



# Master Sustainability Plan



# Acknowledgements

This Plan was developed through a collaborative process between the City of Madison Heights and Energy Sciences with support from the Michigan Municipal League. Funding for the project was made possible by the Community Energy Management (CEM) Grant awarded to the City by the Michigan Department of Environment, Great Lakes, and Energy (EGLE).

## **City of Madison Heights**

Melissa Marsh, City Manager  
Sean Ballantine, DPS Director

## **Madison Heights City Council**

Roslyn Grafstein, Mayor  
Mark Bliss, Mayor Pro Tem  
Sean Fleming, Councilman  
William J. Mier, Councilman  
Quinn Wright, Councilor  
Emily J. Rohrbach, Councilor  
David M. Soltis, Councilman

## **Energy Sciences**

Shelley Sullivan, President  
Michelle Peters, Program Manager  
Laura Henschke, Communications Project Lead

## **Environmental Citizens Committee**

Emily Rohrbach, Council Representative  
Quinn Wright, Council Alternate  
Jennifer Bartleman, Member-at-Large  
Michael Salley, Member-at-Large  
Jason Theodoroff, Member-at-Large  
Jennifer Bowen, Member-at-Large  
Coreen Porter, Member-at-Large  
Nickole Fox, Member-at-Large  
Sean Ballantine, Ex-Officio Member without Vote

## **Michigan Municipal League**

Danielle Beard, Michigan Green Communities Coordinator

# Table of Contents

**01.**

**Defining  
Sustainability**

**02.**

**Community Climate &  
Social Vulnerability Profile**

**03.**

**Michigan Green  
Communities**

**04.**

**Master Sustainability  
Plan Focus Areas**

**05.**

**Action Plan**



# Executive Summary

The City of Madison Heights is the City of Progress, an inner ring suburb of Detroit located at the junction of I-75 and I-696, with an area of 7.2 square miles. The City is known for having some of the **lowest taxes** in Oakland County **without sacrificing quality services**. To state that the City is diverse is an understatement. Within its boundaries are a vibrant and engaged community that contributes to the success of a broad range of corporations and locally owned businesses, including the corporate headquarters of Hungry Howie's Pizza, the largest Asian supermarket in Southeast Michigan, along with multiple retail, commercial, and manufacturing corridors. It is also the childhood home of celebrated artist and conservationist Robert Wyland, his iconic whale mural graces the rear façade of the Broderick Tower in Detroit.

In 2018, the City Council and Staff developed a strategy that articulates a future vision for the community. The Strategic Plan lists 6 priorities, and one of those is **sustainability**. The Master Sustainability Plan aims to connect, support, and supplement the initiatives of the Strategic Plan and Capital Improvement Plan by defining three priority focus areas with a supporting action plan that can be implemented through FY 2024-2025. It is a living document that is the road map for planning long-term initiatives and goals that can be realized in the future.







**01.**

# Defining Sustainability



A holistic approach to sustainability focuses on the **Triple Bottom Line**.



### People (Social)

Engaging the community and ensuring social well-being for all.

### Planet (Environmental)

Adapting to and mitigating the risks of climate change.

### Prosperity (Economic)

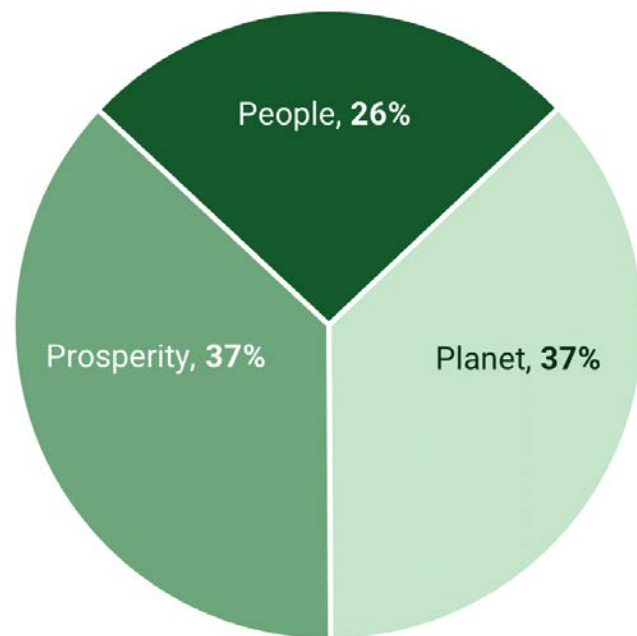
Building a resilient and economically secure future.

