congress	2017	14,000	2006	12,585	11.24%	0.97%
Washtenaw Avenue	NW of Mansfield	2018	26,000	2007	26,783	-2.92%	-0.27%
	NW of Oakwood	2018	25,300	2004	26,336	-3.93%	-0.29%
Prospect Street	South of Maus/Spring	2017	7,300	2005	9,913	-26.36%	-2.52%
	South of Holmes	2017	8,400	2005	8,325	0.90%	0.07%
Cross Street	West of River (Depot Town)	2015	13,500	2006	10,246	31.76%	3.11%
	West of Wallace	2006	8,180	1994	n/a	16.00%	-1.30%
Harriet / Spring	East of Hawkins	2017	5,600	2005	4,850	15.46%	1.21%
	West of Huron	2017	11,300	2006	13,619	-17.03%	-1.68%
Hamilton	South of Harriet	2018	12,300	2009	15,511	-20.70%	-2.54%
Huron	South of Harriet	2018	16,600	2009	16,059	3.37%	0.37%
Leforge	North of Huron River Drive	2015	7,600	2006	12,906	-41.11%	-5.71%
Huron River Drive	East of Hewitt	2016	14,100	2008	16,519	-14.64%	-1.96%
River	North of Michigan	2004	4,095	1994	n/a	14.00%	-1.40%
Mansfield	South of Cross	2004	3,907	1994	n/a	14.00%	1.40%
First	South of Michigan	2004	4,600	2004	n/a	-2.00%	-0.40%
Grove	North of Spring	2012	2,300	2004	2,702	-14.88%	-1.99%

Italicized cells indicate that base year is approximate. Source: SEMCOG

Figure 12: Intersections and Mode Share Data for Select Ypsilanti Intersections

Huron Street and Michigan Avenue		
	Total	Mode Share
Pedestrians	915	2.41%
Bike	70	0.18%
Road / Bike Lane	24	
Crosswalk	46	
E-Scooters	1	0%
Road / Bike Lane	0	
Crosswalk	1	
Vehicles	37,026	97.41%
Passenger Vehicles	35,696	
Heavy Trucks	1,330	

Hamilton St. and Washtenaw Avenue		
	Total	Mode Share
Pedestrians	454	2.45%
Bike	31	0.17%
Road / Bike Lane	6	
Crosswalk	25	
E-Scooters	1	0.01%
Road / Bike Lane	1	
Crosswalk	0	
Vehicles	18,074	97.38%
Passenger Vehicles	17,559	
Heavy Trucks	515	

Huron Street and Cross Street		
	Total	Mode Share
Pedestrians	304	1.48%
Bike	78	0.38%
Road / Bike Lane	29	
Crosswalk	49	
E-Scooters	0	0%
Road / Bike Lane	0	
Crosswalk	0	
Vehicles	20,158	98.14%
Passenger Vehicles	19,695	
Heavy Trucks	463	

Oakwood Street and Huron River Drive		
	Total	Mode Share
Pedestrians	716	3.69%
Bike	39	0.20%
Road / Bike Lane	10	
Crosswalk	29	
E-Scooters	1	0.01%
Road / Bike Lane	0	
Crosswalk	1	
Vehicles	18,628	96.10%
Passenger Vehicles	18,221	
Heavy Trucks	407	

Leforge Road and Huron River Drive		
	Total	Mode Share
Pedestrians	985	4.62%
Bike	53	0.25%
Road / Bike Lane	20	
Crosswalk	33	
E-Scooters	0	0%
Road / Bike Lane	0	
Crosswalk	0	
Vehicles	20,275	95.13%
Passenger Vehicles	19,827	
Heavy Trucks	448	

Figure 13: Annual Crash Rate, 2014-2018

City Rank	County Rank	Intersection	Avg. # Crash Rate
1	3	Huron St. at Michigan Ave.	34.2
2	12	Washtenaw Ave. at Hewitt	29.0
3	21	Hamilton St. at Michigan	25.2
4	29	Huron River Dr. at Oakwood	19.0
5	40	Hamilton St. at Harriet St.	17.0

Data Source: SEMCOG

Chapter 4: City Framework

"We are not the suburbs." – Proposed Guiding Value at Focus Group

This Master Plan is a fundamental shift to view the City as an urban system with a framework of interconnected parts, shown on the Framework Map (Map 11). The map, taking the place of a future land use map in a traditional plan, also provides guidance to the community and developers to the context of the built environment. The Framework Map will set the design context and guide the development form of the city through form based regulations. It has centers, corridors, districts and neighborhoods that include unique building forms within the City of Ypsilanti summarized below:

Centers are the heart beats of the City – downtown, Depot Town and Cross Street adjacent to the EMU campus. Each area has buildings built up to the sidewalk and a variety of uses - retail, restaurants, services, office, civic, and residential. They are places where people walk, gather, shop, exchange and meet.
The plan proposes to build on the strengths and improve the weaknesses of these areas to make them great places. Hamilton, Huron, Cross Street and Washtenaw Avenue are proposed to become two-way streets, putting pedestrians and cyclists on even footing with automobiles. Future ordinances will preserve the architecture of these areas, while requiring natural surveillance to improve safety. Policies will also enable the continued re-use and redevelopment of buildings, increasing their sustainability. Specific plans for each area are shown in Chapter 6, including design plans for Depot Town to prepare for the planned commuter rail station. A redevelopment concept plan and design standards for the Water Street area are in Chapter 10.

Neighborhoods are where homes are clustered together, along with small-scale other uses that serve the people that live there (such as a corner store, a school, church or library). Each of the dozens of neighborhoods in Ypsilanti has its own character, influenced by the size and architecture of the buildings, the layout of the streets, parks and the people who live there. Neighborhoods fall into two categories, discussed in Chapter 7:

Central Neighborhoods are among the oldest in Ypsilanti. Initially oriented on the Huron River, they are built on a grid street network connected to the adjacent business districts. They border downtown, Depot Town and EMU. These neighborhoods have a range of residential building types, with churches, schools, stores and gas stations intermixed. Around the railroad, industrial uses are mixed into the neighborhood.

Under this plan, the mix of uses will follow the pattern of current zoning. However, the building's form would be regulated, including those outside of the historic district, to maintain the character of the area. Regulations for two-family and multiple-family options would be collapsed into clear rules based on the number of housing units- with categories for duplexes, group living arrangements, 2-4 units and 5 or more units. When developing the form-based code zoning, the building types, uses and setbacks will be calibrated to preserve the character of these neighborhoods.

Outlying Neighborhoods were built in the middle or later part of the 20th century and were designed as areas for a single type of housing, either single-family or multi-family. These neighborhoods are adjacent to a corridor but the street network is designed to carry traffic into the neighborhood, not through it. Any non-residential uses, other than schools or parks, are located at the edges, not embedded within the

neighborhood.

These neighborhoods will have uses limited to the type of residential for which they were built. In some areas, like the Heritage Park neighborhood in the southwest part of the City, zoning would be changed so that duplexes and group homes would no longer be allowed by right. As many of these areas have aging populations, the City needs to be concerned about the stability of these neighborhoods as demographics shift. Accessory Dwelling Units, for example, can be an affordable and accessible housing type for the aging population.

Corridors are the streets that connect the City together, and sometimes divide it. They are the arteries of transportation into, around and through the City. Two types of corridors exist in Ypsilanti:

Historic Corridors connect the centers of the City with each other and the surrounding neighborhoods. They are dominated by large, historic homes now used in a variety of ways – residences, office, retail. Houses of worship and other civic buildings also line these corridors, interspersed with smaller homes. The transportation plan sees restoration of two-way traffic to the one-way historic corridors of Huron, Hamilton and Cross. It also proposes the extension of River Street through the Water Street redevelopment area to Factory in the next twenty years. Uses will remain flexible allowing the historic buildings to accommodate changing markets and traffic patterns.

General Corridors are streets that connect the City to neighboring municipalities and the centers. Many of the corridors – Ecorse, East Michigan, West Michigan and along many of these corridors no longer accommodate the larger 21st century footprint of suburban style buildings with parking in front and lawns on all sides. The new pattern proposed in this Plan will allow parking on the street and require buildings to be closer to the street; with minimal yards, lots will have more buildable area for residential, commercial and office uses mixed throughout.

Other corridors – Huron River Drive and Harriet – have one type of building on one side of the street and a distinctly different situation on the other side of the street. Future regulations would require, where possible, the two sides of the street mirror one another. In twenty years, the dignity of Harriet Street should be restored to a walkable shopping district for the adjoining neighborhoods. Huron River Drive should become a point of integration between the campus of Eastern Michigan and the City. Addition of sidewalks, crosswalks and bicycle lanes are essential to transitioning this street from a dividing line geared only to move vehicles to a place where the City and campus meet seamlessly. Chapter 8 provides more detail for each of these areas.

Districts are parts of the city dedicated to a single type of activity, like Eastern Michigan University, the office and medical area on Towner, and the industrial areas of the City in the south. The challenge is to use the street network design to integrate them into the City while assuring that students, faculty, workers and suppliers can reach their destinations easily.

Eastern Michigan University's campus, which is not within the regulatory jurisdiction of the City, will be preserved and improved by joint planning and cooperation between the City and EMU, as part of a Campus master plan process. The confusing confluence of Cross and Washtenaw is proposed to become the front door for the EMU campus.

The office and medical area clustered on Towner in the eastern part of the City is also an asset that can be better integrated into the physical environment. Future policies will aim to preserve and enhance the buildings, while making walking, biking and taking transit to these offices easier.

The cemetery in the northern part of the City will be preserved.

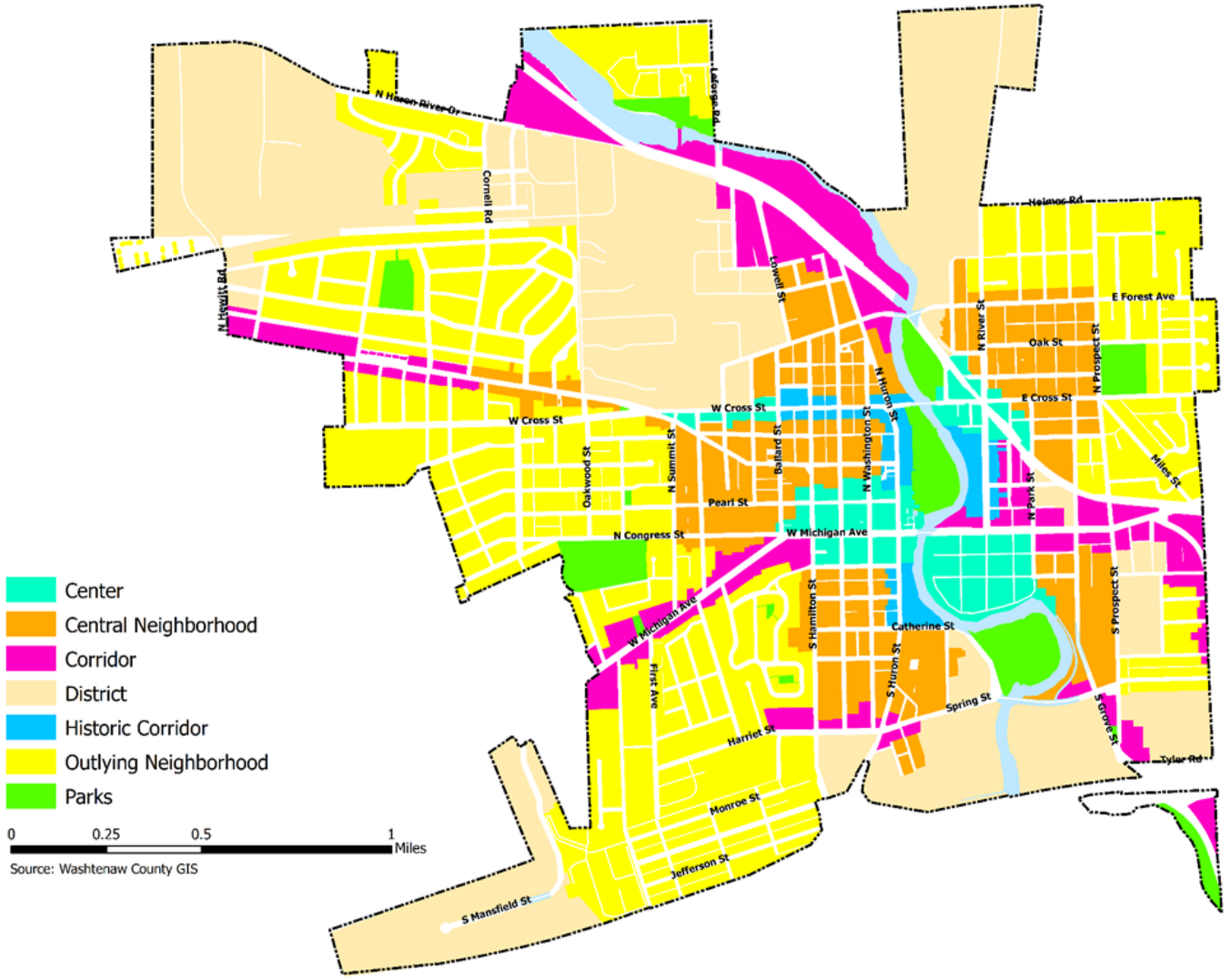
The industrial areas in the south of the City represent the best hopes for a revitalized employment area. The industrial park in the southwest corner of the city has no vacancies, but could be reconfigured to accommodate additional businesses. The industrial property in the southeast corner is vacant or underutilized. The former Motorwheel site is also a potential job center. Industrial areas around the railroad provide jobs and could be places for additional workshops. Chapter 10 details plans and options to attract job centers to these properties.

ZONING – FORM-BASED CODE

The chief mechanism for implementing the Master Plan in Michigan is the Zoning Ordinance. In 2019, the City completed a zoning ordinance update that was user-friendly and implemented form-based elements; the use of illustrations clarified technical text and proscriptive regulations were translated into standards that emphasized design standards to address building orientation, parking location, architectural treatments, and building typologies that are better suited to its context. In that way, more space was made for mixed-use developments while older neighborhood's with highly separated uses were preserved but uses and design elements were expanded in those zones where practical.

In contrast to the previous zoning ordinance, Ypsilanti's updated ordinance focuses on how development relates to the context of the surrounding community, especially the relationships between buildings and the street, pedestrians and vehicles, and public and private spaces. The Walkable Urban Districts are the ordinance's form-based characterization, as these districts especially emphasize building typologies, building orientation, and site standards. While uses are still regulated in these districts, more strict design standards are provided here to ensure compatibility with the existing neighborhood.

Map 11: City Framework Map



Chapter 5: Transportation

"Reward the short trip" – Consultant Team member during Discover Charrette

The streets of the City were laid out in the late 19th and early 20th century. The transportation structure changed in the mid 20th century with the creation of one-way streets with the interchange with Interstate 94 and Huron. A large workforce moved in and out of the City daily at that time. Today, the streets do not handle the same type or volume of traffic. Meanwhile, the one-way streets are among the most dangerous in Ypsilanti and Washtenaw County.

In addition, the transportation within Ypsilanti is changing. The communities along the Washtenaw corridor are planning for rapid bus service along Washtenaw Avenue, increasing the capacity and frequency of the most heavily travelled bus line for Ann Arbor Transportation Authority, called The Ride. Four time a day commuter rail service connecting Detroit to Ann Arbor is anticipated to begin in 2016. Several bicycle paths and lanes, including the Border-to-Border trail spanning Washtenaw County, have been constructed or are on the drawing board, to provide safe routes for cyclists.

TRANSPORTATION PLAN

Map 12 shows the proposed transportation improvements for the City. These changes were developed during the two charrettes held in the Spring of 2013 and then refined through focus groups in the summer of that year. They represent a twenty-year vision for the transportation network of the City.

PRIORITIES

Street changes or improvements are usually expensive and time-consuming. The transportation changes proposed here are daunting for a small city with fiscal challenges. With that in mind, the following values should guide prioritization of funds and staff time for transportation efforts:

Reward the short trip

Any street network change should facilitate the walk between neighborhoods, bike to work in the City or bus trip or car ride across town. It should not help regional through-travelers to the detriment of those traveling within the city.

Follow the money, and be ready for opportunities

Funding is usually available for on-going initiatives, such as resurfacing, underground utility work that digs up the street, development projects, etc. The City should pursue grant funding with match requirements within its budget as well as creative partnerships to advance the goals of this plan. If funding is available for one project or idea but not another, the City should be flexible to advance its goals and projects within the spirit of this plan.

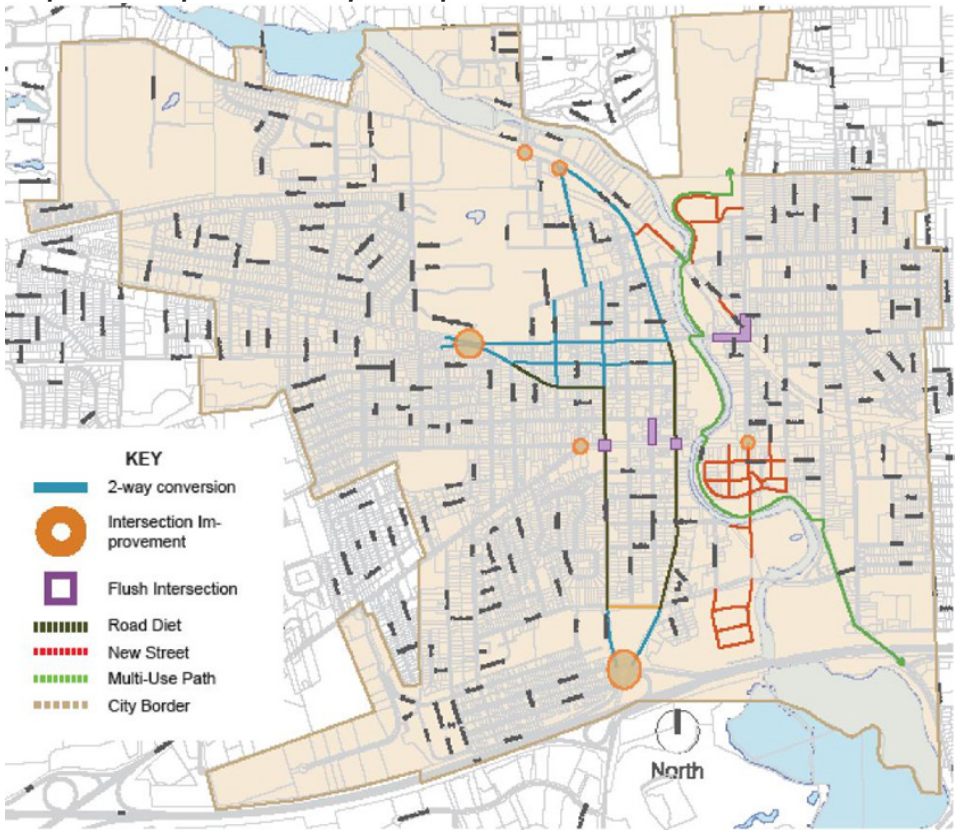
Make the streets better, not wider

City resources should not be used to add turn lanes, widen roads, or other means of conventionally fighting congestion in the City, when other options are available. Instead, spend City money, grants, State and Federal dollars on adding value to the place, the walkability, the aesthetics and making the streets safe. A possible exception to this rule is the conversion of a travel lane to a turn lane with the conversion of a 4-lane road to three lanes.

If car-carrying capacity is needed, it can be achieved by:

- adding new, two-lane, two-way streets to the network;
- making connections in the network that were previously severed;
- shortening trip lengths by reducing circuitous routing (i.e., restoring two-way operation, removing turn prohibitions, breaking up super-blocks);

Map 12: Transportation Project Map



- shortening trip lengths by adding density and rich mix of land uses in the downtown and centers; and converting automobile trips into walking, cycling, and transit trips by all of the means above plus traffic calming, building regulations that make a comfortable environment for people as well as cars, and building complete streets that are comfortable for vehicular and non-automobile modes of transportation.

Design with the community, not for it

When a project has been funded and is on the drawing board, the engineers and designers should talk with the community about options and suggestions before the design is final. The people using the streets everyday have valuable insight and should be included early on in the process, as mandated by the City's Complete Streets Ordinance. The public engagement process should be updated with lessons learned by each project.

TRANSPORTATION PROJECTS

The projects shown on Map 12 were developed during the two charrettes held in March and April of 2013. The projects were later vetted by the community through postings on Facebook and focus groups. These projects are described in detail below. The suggested phasing is based on a combination of expert advice and community backing. They fall into five categories: city-initiated projects, Historic Downtown projects, projects built as part of new developments, and street policy changes.

CITY-INITIATED PROJECTS

The City will decide through its Capital Improvement Plan (CIP), required by the State of Michigan, what project to move forward first. Projects for the next five years are listed below with descriptions in order of priority, as suggested by the consultant team and then advised by community input:

Coordination of pedestrian-bike connection across the I-94 interchanges at Huron and Hamilton

WATS facilitates collaboration among partner communities and stakeholders to formalize plans for a pedestrian-bike connection across the highway. City staff will coordinates efforts to ensure that they are compatible with and without the proposed roundabout at Harriet to facilitate the return to two-way function of Huron and Hamilton. During the Summer 2013 focus groups, residents felt a pedestrian connection over 1-94 was a priority for completion in the next five years. Many walk or bike to the shopping, parks and other facilities in Ypsilanti Township and find the trip treacherous. The city is currently working on a Transportation Alternatives Program grant with Ypsilanti Township and the Michigan Department of Transportation (MDOT) to start this project.

Cross St. and Washtenaw Ave. as part of the Re-Imagine Washtenaw Plan

The confluence of the one-way streets of Cross Street and Washtenaw Avenue at the southern edge of the EMU campus is one of the most confusing intersections in Ypsilanti. Due to the wide roadway, pedestrian crossing is dangerous. In order to create a safer, more appealing place, the transportation plan recommends the separation of the two streets, and returning each to two-way function (see Figure 19 in the next chapter). While this remains a long term goal, a nearer goal is to consider squaring-off the West Cross and Washtenaw intersection and eliminating the slip lanes, to create better crossing and bus infrastructure. This should be coordinated with the AAATA.

Proposed improvements to Washtenaw from Normal St. to Ballard St. include parking on the north side, and then Washtenaw will return to a three-lane road from Ballard St. to Hamilton St.

Reimagine Washtenaw is a cooperative planning and transportation effort between four jurisdictions and multiple transportation agencies to transform the Washtenaw Corridor between Ann Arbor and Ypsilanti by improving mass transportation, providing safe bicycle and pedestrian networks, rethinking land use, and creating coordinated standards that transform the corridor from a necessary but unpleasant experience, to a desirable, safe, and useful one. The incremental results of this work will not only create a highly-functioning, multi-modal corridor, with sense of place, but also facilitate public investment, thereby increasing property values over time by attracting new private investment.

Each local jurisdiction, Ypsilanti, Ann Arbor, Ypsilanti Township, and Pittsfield Township, is working toward uniform standards in regard to providing sidewalks, bicycle lanes, on-street parking where appropriate, and related land use standards that will put redevelopment on a pedestrian scale, with pedestrian facilities throughout the corridor. The transportation agencies, The Ride, Michigan Department of Transportation, Washtenaw County Road Commission, and Washtenaw Area Transportation Study (WATS) are working together on a long-term concept for road design and right-of-way requirements that will allow for the bicycle and pedestrian improvements, on-street parking where appropriate, with the potential for a dedicated transit lane or light-rail in the long term.

As part of the 2013 Right-of Way study facilitated by Washtenaw County on behalf of the local jurisdictions, preferred street segments are being developed for the entire corridor. Future use scenarios were also determined, and many recommendations are based on traffic volume reductions that are expected to be gained

through land use changes, traffic demand management practices to be adopted by major area employers, and related transportation mode shifts. Throughout the entire corridor, innovative stormwater management systems, beautification and landscaping, sidewalks, and bicycle lanes are planned.

For the segment in the Ypsilanti city limits (from west to east), a narrow landscaped median is recommended from Hewitt to approximately the Courtland intersection to provide refuge for pedestrian crossings, improve aesthetics, and slow traffic. East of that a transition is recommended to reduce from four travel lanes to two, adding on-street parking on both sides of the street, until east of Oakwood. At that point, with the separation of Cross and Washtenaw and a change from one-way to two-way traffic, on-street parking may only fit on one side of the new streets. It is suggested that it stay on the north side of the street by EMU, to provide easy parking for administrators and students.

Return one way to two way streets

These streets are not friendly to pedestrians due to the high speed of vehicles. The one-way streets are also difficult to navigate and create longer trips for pedestrians, cyclists, transit riders, and motorists. A long term goal of returning the two-way functions of these streets would support the urban framework. To get to this long term goal, the City would like to take a phased approach.

Phase one could include "right-sizing" the roads for their vehicle capacity. Within these roads' current configurations, some improvements can be made to improve nonmotorized and public transit access. For instance, on Hamilton Street starting at the intersection with Pearl Street, the right-most lane becomes a bicycle lane. The right-most lanes on Hamilton St. and Huron St.

Figure 14: Roundabout for Two-Way Conversion

The drawing above shows a roundabout to facilitate two-way conversions of Huron and Hamilton, while maintaining safe access to Interstate-94. In this instance, cooperation with the existing warehousing facility would be needed. Based on on¬line and in person feedback, the Ypsilanti community has a love/hate relationship with roundabouts. Other design options exist and should be explored with community input when plans are being developed.
Drawing by: AECOM

between Michigan and Harriet will become bicycle lanes. The right-most lane on Huron St. south of Harriet will become landscaping. In terms of Washtenaw Ave., the left-most lane will become on-street parking between Normal and Ballard.

Phase two could include the squaring up of curved intersections, and removal of slip lanes. For example, improving the West Cross and Washtenaw intersection would mean teeing up the intersection and providing additional green space and improved bus facilities in lieu of the slip lane.

Phase three would then be the two-way conversion. Long-term land use planning should be mindful of the possible excess of land that results from the conversions.

HISTORIC DOWNTOWN PROJECTS

Several of the transportation projects are located in the Historic Downtown. These projects could be carried out in conjunction with the Downtown Development Authority (DDA) and should be included in any updates of the DDA Tax Increment Financing Plan:

Raised intersections at Huron & Michigan Avenue and Hamilton & Michigan Avenue

While it was initially hoped that a ramp for pedestrians and a "table top" with a gentle incline to slow down vehicles, this is not currently plausible because it is not in the Michigan Manual on Uniform Traffic Control Devices.

Washington Street as a flush festival street

Washington Street, between Pearl Street and Michigan Avenue, is often closed to traffic for concerts. Changing surfaces to a curbless street would create more pedestrian friendly event space.

Source: AECOM

Figure 15: Curbless "Festival" Street Example

NEW DEVELOPMENT

Many of these projects should be wrapped into anticipated development in adjacent areas, both private and public:

Cross Street and River Street in Depot Town as flush festival streets

With a new train stop near the intersection of Cross Street and River Street, more pedestrian and event activity is expected in Depot Town. Cross Street is already often used for events. Curbless streets will help pedestrians navigate and ease of events. Drivers of vehicles know where the traffic lanes and pedestrian areas are by different types of materials, both color and texture, as well as bollards or other street furniture. The cost and design should be coordinated with the new train stop and incorporated into the DDA TIF plan.

Vehicular Bridge and extension of River Street to Factory

One of the most expensive proposals in the transportation plan is to extend River Street from Michigan Avenue across the Huron River to Factory Street, in coordination with the Water Street redevelopment. The extension would connect the Water Street redevelopment area to the highway but also link the neighborhoods in the southeastern part of the City with the Historic Downtown. Grant opportunities, coordination with developers and other funding resources should be explored.

New Streets in Redevelopment Areas

New streets are shown in several redevelopment areas. These streets should be built by the developer but in accordance with a structure and design that meets the community's guiding value of walkability. The Water Street area is owned by the City, which could dictate street design as a condition of sale. For the other areas, zoning and design requirements should be updated to mandate a walkable street grid that connects and completes the existing streets.

Multi-Use Paths

Multi-use paths are shown connecting Railroad Street and the cemetery in the northern part of the city to Frog Island Park. Both areas are underutilized and could redevelop in the next ten years, especially when rail service begins. Pedestrian links to job centers in the districts should also be built. For example, the City holds an easement that could be used for a path to connect the industrial park to the neighborhood to the southwest. Regulations should be updated to seek easements for proposed paths in these areas.

STREET POLICY CHANGES

Two areas of the City are proposed for overall changes to the streets to make them more accessible to everyone:

Harriet Street Road Diet

Harriet, from Huron to Perry, should become a two-lane street with on-street parking and sidewalks separated from the roadway. The City should change the design standards for Harriet. The City may want to consider a road diet continuing east on Harriet/Spring/Factory/Maus but maintaining the ability of trucks to access the job district.

Leforge Road and Huron River Drive Reconfiguration

The intersection at Leforge and Huron River Drive is challenging to pedestrians but is where many EMU students live and walk to campus. Within a ten-minute walk are some of the largest multiple-family complexes in the City, a city park and EMU campus. The City should make it a high priority work with EMU to create a vision for this area as an interconnection between the City and the University. Both the University and the City should then update their plans and policies for the area accordingly. The level of detail, coordination and community input warrant a planning process for this area specifically. If funding is available, an intense design process should be part of the five-year update to this plan.

PROGRAMS

Two programs are part of the master plan to increase the ability of people to use any modes of transportation they choose anywhere in the City:

- Expand car sharing program in the Historic Downtown. Additionally, bikeshare could be programmed into the three core districts.
- Create and publish maps with bicycle and walking routes in the City. These may be interactive maps as well, accessed via the website or a mobile application.

Chapter 6 : Centers

"The heartbeat of any community are place places to gather, especially on a social level." -Facebook comment about post asking how to strengthen centers

There are three centers within the City of Ypsilanti – the Historic Downtown, Depot Town and Cross Street. They are active, synergistic places where people come together. Their historic buildings are the calling cards of the City. These are the places where people shop, go to school, live, come to work, visit, drop by City Hall, eat, gather and have fun. They host events which bring thousands of visitors each year and bring the City together as a community. All three centers are in the City's Downtown Development Authority (DDA), supported by the tax increment revenue generated from the DDA.

PAST POLICIES

In adjusting to the shift from a manufacturing economy, Ypsilanti has focused on small business development, especially within the centers. The City has worked to maintain low barriers of entry for new businesses, and encourages entrepreneurs to start up businesses. However, new construction is limited due to physical constraints of the City, among other factors.

The City has successfully encouraged conversion of upper stories in the Historic Downtown and Depot Town into housing. The units brought onto the market in the past decade have been rented or sold quickly.

More recent economic development efforts have focused on placemaking as well as absorbing existing commercial and residential vacancies. Walkability, regional public transit, and work toward securing commuter train service on the Ann Arbor to Detroit Line are current transportation goals.

PUBLIC INPUT FROM 2013

Input about the centers was gathered in focus groups, the 4-day long Discover Charrette and through social media. Across the board, participants felt the centers were great places that should be preserved but could be improved in terms of cleanliness, safety and walkability.

Public input was positive about the Historic Downtown, with emphasis on preservation of the historic buildings. Participants felt the walkability and safety of the area could be improved, as well as the cleanliness of the streets and parking lots. Many participants felt there were too many bars and restaurants while others wanted these types of gathering place. The adult club was also a source of tension, with many wanting it to be removed and others saying it should be left alone.

Depot Town was continually cited as an asset of Ypsilanti, to be built upon and improved. Many supported the opening of daily commuter rail service in Depot Town, with a few citing safety concerns such as how to accommodate long-term parking and improved bicycle and pedestrian connections.

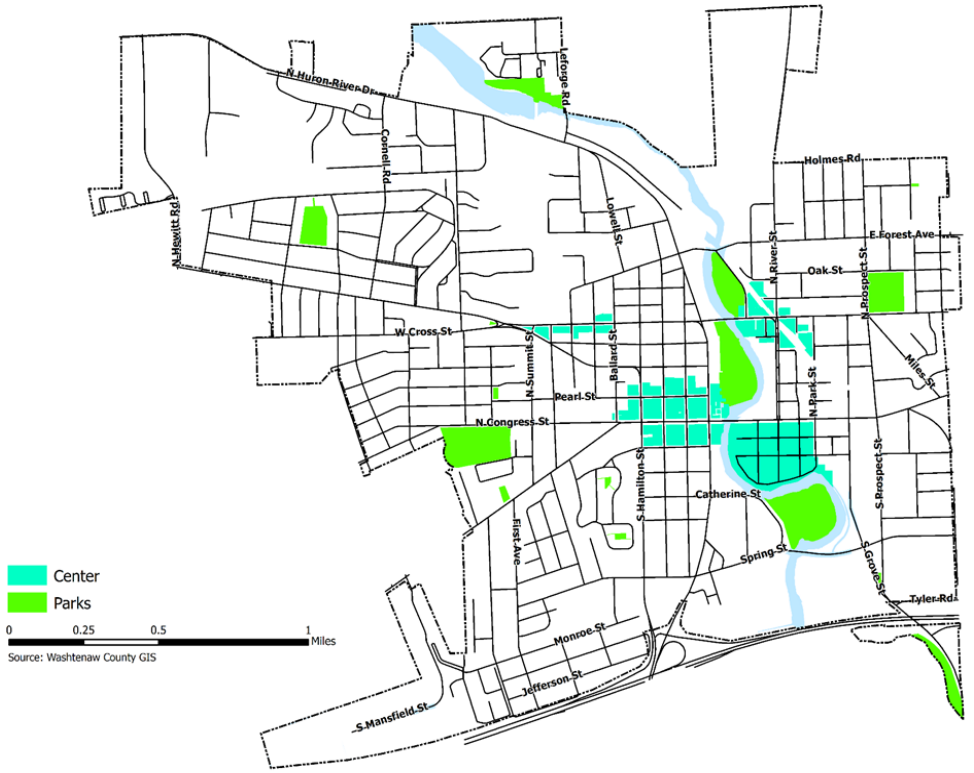
The Cross Street area was generally seen as positive, with much improvement in the past five to seven years. The focus group with EMU students requested that stores be open later at night, when they are most likely to use them. The intersection of Cross and Washtenaw as well as the one-way streets was seen as a barrier to pedestrians and vehicles easily navigating the area.

DATA

According the commercial analysis for this project, the centers are three strong commercial anchor locations that provide a wide range of specialty goods and services. The devoted resident base and healthy EMU market provide a strong customer base for these businesses. Market analysis completed for these areas by Hyett Palma in 2009 concluded that the Ypsilanti DDA area captures approximately 10%, or about $121 million of the estimated region's demand at $1.1 billion annual demand. This study, now about a decade old, should be updated to determine if the DDA's policies have been able to capture a greater of that demand.

These locations have limitations to growth, due to the historic building stock. Focus group participants described these as ideal locations for small to mid-sized operations that could fit a first-floor foot print of 2,000 – 4,000 square feet. Some businesses have been successful at expanding into neighboring storefronts, but the reality of growth is fairly limited for a major food store, entertainment complex or larger footprint a national clothing retailer would require. A few buildings with larger footprints are available - the Thompson Block in Depot Town as well as the Smith Furniture Building and the Pub 13 building in the Historic Downtown.

Map 13: Centers City Framework



POLICY UPDATE FROM 2013

Certain actions will apply to all three centers, in particular the form-based zoning. The following are expected in the Historic Downtown, Depot Town, and Cross Street:

Create building standards for centers that preserve their architecture – *Completed*

All three centers have unique, historic buildings that have been protected by the regulations of the historic district. In 2014, the zoning ordinance was passed with form-based zoning elements that require building location, story height, front door and window location to match the existing architecture, reinforcing existing patterns and the historic district regulations.

Finish Upper Stories – *Ongoing*

Upper story conversions in the Historic Downtown and Depot Town have been successful, bringing new residents. The zoning ordinance was updated to encourage private investment on upper story units, and in 2018, the DDA was awarded a MEDC facade grant for $300,000 which has enabled them to improve properties according to historic guidelines. The City shall work to update its local and National Register historic district listings. Updated listings will expand the number of contributing buildings and afford greater opportunities for Historic Tax Credits in rehabilitations.

