AGENDA
BIRMINGHAM AD HOC ENVIRONMENTAL SUSTAINABILITY COMMITTEE
MONDAY JUNE 17, 2024
BIRMINGHAM CITY HALL, 151 MARTIN ST, COMMISSION ROOM, BIRMINGHAM MI *
********** 6:00 PM**********

---

1) **Call to Order**
2) **Roll Call**
3) **Review of the Agenda**
4) **Approval of the AHESC Minutes of May 29th, 2024**
5) **Study Session**
   A. **SCAP Draft**
6) **Open to the Public for Items Not on the Agenda**
7) **Miscellaneous Communications**
   A. **Updated Project Schedule**
   B. **Public Engagement Phase 3**
8) **Draft Agenda – July 29, 2024**
9) **Adjournment**

---

*Please note that board meetings will be conducted in person once again. Members of the public can attend in person at Birmingham City Hall, 151 Martin St., or may attend virtually at:

Link to Access Virtual Meeting: https://bhamgov-org.zoom.us/j/87587439403
Telephone Meeting Access: 877 853 5247 US Toll-free
Meeting ID Code: 875 8743 9403

Notice: Individuals requiring accommodations, such as interpreter services for effective participation in this meeting should contact the City Clerk's Office at (248) 530-5115 at least on day in advance of the public meeting.

Las personas que requieren alojamiento, tales como servicios de interpretación, la participación efectiva en esta reunión deben ponerse en contacto con la Oficina del Secretario Municipal al (248) 530-5115 por lo menos el día antes de la reunión pública. (Title VI of the Civil Rights Act of 1964).

A PERSON DESIGNATED WITH THE AUTHORITY TO MAKE DECISIONS MUST BE PRESENT AT THE MEETING.

City Of Birmingham
Regular Meeting Of The Ad Hoc Environmental Sustainability Committee
May 29, 2024
City Commission Room
151 Martin Street, Birmingham, Michigan

Minutes of the regular meeting of the City of Birmingham Ad Hoc Environmental Sustainability Committee held on May 29, 2024. The meeting was convened at 6:00 p.m.

1) Roll Call

Present: Harvey Bell, Lara Edwards, Debra Horner, Jess Newman, Dani Torcolacci; Student Representative Josie Carroll

Absent: Lois DeBacker, Rachna Gulati, Joe Mercurio, Danielle Todd; Student Representative Will Clemans

Staff: City Planner Blizinski; Planning Director Dupuis

2) Review of the Agenda
3) Approval of the AHESC Minutes of April 29, 2024

Motion by Mr. Bell
Seconded by Ms. Horner to approve the minutes of the regular Ad Hoc Environmental Sustainability Committee meeting of April 29, 2024.

Motion carried, 5-0

VOICE VOTE
Yeas: Bell, Horner, Edwards, Newman, Torcolacci
Nays: None

4) Study Session
A. SCAP Draft

PD Dupuis and CP Blizinski presented the item and answered informational questions from the AHESC.

AHESC member comments on the item were as follows:
- Including publicly accessible measurement and monitoring options would be beneficial.
- Removing barriers to food production in residential zones was an exciting concept.
- It should be specified that adding sufficient rain barrels and rain gardens could result in a reduction or elimination of flooding in basements in the City.
- It would also be helpful to know how many gallons of water leave the City combined sewer system when considering an inch of rain per hour. Reducing that amount could help reduce the City's costs.
- 100,000 gallons of water and stormwater infiltration or capture was a low bar. One good-sized rain gallon can infiltrate or capture about 30,000 gallons of water a year. A small

front-yard garden could capture between 1,000 and 8,000 gallons of water every rain event. Grant guidelines could likely offer more reasonable figures for calculations.
- During a recent rain event where 2.5 inches of rain fell in 24 hours, a one-acre rain garden captured about 67,000 gallons of water.
- Green infrastructure installations in public infrastructure and development projects should be required via ordinance.
- In terms of return-on-investment, focusing on issues where the City would not be duplicating the efforts of other actors would be prudent.
- Adding solar panels, batteries, and electric vehicles to the municipal fleet as extensively as possible would likely yield cash-positive results over time.
- It would likely be helpful to include information on each recommendation's costs, potential savings, and other benefits whenever possible.
- Residential natural gas is the greatest source of greenhouse gasses in the City. Minneapolis has put out standards for increased building efficiency within the city. It would be appropriate to determine whether that is an option for Birmingham. If building efficiency standards are determined at the state level, it would be appropriate for Birmingham to advocate for stricter standards.
- The image on the emissions page was an improvement over the prior image.
- It would help if more of the figures in the SCAP could more information to aid in contextualization. For instance, it would be helpful to know what percent of City property 450 acres would represent, or to clarify how to conceptualize 100,000 gallons of water.
- Adding a section to the SCAP where the multi-modal recommendations are briefly stated would be helpful. If the Multi-Modal Plan does not have measurable goals to guide implementation of the Multi-Modal Plan, that may need to be addressed.
- More information about Woodward should be included. It would be useful to understand how many vehicle miles and emissions come from Woodward. Woodward represents a significant environmental and quality of life issue within the City.
- Including goals relevant to Woodward within the SCAP could represent an easy win since the City has already done a significant amount of work on the topic.
- It would be appropriate to support the Multi-Modal Transportation Board updating its Plan and developing a comprehensive bicycle plan for the City. Improvements to multi-modal transit in the City helps reduce emissions.
- The introduction should include a section on including businesses in this process, making note of the City's business contacts, the partnerships that could be built, and other opportunities.

B. GHGI, Community Comparison, SEMCOG GHGI, Forecasts

CP Blizinski and PD Dupuis presented the item and answered informational questions from the AHESC.

AHESC member comments on the item were as follows:
- Using forecasting and modeling to show how the City will be able to meet its own goals even without state reductions will be necessary.
- The goals thus far may not get the City to its own goals without state reductions.
- More effort needs to be put into reducing residential greenhouse gas emissions. Incentives may be useful.

- Continuing to update this will be helpful.
- The community comparison was helpful.

5) Open to the Public for Items Not on the Agenda
6) Miscellaneous Communications

Staff provided updates on various communications.

AHESC member comments were as follows:

- A resident raised concerns about tree rating and removal policies in the City. Those concerns will be shared with staff.
- Getting an article written about the second survey would be helpful.

A. Updated Project Schedule

CP Blizinski presented the item.

7) Draft Agenda
8) Adjournment

No further business being evident, the meeting was adjourned at 8:43 p.m.

Leah Blizinski, City Planner

Laura Eichenhorn, City Transcriptionist

BIRMINGHAM
HEALTHY CLIMATE PLAN

DRAFT4-24 -2024

Acknowledgments

City of Birmingham Sustainability and Climate Action Plan

The City of Birmingham would like to acknowledge the people that have contributed their time and expertise to creating the Birmingham Green: Healthy Climate Plan. Their continued dedication to sustainability and climate action are a valuable public service and the community of collaboration that has been built over this time will serve Birmingham for many years to come.

The Birmingham Community

To all of the members of the Birmingham community that have responded to surveys, participated in events, had important conversations, and supported this idea from the very beginning.

Birmingham Planning Department
Nicholas Dupuis, AICP, Planning Director
Leah Blizinski, AICP, City Planner
Summer Aldred, City Planning Intern

Birmingham Ad Hoc Environmental Sustainability Committee
Jessica Newman, Chairperson
Debra Horner, Vice Chairperson
Harvey Bell
Lois Debacher
Lara Edwards
Rachna Gulati
Joseph Mercurio
Danielle Todd
Daniella Torcolacci
Josie Carroll, Student Representative
Will Clemans, Student Representative

Birmingham City Commission
Elaine McLain, Mayor
Katie Shaffer, Mayor Pro Tem
Clinton Baller
Brad Host
Andrew Haig
Therese Longe
Anthony Long

Birmingham City Staff

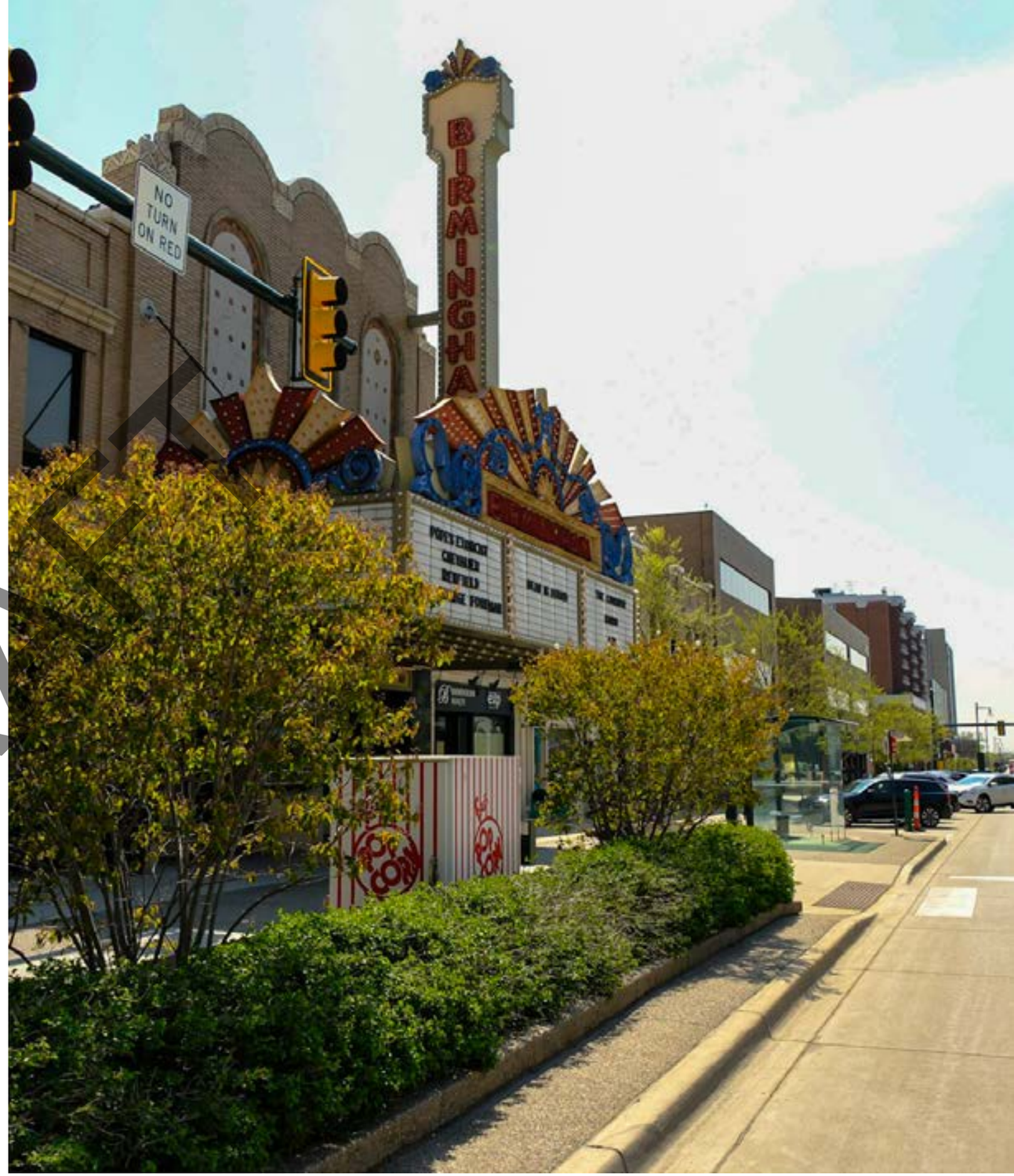
City Manager's Office
Jana Ecker, City Manager
Melissa Fairbairn, Assistant City Manager

Community Development
Melissa Coatta, City Engineer
Bruce Johnson, Building Official
Jeff Zielke, Assistant Building Official
John Galik, Superintendent of Building Facilities

Department of Public Services
Scott Zielinski, Director of Public Services
Brendan McGaughey, Parks and Forestry Foreman
Brad McNab, Parks and Forestry Assistant Foreman

Public Safety
Scott Grewe, Police Chief
Paul Wells, Fire Chief

Photography
Chris Cook



Welcome Letter

To the Birmingham Community,

These days, we are thinking green – Birmingham Green to be exact. In fact, the City has been thinking green since 1929 when the General Village Plan was adopted in part to study a growing population and ensure the preservation and protection of the natural beauty of Birmingham.

Fast forward nearly 100 years to 2024. The scientific consensus is clear that athroprogenic climate change is here, and that it could pose some of the greatest challenges of our time. The City Commission has taken quick and decisive action to begin a rigorous planning effort to draw back greenhouse gas emissions in the City while also building resiliency through more sustainable operations, deliberate improvements to public space, and collaboration across the board.

Recognizing that Birmingham is in an excellent position to become a leader in sustainability and climate action, we can start by building on our strengths. Birmingham has been a Tree City USA community for over 45 years. Protecting and expanding our tree canopy has always been important to our community and will continue to be a priority. Additionally, parks, trails and green space cover more than 10% of the City's total acreage alone. Included in this is a jewel, the Rouge River corridor, which provides not only recreational opportunities for people, but also a habitat for thousands of species of flora and fauna.

With that, we are proud to introduce the Birmingham Green Healthy Climate Plan. This plan combines broad sustainability and climate action concepts into an actionable, equitable and far-reaching effort to ultimately achieve carbon neutrality in 2050. Birmingham Green challenges us to shed our dependence on fossil fuels, build resilience against extreme weather, cultivate flourishing biodiversity, and maintain our thriving urban tree canopy.

We invite you to engage with this plan and use it to become our partner in creating a stronger, more sustainable and resilient Birmingham.

Sincerely,

Jana Ecker

City Manager

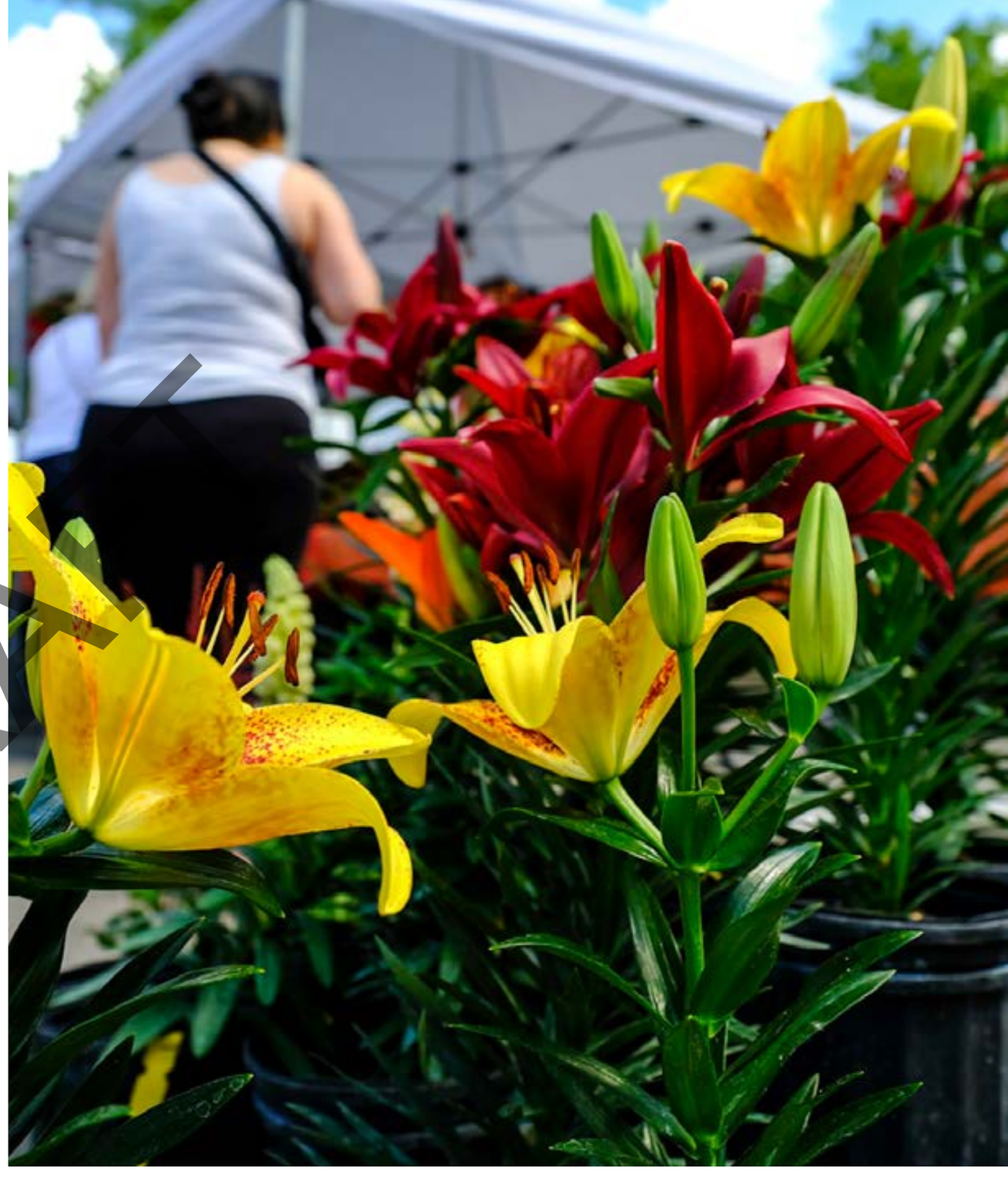


Table of Contents

INTENTIONALLY LEFT BLANK

EXECUTIVE SUMMARY

Birmingham Green Healthy Climate Plan Vision Statement

*The Birmingham community will be a **regional leader in sustainability and climate action** by instituting policies and practices that enhance the natural & built environment, improve quality of life, and foster equity & resiliency towards a vibrant future.*