The three pillars of the Triple Bottom Line often intersect, with many actions benefiting more than one pillar and producing positive outcomes across multiple areas.

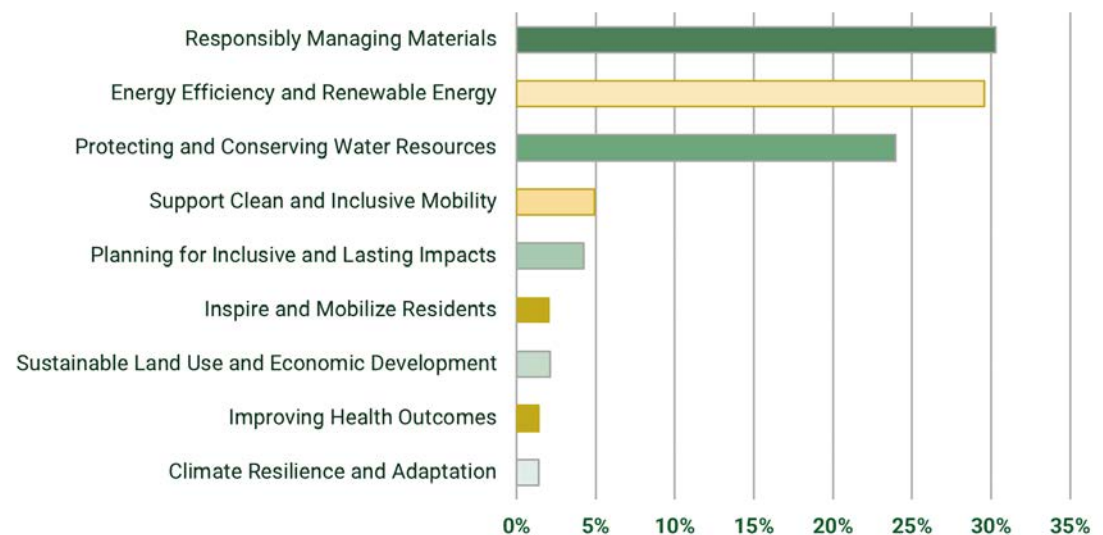


## Defining Sustainability: Assessment Results

Percentage of Actions by Triple Bottom Line



Percentage of Green Communities Challenge Actions by Category



In July of 2023, during the opening Assessment Phase, Energy Sciences conducted a Sustainable Practices and Actions Inventory and reviewed the 2021 – 2022 results of the Michigan Municipal League’s Michigan Green Communities Challenge. Collectively, the City engaged in 142 actions. Of those, 34 were in progress, and 108 were noted as complete.

Our team found that the City’s efforts extend beyond addressing environmental concerns within sustainability. Numerous initiatives undertaken by the City also play a significant role in strengthening the economic and social dimensions of sustainability, emphasizing the well-being of both people and prosperity.

## Defining Sustainability: Recent Successes



- **Spring 2023:** Awarded funding from the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for the development of this Plan.
- **Summer 2023:** Completed a comprehensive Sustainable Practices and Actions Inventory.
- **Fall 2023:** Planted 105 trees in addition to the 546 that have been planted since 2018.
- **November 2023:** Lead a regional application team with the Cities of Oak Park, Ferndale, and Lamphere Schools for the Energy Future Grant from the US Department of Energy. The proposed project "Evolve: A Regional Mobility Transformation and Decarbonization Plan for Southeast Oakland County" was selected in April 2024 by the DOE, and the team is in the award negotiation process, which is expected to wrap up in the Fall of 2024.
- **December 2023:** Finalized energy consumption baseline for all City-owned facilities.
- **January 2024:** Partnered with Oakland County Water Resources and rolled out RainSmart Rebates for residents that live within the George W. Kuhn Drainage District for implementing green stormwater infrastructure (rain gardens, rain barrels, and trees).
- **February 2024:** Qualified for Michigan Green Communities Challenge Silver Certification and will become a member of the Catalyst Leadership Circle.