Allow renewable energy facilities on all buildings – *Completed*

The City has several buildings in the centers with solar panels and geothermal facilities, such as City Hall and the Ypsilanti Food Coop. The zoning ordinance was updated in 2014 to allow alternative energy (photovoltaic, geothermal, and wind) as an accessory use in every zone. The Historic District Commission has adopted alternative energy standards to guide the installation of such facilities on historic buildings.

Draft a business attraction plan for the centers – *Ongoing*

The City, Small Business and Technology Development Center, Ann Arbor SPARK, and the DDA should work together to create a process to guide business attraction for Downtown, Depot Town and Cross Street.

Encourage activity during the day and evening – *Ongoing*

A number of participants, especially EMU students and other youth, expressed a desire for opportunity in the City's centers during the evening as well as the day. Many felt there was not much available after hours except for bars. The DDA and the City should work together with existing businesses to expand their hours and factor the need for evening uses that are friendly to people of all ages into the business attraction plan. Changes should be communicated to EMU faculty, staff, and students who would be a big portion of patrons.

The City has updated its zoning to allow for a greater mix of uses that could draw people to its centers, and the DDA continues to work on business development through event sponsorship like First Fridays, Ypsi Pride, Festival of the Honey Bee, and Ypsi Glow.

Continue and expand the number, type and location of festivals and events – *Ongoing*

Events bring thousands of visitors and residents alike to the centers of Ypsilanti. If it can, the DDA and Ypsilanti Convention and Visitor's Bureau, supported by the City, should increase the number

of events and make sure they occur across the City centers and in all four seasons. Options could include the use of College Place, other areas in and around EMU's campus, Frog Island and other large City parks as well as downtown streets. The City works with the Convention and Visitor's Bureau to market events and destinations in Ypsilanti. The city also passed a special events policy to enable more activity.

Create a marketing campaign for the City of Ypsilanti – *Ongoing*
Throughout the public engagement process, participants felt that the City had an undeserved reputation in the region as an unsafe place with not much to do. A marketing campaign, in conjunction with the Ypsilanti Visitors and Convention Bureau, was suggested as a five-year goal.

Install a way-finding system – *Completed*
The DDA, city of Ypsilanti, Ypsilanti township, and the Washtenaw County Convention and Visitor's Bureau installed unified wayfinding signage throughout the city and township to help visitors find places to shop and recreate.

HISTORIC DOWNTOWN

Historic Downtown Ypsilanti is located at the intersection of M-12, the old Chicago Road, and the Huron River. The plan for downtown is to make it safer and maintain its diversity and sustainability. These following items, except for zoning changes, should be included as part of the update of the DDA's Tax Increment Financing Plan and pursued in conjunction with consensus of the business community downtown.

Increase walkability – *Ongoing*
The return of Huron and Hamilton to two-way streets will increase the walkability of the Historic Downtown by slowing traffic. The raised intersections on Michigan at Huron and Hamilton will also slow traffic and making crossing these intersections easier for pedestrians. Ypsilanti has completed a feasibility study and is in the public participation phase. The city has incorporated these projects in the Capital Improvement Plan and is coordinating with MDOT for assistance on completing this project.

Build curbless "festival" street on Washington – *Ongoing*
A curbless street on Washington, between Michigan Avenue and Pearl, would make set up and operation of outdoor concerts already occurring there easier. Most likely, more events could be held there, increasing the diversity of events and visitors to the downtown.

Use vacant storefronts for temporary retail uses – *Ongoing*
Any number of vacant storefronts diminish the vibrancy of downtown. Also, many entrepreneurs cannot afford to open a full scale operation. By defining a process to allow a "pop-up" store in vacant storefront, the City and the DDA have enabled this temporary use. However, it is still up to the property owner to decide how to use his/her building. The DDA does conduct outreach to landlords, but the effort continues to make this a consistent practice.

Maintain and expand transportation options, including improvements to the Ypsilanti Transit Center (YTC) – *Ongoing*

Bus service to the downtown should continue as well as the expansion of the car sharing service. The bus center should be treated as a hub of the downtown, with wayfinding, signs, and street furniture to make coming to the center an enjoyable experience as any other in the downtown. The increased ridership has put pressure on the YTC to accommodate users. The WATS Long Range Transportation plan has made it a regional priority to update that space or to re-locate it where necessary to be a better functioning space.

DEPOT TOWN

Depot Town grew up around the intersection of the regional and inter-urban railroads and the Huron River. Similar to downtown in the size and age of buildings as well as land use, Depot Town covers a smaller area. It is a regional draw due to the restaurants and festivals held in the adjacent parks. When train service is secured, the area is expected to have more activity from commuters on foot, bicycle and car as well more development pressure. The Ride plans a connector bus route to the stop as well. The plan, shown on the following page is a transit-oriented design to integrate the train stop and increased activity into the fabric of Depot Town.

Maintain Depot Town as a place for the pedestrian first – *Ongoing*

Depot Town is a safe, walkable place in Ypsilanti. A curbless street is proposed on River Street to ease access for pedestrians, including those in wheelchairs or with baby strollers. Parking

Figure 16: Concept TOD Plan for Depot Town

The concept plan was developed to meet community values when daily train service starts. The plan features a plaza, shown in red, which could be used for a farmers' market and other events. The Freight House is preserved. The portions of River and Cross Streets in pink is shown as a curb-less "festival" street - making crossings easier for pedestrians on a daily basis while helping the accessibility of the events in Depot Town. A small park space is proposed between River Street and the tracks. Parking is away from the street to the west of the railroad tracks. The design of access to Frog Island park will need to be coordinated with previous designs in the final plans. Drawing by: AECOM

lots should be away from the street front, as shown in the concept plan.

Build curbless "festival" street on River and Cross – *Ongoing*
A curbless street on River and Cross Streets adjacent to the train platform would increase pedestrian accessibility and facilitate events.

Create a public space at new train station – *Ongoing*
Improvements and an expansion of the existing Market Plaza is shown in the concept plan as part of the new train station. Public spaces allow a diversity of temporary uses to happen (festivals to farmers' markets) and gives opportunity for people of all types to come together. The development of the train station has been delayed and alternative designs are being considered, of which there is very little space to include public space.

Locate permanent year-round home for Depot Town Farmer's Market – *Completed*
The market is currently located in Market Plaza of the Freighthouse in Depot Town. As plans are developed for the train depot, a permanent year-round location for the farmer's market should be included in the design. The concept plan shows preservation of the Freight House and the creation of a plaza where the market could be held during the summer months.

CROSS STREET

Cross Street is the interface between the campus of Eastern Michigan University and the City. It serves as a commercial center for both Eastern Michigan students and the adjacent neighborhoods. The plan improves the function of the roads for all while integrating Cross Street with EMU. All of these projects should be pursued in conjunction with EMU and the DDA.

Separate Cross Street and Washtenaw Avenue – *Ongoing*
As shown in the concept plan in Figure 17, Cross Street and Washtenaw Avenue can be separated and made two-way streets. The separation would improve the safety of this high-crash intersection by calming traffic, creating safer pedestrian crossings and better navigation for all modes of transportation. This infrastructure improvement has been included in the Capital Improvements Plan. As stated earlier, this will be part of a phased approach where the actual separation would be last and final phase.

Create a "front door" for EMU by reconfiguration of Cross Street and Washtenaw – *Ongoing*
During the Design Charrette, EMU officials agreed that the campus needs an entrance and the land created by the pulling apart of the two roads could create a mixed use area with a gathering area and possibly housing. This project requires coordination with MDOT for implementation. This is related to the aforementioned Separate Cross Street and Washtenaw Avenue plan.

The centers host a variety of events and land uses in distinctly urban places. The DDA should use its ability to attract and assist businesses to maintain a vibrant business mix, while the City should use its policies to maintain the building form. The "Centers Implementation Matrix" shows the time frame for each action detailed in this chapter and how it meets the City's primary guiding values of safety, diversity, and sustainability. This matrix is intended to be used by decision-makers to create reports and work plans as well as evaluate progress on an annual basis.

Figure 17: Reconfiguration of Cross & Washtenaw

The concept plan above is a scheme to separate Washtenaw Avenue and Cross Street. The proposal is to pull the two roads apart, eliminating the existing convergence and creating public and developable space, shown in green. The existing statues and the wa¬ter tower will be linked with a public space that will also give refuge to pedestrians crossing the streets. A developable area will be created to the east of the water tower. Student housing and parking were discussed as possible uses with EMU. Drawing by: AECOM

Figure 18: Centers Implementation Matrix

Action	Timeframe	Location	Safety	Diversity	Equity	Environmental Sustainability	Economy
Continue and expand the number, type, and location of festivals and events	Ongoing	All centers		x			x
Continue efforts to fill upper stories	Ongoing	All centers		x	x	x	x
Maintain and expand transportation options	Ongoing	Downtown	x		x	x	x
Draft a business attraction plan for Downtown, Depot Town and Cross Street	1-5 years	All centers		x			x
Encourage business and event activity during the day and evening	1-5 years	All centers	x	x	x		x
Marketing campaign for the City of Ypsilanti	1-5 years	All centers					x
Curbless "festival" street on Washington	1-5 years	Downtown	x		x		x
Use vacant storefronts for temporary retail uses	1-5 years	Downtown	x		x		x
Permanent year-round home for Downtown Farmer's Market	1-5 years	Downtown	x	x	x	x	x
Permanent year-round home for Depot Town Farmer's Market	1-5 years	Depot Town	x	x	x	x	x
Increase walkability (2-way streets & raised intersections)	1-10 years	Downtown	x		x		x
Curbless "festival" street on River and Cross Streets	1-10 years	Depot Town	x		x		x
Create a public space at new train station	1-10 years	Depot Town	x		x		x
Separate Cross and Washtenaw	1-10 years	Cross Street	x			x	x
Create a "front door" for EMU with reconfiguration of Cross and Washtenaw	1-10 years	Cross Street	x	x			x

Chapter 7 – Neighborhoods

"Charming neighborhoods" – Sticky note on what to preserve, submitted during the Discover Charrette

Ypsilanti has a wide variety of neighborhoods, some built over a century ago and others just decades old. The residents, streets, and architecture create distinct communities with the 4.3 square miles of Ypsilanti. However, when looking at public comment and data on the age, size, and types of housing, the neighborhoods fell into two framework categories: Central Neighborhoods and Outlying Neighborhoods, as shown on Map 14.

PAST POLICIES

The City of Ypsilanti's housing policy efforts have been in response to the following themes:

- The sizable population of college students and lower income families, along with large supply of multi-family housing, has meant that nearly 2/3 of households rent their homes.
- The large share of pre-war and mid-century structures with energy-efficiency difficulty creates challenges while also drawing residents to historic neighborhoods.
- The "landlocked" and nearly built-out city has lacked the vacant land to participate in the construction of new housing seen in surrounding municipalities.

In 1978, the City created a Historic District and in 1983 began rental housing inspections. These two programs are generally considered to have been successful in stabilizing and maintaining the city's housing stock and neighborhoods. In 2003, the City enacted a dangerous buildings ordinance that provided an additional tool for addressing the worst nuisance properties and stabilizing surrounding neighborhoods.

The City began implementation in 2009, when foreclosure activity led to fears of increasing numbers of abandoned buildings, but at that time quickly proved effective in spurring removal or rehabilitation of long-vacant buildings.

The City has also "down zoned" residential areas in an effort to encourage home ownership, most successfully in the Historic Eastside. The most recent occurrence was in 2006 when around 800 residential parcels in the Cross Street neighborhood were rezoned to reduce maximum permitted density, as laid out in the 2001 Cross Street Neighborhood Improvement Plan. This effort had mixed success since the fall of the housing market in the mid-2000s resulted in lower prices for housing and the high conversion costs to single-family or a smaller number of units were not financially viable in that market.

The previous zoning ordinance defined a range of different multiple-family living uses – rooming house, fraternity, etc. – each with different regulations drafted for those uses at the time of their inclusion in the zoning. The result was confusing regulations that were not flexible for innovations. The updated zoning ordinance and definitions provide better clarity.

PUBLIC INPUT

In every focus group at the beginning of the 2013 Master Plan process, participants felt the City of Ypsilanti should have housing for people of all ages, races, incomes and abilities in the City as a guiding value. Residents across the City expressed pride in their neighborhoods.

Tension about the location of rental housing – whether townhouses, multiple-family dwellings or large houses converted multiple dwelling units emerged during the charrettes and implementation focus groups. Many participants expressed

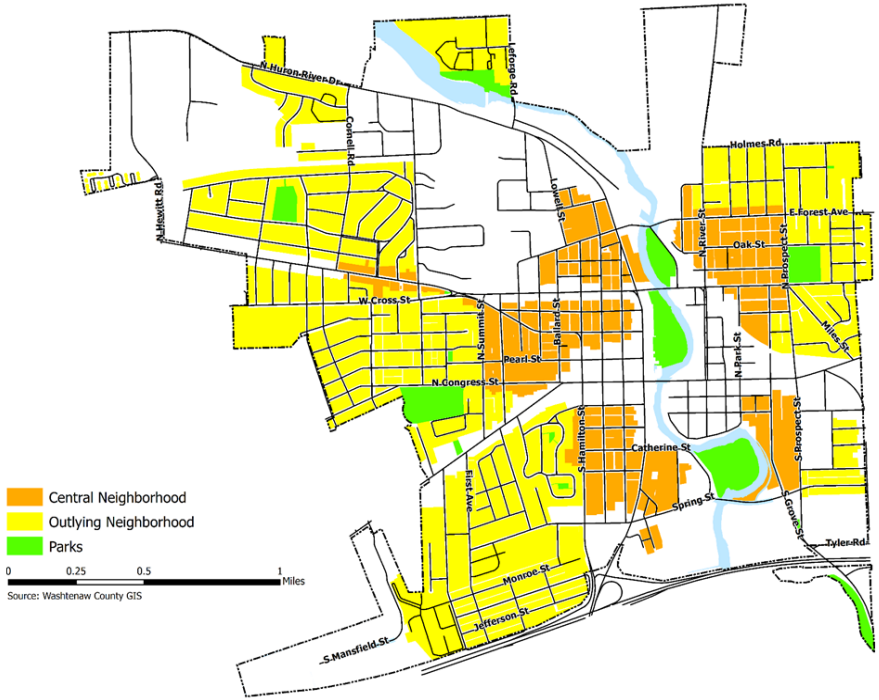
concerns about rental housing, particularly EMU student housing, expanding into neighborhoods and degrading its value. Others saw the need for student housing in a college town. As EMUs enrollment declines or shifts towards online classes, there could be opportunity to convert unused dorm rooms into units open to residents besides students. Meanwhile, some residents expressed the need for housing with little maintenance, such as a condominium or a rental, but suitable for seniors or young professionals. Ypsilanti lacks this type of housing, often considered as the "missing middle."

In 2019, residents expressed a desire for "complete neighborhoods" in the community-wide survey. In fact, 68% said that the completeness of the neighborhood was the deciding factor in where they choose to live. The definition of completeness was up to them to decide through the multiple choice question; their results show that in addition to residential uses, residents want their neighborhoods to have recreation space, sidewalks, public transit options, community gardens/trees, and daily need good and services.

DATA

As shown in Chapter 3, the neighborhoods have distinct patterns in terms of age, size, number of units and homeownership/ rental status. Closer to the Historic Downtown and EMU's southern border are clustered large houses built before World War II with a variety of numbers of dwelling units and a mix of owner-occupied units and rentals. Neighborhoods nearer to the borders of the City were built in the later part of the twentieth century and are either single-family houses or multiple-family buildings. With the exception of the Heritage Park area, the majority of the single-family houses are owner-occupied.

Map 14: Neighborhoods City Framework Map



Multiple-family is almost exclusively rental, except for condominiums built near EMU's western border and along Washtenaw near EMU and the Historic Downtown. However, overall, most single-family dwellings are owner-occupied.

In the central neighborhoods, the Historic Eastside has a higher percentage of homeownership and a unique lot mix with many deep lots. Due to the down-zoning decades ago, this neighborhood has a higher rate of homeownership than other neighborhoods built around the same time. The Historic South Side neighborhoods

have a range of building types - with some apartment buildings but mostly four units or less - and standard sized lots. The Midtown and Riverside neighborhoods have the widest variety of building types - from cottages to large apartment houses along with other group living arrangements, as well as a large range of lot sizes.

Despite the distinct differences, over two-thirds of the housing units in Ypsilanti are rented. Other college towns have a similar housing mix, including Ann Arbor where 55% of the housing units are rented. Renters are integral members of the community; planning for renters and access to affordable housing shall be continued.

POLICY AND PLANS FOR ALL NEIGHBORHOODS

The following actions apply to all neighborhoods:

Continue and increase rental inspections and enforcement – *Ongoing*
Rental inspection and enforcement of code violations are vital to maintaining safe rental housing. City budget dedicated to rental inspection and enforcement should be maintained, if not increased.

Streamline multiple-family living arrangements into categories based on number of units and form – *Completed*
Living arrangements for multiple-family situations should be collapsed in the form-based code into building forms – duplexes, estate houses, townhouses, and apartment buildings – with categories of number of units matching those in the State Building Code – 2-units, 2-4 units and 5 or more units. Group living arrangements, such as rooming houses and fraternities, will continue to be allowed in estate houses but with regulations for that general use, not tailored for each instance. The City updated its zoning ordinance to reflect these living arrangements.

Assist continuation and expansion of EMU Live Ypsi program – *Ongoing*
Eastern Michigan University, with staff assistance from the City and Washtenaw County, offers a forgivable loan program for faculty and staff purchasing a home in the City of Ypsilanti. The City will continue its support of this program.

Plan and zone for range of housing typologies for the needs of all ages and abilities – *Ongoing*
Due to demographic shifts, several neighborhoods have increasing numbers of senior citizens, who may or may not choose to stay in their homes. Similarly, young professionals and families are looking for homes integrated into the community. Neighborhoods should be planned to provide a diversity of housing types within neighborhoods for all stages of life. The City has used its ordinance to expand housing types permitted in residential zones, but it may be appropriate to further expand housing types, such as accessory dwelling units.

Create "Eco-Districts" in neighborhood parks – *Ongoing*
Residents suggested that demonstration projects of community gardens with hoop houses, rain collection systems, and renewable energy projects be clustered in eco-districts in neighborhood parks, in the Historic Downtown, and other areas. Temporary events were also suggested in these areas. An existing example of a demonstration project is the Luna Lake rain garden in Prospect Park. While the City cannot take on development of these districts, partnerships with educational institutions and neighborhood

groups may provide resources to establish them. The City has permitted these uses within parks and other zones and welcomes opportunities that follow these guidelines:

- The proposal be in the proper location of the park to complement existing activities, both active (sports areas and playgrounds) and passive (walking or siting areas)
- The proposal should be located in an area with appropriate lighting and visibility to assure safety of users and enough natural surveillance to be kept watch over by neighbors.
- Proposals should be part of an adopt-a-park effort
- Policies will need to be developed to ensure maintenance, both short and long term.

Continue Home-Based Entrepreneurship – *Completed*
The City encourages home-based businesses through clear regulation. The updated zoning allow businesses within homes using the current regulatory scheme for uses.

Regulate the form of buildings to preserve the character of neighborhoods – *Completed*
Using the building types existing within the neighborhoods, the zoning regulations should preserve the architectural patterns. The zoning ordinance was updated to include Building Types.

Re-survey of the Historic District – *Ongoing*
The Ypsilanti Historic District designation was completed in 1978 and 1983. The current listing documents are not sufficient for addressing common issues with the historic resources, including identification of contributing and non-contributing resources; areas and periods of significance; and clear boundaries. The district should be resurveyed and a new Historic District Study Committee formed to update the district. A new study committee report would greatly aid property owners, staff, and the commission with making the best decisions for the preservation of Ypsilanti's most historic resources. Additionally, it would clear up confusion with the outdated boundary map, as some boundary lines currently bisect parcels, and includes part of the Water Street development area, where all of the historic resources have been removed.

Consider new opportunities for accessory dwelling units – *Ongoing*
The City engaged with residents during a January 2020 meeting. While findings varied, accessory dwelling units appear to be embraced by a number of community residents. It was inferred from this meeting that residents want accessory dwelling units to be permissible uses in a greater number of zoning districts, but with protections to secure harmony with the neighborhood. The following regulations might be considered to keep this harmony: size and height, ratio to principal structure and green space, and parking. Future community meetings may guide further action. The City shall first explore these opportunities in Central Neighborhood-based zoning districts and may consider expanding to Outlying Neighborhoods if the appropriate regulations are put in place.

Relax dwelling size, lot area, and lot dimensions requirements – *Ongoing*
The City currently requires a dwelling to have a minimum of 500 square feet of usable floor area in its R1 zoning district, the least intense residential district. The R1 district also requires a minimum lot size of 5,000 square feet with a minimum lot width of 45 feet. These three standards create exclusionary effects for someone attempting to find a place to build their small home or locate a small manufactured home. Additionally, these standards can be

burdensome to a current property owner who wishes to divide a piece of their land to provide for a dwelling. The City may consider relaxing some of these standards in not only the R1 district but also in the various Walkable Urban District building types.

Allow for density increases in residential zoning districts for the purpose of housing affordability – *Ongoing*
For the sake of affordability, increasing densities in areas which can better serve more than one-family residential uses should be revisited by the City. One potential strategy regards corner lots- lots that adjoin two streets at their intersection. These are naturally more busy and active lots. As a way to make best use of corner lots, the City should consider making corner-lot duplexes (two-unit dwellings) permitted by-right in any residential zoning district.

Revisit home occupation requirements and consider live-works – *Ongoing*
To enhance economic opportunity for residents, the concepts of home occupations and live-works should be revisited. Home occupations can be an incremental, small-scale strategy to allow a resident some flexibility in operating a remote business or providing a small service from their home. Live-works on the other hand can be a more formal strategy in allowing a resident and their business- a more publicly facing, walk-in oriented business- such an art studio or professional office to take place within the same physical unit.

Revise family/occupancy caps – *Ongoing*
The current zoning ordinance limits a family to three unrelated persons residing together in a dwelling unit. An exception to that requirement is in the GC, NC, HC, and MD zoning districts, which limits a family to four unrelated persons. Nonetheless, these restrictions are onerous on functional families, families that have a demonstrable and recognizable bond characteristic of a cohesive unit despite not being related by blood, marriage, or adoption. A more sensible strategy, proposed by the Citizen Committee for Housing Affordability and Accessibility, might be to update the zoning ordinance to revise the limits for a functional family in relation to bedrooms. An updated ordinance might require the number of unrelated persons to not exceed two persons per bedroom [Citizen Committee for Housing Affordability and Accessibility Report, p. 36-37].

Create visitability requirements – *Ongoing*
Visitability pertains to the physical features that make a house "visitable" by guests but also offering features that may be desirable for future owners/tenants. A home can be considered "visitable" if it has: at least one no-step entrance; doors with 32 inches of clear passage space; and a bathroom on the main floor that is wheelchair accessible [Citizen Committee for Housing Affordability and Accessibility Report, p. 36]. Visitability requirements should be written into the zoning ordinance, or at the very minimum considered by the Planning Commission when authorizing special land use permits for new developments.

CENTRAL NEIGHBORHOODS

These neighborhoods are some of the oldest in Ypsilanti. Initially oriented on the Huron River, they are built on a grid street network connected to the adjacent business districts. They border downtown, Depot Town, and EMU. These neighborhoods have a range of residential building types, with churches, schools, stores, and gas stations intermixed. Around the railroad, industrial uses are mixed into the neighborhood.

The following policies and actions aim to preserve the form of these neighborhoods while enabling the sustainability of all the buildings:

Preserve the character of the area by using regulations on street type, building type as well as use – *Completed*
Elements of form-based code were developed based on existing streets, lot sizes, building types, and uses to preserve the context of each area. The goal was to eliminate regulations that need exceptions to preserve existing context by creating rules based on the context. In addition to the zoning updates, engineering standards were updated.

Regulations of the variety of housing types, uses, and lot sizes will be calibrated to the existing patterns – *Completed*
Central neighborhoods do not all look alike so the regulations reflect the differences with appropriate gradations in the variety of uses and building types based on existing patterns. Three core neighborhood zones were created: Core-neighborhood single-family, core-neighborhood mid, and core-neighborhood with the main difference being the varying levels of housing density permitted.

Preserve Bell-Kramer residential land uses – *Ongoing*
The Bell-Kramer neighborhood, located near the southeastern corner of S. Huron St. and Spring St. underwent planning changes from 2013 to 2018. The neighborhood was identified as a District in the City Framework and was zoned mostly PMD due to its proximity to the former landfill to the south. However, City testing for contaminants came back safer than previously understood. The City engaged in meetings with the residents and heard their wishes to keep the neighborhood residential. Consequently, in 2018 the City rezoned the neighborhood back to residential, to CN-Mid. This zoning designation better stabilizes the residential land uses of the neighborhood. In hope to better protect the health of the residents, the City also updated a well-restriction ordinance which prohibits the drilling and use of wells in the neighborhood. It is recommended the Bell-Kramer neighborhood keep its residential character. The City Framework was updated to reflect this change from District to Central Neighborhood.

OUTLYING NEIGHBORHOODS

These neighborhoods, constructed during or after World War II, are almost exclusively residential uses, with single-family and multiple-family uses separated. Single-family residences are usually smaller than those in the central neighborhoods. The zoning changes below are designed to stabilize these neighborhoods:

Limit uses to predominantly single-family residential uses in areas with small houses, suited for only single-family – *Completed*
Several neighborhoods - Heritage Park, Worden Garden, Prospect Gardens, Miles neighborhoods and the houses on River Street from Holmes to the north to Cherry – were formerly zoned for two-family residential use. Because very few structures are two-family nor have the floor area to accommodate two dwelling units, these neighborhoods were limited to single-family uses when the zoning ordinance was updated. These neighborhoods may have potential for accessory dwelling units, based on where there is existing infrastructure. Future community meetings may guide proper action.

Figure 19: Neighborhoods Implementation Matrix

Action	Timeframe	Location	Safety	Diversity	Equity	Environmental Sustainability	Economy
Continue and increase rental inspections and enforcement	Ongoing	All neighborhoods	x		x	x	x
Assist continuation and expansion of EMU Live Ypsi program	Ongoing	All neighborhoods		x			x
Regulate the form of buildings to preserve the character of neighborhoods	Ongoing	All neighborhoods		x	x		x
Create "Eco-Districts" in neighborhood parks	1-10 years	All neighborhoods		x		x	
Re-survey of the Historic District	1-10 years	All neighborhoods			x	x	
Consider new opportunities for accessory dwelling units	1-5 years	All neighborhoods		x	x	x	x
Relax dwelling size, lot area, and lot dimensions requirements	1-10 years	All neighborhoods			x	x	x
Allow for density increases in residential zoning districts for the purpose of housing affordability	1-10 years	All neighborhoods			x	x	x
Revisit home occupation requirements and consider live-works	1-10 years	All neighborhoods		x	x	x	x
Revise family/occupancy caps	1-5 years	All neighborhoods	x	x	x		
Create visitability requirements	1-5 years	All neighborhoods	x	x	x		
Preserve Bell-Kramer residential land uses	Ongoing	Central neighborhoods	x		x	x	

The matrix in figure 19 shows the time frame for each item and if it meets the goals of safety, diversity, and sustainability. It, in conjunction with the other matrices, should be used by decision-makers to create reports and work plans as well as evaluate progress on an annual basis.

Chapter 8 - Corridors

"They should connect cities, not be primary destinations." - Comment on main roads, like Washtenaw, submitted on the website, shapeypsi.com

There are two types of corridors located in Ypsilanti. One is a general corridor which contains a variety of medium to smaller parcels and is adjacent to both types of neighborhoods, such as College Heights and Midtown. General corridors are home to predominantly commercial establishments, restaurants, offices, and other businesses that are geared toward automobile traffic. The land pattern is typically linear and provides predominately commercial and office uses that are adjacent to residential neighborhoods. Usually a physical barrier is created to "protect" one use from another by way of a wall or heavy landscaping.

The second type is a historic corridor, which differs slightly from the general corridor in scale and building type. The historic corridors are characterized by smaller commercial establishments and offices mixed with large historic structures (such as historic homes that are now being used for a variety of purposes). Historic corridors generally have a more seamless integration with the surrounding neighborhoods.

PAST POLICIES

The current zoning ordinance regulates the use of the land primarily, linking a certain number of related land uses to individual parcels of land. In corridors, these zoning districts have laid out in strips, usually commercial but also office, civic, and multiple- and single -family. The resulting zoning maps are a patchwork of districts down the corridors. However, the uses cannot freely flow down the corridors due to the use classifications. Rezonings are often required.

In general corridors, the landscaping regulations required by the zoning districts and overlays are suburban in nature. The entry-way overlay on all general corridors at the borders of the City requires a 10-foot greenbelt around the entire parcel. Since these lots are generally smaller than suburban counterparts, the required setbacks and landscaping either do not fit on the parcels when redeveloped or limit the building size to a footprint only compatible with uses needing a small square footage. The result has been vacant or underutilized buildings along the general corridors or approvals that waive requirements. The current zoning does not encourage improvements due the complexity of applying the standards.

The regulations of the Historic District have maintained the integrity of the buildings along the historic corridors. The high speeds of the one-way streets on the historic corridors of Cross, Huron and Hamilton, however, make the street itself a hostile environment, lessening the value of some the buildings.

PUBLIC INPUT

During the charrettes, participants often spoke about the difficulties of walking or cycling in the corridors of the City. They also expressed disappointment about the number of vacant or underutilized stores.

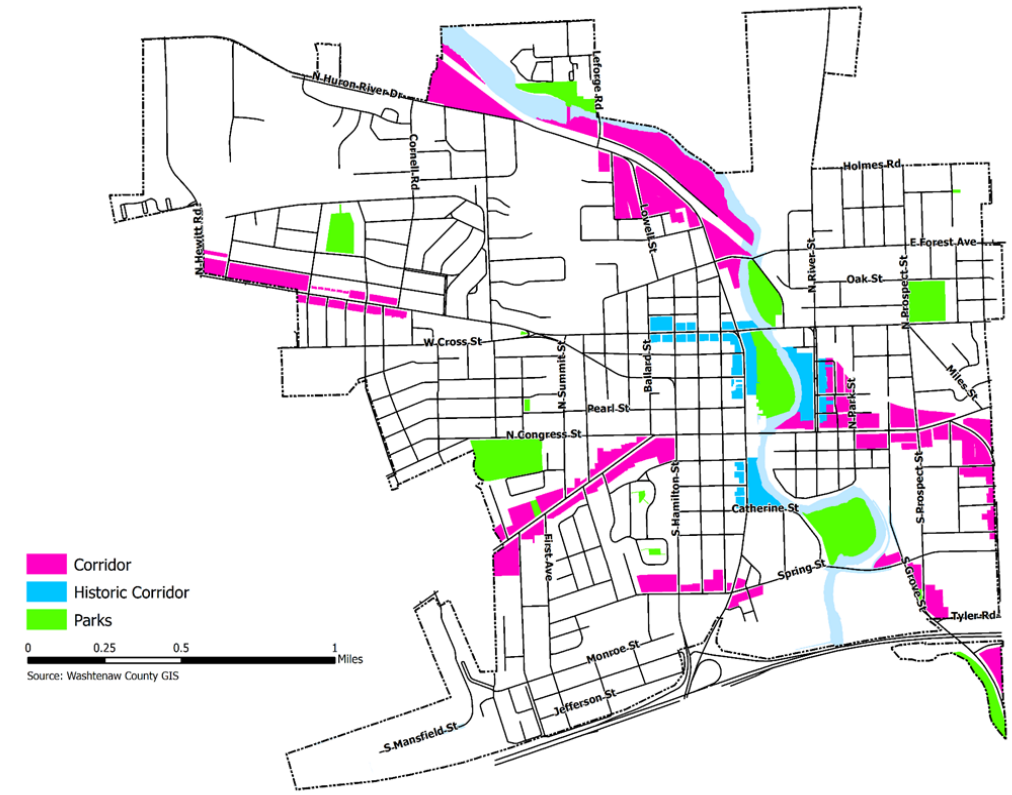
POLICY AND PLANS FOR ALL CORRIDORS

The following items apply to all types of corridors:

Designate the appropriate building form for each corridor– *Completed*

The form-based code will designate types of buildings to match the existing patterns within the corridor and, if applicable, the change envisioned by the community for that area. The zoning ordinance was updated to include building types in "Walkable Urban Districts."

Map 15: Corridors City Framework Map



Retain the mix of existing uses within each corridor but allow them throughout the corridor – *Completed*
The form-based code would allow all the current uses within a corridor area to remain, but also to be anywhere throughout that area. For instance, a vacant lot now zoned commercial instead would be zoned general or historic corridor and all of uses, such as multiple-family, commercial or office within that segment of the street happen without a rezoning.

HISTORIC CORRIDORS

Historic corridors are located along Cross Street, Huron Street, Hamilton Street, and River Street. The following actions will help to preserve and enhance the vitality of these areas:

Reinforce preservation of historic buildings – *Completed*
The form-based code will require the elements of the historic buildings along these corridors be incorporated into any new development or rebuilding.

Restore two-way function to Historic Corridors –*Ongoing*
As outlined in the transportation chapter of this plan, two-way function of these streets will increase safety and make navigation by foot, bicycle, bus or car easier.

Maintain River Street as a historic boulevard - *Ongoing*
River Street between Cross Street and Michigan Avenue is a boulevard lined by historic buildings with a variety of uses. The form-based code should attune design standards for this corridor to the street form of a boulevard.

GENERAL CORRIDORS

General corridors are designated along Washtenaw Ave and Cross Streets, East Michigan Avenue and Ecorse, Huron River Drive, Leforge and Railroad Street, Harriet Street, Lincoln and West Michigan Avenue.

Coordinate Washtenaw Avenue with the Re-Imagine Washtenaw Plan – *Ongoing*

The City has been an important partner in the Reimagine Washtenaw coalition. While larger redevelopment sites are available in areas outside the City, many of the place-making, transit-oriented, and mixed-use development concepts can be employed on the smaller City lots. Diverse land uses are contemplated for the corridor, but additional land designated for commercial land uses is not envisioned. Rather, as sites are redeveloped, particularly in retail nodes at Hewitt, Mansfield/ Cornell, and Cross Street, special emphasis should be placed on incorporating walkable and mixed-use elements in the site redesign.

Source: Reimagine Washtenaw

The form-based code in the node areas will look to have redevelopment move closer to the street, provide improved pedestrian access and generally orient more to the pedestrian than to the vehicle.

Require a pedestrian-friendly building form while allowing a mix of uses for both students and residents along Huron River Drive, Leforge & Railroad corridors – *Ongoing*

These corridors are borders with the EMU campus that currently divide it from it the City due to the width of the roads and barriers of the Huron River and railroad tracks. In the form-based code, the regulations should be changed to create a walkable environment with appropriate uses that integrates the City and the EMU campus. A design process for this area should be part of the 5-year update to this plan.

Restore Harriet Street as the Main Street of adjacent neighborhoods – *Ongoing*

The same mixture of uses would be allowed along Harriet, from Hamilton to Perry, but the urban form on the north side of the road would be required for any redevelopment of the south side. In order to create a walkable environment, the number of lanes for vehicles would be decreased to two lanes, creating room for on-street parking, bicycle lanes and pedestrian areas. The reconfiguration of the road would most likely on be possible when Huron and Hamilton are converted to two-way.