Birmingham Green Healthy Climate Plan Objectives

- Facilitate transition to renewable energy and decarbonization
- Integrate equity and address environmental injustices
- Restore natural areas and increase native biodiversity
- Promote nature-based solutions as standard practice
- Increase materials management and reduce waste
- Mitigate extreme weather impacts on the community
- Prioritize sustainable practices in all municipal and private projects

Plan Overview

Intentionally left blank - hold for overview

Intentionally left blank - hold for overview

REDUCE CARBON EMISSIONS BY

25%

BY 2030

CARBON NEUTRAL BY

2050

INCREASE PERVIOUS SURFACE AREA BY

20%

BY 2030

PERVIOUS SURFACE TOTAL

65%

BY 2050

Key to Read Summary of Key Actions

Order of Magnitude Cost	Cost Range
Very Low ($)	
Low ($$)	
Medium ($$$)	
High ($$$$)	
Timeframe	**Time Range**
Short	
Medium	
Long	
Objectives	**Description**
Energy	Facilitate transition to renewable energy and decarbonization
Equity	Integrate equity and address environmental injustices
Biodiversity	Restore natural areas and increase native biodiversity
Nature-based Solutions	Promote nature-based solutions as standard practice
Extreme Weather Mitigation	Mitigate extreme weather impacts on the community
Sustainable Pratices	Prioritize sustainable practices in all municipal and private projects
Materials Management	Increase materials management and reduce waste

Summary of Key Actions

	Initial Cost	Potential Partners	Timeframe	GHG Reduction
Water & Stormwater				
Infiltrate or capture an additional 500,000 gallons of stormwater by 2035				
Adopt a subsidized residential rain garden program				
Reduce barriers to local stormwater rebate programs				
Develop a tracking system for green stormwater infrastructure				
Form new alliances and improve existing alliances with municipalities and organizations that address stormwater runoff to the Rouge River				
Require green infrastructure installations in every public infrastructure and development project				
Incentivize green stormwater infrastructure installations on commercial properties				
Reduce indoor & outdoor potable water usage				
Require stormwater retention or infiltration on all new single-family construction				
Adopt Oakland County stormwater standards for all developments city-wide .5 acre or more				

*Based on about 25% of 7,216 improved single family residential properties doing at least 50 gallons.

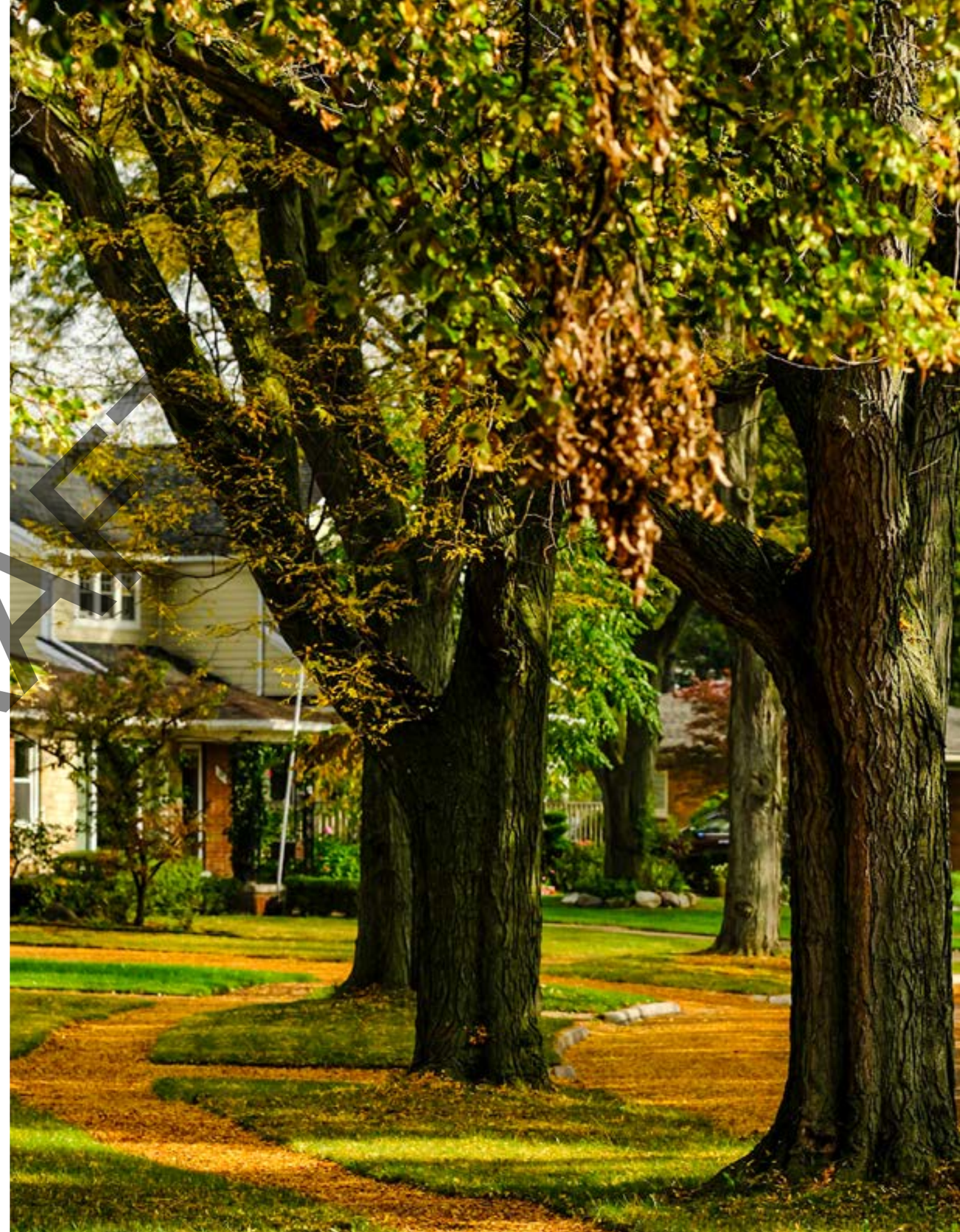
	Initial Cost	Potential Partners	Timeframe	GHG Reduction
Waste				
Reduce total landfilled solid waste by 2,390 tons (25%) by 2035				
Develop a city-wide food waste composting program				
Increase and improve quality of recyclables in curbside carts through direct education campaigns and audits				
Invest in new local facilities and services for recycling food waste, electronics, textiles, hazardous materials and other specialty recycling				
Create a deconstruction ordinance to encourage the reuse and repurposing of building material during construction projects				
Encourage Southeastern Oakland County Resource Recovery Authority to improve data collection for its member communities				
Expand recycling opportunities in all new commercial and multifamily development projects				
Develop bi-annual recycling events for hard to recycle materials				
Pilot a zero-waste policy for City-managed events				
Bulidings & Facilities				
Reduce greenhouse gas emissions from buildings and facilities by 57,500 metric tons (50%) by 2035				
Revise and expand ordinances related to solar photovoltaics and other alternative energy sources				
Remove any barriers to the use of geothermal energy strategies in the City				
Increase EV charging network city-wide				
Produce feasibility studies for solar photovoltaics on all city buildings and/or sites				
Expand the City's historic preservation program to protect existing buildings and character.				
Develop a process for comprehensively monitoring energy usage for all city buildings				

	Initial Cost	Potential Partners	Timeframe	GHG Reduction
Natural Resources				
Increase native and naturalized areas in the City by as much as 450 acres by 2035*				
Protect and expand the tree canopy in each census tract of the City to at least 40%				
Promote the transition of private gardens and landscapes to native species and remove any barriers to such				
Study the issue of clear-cutting of lots in the City with special attention to tree removal during construction projects				
Transition 100% of municipal plantings to native plantings				
Revisit streetscape standards to include better environments for street trees and plantings as well as comprehensive, connected GSI systems.				
Prioritize the health of the Rouge River corridor and follow the recommendations of the Birmingham Plan 2040 related to the Rouge River				

*1,084 impervious acres, goal is 768 impervious acres, which is 25% of the City.

	Initial Cost	Potential Partners	Timeframe	GHG Reduction
Municipal Operations				
Institutionalize carbon reduction and climate resilience in City government by 2035				
Transition all administrative and light-duty municipal internal combustion engine vehicles and equipment to alternative fuel				
Hire a full-time sustainability coordinator				
Create a sustainability fund for use by multiple City Departments				
Establish a sustainable purchasing program and an internal administrative regulation				
Decrease vehicle miles traveled by municipal staff by XXX miles through incentive programs, such as flexible scheduling, remote work and other programs				
Adopt an anti-idling policy for all non-emergency City vehicles				
Identify and maintain a database of new and recurring grant opportunities geared towards sustainability and climate action				
Create, by ordinance, an Environmental Sustainability Committee to oversee and make recommendations on a variety of issues related to sustainability and climate action.				
Provide recycling opportunities in all public parks and other public spaces.				
Phase out the use of all chemical pesticides and fertilizers on city property and in park maintenance operations				
Increase or require specialized training for all workers who manage natural spaces				
Create and maintain an updated sustainability web page to act as a landing page for all city sustainability initiatives as well as to inform and educate residents on sustainable topics, best practices and relevant state and regional programs				

	Initial Cost	Potential Partners	Timeframe	GHG Reduction
Quality of Life				
Publish citywide and community-level quality-of-life metrics on equity and sustainability by 2030				
Develop the newly acquired YMCA building and St. James Park into a nexus of intergenerational recreation opportunities including a resilience hub that will serve as a warming and/or cooling center as needed and better connect residents to city services.				
Permit community gardens in select parks and public open space				
Include educational opportunities in sustainability and climate action projects that are accessible to everyone				
Install an air quality monitoring station in the City and connect to the EGLE network				
Consider internal air quality monitoring systems in and around all municipal buildings				
Continue to implement the City's multi-modal transportation goals				
Support and expand upon the sustainable land use decisions of the Birmingham Plan 2040				
Remove barriers to food production in residential zones and on residential properties				
Transportation				
Reduce greenhouse gas emissions from passenger vehicles by 10,000 metric tons (15%) by 2035				
Promote the use of mass transit in the City through enhanced transit stops.				
Continue to implement the City's multi-modal transportation goals				
Introduce bike sharing systems such as MoGo across the City				
Advocate for a more frequent and reliable multi-modal transit service				
Expand the City's historic preservation program to protect existing buildings and character.				
Develop a process for comprehensively monitoring energy usage for all city buildings				

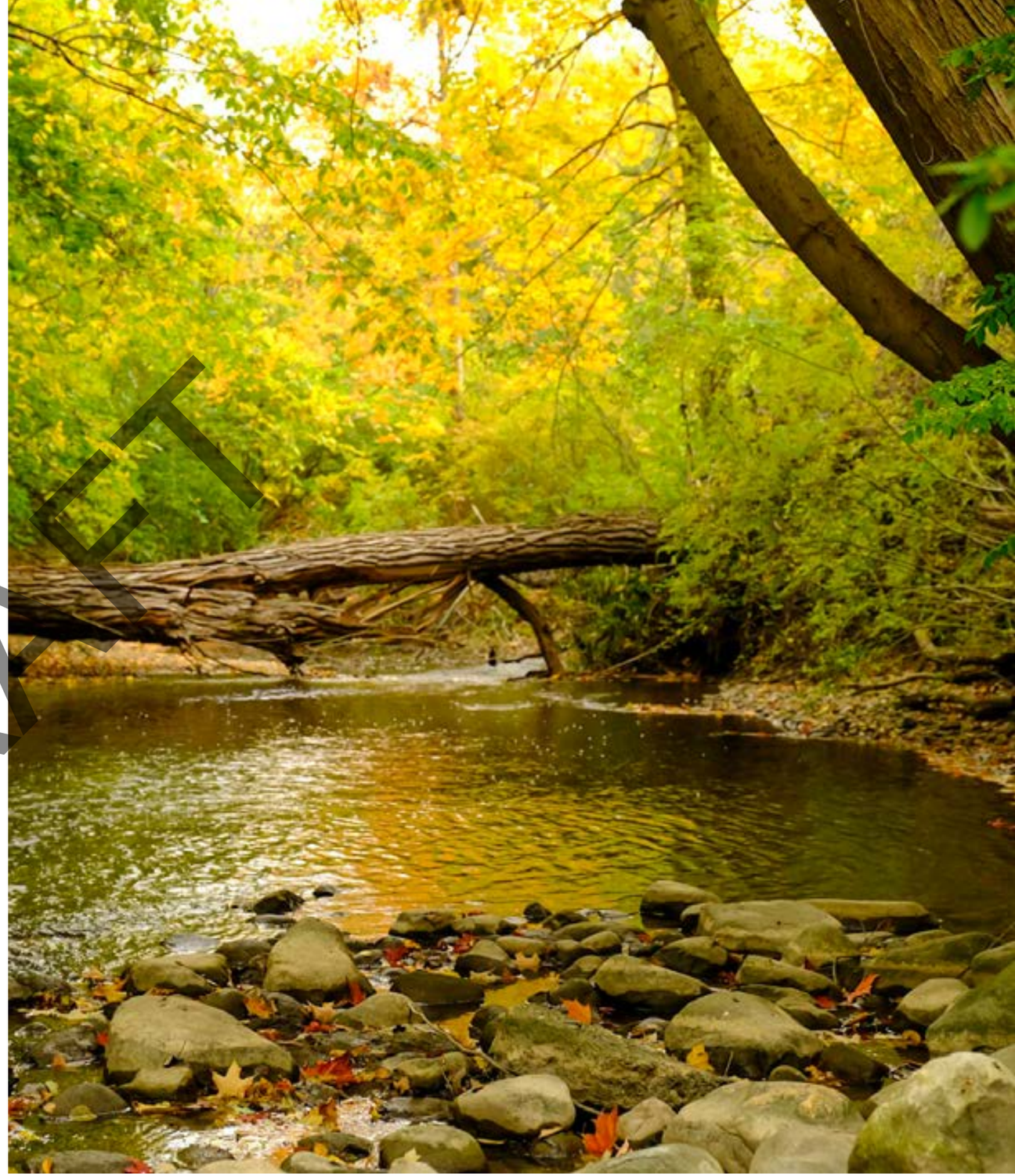


INTRODUCTION

Land Statement

Birmingham, Michigan sits on land made by shallow seas and glacial formations, with the last glaciers receding about 14,000 years ago. Birmingham is situated on the traditional land of the Anishinaabek – Three Fires Confederacy, the Odawa (Ottawa), Ojibwe (Chippewa), and Bodewadmi (Potawatomi). We recognize that these lands have served as a site of gathering and exchange for Indigenous communities since time immemorial.

We acknowledge the resilience, strength, and ongoing presence of the Indigenous peoples who have stewarded this land throughout the generations. We also recognize the impacts of settler colonialism and the importance of understanding the history of this land. We are committed to learning more about the history and cultures of the Indigenous peoples of this area and to working towards a more just and inclusive future for all who call Birmingham, Michigan, home.



Sustainability & Climate Change

Sustainability in Birmingham refers to the our ability to meet the needs of our current population without compromising the ability of future generations to meet their own needs. This concept encompasses various aspects of urban life, including environmental, economic, and social sustainability.

Environmental Sustainability: Cities need to minimize their environmental impact by reducing pollution, conserving resources, and protecting natural habitats. This involves initiatives such as promoting renewable energy, implementing green building practices, and establishing efficient public transportation systems to reduce carbon emissions.

Economic Sustainability: Sustainable cities prioritize economic development that benefits all residents while also preserving resources for future generations. This may involve supporting local businesses, fostering innovation and entrepreneurship, and investing in industries that promote sustainability, such as clean technology and green infrastructure.

Social Sustainability: Social sustainability focuses on creating inclusive and equitable communities where all residents have access to essential services, opportunities for education and employment, affordable housing, and a high quality of life. This includes promoting social cohesion, addressing issues of inequality and poverty, and ensuring that urban planning and development initiatives prioritize the needs of marginalized populations.

Another important aspect to consider is cultural sustainability. It involves preserving and celebrating the cultural heritage and diversity of a city's residents. This includes protecting historic landmarks, supporting cultural institutions and events, and promoting intercultural dialogue and understanding.

Achieving sustainability in all these areas requires collaboration and coordination among various stakeholders, including government agencies, businesses, non-profit organizations, and community members. It involves long-term planning, innovation, and a commitment to balancing economic growth with environmental and social responsibility for the benefit of current and future residents of the city.