**02.**

## **Community Climate & Social Vulnerability Profile**



# Community Climate & Social Vulnerability Profile: Social Vulnerability & Climate Exposure

## Social Vulnerability

	City of Madison Heights		Oakland County	
Population	28,521		1,272,264	
Families in poverty	480	7.5%	15,651	4.8%
No high school degree	2,497	11.6%	47,663	5.3%
People with disabilities	4,568	16.1%	144,565	11.4%
People without health insurance	2,024	7.1%	51,462	4.1%
Households with no car	1,221	9.1%	28,610	5.5%
Housing units that are rentals	5,051	37.5%	147,398	28.1%
People of color	5,439	19.1%	383,043	30.1%
People who don't speak English well	1,141	4.2%	20,770	1.7%
Number of manufactured homes	476	35.0%	14,512	2.8%
Children under 5 years	1,035	3.6%	66,132	5.2%
People over 65 years	4,863	17.1%	222,540	17.5%

## Climate Exposure

	City of Madison Heights	Oakland County
Properties with flood risk	12.0%	5.5%
Area in 500-year floodplain	0.0%	69.4%
Area of impervious surface	67.2%	20.5%
Area lacking tree canopy	93.7%	7.4%

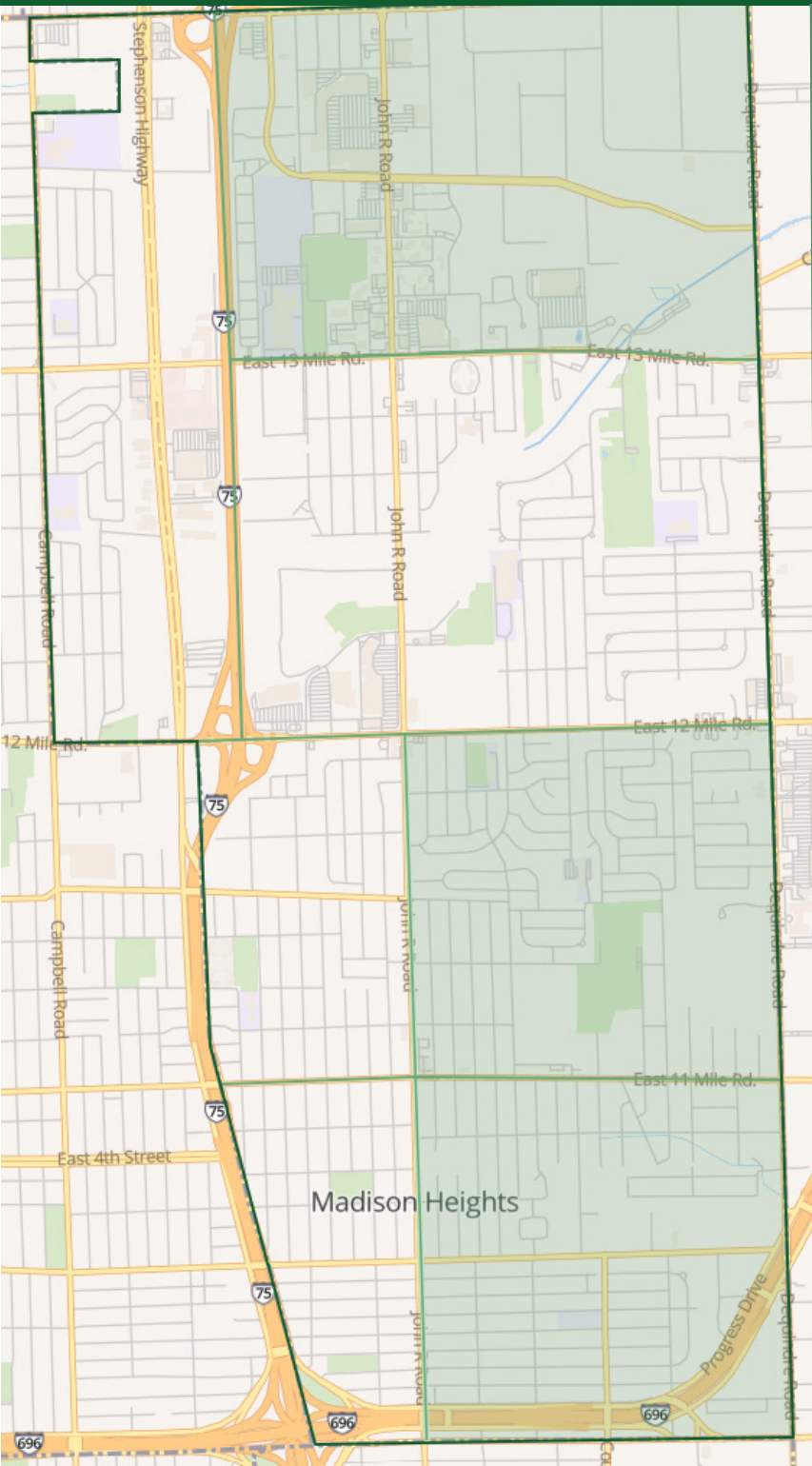
The concept of **Social Vulnerability** acknowledges that certain members of the community may experience greater impacts from environmental hazards and encounter obstacles in accessing beneficial sustainability opportunities. Recognizing these groups has been a driving force behind the development of this Master Sustainability Plan.