Figure 20: Corridors Implementation Matrix

Action	Timeframe	Location	Safety	Diversity	Equity	Environmental Sustainability	Economy
Designate the appropriate building form for each corridor based on existing patterns and vision for that corridor	Form-based code	All corridors	x	x	x		x
Retain the mix of uses within each corridor but allow them throughout the area	Form-based code	All corridors		x	x		x
Reinforce preservation of historic buildings	Form-based code	Historic corridors		x			x
Maintain River Street as a historic boulevard	Form-based code	Historic corridors	x	x			x
Require a pedestrian friendly building form while allowing a mix of uses for both students and residents along Huron River Drive, Leforge & Railroad corridors	Form-based code	General corridors	x	x	x		x
Coordinate regulations for Washtenaw Avenue with the Washtenaw County Re-Imagine Washtenaw Plan	1-10 years	General corridors	x	x	x		x
Restore Harriet Street as the Main Street of adjacent neighborhoods	1-10 years	General corridors	x	x	x		x
Restore two-way function to Cross, Huron, and Hamilton Streets	1-10 years	Historic corridors	x		x	x	x

The matrix details the phasing of the plans and policies discussed above and how they meet the City's goals of safety, diversity and sustainability. With other matrices, it should be used to create reports and work plans as well as evaluate progress on an annual basis.

Chapter 9 – Districts

"Stable, diverse local economy" - Sticky note on what to create, from the Discover Charrette

Districts accommodate major economic development, employment centers or universities or unique entities, like the cemetery. The range of districts within Ypsilanti includes Eastern Michigan University, the social service and medical offices clustered on Towner and several industrial areas which provide employment and stability to the community.

PAST POLICIES

The City has established partnerships with the anchors of each of these districts. The City, DDA and EMU work together through the Community Engaged Council. The City is open to regularly meeting with the owners of the industrial properties in the southern part of the City. Zoning policies have been consistent for these areas and are less to blame for any vacancy than the recent economic downturn, a legacy of environmental contamination, and the shift away from a manufacturing economy.

PUBLIC INPUT

Participants views of the districts varied for each area. Very little was said about Highland Cemetery during the process. Much was said about Eastern Michigan University and the need for better town-gown relationships. A true symbiotic relationship between the City and the University was seen as key. The office, social service, and medical buildings on Towner in the eastern part of the City were not mentioned during the process, even by heads of social service agencies in focus groups.

Almost all participants felt new jobs within the City for current City residents of all education levels were imperative. They felt large job centers should be located in southern industrial areas or "jobs districts" . Overall, the vision articulated was that jobs and industry are needed for the economic and equitable sustainability of the City.

DATA

Since the last Master Plan in 1998, the City of Ypsilanti has experienced a fundamental shift in its local economy. The manufacturing base that once sustained the City is almost entirely gone. It has lost close to 1,600 manufacturing jobs since 2001. The largest tax payers are now apartment property owners, instead of manufacturing facilities.

Eastern Michigan University remains an economic driver in the City, as one of the largest employers.

The industrial park in the southwest corner of the City has been mostly built out. Meanwhile larger facilities, like the Angstrom property, have been difficult to re-commission.

EASTERN MICHIGAN UNIVERSITY

Due to state law, the City has no jurisdiction over the built environment within EMU's campus. However, a guiding value for the City is Ypsilanti is an asset for EMU and vice versa. The City can continue to work with the University to create integrated functions between the City and Eastern, as well as programmatic steps:

Update regulations to create walkable areas at the border of the City and Campus – *Completed*

The form-based code should require walkable streets with building forms that complement the campus of EMU at the borders of campus. Further details on proposals for Leforge, Railroad and Huron River Drive are in the chapter on corridors.

Create a "front door" for EMU with the reconfiguration of Cross Street and Washtenaw – *Ongoing*
As discussed in the chapter on Centers, the confluence of Cross Street and Washtenaw should be eliminated by pulling the two roads apart, creating a mixed use area with a gathering area and possibly housing. The pedestrian mix and form should create a coordinated street scape between campus and city borders, both here and in the Huron River Drive corridor discussed in Chapter 8.

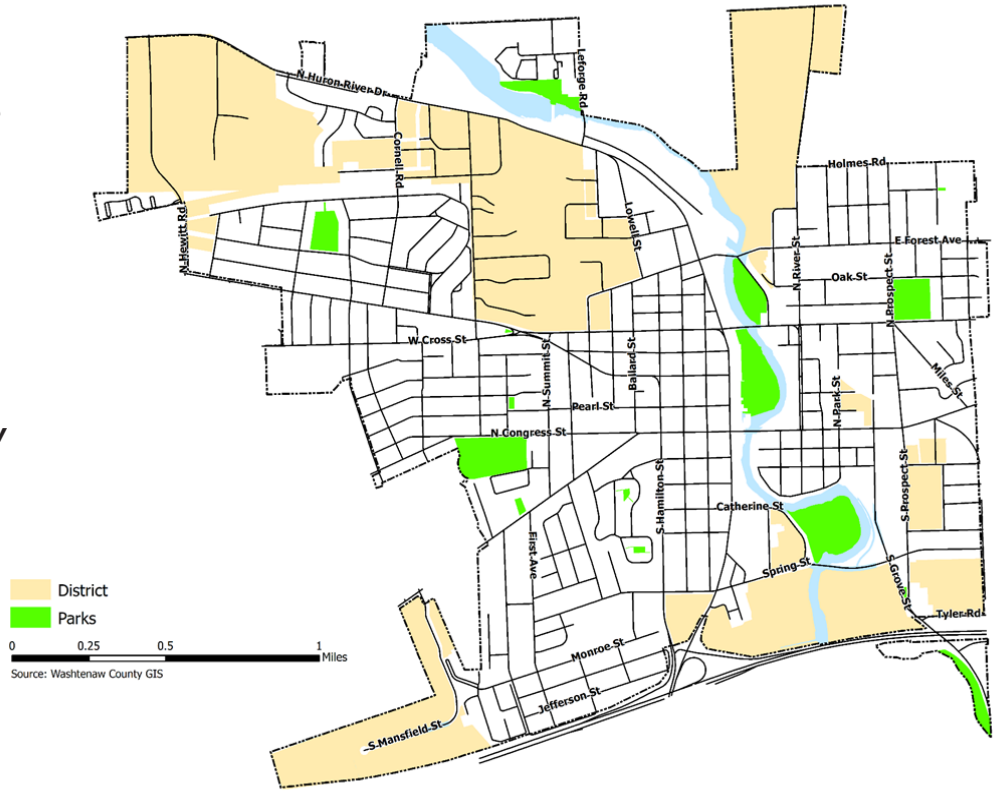
Create "Welcome to Ypsilanti" packages for new EMU students, including a web version – *Not started*
The City should bring together EMU administration and the Visitors and Convention Bureau to create welcome packages for all new students.

HUMAN AND HEALTH SERVICES DISTRICT

The area on either side of Towner between Prospect and Arnet Streets is home to the Washtenaw County Service Center to the north and medical facilities to the south. Both provide services for the City and the County. The facilities' layouts are suburban in form. The following policies or actions should be taken in this district:

Create regulations that support the existing building form but assure access by all modes of transportation – *Completed*

Map 16: Districts City Framework Map



The service center and medical facilities are suburban style buildings but are accessed by car, transit, bicycle and pedestrians. The form-based code should support the current style of building but require pathways, parking and loading faculties for all types of transportation.

Encourage use or redevelopment of unused parking lots – *Completed*
The parking lot for the medical facility is often empty. The city should work with the owners of the facility to see if a temporary use is possible to bring more activity. If redevelopment occurs, the existing street grid should be reconnected and a more urban form required. Health and Human Services zoning district was updated under the Walkable Urban District umbrella, with hope that future development will then be building-type based with less of a suburban style.

JOB DISTRICTS IN SOUTHERN PART OF CITY

The industrial park, large Angstrom property and other assorted industrial properties in the southern part of the City are well-suited for facilities that require easy highway access and roadways for trucks. These districts should be called "job districts" where the following plans or policies should occur:

Allow renewable energy facilities, such as solar panels - Completed
Most participants in the implementation focus groups felt that renewable energy facilities should be allowed as part of development in Job Districts, but not displace the possibility of new facilities being built. During the process of rewriting the zoning ordinance, the City could explore whether large-scale renewable energy facilities could be allowed as the primary use as long as they would be incorporated into later development. These types of facilities would be in line with the City's guiding values of Ypsilanti being sustainable and a great place to do business, especially the green and creative.

Reduce minimum lot size and width in the industrial park – *Completed*
The industrial park was laid out in a suburban style with large lots. The two smallest lots along Mansfield are approximately 125 feet wide. If that were to be made the new minimum lot width, approximately 10 new, developable industrial lots could be created by splitting off undeveloped land from existing parcels, subtracting area along streams and wetlands. The minimum lot area could be established at 60,000 square foot, which is the approximate area of the smallest existing parcel. Property owners would decide whether to split and sell land. The potential addition of a non-motorized path connecting the residential areas to the east of the industrial park should be considered as part of future development and/or the 5-year plan update. Additional jobs and industry is vital to the City's fiscal sustainability.

Encourage development of vacant parking areas – *Ongoing*
The City should work with the owners of the Angstrom property to bring development to the large parking lot associated with their facility that is no longer needed. A concept plan for the site is in the following chapter. Again, jobs and industry are needed for the economic and equitable sustainability of the City. Because of its location in the floodway, physical development may be challenging. Using the site to conduct flooding analysis may be an efficient temporary use here.

RAILROAD AREA SOUTHEAST OF DEPOT TOWN

The area along the railroad, to the southeast of Depot Town, has long-standing businesses in the community. However, these uses are often at odds with the adjoining residential uses. The areas shown as district should be allowed to transition from

neighborhoods to job areas, when owners petition for approvals. The corridor area to the west on Lincoln will have a mixture of less intensive uses in an urban form to act as transition between this area and the historic neighborhoods and centers nearby.

ECONOMIC DEVELOPMENT POLICIES

In this effort, the City has identified the following emerging
sectors as industries aligned with it Guiding Values and the needs of its residents: small manufacturing and craft production, creative economy, renewable energy, and food. Economic incentives, such as tax abatements, should be used to continue the growth of these sectors.

HIGHLAND CEMETERY

A historic part of Ypsilanti, the cemetery should be preserved and current policies left in place. The City and Historic District Commission supported an effort to list the cemetery in the National Register of Historic Places. The Commission approved the nomination in 2019 and the cemetery was officially designated in 2020. The City continues to support preservation of the historic cemetery, working with the nonprofit organization who owns and operates it.

The matrix at the end of this chapter shows how each of the proposals above enhances safety, diversity and sustainability in the City, as well as phasing. This matrix, those at the end of the previous chapters and the implementation matrix in the appendix are intended to be used by decision-makers to create reports and work plans as well as evaluate progress on an annual basis

Action	Timeframe	Location	Safety	Diversity	Equity	Environmental Sustainability	Economy
Update regulations to create walkable areas at the border of the City and Campus	Form-based code	EMU	x	x	x		x
Create regulations that support the existing building form but assure access by all modes of transportation	Form-based code	Health & Human Services	x	x	x	x	
Allow renewable energy facilities, such as solar panels, on industrial land	Form-based code	Job Districts				x	x
Reduce minimum lot size and width in the industrial park to create more opportunity	Form-based code	Job Districts		x			x
Align economic development incentives and programs to encourage emerging sectors that align with the Guiding Values and the employment potential of residents	1-5 years	All Districts					
Create "Welcome to Ypsilanti" packages for new EMU students, including web version	1-5 years	EMU		x	x		x
Encourage use or redevelopment of unused parking lots	1-5 years	Health & Human Services & Job Districts		x		x	x
Create a "front door" for EMU in the area created by the reconfiguration of Cross Street and Washtenaw Ave.	1-10 years	EMU	x	x		x	x

Chapter 10 – Redevelopment Areas

"Space not being utilized" - Sticky note on what to change, submitted during the Discover Charrette

Ypsilanti has three former industrial sites which could be redeveloped in the next 20 years. Each area is discussed in detail below and design concepts for the three sites are shown in this chapter. These drawings are concepts only, which mean they will not be duplicated detail by detail exactly as presented. All of the sites hold the promise of additional tax revenue, jobs and residents, as well as the challenges of environmental contamination and competing in a depressed regional market.

WATER STREET

Beginning around 1980, the City looked to this area of former and underutilized industrial land as a target for redevelopment. At that time, the City had little to no vacant developable land. Between 1998 and 2001, the 38-acre area was targeted for redevelopment as an urban neighborhood with a variety of housing types, particularly for sale condominiums, increasing both the new-construction housing options available and the number of owner-occupied households in the City. While the City acquired the land and completed most of the demolition and brownfield remediation necessary over the years, the intended development failed to occur. The land – and its accompanying $31 million debt – remains a major fiscal challenge.

Two developers had options on the land and were intending to purchase the entire site and develop it. For different financial reasons, both developers pulled out of agreements. In 2008, the City decided that looking for a master developer, one entity that would take on the entire site, was no longer feasible due to the national economic downturn. Rather, it would sell smaller pieces of the parcel to interested parties as they came forward.

Three different proposals have been put to the City Council since that time. One, for a drive-through restaurant, was rejected. Another, for a County Recreation Center, was tentatively accepted through a Letter of Intent. The third, for a discount retailer, was accepted after several rounds of negotiations.

Although each had a different result, each proposal was closely followed in the press and generated much public comment. During the charrettes for this Master Plan, many people expressed a range of visions for the property – from a permaculture forest to mixed-use mid-rise development. Almost everyone also expressed the urgency to use the property soon.

Given this political climate, the City Council will face a challenge with any development proposal that comes before them for Water Street. The Water Street redevelopment concept plan shown on the opposite page was developed based on community input during the charrettes held for this process in the Spring of 2013. The plan shows items consistently requested by the community: a formal community gathering space and a linear park along the riverfront.

The concept plan includes two structures not in previous plans for Water Street. The first is a stormwater facility in the floodplain to service the entire site, in keeping with the community's values of creating an urban space but using environmental systems. As portions of the site are sold, the storm water facility will need to be built, some portions ahead of the actual development. Second, a vehicular bridge extending River Street across the Huron River and south to Factory Street is shown. The extension of River Street would complete a missing portion of the street grid, giving the neighborhoods near Spring and Factory Street easier access to the resources in the downtown and would create an easy traffic route from the highway to Water Street. The bridge and street extension

Figure 22: Water Street Concept Plan

are long term projects, perhaps ten to twenty years in future.

Approval Process and Standards

The concept plan is based upon common urban design standards which will be incorporated into the form-based code for the City. These are the standards by which the City Council should determine whether the City should sell a portion of Water Street for a proposed development. The standards do not talk about the use. Rather, they dictate the design of the street, what is on the street and the design of the buildings for multiple uses over the long-term.

The drawing to the left is based on community input during the charrettes and urban design principles. It is a 20-year vision for the Water Street area. When developed, the site may differ from this exact layout.

The street layout is a continuation of the existing street system, drawing the value of the river through the community. A vehicular bridge is proposed extending River Street to Factory. A stormwater faciltiy for the entire site is shown just north of the river.

The plan includes a formal park, ringed in red, and a linear park along the Huron. The property south of the river is shown as recreation use. This area is mostly floodplain. The building shown south of the river is a concept footprint that would need further study.

Drawing by: AECOM

If and only if all of these standards are met, should the City Council consider sale of property on Water Street:

Respect right-of-ways & blocks

The street layout should connect to existing streets – River, Lincoln and Park across Michigan Avenue to the north, as well as Parsons and South to the east. The new streets should continue the same width and design. Also, the blocks, as laid out in the sketch, pull the value of the view of Huron River through the entire site to the rest of city, by ending streets into parkland along the river's edge. All proposed development should abide by this general layout.

Block perimeter should be less than 1,200 feet, like the other blocks in the City

Every block in Water Street, the area of land bounded on four sides by streets, should be less than 1,200 feet in perimeter. Blocks larger than this length, the average block perimeter in the adjacent Historic Downtown, will cut off access and value from the site to the rest of the City.

All streets have on-street parking

Parallel parking should be required on all streets and count towards any zoning parking requirements. The on-street parking slows traffic, makes a walkable environment and provides parking in front of buildings.

All streets have sidewalks

To assure a walkable space, all streets must have sidewalks on both sides, including the side of the street nearest to the park fronting the Huron River.

Figure 23: Water Street "A" and "B" Streets

"A" Streets are shown in yellow and "B" streets in blue

All streets have space for trees and other stuff

New streets in the Water Street area should have designated areas for trees between the road edge and the sidewalk, while street furniture – benches, trash receptacles and outdoor seating – should be placed in the same place along the sidewalk. The photograph on the opposite page shows an example zones for trees, outdoor seating and pedestrians in Depot Town.

All driveway aprons have the same design

Driveway aprons, the portion of the curb cut that slopes down to meet the street, should be consistent throughout the development. Moreover, they should be made of different materials than the sidewalk to show where vehicles enter and exit to pedestrians, as shown in the photograph on the opposite page. They should also be gradually sloped for ease of pedestrian crossing.

All buildings are built for multiple uses over time

All building should be built for eventual re-use, specifically through regulation of the height of floor. The ground floor, from floor to ceiling should be a minimum of 12 feet with a maximum of 14 feet. Upper floors should be 10 feet.

New development has "A" &"B" streets, similar to the Historic Downtown (see Figure 23)

Buildings which front "A' streets must have parking on the street and behind the building. "A' street design, with no curb cuts, is required on Michigan Avenue, River Street as it is continued through the site and Park Street as well as the street fronting the park adjacent to the Huron River. The "A" street design must incorporate the elements and dimensions of the cross section on this page (see figure 26).

"B" streets (see figure 27) allow curb cuts and parking lots to front the street. "B" streets are allowed for the continuation of Parson, South and Lincoln Streets as well as other internal streets. "B" streets must contain the dimensions and aspects shown in cross section on this page.

Figure 24: Sidewalk with Furnishing Zones

Source: ENP & Associates

All buildings on "A" streets should be friendly to the street.

Buildings on "A" streets should be friendly to pedestrians by following these urban design rules:

- 90-100% of the building faces the "A" street
- It is built one to five feet from street right of way
- 60% of the front of the first floor is transparent windows or glazing
- The primary building entrance faces "A" street
- The first floor of buildings should have active uses- stores, restaurants, services - where people come and go often.

Figure 25: Driveway Apron Example

Source: AECOM

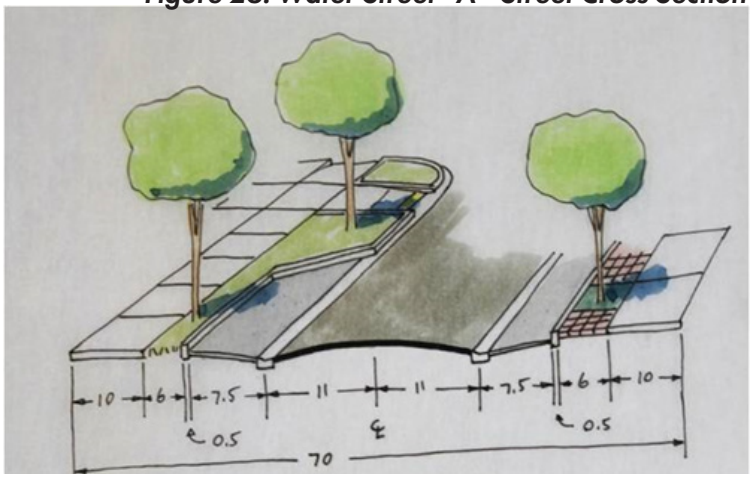
Market Considerations

The vacant property on Water Street offers developers an opportunity to build from the ground up, with little or no environmental remediation. All other development opportunities in the City involve the re-use of existing buildings, which require specialized design, or probable demolition and environmental clean-up.

Because of these advantages, the Water Street development site offers opportunities for larger stores and national retailers to locate in the City. With the coming recreation center, this site can be attractive for businesses such as a sporting goods store, but also is a marketable site for a hardware store, major grocery store, pharmacy, and neighborhood types of goods and services. A full-service grocery store has been requested by residents for many years and was throughout the Master Plan process.

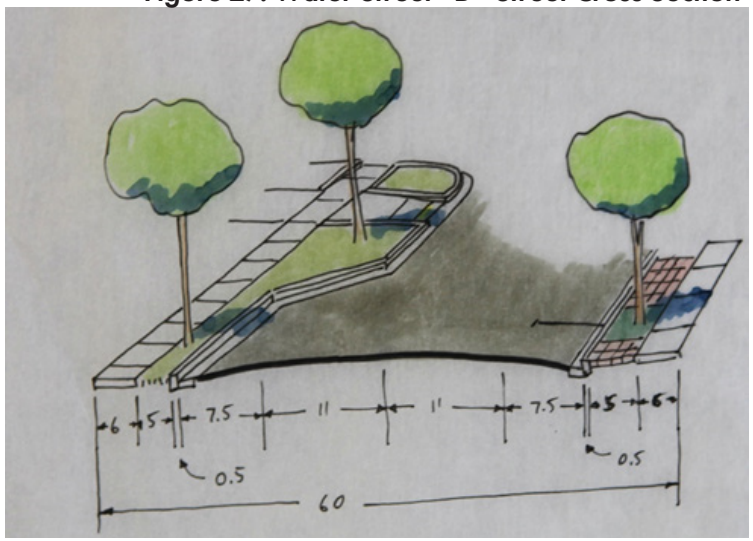
Housing has always been part of the vision for the redevelopment of Water Street and the site offers a central location near goods and

Figure 26: Water Street "A" Street Cross Section



Source: AECOM

Figure 27: Water Street "B" Street Cross Section



Source: AECOM

services. Upper story housing in nearby Depot Town and the Historic Downtown have waiting lists and were easily leased, even in tough economic times in the late 2000s. During the charrettes, residents expressed the need for attached or multiple family housing for seniors and for young professionals.

The market will most likely dictate the height of the buildings. The site is more likely to be filled in a shorter amount of time if the buildings are one to two stories. If the buildings are 3-4 stories, complete development of the site will take longer, probably with a first building, a period of 3-5 years with little to no activity and then a flurry of development. In the form-based code, buildings with two or more stories may be required on "A" streets.

If train service comes to Depot Town, the market situation for Water Street will change as the site is within a 10-15 minute walk from the location of the train station. Most cities have seen market pressure for attached or multiple-family housing within walking distance of new transit stations.
No matter what use is most marketable at the time, the buildings should abide by the urban design standards detailed previously. The City will continue to work with real estate professionals to market and develop the site. A consistent and coherent marketing and development process will attract investment interest.

BAY LOGISTICS SITE (FORMER MOTOR WHEEL)

This property, just east of the railroad and Huron River north of Forest, has a long history of industrial activity. Currently, the 30-acre site is a warehousing and distribution facility. Due to the history of the site, any use other than industrial would most likely require environmental remediation. The upcoming form-based code should allow the current form and use to continue.

The City Framework designates this parcel as a district but the concept plan on the following page shows the site designed as a central neighborhood. The site is within a 10-minute walk of the anticipated train station in Depot Town just to the south. As with the Water Street site, demand for attached or multiple-family housing is anticipated within walking distance of daily commuter train service. Also, the site is within walking distance to EMU's campus, attractive to EMU students, faculty and staff. The extent of any environmental contamination is not known and the cost and level of clean-up, the highest of which is residential as required by the State of Michigan, will influence redevelopment costs.

Market analysis for this Master Plan concluded this site may be marketable as a larger scale mixed use development. It could incorporate many of the unmet shopping needs for students and professionals within a new rental housing complex that shares a parking structure with EMU, residents and shoppers. The concept plan for the site, shown in Figure 28, is a rendering of what a larger scale mixed use development could be. The plan is based on the urban design principles outlined for Water Street, continuing the existing street grid through the site. Two multi-use paths are shown, connecting the site to Eastern Michigan University to the west and Depot Town to the south.

When the form-based code is developed, the site will likely be zoned as a district, allowing the use and integrating the form into the surrounding neighborhood if redeveloped. However, redevelopment of the site as a central neighborhood with attached and multiple-family housing units as well as retail or office should be considered if brought forward by an applicant to rezone and redevelop the site.

Figure 28: Bay Logistics Concept Plan

The concept plan to the left shows a possible redevelopment layout for the Bay Logisitcs site. The plan assumes an increased market for housing, office, and retail, possibly driven by daily rail service in Depot Town. ***Environmental remediation costs are unknown and will influence the redevelopment of the site.***

The commercial study done for this process suggested this site would be marketable as a mixed-use development with shopping on the first-floor and residential above. The plan shows a new community park in the northeast corner, public green space bordering the cemetery and the Huron River and a new pedestrian bridge crossing the River.

The plan also shows possible redevelopment along Railroad, Forest and Lowell, with a new pedestrian path over the railroad. All redevelopment would be at the initiative of the owners of the property.
Drawing by: AECOM

ANGSTROM PROPERTY (FORD/VISTEON)

This property has been home to industrial manufacturing since the early 1900s. For many years, it was the highest property tax payer in the City. The site has two components separated by the Huron River – a large factory on a 35.7-acre parcel and a 25.5-acre parking lot. Environmental contamination has been remediated on sections of the factory side of the site. The parking lot, no longer used, has always been used for parking.

Figure 29: Angstrom Property Concept Plan

Presently, the property is owned by the Angstrom USA LLC, which is not manufacturing within the factory as originally planned. They owners indicated to the City that they are open to selling the parking lot portion of the site. The site is well-suited as a job site due to the size of the property and easy access to I-94. Through the public engagement process, participants repeatedly expressed the need for jobs in the City.

GThe concept plan for the site in figure 31 shows a series of additional buildings on the parking lot area laid out in block pattern based on that of the City. Buildings on this

The concept plan to the left is a possible redevelopment layout for the parking lot portion of the Angstrom property. The floodplain of the Huron River may shift some of the building locations shown.

The street layout continues the existing street network and block pattern. Buildings are placed in an urban setting, with parking pooled behind the buildings.

The trail network, shown in brown, is continued on either side of the property.

This area is intended to remain a jobs district. Redevelopment would be at the initiative of the property owners. Drawing by AECOM

site would be built outside of the floodplain of the Huron River and may not be in the exact location shown. In terms of the form-based zoning, the City should treat this area as a district with similar form and allowed uses as the industrial park in the southwest portion of the City. The City or other economic development entities, such as Ann Arbor SPARK, could pursue a certain sector for the site. The Northwest Council of Governments of Michigan has developed a Food Innovation District Guide which could help Ypsilanti bring food industries, from production to consumption, to the site. The site may also be a natural place to cluster sustainable energy companies, building on the green and permaculture movements within Ypsilanti.

220 NORTH PARK ST.

This is a 4.46 acre property owned by the city that sits along the railroad track. In 2017, the site was assessed for residential development. It was determined, based on a target market study, that the site was a good candidate for owner-occupied townhomes. The concept called for a 44-unit townhome development that was not well-received by the neighborhood, and has since sat vacant. The site is located less than a quarter-mile to Depot Town. It is primarily surrounded by residential uses but across the railroad track is a mix of commercial and industrial uses, and it is close to a commercial corridor on E. Michigan Ave.

In November of 2019 and January 2020, two meetings were held with the public about what they would like to see on this property. The re¬sults were varied. Immediate neighbors wished to see the site converted to a park- potentially with art or a pond- or a small number of single-family homes that conform to the existing

220 North Park St.

neighborhood. There was also interest in building along the perimeter of the parcel to protect the pond in the center. Some preferred denser development that allowed around 20 units ranging from single-family to four-plexes. In general, the consensus was on low-to-moderate residential development that was not tall enough to block neighbors' views.

1901 HURON RIVER DRIVE

The 6.5 acre site is privately-owned. The site is primarily a wooded lot with one single-family home. The home's driveway has access to N. Huron River Drive but is set over 100 ft back from the right-of-way. Due to the variety of surrounding uses, this site has the potential be used in many ways that are beneficial to Ypsilanti. This parcel is located close to St Joseph Mercy Hospital, EMU facilities, and the Border-to-Border Trail. Its proximity to both multi-family units and a single-family development provides opportunity for this site to be developed either way.

In January 2020, when residents were asked to share their preferred development for this site, it was overwhelmingly for housing. As expected, suggestions spanned the range of mixed-use office space with lofts above, missing middle housing types, and a large apartment complex with 10% affordable housing. Aside Huron River Drive, this is a contiguous wooded lot that is proximal to the river. Consideration for the existing ecosystem should be made on this site.

1901 Huron River Drive

Chapter 11 – Implementation

"Enough planning, now doing" – Favorite phrase of Master Plan Steering Committee Member

The previous chapters provide the guiding values for the City, a snapshot of it in 2013, the framework for the future and the vision of the next twenty years. Many of the projects, such as the bridge over the Huron River extending Water Street, are ambitious. Others are changes in process or regulation. This chapter consolidates the Master Plan into a policy road map.

THREE FUNDAMENTAL STEPS

The City of Ypsilanti will invest resources – staff time and budget, if available – in the following fundamental steps to implement the Master Plan:

Form-Based Code

The current zoning ordinance is use-based and not well-equipped to implement this plan due to reasons outlined in Chapter 3. A form-based code will create a coherent regulatory system to create a safe, diverse, sustainable city. The zoning ordinance was updated in 2014 to include the form-based "building types" within the "Walkable Urban Districts."

Process for Water Street Sale Approval based on Urban Design Standards

Water Street must become an asset to the City rather than a source of controversy. The urban design standards laid out in the previous chapter guarantee an urban form like the Historic Downtown and Depot Town, areas that have been sustained for over a century.

Conversion of One-Way Streets to Two-Way Streets

The conversion of Huron, Hamilton, Cross and Washtenaw to two-way streets have been in several previous plans by the City. The conversions will only happen with cooperation from MDOT and investment of time and money. WATS should be utilized as a resource for data, research, scheduling, and facilitation. The City must invest staff time to discuss a process with MDOT and search for money to fund these conversions. Partnerships with Eastern Michigan University, Washtenaw County and other actors must be used as well.

COMMUNITY BUILDING

To that end, the City must build community relationship as part of the implementation of this plan. The following steps should be undertaken and integrated as part of everyday operations, if they have not been already:

Establish partnership with merged school district

The newly formed Ypsilanti Community Schools will influence the lives of Ypsilanti residents and their property values. The City should establish a regular means of communication, be it a standing meeting between the mayor and the School Board Chair, superintendent, manager, or a committee to talk about cooperation. The City should also reach out to the school district to coordinate the sale or reuse of district-owned properties within the city limits.

Continue and expand project-based learning

Participants felt activities for youth were essential. The eco-districts in City parks would be a natural place for project-based learning in partnership with local educational institutions - Ypsilanti Community Schools, Eastern Michigan University, University of Michigan and Washtenaw Community College.

Engage with joint projects with neighboring communities

Neighboring municipalities share many of the challenges as the City. Joint projects - such as road improvements, joint plans, and economic development initiatives - should be pursued.

Build community with neighborhoods

Participants frequently expressed pride in their neighborhoods. Festivals and gatherings in parks were often key to that feeling of community. The City can facilitate community building within neighborhoods by maintaining safe, clean parks and offering services to help with events, such as trash pick up.

Encourage cooperation between neighborhoods

During the first round of focus groups, participants expressed disappointment or frustration that neighborhoods were often at odds with one another. The City can use structures in place, such as the Community Policing Action Council (CoPAC), to bring neighborhood representatives together. However, some feel the responsibility also lies with neighborhood associations to extend warm invitations to those across the street to join them in an effort or activity.

Celebrate each other's successes

Participants often were frustrated that people in Ypsilanti operate in their own silos. The City can set a tone to break down silos by celebrating the successes of all Ypsilanti residents and businesses, as well as those of neighboring municipalities.

ZONING PLAN - FORM-BASED CODE

In the Fall of 2013, the City of Ypsilanti is scheduled to undertake a rewrite of its Zoning Ordinance to a form-based code. Many pieces of the City's current code can be preserved and integrated while introducing a form-based code approach. The goal is to retain what is working, while providing new standards that improve areas and also allow for the distinct districts to maintain the current fabric of the area or provide new context for undeveloped land.

The vision, guiding values and plans documented in this Master Plan will guide the formation of the form-based code.
Per the requirements of section 33 (2) (d) of the Michigan Planning Enabling Act (Act 33 of 2008), the Zoning Plan on the following pages describes the relationship between categories on the Framework Map in Chapter 4 and the zoning districts in the City.

Each of the framework districts in the form based code would include:

- Easy to follow procedures and standards for renewable energy facilities, including solar panels on all buildings
- Creation of a no building zone for steep slopes along Huron River for safety and environmental preservation.
- Alignment and streamlining of City processes for planning, renovation and construction
- Historic preservation regulation allow re-use in 21st century economy, especially for houses of worship
- Permit process for food trucks beyond temporary event, possibly in limited locations to be determined during the zoning ordinance process
- Expansion of food producing plants as part of landscaping

ROLE OF CITY STAFF

If the City staff is doing their job well, no one should notice. They are the stage managers for the thousands of details required in the daily municipal functions that facilitate safe development within the City. Staff, particularly those in the Planning, Building and Public Service Departments, need the capacity and time to address the following everyday:

- Existing small business development and expansion through phone calls, meetings and knowledge of appropriate places for expansion
- Quick and streamlined approval processes
- Attraction of new building to redevelopment areas, as well as other available land within the City
- Improvements of pedestrian connections
- Completion of the bicycle network
- Installation of ADA ramps at all intersections

- Rehabilitation of existing structures by working with the owners of those properties to leverage private/public funds
- Stabilization of neighborhoods through consistent code enforcement, community policing and communication.

ANNUAL EVALUATION & PLANNING

According to the Michigan Planning Enabling Act, the Planning Commission must submit an annual report, work plan and budget to City Council in time for consideration of the next budget cycle. The following portions of this Master Plan should be used as tools to prepare those materials:

- **The Decision Making Rubric in Chapter 2:** The Planning Commission should examine the measures in achieving the Guiding Values.
- **The Implementation Matrix:** Located in the appendix, it is a compilation of the matrices at the ends of chapters 6-9. The Planning Commission should track whether, how and/or if the City is implementing these items as planned and adjust work plans accordingly based on resources and the Guiding Principles.
- **Three Fundamental Steps:** Found at the start of this chapter, the Planning Commission should evaluate progress or achievment of these steps and communciate to City Council the work, resources and support needed.

These tools should also be used in to prepare a work plan for the five-year master plan update. Additional information on how to prepare for that event is in the next section.

FIVE-YEAR MASTER PLAN UPDATE

Per the Michigan Planning Enabling Act, the City of Ypsilanti must

Figure 30: Zoning Plan

Framework Category	Form-Based Zoning District(s)	Description of character and uses	Notes
Center	Center	The intent of these zones is to maintain and expand the pedestrian oriented character of the downtown, central business district, and other centers of activity. The physical form is of an urban character with uses that promote office, retail and entertainment venues, with upper story residential uses permitted.	Includes the Downtown, Depot Town, Water Street area and Cross Street area adjacent to EMU
General Corridor	General Corridor, Neighborhood Corridor	Primarily suburban in form and are currently limited to auto-oriented commercial and office uses that are adjacent to residential neighborhoods. Corridors contain a variety of medium to smaller parcels and are adjacent to both types of neighborhoods. They will allow parking on the street and require buildings to be closer to the street; with minimal yards, lots will have more buildable area for residential, commercial and office uses mixed throughout.	Includes large portions of Washtenaw Avenue, Michigan Avenue, Harriet Street, Prospect and Huron River Drive.
Historic Corridor	Historic Corridor	Dominated by large, historic homes now used in a variety of ways – residences, office, and retail. Houses of worship and other civic buildings also line these corridors.	Includes areas adjacent to Central Neighborhoods and Centers
Central Neighborhood	Neighborhood Core (3 Districts)	The physical form of structures shifts to a residential character with flexibility in use. Live/work housing, personal services, corner retail and small offices are evident in this district. Buildings are spaced closely, but are separated by setbacks.	Most of the City's historic neighborhoods, and some others with strong grid structures, are included in this area. The residential buidlings types and uses vary on a spectrum with the Historic East Side with the least variety and near campus areas with the most. Three zoning designations are anticipated to preserve the existing character ranging from single-family to a large variety.
Outlying Neighborhood	Outlying Neighborhood, Multiple-Family	Low density suburban-style residential areas, consisting of predominately detached housing types, with some two-family houses throughout the area or higher-density, suburban style apartment buildings. These neighborhoods will have uses largely limited to the type of residential for which they were built. In some areas, like the Heritage Park neighborhood in the southwest part of the City, zoning would be changed so that duplexes and group homes would no longer be allowed by right.	Neighborhoods built in the middle or later part of the 20th century and include a single type of housing, adjacent to a corridor but the street network is designed to carry traffic into the neighborhood, not through it.
District	SD Special Districts	Areas of the city dedicated to a single type of activity. Special zoning districts will be developed for each of these areas	Includes EMU, Highland Cemetery, the human and health services area on Towner, the area around the railroad tracks and the industrial areas in the south of the City.

revisit this master plan every five years after its adoption to assess whether an update is needed. The City should use the implementation matrix in the appendix to track progress. If milestones have not been met, the City needs to re-evaluate its commitment to those items and change the Master Plan.