Climate Change

Naturally occurring gases dispersed in the atmosphere determine the Earth's climate by trapping solar radiation. This phenomenon is known as the greenhouse effect. Evidence shows that human activities are increasing the concentration of greenhouse gases and changing the global climate. The most significant contributor is the burning of fossil fuels for transportation, electricity generation and other purposes, which introduces large amounts of carbon dioxide and other greenhouse gases into the atmosphere.

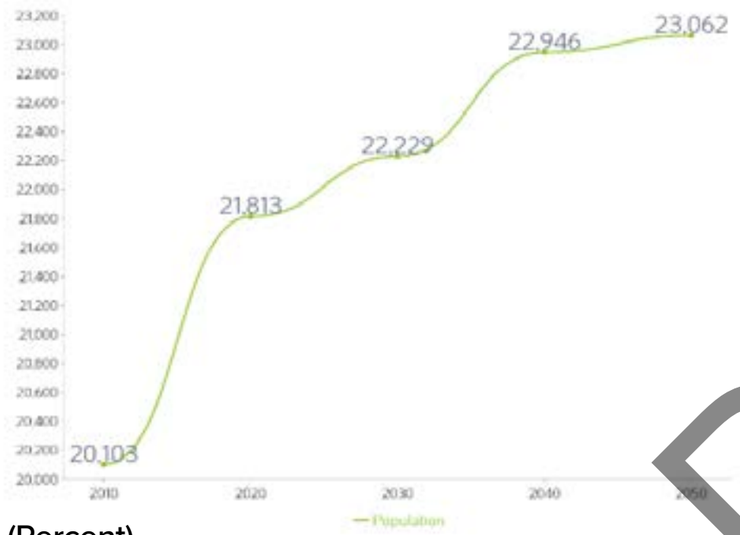
Collectively, these gases intensify the natural greenhouse effect, causing global average surface and lower atmospheric temperatures to rise, threatening the safety, quality of life, and economic prosperity of global communities. Although the natural greenhouse effect is needed to keep the earth warm, a human enhanced greenhouse effect with the rapid accumulation of GHG in the atmosphere leads to too much heat and radiation being trapped. The Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report confirms with a high level of confidence that human activities have caused an increase in carbon emissions and increase in global temperatures. Many regions are already experiencing the consequences of global climate change, and the City of Birmingham is no exception.

Birmingham Context

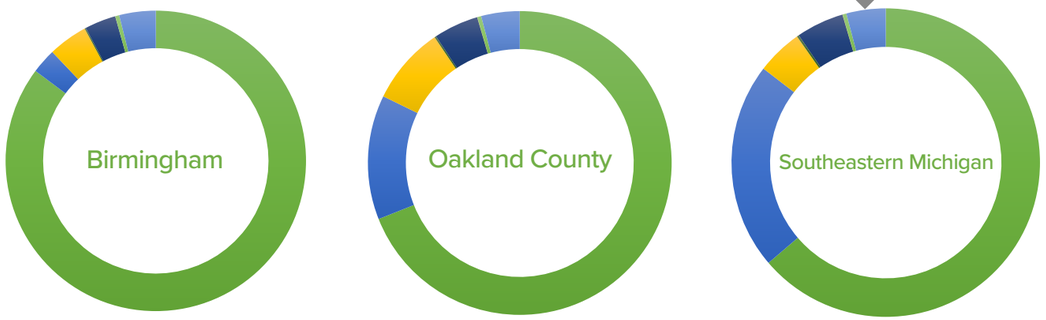
The city of Birmingham, Michigan is located in Oakland County, and is bordered by five communities: Beverly Hills, Bloomfield Hills, Bloomfield Township, Royal Oak, and Troy. Birmingham is vibrant community, with a small-town feel while still being connected to all of the cultural and recreational amenities that an urban area provides. Birmingham boasts a thriving, walkable downtown, providing retail and business opportunities for both the local community and the region. Birmingham is 4.8 square miles in size and is centrally located in Southeastern Michigan between the major cities of Detroit and Pontiac.

Demographics

Population Projection of Birmingham through 2050



Race (Percent)



Population & Age Demographics

21,738
2022 Birmingham Population

1,272,264 Oakland County
4,392,041 Southeastern Michigan

42.0
2022 Birmingham Median Age

41.1 Oakland County
40.1 Southeastern Michigan

Household Demographics

5,432
2010
Families

5,628
2021
Families

$151,556
2022 Birmingham
Median Household Income

$90,564 Oakland County
$71,265 Southeastern Michigan

2.91
2010
Average
Family Size

3.12
2021
Average
Family Size

9,383
2022 Birmingham Households

530.638 Oakland County
1,762,104 Southeastern Michigan

Economic Demographics

5.5%
2022 Birmingham Poverty Rate

8.1% Oakland County
13.8% Southeastern Michigan

76.3%
2021
Own their home

23.7%
2021
Rent their home

Other Recent Planning Efforts

The **Birmingham Plan 2040** ("2040 Plan") was adopted in May 2023. The 2040 Plan is a comprehensive master plan, which is a document and policy guide designed to help Birmingham conceive a vision of what we want to look like in the future. The City of Birmingham is required to adopt and maintain a comprehensive master plan pursuant to the Michigan Planning Enabling Act. The Birmingham Green: Healthy Climate Plan will exist under the umbrella of the 2040 Plan and will build upon the recommendations within the 2040 Plan while also considering its predecessors, other master plans and sub area plans within the City of Birmingham.

The **Birmingham Parks and Recreation Master Plan** was adopted in December of 2023. The updated plan prioritizes sustainability as one of its core guiding principles. Sustainability is defined in the plan as "a commitment to environmentally responsible practices, ensuring that our parks and recreation facilities continue to thrive for years to come." The City of Birmingham is required to update its Parks and Recreation plan every 5 years to maintain eligibility for state and federal grants.

Southeast Michigan GREEN is an initiative, led by SEMCOG, to collaboratively address some of the region's most pressing challenges –managing floods, fostering climate resilience, improving community health, protecting our natural assets—all while creating vibrant places where people want to live and where businesses will thrive. The report focuses on implementation and provides a regional framework that demonstrates the impact of local projects, positioning them for successful funding and partnership opportunities. An interactive GREEN Dashboard, online mapping tool, accompanies the report and is a useful tool for looking at specific implementation opportunities within each locality. The GREEN Report and GREEN Dashboard will provide the basis of some site specific implementation recommendations for Birmingham's Sustainability and Climate Action Plan.

With funding from the Inflation Reduction Act through the US EPA's Climate Pollution Reduction Grant (CPRG), SEMCOG will develop a **Healthy Climate Plan for Southeast Michigan**. This plan is intended to connect and uplift existing state, regional and local plans, while preparing communities to be competitive for $4.6 billion in implementation grant funding for the policies and programs it identifies. The plan will cover the eight-county region of Southeast Michigan, including Wayne, Oakland, Macomb, St. Clair, Livingston, Lapeer, Washtenaw, and Monroe. As part of the CPRG, SEMCOG will develop two action plans, a priority climate action plan (PCAP) and Comprehensive Climate Action Plan (CCAP). These plans are expected to be completed in the summer of 2025.

The **Michigan Healthy Climate Plan** is the state's roadmap that charts a path to a prosperous, healthy, equitable, carbon-neutral Michigan by 2050. The plan, created by EGLE, was released in April 2022 and includes an interim target of 52% greenhouse gas (GHG) emissions reductions by 2030, from baseline 2005 levels, as part of a "Roadmap to 2030" outlining intermediate actions needed to meet Michigan's climate goals. The objectives of the plan are to:

1. Mitigate the worst impacts of climate change
2. Spur economic development and create good-paying jobs
3. Protect and improve the health of Michiganders
4. Position Michigan as a leader in climate action
5. Safeguard our natural resources and wildlife
6. Make Michigan energy independent
7. Address environmental injustice.

The City has spent a considerable amount of time and resources implementing the 2013 **Multi-Modal Transportation Plan** (MMTP), which has provided for many miles of new and improved sidewalks, bike lanes and shared use paths, as well as other infrastructure such as bike racks and repair stations. These are all valuable additions to a multi-modal network and provide necessary last-mile infrastructure and support sustainable modes of transportation. Because the City does not operate public mass transit, the MMTP focused its recommendations on improving the environment for transit through connectivity, enhanced transit stops, and safety. The Birmingham Green: Healthy Climate Plan will support the recommendations within the current and future iterations of the City's MMTP.

PLAN DEVELOPMENT

Background

The City of Birmingham, Michigan has introduced environment-friendly planning schema since the General Village Plan was adopted in 1929 to address rapid urban growth and protect the then-village's natural beauty. In response to industrial pressure and development impacts of industrial uses in Detroit and Pontiac, the General Village Plan recognized the function and importance of preserving open space and natural areas such the Rouge River Valley, a regional park system, and the urban tree canopy, and suggested that zoning be immediately adopted to preserve them through single-family residential districts. Nine decades later, Birmingham has perpetuated environmental ideals through plans such as the Downtown 2016 Master Plan, Multi-Modal Transportation Plan, Parks and Recreation Master Plans, Triangle District Urban Design Plan, and the Birmingham Plan 2040, as well as its focus on mixed use and walkability, urban design, and other quality examples, all of which contain virtues of sustainable development and eco-friendly objectives.

The Birmingham Green: Healthy Climate Plan was developed at the direction of the Birmingham City Commission. The process started with a declaration of a climate emergency in 2023 and the creation of the Ad Hoc Environmental Sustainability Committee. The committee was tasked with drafting the plan and performing a local greenhouse gas inventory (GHGI). This decision was predicated by the adoption of City Commission's strategic goals in 2022, which elevated sustainability as one of three overall strategic goals that will guide the decision-making process at the Commission level through the year 2027.

City Commission Goals

Engaged and Connected Community - Birmingham is a community that is connected to one another and engaged in the decision making process.

- Bridge the divide that Woodward Avenue creates in the City and transform the Woodward environment
- Offer City services and amenitites that enrich the lives of residents of all ages
- Encourage robust resident engagement with their government and community
- Increase Connectivity between the Rouge River trail system, downtown, and the neighboorhoods

Environmental Sustainability - The City of Birmingham positions itself ofr a changing future by insituting policies and practices that protect the natural environment and reduce extreme weather impacts on the community.

- Create a sustainability board to review projects, investigate funding opportunities, and offer public education opportunities
- Maintain and upgrade infrastructure to prepare for future climate conditions
- Modernize City facilities for energy efficency and sustainability

Efficient and Effective Services - Birmingham will address the needs of the community in a timely and respectful manner.

- Incorporate new technologies to improve service delivery for residents including digitization of public records and museum materials
- Build and retain an effective and professional staff who seve the community
- Create community risk reduction policies and programs that emphasize citywide increased safety and security

Public Engagement Activites

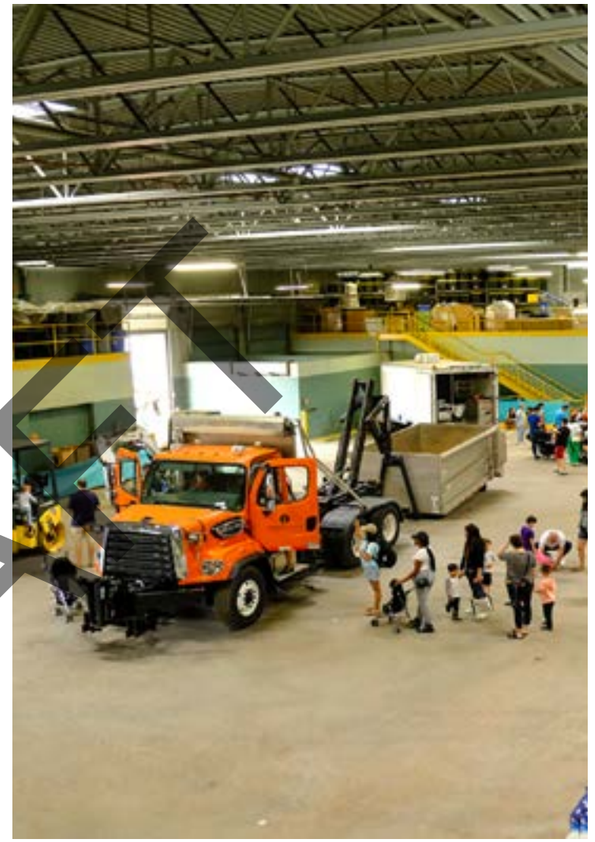
A major component of drafting the City of Birmingham SCAP was community engagement. A dedicated and comprehensive approach to community engagement provides for a plan that is collaborative, enhances communication and understanding, and fosters a sense of community and accomplishment. This section of the plan consolidates and summarizes all of the feedback we heard during the process and builds the backbone upon which this plan was created.

Public Engagement Phase 1

- **Day on the Town** – The Environmental Sustainability Committee hosted a table during the City's annual Day on the Town event, which was intended to introduce people to the ESC and the SCAP, as well as advertise for the community survey. Overall, several persons engaged with staff and ESC members, and the City was able to disperse over 30 cards with a QR code to the survey.

- **Farmers Market** – In addition, a table was hosted at the Birmingham Farmers Market. Similar to the Day on the Town event, the focus was to get people engaged with the process, and advertise for the community survey. The heavy rainfall events in mid-August seemed to spur a robust engagement throughout the day, and as a result the City was able to inform many persons about the SCAP and the survey.

- **Community Survey #1** – The City of Birmingham hosted a survey on Engage Birmingham that was designed to get a preliminary look into the feelings of the community as it relates to sustainability and climate action as a whole. In addition, the survey provided space for respondents to elaborate on any additional issues that they might feel is important for the City to consider while drafting the SCAP.



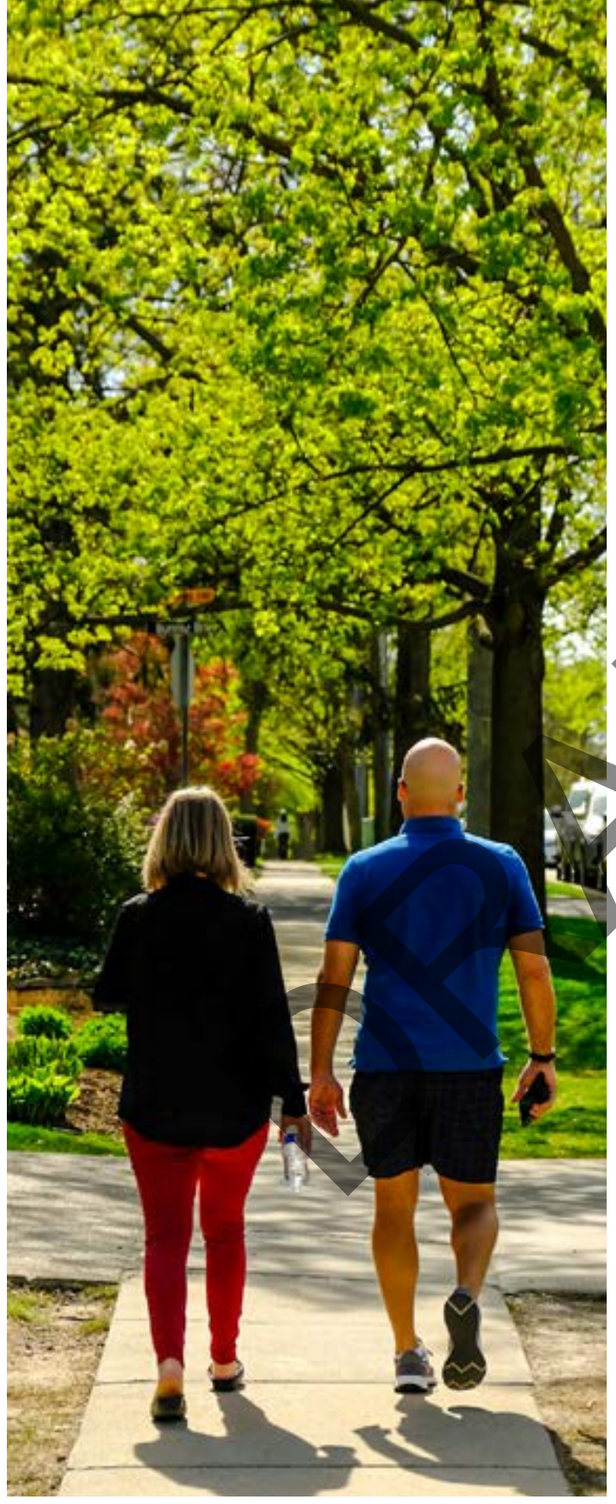
- **Municipal Round Tables** – As a major stakeholder in the SCAP and the goals that will be developed within it, the municipal staff was engaged at a series of round tables to get a more in-depth look into different departments and their operations/concerns. Overall, the turnout was very encouraging, and it became very clear that the municipal staff is on-board and very aware of the challenges ahead, as well as the interconnectedness of various approaches to sustainability and climate action.

- **Community Visioning Session** – The Environmental Sustainability Committee held a community visioning session in the fall of 2023. The session was split into an introduction, an activity, and a facilitated discussion with the Chief Environmental Sustainability Officer for Oakland County. Members of the community were able to provide feedback on six elements from the City Commissions Strategic Goal #2. The facilitated discussion enabled the facilitator to clarify several points of feedback and provide an opportunity for elaboration.

