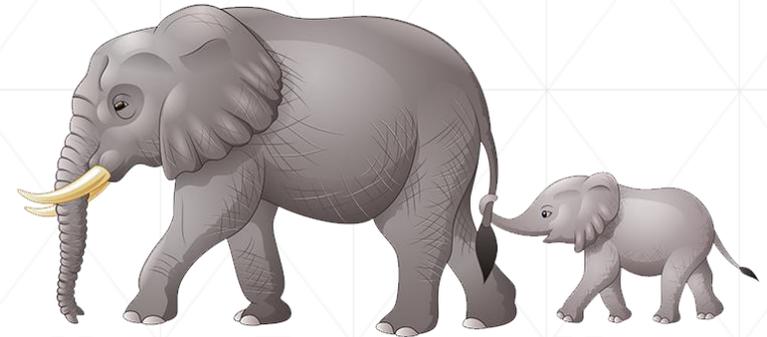


Thursday, March 10, 2022



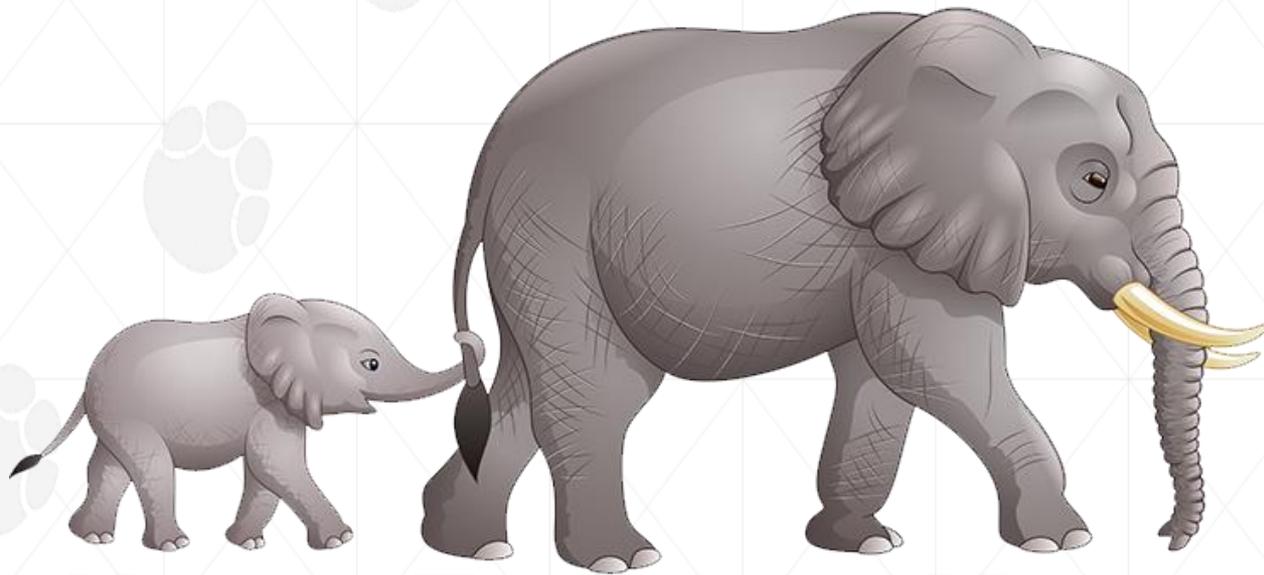
URBAN ELEPHANT MEDIA

~ PRESENTS ~

Sustainability in the City of Livonia, Michigan

Featuring Jim Baringhaus, chairperson of the Greenleaf Commission on Sustainability

Sponsored by Pearl's Premium Ultra-Low Maintenance Grass Seed



URBAN ELEPHANT MEDIA

PEER-TO-PEER LEARNING MADE EASY

Sustainability Training for Urban Designers and Policymakers

Randy Rodgers, Director of Big Ideas
Randy@UrbanElephantMedia.com
563-562-2925

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- **Lush Dark Emerald Green Grass that is barefoot soft**
- **Grows so slow - Mow & Weed-Whack only once a month rather than weekly**
- **Or never mow for a lean over 3-inch high no mow meadow**
- **4-Foot Roots need 75% less water & absorbs more water to lessen run off**
- **Plant right over existing lawn – out-competes most weeds & other grass**
- **Needs no chemicals – safer for children, dogs, elderly & the environment**
- **Stays Green Year Round in spite of extreme heat or cold**
- **Sequesters 10x the carbon to help lessen climate change & extreme weather**
- **For both lawns and green roofs - full sun to deep shade under trees**

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Our Presenter



Jim Baringhaus
Chairman, Greenleaf Commission
City of Livonia, Mich.
jbaringhaus@gmail.com



“To Promote Efficiency, Conservation, and Environmentally Sustainable Practices in the City of Livonia”