At the very least, the City should analyze neighborhoods to see if and how they have changed. Using data regularly collected and updated by the City, the data portion of the process should analyze trends in homeownership and rental dwellings, the type of dwellings in terms of numbers of units, and the amount of investment in homes by building permits. These numbers should be then focused through the lenses of safety, diversity and sustainability. Sometimes, those goals might be at odds with one another. For instance, if a neighborhood experiences gentrification, with a wave of more well-off homeowners moving in, the diversity of a neighborhood and sustainable equity may be threatened. With that knowledge, the City would then engage the residents in a process to decide priorities and next steps.

If progress is happening and staff time or budget is available, the following items warrant attention that was not possible in this process:

Leforge and Huron River Drive Reconfiguration

This intersection not only between roads but between the City and the University does not function well for pedestrians and acts as a barrier. An intense design process, like a charrette, for this area is needed to find fixes to the existing infrastructure. At the very least, this intersection should be examined as part of an update on the two-way conversion of streets.

Financing for sustainable energy and energy efficiency

An implementation step in the City's Climate Action Plan, focus groups for this process designated a sustainable energy financing program, such as a Property Assessed Clean Energy (PACE) initiative, a 5 to 20 year priority. Additional planning and effort will be needed to start such a program.

Food Access

Throughout the process, residents asked for better food access in the City, specifically a full-line grocery store. While full-line grocery stores are located within a ten-minute drive of every residence in the City, the industry standard for location of those businesses, many residents can only reach them by bus. In focus groups at the senior high-rise downtown and the Chidester apartments, residents spoke about how buses ran infrequently between their homes and grocery stores located outside the City or not at all, particularly on weekends.

Congress and Ballard

Due to the intersection of three streets, this entrance to the Historic Downtown warrants in depth study to create a safety and preserve the context.

CONCLUSION

This plan is rooted in the facts and people of Ypsilanti today. Both will change with time, but the principles of safety, diversity, and sustainability hopefully will be guiding values for tomorrow.

Chapter 12: Sustainability Plan Update

"It's real. It's us. It's bad. Scientists agree. There's hope." -Anthony Leiserowitz, Director Yale Project on Climate Change Communication

Ypsilanti, in many ways, is a state leader in sustainability planning, yet these efforts had not unified into a Sustainability Plan until now. Inventories and strategies could be found in the City's Climate Action Plan, Energy Plan, Nonmotorized Plan, Parks and Recreation Plan, or Alternative Fuel Policy. While these plans hold tremendous value, the recommendations within them carry more weight and are more accessible when included in the City's primary policy document. The Master Plan is a community's most comprehensive planning document and serves as the policy basis for the Zoning Ordinance, which directly regulates land use. Zoning provisions have the legal force to protect natural resources, prioritize sustainable development, and improve the infrastructure that enables nonmotorized travel. The previous efforts were influential and integral to the City's "green" practices, and this next step officially denotes sustainability as an actionable City priority through the compilation and advancement of sustainable strategies into a single cohesive document. This Sustainability Plan is intended to serve as a data resource, community reflection, and policy guide to the Commission's future actions.

The Impetus

The Sustainability Commission was established in 2017 with a primary mission of addressing environmental issues and prioritizing sustainability policies. In this short time, the Commission has embarked upon and accomplished numerous initiatives, including:

- Passing a resolution in support of native plants in local landscaping
- Partnering with the Washtenaw County Conservation District to provide support for grants to plant trees, hold workshops, and train for tree maintenance
- Reviewing and recommending the 2018 Energy Plan
- Partnering with the city of Ann Arbor on the Net Zero Initiative
- Passing an Energy Star Resolution to identify underperforming buildings and apply for certification
- Founding an annual Earth Day celebration

The Sustainability Commission recognizes that risk analysts, including the US Department of Defense, rank climate change as one of the most serious threats to ecosystems and people around the world. [1,2] "Climate change" refers to a broad range of global phenomena resulting predominantly from the large-scale burning of fossil fuels, which add heat-trapping gases to Earth's atmosphere. The result is a variety of challenges: extreme heat and increased cooling days, more severe winter storms, changing coastal dynamics, rising water levels, disruptions to growing seasons, pest migrations, habitat loss, temperature volatility, increasing extreme weather events and associated stress on natural ecosystems, and risk of drought that will disturb of the characteristics and functions of natural processes.[3]

There are generally two types of responses to climate change: mitigation and adaptation. Mitigation, or reducing the risk of future changes to the climate, necessitates dramatically reducing future GHG emissions and increasing the sequestration or storage of existing GHG in natural sinks such as forests or soil. While mitigation strategies will take decades to positively impact rising temperatures, reducing GHG emissions now will reduce future risk and make it easier to adapt to the future impacts of climate change. An example of a mitigation strategy would be increasing the deployment and utilization of renewable energy. Adaptation refers to actions that address the effect of the problem, but not the root

of the problem. Adapting to climate change necessitates changing behaviors, systems, and our way of life in response to the results of climate change. One example would be relocating electricity and communication lines from overhead to underground locations to prevent power outages during extreme weather.

Where the two categories overlap is where resiliency is born – if an action can simultaneously mitigate negative effects of climate change and help a community adapt, then it rises to priority status. Because the tangible positive effects of mitigation will take the entire world's coordination, not just the region's or the City's, a focus on adaptation is the most prudent and impactful.

Regional Climate Change

The Great Lakes Integrated Sciences and Assessments (GLISA) Center is one of the eleven regional centers funded by the National Oceanic Atmospheric Administration. It is a partnership between the University of Michigan and Michigan State University that seeks to provide usable and useful information on climate change impacts to decision makers across the Great Lakes Region. GLISA provides both historic information, derived from over 200 quality-controlled weather stations located in communities across the region, and future climate information, derived from regional and global climate models (RCMs and GCMs), as well as dynamically downscaled climate models. Historic climate information is useful for providing locally relevant information that communities can use to assess how well their physical infrastructure and social systems are faring in the face of current climate change, whereas future climate information is useful for incorporating into capital improvement processes when decisions will affect infrastructure investments over 10, 20, or 50 years. Some positive news is that this scientific awareness is reaching a critical mass of Americans (and Ypsilanti residents). Most Americans believe global warming is happening (71%) and that it will harm future generations (73%).[4] Public opinion estimates generated by the Yale Program on Climate Change Communication and the George Mason Center for Climate Change Communication suggest that 78% of Washtenaw County residents believe climate change is happening, 76% believe climate change will harm future generations, and 83% support policies that bolster renewable energy or limit CO2 emissions.[5]

Southeast Michigan Climate Division Area	
Included Counties	**Included Watersheds**
Genesee	Birch-Willow
Lapeer	Cass
Lenawee	Clinton
Livingston	Detroit
Macomb	Flint
Monroe	Huron
Oakland	Lake Erie
St. Clair	Lake Huron
Wayne	Lake St Clair
Washtenaw	Ottawa Stoney
	St. Clair
	Raisin
	Shiawassee
	Tiffin
	Upper Grand

Historic Regional Climate Change

GLISA offers curated history climate information at two scales:

- Climate Division, which are multi-county, NOAA Designated regions,
- Quality-controlled weather stations.

Significant increases in precipitation across the entire region can be seen in data collected over the past 70 years (1950 to present). Increased seasonal precipitation is most notable in the spring and fall: fall precipitation has increased over 28%, and spring precipitation has increased over 21%. The region is experiencing this precipitation increase within storm events that are also increasing in severity, resulting in more rain falling in more concentrated bursts.

Over the same period, the average annual temperature has risen across Southeast Michigan by 2.4 degrees Fahrenheit (°F), and the gap between average high and low temperatures is closing and swinging upward towards warmer temperatures. Winter and spring are considerably warmer, with rising winter lows and earlier last frost dates leaving fewer days under 32°F in the spring season.

Other important changes, in addition to temperature and precipitation, are occurring locally. Increases in freeze/thaw cycles create stress on built infrastructure. Extensions of the growing season, which improve agriculture, can also increase risk

Figure 31: Precipitation Change 1950 – 2019 Southeast Michigan Climate Division

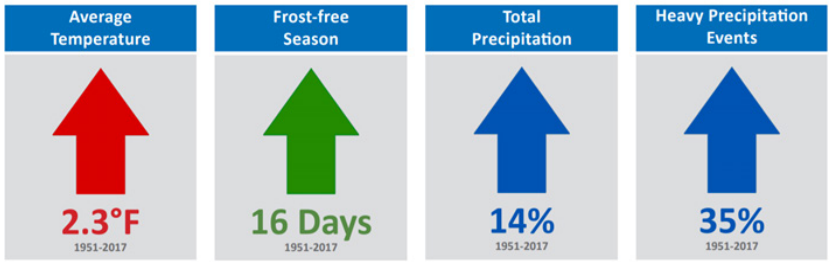
Season	in	cm	%
Annual	5.58	14.17	18.5
Winter	0.61	1.561	11.2
Spring	1.72	4.39	21.1
Summer	1.13	2.88	12.0
Fall	1.99	5.07	28.4

Source: GLISA

Figure 32: Rise in Temperature from 1950 through 2019

Season	°F	°C
Annual	2.43	1.35
Winter	2.80	1.55
Spring	2.86	1.59
Summer	1.91	1.06
Fall	1.94	1.08

Source: GLISA



Source: GLISA

[1] Intergovernmental Panel on Climate Change (IPCC). Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change http://www.ipcc.ch/report/ar5/syr

[2] U.S. Department of Defense. Quadrennial Defense Review. Washington, DC. 2014.

[3] Planning for Community Resilience in Michigan. 2017.http://www.resilientmichigan.org/downloads/michigan_resiliency_handbook_web.pdf

[4] Matthew T. Ballew, et al. 2019. Climate Change in the American Mind: Data, Tools, and Trends, Environment: Science and Policy for Sustainable Development. 61:3, 4-18,DOI:10.1080/00139157.2019.1589300 https://www.tandfonline.com/doi/full/10.1080/00139157.2019.1589300

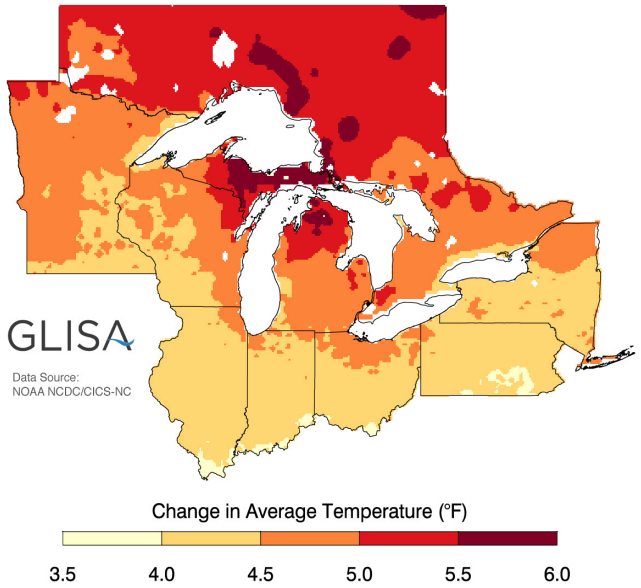
[5] Marlon, J. Washtenaw County Michigan Public Opinion on Climate Change, 2019.https://factsheets.ypccc.tools/Michigan:Washtenaw_County

of vector-borne illness. Extended heat events in the summer and ice storms throughout the winter lead to more stress on the electric grid, increase the likelihood of power outages, and further exacerbate existing vulnerabilities among Ypsilanti residents.

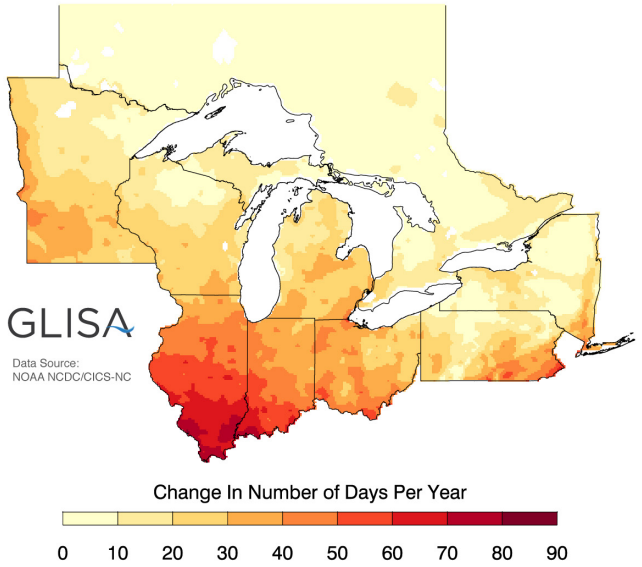
Future Regional Climate Change

While future climate change can be more difficult to predict with the same precision historic information allows, GLISA can predict regional trends with high levels of certainty thanks to improved climate models and climate science translators. In terms of both temperature and precipitation, challenges are anticipated in the mid- to long-term. By the period of 2041-2070, southeast Michigan is expected to warm by 4.5 to 5°F from the average temperatures in the 1971-2000 time period. This average increase will be accompanied by more high heat days: in the same period, it is anticipated that there will be 30 to 40 more days over 95°F than there were in the 1971-2000 period.

Projected Change in Average Temperature
Period: 2041-2070 | Higher Emissions: A2

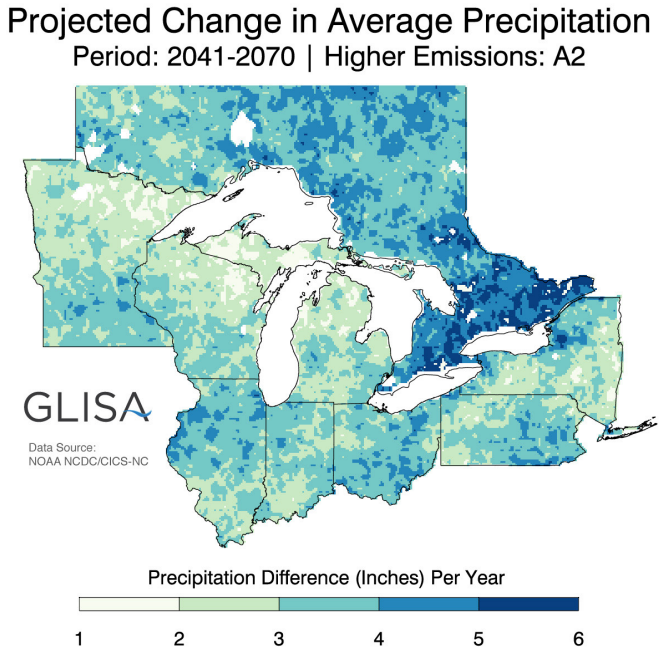


Projected Change in Number of Days Over 90°F
Period: 2041-2070 | Higher Emissions: A2



Increases in overall precipitation and acute rain events are also expected for our region during the same period. Annual rainfall is expected to increase by three to four inches over annual rainfall in 1971-2000. By 2040-2070, the region is likely to experience up to two more days per year with heavy precipitation, defined as the 2% heaviest precipitation events in the area.[6]

It is important to remember that while understanding climate change is critical to the process of planning for Ypsilanti's future,



these impacts may also open new opportunities for our community and region that set us apart from other areas. A temperate climate, an extended growing season, an abundance of freshwater, and a legacy of innovation and production place southeast Michigan on the top of the list for "climate positive" regions of the world. To properly prepare ourselves and our community for the future, we must adequately address how climate impacts do and will exacerbate existing vulnerabilities in our community, but also be diligent to build a resilient future – one that that not only "bounces back," but "bounces forward."

Environmental Justice

In any crisis, the most vulnerable populations will bear a disproportionate level of the burden unless protective action is taken. Their lack of resources and influence means that they will suffer greater exposure to climate change threats, and be less able to adapt and react. Environmental justice (EJ) is a discipline pioneered by Dr. Robert Bullard in the 1960s as a result of his investigation into the unequal protection and enforcement of environmental laws and regulations. Bullard was a part of the National Environmental Justice Advisory Council that advised President Bill Clinton to sign the Environmental Justice Executive Order in 1994 where EJ is defined as: "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with the respect to the development, implementation, and enforcements of environmental laws, regulations, and policies."

Today, the definition applies to the effects that climate crisis will have on the disadvantaged. Nearly 25 years later, as climate change has inequitably descended upon us, the City of Ypsilanti understands that its populations of people of color and low-income households are more vulnerable to both the physical and social impacts of climate change; likewise, women and members of the LGBTQIA community are vulnerable to climate change's social effects. Where possible, this plan addresses what can be done on a local level to protect - our residents and visitors from the worst of these changes. As the structures that perpetuate structural inequity are brought to the attention of those in power, every attempt should be made to dismantle them or to minimize actual and potential harm.

[6] GLISA. Great Lakes Regional Climate Change Maps. http://glisa.umich.edu/resources/great-lakes-regional-climate-change-maps
[7] National Resources Defense Council, Jemez Principles for Democratic Organizing. https://www.nrdc.org/sites/default/files/jemez-principles-organizing.pdf

JEMEZ PRINCIPLES FOR DEMOCRATIC ORGANIZING

#1 Be Inclusive

#2 Emphasize Bottom-Up Organizing

#3 Let People Speak for Themselves

#4 Work Together in Solidarity and Mutuality

#5 Build Just Relationships Among Ourselves

#6 Commit to Self-Transformation

As this plan is executed and amended, it's important also to incorporate the voices of all people who may be affected, and to understand the impacts that decisions made by those in power may have. The Jemez Principles for democratic organizing[7] provide a useful roadmap for examining and updating our policies and our actions in the context of both environmental justice and good governance.

Definition of Sustainability

Sustainability is a tricky term to define. A commonly accepted definition of sustainability is "meeting the needs of the present without compromising the ability of future generations to meet their own needs. "This definition comes from Our Common Future, a report published in 1987 by the United Nations (UN) that suggested concrete and realistic proposals for dealing with environmental and development issues. In 2017, the Ypsilanti City Council passed Resolution No. 2017-238 approving a recommendation from the Sustainability Commission that defined sustainability with a nod to the UN definition:

> *"Achieving a balance of ecological, social, and economic considerations to provide for an equitable path for the growth and improvement of our community in the uses of our resources, remaining conscious of the historical context, while ensuring the availability and vitality of those resources for future generations."*

As such, social equity, environmental health, and the economy become the three interrelated pillars of sustainable action. This Sustainability Plan will focus primarily on the environment; the social and economic sides of planning are discussed in greater detail in the City's Master Plan. However, recommended sustainability actions call out which of the three pillars it touches to expose the interconnected nature of sustainability planning.

When the residents were asked in the community-wide survey, "What does sustainability mean to you?" the answers were unsurprisingly varied. Most of them touched on at least one aspect of the three-pronged definition using phrases like "repairing our natural environment," "having a …diverse community without pricing people out," and "clean water, healthy citizens, easier access to public transportation." The open responses were telling; Ypsilanti residents aptly identified that becoming a more sustainable city requires all-encompassing change.

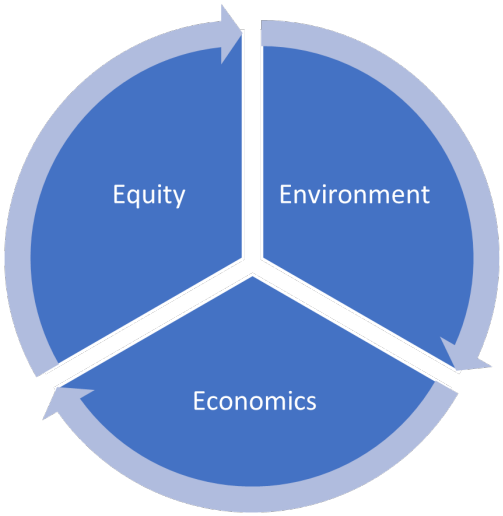
Public Input

In 2019, high priority themes from The City of Ypsilanti Energy Plan (2018), The City of Ypsilanti Climate Action Plan (2012), and the Shape Ypsilanti Master Plan (2013) were identified and coupled

Figure 32: Three Pillars of Sustainability

Equity: The degree to which all citizens of Ypsilanti benefit from the outcomes of this plan.

Examples: eliminate disparities among traditionally disadvantaged groups, increased participation in utility rebate programs or diverse attendance at educational community events.



Environment: The degree to which these actions restore natural systems and human health and positively impact energy use and climate trends.

Examples: habitat restoration, carbon sequestration, and a reduction in miles traveled by vehicle.

Economics: The degree to which this plan can positively impact community wealth and uplift the well-being of the working class.

Examples: investments in clean energy technologies and green jobs, support for a local food system, green job training, and employment and workforce wages.

with a round of community input.

Residents were invited to attend an in-person meeting held on July 11, 2019 to participate in group exercises that prioritized sustainability actions. There was also an online survey (physical copies were provided), and in an attempt to "go to the people," boards were placed on easels at different locations throughout the City (City Hall, EMU Student Center, Parkridge Community Center, and Cream & Crumb) in the spring and summer of 2019 that allowed residents to select their environmental priorities. The findings from each engagement were compiled, analyzed, and used as a basis for outlining the City's ongoing path towards sustainability. The action plans represent public engagement findings, data collection, best practices, and staff capacity.

Community Engagement Summary of Details

Survey respondents: 144
Board entries: 876 unique responses
Attendees at in person session: 25

Challenges, Goals, Objectives, and Strategies

This plan was developed in three phases: research, outreach, and confirmation. The existing physical setting of the City was inventoried, as was the community's current greenhouse gas emissions. Previous plans were reviewed, and progress towards those plans' goals were benchmarked. If there was a disconnect or gap between challenges noted during the inventory and plan review, this was noted for later review. Outreach was done in mid-2019, both specifically regarding sustainability and in tandem with the master plan scope, and the hopes and priorities of the community were incorporated into goal development. The challenges, goals, objectives, and strategies to reach those goals are presented below, loosely grouped into these categories: **earth**, including soil and contamination; **water**, including surface water, drinking water, and stormwater; **energy**, including production, consumption, and waste management; **biodiversity**, including urban forestry and outdoor lighting; **neighborhoods**, including land use and transportation; and **communication**.

EARTH

Soil Structure

Soil characteristics can impose limitations that affect the suitability of land for potential uses, such as dwelling units with basements and surface composting facilities. There are five types of soil in the City, and the table below shows the percentage of area within the City for each soil.[8]

Figure 33: Soil Types

Soil Type	Basic Characteristics	Percentage of Area in Ypsilanti
Fine	Soil particles not visible to the eye, poor load bearing capacity, fairly impermeable, susceptible to frost action	56.4%
Coarse Loamy	Larger grain loam soil, visible to the eye	18.8%
Sandy	Light soil, quick water drainage, poor water retaining qualities	12.8%
Fine Loamy	Smaller grain loam soil, not visible to the naked eye	11.8%
Loamy	Not predominantly sand, silt, or clay, suitable for growing plants due to the nutrient and water capacity	0.2%

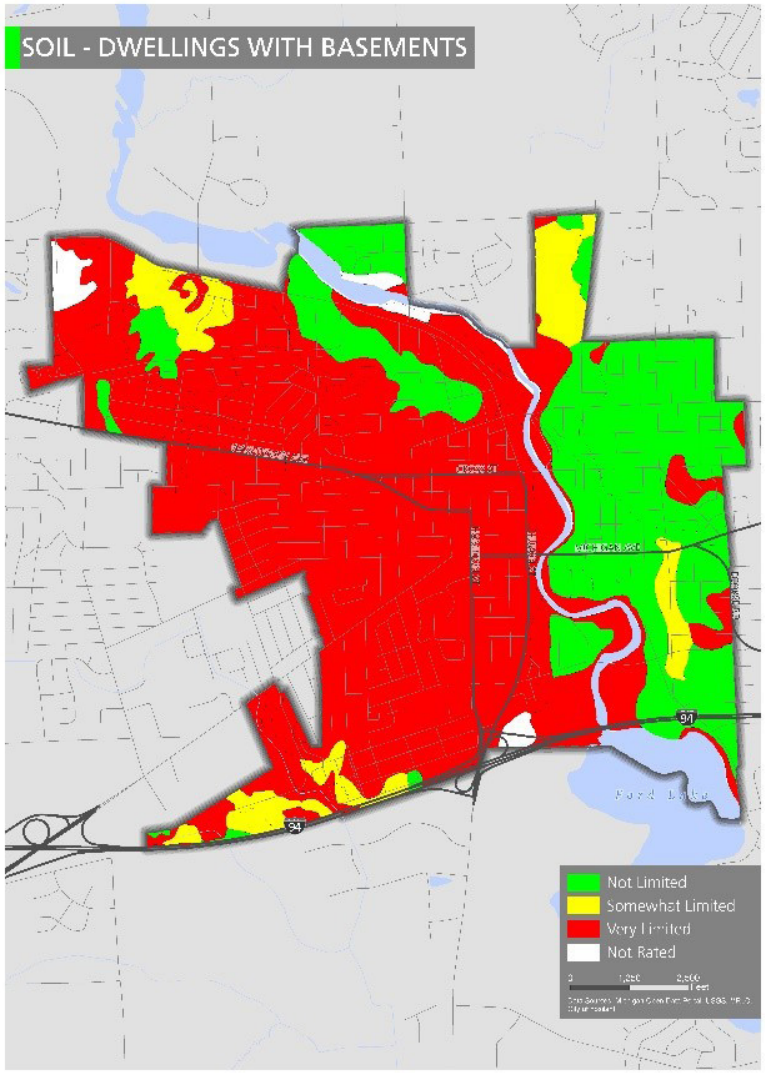
Source: United States Department of Agriculture Soil Survey, current

Basements and Foundations

As a foundational part of construction, soils impact development. The "Soils – Dwellings with Basements" map shows that most of the western side of the City is not conducive to basement construction based on the soil's limited capacity to support a building without the soil shifting. As moisture content changes, the soils in the "very limited" category shrink and expand to a degree that could reduce their ability to a support a basement.[9] Given the predictions for greater concentrations of precipitation and instances of flooding, building basements in unsuitable soils is not a fruitful adaptation strategy. Basement construction is governed by the building code, which is not designed to take detailed soil considerations into account for smaller residential parcels.

Make soil information available to all, and directly provide information on soil structure to those who choose to build a new structure that requires a foundation.

At a minimum, this information should be made available to all current and prospective property owners to discourage subterranean development that may have a high risk of failure. If continued construction, increased flooding events, or consistent property damage warrant a regulatory solution, an overlay zoning district could be applied to some or all of the "very limited" areas that require construction to meet floodplain standards, or that bans subterranean construction altogether.



[8]Web Soil Survey, United States Department of Agriculture, https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm
[9]United State Department of Agriculture. Web Soil Survey. https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

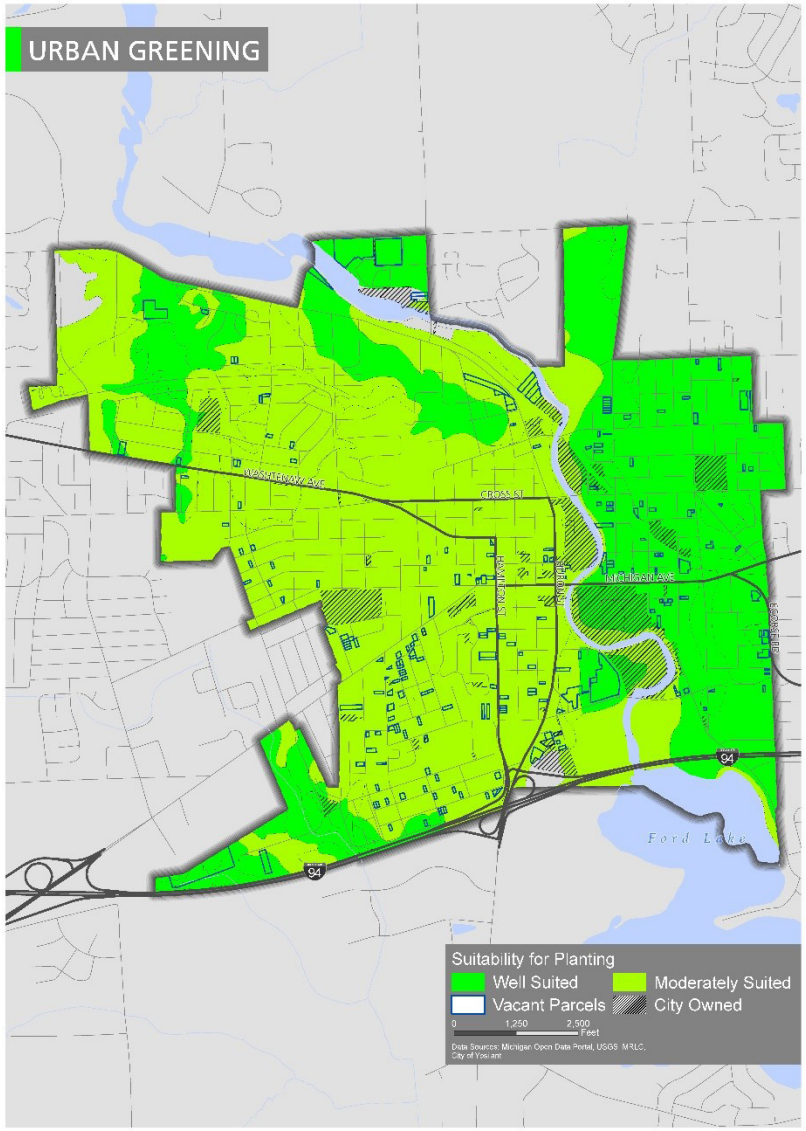
Green Infrastructure

Soil type factors into planning for stormwater infrastructure, urban gardens, and tree planting. The "Urban Greening" map shows where the soil is best suited for plantings, alongside streets and vacant and public land within the City. Areas that are vacant or underutilized, held in the public trust, and have soils suitable for planting should be prioritized for green infrastructure as they will likely have the best outcomes. Alleys, culs-de-sac, parking lots and areas, and low-traffic residential streets are also good candidates for green infrastructure installation. Because they represent a significant land area distributed throughout the community, likely have excess capacity that could be repurposed, and may see low traffic volumes less-durable permeable pavement may be an option in some areas. Elements for urban greening shall be incorporated in the maintenance plan for public alleys and culs-de-sac.

Erosion

The City of Ypsilanti does not have any city-specific regulations regarding soil or soil health but works with the County on soil erosion protections. Some cities have addressed soil conditions through the adoption of sensitive features overlays which include soil and slope protection. In the City of Grand Haven, development in the sensitive feature zone is subject to more intensive site plan restrictions and review, including the prevention of soil erosion and disturbance.[10] Any development in the sensitive feature overlay cannot move or disturb the soil at all without prior approval of the Planning Commission.

Ypsilanti participates in Washtenaw County's Soil Erosion and Sedimentation Control Program. The program is often triggered in the development process and "works to protect surface water and



the environment from the negative impacts of soil erosion pollution that are the result of earth changes."[11] Any projects that require substantial earth moving, defined as an area of 400 square feet, are required to obtain a Soil Erosion and Sediment Control (SESC) permit. Projects that require a permit include earth changes within 500 feet of a surface water's edge, earth changes more than 1 acre, earth changes related to gravel pits and landfills, installation or alterations to ponds, transportation facilities, and directional drilling or boring for utilities and infrastructure.[12]

Contamination

Ypsilanti's industrial history has left behind environmental contamination that the City must still confront. Michigan's Department of the Environment, Great Lakes, and Energy (EGLE) maintains a database of sites that have been affected by former development. This contamination can be found in many forms; from leaking storage tanks, from commercial activity, or from spills. The "Contamination Map" illustrates the location of all known brownfields that have been remediated or are in the process; sites of environmental contamination; and leaking underground storage tanks (LUSTs) in the City.

Brownfields have the broadest definition, covering most of the contamination spectrum and therefore applying to the widest range of sites. Brownfield sites could have experienced the threat of environmental contamination, are already contaminated, contain blighted structures, or have been deemed functionally obsolete. The map shows that most of these sites are primarily clustered along commercial corridors, the rail line, the river, and less frequently in neighborhoods.

EGLE tracks environmental contamination because of the significant impacts it can have on the drinking water supply and on residents living in proximity to these sites. This is a distinct database from LUSTs so that records are not duplicated. The main differences between the two systems are the source of the contamination, and which governmental division manages the sites. All other contamination releases, besides LUSTs, are covered under the Environmental Remediation Program (part 201). Twenty sites of environmental contamination were identified in the City.

Figure 33: Contamination Map

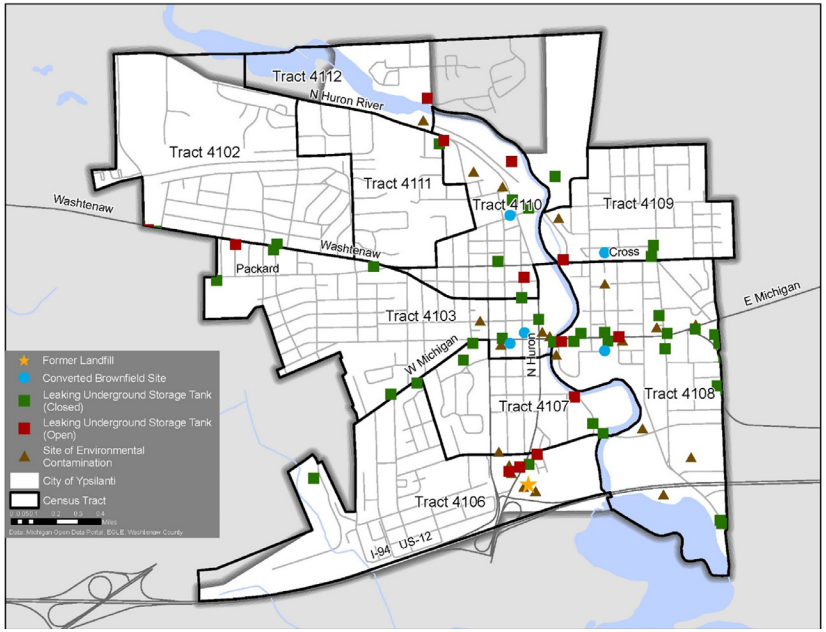


Figure 33, Contamination Map, shows the most up-to-date data available for underground storage tanks (found in the Appendix). These are tanks that have been buried underground to mitigate their risk of explosion, usually because they contain petroleum, and

Brownfield Criteria

At least one of the following:

-Environmental contamination-

-The threat of contamination-

-Blighted-

-Functionally obsolete-

regulations regarding their decommissioning have evolved over time. Businesses have not consistently removed them before leaving the site, and after years of deterioration their contents leak into the soil. If left underground long enough, the contents could reach groundwater or other sources of drinking water. An estimated 47 leaking underground storage tanks (LUSTs) have been recorded in the City; all but 11 are closed, meaning that corrective action has been taken to stop the spread of petroleum or other hazardous substances, and that action was appropriately documented with the State.[13] Due to the long history of industrialization shaping the growth of the City, dating back to the 1800s when the Huron River was used as a power source, many of these sites are located in relatively close proximity to the river, posing an additional threat to the local ecosystems.