**Environmental Risks**, some of which are outlined in the Climate Exposure chart, affecting Madison Heights residents include the possibility that certain individuals may struggle to recover from a major flood event, and could experience negative health consequences due to increased air pollution resulting from high traffic volumes and the combustion of fossil fuels.

Additionally, there are residents within the community who face **socioeconomic challenges**, rendering the initial expenses of energy-efficient enhancements unattainable or inaccessible, particularly those residing in rental properties. This situation exacerbates the burden of high energy costs, which can have devastating effects on families already grappling with poverty or feeling the strain of escalating expenses due to inflation.



# Community Climate & Social Vulnerability Profile: Disadvantaged & Overburdened Communities



Disadvantaged Communities (DAC) are lower-income and overburdened in one or more of eight categories: climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development. They are defined and bounded into tracts using census data. Madison Heights contains 7 census tracts, and 3 of them are designated Disadvantaged Communities.

This matters because the Justice 40 Initiative directs 40% of the overall Federal and MI Healthy Climate Plan investment benefits to Disadvantaged Communities identified as marginalized, underserved, and overburdened by pollution.

The Master Sustainability Plan aims to increase the social, environmental, and economic benefits to the City as a whole, including the DAC tracts. Funding to implement projects that make up the Action Plan is available through various state and federal grant programs.

The following page identified disadvantaged census tract location and categories within the City

Community Climate & Social Vulnerability Profile: Disadvantaged & Overburdened Communities

**Census Tract 26125181000:**  
S of 14 Mile, E of I75

**Overburdened DAC Categories**

Low Income
High School Education
Climate Change
Housing
Legacy Pollution
Transportation
Water and Wastewater
Workforce Development