- **Newsletters & Social Media** – Since the ESC was created, the Planning Division has provided regular updates in the City's Around-Town E-Newsletters, Birmingham Beat printed newsletters, social media, and Constant Contact email services. In addition, the City has taken advantage of opportunities to speak to other media outlets such as the Birmingham-Bloomfield Eagle.

Public Engagement Phase 2

- **Community Survey #2** – The City of Birmingham hosted a second survey on Engage Birmingham that provided a deeper dive into the goals of the plan as they were developed at the time. This survey provided the opportunity for people to comment on measurable goals and how they may or may not affect different parts of the community.
- **Board and Commission Reports** – As partners in furthering the goals of the SCAP, the Environmental Sustainability Committee provided regular communications to different boards and commissions in the City to solicit feedback, but also to build bridges and ensure that the vast network of collaboration between decision makers in the City started strong and remained strong.
- **Department of Public Services** – The Environmental Sustainability Committee hosted a table at the popular DPS Open House event in the spring of 2024. At this point, the SCAP was more developed, which provided an opportunity to hear about preferences related to certain goals and objectives of the SCAP, as well as any other content that visitors found interesting.
- **Stakeholder Engagement** – In addition to soliciting feedback from the general public, the Environmental Sustainability Committee also reached out to several key stakeholder groups such as NEXT, the Birmingham Public Schools, and the business community. These groups represent people that may be particularly vulnerable to climate change and those that will play a major role in the implementation of the SCAP.



Public Engagement Summary

In summary, it is very clear that stakeholders feel that sustainabillity and climate action is important and should be a very high priority in the City of Birmingham. Overall, 82.3% of respondents felt as though the City of Birmingham should be a regional leader or increase community commitment to sustainability and 77.1% of respondents are very or somewhat concerned about addressing sustainability and climate action issues.

Quotes

"We have the money and education in this town to take major action. We need to work fast and think boldly about addressing climate issues."

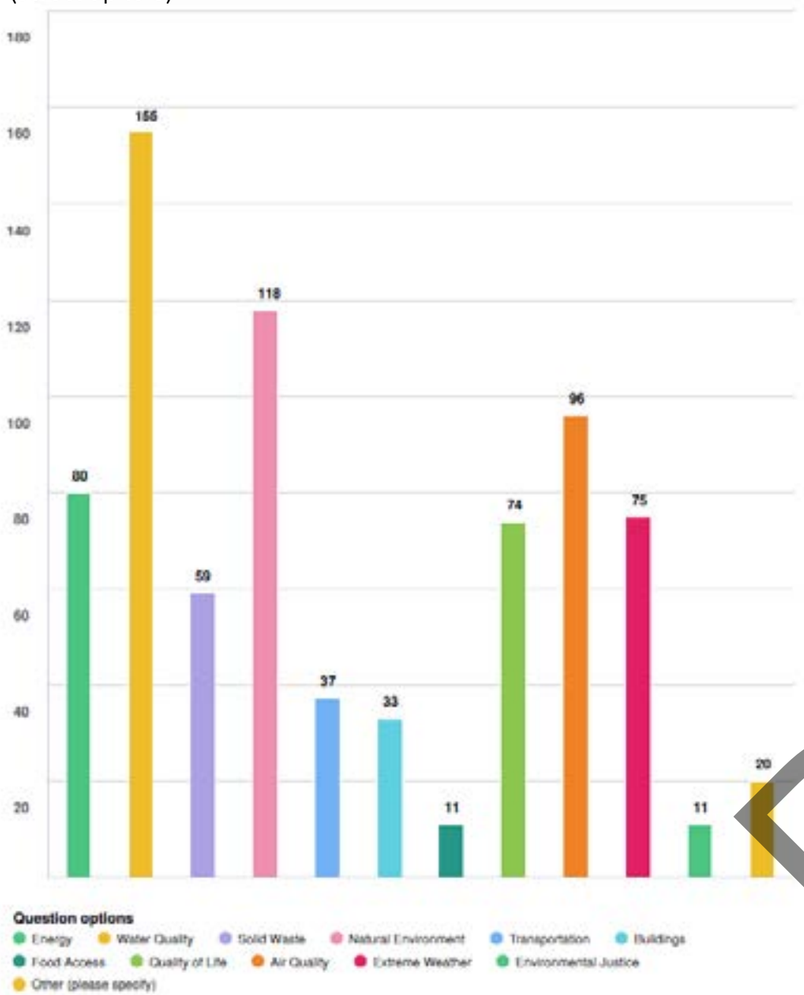
"I would like to see the city of Birmingham's commitment to sustainability and climate action extend into surrounding areas and other municipalities. Many of these changes need to be implemented on a regional and statewide level to be most effective. How can we use our resources to model sustainability and make it possible for nearby communities as well?"

"We should be approaching sustainability and climate action in an order that makes sense."

"I think it is important for Birmingham to set an example as a leader on this issue. It matters to our community, to voters, and to future generations."

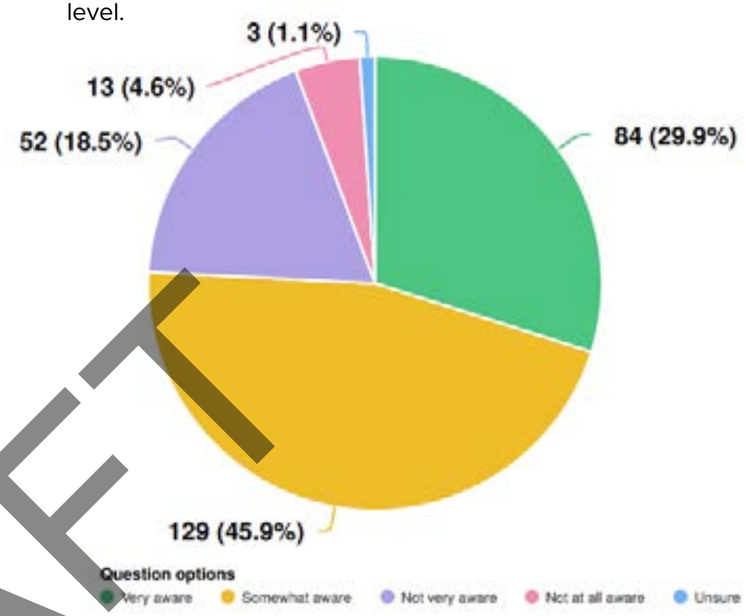
Public Engagement Summary (IN PROGRESS)

Responses to primary concerns related to sustainability and climate action in Birmingham (select up to 3)

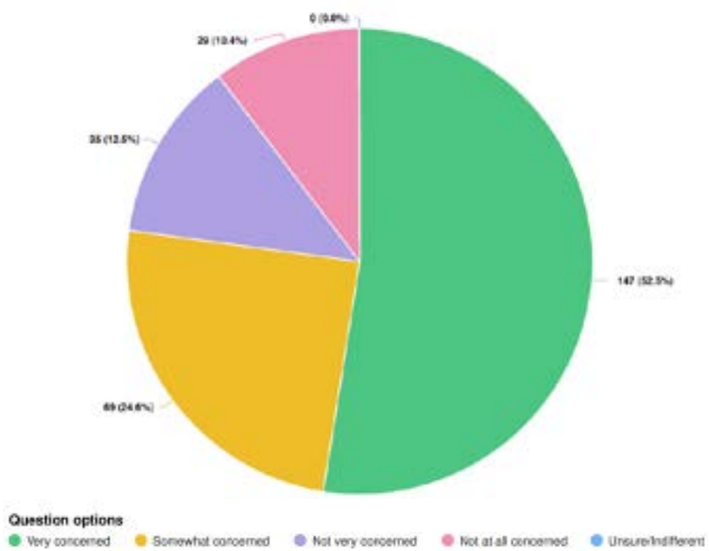


Optional question (279 response(s), 3 skipped)
Question type: Checkbox Question

Responses to describe awareness of sustainability and climate action, particularly at the local or community level.



Responses to how would you describe your overall level of concern about addressing sustainability and climate action issues?



Partnerships & Leadership

- **SEMCOG Healthy Climate Task Force** – In September 2023, Planning Director Nicholas Dupuis was appointed to the Healthy Climate Task Force to represent the City of Birmingham in the regions efforts to prepare for an influx of funding from the federal government. With funding from the Inflation Reduction Act through the US EPA's Climate Pollution Reduction Grant, SEMCOG will develop a Healthy Climate Plan for Southeast Michigan. This plan will connect and uplift existing state, regional and local plans, while preparing communities to be competitive for the $4.6 billion in implementation grant funding for the policies and programs it identifies.
- **Catalyst Leadership Circle** – The Catalyst Leadership Circle (CLC) is a peer networking group of sustainability leaders in Michigan that falls under EGLE's Catalyst Communities program. The City has been participating in the program since 2022 and has continued to be present collaborating with municipalities across Michigan. As a part of the CLC, the City has also been awarded a CLC Fellow through the program. The Fellow assisted with the creation of the City's first residential rain garden program in 2024.
- **SolSmart** – The City recently completed their first SolSmart assessment with the National League of Cities. The program is a no-cost technical assistance program that is funded by the U.S Department of Energy Solar Energy Technologies Office. By participating in this program, the City will learn from national best practices to expand solar energy use in the City of Birmingham. After completing the program, Birmingham will be recognized with a designation of Bronze, Silver, Gold, or Platinum. Final products would potentially include Zoning Ordinance amendments and other policy changes

SOLSMART
NATIONALLY DISTINGUISHED. LOCALLY POWERED.

- **EV Smart Communities** – In the fall of 2022, the City participated in the EV Smart Communities program through the Michigan Municipal League and Great Plains institute. EV Smart Communities is a recognition program designed to provide cities with a roadmap to electric vehicle (EV) readiness, including securing funding and getting projects off the ground. The path to becoming EV ready involves a portfolio of best practices and actions that include both simple steps and more complicated initiatives that makes it possible for any community to participate. After completing an initial self-assessment, the program coordinators provided the City with an analysis of EV readiness in Birmingham and developed a list of priorities for the City to pursue. The Planning Department is currently working on completing the self-directed portions of the program.
- **Michigan Green Communities** – Michigan Green Communities (MGC) is a statewide sustainability benchmarking, networking, and technical assistance program. It guides and supports communities in adapting to a changing climate, protecting infrastructure, improving the quality of life for residents and creating a more environmentally and economically sustainable future for the state of Michigan. The City has been participating in the program since 2021, and has recently earned the MGC Gold Certification level for exemplary action in multiple categories, including planning, economic development, land use, climate resilience, climate adaptation, energy efficiency, renewable energy, materials management (AKA recycling, composting, waste diversion), water conservation and protection, clean mobility and community engagement.
- **Birmingham Green Group** – The City coordinates a regular monthly meeting of city staff to discuss sustainability issues that are new or ongoing, large or small. This group challenges each other to think green wherever possible, and fosters essential collaboration between departments in the sustainability realm.

MICHIGAN GREEN COMMUNITIES CHALLENGE GOLD 2023 City of Birmingham

Alliance of Rouge Communities
OURS TO PROTECT
Working together, restoring the river

- **The Rouge River** – The City has partnered with the Friends of the Rouge for regular monitoring of the Rouge River corridor in Birmingham and will provide for opportunities for residents to get involved in activities such as spring and fall bug hunts. The City receives data on the health of the river and its ecosystems that will help protect Birmingham's most valuable natural resource. In addition, the City is active within the Alliance of Rouge Communities (ARC). The purpose of the ARC is to encourage watershed-wide cooperation and support to restore beneficial uses of the Rouge River to the area residents while meeting water quality permit requirements. Public Services Manager Charles Markus is the Vice Chair for the ARC.

- **The Clinton River** – The City has partnered with the Clinton River Watershed Council (CRWC) and became a member in 2024 to help support the work of the CRWC. Through longstanding programs like Adopt-A-Stream, StreamLeaders, and Keeping-It-Clean and environmental planning, ecological, and environmental policy expertise, CRWC provides a unique set of services to communities and counties within the watershed through Local Government Memberships. Through CRWC's Local Government Membership, communities like Birmingham, and counties also become eligible for participation in CRWC's Stormwater Public Education Program, which provides the Public Education requirements for NPDES MS4 permitting.
- **RainSmart Rebates** – The Planning Department began working with the Oakland County Water Resources Commissioner in 2022 to help develop a rebate program to incentivize stormwater infiltration on private property. RainSmart Rebates is two-year residential pilot program geared towards homeowners in the George W. Kuhn Drain Drainage District. The pilot offers homeowners up to $2,000 for implementing sustainable stormwater practices such as tree planting, rain barrel installation, or creating a rain garden on their properties. The primary goals of the program include fostering awareness about stormwater management and promoting environmental stewardship.

Other Data

Air Quality

Air quality is one of the more prevalent and visible problems stemming from climate change. The 2023 Canadian wildfires sparked many conversations about air quality, and concerns about air quality have prompted 32 Clean Air Action Days in the Detroit region over the last 4 years. In general, Oakland County has ranked moderate to good on the EPA's AirNow Air Quality Index over the same span. As major air quality events happen, and as ozone and particulate matter continues to be an issue in this region, municipalities have an opportunity to decrease the emissions in their community, which are shared amongst its neighbors and general region.

Solar Readiness

To date Birmingham has issued only 17 permits for solar arrays on rooftops in the City in the last 10 years. With nearly 8,000 principal buildings in the City, our solar energy potential is much higher. Meanwhile, the State of Michigan is continuing to push solar and increase access through various programs, and DTE has planned a portfolio of 11 million solar panels by 2040.

Heat Indexes

According to the National Weather Service, the heat index, also known as the apparent temperature, is what the temperature feels like to the human body when relative humidity is combined with the air temperature. Birmingham is home to nearly 4,000 older adults (65+) who are particularly susceptible to extreme heat. In Michigan, a heat advisory is issued when heat index values are forecast to meet locally defined advisory criteria for 1 to 2 days. Extreme heat warnings are issued when heat index values are forecast to meet or exceed locally defined warning criteria for at least 2 days.

Tree Canopy

Preservation of and planting of new trees is an important part of climate adaptation. Trees provide a plethora of benefits to humans and the environment and for these reasons, monitoring and promoting a healthy urban tree canopy has become an increasingly common standard practice within local governments. Birmingham currently sustains a robust tree inventory and maintenance program with room for improvement. The city contracts a company to conduct a complete inventory of the city's public trees every four years on an ongoing basis (one quadrant of the city is completed per year). The city's arborist also updates tree inventory on a real-time basis as trees are removed and planted throughout the year. For this reason, the City of Birmingham has one of the healthiest and most abundant canopies in the region. SEMCOG's Green Report (released July 2023) includes a target metric for increasing regional tree canopy area in all urban census tracts (not including agricultural land) to 40% from the current 38%. The City of Birmingham overall, is in line with the current regional tree canopy coverage, having 38% tree canopy coverage within the city as a whole.

Other Data

Water Quality

According to the latest (2022) Consumer's Annual Report on Water Quality for Birmingham, Michigan, Birmingham's drinking water surpassed water quality standards as mandated by the Environmental Protection Agency (EPA) and the Michigan Department of Environment, Great Lakes, and Energy (EGLE). Birmingham's drinking water is sourced from the Detroit River and is treated by the Great Lakes Water Authority, who distributes it to SOCWA (South Oakland Water Authority) which then distributes water to its member communities, which include Birmingham.

SEMCOG, the designated water quality management agency for Southeast Michigan, is responsible for planning for the region's integrated water resources management. This includes advancing the 'blue economy,' natural resource protection and enhancement, and water infrastructure systems. In 2018, SEMCOG released its Water Resources Plan for Southeast Michigan, which sets the framework for 28 regional policies and provides 101 recommended actions. In 2023, SEMCOG released the updated Water Infrastructure Policies and Actions along with a Water Infrastructure guide as an addendum to the 2018 plan.

Average Annual Rainfall

According to the most recent weather data (2022), Birmingham, Michigan experiences on average 32.4 inches of rainfall annually. The average annual rainfall in the United States is 38.1 inches.

Impervious Surface

Impervious surfaces are defined as areas that prevent or hinder the entry of water into the soil mantle and/or cause water to run off the surface in greater quantities or an increased rate of flow that under natural conditions. Buildings, roads, driveways, and parking lots are all examples of impervious surfaces. As of 2020, Birmingham, Michigan's land cover is 47.8% impervious. Oakland County as a whole is 19.2% impervious.

CLIMATE RISKS AND VULNERABLITIES

Climate Risks & Vulnerabilities

According to the U.S. Climate Vulnerability Index, understanding climate risks and vulnerabilities ("CRV's") is an imperative part of defining future adaptation strategies at any scale. Assessing CRV's in Birmingham will be a major determinant in resource allocation, action planning and advocacy. This will include identifying populations within our community that may be particularly susceptible to the hazards involved with climate change as well as a high level understanding of the physical development of the City while also attempting to address climate hazards and a community's potential approach to coping with such.

This section provides an analysis of vulnerability and risk through the lens of exposure, sensitivity and adaptive capacity.