Contamination clean-up is often funded by higher levels of government, and specific projects are overseen by the state agency, Environment, Great Lakes, and Energy (EGLE). County-level Brownfield Redevelopment Agencies are an intermediary between these state and federal programs and the local municipalities with challenging redevelopment sites. The Washtenaw County Brownfield Redevelopment Agency (WCBRA) focuses on post-contamination efforts on a case-by-case basis as an economic and redevelopment tool, providing incentives in the form of grants, loans, and tax increment finance agreements that can be applied toward certain remediation costs in a proposed redevelopment project. The assistance is intended to make the cost to redevelop a brownfield site comparable to the cost of the same development in a "greenfield" (previously undeveloped) site on which remediation is not an issue. This helps to reduce sprawl and its associated vehicle emissions, makes use of established infrastructure, and prevents development damage such as contamination and habitat loss on undisturbed sites. While environmental remediation is a primary goal of the brownfield program, its overarching mission is redevelopment, and its tools are flexible enough to help communities fund previously restricted and generally more expensive redevelopment projects regardless of contamination level.

The Environmental Protection Agency's Brownfields program, from which state and community programs are enabled, began in 1995; WCBRA was founded in 1999. Ypsilanti is one of the 23 municipalities that partners with the WCBRA to identify, assess, remediate, and redevelop brownfield properties. The WCBRA uses Tax Increment Financing, Community Revitalization Program, grants, and loans to advance projects through the various phases of redevelopment. Five sites in Ypsilanti have received assistance from WCBRA, only two of which had environmental contamination on site (the rest were deemed functionally obsolete), and all have been successfully converted into usable space except for the Water Street property. The small number of completed remediations underscores the reactive nature of the process, and highlights that on the local level, the most effective tools are preventative measures: upfront review, inquiry, and regular inspection of the

The Bell Kramer Neighborhood

Home to about a dozen households, this neighborhood is immediately adjacent to a former city landfill that has not been used since 1967. The first phase of an environmental assessment was conducted on the landfill in 2012-2013. Volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PNAs), metals, benzo(a)pyrene, and methane gas were detected at higher levels than the state permits. These substances produce substantial health and environmental risks. Property owners were notified because contaminations could have been migrating through the neighborhood. In 2017 and 2018, indoor air was tested in some of the Bell Kramer homes, and concentrations of contaminants were within acceptable ranges for the residents to stay.

design, storage, and uses in a zoning district. Ypsilanti has used its Zoning Ordinance to prevent automotive uses in certain zones because their practices and commonly used materials have a higher likelihood of contaminating soil.

The Bell Kramer neighborhood is an example of how environmental contamination, or even the threat of it, complicates land use planning. In 2014, the City of Ypsilanti rezoned the neighborhood to an industrial-commercial use in direct response to the findings of the 2012-2013 assessment, intending to prevent future homes from being built in a potentially hazardous area. However, after the rezoning, the existing homes became non-conforming structures, which are permitted to remain but not expand, not permitted to be rebuilt after a casualty, such as a fire, except under very specific circumstances. As lending agencies are reluctant to lend on non-conforming properties, the financial implications of this designation made it more difficult to sell or upgrade the homes. The residents' discontent, coupled with the vapor testing results in the homes, provided support for the City to rezone the neighborhood back to residential uses. The history of this neighborhood points to the complexity of changing land uses and monitoring the effects of environmental contamination. Rezoning is one mechanism to prevent development on contaminated sites, but is best used in conjunction with other methods. When used, the process must be accompanied by frank conversations with current property owners before the public hearing.

[10]City of Grand Haven, Article IV Zoning Districts, Section 40-422 Sensitive Features Overlay district, https://library.municode.com/mi/grand_haven/codes/code_of_ordinances?nodeId=PTIICOOR_CH40ZO_ARTIVZODI_S40-422.01IN
[11]Washtenaw County Water Resources Commissioner, Soil Erosion Control https://www.washtenaw.org/232/Soil-Erosion-Sedimentation-Control.
[12]Washtenaw County Soil Erosion and Sedimentation Control Ordinance 2016, https://www.washtenaw.org/DocumentCenter/View/758/Soil-Erosion---Sedimentation-Control-Ordinance---April-1-2016-PDF.
[13]Underground Storage Tanks, United States Environmental Protection Agency. https://www.epa.gov/ust/learn-about-underground-storage-tanks-usts

SUSTAINABILITY GOALS: EARTH

GOAL: Eliminate new instances of soil contamination and responsibly deal with the legacy of existing polluted sites

- Explore creation of an overlay zone, or other zoning or building regulations, to control the types of uses that may be permitted in areas with soils that would allow for easy transmission of contamination, or uses that have a high risk of contamination near ecologically sensitive areas, such as waterways.
- Research and confirm existing sites of contamination with EGLE
- Use Brownfield TIF capture to fund remediation of sites that may be redeveloped.
- Continue to work with the Washtenaw County Brownfield Redevelopment Authority to remediate sites.
- Explore and pursue grant opportunities to remediate sites that may not be good candidates for commercial redevelopment or that pose an immediate threat.

GOAL: Ensure buildings and infrastructure are constructed in a manner complementary to soil structure, slopes, and drainage.

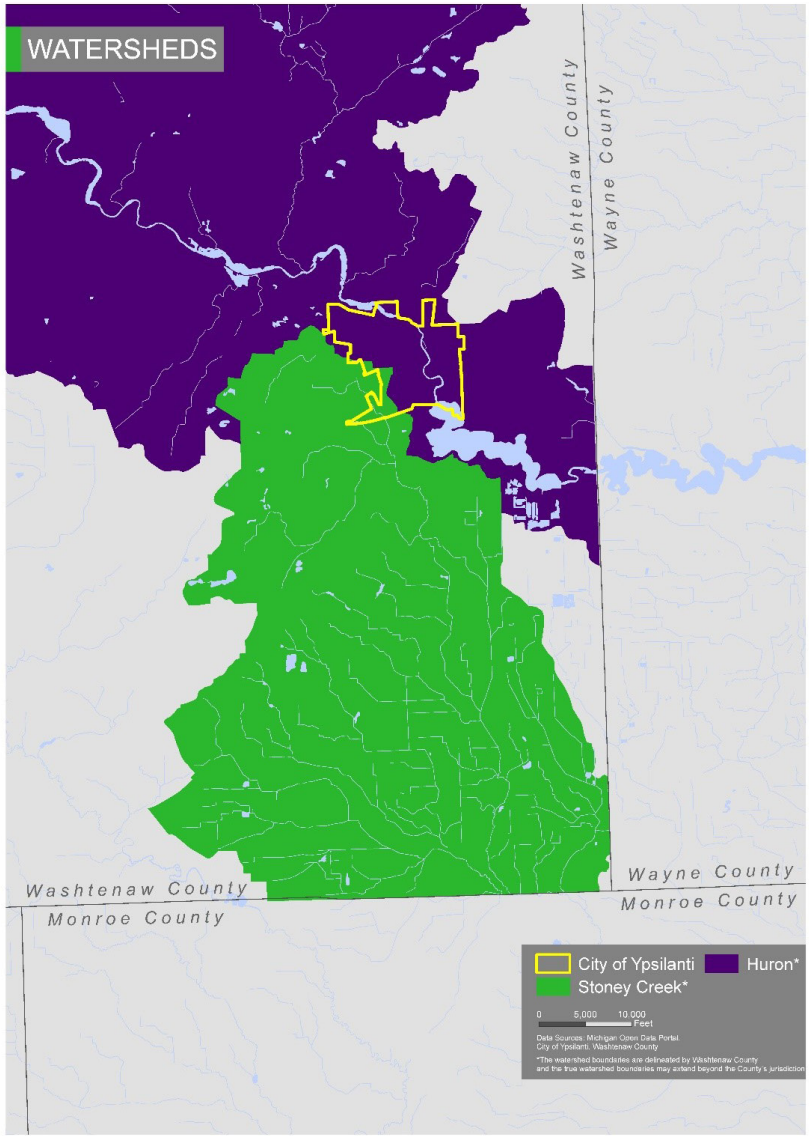
- Make soil information available to all, and directly provide information on soil structure to those who choose to build a new structure that requires a foundation.
- Incorporate green infrastructure into planned capital improvement projects wherever possible, and identify potential sites for demonstration projects.
- Strengthen zoning protections to limit erosion in areas of steep slopes.

WATER

Surface Water Quality

Ypsilanti is a part of the Lake Erie Basin. Within the City's boundaries are two watersheds - Huron River and Stoney Creek (into which the City's Paint Creek drains). The Huron Watershed, which covers most of the City, is divided into five sections. The section that encompasses Ypsilanti is known as the "Lower Middle Huron," enveloping about 27.7 miles of the river from North Maple Road (Barton Pond) downstream to Belleville Lake. It includes portions of the City and Township of Ann Arbor, Superior Township, Ypsilanti Township, and Van Buren Township.[14] Because a watershed crosses several jurisdictional boundaries, it is incumbent on these municipalities to cooperatively maintain high-quality water while permitting access to the river. The health of the river depends on the quality of all its tributaries, which is often linked to land use policy. One way to coordinate across municipal jurisdictions is through a watershed council: the Huron River Watershed Council (HRWC) was the first in the state and has been working to protect and restore the Huron River since 1965. In addition to writing a management plan for the entire watershed, the HRWC also authors management plans covering specific sections of the watershed. The HRWC is updating the section of the watershed management plan that includes Ypsilanti, the Lower Middle, in 2020-2021.

The HRWC identifies that the section of the Huron River that runs through Ypsilanti and Ann Arbor is heavily impounded: 77% of it is impounded by the seven dams that stretch across this area, making it more similar to a lake ecosystem than a river. Two sources afflicting the health of the watershed are runoff from impervious surfaces, and new development along the riverbank that clears vegetation vital to the absorbing runoff. In particular, phosphorous and E. coli are entering the river from Mill, Honey, and Boyden Creeks.



Some measures are in place to protect water quality. According to the City of Ypsilanti's code of ordinances, all development along any river frontage must show where a planned conservation and/or access easement of 50 to 100 feet would be located.[15] A conservation easement allows river access for potential restoration or cleanup efforts. Without an easement, the City would have to receive permission from private property owners to pursue any riverbank projects. The City has also adopted ordinances to limit phosphorus fertilizers and asphalt sealcoats; the success of this regulation is limited by enforcement and cooperation from property owners and has yet to be measured.

To further ensure protections for the Huron River, an overlay district could be implemented. The regulations would limit new development, curtail uses involving toxic chemicals on site, and enforce low impact design standards that allow the site to retain water to mitigate contamination entering the river. Ypsilanti has adopted the stringent standards from Washtenaw County Water Resources Commissioner, a mighty step in safeguarding future development from polluting practices. However, these regulations are not a panacea because they only apply to new or redeveloped sites, which are much fewer in number than established sites.

A retrofitting program would have wider scale effects, but its implementation is more controversial than policies pertaining only to new development. The adoption of stormwater fees based on the amount of impervious coverage on a property is an example of this type of effort and has been enacted in places like Detroit and Ann Arbor. In those communities, impervious surfaces incur drainage fees, thus incentivizing the implementation of pervious substitutes. Credits are offered for on-site stormwater management investments, such as the installation of a rain barrel, cistern, or rain

garden to capture run-off from a rooftop. Rain barrels are a cost-effective method of storing water for residential properties when used correctly. Best practices suggest rain barrels should stand upright, be screened to prevent mosquito breeding and debris accumulation, connect to overflow barrels, have a "do not drink" spigot, and belong to property owners who have been educated about their use and maintenance.

It takes the work of many groups to see positive change in our water systems. The Middle Huron Partners, a group that works with the HRWC, has invested over $10 million over 11 years on projects that reduce and capture stormwater runoff. At a larger scale, the Middle Huron Partners successfully lobbied to restrict phosphorous fertilizers, and the state followed suit in 2012 with new legislation to reduce algae blooms. At the county level, Washtenaw County modified its focus from flood control to quality control. This change in philosophy is backed by a hierarchy of preferred management practices that prioritizes natural vegetation first for infiltration, then minimizing impervious surfaces, and finally detention and conveyance of excess stormwater.[16] Vegetation is at the top of the hierarchy for its varied benefits: plants provide structural support, stabilize the soil through their root networks to reduce erosion, keep rivers healthier for aquatic life, and purify runoff before it enters the river.

As vegetation becomes the priority for protecting water quality, it is important to recognize the maintenance challenges that have hampered its progress. Landscaping is not a short-term

Figure 34: Watershed Report Card

Subject	Grade	Explanation
Watershed land use	D	High impervious surfaces along tributaries
Natural areas	D	12% of watershed has intact natural areas
River flow	F	Flashes following storms, erratic dam gate
River habitat	B	Where undammed, favorable features for river life
Aquatic Insect Community	C	Where undammed, good habitat for insects
Fish Community	B	Anglers enjoy good smallmouth bass
Phosphorous	C-	Concentrated of phosphorous exceed target; declining
E.Coli	C	After heavy rain, E.coli exceeds state standards
Total Suspended Solids (TSS)	A	Low levels of TSS
Water Temperature	B	High maximum summer temperatures
Conductivity	B	Mostly measured at normal levels
Dams	F	High presence of dams and poorly controlled

Source: HRWC

[14] HRWC. "The Huron River: Lower Middle Huron." River Profile. https://hrwc.maps.arcgis.com/apps/MapJournal/index.html?appid=67e1fd1bbc9a44cf853cd78dd6d8219f
[15] City of Ypsilanti Code of Ordinances, Article VI: Site Regulations, Section 122-607 (c). https://cityofypsilanti.com/DocumentCenter/View/1396/ZOUpdate--02--ZO_BW20170215_anno?bidId=
[16] Washtenaw County Water Resources Commissioner. Rules and Guidelines: Procedures and Design Criteria for Stormwater Management Systems. Revised October 2016. https://www.washtenaw.org/DocumentCenter/View/302/Rules-and-Guidelines---Procedures-and-Design-Criteria-for-Stormwater-Management-Systems-PDF?bidId=

proposition. Specifically, it takes about three years for a rain garden to take root and maximize its capacity as a water absorber and purifier. During that time, it must be regularly nurtured and must avoid its other unintended function as a "litter collector." In cases where rain gardens have amassed trash and debris, they have been deemed "blight" and subsequently removed. A rain garden sign that includes its year of inception can insulate them from removal during their nascent stages and give them sufficient time to mature.

Dam Removal

The Peninsular Paper Dam, in its current state, is a cause of many troubling ecological indicators regarding the Huron River's health, namely creating impoundments where algae forms and changing water temperatures that alter dissolved oxygen levels, harming fish habitats.[17] Ypsilanti and the HRWC conducted a feasibility report on removing the dam. The dam was classified as a high potential hazard by the DEQ due to the severity of impending damage it could cause if it failed, and its classification as obsolete because it no longer serves any purpose. Based on sediment quality and quantity, potential infrastructure and utility impacts, and riverfront land ownership, it was determined that removing the dam is feasible.[18] In 2016, estimates for repairing the dam would exceed $800,000 and removing it would cost closer to $2.7 million. Its removal would help restore the Huron River to a flow that is better suited for the ecosystem that depends on it.

In May 2019, City Council voted to approve $500,000 towards deconstructing the dam as opposed to continuing to pay for repairs so long as the City applies to grants to complete the project.[19] [20] Dismantling the dam will protect the environmental health of native species that rely on the Huron River, and protect the City's budget in the long run.

Flooding and Stormwater Management

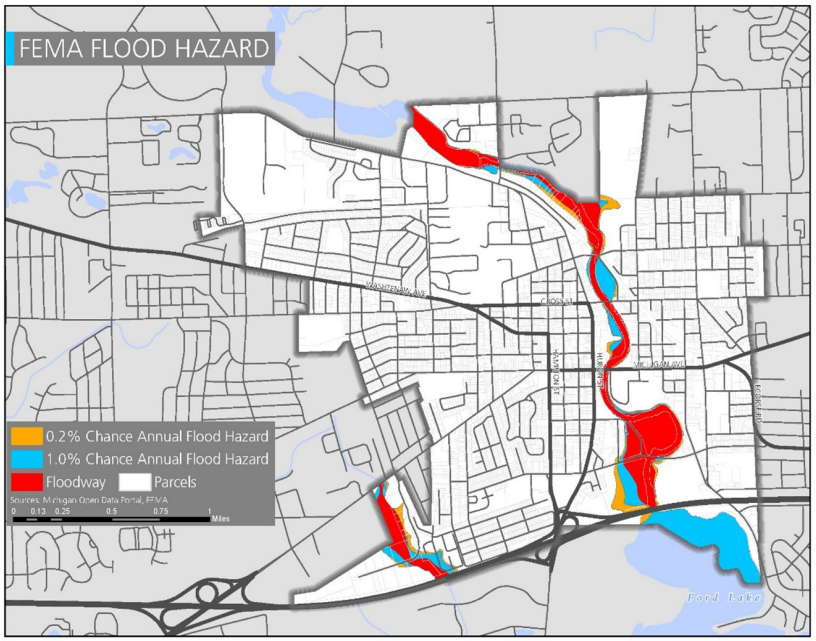
Flooding has the potential to harm the drinking water supply, human life, property, and infrastructure. The Federal Emergency Management Agency (FEMA) has identified zones based on the anticipated frequency an area will flood in a 100-year interval. These predictions are based on historical data, which means that they do not incorporate climate change considerations. Already, the FEMA-delineated floodplains have been shown in many cases to be outdated, as areas vulnerable to flooding have expanded outside of its boundaries. Part of the increase in instances of flooding is linked to increased precipitation falling in concentrated storm patterns. Fortunately, Ypsilanti has not yet experienced flooding that has overwhelmed its storm sewer infrastructure, and much of the land that lies in the flood zones is designated parkland. The composition of Ypsilanti's soil also helps in that regard, since only 7% of the soils in Ypsilanti are prone to "frequent flooding," and the other soils experience no flooding aside from extreme circumstances.[21] To gain more accurate depictions of how the City may flood in the future, Ypsilanti can invest in an updated study that incorporates recent data and includes forecasts of more intense and frequent storms. The study should also include how the river's altered channel due to the anticipated removal of the dam may impact flooding.

Green Infrastructure, specifically green stormwater infrastructure (GSI), is one way to reduce the impacts of excess stormwater. Green stormwater infrastructure is a broad term that includes several practices of water management that protect or mimic the natural water cycle. As opposed to conventional "gray" stormwater infrastructure, which uses hard surfaces and systems to channel excess water elsewhere, this approach protects and expands the natural environment so that water can be absorbed naturally at

several scales: a home, a downtown, an entire city, a watershed. Common examples are rain gardens, green roofs, trees, planter boxes, rainwater harvesting systems, and bioswales, and better protection of wetlands and floodplains.

The utility of GSI should not be underestimated. For example, one acre of imperviously-surfaced roadway can generate between 0.5 and 1 million gallons of stormwater runoff annually. On Michigan Avenue in Lansing, there are 30 planter box bioretention areas that collect runoff from four acres of roadway and reduce the annual stormwater runoff by approximately 75%.[22]

Landscaping that beautifies a site can also capture stormwater. Already embedded in the landscaping requirements in the Zoning Ordinance is a tree protection plan for site plan review. The applicant is awarded credit for preserving or incorporating existing trees and shrubs into the development, and if trees or shrubs intended to meet the minimum landscaping requirements are cut down or damaged, the applicant must replace them according to ordinance specifications. Moreover, trees proposed for credit cannot be invasive (122-632). The frontage of all public and private streets for a new or altered use that requires site plan review must be landscaped with street trees (122-636). Existing regulation stops short of a tree preservation ordinance, which would prevent the removal of trees determined meeting criteria for condition, size, and species. In a tree preservation ordinance, regulations prioritizing transplanting trees prior to removal can also be included. Furthermore, wetlands are tremendous stormwater capturers and beautiful landscapes to behold. While most of them are regulated at the state level, the city can continue to monitor their health and work with partners to protect those that remain.



The Zoning Ordinance also permits accessory stormwater control features such as swales, pervious paving, rain gardens, rain cisterns, vegetated roofs, and other methods. Ypsilanti has one city-sponsored rain garden at the Freighthouse that is managed by volunteers, and several curbside raingardens in Depot Town that are maintained by the DDA with volunteer assistance and assistance from local merchant groups.

In partnership with Washtenaw County Conservation District (WCCD), the Sustainability Commission has offered support to promote WCCD workshops to residents, encourage tree planting on residential lots, and identify a site and volunteers for an Earth day tree planting event. Washtenaw County has staff dedicated to teaching master rain gardener certification courses and provides

technical advice for planting one on private property. The City of Ypsilanti also won bronze at the Michigan Sustainability Conference in 2019 for its work with the Washtenaw County Water Resources Commissioner to provide free consultations to households interested in developing or enhancing rain gardens.[23]

In addition to enhancing green stormwater infrastructure, some expansion to grey infrastructure may also be needed. Ypsilanti was recently awarded a Stormwater, Asset Management, and Wastewater (SAW) grant. With the funds, the City mapped its storm sewers and plans to upgrade its software to aid in continuing to monitor and record its conditions. With improved information about existing infrastructure, Stormwater Management Plans can be tailored to specific areas for improvement so that estimates for expansion are based on accurate data. Using climate change predictions for precipitation and updated inventory on the storm sewer system, Ypsilanti can continue to use the Capital Improvement Plan to plan for greater stormwater capacity with greater precision.

Stormwater Drainage Program

A case study in Detroit quantified the combined advantage of pervious pavement and a rain garden on a church's parking lot. Using the EPA's stormwater management model, they calculated that a 4,530 square foot rain garden and a 33,000 square foot patch of pervious pavement reduced stormwater runoff volume by 70%, even during the heaviest six-hour period of precipitation in Detroit's recent history (2016). In Detroit, there is an added incentive for property owners to use green infrastructure because they are charged a drainage fee based on the impervious surface area on the property. However, they may also earn a "green credit" for actions such as redirecting downspouts into areas where natural infiltration can take place.

[17]Huron River Watershed Council. The Huron River Data Report: Ann Arbor and Ypsilanti Vicinity. https://www.hrwc.org/wp-content/uploads/LowerMiddleHuron-11x8.pdf
[18]Princeton Hydro. Peninsular Paper Dam: Dam Removal Assessment and Feasibility Report. September 2018. https://cityofypsilanti.com/DocumentCenter/View/1789/2018-11-21-Peninsular-Dam-Removal-Study-Report
[19]WXYZ Detroit. Ypsilanti City Council Votes to Tear Down Peninsular Dam. May 2019. https://www.wxyz.com/homepage-showcase/ypsilanti-city-council-votes-to-tear-down-peninsular-dam
[20]Ypsilanti City Council. Resolution 2019-101. May 7 2019.
[21]Web Soil Survey, United States Department of Agriculture, https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm
[22]SEMCOG. Green Infrastructure Vision for Southeast Michigan. 2014. Pg 45. https://www.semcog.org/desktopmodules/SEMCOG.Publications/GetFile.ashx?filename=GreenInfrastructureVisionForSoutheastMichiganMarch2014.pdf
[23]Michigan Green Communities (MGC). 2019 MGC Challenge Participants and Awards. https://migreencommunities.com/challenge/

Drinking Water Sources

There are 13 water wells within the City: four type 1 (community) wells, now closed; one type 2 (facility) well, now inactive; four household wells, and four irrigation wells.[24] These are personal wells that the owners are responsible for testing. The City of Ypsilanti, through the Ypsilanti Community Utilities Authority, sources water from the Great Lakes Water Authority for its municipal water system.

The Ypsilanti Community Utilities Authority provides a municipal water system and requires households that can be serviced by municipal sewer shall be, according to ordinance 106-22. At the point of a sewer hookup, the City encourages households to use the municipal water system, and as most of the few remaining households convert, the installation of personal wells is no longer necessary nor advisable.

The City created two well exclusion areas which are written into local ordinances and recorded with the Register of Deeds. Well exclusion areas were instituted to protect property from water contamination. One, in the downtown, prohibits wells adjacent to a parcel where there was a leak from a former gas station; the other, in the Bell-Kramer neighborhood, prohibits wells adjacent to the former landfill.

What the City can focus on is how to improve services through its water and wastewater provider Ypsilanti Community Utilities Authority (YCUA). Because wastewater treatment plants are energy-intensive, and provide an essential service to households, upgrades to this system are a win-win. Potential policies are two-fold. First, the City and YCUA can collaborate on home and business water efficiency financing programs to reduce total load and peak flow rates, saving energy at the plant and potentially lowering water bills for households. Secondly, advances to sensors and software can also improve their energy efficiency so that our water sources and treatment can contribute less to emissions.[25] The City can also continue to work with YCUA on water transmission infrastructure upgrades and maintenance; this minimizes potential waste from leakages and helps to minimize the risk of lead or other exposure from older pipes.

SUSTAINABILITY GOALS: WATER

GOAL: Protect the watershed from further contamination.

- Consider a sensitive features overlay zone providing a buffer around the Huron River and Paint Creek that provides site and use regulations tailored to the proximity to these waterbodies.
- Invest in consistent enforcement for compliance to the sensitive feature overlay zoning district.
- Continue to pursue updates to the zoning ordinance, such as tree protection regulations, that preserve and improve vegetation that can mitigate stormwater impacts.
- Continue to support the work of the Washtenaw County Water Resources Commissioner and other partners to educate members of the public, particularly single-family homeowners, on stormwater issues.
- Monitor adherence to the City's phosphorous fertilizer and tar sealcoat ordinances for effectiveness.
- Work with Washtenaw County Environmental Health to research the status of remaining private wells and provide resources and recommendations for testing water quality to property owners

GOAL: Preserve and expand the City's capacity to deal with heavy rainfall to mitigate negative effects on people and property.

- Incorporate capacity upgrades for grey stormwater management into the CIP based on predictions for greater precipitation
- Update the flood maps, including FIRM, based on climate projections and changes to the river channel since the FIRM formulation in the 1970s
- Investigate an equitable stormwater fee schedule that encourages converting impervious to pervious surfaces and proper use of rain barrels or other detention/retention systems.
- Consider banning basements or enforce floodplain standards in boundaries where the soil has limited capacity to handle stormwater
- Develop a Stormwater Management Plan
- Continue to pursue the removal of the Peninsular Dam
- Continue to maintain City lands that are in the flood zones and vacant for stormwater and floodwater mitigation.
- Pursue GSI projects in the City parks, particularly in the flood zones.
- Pursue conservation &/or access easements along the Huron River.
- Explore offering incentives to property owners to retrofit existing buildings and site improvements with stormwater-friendly infrastructure, including rain gardens.

- Explore the potential to equitably enact a stormwater fee structure to encourage private retrofit stormwater infiltration and detention infrastructure

GOAL: Promote resources for water conservation and testing to ensure access efficiency upgrades and clean water

- Work with YCUA to develop home and business water efficiency financing programs
- Promote Great Lake Water Authority program WRAP to perform conservation audits and funds for repairs to help reduce low-income households reduce water bills
- Collaborate with YCUA on water conservation and infrastructure improvement projects.

[24]Michigan Open Data Portal, "Water Wells – South Central & Southeastern Michigan" https://gis-michigan.opendata.arcgis.com/datasets/9511dc7592fa49ea97e474e3f5992f46/explore?location=44.868358%2C-86.135708%2C7.59
[25]Ypsilanti Climate Action Plan. 2012. Pg 30.

ENERGY

In November 2019, the City of Ypsilanti committed to carbon neutrality by 2035 in partnership with the City of Ann Arbor as a response to the climate emergency. The resolution calls for City Council to budget staff and resources to become carbon neutral. Achieving this goal will require the City to first measure, and then reduce, greenhouse gas (GHG) emissions that trap heat in the atmosphere, including carbon dioxide, methane, nitrous oxide, and fluorinated gases.[26]

The City of Ypsilanti has focused on measuring local emissions for a decade or more. In coordination with the 2012 Climate Action Plan, 2005/2008 community and government greenhouse gas emissions were evaluated. An updated Greenhouse Gas (GHG) Study was conducted alongside this Sustainability Plan to determine if the actions had achieved reductions in carbon emissions. The 2020 City of Ypsilanti Community and Government Greenhouse Gas Inventories present 2018 emissions from the City of Ypsilanti community as a whole and emissions from the City of Ypsilanti government operations. The inventory follows the approach and methods provided by the ICLEI US Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions (US Community Emissions Protocol). ICLEI is a global network of local and regional government committed to sustainable urban development. Because this protocol differs from the 2012 methodology, the results are not directly comparable, but do show movement in emissions.

Units of Measurement

CO_2 – carbon dioxide

CO_2e – carbon dioxide equivalent, a standard unit for measuring carbon footprints that conveys the impact of different greenhouse gases in terms of the functionally equivalent amount of CO_2

Community Greenhouse Gas Inventory

The City of Ypsilanti examined community emissions through multiple frames, including "community-wide activities" and "government significant influence." The community-wide activities frame shows the extent to which community members' use of energy, materials, and services contribute to GHG emissions within or outside of the City boundary, regardless of whether the City has significant influence over those emissions. The findings show that the City of Ypsilanti's total 2018 community emissions were 269,180 metric tons of CO_2e, comprised primarily of commercial energy, residential energy, and transportation sectors.[27]

Transportation

I-94 passes through the City of Ypsilanti and represents a significant source of transportation related emissions which are not directly attributable to the community. The Southeast Michigan Council of Governments (SEMCOG) estimates that travel on I-94 represents 53% of all total on-road vehicle miles traveled within the City annually while non-highway vehicle miles represent 47%.

Despite its lack of direct control over major GHG contributors, the City included sources or activities in which it can exert significant influence over energy consumption. Already measured as the largest greenhouse gas contributors, the categories "residential" and "commercial-industrial" saw an increase in emissions between 2008 and 2018, making households and businesses starting points for new mitigation policy. It is possible that the uptick in commercial and residential emission is related to the legalization of marijuana for personal and commercial use, given that the time period coincides with the implementation of these notoriously energy-intensive operations. It was estimated that through policy, Ypsilanti can influence 64% of community emissions (171,310 MT CO_2e).[28] This figure will become the baseline for setting an emissions reduction target, against which future emissions in the "significant influence frame" will be measured.

Government Operations Greenhouse Gas Inventory

The government operations inventory is a separate greenhouse gas emissions inventory that takes a deeper dive into emissions derived from municipal operations. The largest emitters are streetlights and traffic signals, accounting for 32% of emissions, followed by vehicle fleet emissions that comprises 17% of the total.[29] Actions to reduce emissions in both sectors are substantially underway in the City and will continue to play a key part of a carbon neutrality strategy. Ypsilanti has already transitioned the majority of its light fixtures to LED and begun introducing hybrid and electric vehicles to its fleet. Emissions are expected to continue dropping as the City continues to address harder-to-replace streetlights and continues fleet modifications. Not including emissions from employee commutes and solid waste, government operations emissions have dropped by 42% over a decade!

Residential

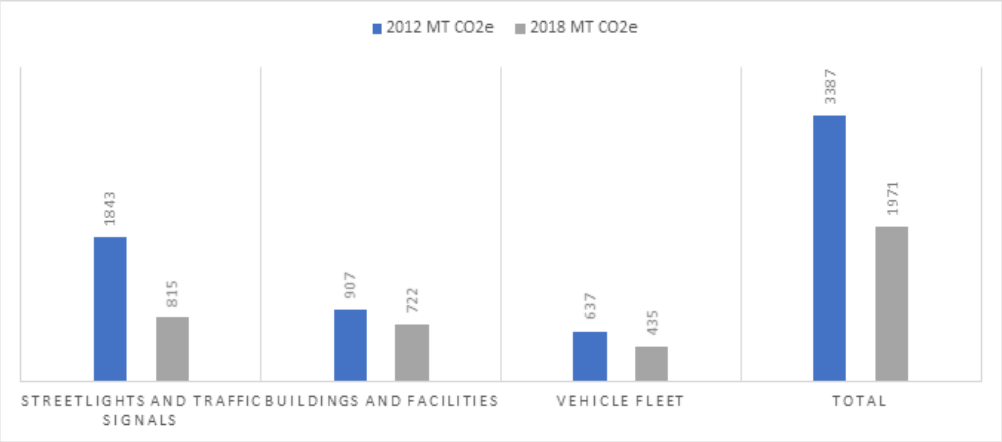
Within the residential sector, electricity use accounted for 60% of emissions, while natural gas use in stationary combustion accounted for 40%.

The City has made successful strides in increasing its renewable energy portfolio. Ypsilanti continues to lead by example in its actions and in streamlining the solar permitting process to enable property owners to follow suit. The City has enabled solar installation as far as its authority permits, stopping just short of mandating them on new construction.

Ypsilanti worked with DTE and Solar Currents to install a solar farm by Highland Cemetery. The City has also installed solar panels on most of its municipal buildings and converted most of its lighting – both building and streetlighting – to LED. These efforts have translated into noticeable reductions in emissions since the last inventory was conducted. Moreover, the City has pursued other best practices that include low-flow water fixtures, programmable thermostats, air sealing, staff behavior changes, and increased awareness about conservation and efficiency. Another City policy that may have contributed to emissions reduction is an increased financial contribution to expand bus service, potentially taking cars

[26] Environmental Protection Agency. "Greenhouse Gas Emissions." https://www.epa.gov/ghgemissions/overview-greenhouse-gases
[27] City of Ypsilanti 2020 Inventories of Community and Government Greenhouse Emissions. Figure 2. Pages 28-29.
[28] City of Ypsilanti 2020 Inventories of Community and Government Greenhouse Emissions. Figure 15. Pg 37.
[29] City of Ypsilanti 2020 Inventories of Community and Government Greenhouse Emissions. Pgs 42 and 43.

Figure 35: Comparative Government Emissions by Sector 2012-2018 (MT CO2e)



Source: EcoWorks

off the road. Energy efficiency measures for municipally operated facilities have resulted in significant savings. The City should continue to address major projects at the most energy-intensive facilities and implement no- or low-cost efficiency opportunities at all facilities. Larger projects, which require more planning and money, should be integrated into capital improvement plans.

The City has fallen short on its most ambitious goal related to energy: Resolution 2013-175 sought to place solar on 1,000 roofs or generate five megawatts of electricity from distributed solar by 2020. Solar Ypsi has calculated that 72 sites have solar panels, totaling about 1.4 megawatts of capacity. Based on those calculations, the City has realized 7.2% of the solar roof target and 28% of the megawatt target. The City should revisit and update this goal- perhaps updating the target to 1,000 roofs that have solar by the year 2030.

A next step in emission reduction for Ypsilanti could be the purchase of renewable energy certificates (RECs) to expand consumers' service options and support renewable electricity development. An REC is a tradeable market-based instrument used in electricity markets. It allows organizations that purchase RECs to account for nonrenewable electricity use. REC purchasers diversify their consumption by expanding its use of low- to zero-emission energy sources and tracking its growing reliance on renewables. RECs are a flexible tool because they can be purchased separately from electricity, meaning the purchasing organization does not need to alter its existing power contract to use greener power. The two can be matched and use the same infrastructure.[31]

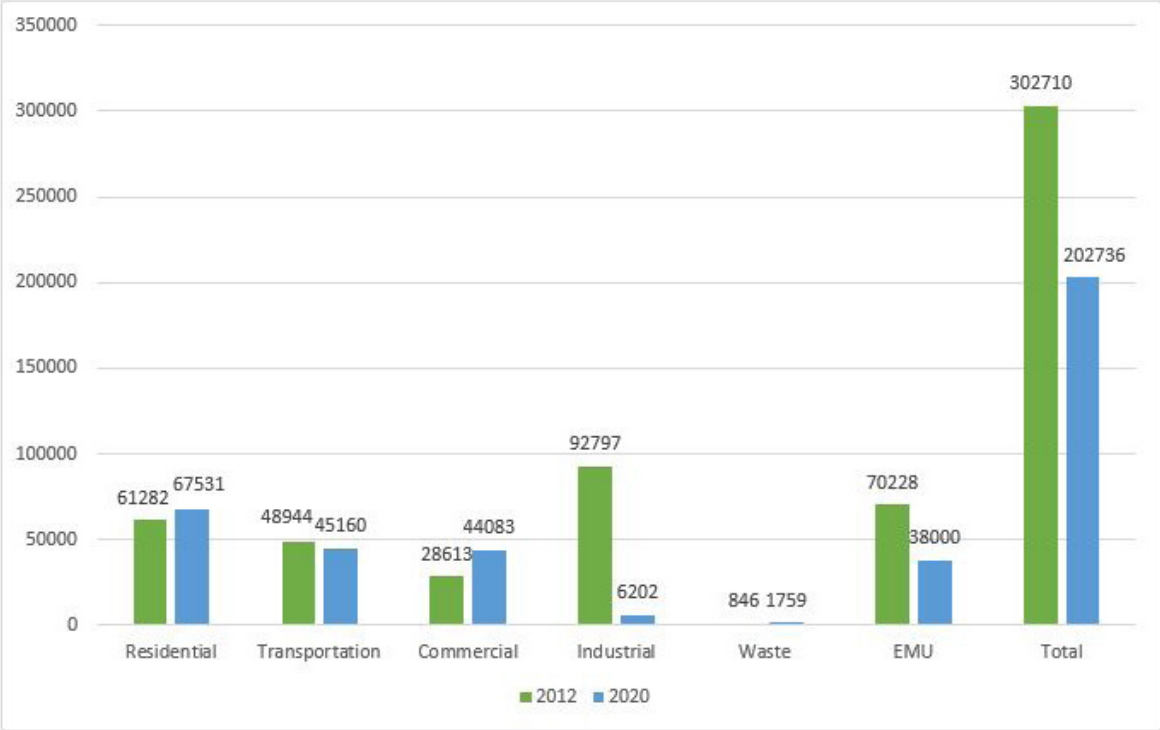
Making headway on properties that are not municipally owned is

Commercial

In 2017, EMU replaced an aging cogeneration unit with a new high efficiency unit projected to reduce annual emissions of CO2 by 21,305 tons/year and reduce NOx emissions by 112 tons annually. Emissions from Eastern Michigan University represent 46% of total commercial emissions in the City of Ypsilanti.