**Census Tract 26125181300:**  
S of 12 Mile, E of John R

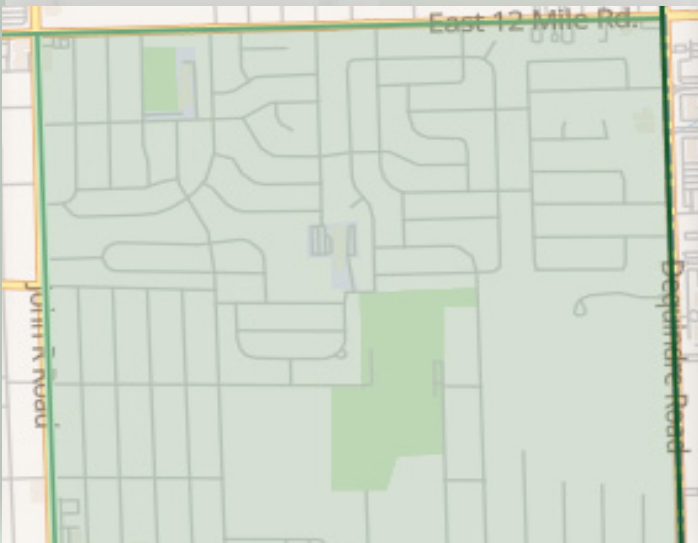
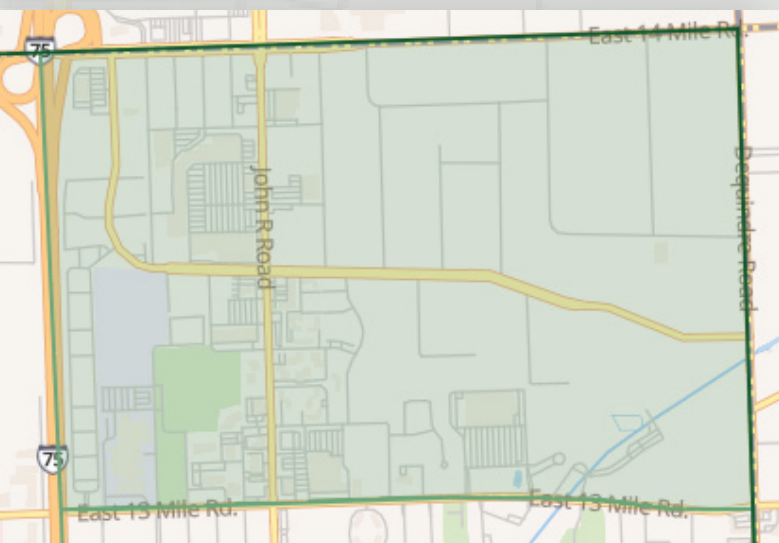
**Overburdened DAC Categories**

Low Income
Water and Wastewater

**Census Tract 26125181600:**  
S of 11 Mile, E John R

**Overburdened DAC Categories**

Low Income
High School Education
Housing
Transportation







**03.**

# Michigan Green Communities

## Michigan Green Communities: The MGC Challenge

The Michigan Green Communities Challenge offers an excellent framework for the Master Sustainability Plan, aligning with a holistic sustainability approach. Its nine Action Categories are counterparts that overlap the Triple Bottom Line pillars of People, Planet, and Prosperity. It served as one of the starting points in measuring the progress Madison Heights takes toward becoming more sustainable.

The Challenge includes 9 categories, and each is comprised of several action items. The City earns points by starting, making progress, and completing these action items. Participation is free and open to any local government in Michigan, and a logo can also be earned that can be displayed on websites and in print materials.

All of the Challenge participants are recognized at the annual awards conference, on the MGC website, and are included in a press release. The Bronze, Silver, Gold, and Platinum communities are also recognized at EGLE events, including MISCON (Michigan Sustainability Conference) and the MI Healthy Climate Conference.

### Michigan Green Communities Challenge Action Categories

- Planning for Inclusive & Lasting Impacts
- Climate Resilience & Adaptation
- Energy Efficiency & Renewable Energy
- Responsibly Managing Materials
- Sustainable Land Use & Economic Development
- Improving Health Outcomes
- Protecting & Conserving Water Resources
- Support Clean & Inclusive Mobility
- Inspire & Mobilize Residents



"If you do nothing else...  
Take the Michigan Green  
Communities Challenge.  
That's Where Madison Heights  
started, and it's why we've  
gotten to where we are now."

- **Melissa Marsh, City Manager**



Madison Heights submitted its first Challenge Survey for the 2021 reporting period, and progressive improvements have been made from one year to the next. When the results are announced for 2023 after the reporting period closes in May 2024, the City will earn Silver Certification and qualify to join the Catalyst Leadership Circle. Sharing this success will be a motivational call to action for neighboring communities that have not participated in the Challenge.

Communities that receive Silver, Gold, or Platinum awards can participate in the Catalyst Leadership Circle. Madison Heights' leadership in other regional initiatives will be highlighted in the CLC, providing opportunities to participate in bi-monthly peer-sharing and learning sessions with other local leaders. Additionally, the City will be eligible to host a CLC Fellow who can assist with decarbonization and sustainability related projects. CLC Fellows are graduate-level students, who come from academic programs across the state.