Definitions

Vulnerability: The propensity or predisposition to be adversely affected. Vulnerability encompasses a variety of concepts and elements, including sensitivity or susceptibility to harm and lack of capacity to cope and adapt.

Exposure: The presence of people; livelihoods; species or ecosystems; environmental functions, services, and resources; infrastructure; or economic, social, or cultural assets in places and settings that could be adversely affected.

Hazard: The potential occurrence of a natural or human-induced physical event or trend that may cause loss of life, injury or other health impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, ecosystems and environmental resources. See also Impacts and Risk.

Risk: The potential for adverse consequences for human or ecological systems, recognizing the diversity of values and objectives associated with such systems. In the context of climate change, risks can arise from potential impacts of climate change as well as human responses to climate change. Relevant adverse consequences include those on lives, livelihoods, health and well-being, economic, social and cultural assets and investments, infrastructure, services (including ecosystem services), ecosystems and species

Climate Risks (EPA)

Acute: Acute physical risks refer to those that are event-driven, including increased severity of extreme weather events, such as cyclones, hurricanes, heat or cold waves, or floods.

Chronic: Chronic physical risks refer to longer-term shifts in climate patterns (e.g., sustained higher temperatures, sea level rise, changing precipitation patterns) that may cause sea level rise or chronic heat waves.

Adaptive Capacity: The ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities or to respond to consequences (MA, 2005).

Sensitivity: The degree to which a system or species is affected, either adversely or beneficially, by climate variability or change. The effect may be direct (e.g., a change in crop yield in response to a change in the mean, range, or variability of temperature) or indirect (e.g., damages caused by an increase in the frequency of coastal flooding due to sea level rise).

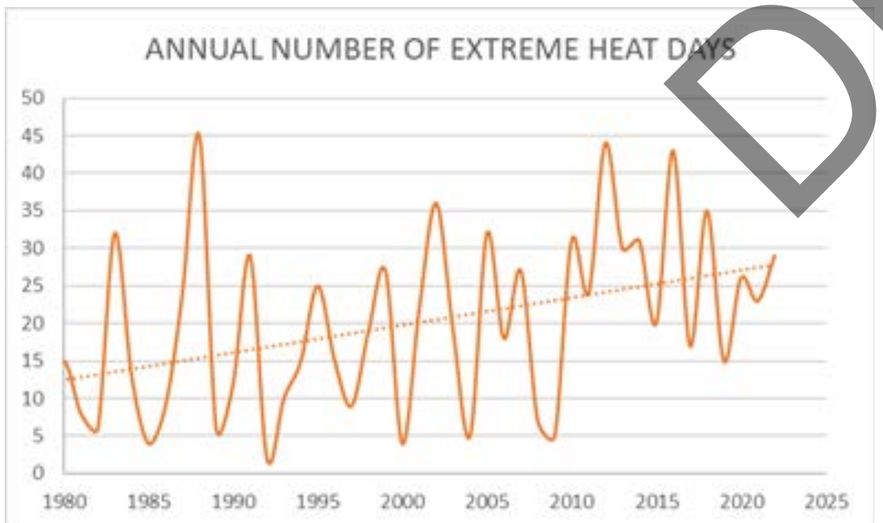
Exposure

The City of Birmingham is 4.8 square miles in area. Comparatively, Birmingham's area is similar to that of Orchard Lake Village, Beverly Hills, and Bloomfield Hills, but is significantly smaller than its neighbors of Royal Oak (11.8 sq. mi.), Troy (33.6 sq. mi.), and Bloomfield (25.9 sq. mi.). Overall, Birmingham is 0.52% of the total area of Oakland County (927.6 sq. mi). However, Birmingham's population density is the 8th largest in Oakland County, which may leave Birmingham with a higher exposure, but also a higher payback on a per capita basis for any adaptation strategies that are adopted. Overall, Birmingham is expected to experience similar climate hazards to that of southeast Michigan such as extreme heat and increased precipitation, which based on current trends, are expected to increase all the same.

Extreme Heat

As one of the more perceivable effects of climate change, extreme heat hazards can present themselves in a number of ways. There is a major public health component to extreme heat, particularly with vulnerable populations such as the elderly, children, and people working outside. For people in an urban area like Birmingham, the urban heat island effect poses a greater risk from the effects of a prolonged heat wave than are people living in rural areas. In addition to health risks, extreme heat can take out power grids, decrease air quality, and damage water quality according to the Environmental Protection Agency (EPA).

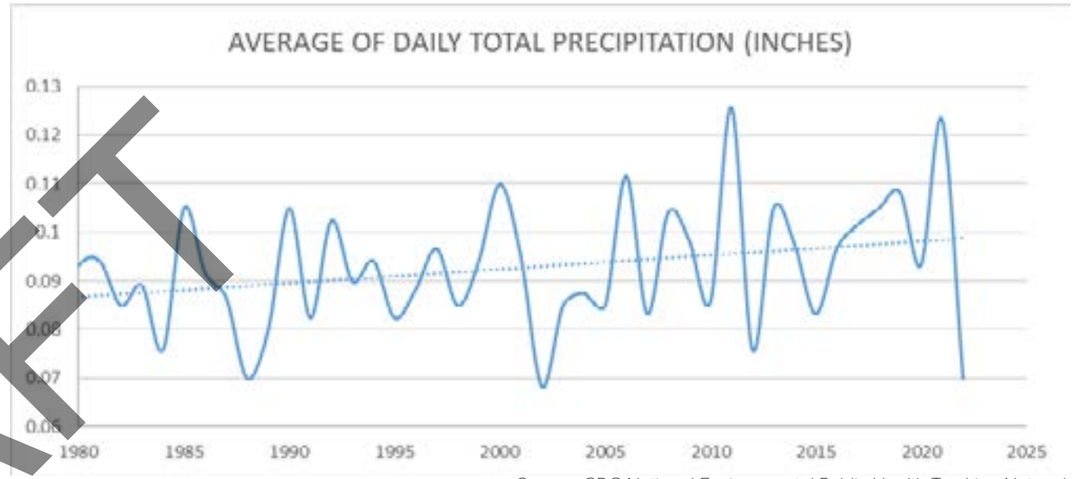
Heat Island: Heat islands are urbanized areas that experience higher temperatures than outlying areas. Structures such as buildings, roads, and other infrastructure absorb and re-emit the sun's heat more than natural landscapes such as forests and water bodies. Urban areas, where these structures are highly concentrated and greenery is limited, become "islands" of higher temperatures relative to outlying areas.



Source: CDC National Environmental Public Health Tracking Network

Precipitation

Similarly, changes in the frequency and intensity of rainfall are keenly felt by those affected. These unpredictable and often unyielding storm events put pressure on systems that were not designed at the capacity that is being demanded. This can cause significant damage to public property and infrastructure. In addition, water quality can be severely afflicted in areas where combined sewer system outflows discharge into water bodies like the Rouge River.

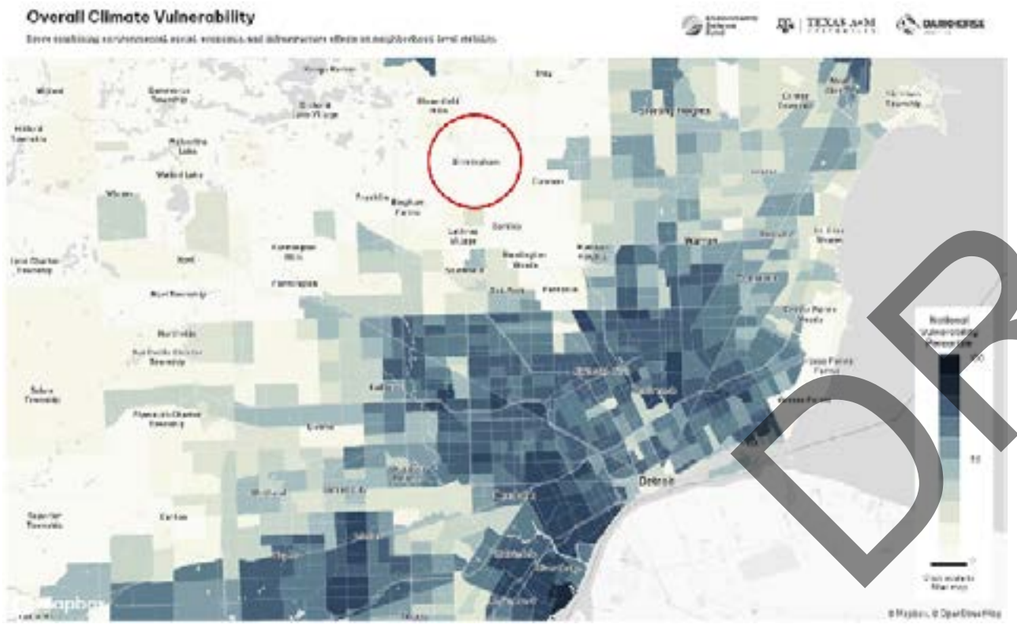


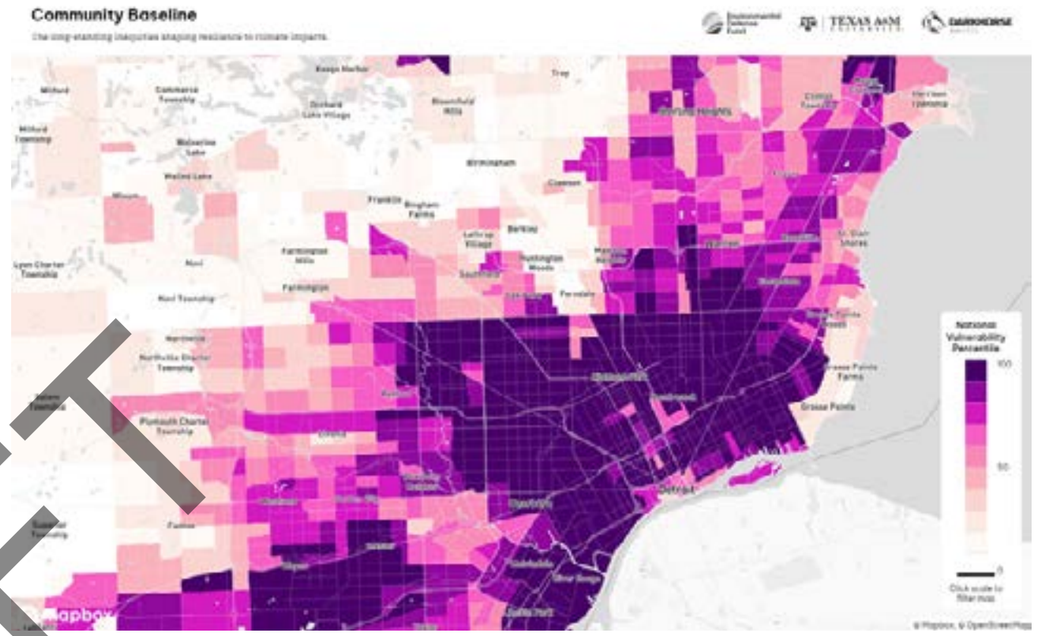
Source: CDC National Environmental Public Health Tracking Network

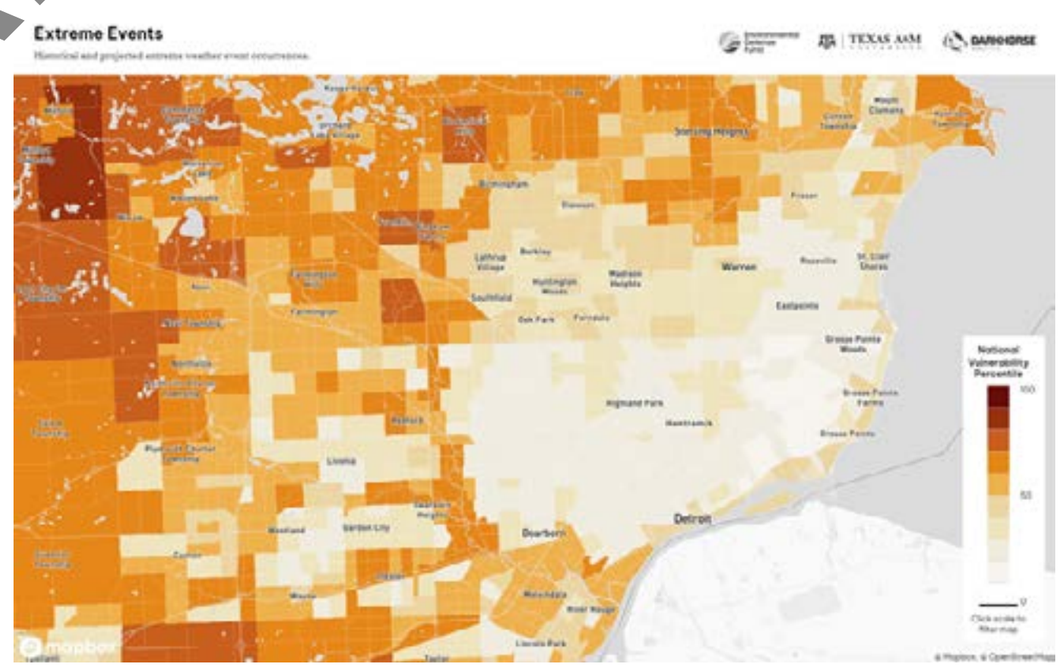
U.S Climate Vulnerability Index

The U.S. Climate Vulnerability Index (CVI) visualizes how drivers of cumulative vulnerability disadvantage communities across the United States. Better understanding of the intersections between growing climate risks and pre-existing, long-term health, social, environmental, and economic conditions is critical to effectively building climate resilience for everyone and deploying targeted adaptation efforts.

Overall, Birmingham general ranks in the 1st and 2nd percentile for overall climate vulnerability, meaning that the majority of communities nationally are more vulnerable than Birmingham. Overall vulnerability factors together baseline vulnerabilities that reduce community resilience and climate change risks that directly or indirectly impact communities. However, Birmingham does rank more mid-range when it comes to more specific indicators such as extreme events (temperature, precipitation, storms, etc.) and the overall environment (land use, pollution sources, transportation, etc.).







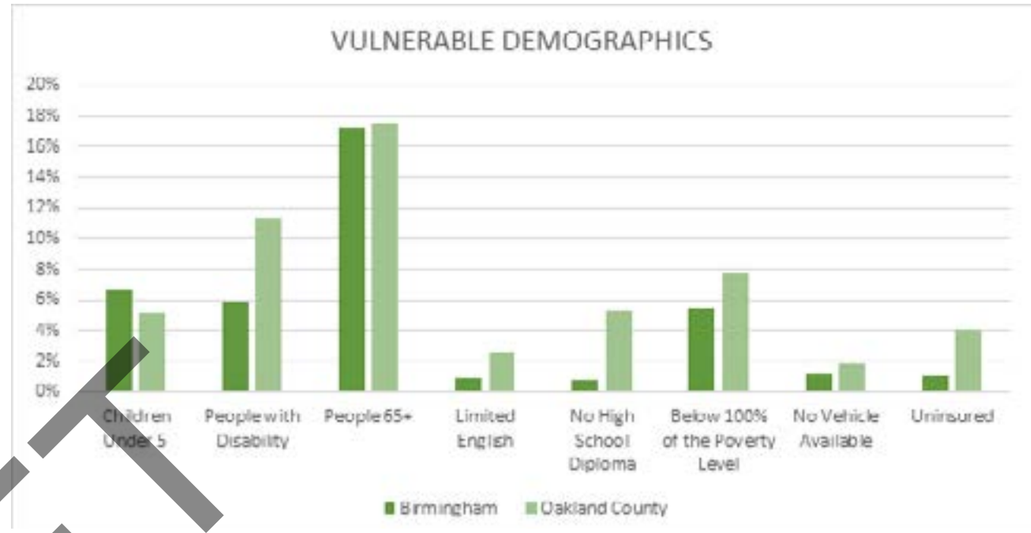
Sensitivity and Adaptive Capacity

As alluded to above, the effects of climate change can have different impacts on different populations. Sensitivity and adaptive capacity are often inversely correlated, meaning more sensitive populations are less likely to have the ability to adapt in the event of acute or chronic hazards. This section will analyze Birmingham's high-risk populations and other determinates of sensitivity.

High Risk Populations

According to the U.S. Department of Health and Human Services, examples of at-risk populations may include but are not limited to children, pregnant women, older adults, people with disabilities, people from diverse cultures, people with limited English proficiency, people with limited access to transportation, people with limited access to financial resources, people experiencing homelessness, people who have chronic health conditions, and people who have pharmacological dependency. In Birmingham, we have proportionally high numbers of children and elderly persons. These populations are highest in the southeast portion of Birmingham.

Birmingham has some mechanisms to support the adaptive capacity of these populations. For example, NEXT provides services to the 50+ community such as transportation and a vast referral network to support various needs.



Source: 2022 American Community Survey (ACS): 5-Year Estimates

Community Assets

Along with people, a community's physical assets such as structures and infrastructure can also be susceptible to climate hazards. These assets can include public facilities, schools, religious institutions, roads, and other essential infrastructure that provide some level of service to a community and can contribute to its emergency preparedness. In addition, other structures that draw on these critical infrastructure elements can play a role in the community. Often times it is older structures that require more energy to heat and cool, while also having aging sewer connections that may not meet current standards. Birmingham has 5,842 structures that were built before 1975.