Source: Ecoworks

Figure 36: Comparative Community CO2e Emissions by Section 2012 & 2020 GHG Inventories*



Source: EcoWorks

also an issue of equity and education. Increasing energy efficiency for residents and business owners means reducing the percentage of income spent on housing utility costs in addition to reducing the amount of energy consumed. Education programs for residents could help lower residential usage; this awareness and access may be especially promising in Ypsilanti given that residents are supportive of increased energy efficiency standards and the use of renewable energy. Promoting higher standards for new development, namely commercial and industrial, could be encouraged through incentives for developers to pursue energy-efficient standards (Energy Star, LEED, Living Building Challenge), applications for tax abatements, and promoting existing financial tools to help developers meet these standards during and prior to the site plan review process. For small businesses, Retired Engineer Technical Assistance Program (RETAP) provides pollution prevention, water conservation, and energy efficiency programs free of charge. RETAP teams review a site's operations and recommend strategies for reducing waste at a significant cost savings. Eligible businesses must be independently owned and operated, have fewer than 500 employees, and be primarily engaged in manufacturing.[32]

Another issue to tackle in Ypsilanti is residential energy consumption. Renter-occupied units are a large portion of housing

[30] City of Ypsilanti," Resolution for 1,000 Solar Roofs Initiative", No. 2013-175, September 3, 2013. http://www.solarypsi.org/repository/documents/cityhall/Resolution_2013-175_1000_Roofs_by_2020.pdf

[31] EPA Green Power Partnership. "Offsets and RECs: What's the Difference?" https://www.epa.gov/sites/production/files/2018-03/documents/gpp_guide_recs_offsets.pdf

[32] EGLE. Pollution Prevention and Energy Efficiency Assessments. https://www.michigan.gov/egle/0,9429,7-135-3304-11899--,00.html.

Energy Competitions

In Traverse City, the month-long "kWh Challenge" was organized. Over 50 staff members from city departments participated in weekly challenges of unplugging unused electronics, using efficient computer settings, and using daylight as opposed to artificial light. These represent simple behavior changes that have significant savings, while creating a friendly competition to train staff on energy efficiency.

Source: SEEDS

stock, so energy efficiency and safety of rental properties could lead to substantial reductions in use. The up-front costs of major efficiency improvements have so far exceeded their profit potential in the estimation of the local landlord community, and so the City will be in a stronger position to implement required standards as the market strengthens. In the meantime, there are intermediary steps to take. As outlined in the 2012 Climate Action Plan, a requirement to provide information regarding utility charges allows potential tenants to choose a unit based on its energy performance, however, this disclosure has proven impractical due to the varying use from tenant to tenant. During rental Inspections, a certification process that verifies which units have met energy standards would enable tenants to shop and compare units more easily. Certification criteria can be based on existing programs such as the "Energy Star Homes" program. For eligible low-income homeowners, Washtenaw County has a weatherization program that reduces monthly energy bills by improving a home's insulation.

The coordination of reducing municipal and community emissions should be performed by a dedicated member of staff. An Energy Manager position that is integrated into City Hall could make enduring progress on these goals. Many of the energy action plans items derived from the 2018 Energy Plan could fall under the Energy Manager's purview. An Energy Manager could improve data collection processes, spread knowledge of energy management among city staff, analyze trends in energy use, and develop communications with the residents and property owners. This person would lead a team to research and update available energy-saving equipment, determine how to incorporate more renewable energy in the City's portfolio, promote policies and incentives for reducing energy use, seek grants and other funding mechanisms to implement clean energy projects, liaise with the Sustainability Commission, expand outreach to commercial and industrial uses, and manage capital improvement projects related to energy efficiency. In recognition of the substantial financial commitment that a newly-created staff position represents for the City, a reasonable starting place could be to fund the position for one year and expect an early outcome of its efforts to result in savings sufficient to cover continued funding.

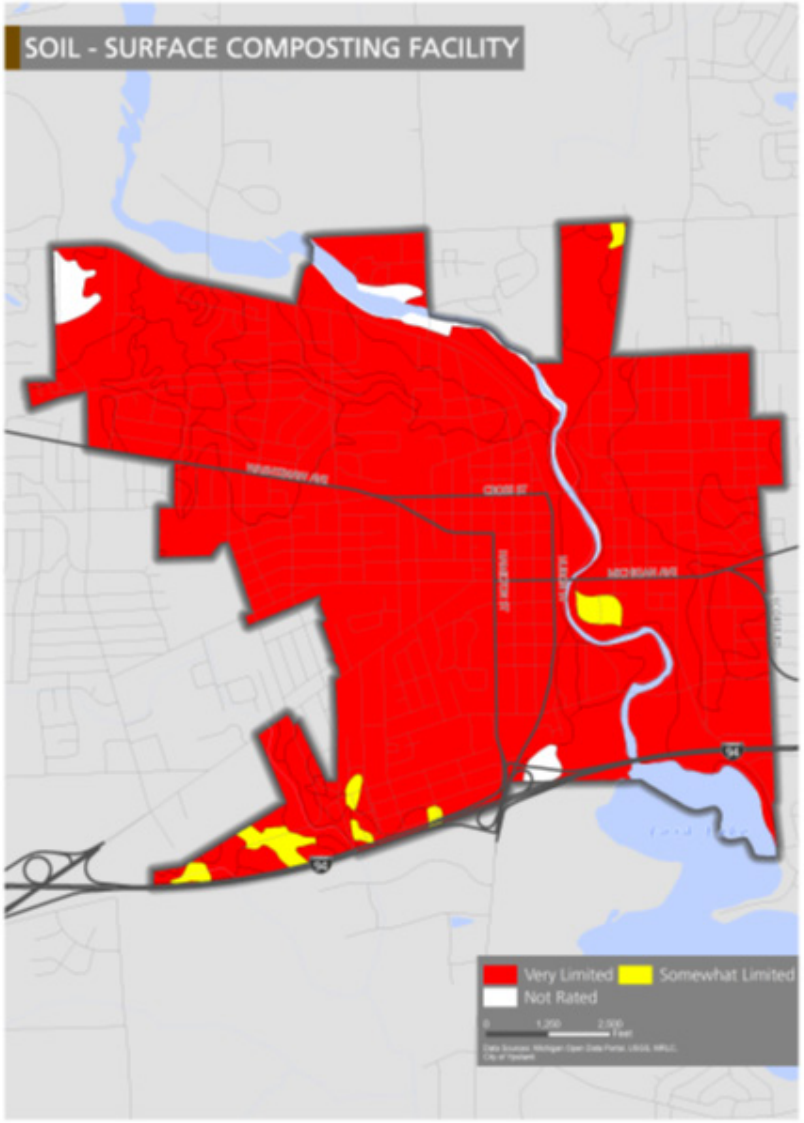
Importantly, development of this system will build institutional knowledge that outlasts the employment of any one dedicated staff member. A system that regularly schedules a GHG inventory update every five years using the same methods and program that forecasts reductions and benchmarks municipal utility bills to an annual goal would be a valuable organization change. The system should include internal reporting from the Sustainability Commission so positive results can be shared and celebrated with the community.

Ypsilanti has joined Ann Arbor in the goal of becoming carbon

neutral by 2035. Recently, Ann Arbor published a draft Net Zero plan with seven strategies for getting there. The strategy "Power our Electrical Grid with 100% Renewable Energy" set forth in the plan is ambitious but necessary. Estimated to cost $4.1 million and reduce greenhouse gases by 41%, the goal is supported by four actions. Community choice aggregation, which gives cities control over procuring power for its community, has one major roadblock: this step is not currently enabled by the state. Ann Arbor is working on recommendations for legislators to allow cities to bulk buy power on behalf of their residents and businesses. Through economies of scale and the right to integrate as much renewable energy as the community can manage, Ann Arbor has committed to buy 100% renewable energy by 2027 and provide it for the entire community through community choice aggregation. As a partner in this effort, Ypsilanti should support and lobby the state with Ann Arbor for legislation that has the power to convert widescale energy use into clean consumption.

Through the Net Zero community engagement sessions, microgrids were mentioned to produce, convey, and store energy. Microgrids are decentralized nodes that transmit energy with the capacity to disconnect from the traditional grid. In times of crisis, such as storms that cause major power outages, an entire area may lose energy if the traditional centralized grid is damaged. Because microgrids can disconnect from the traditional grid, they mitigate the effects of storm on households and businesses. They can be powered by generators, batteries, or renewable sources which plugs them into renewable energy goals and adaptation goals. Still, there is little discussion of deployment as further research is needed into how they should be operated and where they should be placed to have the largest impact.

On a larger scale, the City's support for sustainability is reinforced when it participates in regional, national, and international commitments to energy, climate, and sustainability causes. Ypsilanti has formed pivotal partnerships locally with EGLE, DTE, and Ann Arbor, among others but its work could be raised to higher heights by signing on to the Paris Climate Agreement, The Sierra Club's "Ready for 100" pledge, and the Global Covenant of Mayors for Climate and Energy. Although the goals embedded in each of these organizations' core missions may seem difficult to attain, the connection to case studies, methodologies, policies, and expertise will regenerate interest and help to sustain action in the pursuit of low-energy consumption.



WASTE MANAGEMENT

The City of Ypsilanti's waste disposal is contracted to Stevens Disposal, which serves Southeast Michigan. Stevens Disposal provides waste services to 5,337 households, roughly 70% of households in the City.[33] [34] The solid waste generated in the City is transported to two landfills in southeast Michigan: Carleton Farms located in Sumpter Township and the City of Riverview's municipal landfill, Riverview Land Preserve.[35] Carleton Farms accepts 2.25 million tons of waste annually, the third highest volume in Michigan, and has a total capacity of 101 million tons, the largest in the state. The landfill is estimated to produce 15.8 million cubic feet of gas per day, 40.1% of which is captured. Methane that cannot be captured is flared. Flaring gas is the process of lighting gas wells on fire to convert the more harmful methane to carbon dioxide as it enters the atmosphere. Carleton Farms flares 0.65 million cubic feet of landfill gas daily, roughly two-thirds the size of an Olympic size swimming pool. In 2018, Carleton Farms emitted 195,105 metric tons of carbon dioxide equivalents to the atmosphere.[36] Based on current capacity, Carleton Farms is anticipated to close in 2052. Riverview Land Preserve accepts 780,000 tons of waste annually and has a capacity of 39 million tons, and is expected to close in 2031.[37] In 2018, Riverview Land Preserve emitted 288,394 metric tons of carbon dioxide equivalents into the atmosphere. While the waste generated by Ypsilanti is only a fraction of the waste sent to these two facilities, it is undeniably contributing to a highly emissions-generating system.

The closure of the two landfills that Ypsilanti relies on in the relatively near future provides an opportunity to pursue strategies for reducing and diverting as much of the waste stream as possible. In 2016, Kent County published a landfill reduction plan

called "Strategy to Reimagine Trash," calling for a 20% reduction in landfill contribution by 2020 and a 90% reduction by 2030. The study found that up to 75% of the waste stream in Kent County had the potential to be converted or reused and explores a variety of targeted means to address specific waste categories, including the development of a sustainable business park, targeted at businesses dedicated to the recovery and re-application of common elements found in the waste stream. Although Ypsilanti's built-out status would make developing a similar business part here challenging, the lesson that "one person's trash is another's treasure" is well-taken.

Reusing, recycling, and composting are household-level actions that can be supported or encouraged by the City. Community residents have developed several "buy nothing," "freecycle," "gift and grow," and "mutual aid" groups devoted to individuals offering up for free items they no longer use to other individuals, and the city currently hosts two thrift shops and a wide array of vintage and other resale shops. The City could publicize these groups and shops in their communications. The City of Ypsilanti provides recycling hauling services, and as of 2020 serves 5,186 properties;[38] they also partner with Simple Recycling for curbside recycling of items such as textiles and small electronics. The City has also partnered with the nonprofit Recycle Ann Arbor for expanded waste dropoff services for recycling at the RAA site in Ann Arbor. The City has a composting site that can serve yard waste but not kitchen waste, and partners with Ypsilanti Township for yard waste dropoff services. Kitchen and yard waste can be composted by individual households using common aboveground systems and applied at the household level. For example, encouraging onsite leaf mulching has the benefit of creating high-quality, high-nutrient soil that can be used for gardening without the hassle of using a service. The City could support these efforts through education, perhaps in conjunction with education about natural lawn alternatives.

The public expressed the need for recycling and composting options in all three forms of engagement. Residents prioritized expanded recycling and composting services in the "infrastructure" category of the survey, and 61% believe that improved curbside access would realistically help their households divert waste from landfills. The Zero Waste Hierarchy describes a series of steps and considerations that will help communities, organizations, and individuals make smarter choices about materials purchases to

reduce environmental impact.

A comprehensive waste strategy starts with source reduction or diversion of waste from landfills. Every ton of mixed paper recycled can save the energy equivalent of 166 gallons of gasoline. Not purchasing that paper to begin with makes an even bigger impact because no raw materials or energy are used to produce it, to transport it, or haul it at the end of its life. Diverting organic waste from landfills includes separate collection requirements, education campaigns, financial incentives for food redistribution, and disincentives for generating food waste.[39] Nearly half of the solid waste produced globally is organic or biodegradable.

The City of Ypsilanti provides curbside recycling and composting pickup for certain materials, and households and property owners must rely on assorted partners for full service. The curbside recycling program does not collect glass and Styrofoam because they disrupt the recycling stream. The curbside recycling service is limited to properties with fewer than four units, which excludes many residential properties. Ypsilanti's partnership with Simple Recycling provides households curbside recycling of textiles and small electronics, and the City relies on Washtenaw County for annual drop-offs and hazardous materials disposal. Items with Freon can be disposed of curbside with advanced planning and a fee. Residents are also eligible to use Recycle Ann Arbor's drop-off recycling station for safe disposal of items that Ypsilanti does not collect. This inventory shows that options for recycling do exist, but the decentralization of the services and locations is inconvenient and discourages full participation.

In 2018, the Sustainability Commission resolved (No. 2018-08-002) to increase recycling rates based on the Climate Action Plan findings. The resolution aims for increased education about the City's recycling program and the placement of artistic recycling bins throughout the City. The expansion of the recycling program would have to be accompanied by an extensive outreach and education program to ensure that best recycling practices are followed. The following summer, the Sustainability Commission defined 2019-2020 goals, one of which was to facilitate a Zero Waste event (No. 2019-07-002).

The curbside composting program operates from April through December, but this service is only for yard waste and not for household waste.[40] Due to the soil composition of the City, any new composting facility would likely have to locate outside of City boundaries as the "Soil – Surface Composting Facility" shows that most of the City's soil is not conducive to a surface composting facility. These ratings are based on factors that might lead to the contamination of groundwater from composting byproducts.[41] Due to its current location in the floodplain, the compost services

[33]Stevens Disposal Services Contract. Retrieved from email with Bonnie Wessler. February 27, 2020.
[34]United States Census "Quick Facts: Ypsilanti city, Michigan"
[35]Stevens Disposal Customer Service. Phone call on January 20, 2020.
[36]FLIGHT, United States Environmental Protection Agency. https://ghgdata.epa.gov/ghgp/main.do
[37]Landfill Methane Outreach Program (LMOP) United States Environmental Protection Agency. https://www.epa.gov/lmop/project-and-landfill-data-state
[38]City of Ypsilanti
[39]Corvidae, J. et al. The Carbon-Free Region Handbook. RMI. (2018) Retrieved from https://rmi.org/insight/carbon-free-regions-handbook/
[40]The City of Ypsilanti, Meeting with Bonnie Wessler, March 4, 2020.
[41]Web Soil Survey, United States Department of Agriculture https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

should not be expanded to other organic waste at this site. Because the City's soil conditions inhibit the likelihood of expanding its composting infrastructure, and the current compost yard is in a floodplain, Ypsilanti should cooperate with an organization that offers composting services and encourage residents to use it. Another possibility is a biodigester that use microorganisms to decompose waste. The decomposing waste produces methane, which can be captured for energy, and digestate, and then used as fertilizer.[42] Biodigesters are more expensive to build than traditional composting facilities but produce two valuable resources, methane and digestate, which can be sold.[43] In 2017, the City of Ann Arbor conducted a feasibility study for a biodigester and concluded that the project would was not yet profitable – the startup costs are too high for the revenue stream it would provide. The study cited challenges such as low landfill fees, modest energy costs, and minimal financial reimbursement as the reasons for the improbable feasibility of the biodigester.[44] At a minimum, the City can offer educational resources to households interested in composting their own household waste.

SUSTAINABILITY GOALS: ENERGY

GOAL: Decrease the community's emissions by 171,310 metric tons of CO2e by 2030.

- Work with the City of Ann Arbor to investigate bulk buying of renewable energy through the Community Choice Aggregation Legislation.
- Purchase renewable energy credits (RECs) for City operations.
- Promote state policies, incentives, grants, and Community Energy Management programs that encourage energy efficiency and renewable energy to property owners.
- Promote Washtenaw County's weatherization program for low-income homeowners.
- Work with community stakeholders to initiate an energy competition. The university and City can partner together to challenge another city and university to an energy reduction competition.
- Implement an inter-departmental site plan review process with attention to sustainability-related strategies such as energy use and efficiency, generation and offsetting of emissions, on-site water management and infiltration, etc.
- Investigate the feasibility of a microgrid.
- Review and incorporate aspects of the International Dark Sky Model ordinance to reduce energy waste (i.e. motion activated lighting on municipal buildings)
- Participate in or sign-on to regional, national, or international commitments to energy, climate, and sustain ability including but not limited to the Paris Climate Agreement, the Sierra Club's "Ready for 100" pledge, the Global Covenant of Mayors for Climate and Energy.
- Develop an electric charging vehicle infrastructure strategy
- Create a green rental certification program to encourage energy-efficient improvements
- Work with the HDC to incorporate historically compatibly fixtures that are dark sky compliant

[42]Nyifa, W. "Remember the Biodigster." Saskatchewan Research Council https://www.src.sk.ca/blog/remember-biodigester
[43]Dawson, L."How Cities are Turning Food into Fuel." Politico, Nov. 11 2019.
[44]City of Ann Arbor. "Ann Arbor Biodigester Feasibility Study." June 2017.
https://www.a2gov.org/departments/finance-admin-services/purchasing/Documents/A2%20CHP%20Feasibility%20Study%20Report%20FINAL.pdf

- Continue to pursue policies and projects that improve non motorized transportation.
- Continue to encourage solar energy installations through out the City.
- Partner with other agencies, such as YCUA , DTE, and MiSaves to provide education and incentives for energy use reductions, both residential and commercial.
- Continue to participate in local, regional, national, and international efforts for climate mitigation and adaptation.
- Continue membership in communities such as ICLEI that help support local efforts to combat and adapt to climate change.

GOAL: Decrease government operation emission in support of attaining citywide net zero by 2030

- Establish an Energy Manager position to be responsible for the following duties:
  - Improve knowledge of energy management among city staff and appointed officials among staff
  - Create a data-driven system that is replicable over time, and includes annual forecasts, benchmarks for energy use reductions, and an internal reporting protocol
  - Work with the Sustainability Commission to produce an annual report that highlights where emission reductions and procedural improvements have been made
  - Improve communications with facility managers, utility providers, and relevant contractors to resolve issues quickly
  - Increase outreach to and participation of industrial and commercial customers in renewable energy and energy efficiency projects
  - Research and utilize the most efficient equipment available
- Continue to incorporate renewable energy into the energy portfolio of each government building including back-up generation
- Re-establish the City's revolving loan fund for energy efficiency projects.
- Conduct a GHG inventory every 5 years using input from 2012 & 2018 findings in the ICLEI GHG framework
- Improve fleet fuel efficiency with clean diesel, alternative fuels, and electrification.
- Publicly report on progress made toward energy goals.
- Continue to make energy-efficiency improvements to City owned facilities

ENERGY: Reduce the amount of waste generated in Ypsilanti that enters landfills

- Conduct a waste audit to understand the baseline composition of the waste stream at the municipal operations and community level
- Help publicize local re-use opportunities, such as the Buy Nothing Project and Freecycle.
- Implement an educational campaign on existing recycling and composting options
- Expand recycling to public spaces and all City facilities by placing artful, educational, and engaging waste sorting stations throughout the community
- Create a coordinated recycling system that has a one stop for difficult-to-recycle materials including electronics and refrigerant management
- Increase access to curbside recycling services to multi-family units

- Define Zero Waste for Ypsilanti using the Zero Waste hierarchy. Set a goal for City operations to be zero waste (excluding medical waste) by a specific date with annual benchmarks.
- Require that any events with a City permit provide for recycling, compost, and provide a discount for Zero Waste events
- Require government operations to use durable or compostable materials
- Implement a pilot program for a municipal kitchen compost system with high food-waste generators.
- Investigate a partnership with a commercial-scale compost operation
- Pilot curbside community composting services for leftover food
- Investigate funding sources to bring down the cost of a biodigester
- Permit onsite composting of mulched leaves
- Continue to explore options to improve recycling and composting opportunities within the City and with partners.

Native Garden at the Ypsilanti Senior Center. Source: Juno Ryan

BIODIVERSITY

Endangered Species

The term "biodiversity" refers to the variety of living organisms within an ecosystem, and the plant and animal habitats of Ypsilanti and the broader region have been significantly impacted by urbanization and development. The Michigan Natural Features Inventory (MNFI) maintains a database of state and federally listed endangered and threated species. This observational data is converted into the Biological Rarity Index. The Biological Rarity (Biorarity) Index model is based on the MNFI database of known sightings of threatened, endangered, or special concern species and high-quality natural communities. Each record is spatially joined to its habitat using land cover data, streamlines, and rail corridors. The records are then assigned three values based on the species' global status, state status, and occurrence quality rank. These values are multiplied by a likelihood of future sightings based on the age of the database record. Finally, the scores of all the records in a geographic unit are summed to determine the Biorarity Index for that geography.[45] The map "Biological Rarity Index" illustrates the areas in the City by that index. The higher the index, the more likely that area has threatened and endangered species. The areas with a higher index (darker colors) should be prioritized for conservation because of the importance of the habitat to threatened and endangered species. Overlaid on this map are three sites that have remained relatively untouched since the 1940s. Each of these areas fall into zoning districts with little protection from development and correspond to priority conservation areas on the map, creating conflict from a preservation standpoint.

Due to the sensitive nature of threatened and endangered species, the MNFI does not release site specific data on threatened and en-

Figure 37: Potential Conservation Areas Current Zoning Districts

Area	Zone	Description of Zone
Mansfield (adjacent to cold water trout stream) & Highland	Production, Manufacturing, Distribution	Buildings can be on large plots of contiguous land, serviced by railroad lines or major thoroughfares; uses are expected to generate waste, noise, odor, and truck traffic; however, uses should produce minimal external impacts that are detrimental to other uses in the district or to properties in adjoining districts
Clark	Multi-family dwelling	Adjacent to high traffic generators and major thoroughfares and corridors; insure sound development policies for concentrations of multifamily units; recreation, service, and retail uses are permissible as special land uses to allow residents to access everyday needs by foot, if they are not already within a quarter-mile walking distance

dangered species, but in Washtenaw County there are 83 observed species that are listed as threatened or endangered, including the peregrine falcon, smallmouth salamander, and orange frilled orchid.[46]

Native Plants

Native plants play an essential role in ecosystems: they are the primary producers that convert the sun's energy into biological material. Secondary producers, such as insects and herbivores, rely on plants to survive, and tertiary species such as carnivores rely on the entire chain. When this chain is interrupted, it impacts every organism involved in the ecosystem. Some of the largest threats to plants are human development and invasive species. Invasive species disrupt the proliferation of native plants and can therefore throw off the balance needed for the local ecosystem. Invasive species are species from another ecosystem, usually from another area of the globe, that outcompete the native species for essential resources. Invasive species outcompete native species because there are no natural predators or processes in the native ecosystem to curb their growth. When native species disappear from the landscape, other organisms whose survival depends on the native species also disappear. As climate change continues to elevate global temperature averages, the composition of native species is subject to change. Species that were originally held south by a temperature barrier are now able to expand farther north because of rising overall temperatures. Meanwhile, native species that are not adaptive to warmer temperatures may disappear from the landscape.

Habitat Corridors

One of the most effective things a community can do to preserve biodiversity is to concentrate development so that it does not sprawl onto and degrade natural habitat. The Mansfield and Clark sites are located on the periphery of the City, in land-use-intensive zones, making them vulnerable to larger footprints from commercial, industrial, or residential uses. Effective policy ensures that untouched land is ample and contiguous so that animal species can minimize their contact with the developed world. Because habitat corridors, like other corridor types, frequently cross municipal boundaries, they should be considered in a multi-

jurisdictional context. Prior to the next sale of these lands, an inventory of habitat corridors and undisturbed sites should be conducted through a partnership with the City of Ypsilanti, Ypsilanti Township, Washtenaw County's Natural Areas Preservation Program (NAPP), and private property owners, including the Southeast Michigan Land Conservancy NAPP can acquire natural areas once landowners have nominated their property for the program. The land is then owned and maintained by the Washtenaw County Parks and Recreation Commission with the purpose of preserving the land for plants and animals.[47] Building a relationship with property owners prior to the sale of their land, and maintaining an inventory database of the plant and animal species in need of protection, could prevent the loss of more habitat. Traffic calming infrastructure can also reduce animal crossing mortality.

Another approach to enhancing biodiversity is to attract animals back to the city. Distributed habitat improvement programs like bat houses, pollinator gardens, "bird safe" design, a "lights out" program during migratory seasons, and other innovations as they develop, can bring species to the city to rebuild the ecosystem.

Wildlife-friendly Gardens

In urbanized areas, converting lawns to gardens can create pockets of biodiversity and create and support habitat corridors. Lawns may be naturalized, with turfgrass replaced by native plant species, or turned into food or cultural gardens. Each type of garden is an improvement for insect and bird species over a turfgrass lawn, but naturalized lawns may be less legible as gardened and tended spaces than cultural or food gardens. Naturalized lawns, particularly those containing native grasses and goldenrods, are often perceived as unkempt due to their superficial similarity to overgrown traditional suburban American gardens and lawns. As blight ordinances, including the City's, are generally based on the model of a traditional suburban American garden having become overgrown, there's a supposition in the ordinance that a "weedy" garden consists of tall grasses and is likely to attract or harbor vermin and encourage dumping of trash, and is undesirable on that basis. This creates conflict when a code enforcement officer or neighbor misidentifies a naturalized garden or lawn as a weedy and unkept one.

The Sustainability Commission adopted a resolution (No. 2020-002) that acknowledges the value of native plants, particularly those in private landscaping, and requests that the City Council amend the ordinance to support the planting of native species, disregarding native plant blight violations in the meantime, to make reasonable efforts to use native plants on City property, and to educate residents about native species suitable for planting on private property. Other municipalities have passed ordinances that allow naturalized yards and gardens, but approaches vary from a "presumption of intent," such as the cities of Royal Oak and Ferndale, wherein gardens are presumed to be tended unless specified noxious weeds are identified, or a "presumption of abandonment," wherein gardens with plants over a certain height are presumed to be abandoned unless a permit or other type of permission has been sought. In both cases, the majority of

[45]Biological Rarity Index, Michigan Natural Features Inventory – MSU Extension, https://mnfi.anr.msu.edu/resources/biological-rarity-index
[46]Michigan State University. MSU Extension. Michigan Natural Features Inventory. Accessed March 3, 2020. https://mnfi.anr.msu.edu/resources/county-element-data
[47]Parks and Recreation Washtenaw County. Natural Areas Preservation Program. https://www.washtenaw.org/939/Natural-Areas-Preservation-Program

municipalities have plant height restrictions in certain areas to preserve visibility and/or sidewalk navigability.

Ypsilanti has a history of urban food gardening, which can support biodiversity in two important ways. First, gardens directly support pollinators and other species (e.g., soil fauna and birds) when native plants are included in their design. Second, food-producing gardens reduce our reliance on industrial agriculture, which is a primary driver of biodiversity loss worldwide. For both of these reasons, it is imperative that Ypsilanti continue to support gardening and local food systems in any way it can. These endeavors benefit the local economy and improve the resiliency of our community, thus touching on all three of the pillars of sustainability.

Educational Materials

The traditional "lawn" is perceived as a matter of neighborhood interest, both in terms of property value and the public health, safety, and welfare concerns above, and the concept of "rewilding" constitutes a substantial shift in this perception. The provision of educational resources would ease tension among inspectors, the City, and private households. A list of the City's preferences for native species (keeping in mind native species are changing as the climate changes[48]), prohibited species, and a basic factsheet for property owners explaining the reasons the City supports such species, the potential benefits of planting them, and how it helps to achieve sustainability goals could clarify the motivation. For example, newly produced materials describing "lawn alternatives" encouraging property owners to re-landscape their yards should

include the overlapping positive effects: reduced emissions from lawn mowers, increased biodiversity, and better stormwater absorption. Microhabitats can be constructed as part of commercial and industrial development too, although they may require different guidance considering their scale. Green roofs, for instance, are an opportunity to plant native species that provide food sources or refuge for insects and birds on a larger but less visible surface than a home. Over an entire city, these microhabitats can become effective in supporting urban wildlife, once the parameters for property owners are disseminated.[49]

One area of the City that is an excellent candidate for focused native plantings is in the College Heights neighborhood. College Heights is situated at the headwaters of Owen Drain, an enclosed drain that runs into the Huron River after passing through the EMU campus. The drain system has required several upgrades to expand its capacity; using the neighboring properties to exhibit best practices for stormwater management with native vegetation could relieve some of the pressure on the system.

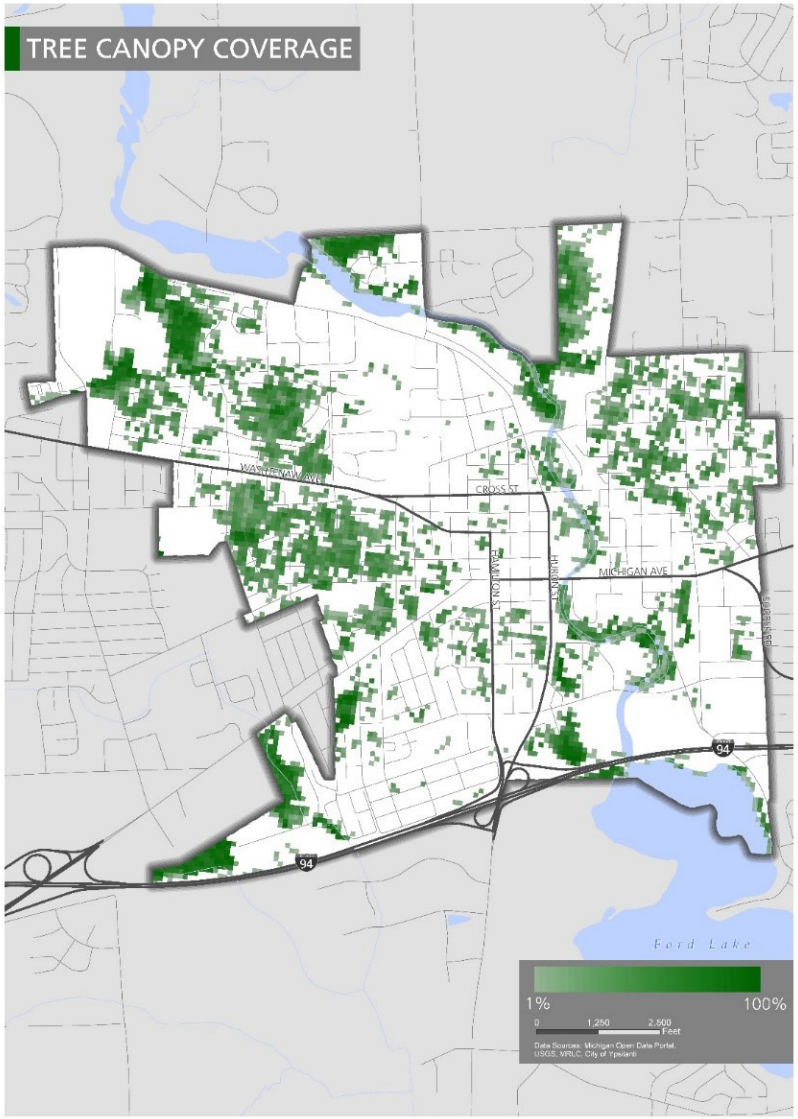
[48]"Climate Change Tree Atlas and Bird Atlas." USDA, US Forest Service https://www.fs.usda.gov/ccrc/index.php?q=tools/tree-and-bird-atlas.
[49]URBANhabitats "Green Roofs and Biodiversity" December 2006 http://www.urbanhabitats.org/v04n01/introduction.html

TREES

Street Trees

Trees provide a suite of ecosystem services that are nearly incomparable: cleaner air,[50] cleaner water[51], sequestered carbon,[52] temperature moderation,[53] stormwater management,[54] urban wildlife habitat,[55] increased property values,[56] increased commercial sales,[57] lower crime rates,[58] faster healing,[59] lower prescription drug burden, lower rates of depression,[60] and improved academic performance.[61] Despite these multifaceted benefits, there are practical day-to-day issues that stall planting and maintenance. Even though trees' ecosystem services pay off in the long-run, the shorter-term operational costs are resource-intensive. A tree's root system has the strength to push up sidewalks and, to a lesser extent, interfere with sewer infrastructure. When sidewalks heave from a growing tree root, it creates trip hazards that discredit another City goal: walkability. The tension lies in determining responsibility and corrective action over tree and sidewalk maintenance – by City code, residents are responsible for maintaining their sidewalks, but not for the trees that commonly disfigure them. When residents are cited for a heaved sidewalk, they push back on the City's lack of tree maintenance, which results from a lack of funding. The tension has brought the conversation to a standstill for now; citations for sidewalk maintenance are rarely issued.

As the long and diverse list of ecosystem services identified above indicates, investment in trees pays back with dividends in the long run. In 2012, the City conducted an Urban Forestry Management Plan (UFMP) and is dedicated to fighting climate change, it is a reasonable next step to bolster the tree maintenance budget to alleviate tension with neighbors and provide better care for its stock.