Aligning the Master Sustainability Plan and the accompanying Action Plan with the Michigan Green Communities Challenge Survey will maximize the effectiveness of planning by linking the City's Priority Actions and Capital Improvement Plan for future years' participation.



**2021**  
**27 Points**



**2022**  
**50 Points**



**2023**  
**72 Points**



**04.**

# Master Sustainability Plan Focus Areas





### Education

Prioritizing **education** will foster a shared understanding of sustainability, its significance, and drive greater engagement with the Master Sustainability Plan. When every member of the community grasps the concept of sustainability, it paves the way for them to link it with the advantages and potential opportunities outlined in the Action Plan.

Furthermore, the chance to exchange knowledge through networks, cohorts, focus groups, and collaborations with other businesses, non-profits, and civic groups enhances the educational journey. This underscores the diverse array of perspectives within the community that can offer additional resources such as available incentives and assistance for the Plan and its initiatives.

Effective awareness campaigns serve as a valuable educational tool, incorporating informative messages along with calls to action and employing an intentional communication strategy for deployment.





### Communication



Effective **communication** is crucial for fostering trust, garnering support for the Master Sustainability Plan, and encouraging community participation, which is why it's a key Focus Area. Simply completing actions and moving forward isn't sufficient.

Community members seek understanding regarding the reasons behind actions, their current status, and the benefits they offer. It's vital to address the following considerations:

- What information will be shared and with whom?
- How and when will it be conveyed, and who will be responsible for its delivery?
- How frequently will updates be provided?

Strategic planning of communication methods is essential for optimal effectiveness before implementation.

Communication involves disseminating information to pertinent groups necessary for planning purposes. Activities such as developing Greenhouse Gas (GHG) inventories and monitoring energy and water usage serve as methods for communicating the existing operational conditions of facilities.





### Efficiency

To enhance **efficiency**, understanding current operations is key, and in 2023 Madison Heights updated the energy performance baseline using data from 2022 and resumed the monitoring of all electricity and natural gas used in its operations. The next step in the City's journey is ASHRAE Level 2 audits for all City-owned facilities. These audits prioritize future Capital Improvement Plans, Action Plans, and integrate the Master Sustainability Plan with the CIP and Strategic Priority list.

ASHRAE Level 2 audits build on previous assessments which the City has completed, examining building envelopes, operations, systems, and their connections. They focus on detailed analysis of energy consumption sources like lighting, HVAC, and more. Data collected, alongside the energy baseline, helps identify high energy usage sources, listing potential Energy Conservation Measures (ECMs), including low-to-no-cost options fundable through grants and rebates.

The detailed audits provide reliable data for budgeting and capital project planning, including quantitative and qualitative information on implementation costs, savings, payback, and life-cycle costs. Additionally, ASHRAE Level 2 audits are required by the State of Michigan before awarding funding for renewable energy projects.



### Education

Direct efforts towards boosting awareness and understanding of sustainability advantages among both city staff and the wider community.



### Communication

Develop a plan for sharing updates, progress, and the benefits of the strategy and its initiatives, ensuring accessibility for the entire community.



### Efficiency

Prioritize initiatives that increase energy and water consumption awareness, identify and mitigate potential health risks, and highlight the benefits of waste reduction for City-owned facilities, businesses, and residents.

Much like the Triple Bottom Line pillars of sustainability, the Focus Areas are interconnected and build on each other. **Many of the actions** in the Action Plan support **more than only one Focus Area**.