Key Findings

1. Birmingham is less vulnerable to the effects of climate hazards than other areas in southeast Michigan.
2. The climate hazards that are experienced by Birmingham will continue to increase in frequency and intensity.
3. Birmingham will need to target actions toward increasing the adaptive capacities of vulnerable populations in the City.
4. Buildings will have a large role to play in adaptive capacity in Birmingham.

EMISSIONS

Greenhouse Gas Emissions Inventory

In 2023, two greenhouse gas (GHG) emissions inventories were compiled for the 2021 baseline year; one for the Birmingham community as a whole and the other for municipal operations only. Data was obtained for these inventories from the local utilities (DTE, Consumer's Energy), South Oakland County Resources Recovery Authority (SOCRRA), South Oakland Communities Water Authority (SOCWA), Oakland County Water Resources Commissioner's office (OCWRC), Great Lakes Water Authority (GLWA), Southeast Michigan Council of Governments (SEMCOG), and the City of Birmingham. The data was then entered into software developed by ICLEI – Local Governments for Sustainability. The GHG inventory produced a baseline from which to measure the city's current emissions and future emissions reduction progress.

Three greenhouse gases are included in this inventory: Carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O). The standard unit for measuring GHG emissions is metric tons of carbon dioxide equivalents ($MTCO_2e$). Therefore, methane and nitrous oxide emissions are converted to $MTCO_2e$ to make comparison between emissions of the three gases possible. A full report explaining the importance, methodology and data gaps and assumptions for both GHG inventories is available on the Sustainability page of the city's website (publish & link).

Key Findings

The City of Birmingham's total 2021 community-wide GHG emissions were 279,996 $MTCO_2e$ and the municipal operations (city government) GHG emissions were 4,622 $MTCO_2e$. The breakdown of Birmingham's community-wide GHG emissions for 2021 are shown in Figure x. The residential natural gas sector was the single largest contributor to community emissions (20.9%) followed by the residential electricity sector as a close second (19.6%). Residential energy, which includes both natural gas and electricity was the highest category contributor (40.5%).

As shown in Figure X, emissions from municipal operations only account for 1.7% of the total community-wide emissions. It's clear for Birmingham to meet its GHG reduction goals, the community will need to participate in strategies for reducing emissions. City government will lead by example and is actively engaged in energy waste reduction initiatives within municipal operations.

Next Steps

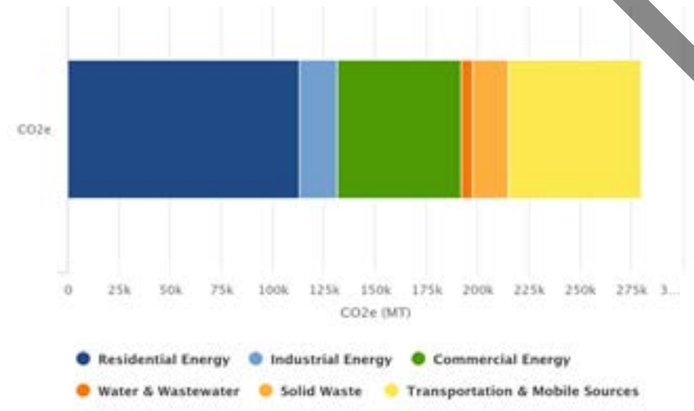
The inventory should be used to focus and prioritize actions to reduce emissions. Based on the inventory results, the following areas have the greatest potential for emissions reduction:

- Residential Energy
- Transportation & Mobile Sources
- Commercial Energy

Completion of another GHG inventory in five years is recommended in order to assess progress resulting from any actions implemented.

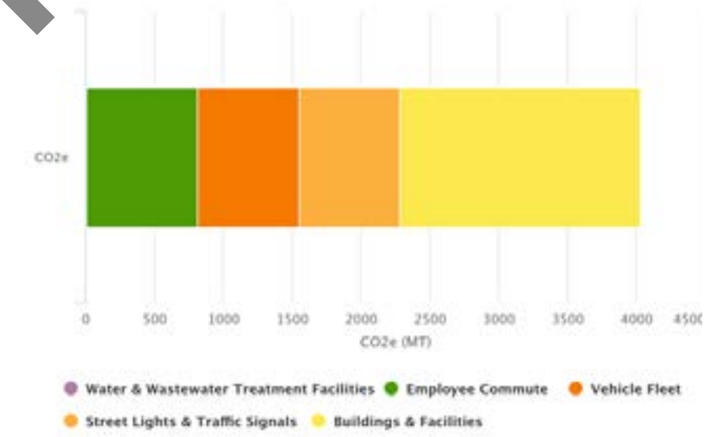
Community-Wide Greenhouse Gas Emissions Inventory

Category	Fuel or Source	MTCO2e	Percent
Residential	Natural Gas	58,381	20.9%
Residential	Electricity	54,910	19.6%
Transportation	Gasoline	47,470	17.0%
Commercial	Electricity	38,023	13.6%
Commercial	Natural Gas	22,402	8.0%
Industrial	Electricity	18,443	6.6%
Transportation	Diesel	17,685	6.3%
Landfilling of Solid Waste		16,616	5.9%
Wastewater Treatment		5,321	1.9%
Composting of Organic Waste		715	0.3%
Potable Water Supply		30	0.01%
	Total	279,996	100.0%



Local Government Operations Greenhouse Gas Emissions Inventory

Category	Fuel or Source	MTCO2e	Percent
Buildings & Facilities	Electricity	1712	37%
Street Lights & Traffic Signals	Electricity	1332	29%
Employee Commute	Gasoline	771	17%
Vehicle Fleet	Gasoline	459	10%
Vehicle Fleet	Diesel	278	6%
Employee Commute	Diesel	31	1%
Buildings & Facilities	Natural Gas	28	1%
Water Towers	Electricity	7	0%
Employee Commute	Hybrid Gasoline	4	0%
	Total	4622	100%



The local government operations emissions inventory points to a need to focus and prioritize actions to reduce emissions. Based on the inventory results, the following areas have the greatest potential for emissions reduction:

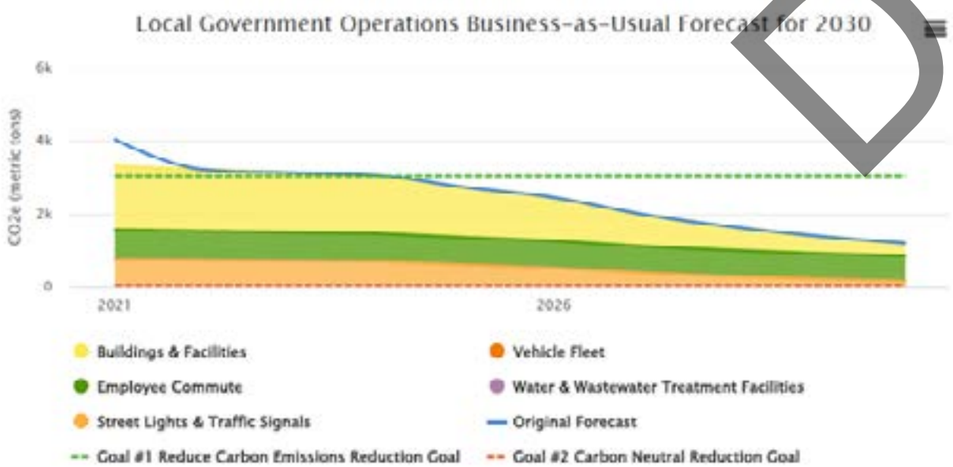
- **Buildings & Facilities**
- **Employee Commute**
- **Vehicle Fleet**

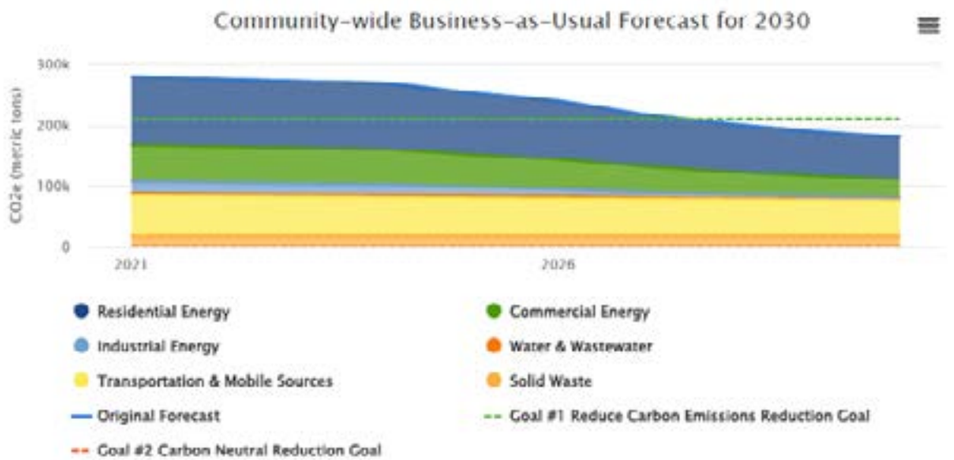
Completion of another GHG inventory in five years is recommended in order to assess progress resulting from any actions implemented

Forecasting

ICLEI's Clearpath tool also allows the city to use the inventory results to conduct a business-as-usual scenario (BAU), shown in Figure _, analyze various opportunities to reduce GHG emissions, and set projected targets for reductions. This inventory also provides the framework for future review of the city's GHG reduction goals and associated metrics for any necessary updates.

The below forecasts show estimates in Greenhouse Gas Emissions for a 'business-as-usual' (BAU) scenario. The BAU scenario takes into account population and employment growth rates for the city of Birmingham, grid emissions intensity mandates at the state level, and federal Corporate Average Fuel Economy (CAFÉ) standards under the Clean Air Act. These are considered 'business-as-usual' because they are already underway. As we develop additional sector specific goals, the tool can be used to add in specific 'Planning Scenarios' related to specific goals to estimate impacts on emissions.





ACTION PLAN

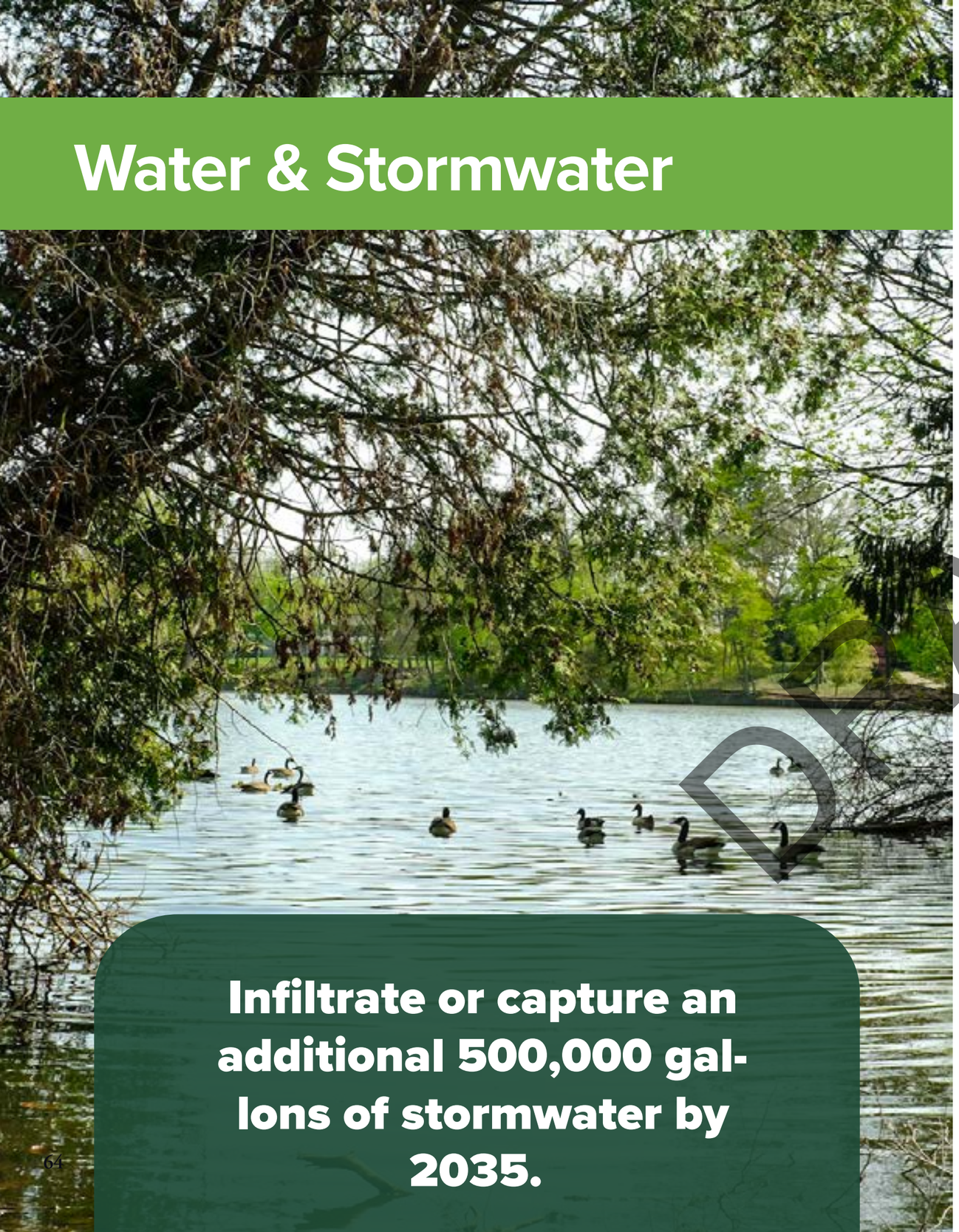
Overview

Hold for Goals Overview

Key

Order of Magnitude Cost	Cost Range
Very Low ($)	
Low ($$)	
Medium ($$$)	
High ($$$$)	
Timeframe	**Time Range**
Short	
Medium	
Long	
Objectives	**Description**
Energy	Facilitate transition to renewable energy and decarbonization
Equity	Integrate equity and address environmental injustices
Biodiversity	Restore natural areas and increase native biodiversity
Nature-based Solutions	Promote nature-based solutions as standard practice
Extreme Weather Mitigation	Mitigate extreme weather impacts on the community
Sustainable Pratices	Prioritize sustainable practices in all municipal and private projects
Materials Management	Increase materials management and reduce waste

Water & Stormwater



Infiltrate or capture an additional 500,000 gallons of stormwater by 2035.

Infilrate or capture an additional 500,000 gallons of stormwater by 2035.

The City splits across two watersheds – the Rouge River watershed and the Clinton River watershed. Any and all activities that involve the water system in Birmingham, including both natural hydrologic cycles and man-made infrastructure processes, affects these watersheds and the essential potable water we use every day, stormwater runoff, sewage disposal, natural environments and public health. Like many things sustainability, many of the burdens, nuisance and negative externalities of water treatment are borne in other areas of our region. Overall, there are no less than 10 organizations, authorities or levels of government associated with water quality and treatment in Birmingham. Through the following actions, the City intends to build more resilient water systems and provide opportunities for everyone to have access to sufficient, safe, acceptable, physically accessible, and affordable water.

- Adopt a subsidized residential rain garden program.
- Reduce barriers to local stormwater rebate programs.
- Develop a tracking system for green stormwater infrastructure.
- Form new alliances and improve existing alliances with municipalities and organizations that address stormwater runoff to the Rouge River.
- Require green infrastructure installations in every public infrastructure and development project.
- Incentivize green stormwater infrastructure installations on commercial properties.
- Reduce indoor & outdoor potable water usage.
- Require stormwater retention or infiltration on all new single-family construction.
- Adopt Oakland County stormwater standards for all developments city-wide 0.5 acre or more.

Background Material

As alluded to in previous sections, the problem of urban stormwater runoff is a compounding one. Having developed over a period of over 100 years, the City's infrastructure continues to age, and the frequency and intensity of rain events puts an overwhelming burden on a system that, in many areas of the City, was not designed for it. To get to 500,000 gallons, the Birmingham Community will need to coalesce around the concept of decentralizing the responsibility for stormwater management and its related infrastructure away from government and public property alone to all property within the City.

Grey Infrastructure

The City of Birmingham owns and maintains 693,018 feet of sewer mains. Another 130,220 feet of sewer main within the city is owned and operated by the Michigan Department of Transportation, Road Commission of Oakland County, or other entities. 82% of the tributary areas in City is currently serviced by combined sewer systems in which both wastewater and stormwater flow through the same pipes. The average diameter of sewer pipes in the City is 12 inches. However, some older sewer mains can be smaller at 10 inches, and in some places 6 inches.

As the opportunity arises during road reconstruction projects, the City does separate storm and sanitary sewer lines to reduce the burden on infrastructure, but also to reduce the possibility of overwhelming combined sewer systems and discharges into waterbodies such as the Rouge River, which cause a serious hazard. According to the Environmental Protection Agency, combined sewer overflows (CSO's) are a major water pollution and public health concern and can contain bacteria, debris, and other hazardous substances that can be harmful to people, pets, and wildlife. CSO's can also cause beach closures, shellfish bed closures, algae growth, reduced oxygen levels in waterways, and aesthetic impacts from floating debris or oil slicks.