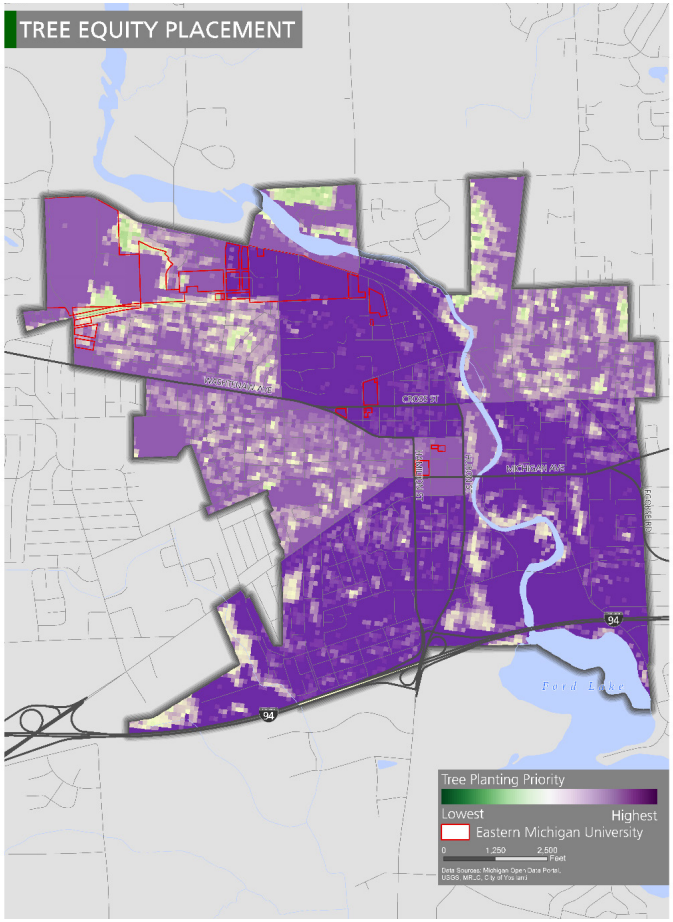


To reduce sidewalk heaving, the size of the sidewalk cut out should be based on the tree species' need for water and area to grow. A uniform "one size fits all" ordinance for tree planting is easier to administer but may not yield desirable outcomes. An emphasis on species with a tap root system could alleviate infrastructure damage. Porous pavers or more malleable materials to surround trees may reduce instances of cracked surfaces. With porous surfaces, trees have greater access to water and may not have to push upward for hydration. In the meantime, citations for damage caused by public trees should continue to be sparsely issued.

Tree Species and Placement

The "Tree Canopy Coverage" map shows that trees are more prominent within peripheral neighborhoods and along the river. Large white swaths on the map represent zero coverage.

In 2012, an Urban Forestry Management Plan found that Ypsilanti had 8,835 public trees, stumps, and planting sites for a total appraised value of about $10.7 million. There are 105 distinct species, but maples account for 55% of the tree population. This represents a tree diversity shortage, leaving the City vulnerable to a disease that could wipe out half of its tree population as has happened in communities with Dutch Elm Disease and, more recently and locally, Emerald Ash Borer. Public trees skew older and the majority are in fair condition; they would ideally be replaced with younger trees at a higher replacement rate.[62]



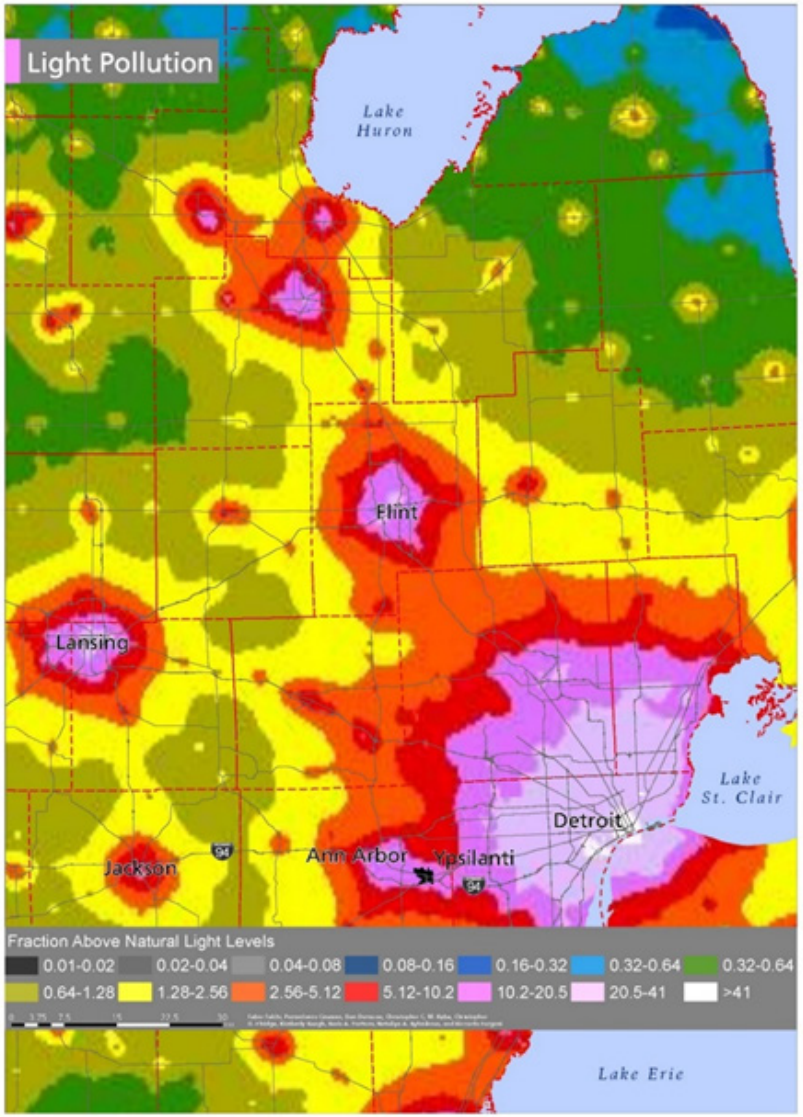
Separate from the UMFP, a tree placement model was run for the entire City to determine what areas are most in need of trees based on two data sources. The two sources were weighted equally at 50%: existing tree canopy and an aggregate "heat stress index" map from the MI Environmental Project that includes climate projections, impervious surface, and social and physical health factors (https://michiganview.org/MI_Environment_Tool.html). The results of the tree placement model are shown in the "Tree Equity Placement Map." The darker purple areas represent highest-need areas and the green areas have adequate tree canopy coverage.

The challenge in tree planting is the initial funding and ongoing maintenance; the environmental challenges that result from a lacking tree canopy coverage come with high opportunity costs to human health, water quality, and aesthetics. When the City of Ann Arbor quantified the benefits that public trees provide, each tree was found to contribute $97 in ecosystem services annually. Each tree provides annual energy savings of $48 by shading buildings and slowing winds, which reduce the heating and cooling requirements in buildings. The aesthetic value and quality of life benefits each tree provides is estimated at $29. Reducing runoff and other water quality benefits is valued at $11 per tree, and the air benefits that tree provide is quantified at $9 per tree.[63]

Communities that manage and expand their urban trees can achieve status as a "Tree City," awarded by the Arbor Day Foundation based on four standards: a tree board or department, a tree care ordinance, a community forestry program with a budget of at least $2 per capita, and observance of the Arbor Day holiday. As of June 2019, Ypsilanti no longer qualified for Tree City designation, but restored that certification in 2020. The primary benefit of Tree City status is the improved tree canopy, but the standards also provide a framework for action, and the status helps gain the necessary awareness and support to continue investing in it.

The 2012 Urban Forest Management Plan (URMP) details suitable locations, necessary budget, recommended species to plant, and maintenance practices. This document should serve as the guidebook for tree purchasing and placement decisions. The map "Tree Planting Priority" adds an equity-focused dimension to tree placement and planning and should be considered as an additional resource.

[50]United States Forest Services. "How Trees Help Clean the Air," 1977. https://naldc.nal.usda.gov/download/CAT87209983/PDF
[51]Virginia Department of Forestry. "Trees Protect Water," March 2011. https://dof.virginia.gov/wp-content/uploads/FF-Trees-Protect-Water_pub.pdf
[52]United States Forest Service. "Carbon sequestration," retrieved May 2020. https://www.fs.fed.us/ecosystemservices/carbon.shtml
[53]United States Environmental Protection Agency. "Using Trees and Vegetation to Reduce Heat Islands," retrieved May 2020. https://www.epa.gov/heat-islands/using-trees-and-vegetation-reduce-heat-islands
[54]United States Environmental Protection Agency. "Soak Up the Rain: Trees Help Reduce Runoff" retrieved May 2020. https://www.epa.gov/soakuptherain/soak-rain-trees-help-reduce-runoff
[55]Yale School of Forestry and Environmental Studies. "Urban Nature: How to foster biodiversity in the world's cities," Richard Conniff. January 2014. https://e360.yale.edu/features/urban_nature_how_to_foster_biodiversity_in_worlds_cities
[56]University of Washington/USDA Forest Service. "Green Cities: Good Health - Community Economics," Wolf, K.L. 2010. https://depts.washington.edu/hhwb/Print_Economics.html
[57]Journal of Forestry. "Business District Streetscapes, Trees, and Consumer Response," K.L. Wolf. 2005. https://www.fs.usda.gov/treesearch/pubs/34952
[58]Landscape and Urban Planning. "The association between urban trees and crime: evidence from the spread of the emerald ash borer in Cincinnati," M.C. Kondo et. al. July 2016. https://www.fs.fed.us/nrs/pubs/jrnl/2017/nrs_2017_kondo_001.pdf
[59]Science. "View through a window may influence recovery from surgery," Roger Ulrich. 1984. https://www.researchgate.net/publication/17043718_View_Through_a_Window_May_Influence_Recovery_from_Surgery
[60]Landscape and Urban Planning. "Urban street tree density and antidepressant prescription rates – a cross-sectional study in London, UK," M.S. Taylor et al. April 2015. https://ore.exeter.ac.uk/repository/handle/10871/17340
[61]Urban Forestry and Urban Greening. "Beyond the school grounds: Links between density of tree cover in school performance and high school academic performance," Dongying Li et. al. https://www.sciencedirect.com/science/article/abs/pii/S1618866717307033?via%3Dihub
[62]City of Ypsilanti Urban Forestry Management Plan. February 2012.
[63]City of Ann Arbor Urban & Community Forest Management Plan, City of Ann Arbor, June 2, 2014.



LIGHT POLLUTION

The inappropriate use of artificial light is referred to as "light pollution," and includes excessive brightness, the brightening of the night sky, light where it is not needed, and the clustering of light sources.[64] Light pollution alters the perception of many nocturnal animals by turning the night into day, inhibiting their ability to forage, hunt, and breed. Migratory birds that use the moon and stars to navigate can be pulled towards urban areas and collide with lit buildings.[65] Outdoor lighting also impact insects that are attracted to the cooler white lights and less attracted to the warmer yellow lights.[66] Consequently, warmer lights have less influence on insects' lifecycles and on the greater chain of its predators. Regulating and reconfiguring lighting can help alleviate disruptive migratory bird patterns.

The City of Ypsilanti has an artificial-to-natural light ratio that ranges from 10.2 to 20.5, indicating that the amount of night light is 10-20 times above natural levels.[67] The United States Department of Energy estimated that 35% of lighting is wasted, costing roughly $3 billion dollars annually. With some changes, buildings can reduce lighting to solve problems of waste and pollution.

The challenges to making lighting upgrades are varied. To start, the DTE streetlights in Ypsilanti use white light in fixtures that are not dark sky compliant, meaning the City could not adhere to new regulations in its streetlights that it would enforce on others. Another barrier is the cost of a photometric study needed to ensure that standards are met, which can be prohibitive for property owners and small developers. Continuous compliance with lighting standards is also an issue, as property owners may change fixtures without being aware of the code or seeking a City permit Ypsilanti's Historic District Commission, which oversees development in one

of the state's largest historic districts, only approves warmer lights that are friendlier to insects and night vision, but often determines the styles of fixtures that are dark sky compliant are not compatible with their standards.

Certain technologies, such as motion sensors, have not been accounted for in the ordinance. Article VI Section 122-609 of Ypsilanti's Zoning Ordinance states that "parking and loading facilities, building entrances, and building exits used during night-time shall be artificially illuminated," and developments have been allowed to put certain lights on motion sensors that meet the standards when fully lit, but remain off or illuminate at a lower level when no motion is detected. This practice should be enshrined in the zoning ordinance.

The parameters around lighting standards are based on the effect on adjacent properties and take into account the height of a lighting fixture and the intensity of the light, but the complexity of measuring these criteria on varying properties is time-intensive. To reduce light pollution, the International Dark Sky Association created a Model Lighting Ordinance that recommends creating lighting zones permitting different intensities, applying "curfews" that turn off lighting after a given time, minimizing uplighting, and instituting performance standards indicating a maximum light measurement based on site conditions.[68] Motion detectors can help achieve many of these suggestions, along with an added bonus of reducing energy waste, and could be required by ordinance. Consideration of new guidelines should be adapted to Ypsilanti's existing conditions. If a lighting curfew seems less realistic, for example, minimizing uplighting could be emphasized so that practice follows policy more closely with an emphasis on reducing energy consumption.

SUSTAINABILITY GOALS: BIODIVERSITY

GOAL: Expand and protect natural habitats

- Incorporate model language for rewilding landscaping into the city's ordinance
- Create informational materials for property owners on preferred and prohibited plants
- Rezone undeveloped land on Mansfield and on Clark to a more protective zoning district
- Continue to support the local food system
- Support traffic calming and other infrastructure design that help reduce animal road crossing mortality
- Promote "bird safe" designs and "lights out" programs during migratory season
- Consider programs for habitat improvement such as bat houses, pollinator gardens, and others as they develop
- Train inspectors to spot wildlife-friendly plants to prevent their removal
- Continue to monitor health of the city's wetlands and work with the Washtenaw County Parks and Recreation to protect them

[64]Light Pollution, International Dark Sky Association, https://www.darksky.org/about/
[65]Wildlife and Ecosystems, International Dark Sky Association, https://www.darksky.org/light-pollution/wildlife/
[66]Servick, Kelly "Which Light Bulk Attracts the Fewest Bugs? Study Reveals Surprises." Science, Feb. 14, 2016. https://www.sciencemag.org/news/2016/02/which-light-bulb-attracts-fewest-bugs-study-reveals-surprises
[67]Cooperative Institute for Research in Environmental Sciences at the University of Colorado Boulder, https://cires.colorado.edu/artificial-sky
[68]International Dark-Sky Association. "Model Lighting Ordinance." June 2011. https://www.darksky.org/wp-content/uploads/bsk-pdf-manager/16_MLO_FINAL_JUNE2011.PDF

- Partner with the County to inventory land that could be nominated for NAPP
- Encourage warm light to protect insects
- Encourage use of native and climate-change adapted plants wherever possible
- Work with DTE to provide warmer, more night-sky friendly public lighting.
- Review the existing lighting ordinance and update to explicitly permit motion-sensitive lighting.
- Review and incorporate aspects of the Dark Sky Model Lighting Ordinance to reduce negative effects on insects and migratory birds

GOAL: To preserve and expand a resilient tree canopy

- Implement a tree preservation ordinance
- Plant additional street trees and trees in parks in accordance with the Urban Forest Management Plan, with a particular prioritization of those sites indicated by the Tree Equity map.
- Increase and diversify the public tree stock according to the Urban Forest Management Plan
- Invest in tree maintenance
- Continue the City's Arbor Day Tree City USA designation
- Coordinate tree planting efforts with sidewalk maintenance efforts and considerations.
- Update street planting guidelines to prioritize tap roots species and vary pit size by species

COMPLETE NEIGHBORHOODS

Land use planning is a critical component of mitigating and adapting to climate change. Density, walkability, and access to urban gardens and greenery are just some ways a city can curtail dependence of fossil fuels. Ypsilanti residents want to live in neighborhoods that are green, connected, and complete. Over two-thirds of respondents recorded that "completeness" is deciding factor when choosing where to live. The features of a "complete neighborhood" were decided by survey-takers, and most important to them was the presence of "parks, recreation, and/or open space (96%)," and the fourth highest priority is trees and/or community gardens (77%).

Residents also see complete neighborhoods as physically connected so that streets safely accommodate bicyclists, pedestrians, public transportation passengers, and users of all ages and abilities. This was expressed in high response rates rating "sidewalks" (87%) and "public transportation options" (84%) as factors describing completeness of a neighborhood. Even though 64% of Ypsilanti residents commute to work alone in a personal vehicle,[69] improved nonmotorized transportation infrastructure can make a difference in how people choose to arrive to other destinations. One of the challenges in Ypsilanti is that the Michigan Department of Transportation owns and/or manages in the most-travelled roads in the city, some of which are one-way arteries with faster travel speeds, and many with incomplete sidewalks and missing pedestrian crossings. These roads often present a significant barrier to bicycle and pedestrian traffic, as well as neighborhood connectivity. Improvements to these roads must be led by the City with support from MDOT, and may face challenges including acquiring rights-of-way and funding.

Residents generally support alternative modes of transit, even those who report that they do not use the service themselves. Residents are proponents of expanded bicycle and pedestrian networks and public transit service including the development of an Amtrak stop. When residents were asked what prevents them from walking or riding a bicycle to destinations, they cited incomplete sidewalks or bicycle lanes, the condition of the nonmotorized infrastructure, and the difficulty in crossing some streets safely. On city owned roads, pedestrians should be prioritized at all crosswalks, and where possible to make pedestrian walk lights automatic. Ypsilanti has shown its commitment to connectivity by coordinating with the Township and County on the Border to Border trail and the AATA to expand bus coverage and frequency.

Motivated neighborhoods can establish "Eco districts" to concentrate focus on sustainability goals in a geographic area. This was proposed in the 2013 Master Plan, and the Zoning Ordinance has been updated to permit more components of an Eco district: community gardens, rain collection systems, and rooftop renewable energy projects. The City has enabled such developments, and while they cannot take on the lead on implementation, these changes support neighbors' eco-friendly demonstrations. The next step would be for a group of neighbors to develop and agree to a set of performance standards, and, with the help of a Sustainability Commissioner liaison, look for funding and/or initiate smaller scale projects that meet their performance goals. Eco district performance goals could be tailored to the neighborhood but aligned with City sustainability goals, for example, expanding tree canopy coverage or developing green houses in open space.

A seldom-considered aspect of a complete neighborhood is its resiliency in case of an emergency, such as flooding, extreme weather, energy outages, or even pandemics. Generally, walkable and bikeable neighborhoods with a variety of uses and resources within them or adjacent are more resilient; their small-scale distributed nature helps them to ride out brief disruptions. However, to enable continued resilience and resilience during larger-scale disruptions, community resource centers should be identified and supported. These may be community centers, or other places of secular or religious assembly; these spaces may have backup generators, be able to serve as warming/cooling centers, be able to safely store and distribute food and other resources such as emergency kits, or that may be able to shelter people in a temporary basis. On a smaller scale, they may be the home of a community leader who can offer some or all of these functions. These facilities may also serve as area weather stations, helping to track air quality and rainfall both in times of peace and disruption. The City should work to identify and outfit community resilience resources, geographically distributed throughout the city, that will be open to serve the community in times of disruption.

Transportation

City Ordinance No. 1156 provides for the planning, design, and construction of streets that offer appropriate access to all legal users and provide safe, accessible, comfortable, and efficient transportation options for people and goods in order to support the City's quality of life, economic vitality, and environmental sustainability. This is an important step in cutting vehicle miles traveled (VMT), as is coupling transportation routes with building density as the AAATA has done.

There is still much to be done in terms of reducing vehicle miles

traveled. Undoubtedly, EMU is a primary traffic generator. A partnership between the university and the City to manage a bike-share and car-share program might limit how many trips students make by car. While it is hard to predict to what extent this will change behavior, an easy-to-use sharing system provides another option to ensure travelers are able to reach their destinations without use of a personal automobile. The Ride also makes a good partner to encourage commuting by bus. The City and the DDA could partner with the Ride and local businesses to offer discounted transit passes to employees who bus to work to not only reduce VMT but also to reduce demand for parking in compact areas. A parking cash-out alternative is another possibility for employees that would otherwise drive and take a parking space for patrons. Strategic development of electric vehicle charging infrastructure will allow greener power alternatives for those cars which remain on the road.

Nonmotorized path enhancements also have the potential to change travel behavior. The City has identified intersections in the Master Plan that would slow down vehicular traffic and include pedestrian and bicycle improvements to create safer, multi-modal streets. Ypsilanti's commitment to safety as a guiding principle applies to the continuation of bicycle lanes on major thoroughfare and trunklines to protect bicyclists from sharing the road with fast moving vehicles. The timing and location are crucial to a connectivity strategy. When roads undergo repair, it is an opportune time to include improvements such as bicycle lanes, sidewalks, or other pedestrian-friendly improvements. In terms of location, nonmotorized features should be installed where they connect to an expanding an existing network or build links between neighborhoods and job centers. Lastly, to protect their right to use the roads safely, enforcement of bicycle and pedestrian safety could, over time, help build an expectation of balanced road use.

Land Use and Mobility

Land use and mobility planning go hand in hand. Reliable transportation, mixed uses, and density are cornerstones of mobility. In that regard, Ypsilanti has a favorable combination. Permitting neighborhood-friendly stores that provide goods serving daily needs (convenience store, market) and personal services (hair salon, medical offices) in proximity to households makes destinations convenient by foot or bicycle. In Ypsilanti, 93% of residential parcels are within ¼ mile walk (and 100% are within ½ mile) from a small convenience retailer or service provider, based on 2015 SEMCOG land codes. This land use configuration has a huge impact, assuming that people walk to these locations when they can. The Urban Land Institute reviewed studies that show that compact suburban development reduces VMT by 12-18% compared to low-density suburban development.[70] With that in mind, Ypsilanti should continue to prioritize infill development, converting central lots that bolster mobility for residents before tending to the City's periphery. Along major corridors where the Ride traverses and the vehicular capacity permits, density bonuses for a mix of uses could strengthen nonmotorized access to goods and services.

[69]American Community Survey. 2017 5-Year Estimates. Table DP03.
[70]Urban Land Institute. "Land Use and Driving: The Role Compact Development Can Play in Reducing Greenhouse Gas Emissions." https://uli.org/wp-content/uploads/ULI-Documents/Land-Use-and-Driving-Low-Res.pdf

Development

Ypsilanti residents' preference for green, connected, and complete neighborhoods are reflected in the US Green Building Council's LEED for Neighborhood Development standard as well as in Detroit's vision for "20 minute neighborhoods" and Kalamazoo's Imagine 2025 Master Plan, demonstrating an emerging trend in Michigan. The US Green Building Council's LEED for Neighborhood Development standard recognizes that neighborhoods can be designed to respond to the local impacts of global climate change and make significant advances toward a sustainable planet. The standards focus on achieving sustainability goals at a neighborhood scale, and align with Ypsilanti's broader sustainability goals:

- Lower operating costs and increased asset value
- Reduce waste sent to landfills
- Reduces VMT
- Increase energy and water conservation
- Provide more healthful and productive environments for occupants
- Reduce greenhouse gas emissions
- Promotes rebates, zoning allowances, and other incentives

Equity development in a complete neighborhood also includes housing choice. Ypsilanti has a considerable segment of the population with low earnings who need of affordable housing. The current stock of affordable units has waiting lists, leaving those in need in a financially precarious situation. The process for securing affordable housing is long and involves many parties. The City in conjunction with the Housing Commission can seek affordable housing development opportunities and identify parcels where they could locate in a neighborhood with access to services.

Coupling subsidized housing and green development would be an exemplary sustainability project that unquestionably embraces the pillars of equity, environment, and economy. Because the City is largely built-out with no room for an entire new neighborhood, these standards could be applied to infill sites or on sites that have room to expand on their parcel.

SUSTAINABILITY GOALS: COMPLETE NEIGHBORHOODS

GOAL: Maintain and expand transportation options including the development of bicycle, pedestrian, and sharing networks.

- Implement a parking cash-out alternative benefit option for City employees
- Prioritize transit-oriented development
- Partner with the DDA and AATA to provide a discounted transit pass as an alternative to downtown parking permits
- Encourage corporate sponsorship of transit passes and infrastructure to encourage employee bus and bikeshare ridership
- Consider pursuing car, scooter, or bike-sharing programs with Eastern Michigan University as a partner.
- Close sidewalk gaps
- Add bicycle lanes to major thoroughfares and trunklines
- Retain the mix of uses within each corridor but allow them throughout the area.
- Restore two-way function to Cross, Huron, and Hamilton Streets.
- Separate Cross and Washtenaw for vehicle traffic.
- Restore Harriet Street as the Main Street of adjacent neighborhoods.

- Prioritize pedestrians at crosswalks, and investigate where pedestrian walk signs can be made automatic
- Work with MDOT to make state-owned roads more accessible to nonmotorized users
- Coordinate with Townships and WPCRC on Border to Border (B2B) trail development
- Encourage police enforcement and legislative support for bike and pedestrian safety
- Improve neighborhood walkability by improving sidewalk connectivity and conditions. Prioritize the improvement of nonmotorized connections that link neighborhoods and job centers.
- Continue to support the development of intercity and commuter rail
- Coordinate citizens to advocate for slower traffic speeds on state owned corridors

GOAL: Incentivize energy efficient and socially responsible development

- Consider density bonuses, particularly on transit and commercial corridors, in exchange for developers meeting criteria that achieve city goals
- Incentivize US Green Building Council's LEED for Neighborhood Development standard for new development
- Develop a Green Business/Neighborhood Certification program
- Seek affordable housing development and identify parcels where it can locate near services
- Continue to prioritize infill development
- Continue to provide a variety of housing options, including affordable housing and missing middle housing.
- Provide a Sustainability Commissioner liaison to a neighborhood interested in developing an eco-district

GOAL: Increase neighborhood resiliency during times of disruption.

- Identify walkable/bikeable neighborhood resource centers throughout the City, such as community centers, churches, schools, or social clubs.
- Work with these identified resources to increase their capacity to serve as emergency resource centers, including backup power generation, emergency shelter, and food and resource distribution.
- Work with the Health Department and other partners to make resources available for community leaders who wish for their homes to serve as small-scale resources during disruptions.

COMMUNICATION

Disaster Preparedness and Adaptive Responses to Climate Change

Extreme heat and cold events, heavy rainfall, flooding, and other extreme weather events are expected to increase over time as a result of climate change, and each will require a coordinated response among county, state, and federal levels of government amid a catastrophe. While sustainability-related actions will help mitigate these risks in the future, the City must help residents adapt to these increasing risks by expanding emergency preparedness and communication tools.

Extreme Heat and Cold

Extreme heat events are among the most harmful weather phenomena. They amplify ground-level ozone levels, which are

associated with higher hospitalization rates for asthma, more severe allergic reactions, and premature deaths for people with heart and lung disease. Healthcare costs increase as a result of these negative health impacts. Heat events also put pressure on electrical distribution as people rely more on air conditioning and reduce grid reliability as a result of increased demand, and decrease energy efficiency and increase costs for rate payers. Conversely, shutoffs negatively impact residents with the fewest resources; the programs to support those in danger of shutoffs, such as THAW, should be publicized regularly before and during peak heating and cooling season. Additionally, the City should work with its utility partners and the County to explore prohibiting utility shutoffs for nonpayment during states of emergency.

Michigan will continue to experience extreme cold events as well, which disproportionally affect homeless people who are vulnerable to cold temperatures. The risk of illness increases for low-income individuals, the elderly, and those with chronic ailments who may be vulnerable to colder temperatures.

Heat

Because not everyone has access to air conditioning, this is an equity issue. While cooling centers have been identified at the county-level, it is worth preparing now for increasing locations and hours for air-conditioned rooms. Monitoring where ozone levels peak on hot days can indicate where "outbreaks" for respiratory problems may stem from and supplementary services to cooling centers could be targeted there. The Property Maintenance Code could also be updated to require air conditioning be provided for rental properties, similar to the requirement for heating, and to be turned on over certain temperatures.

As GHG emission rates continue to rise, Michigan is expected to see up to a 5˚F increase in average air temperature between 2041 and 2070. An additional 30 to 70 days per year, depending on the region, are expected to exceed 90˚F. The amount of energy needed to cool buildings will also rise. This can be assessed by calculating "degree days," which can be a confusing and counterintuitive concept. There can be more than 365 heating or cooling degree days in one year because degree days are measured relative to a base of 65°F (18°C) and reflect the amount of heating or cooling necessary at a facility. Above 65°F (18°C), it is assumed that a facility will need to be cooled, and below 65°F (18°C), it is assumed that a facility will need to be heated. Heating Degree Days (HDD) are the equivalent number of days a facility would need to be heated by 1 degree to accommodate the heating requirement. For example, one day where the temperature measures 80°F would be 15 Cooling Degree Days because it is 15 degrees above 65°F. There were 474 cooling "degree days" in 1990, 679 cooling degree days in 2000, and 1205 cooling degree days in 2019.

Cold

The response to cold days could also be improved. When heating a household is too expensive for vulnerable populations to maintain, heating centers shall be distributed for households to get through the winters comfortably. Similar to cooling centers, there should be an expectation that established heating centers need to be

revisited and likely expanded. On a municipal level, many processes are set in motion during rain and snow events. The shift in focus will be in capacity building and less so in wholesale change to established processes. For example, an apt overlap with goals of walkability is to improve snow removal from sidewalks and bicycle lanes so that weather doesn't have to stop residents from nonmotorized travel. With the expectation of colder and hotter weather, infrastructure made of the same materials will not last as long. The abrupt and prolonged changes cause roads and sidewalks to crack more frequently. An investment in materials that withstand such swings should be investigated and incorporated in the City's Capital Improvements Plan with a priority on longevity.

Heavy Rain and Flooding

Precipitation is projected to increase on average and to concentrate in more intense precipitation events, likely resulting in greater periods of both extreme flooding and extreme drought. An additional 2 to 3 inches of annual precipitation is expected for Michigan, and the number of days each year experiencing heavy rainfall is expected to increase by at least one day per year. These extreme weather events will impact the economy, disrupt the environment, and disproportionately impact vulnerable populations. Flooding puts residents and emergency response personnel in direct physical danger; increases pollution and waterborne illnesses; incurs expensive property damage; displaces households and businesses; creates damp conditions that spur the development of mold and reduce indoor air quality; stresses the capacity of aging sewer infrastructure and increases the risk it may be overwhelmed, forcing the release of untreated water into nearby water sources including those used for drinking; erodes banks and shorelines that support buildings and infrastructure; damages power lines, infrastructure, and vegetation; and disrupts power and transportation systems resulting in reduced productivity and profitability.

The City has a dedicated page on its website to emergency preparedness that has a list of links and contact information for essential services. Neither the City nor the County has a hazard mitigation plan that includes what to do in case of extreme weather. In 2004, Washtenaw County worked with all local units of government to adopt resolutions that would support a Hazard Mitigation Plan (HMP) to become eligible for FEMA grant funding for high-risk hazards. However, that year, FEMA grants focused on flooding mitigation instead and the Hazard Mitigation Plan was discontinued.[71] Since then, the County conducted a risk assessment that put convective weather (severe winds, lightning, tornadoes, hailstorms) as the top threat.[72] Together with the other municipalities in the county, an HMP that considers climate predictions is the only way to responsibly plan for the future.

For emergency planning, the county is the primary coordinator. The County has an Emergency Operations Center which becomes the centralized coordinating point for large-scale emergencies. It is recommended that Ypsilanti participates in this process when the County updates the plan to a multilingual and universally accessible plan for emergencies that include climate change predictions. At the city level, at a minimum, communication with non-English speakers should follow Ypsilanti's Non-Discrimination Plan protocol, but critical documents should be made available in the most commonly spoken languages, aside from English.

[71]Email with David Halteman, Emergency Services Director. April 2020.
[72]Washtenaw County. Washtenaw County's Risk Assessment. https://www.washtenaw.org/1760/Risk-Assessment-Hazard-Ranking

More recently, the city has done some research on resiliency hubs. Resiliency hubs are decentralized nodes, positioned in the city's most vulnerable areas, that supply essential goods and services in the event of an emergency. It is highly recommended that if the city pursues this concept further, that trained citizens or staff administer each hub to maintain order and logistical support on behalf of residents.

Outreach about Sustainability Goals and Practices

Based on the collective prioritization results, residents see a need for education and outreach focused on sustainability-related services and programs. Most survey-takers gave the City a grade of a B or C on the guiding principle "communication is key," indicating that there is room for improvement. The decentralization of services makes it difficult for residents to know where to start when they are in need and/or how they can get involved. Most survey participants were unaware of the City of Ypsilanti Climate Action Plan (69%), let alone the strategies that the City is using to adapt to and mitigate the impacts of climate change that require buy-in from residents. Because sustainability topics are wide-reaching, and there is no single dedicated department, inquiries are not directed to one person but are diffused amongst several. While the ultimate goal is to hire an Energy Manager, in the meantime, the City shall designate a point person that can direct questions and comments to the correct department.

Residents will be impacted by the effects of climate change and need easy access to resources that will help them respond to the negative impacts on their families and their health. Through its already established communication channels like the monthly newsletter and social media, the City can share its sustainability vision, efforts to fulfill it, and ways that residents can participate. Easy-to-follow tips for residents to reduce consumption could also be shared on a regular basis as a friendly reminder that it will require everyone to make change. Wide-scale reach would necessitate that Ypsilanti develop municipal marketing materials and have a plan for regularly schedule distribution.

When it comes to sustainability specifically, the public has also noted that sustainability education should place substantial emphasis on youth. Residents want to see a sustainability curriculum incorporated in the school district, pulling on the strength of local experts to teach these lessons. This has yet to be done at a national or state level, but some local efforts have incorporated sustainability into youth's curriculum. In the foreseeable future, most of this education will have to remain extracurricular due to limited funding.

To increase the climate resiliency of residents, the City must make information easier to access, provide emergency response training for extreme events, and help residents take proactive measures to reduce GHG emissions. Community education is an important step in promoting adaptation and mitigation strategies on an individual and community level, and the City is in a good position to provide easily accessible and well-publicized information through its established channels. One practical adaptation action the City to take on would be the promotion of the Great Lakes Water Authority's Water Residential Assistance Program (WRAP), and other helpful but unknown services, that provide direct assistance to low-income households who have trouble with paying water bills or making repairs to leaky plumbing. The hope is that as the City develops and disseminates informational materials that residents can access and rely on, a beneficial partnership will continue to be strengthened.

A federal grant was awarded to the Southeast Michigan Stewardship Coalition to educate students across nine schools, including one school in Ypsilanti, about climate resiliency. Discussion on this topic included identifying potential solutions to make communities more resilient through a community-based project. Ypsilanti Community High School students worked with City Council and the Sustainability Commission; all hope to forge a lasting partnership to complete more projects.[73]

Working with the Sustainability Commission is the likely path forward for the City to educate its school-aged youth and residents on such issues. As the educational leader for sustainability initiatives, the Sustainability Commission can create and present a series of learning opportunities for energy savings and other assistance programs that lower monthly expenses and expose residents to new resources, or teach students and administrators at the local schools how to reduce waste and incorporate reusable items for its students. Ideally, these sessions will be held at different venues throughout the City and focus on reaching the most vulnerable populations in need of home repair, utility assistance, and energy efficiency measures. A fun way to educate the community is to introduce a friendly competition. Competitions can be set up between city staff, businesses, schools, neighborhoods on any measure the Sustainability Commission wishes to teach. For example, a designated "zero waste" day for waste management or "commute challenges" for alternative transportation would entice people to modify their behavior and have other groups to discuss the challenges and benefits to it. Other ideas proposed by community members included energy treasure hunts, adopting catch basins or green infrastructure, and a "Bring Your Green to Work" day.

SUSTAINABILITY GOALS: COMMUNICATION

GOAL: Play a leading role in educating Ypsilanti residents on sustainability topics.