## 05. Action Plan



## Action Plan: Overview

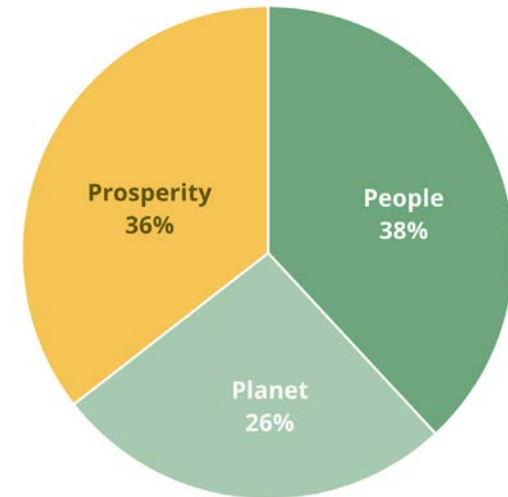
The Action Plan is comprised of 21 Actions organized by priority level that support the 3 Focus Areas of the Master Sustainability Plan and the Triple Bottom Line. These Actions come directly from the Green Communities Challenge and can incorporate objectives from the City's Strategic Plan and Capital Improvement Plan.

Each action is assigned a priority level, and they consider factors like the order, ease, and potential funding needed for implementation. Some of the actions may be ongoing, result in further steps, or never reach completion, which is noted by categorizing them as "continue". Actions to begin are noted as "start," and those underway as "in progress."

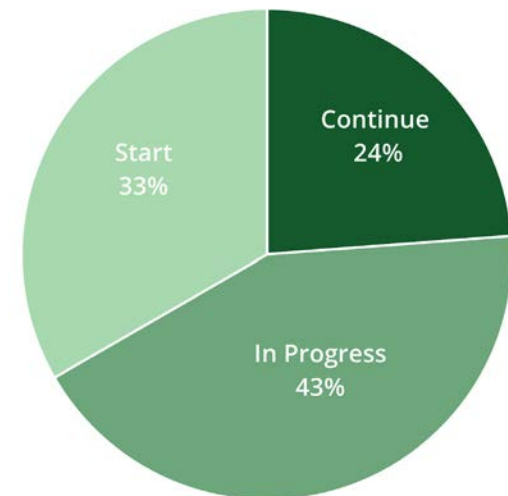
High priority Actions include actions that will be completed with the adoption of this Plan and actions that help set the foundation for the rest of the Plan. Medium and Low level Actions can be planned for the future or implemented in conjunction with High priority Actions where they overlap.

Before the close of each fiscal year, the Action Plan will be reviewed, progress will be examined, and groups of Actions will be selected for a new Action Plan for the upcoming fiscal year.

**Action Plan  
by Triple Bottom Line**



**Action Plan  
by Action Status**





## Action Plan: High Priority

Type of Action	Priority Level	Action or Target	Main Focus Area	Secondary Focus Area 1	Secondary Focus Area 2
Continue	High	Establish an internal sustainability team, made up of staff from different departments as relevant, to coordinate municipal sustainability initiatives.	Education	Communication	Efficiency
Continue	High	Establish an external sustainability team (or broaden the original internal sustainability team) to include participation from community members, especially underserved and/or traditionally marginalized residents, who will identify and make recommendations on actions the municipality and community can take to reduce environmental impacts and improve overall sustainability.	Education	Communication	Education
In Progress	High	Implement a community outreach/education campaign around sustainability initiatives.	Education	Communication	Efficiency
Start	High	Perform a climate vulnerability assessment that considers health and equity impacts.	Education	Communication	
Start	High	Train relevant municipal staff (e.g., public works, grounds and building maintenance) in principles of sustainability.	Education	Communication	Efficiency
In Progress	High	Incorporate measurable sustainability targets and indicators into an existing community master plan OR create a community sustainability plan with measurable sustainability targets and indicators	Communication	Education	
In Progress	High	Participate in the Michigan Green Communities Network and share your community's successes and/or lessons learned	Communication	Education	
In Progress	High	Conduct focus groups, community surveys, and/or other community activities to acquire and share information on local sustainability initiatives.	Communication	Education	Efficiency
Start	High	Incorporate environmental justice implications and opportunities in planning and zoning documents OR in a community sustainability plan.	Communication	Education	
Continue	High	Conduct energy audits on municipal facilities.	Efficiency	Education	
In Progress	High	Track energy use for all municipal buildings using ENERGY STAR Portfolio Manager	Efficiency	Education	
Start	High	Develop a municipal operations GHG inventory.	Efficiency	Education	
Start	High	Evaluate municipal facilities for potential health risks (preferably in conjunction with energy and water audits) such as lead exposure, indoor air quality, mold, or other potential contaminant exposures.	Efficiency	Education	Communication