For those areas that become separated into storm and sanitary, there still exists potential for harmful discharge. These systems do not come with oversight through the states Municipal Separate Storm Sewer System (MS4) program, which itself is subject to regulation under the National Pollutant Discharge Elimination System. Birmingham maintains a permit for its MS4 areas that includes requirements for public education, illicit discharge elimination, pollution prevention, post construction stormwater runoff controls, and total maximum daily loads

Case Study

Consider the 1,291 feet of sewer main along Westchester Way between Midvale St. and Lincoln St. The infrastructure was built in 1927 and has an average diameter of 12 inches. The maximum capacity of this stretch of sewer main is 1,014 cubic feet.

Westchester Way is a 60 ft. right-of way and runs 1,426 ft. in the same footprint. In total, the surface area of the right-of-way in this stretch alone is 85,560 square feet. Just one inch of rainfall over that surface area produces 53,336 gallons, or 7,130 cubic feet of stormwater (USGS Rainfall Calculator). Thus, one inch of rainfall could fill the entire stretch of sewer main 7 times over. For context, the National Weather Service recorded the last significant rain event on August 24, 2023 which produced an average of 1.86 inches of stormwater in Oakland County, which is nearly double that amount.

Impervious Surface

The City of Birmingham is 4.8 square miles. Although considered a suburban community, there are many areas of the City such as Downtown that have a denser urban form. Other than Birmingham's three major commercial areas, the City is comprised of predominantly single family detached housing. In fact, the land area dedicated to single family detached housing is 2.4 square miles, which is exactly half of the property area in the City. The next highest land area is rights-of-way at 1.1 square miles, followed by public property at 0.5 square miles and commercial at 0.3 square miles.

When it comes to impervious surface, there is a considerable difference between the different land areas noted above. Single family residential properties are required to have minimum open space of 40%. Open space is defined as all area of a lot except the areas occupied by a building, structure or impervious surface. Conversely, many of Birmingham's commercial areas are not required to have any open space or impervious area, save a few parking lot landscaping requirements. In terms of public space, rights of way are often unforgiving and expansive impervious areas, sometimes with greenspace on the sides or within a boulevard. The other public portions are predominantly park space.

Considering residential and commercial land areas and the differences in their relative imperviousness, there must be different approaches to stormwater for each. At a high level, if all single family properties maximized their impervious area, it would represent 1.44 square miles of impervious area, which is greater than all of the commercial and right-of-way area combined. On a standard 40 ft. by 100 ft. lot, it represents 2,880 square feet of impervious surface that has the potential to reach the city's sewer system. Using the example of a 1-inch rain event that was explored above, that translates to nearly 1,800 gallons of water. Alternatively, a significant majority of stormwater runoff on commercial property goes straight into the sewer system without the opportunity to be infiltrated by any required open space. However, there are stormwater detention requirements for commercial properties in the City, which were updated in 2024. Historically, these detention requirements have been met through underground storage as opposed to infiltration or pervious open space.

Although open space in considered pervious, not all open space is made equal in that regard. A 2010 report from the U.S. Geological Survey concluded that turf grass has a lower infiltration rate than native plants. Although it can generally be understood that the role of turf grass is not to perform significant infiltration functions, it can be inferred that turf grass can add to the urban stormwater problem, especially when considering the predominant soil composition in Birmingham, which is clay based.

Green Infrastucture

A solution to the urban stormwater problem that has been growing in popularity over the last 10 or so years is green infrastructure. Green infrastructure reduces and treats stormwater at its source while delivering other environmental, social, and economic benefits. The 2019 United States Water Infrastructure Improvement Act defines green infrastructure as "the range of measures that use plant or soil systems, permeable pavement or other permeable surfaces or substrates, stormwater harvest and reuse, or landscaping to store, infiltrate, or evapotranspirate stormwater and reduce flows to sewer systems or to surface waters." Although a viable part of the solution, it is not a replacement to traditional grey infrastructure, rather a supplement to it. Green infrastructure can come in many forms, including bioswales, green roofs, tree canopy, rain barrels, or permeable pavements. Although each type provides an infrastructure service of its own, part of the benefit of green infrastructure is its flexibility and adaptability to different settings or preferences. In dense urban setting such as Downtown Birmingham, streetscape bioswales, private green roofs, or permeable pavement may be a more viable solution. Alternatively, single family properties may elect to transition some of their open space and enjoy the many benefits of a rain garden or rain barrel, or a combination of the two.

In terms of metrics, the City does not have or collect much data on green infrastructure to understand the true benefits of existing installations. According to SEMCOG's Southeast Michigan Green Dashboard, green infrastructure network components in the City of Birmingham consist of 1,195 acres of tree canopy coverage (39%), 37.4 acres of wetland, 238 acres of parks and conservation land, and 33 acres of riparian corridors. The Friends of the Rouge hosts a Sustainability Mapper tool that allows residents to report different green infrastructure installations on their properties, which shows several rain garden and rain barrel installations in Birmingham. No data exists for bioswales or rain gardens that have been recently installed in the City's right-of-ways.

Scenario

In this scenario, let's consider the average rain barrel size at around 55 gallons. ***If every single-family property in Birmingham installed one rain barrel on their property, the City could store and reuse nearly 400,000 gallons of stormwater when filled.*** If used properly, maintained and emptied, the barrels would continue to offset the stormwater burden on sewer systems, reduce pollution, and reduce treatment costs.

Currently, Birmingham offers a Stormwater Utility Credit. These credits are offered to provide the opportunity for all property owner's in Birmingham to reduce the amount of storm water that enters the sewer system from their property through green infrastructure. Credit applications require an application and are subject to renewal. Although useful, these credits have not resulted in significant changes in private property, and only one successful application for credits has been processed in 2024.

Potable Water

From 2022 to 2023, the City of Birmingham purchased 913,874 gallons of water from the Great Lakes Water Authority (GLWA), which was an increase in 10% from the previous year. For the 21,000 residents of Birmingham, clean, safe water is an essential part of a healthy and high quality life. The GLWA sources its water from Lake Huron & the Great Lakes tributary, and the Detroit River to provide water to 112 communities in southeast Michigan. Current statistics indicate that the GLWA is pumping 400-500 million gallons of water per day through 816 miles of transmission mains that operated and maintained by the GLWA (CITATION). According to the EPA, the average American family uses 300 gallons of water per day at home, 70% of which is indoors (CITATION).

Considering the vital importance of accessible, reliable clean water, as well as the infrastructure and capital it takes to manage clean water systems, the Birmingham community should take great strides to avoid wasting such a precious resource, along with the time and money it takes to bring it here. Solutions range from high dollar and high impact such as greywater recycling systems to small things like Energy Star rated appliances or regular maintenance of fixtures and plumbing to ensure that no leakages are occurring. According to the Energy & Environmental Building Alliance, greywater recycling for a family of 6 could conserve around 30,000 gallons of water a year (CITATION).

Figure 7 - Existing Stormwater Utility Credits (2024)

CREDIT	APPLYS TO	Qtrly VALUE (SFR)	RENEWAL PERIOD
Rain Barrels	SFR/Non-SFR	$15	2 years
Rain Garden/Bio-Swale	SFR/Non-SFR	$20*	5 years
Infiltration Trench/Dry Well	SFR/Non-SFR	$25*	5 years
Cistern	SFR/Non-SFR	$25*	10 years
Pervious Pavement	SFR/Non-SFR	$10 (200-300 Sq.Ft.) $20 (300-400 Sq.Ft.) $30 (>400 Sq.Ft.)	10 years
Disconnect Footing Drain	SFR/Non-SFR	$40	10 years
LID Building Measures	Non-SFR	ESWU reduction	N/A
LID Site Measures	Non-SFR	ESWU reduction	N/A
Enhanced Retention	Non-SFR	ESWU reduction	N/A

Scenario

Rain gardens are designed to capture and infiltrate all of the stormwater runoff from a certain area of property. Typically, rain gardens are designed to accept flow from downspouts, and thus their size is based on the roof area of a given residential building. The average footprint of buildings on a single family property in Birmingham is 2,208 square feet. To infiltrate the stormwater runoff from this area, the area of rain garden(s) would need to total roughly 450 square feet. In that 2,208 square feet, 1-inch of rainfall amounts to 1,378 gallons. According to the National Weather Service, the Detroit area received 37 inches of rain in 2023 (CITATION). Thus, over the course of a year, ***rain garden(s) collecting the runoff from the roof of the average single-family residential building in Birmingham could have infiltrated up to 51,000 gallons of water in 2023.***

Waste

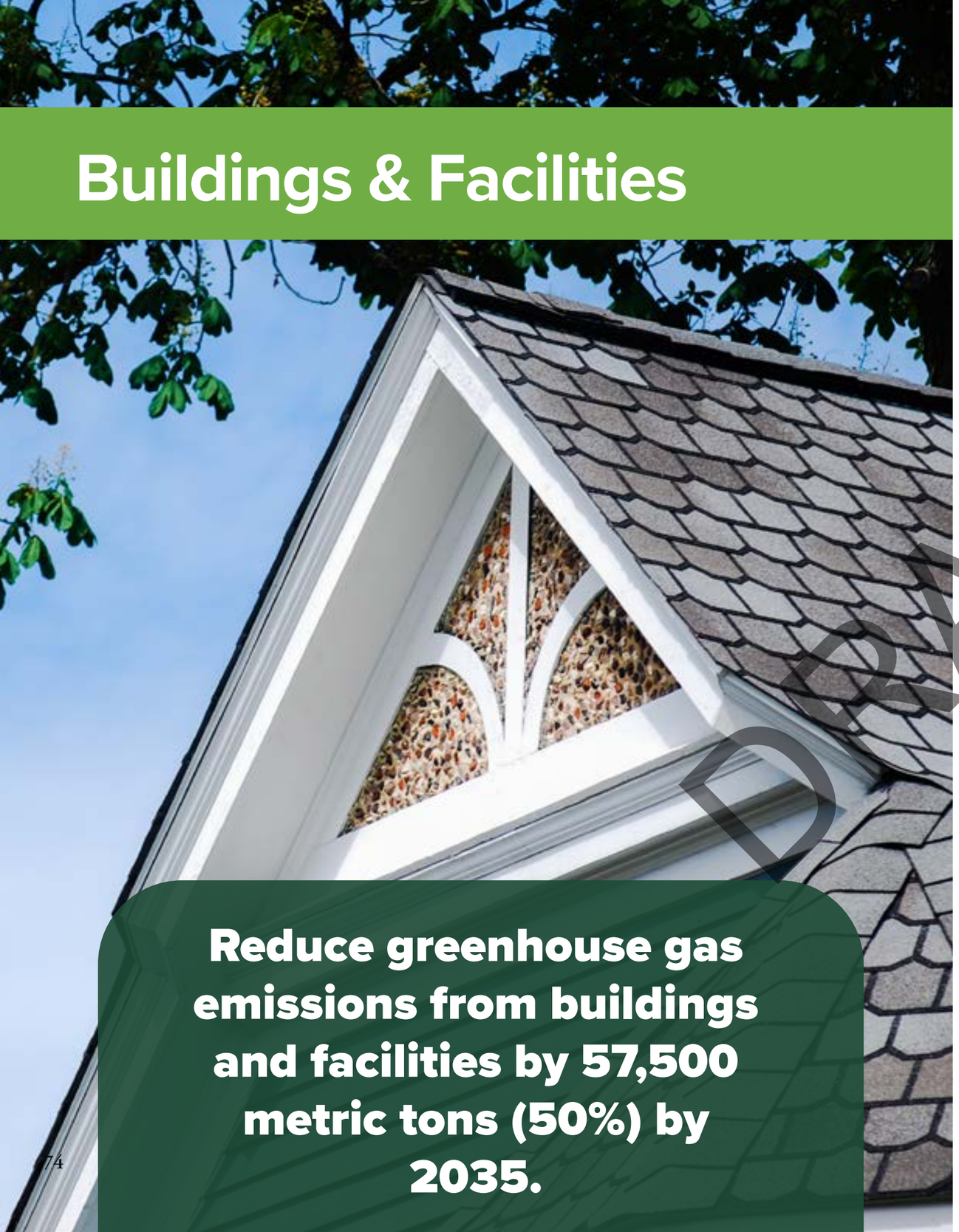
Reduce total landfill solid waste by 2,390 tons (25%) by 2035.

Reduce total landfill solid by 2,390 tons (25%) by 2035.

According to the United States Environmental Protection Agency (EPA), the average person produces 5 pounds of garbage per day, or nearly 2,000 pounds per year (CITATION). With the average household size in Birmingham at 2.32, that is over 4,200 pounds per household per year (2022: ACS 5-year estimates DP02). The majority of municipal solid waste generated in the United States consists of paper & cardboard, food, and plastics. In the City of Birmingham, residential properties are offered curbside solid waste disposal services, which includes basic recycling. In addition to solid waste, the City offers its residents curbside yard waste pickup. Alternatively, since XXXX, all commercial and large multifamily buildings are required to contract with their own private solid waste haulers. All of this waste ends up somewhere and contributes to a growing amount negative externalities that are not proportionally borne by those that create it.

- Develop a city-wide food waste composting program.
- Increase and improve quality of recyclables in curbside carts through direct education campaigns and audits.
- Invest in new local facilities and services for recycling food waste, electronics, textiles, hazardous materials and other specialty recycling.
- Create a deconstruction ordinance to encourage the reuse and repurposing of building material during construction projects.
- Lobby Southeastern Oakland County Resource Recovery Authority to improve data collection for its member communities.
- Expand recycling opportunities in all new commercial and multifamily development projects.
- Develop bi-annual recycling events for hard to recycle materials.
- Pilot a zero-waste policy for City-managed events

Buildings & Facilities



Reduce greenhouse gas emissions from buildings and facilities by 57,500 metric tons (50%) by 2035.

Reduce greenhouse gas emissions from buildings and facilities by 57,500 metric tons (50%) by 2035

Buildings, both residential and commercial, ae by far the biggest contributor of greenhouse gas emissions in the City of Birmingham. This inauspicious title is thanks to the inefficient and dirty consumption of energy in the form of electricity and natural gas. Birmingham contains 7,981 buildings within its city limits, all of which are served by Detroit Edison (DTE) and Consumers Energy. In 2023, the State of Michigan passed Public Act 235, which established renewable energy standards of 50% by 2030 and 60% by 2035, which includes energy created by DTE and Consumers (PA 235). Although these ambitious standards will indirectly help reduce carbon emissions from Birmingham building and facilities, it is imperative to focus significant attention and resources towards improving the efficiency and construction of buildings and facilities to develop a resilience and reduce dependency on larger and more vulnerable systems.

- Promote green development in large commercial districts in Birmingham through improved Zoning Ordinance standards.
- Revise and expand ordinances related to solar photovoltaics and other alternative energy sources.
- Remove any barriers to the use of geothermal energy strategies in the City.
- Increase EV charging network city-wide.
- Produce feasibility studies for solar photovoltaics on all city buildings and/or sites.
- Expand the City's historic preservation program to protect existing buildings and character.
- Develop a process for comprehensively monitoring energy usage for all city buildings.

Natural Resources

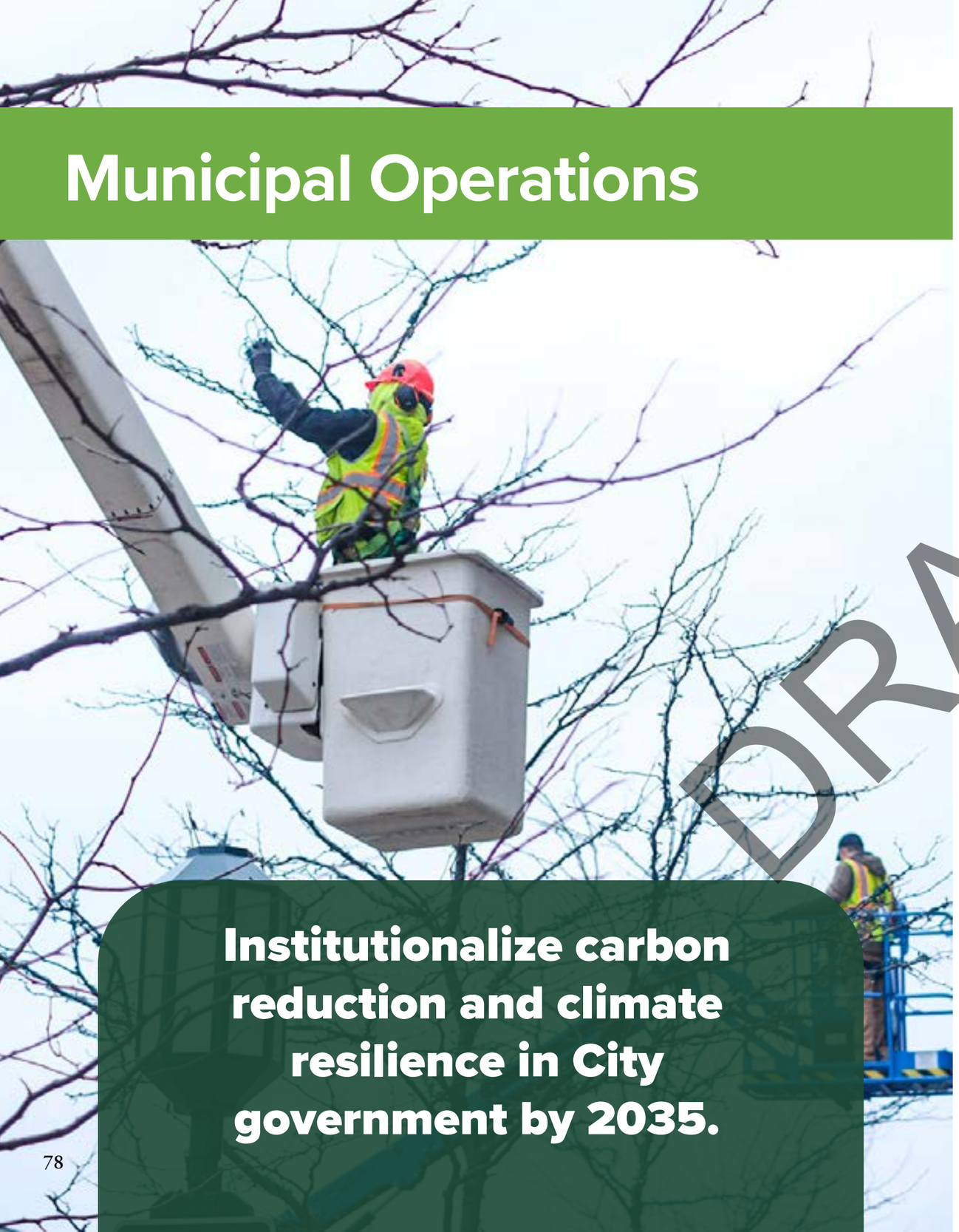
Increase native and naturalized areas in the City by as much as 450 acres by 2035.