- Implement an educational series about energy efficiency in different venues with a focus on teaching the most vulnerable populations about resources that help reduce their utility bills
- Sustainability Commissions shall continue to work with sustainability-related organizations to develop and offer in school guest lectures, field trips, and other learning opportunities with local schools
- Work with schools to reduce waste and incorporate reusable items on campus
- Determine a designated point person on city staff to direct sustainability-related questions or comments to the correct department
- Promote the city's energy, climate, and sustainability vision through the established online newsletter and develop other municipal marketing materials to update residents on city efforts, key sustainability topics, and easy-to-follow tips at home
- Organize competitions between municipal employees, business owners, and neighborhoods that promote sustainability-focused activities:
    - "Bring Your Green to Work,"
    - Energy treasure hunts,
    - Adopting catch basins or green infrastructure,
    - Zero waste days,
    - Smart commute weeks, and challenges to bike, walk, or take public transit to work.

[73]Michigan Radio. "Centering the Classroom on Climate Resilience." December 2019. https://www.michiganradio.org/post/centering-classroom-climate-resilience

- Partner with Ypsilanti Community Schools on communication and education efforts.
- Consider creating a Communications Specialist position to lead and coordinate communication and education efforts within the City.
- Make critical public documents accessible and multilingual
- Publicize available efficiency and support programs, such as the County's weatherization program and YCUA's water assistance program.

GOAL: Develop the datasets necessary to determine where disaster relief should be targeted

- Conduct an Environmental Justice analysis that identifies vulnerable populations and structures that are disproportionately impacted by climate change
- Work with SEMCOG and the County to expand local air quality monitoring system
- Investigate infrastructure materials that can weather extreme weather

GOAL: Mitigate the damage inflicted on residents, infrastructure, and property from extreme weather.

- Implement renewable backup power systems for areas of refuge and emergency facilities
- Work with Washtenaw County, landlords, and utility partners to ban utility shutoffs for nonpayment during states of emergency or extreme weather events.
- Work with Washtenaw County to develop a Hazard Mitigation Plan
- Partner with Washtenaw County to expand emergency preparedness and communication tools including a multilingual and universally accessible plan that includes climate change predictions
- Work with the County to identify additional accessible warming and cooling shelters
- Require occupied residential rental units to have one air-conditioned room
- Review response protocol and update where needed to respond to severe storm events
- Continue to explore Resilience Hubs in coordination with local community partners and facilities.
- Publicize available utility assistance programs, such as THAW, leading into and during peak heating and cooling seasons.
- Improve snow and ice response for sidewalks

Sustainability Action Plan

Each action is rated for its ability to achieve the goal it fits under on a scale of one to three for: equity, environment, economy, and effectiveness (three is the highest score). They are then listed in priority order based on the overall score. Unrelated to its score, is the "term" in which it should be achieved. An item may be scored very highly but cannot be achieve in the near term. That is to say that Ypsilanti will have to work simultaneously on near term projects while making progress on longer term goals.

Near term = 1-2 years **Mid term = 3-6 years** **Long term = 7-10 years**

Sustainability Goals: Earth	Timeframe	Lead Party
GOAL: Eliminate new instances of soil contamination and responsibly deal with the legacy of existing polluted sites		
• Explore creation of an overlay zone, or other zoning or building regulations, to control the types of uses that may be permitted in areas with soils that would allow for easy transmission of contamination, or uses that have a high risk of contamination near ecologically sensitive areas, such as waterways.	MID	CED
• Research and confirm existing sites of contamination with EGLE	MID	CED
• Use Brownfield TIF capture to fund remediation of sites that may be redeveloped.	ONGOING	CED
• Continue to work with the Washtenaw County Brownfield Redevelopment Authority to remediate sites.	ONGOING	CED
• Explore and pursue grant opportunities to remediate sites that may not be good candidates for commercial redevelopment or that pose an immediate threat.	ONGOING	CED
GOAL: Ensure buildings and infrastructure are constructed in a manner complementary to soil structure, slopes, and drainage.		
• Make soil information available to all, and directly provide information on soil structure to those who choose to build a new structure that requires a foundation.	ONGOING	CED
• Incorporate green infrastructure into planned capital improvement projects wherever possible, and identify potential sites for demonstration projects.	ONGOING	DPS
• Strengthen zoning protections to limit erosion in areas of steep slopes.	NEAR	CED

Sustainability Goals: Water	Timeframe	Lead Party
GOAL: Protect the watershed from further contamination.		
• Consider a sensitive features overlay zone providing a buffer around the Huron River and Paint Creek that provides site and use regulations tailored to the proximity to these waterbodies	MID	CED
• Invest in consistent enforcement for compliance to the sensitive feature overlay zoning district	ONGOING	CED
• Continue to pursue updates to the zoning ordinance, such as tree protection regulations, that preserve and improve vegetation that can mitigate stormwater impacts.	ONGOING	CED
• Continue to support the work of the Washtenaw County Water Resources Commissioner and other partners to educate members of the public, particularly single-family homeowners, on stormwater issues.	ONGOING	
• Monitor adherence to the City's phosphorous fertilizer and tar sealcoat ordinances for effectiveness.	ONGOING	
• Work with Washtenaw County Environmental Health to research the status of remaining private wells and provide resources and recommendations for testing water quality to property owners	ONGOING	
GOAL: Preserve and expand the City's capacity to deal with heavy rainfall to mitigate negative effects on people and property.		
• Incorporate capacity upgrades for grey stormwater management into the CIP based on predictions for greater precipitation	ONGOING	DPS
• Update the flood maps, including FIRM, based on climate projections and changes to the river channel since the FIRM formulation in the 1970s	LONG	DPS
• Investigate an equitable stormwater fee schedule that encourages converting impervious to pervious surfaces and proper use of rain barrels or other detention/retention systems.	MID	COUNCIL/ DPS
• Consider banning basements or enforce floodplain standards in boundaries where the soil has limited capacity to handle stormwater	LONG	CED
• Develop a Stormwater Management Plan	MID	DPS
• Continue to pursue the removal of the Peninsular Dam	ONGOING	MANAGER
• Continue to maintain City lands that are in the flood zones and vacant for stormwater and floodwater mitigation.	ONGOING	VARIOUS
• Pursue GSI projects in the City parks, particularly in the flood zones.	ONGOING	DPS
• Pursue conservation &/or access easements along the Huron River.	ONGOING	CED
• Explore offering incentives to property owners to retrofit existing buildings and site improvements with stormwater-friendly infrastructure, including rain gardens.	LONG	

• Explore the potential to equitably enact a stormwater fee structure to encourage private retrofit stormwater infiltration and detention infrastructure	LONG	
GOAL: Promote resources for water conservation and testing to ensure access efficiency upgrades and clean water		
• Work with YCUA to develop home and business water efficiency financing programs	MID	
• Promote Great Lake Water Authority program WRAP to perform conservation audits and funds for repairs to help reduce low-income households reduce water bills	ONGOING	
• Collaborate with YCUA on water conservation and infrastructure improvement projects.	ONGOING	
Sustainability Goals: Energy	**Timeframe**	**Lead Party**
GOAL: Decrease the community's emissions by 171,310 metric tons of CO_2e by 2030.		
• Work with the City of Ann Arbor to investigate bulk buying of renewable energy through the Community Choice Aggregation Legislation.	ONGOING	
• Purchase renewable energy credits (RECs) for City operations.	LONG	
• Promote state policies, incentives, grants, and Community Energy Management programs that encourage energy efficiency and renewable energy to property owners.	ONGOING	
• Promote Washtenaw County's weatherization program for low-income homeowners.	ONGOING	CED
• Work with community stakeholders to initiate an energy competition. The university and City can partner together to challenge another city and university to an energy reduction competition.	LONG	
• Implement an inter-departmental site plan review process with attention to sustainability-related strategies such as energy use and efficiency, generation and offsetting of emissions, on-site water management and infiltration, etc.	ONGOING	CED
• Investigate the feasibility of a microgrid.	LONG	
• Review and incorporate aspects of the International Dark Sky Model ordinance to reduce energy waste (i.e. motion activated lighting on municipal buildings)	MID	DPS
• Participate in or sign-on to regional, national, or international commitments to energy, climate, and sustainability including but not limited to the Paris Climate Agreement, the Sierra Club's "Ready for 100" pledge, the Global Covenant of Mayors for Climate and Energy.	SHORT	COUNCIL
• Develop an electric charging vehicle infrastructure strategy	MID	DPS

• Create a green rental certification program to encourage energy-efficient improvements	MID	CED
• Work with the HDC to incorporate historically compatibly fixtures that are dark sky compliant	ONGOING	CED
• Continue to pursue policies and projects that improve nonmotorized transportation.	ONGOING	DPS/CED
• Continue to encourage solar energy installations throughout the City.	ONGOING	CED
• Partner with other agencies, such as YCUA , DTE, and MiSaves to provide education and incentives for energy use reductions, both residential and commercial.	ONGOING	
• Continue to participate in local, regional, national, and international efforts for climate mitigation and adaptation.	ONGOING	
• Continue membership in communities such as ICLEI that help support local efforts to combat and adapt to climate change.	ONGOING	
GOAL: Decrease government operation emission in support of attaining citywide net zero by 2030		
• Establish an Energy Manager position to be responsible for the following duties:	MID	MANAGER
• Improve knowledge of energy management among city staff and appointed officials among staff		
• Create a data-driven system that is replicable over time, and includes annual forecasts, benchmarks for energy use reductions, and an internal reporting protocol		
• Work with the Sustainability Commission to produce an annual report that highlights where emission reductions and procedural improvements have been made		
• Improve communications with facility managers, utility providers, and relevant contractors to resolve issues quickly		
• Increase outreach to and participation of industrial and commercial customers in renewable energy and energy efficiency projects		
• Research and utilize the most efficient equipment available		
• Continue to incorporate renewable energy into the energy portfolio of each government building including back-up generation	ONGOING	DPS
• Re-establish the City's revolving loan fund for energy efficiency projects.	MID	MANAGER
• Conduct a GHG inventory every 5 years using input from 2012 & 2018 findings in the ICLEI GHG framework	LONG	DPS
• Improve fleet fuel efficiency with clean diesel, alternative fuels, and electrification.	ONGOING	DPS
• Publicly report on progress made toward energy goals.	ONGOING	DPS/CED/ MANAGER
• Continue to make energy-efficiency improvements to City owned facilities	ONGOING	DPS

ENERGY: Reduce the amount of waste generated in Ypsilanti that enters landfills		
• Conduct a waste audit to understand the baseline composition of the waste stream at the municipal operations and community level	SHORT	DPS
• Help publicize local re-use opportunities, such as the Buy Nothing Project and Freecycle.	ONGOING	CED
• Implement an educational campaign on existing recycling and composting options	SHORT	DPS
• Expand recycling to public spaces and all City facilities by placing artful, educational, and engaging waste sorting stations throughout the community	MID	DPS
• Create a coordinated recycling system that has a one stop for difficult-to-recycle materials including electronics and refrigerant management	LONG	DPS
• Increase access to curbside recycling services to multi-family units	MID	DPS
• Define Zero Waste for Ypsilanti using the Zero Waste hierarchy. Set a goal for City operations to be zero waste (excluding medical waste) by a specific date with annual benchmarks.	LONG	
• Require that any events with a City permit provide for recycling, compost, and provide a discount for Zero Waste events	LONG	
• Require government operations to use durable or compostable materials	MID	
• Implement a pilot program for a municipal kitchen compost system with high food-waste generators.	LONG	
• Investigate a partnership with a commercial-scale compost operation	MID	
• Pilot curbside community composting services for leftover food	LONG	
• Investigate funding sources to bring down the cost of a biodigester	MID	
• Permit onsite composting of mulched leaves	DONE	
• Continue to explore options to improve recycling and composting opportunities within the City and with partners.	ONGOING	DPS
Sustainability Goals: Biodiversity	**Timeframe**	**Lead Party**
GOAL: Expand and protect natural habitats		
• Incorporate model language for rewilding landscaping into the city's ordinance	SHORT	
• Create informational materials for property owners on preferred and prohibited plants	SHORT	SUST.
• Rezone undeveloped land on Mansfield and on Clark to a more protective zoning district	MID	CED
• Continue to support the local food system	ONGOING	CED

• Support traffic calming and other infrastructure design that help reduce animal road crossing mortality	ONGOING	DPS/CED
• Promote "bird safe" designs and "lights out" programs during migratory season	SHORT	CED
• Consider programs for habitat improvement such as bat houses, pollinator gardens, and others as they develop		
• Train inspectors to spot wildlife-friendly plants to prevent their removal	ONGOING	CED
• Continue to monitor health of the city's wetlands and work with the Washtenaw County Parks and Recreation to protect them	ONGOING	
• Partner with the County to inventory land that could be nominated for NAPP		
• Encourage warm light to protect insects	ONGOING	CED
• Encourage use of native and climate-change adapted plants wherever possible	ONGOING	
• Work with DTE to provide warmer, more night-sky friendly public lighting.	ONGOING	DPS
• Review the existing lighting ordinance and update to explicitly permit motion-sensitive lighting.	SHORT	CED
• Review and incorporate aspects of the Dark Sky Model Lighting Ordinance to reduce negative effects on insects and migratory birds	MID	CED
GOAL: To preserve and expand a resilient tree canopy		
• Implement a tree preservation ordinance	MID	
• Plant additional street trees and trees in parks in accordance with the Urban Forest Management Plan, with a particular prioritization of those sites indicated by the Tree Equity map.	ONGOING	DPS
• Increase and diversify the public tree stock according to the Urban Forest Management Plan	ONGOING	DPS
• Invest in tree maintenance	ONGOING	COUNCIL
• Continue the City's Arbor Day Tree City USA designation	ONGOING	
• Coordinate tree planting efforts with sidewalk maintenance efforts and considerations.	ONGOING	
• Update street planting guidelines to prioritize tap roots species and vary pit size by species	SHORT	
Sustainability Goals: Complete Neighborhoods	**Timeframe**	**Lead Party**
GOAL: Maintain and expand transportation options including the development of bicycle, pedestrian, and sharing networks.		
• Implement a parking cash-out alternative benefit option for City employees	SHORT	HR
• Prioritize transit-oriented development	ONGOING	CED

• Partner with the DDA and AATA to provide a discounted transit pass as an alternative to downtown parking permits	MID	DPS
• Encourage corporate sponsorship of transit passes and infrastructure to encourage employee bus and bikeshare ridership	MID	DPS
• Consider pursuing car, scooter, or bike-sharing programs with Eastern Michigan University as a partner.	ONGOING	CED
• Close sidewalk gaps	ONGOING	DPS
• Add bicycle lanes to major thoroughfares and trunklines	ONGOING	DPS
• Retain the mix of uses within each corridor but allow them throughout the area.	ONGOING	CED
• Restore two-way function to Cross, Huron, and Hamilton Streets.	LONG	DPS
• Separate Cross and Washtenaw for vehicle traffic.	LONG	DPS
• Restore Harriet Street as the Main Street of adjacent neighborhoods.	LONG	CED
• Prioritize pedestrians at crosswalks, and investigate where pedestrian walk signs can be made automatic	MID	DPS
• Work with MDOT to make state-owned roads more accessible to nonmotorized users	ONGOING	DPS
• Coordinate with Townships and WCPRC on Border to Border (B2B) trail development	ONGOING	DPS
• Encourage police enforcement and legislative support for bike and pedestrian safety	ONGOING	YPD
• Improve neighborhood walkability by improving sidewalk connectivity and conditions. Prioritize the improvement of nonmotorized connections that link neighborhoods and job centers.	ONGOING	DPS
• Continue to support the development of intercity and commuter rail	ONGOING	MANAGER
• Coordinate citizens to advocate for slower traffic speeds on state owned corridors	ONGOING	
GOAL: Incentivize energy efficient and socially responsible development		
• Consider density bonuses, particularly on transit and commercial corridors, in exchange for developers meeting criteria that achieve city goals	MID	CED
• Incentivize US Green Building Council's LEED for Neighborhood Development standard for new development	MID	CED
• Develop a Green Business/Neighborhood Certification program	LONG	CED
• Seek affordable housing development and identify parcels where it can locate near services	ONGOING	CED
• Continue to prioritize infill development	ONGOING	CED
• Continue to provide a variety of housing options, including affordable housing and missing middle housing.	ONGOING	CED
• Provide a Sustainability Commissioner liaison to a neighborhood interested in developing an eco-district	ONGOING	SUST.

GOAL: Increase neighborhood resiliency during times of disruption.		
• Identify walkable/bikeable neighborhood resource centers throughout the City, such as community centers, churches, schools, or social clubs.	SHORT	
• Work with these identified resources to increase their capacity to serve as emergency resource centers, including backup power generation, emergency shelter, and food and resource distribution.	MID	
• Work with the Health Department and other partners to make resources available for community leaders who wish for their homes to serve as small-scale resources during disruptions.	ONGOING	
Sustainability Goals: Communication	**Timeframe**	**Lead Party**
GOAL: Play a leading role in educating Ypsilanti residents on sustainability topics.		
• Implement an educational series about energy efficiency in different venues with a focus on teaching the most vulnerable populations about resources that help reduce their utility bills	ONGOING	SUST.
• Continue to work with sustainability-related organizations to develop and offer in school guest lectures, field trips, and other learning opportunities with local schools	ONGOING	SUST.
• Work with schools to reduce waste and incorporate reusable items on campus	ONGOING	SUST.
• Determine a designated point person on city staff to direct sustainability-related questions or comments to the correct department		
• Promote the city's energy, climate, and sustainability vision through the established online newsletter and develop other municipal marketing materials to update residents on city efforts, key sustainability topics, and easy-to-follow tips at home	ONGOING	SUST.
• Organize competitions between municipal employees, business owners, and neighborhoods that promote sustainability-focused activities:	ONGOING	SUST.
• "Bring Your Green to Work,"		
• Energy treasure hunts,		
• Adopting catch basins or green infrastructure,		
• Zero waste days,		
• Smart commute weeks, and challenges to bike, walk, or take public transit to work.		
• Partner with Ypsilanti Community Schools on communication and education efforts.	ONGOING	

• Consider creating a Communications Specialist position to lead and coordinate communication and education efforts within the City.	MID	MANAGER
• Make critical public documents accessible and multilingual	ONGOING	MANAGER
• Publicize available efficiency and support programs, such as the County's weatherization program and YCUA's water assistance program.	ONGOING	
GOAL: Develop the datasets necessary to determine where disaster relief should be targeted		
• Conduct an Environmental Justice analysis that identifies vulnerable populations and structures that are disproportionately impacted by climate change	LONG	
• Work with SEMCOG and the County to expand local air quality monitoring system	SHORT	
• Investigate infrastructure materials that can weather extreme weather	ONGOING	
GOAL: Mitigate the damage inflicted on residents, infrastructure, and property from extreme weather.		
• Implement renewable backup power systems for areas of refuge and emergency facilities	ONGOING	DPS
• Collaborate with landlords, YCUA, and DTE to ensure that in a time of crisis essential water and gas/electricity are not shut off	ONGOING	CED/ MANAGER
• Work with Washtenaw County to develop a Hazard Mitigation Plan.	MID	YPD/YFD/ DPS
• Partner with Washtenaw County to expand emergency preparedness and communication tools including a multilingual and universally accessible plan that includes climate change predictions	MID	MANAGER
• Work with the County to identify additional accessible warming and cooling shelters	MID	
• Require occupied residential rental units to have one air-conditioned room	MID	CED
• Review response protocol and update where needed to respond to severe storm events	MID	MANAGER
• Continue to explore Resilience Hubs in coordination with local community partners and facilities.	MID	
• Publicize available utility assistance programs, such as THAW, leading into and during peak heating and cooling seasons.	ONGOING	
• Work with Washtenaw County and utility partners to ban utility shutoffs for nonpayment during states of emergency or extreme weather events.		
• Improve snow and ice response for sidewalks	ONGOING	DPS (PUBLIC) CED (PRIVATE)

Figure 38: Contamination and LUSTs by Census Tract

Census Tract	Sites of Environmental Contamination	Leaking Underground Storage Tanks (Open)	Leaking Underground Storage Tanks (Closed)	Total
Tract 4108	8	2	13	23
Tract 4106	4	3	3	10
Tract 4107	1	1	4	6
Tract 4103	3	1	7	11
Tract 4110	2	2	4	8
Tract 4112	1	1	1	3
Tract 4109	1	1	2	4
Tract 4102	0	0	1	1
Tract 4111	0	0	1	1
Total	20	11	36	67

Source: Michigan Department of Environment, Great Lakes, and Energy, EnviroMapper

Ypsilanti Sustainability Maps

Layers are listed in drawing order, top to bottom.

Biological Rarity

State Owned Roads (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/state-owned-roads-v17a)

All Roads (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/all-roads-v17a)

Hydrography Lines (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/hydrography-lines-v17a)

Biological Rarity Index, Michigan Natural Features Inventory https://mnfi.anr.msu.edu/resources/biological-rarity-index

Ypsilanti Feathered Edge, generated by consultant, created using a multiple ring buffer at intervals of 20 feet up to 200 feet and symbolizing at increasing levels of transparency

Ypsilanti Municipal Boundary, provided by the client – City of Ypsilanti

Hydrography Polygons (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/hydrography-polygons-v17a)

Ypsilanti Municipal Boundary, provided by the client – City of Ypsilanti

Minor Civil Divisions (v17a), Michigan Open Data Library, State of Michigan (https://gis-michigan.opendata.arcgis.com/datasets/Michigan::minor-civil-divisions-cities-townships-/explore?location=44.932389%2C-86.415900%2C7.67)

Environmental Contamination

Leaking Under Ground Storage Tanks Part 213 – Open, EnviroMapper, Michigan Department of Environment, Great Lakes, and Energy (https://www.mcgi.state.mi.us/environmentalmapper/)

Leaking Under Ground Storage Tanks Part 231 – Closed, EnviroMapper, Michigan Department of Environment, Great Lakes, and Energy (https://www.mcgi.state.mi.us/environmentalmapper/)

Sites of Environmental Contamination Part 201, EnviroMapper, Michigan Department of Environment, Great Lakes, and Energy (https://www.mcgi.state.mi.us/environmentalmapper/)

Ypsilanti Municipal Boundary, provided by the client – City of Ypsilanti

2010 Census Tracts (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/2010-census-tracts-v17a)

State Owned Roads (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/state-owned-roads-v17a)

Hydrography Lines (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/hydrography-lines-v17a)

Ypsilanti Feathered Edge, generated by consultant, created using a multiple ring buffer at intervals of 20 feet up to 200 feet and symbolizing at increasing levels of transparency

2010 Census Tracts (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/2010-census-tracts-v17a)

Hydrography Polygons (v17a), Michigan Open Data Library, State of Michigan

(http://gis-michigan.opendata.arcgis.com/datasets/hydrography-polygons-v17a)

Ypsilanti Municipal Boundary, provided by the client – City of Ypsilanti

Minor Civil Divisions (v17a), Michigan Open Data Library, State of Michigan (https://gis-michigan.opendata.arcgis.com/datasets/Michigan::minor-civil-divisions-cities-townships-/explore?location=44.932389%2C-86.415900%2C7.67)

Tree Planting Priority

Ypsilanti Municipal Boundary, provided by the client – City of Ypsilanti

Ypsilanti Feathered Edge, generated by consultant, created using a multiple ring buffer at intervals of 20 feet up to 200 feet and symbolizing at increasing levels of transparency

All Roads (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/all-roads-v17a)

Hydrography Lines (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/hydrography-lines-v17a)

Hydrography Polygons (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/hydrography-polygons-v17a)

Tree equity placement, generated by consultant (see methods section)

Minor Civil Divisions (v17a), Michigan Open Data Library, State of Michigan (https://gis-michigan.opendata.arcgis.com/datasets/Michigan::minor-civil-divisions-cities-townships-/explore?location=44.932389%2C-86.415900%2C7.67)

Soil – Suitability for Dwelling Units with Basements

State Owned Roads (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/state-owned-roads-v17a)

All Roads (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/all-roads-v17a)

Hydrography Lines (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/hydrography-lines-v17a)

Ypsilanti Feathered Edge, generated by consultant, created using a multiple ring buffer at intervals of 20 feet up to 200 feet and symbolizing at increasing levels of transparency

Ypsilanti Municipal Boundary, provided by the client – City of Ypsilanti

Dwellings with Basements, Web Soil Survey, United States Geologic Survey, United States Department of Agriculture (https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm)

Hydrography Polygons (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/hydrography-polygons-v17a)

Ypsilanti Municipal Boundary, provided by the client – City of Ypsilanti

Minor Civil Divisions (v17a), Michigan Open Data Library, State of Michigan (https://gis-michigan.opendata.arcgis.com/datasets/Michigan::minor-civil-divisions-cities-townships-/explore?location=44.932389%2C-86.415900%2C7.67)

Soil – Suitability for Surface Composting

State Owned Roads (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/state-owned-roads-v17a)

All Roads (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/all-roads-v17a)

Hydrography Lines (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/hydrography-lines-v17a)

Ypsilanti Feathered Edge, generated by consultant, created using a multiple ring buffer at intervals of 20 feet up to 200 feet and symbolizing at increasing levels of transparency

Ypsilanti Municipal Boundary, provided by the client – City of Ypsilanti

Composting Facility – Surface, Web Soil Survey, United States Geologic Survey, United States Department of Agriculture (https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm)

Hydrography Polygons (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/hydrography-polygons-v17a)

Ypsilanti Municipal Boundary, provided by the client – City of Ypsilanti

Minor Civil Divisions (v17a), Michigan Open Data Library, State of Michigan (https://gis-michigan.opendata.arcgis.com/datasets/Michigan::minor-civil-divisions-cities-townships-/explore?location=44.932389%2C-86.415900%2C7.67)

Soil – Flooding Frequency

State Owned Roads (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/state-owned-roads-v17a)

All Roads (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/all-roads-v17a)

Hydrography Lines (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/hydrography-lines-v17a)

Ypsilanti Feathered Edge, generated by consultant, created using a multiple ring buffer at intervals of 20 feet up to 200 feet and symbolizing at increasing levels of transparency

Ypsilanti Municipal Boundary, provided by the client – City of Ypsilanti

Flooding Frequency Class, Web Soil Survey, United States Geologic Survey, United States Department of Agriculture (https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm)

Hydrography Polygons (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/hydrography-polygons-v17a)

Ypsilanti Municipal Boundary, provided by the client – City of Ypsilanti

Minor Civil Divisions (v17a), Michigan Open Data Library, State of Michigan (https://gis-michigan.opendata.arcgis.com/datasets/Michigan::minor-civil-divisions-cities-townships-/explore?location=44.932389%2C-86.415900%2C7.67)

Watershed

Counties (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/counties-v17a)

Ypsilanti Municipal Boundary, provided by the client – City of Ypsilanti

Hydrography Lines (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/hydrography-lines-v17a)

Hydrography Polygons (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/hydrography-polygons-v17a)

Watersheds, Washtenaw County, Provided by the client – City of Ypsilanti

Counties (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/counties-v17a)

Urban Greening

City of Ypsilanti Parcels, Provided by client – City of Ypsilanti

City of Ypsilanti Parcels, Provided by client – City of Ypsilanti

State Owned Roads (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/state-owned-roads-v17a)

All Roads (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/all-roads-v17a)

Hydrography Lines (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/hydrography-lines-v17a)

Suitability for Hand Planting, Web Soil Survey, United States Geologic Survey, United States Department of Agriculture (https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm)

Ypsilanti Feathered Edge, generated by consultant, created using a multiple ring buffer at intervals of 20 feet up to 200 feet and symbolizing at increasing levels of transparency

Ypsilanti Municipal Boundary, provided by the client – City of Ypsilanti

Hydrography Polygons (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/hydrography-polygons-v17a)

Ypsilanti Municipal Boundary, provided by the client – City of Ypsilanti

Minor Civil Divisions (v17a), Michigan Open Data Library, State of Michigan

(https://gis-michigan.opendata.arcgis.com/datasets/Michigan::minor-civil-divisions-cities-townships-/explore?location=44.932389%2C-86.415900%2C7.67)

Light Pollution

Tl_2018_us_state, Tiger Line File, United States Census Bureau

Ypsilanti Municipal Boundary, provided by the client – City of Ypsilanti

State Owned Roads (v17a), Michigan Open Data Library, State of Michigan (http://gis-michigan.opendata.arcgis.com/datasets/state-owned-roads-v17a)
New World Atlas Artificial Sky Brightness, Fabio Falchi[1,*], Pierantonio Cinzano[1], Dan Duriscoe[2], Christopher C. M. Kyba[3,4], Christopher D. Elvidge[5], Kimberly Baugh[6], Boris A. Portnov[7], Nataliya A. Rybnikova[7] and Riccardo Furgon

Methods

Tree Equity Placement

The layer was generated by running a tree placement model for the entire City to determine what areas are most in need of trees based on two sources: existing tree canopy and the Michigan Environmental Project's Heat Stress Index. The sources were weighted accordingly: existing tree canopy (50%) and heat stress index (50%). The existing tree canopy layer was sourced from the National Land Cover Database (https://www.mrlc.gov/national-land-cover-database-nlcd-2016), areas with 100% tree coverage were assigned a value of 0 and areas with 0% tree coverage were assigned a value of 100. The heat stress index, which was developed using both social and physical factors, was sourced from MI-Environmental Project (https://michiganview.org/MI_Environment_Tool.html). These layers were all combined into a fishnet layer at 10ft resolution and because all of the layers were normalized on a scale of 100 the weights were just multiplied to the weighted values.

ORIGINAL SHAPE YPSILANTI MASTER PLAN (2013)

CONSULTANT TEAM

ENP & Associates (Lead Firm):
Erin N. Perdu, Principal;
Megan A. Masson-Minock, Planner;
Emily Lake, Intern

AECOM (Transportation & Urban Design):
Ian Lockwood, Principal;
Addie Weber, Urban Designer

Zachary & Associates (Housing & Economic Analysis):
Diane Van Buren, President;
Alexander Zachary, Planning & Development,
Christine Peltier, Intern

PlanActive Studio (Form-Based Code):
Tara Salmieri, Principal

2020-2021 PLAN UPDATE

CITY OF YPSILANTI CITY COUNCIL

Lois Richardson, Mayor
Nicole Brown, Mayor Pro-Tem, Ward 1
Brian Jones-Chance, Ward 1
Jennifer Symanns, Ward 2
Steve Wilcoxen, Ward 2
Anthony Morgan, Ward 3
Annie Somerville, Ward 3

CITY OF YPSILANTI PLANNING COMMISSION

Matt Dunwoodie, Chair
Jared Talaga, Vice-Chair
Eric Bettis
Heidi Jugenitz
Michael Davis, Jr.
Jessica Donnelly
Phil Hollifield
Michael Simmons

SUSTAINABILITY COMMISSION

Keith Michalowski, Chair
Julia Bayha
Bryan Foley
Katy Greenwald
Nancy Heine, Vice Chair
Takunia Collins
Beth Gibbons
Desirae Simmons

CITY STAFF

Frances McMullan, City Manager
Joe Meyers, Economic Development Director
Christopher Jacobs, Community Development Manager
Andy Aamodt, City Planner
Scott Slagor, Preservation Planner
Elize Jekabson, Public Engagement Specialist
Ron Akers, Director of Public Services
Bonnie Wessler, Project Manager

2021 MASTER PLAN REDESIGN

Elize Jekabson, Public Engagement Specialist

CONSULTANT TEAM

Beckett & Raeder, Inc.:
Michelle Bennett, Associate
Leah DuMouchel, Principal
Rowan Brady, GIS Technician/Assistant Planner

Implementation Matrix

Action	Time Frame	Location	Actions underway	Completion date
Continue and increase rental inspections and enforcement	Ongoing	All neighborhoods		
Assist continuation and expansion of EMU Live Ypsi program	Ongoing	All neighborhoods		
Plan and zone for range of housing typologies for the needs of all ages and abilities	Ongoing	All neighborhoods		
Continue and expand the number, type and location of festivals and events	Ongoing	All centers		
Finish upper stories	Ongoing	All Centers		
Maintain and expand transportation options	Ongoing	Downtown		
Create "Welcome to Ypsilanti" packages for new EMU students, including web version	1-5 years	EMU		
Encourage use or redevelopment of unused parking lots	1-5 years	Towner		
Encourage development of vacant parking areas	1-5 years	Job Districts		
Align economic development incentives and programs to encourage emerging sectors that align with the Guiding Values and the employment potential of residents	1-5 years	All Districts		
Establish "Aging in Place" Programs	1-5 years	All neighborhoods		
Draft a business attraction plan for Downtown, Depot Town and Cross Street	1-5 years	All centers		
Encourage business and event activity during the day and evening	1-5 years	All centers		
Create a marketing campaign for the City of Ypsilanti	1-5 years	All centers		
Build curbless "festival" street on Washington	1-5 years	Downtown		

Action	Time Frame	Location	Actions underway	Completion date
Use vacant storefronts for temporary retail uses	1-5 years	Downtown		
Permanent year-round home for Downtown Farmer's Market	1-5 years	Downtown		
Permanent year-round home for Depot Town Farmer's Market	1-5 years	Depot Town		
Separate Cross Street and Washtenaw Avenue	1-10 years	Cross Street		
Create a "front door" for EMU in the area created by the reconfiguration of Cross Street and Washtenaw	1-10 years	EMU		
Restore two-way function to Cross, Huron and Hamilton Streets	1-10 years	Historic corridors		
Restore Harriet Street as the Main Street of adjacent neighborhoods	1-10 years	General Corridors		
Create "Eco-Districts" in neighborhood parks	1-10 years	All neighborhoods		
Install a way-finding system	1-10 years	All centers		
Increase walkability (2-way streets & raised intersections)	1-10 years	Downtown		
Build curbless "festival" street on River and Cross Streets	1-10 years	Depot Town		
Create a public space at new train station	1-10 years	Depot Town		

Approach on Two-Way Street Conversion

The following lists approaches to be used by the City when approaching MDOT on two-way street conversions.

Approach

1. Express the City's intent to the MDOT to restore two-way operations on the streets within the City and the transfer of the streets' jurisdiction to the City in the City's official plan and in direct communications with the MDOT.
2. Review the City's transportation plan with the MDOT so they understand the overall concept.
3. Review the key reasons with MDOT about why the changes to the streets makes sense.
    a. Benefits of being bicycle-friendly and pedestrian-friendly.
    b. Benefits of direct routing for motorists and cyclists.
    c. Safety benefits of slower speeds, less weaving/ speeding, and roundabouts.

d. Economic development and property value benefits.
e. City identity and aesthetic benefits.
f. Way-finding and legibility benefits.
g. Quality of life benefits.

4. Make the case for MDOT to fund the project:
   a. The bottom line is that, at the end of the day, MDOT will have these streets "off of their books" and the City will have some "20-year" streets.
   b. The streets involved have long lost their state role.
   c. The City does not want to incur the maintenance costs of the streets while the streets are in their current state.
   d. The streets are in their current state due to the state's past needs/values for accommodating through traffic and high levels of service for motorists through the City; a condition that is no longer exists. The future for the streets, as per the City's plans, are now in the best interest of the City and the area.
   e. The idea is that once the streets are restored to a condition (i.e., a 20-year street), then it makes sense for the City to assume the jurisdiction of the streets, and then the jurisdictional transfer should take place. The changes include the two-way restorations, cross-section changes, and underground utility work; according to the City's specifications.

Note that the above was written under the assumption that there is no need for the MDOT to keep jurisdiction over any of the affected streets. If there is a need to keep a route under MDOT's jurisdiction, the route should be Huron and Cross. However, it is hoped that this does not occur.

The final steps are:

1. Have the MDOT fund a the implementation plan (i.e., traffic study, the surface design/ traffic control changes, utility assessment and changes, staging, etc.)
2. Implement the project.
3. Transfer the jurisdiction.

PHASES FOR TWO-WAY CONVERSIONS

The following are potential phases of two-way conversions:

1. Lowell; Huron north of Cross; Hamilton north of Cross; Perrin north of Cross
2. Cross; Emmet; Washtenaw; Hamilton north of Washtenaw; Perrin north of Washtenaw
3. Remainder of Hamilton; remainder of Huron; Harriet