## Action Plan: Medium & Low Priority

Type of Action	Priority Level	Action or Target	Main Focus Area	Secondary Focus Area 1	Secondary Focus Area 2
In Progress	Medium	Provide incentives, support programs, and/or educational resources for businesses, households, and landlords to make improvements to properties that reduce GHG emissions and/or improve household-level resiliency to climate change (e.g., screens on windows & porches, improved insulation, tree planting, home gardening, bioswales, improved drainage & pervious surfaces)	Education	Communication	Efficiency
In Progress	Medium	For communities of all sizes, provide regular information and resources on how to compost at home and/or businesses	Education	Communication	
Start	Medium	Develop community wide programs that promote energy efficiency among homeowners, landlords, and businesses.	Education	Communication	Efficiency
Continue	Medium	Provide access to information about community recycling programs through the municipal website, local media, social media, or other outreach mechanisms.	Communication	Education	Efficiency
In Progress	Medium	Provide awards or incentives to residents, organizations, or businesses who take significant steps to improve the sustainability and/or resiliency of the community.	Communication	Efficiency	Education
Start	Medium	Create a local sustainability action website/webpage and/or social media page.	Communication	Education	
In Progress	Medium	Partner with other public, private, or nonprofit partners on regional sustainability initiatives.	Efficiency	Communication	Education
Continue	Low	Establish a "green" volunteer corps who can help plan and implement sustainability projects	Efficiency	Education	Communication



## Action Plan: Summary

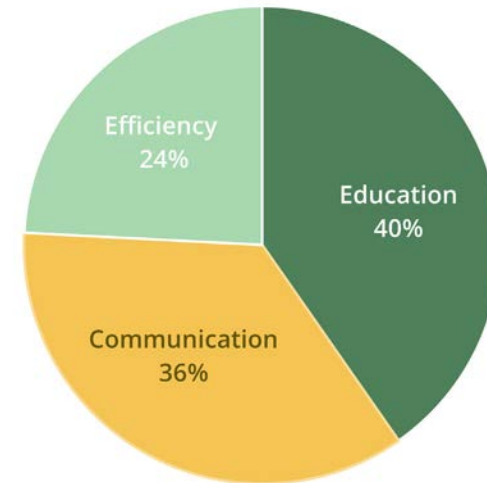
The FY 2024-25 Action Plan builds upon the achievements of FY 2023-24, particularly with the implementation of the Master Sustainability Plan, which will see several actions completed.

Under the Education Focus Area, initiatives are aimed at enhancing community-wide knowledge and understanding of sustainability concepts.

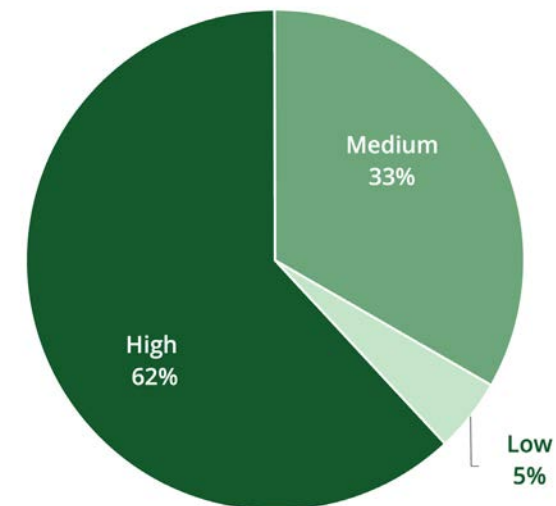
The Communication Focus Area's actions complement those in Education and Efficiency, aiding in the development of a comprehensive communication plan.

Efforts within the Efficiency Focus Area involve analyzing current conditions in detail, using both quantitative and qualitative analysis to guide future energy efficiency and renewable projects.

Action Plan  
by Focus Area



Action Plan  
by Priority Level



**High Priority Actions: 13**

**Medium Priority Actions: 7**

**Low Priority Actions: 1**

**Total Actions: 21**