Increase native and naturalized areas in the City by as much as 450 acres in 2035.

When it comes to sustainability, resiliency and adaptation, the natural environment and the resources within it offer boundless opportunity. In its renewal, restoration and creation, a city such as Birmingham, through the natural environment, can sequester more carbon, cultivate and nurture critical habitats, support ecosystem services, mitigate stormwater runoff and reduce the urban heat effect (to name a few). As a dense and desirable suburb in metro Detroit, more and more land is given over to anthropogenic activities, which can exacerbate the effects of climate change. Rethinking natural environments such as the Rouge River corridor, public parks and open space, or the over 1,500 acres of private single family property could go a long way in addressing inequities, improving aesthetics, and reinforcing function.

- Protect and expand the tree canopy in each census tract of the City to at least 40%.
- Promote the transition of private gardens and landscapes to native species and remove any barriers to such.
- Study the issue of clear-cutting of lots in the City with special attention tree removal during construction projects.
- Transition 100% of municipal plantings to native plantings.
- Revisit streetscape standards to include better environments for street trees and plantings.
- Prioritize the health of the Rouge River corridor and follow the recommendations of the Birmingham Plan 2040 related to the Rouge River.

Municipal Operations



Institutionalize carbon reduction and climate resilience in City government by 2035.

Any worthwhile commitment to sustainability and carbon reduction in a community should include direct and reciprocal governmental action. The city government in Birmingham has long been committed to operational excellence and high-quality public service. Having committed itself to sustainability and climate action through dedicated strategic goals and the declaration of a climate emergency in 2023, the City acknowledged its role in the community and in the solution. The City owns and manages over 300 acres of property, nearly 20 buildings and 82 miles of right-of-way. In addition, the City employs XXX people and owns XXX vehicles. These data points alone represent a significant challenge, but also an opportunity to lead by example, build partnerships, and foster large-scale transformation across the community.

- Transition all administrative and light-duty municipal internal combustion engine vehicles and equipment to alternative fuels.
- Hire a full-time sustainability staff person.
- Create a sustainability fund for use by multiple City Departments.
- Establish a sustainable purchasing program and an internal administrative regulation.
- Decrease vehicle miles traveled by municipal staff by XXX miles through incentive programs.
- Adopt an anti-idling policy for all non-emergency City vehicles.
- Identify and maintain a database of new and recurring grant opportunities geared towards sustainability and climate action.
- Create, by ordinance, an Environmental Sustainability Committee to oversee and make recommendations on a variety of issues related to sustainability and climate action.
- Provide recycling opportunities in all public parks and other public spaces.
- Phase out the use of all chemical pesticides and fertilizers on city property and in park maintenance operations.
- Increase or require specialized training for all workers who manage natural spaces.
- Create a sustainability web page to act as a landing page for all city sustainability initiatives as well as to inform and educate residents on sustainable topics, best practices and relevant state and regional programs.

Institutionalize carbon reduction and climate resilience in City government by 2035.

Quality of Life

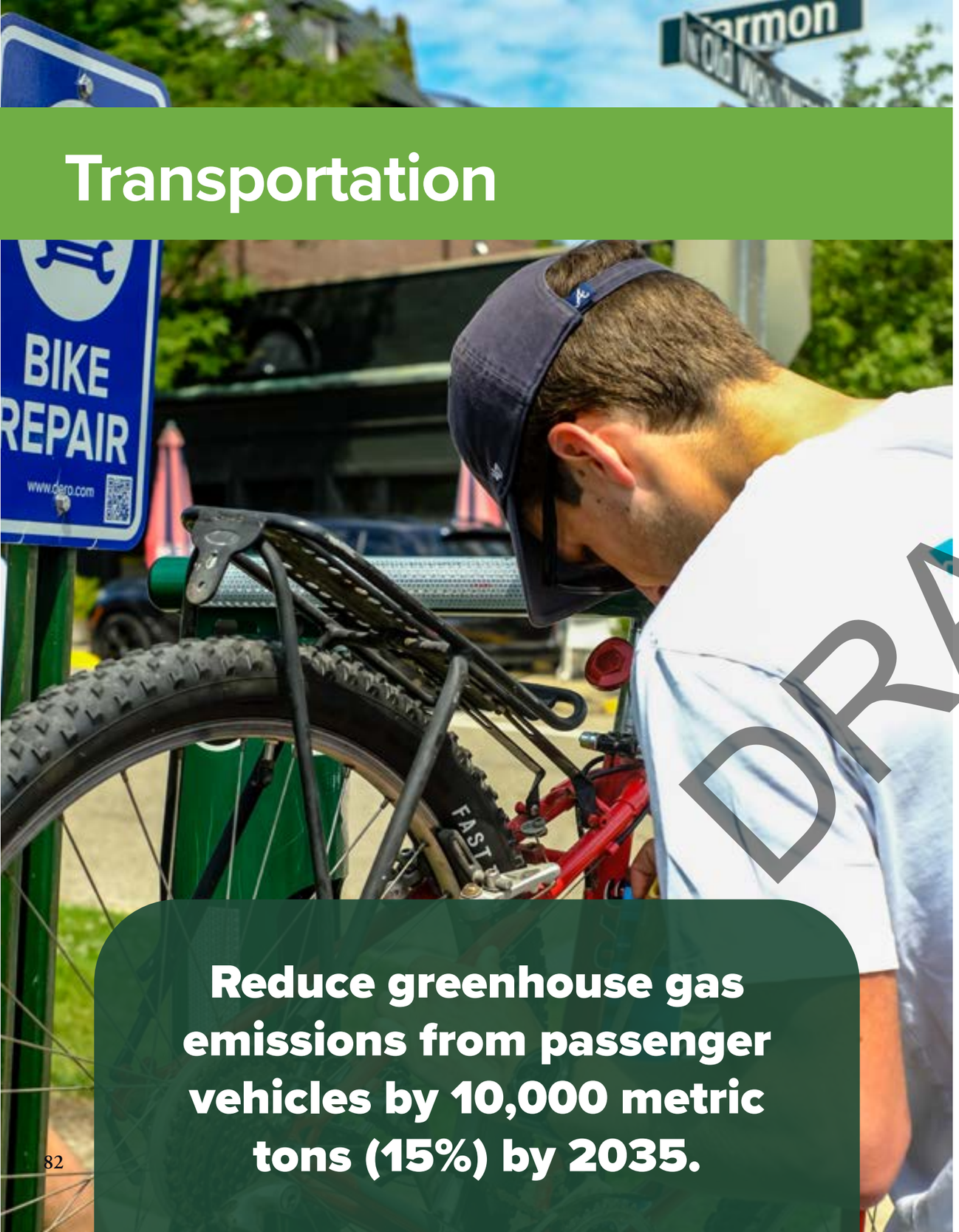
Institutionalize carbon reduction and climate resilience in City Government by 2035.

Institutionalize carbon reduction and climate resilience in City Government by 2035.

There are a number of different measures of quality of life. In 2023, Forbes listed Birmingham as the 9th richest city in Michigan. In 2024, Travel + Leisure ranked Birmingham as the 6th best place to live in Michigan citing its “highly rated schools, diverse dining options, dozens of parks and playgrounds, theaters and galleries, and an eclectic mix of home styles to fit every preference.” However, the topic of quality of life remains difficult to define, and a definition is often prescribed based on the context in which it is used. In the context of sustainability and climate action, quality of life is directly correlated to things such as physical and mental health, equity and environmental justice, access to essential services, and social cohesion. In order to achieve a high quality of life, residents must have the ability to live healthy, safe, and fulfilling lives.

- Develop the newly acquired YMCA building and St. James Park into a nexus of intergenerational recreation opportunities including a resilience hub that will serve as a warming and/or cooling center as needed and better connect residents to city services.
- Permit community gardens in select parks and public open space.
- Include educational opportunities in sustainability and climate action projects that are accessible to everyone.
- Install one air quality monitoring station in the City and connect to the EGLE network.
- Consider internal air quality monitoring systems in and around all municipal buildings.
- Continue to implement the City’s multi-modal transportation goals.
- Support and expand upon the sustainable land use decisions of the Birmingham Plan 2040.
- Remove barriers to food production in residential zones and on residential properties.

Transportation



Reduce greenhouse gas emissions from passenger vehicles by 10,000 metric tons (15%) by 2035.

Reduce greenhouse gas emissions from passenger vehicles by 10,000 metric tons (15%) by 2035.

Like most communities in southeast Michigan, Birmingham is a car-centric environment with only basic access to mass transit and other multimodal options. Having developed along Woodward Avenue, the state's first "superhighway", it is no surprise that most of the transportation infrastructure in the City is dedicated to cars. Compounding the issue is that car trips are typically single occupancy, and the over 130 million vehicle miles traveled in Birmingham every year translate into significant greenhouse gas emissions. The City has been able to adopt the moniker of "A Walkable City" through significant investment in sidewalks and pedestrian oriented development, but little attention has been paid to improving the environment for mass transit, and has developed dedicated bicycle infrastructure on an opportunistic or reactive basis rather than a proactive one. Transitioning to electric vehicles will not be enough to solve the issue, and Birmingham is well positioned to transition more of its transportation infrastructure to other modes.

- Promote the use of mass transit in the City through enhanced transit stops.
- Continue to implement the City's multi-modal transportation goals.
- Introduce bike sharing systems such as MoGo across the City.
- Advocate for more frequent and reliable multi-modal transit service. Birmingham Plan 2040.
- Remove barriers to food production in residential zones and on residential ` properties.

APPENDIX

References

GLOSSARY

Glossary

Adaptation Planning: The process of evaluating vulnerabilities and prioritizing approaches to manage or minimize the impacts of climate change within an area.

Accessible: A site, facility, work environment, service, or program that is easy to approach, enter, operate, participate in, and/or use safely and with dignity by a person with a disability. (District of Columbia Office of Disability Rights n.d.), APA Planning Accessible Communities

Carbon Neutrality:

Carbon-free energy: A source that does not emit greenhouse gas, and excludes hydrogen, solid waste, biofuel, and biomass from that definition , as well as gasification, pyrolysis, and use of carbon-capture and storage technologies (as defined by MI House bill 4759).

“Curb Cut Effect”: Recognizes that curb cuts (i.e., curb ramps) benefit a variety of users, from a parent pushing a stroller to a traveler with a suitcase to a person using a wheelchair or crutches. (Sheridan 2021)

Just transition:

“Light Imprint” Technique: One of the Great Ideas of New Urbanism. A philosophy of stormwater management that avoids expensive drainage systems and excessive pavement to let the water filter directly into the soil. The approach cost-effectively handles water and makes a more comfortable place.

Ecosystem Services: Benefits to humans provided by the natural environment and healthy ecosystems (SEMCOG).

Mitigation:

Nature-based Solutions: Projects that restore, protect and/or manage natural systems and/or mimic natural processes to address hazards like flooding, erosion, drought, and heat islands in ways that are cost-effective, low maintenance, and multi-beneficial for public health, safety, and well-being.

Green Stormwater Infrastructure Strategies are an example of Nature-based Solutions.

“Urban Heat Island Effect”: Increased temperatures from buildings and roads having replaced vegetation (according to nonprofit Climate Central). Miami suffers from “urban heat island effect” (msn.com)

Vulnerability Assessment: Seeks to identify areas most likely to experience negative impacts of climate change and help prioritize adaptation strategies for the community (according to ‘Resilient Macomb’ plan).Key areas of focus for the assessment include extreme heat exposure, flooding, critical facilities, social services, and food availability.

BIRMINGHAM
A WALKABLE CITY

Project Schedule
DRAFT: 6/14/2024

	2023							
Meeting/Event	**MAY**	**JUN**	**JUL**	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**
June 12th, ESC		✓						
GHGI Data Requests		✓						
Community Survey Open (Late June)		✓						
Public Engagement Event #1 (Day on the Town, July 29th 9am-5pm)			✓					
August 21st, ESC				✓				
Public Engagement Event #2 (Farmer's Market, August)				✓				
Public Engagement Event #3 (Municipal Roundtable, Sept/Oct)					✓	✓		
Community Survey Closes (Late Sept.)					✓			
October 30th, ESC @ BPL Community Visioning Session						✓		
Nov 20th, ESC Public Engagement Summary Review Draft Vision and Objectives							✓	

	2024							
Meeting/Event	**JAN**	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**
January, ESC Finalize SCAP Vision & Objectives	✓							
Present Project Overview to City Boards and new board student reps MMTB, P&R, PB, HDC, DRB, BSD		✓	✓	✓	✓			
March, ESC SCAP Draft Intro and Outline Review			✓					
April, ESC GHGI Final Report, Goal Drafting, Survey review				✓				
Community Survey #2 Open					✓			

BIRMINGHAM
A WALKABLE CITY

	2024							
	JAN	**FEB**	**MAR**	**APR**	**MAY**	**JUN**	**JUL**	**AUG**
Public Engagement Event #4 DPS Open House, May 11th, 2024					✓			
May, ESC SCAP 50% Draft Review					✓			
GHGI Final Report Published to City Website						X		
June, ESC SCAP 60% Draft Review						✓		
July, ESC SCAP 100% Draft Review							X	
Final Draft Published on City Website 30-Day Public Comment Period							X	
August, ESC								X
City Commission Public Hearing / Adoption								X
Publish Final SCAP on City Website								X

Acronyms Decoded

ESC – Ad Hoc Environmental Sustainability Committee
GHGI – Greenhouse Gas Emissions Inventory
SCAP – Sustainability and Climate Action Plan
MMTB – Multi-Modal Transportation Board
P&R – Parks and Recreation Advisory Board
PB – Planning Board
HDC – Historic District Committee
DRB – Design Review Board
BPL – Baldwin Public Library

AGENDA
BIRMINGHAM AD HOC ENVIRONMENTAL SUSTAINABILITY COMMITTEE
MONDAY JULY 29, 2024
BIRMINGHAM CITY HALL, 151 MARTIN ST, COMMISSION ROOM, BIRMINGHAM MI *
********** 6:00 PM**********

---

1) **Call to Order**
2) **Roll Call**
3) **Review of the Agenda**
4) **Approval of the AHESC Minutes of June 17, 2024**
5) **Study Session**
   A. **SCAP Draft**
6) **Open to the Public for Items Not on the Agenda**
7) **Miscellaneous Communications**
   A. **Updated Project Schedule**
8) **Draft Agenda – TBD**
9) **Adjournment**

---

*Please note that board meetings will be conducted in person once again. Members of the public can attend in person at Birmingham City Hall, 151 Martin St., or may attend virtually at:

Link to Access Virtual Meeting: https://bhamgov-org.zoom.us/j/87587439403
Telephone Meeting Access: 877 853 5247 US Toll-free
Meeting ID Code: 875 8743 9403

Notice: Individuals requiring accommodations, such as interpreter services for effective participation in this meeting should contact the City Clerk's Office at (248) 530-5115 at least on day in advance of the public meeting.

Las personas que requieren alojamiento, tales como servicios de interpretación, la participación efectiva en esta reunión deben ponerse en contacto con la Oficina del Secretario Municipal al (248) 530-5115 por lo menos el día antes de la reunión pública. (Title VI of the Civil Rights Act of 1964).

A PERSON DESIGNATED WITH THE AUTHORITY TO MAKE DECISIONS MUST BE PRESENT AT THE MEETING.