Sustainability in Livonia, Michigan

Jim Baringhaus

Chairperson – Greenleaf Commission on Sustainability

City of Livonia, Michigan

jbaringhaus@livonia.gov

March 10, 2022

Livonia Today

- Livonia's Population - 95,535
 - Tenth Largest Community in Michigan
- Over 4,000 Businesses Call Livonia Home in Addition to Several Corporate Headquarters
- Livonia Has the Second-most Public Parks And Nature Preserves (Over 1,300 Acres) Among Municipalities In Michigan
 - Next to Detroit, Michigan
- Livonia is Home to 6 Institutions of Higher Education





Greenleaf Commission History

Greenleaf Commission on Sustainability



Mission:

“To Promote Efficiency, Conservation, and Environmentally Friendly Practices in the City of Livonia”

Environmental Leadership Awards



SMCG.INFORMZ.NET

City of Livonia receives SEMCOG Sustainable Community Recognition Program Award

Tonight, the City of Livonia will receive SEMCOG's Sustainable Community Recognition Program Award. Accepting the award on behalf of the city will be May...

The image is a screenshot of a news article. It shows a blue header with the URL "SMCG.INFORMZ.NET" and a small "i" icon. Below the header is a photograph of a green field with a wooden fence. The article title is "City of Livonia receives SEMCOG Sustainable Community Recognition Program Award". The text below the title reads: "Tonight, the City of Livonia will receive SEMCOG's Sustainable Community Recognition Program Award. Accepting the award on behalf of the city will be May...".

Livonia Recognized for Environmental Leadership

FLINT, Michigan – The City of Livonia was recognized for environmental leadership at the Michigan Green Communities conference in Flint on February 25. As part of the Michigan Green Communities Challenge, participating local governments were awarded Gold, Silver, Bronze or Member seals of achievement reflecting community leadership in areas such as natural resource conservation, green economic development and energy efficiency.

Livonia achieved Member status for exemplary action in a variety of categories, including administrative and planning initiatives. Livonia established a community sustainability team composed of local residents and business representatives to advise and assist local government on community-wide sustainability policies and practices.

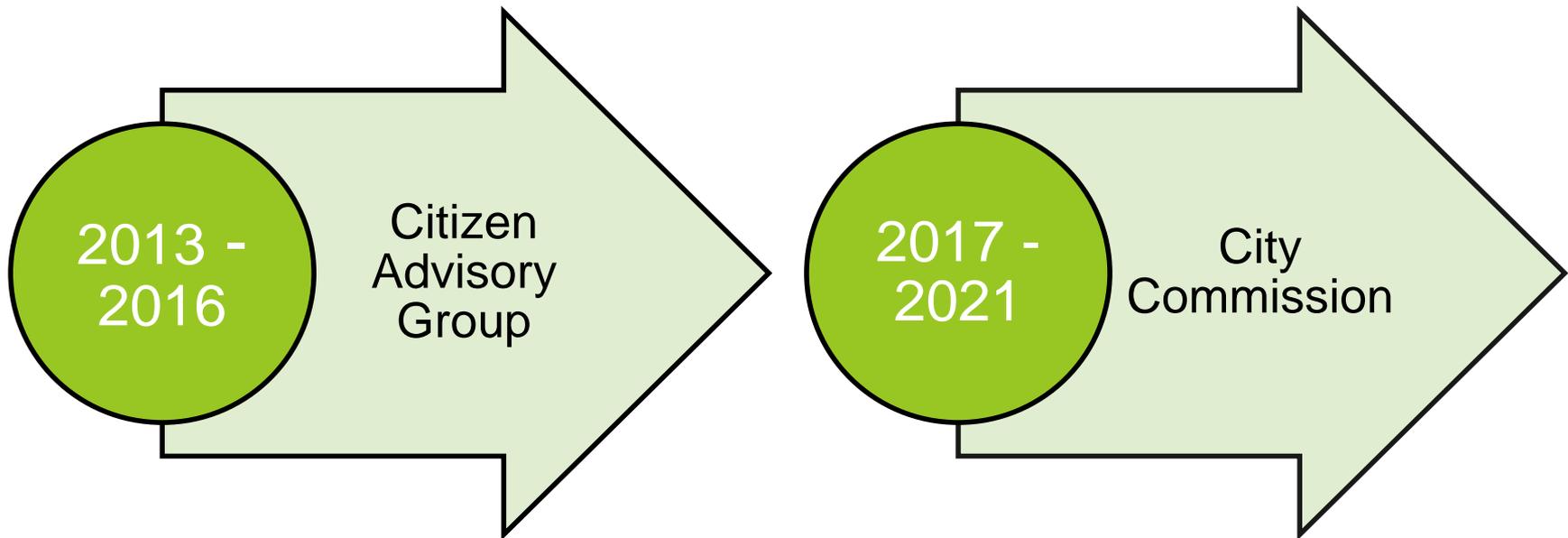


Greenleaf Commission Website

“Best Blogs to Follow”

ElectroSawHQ Blog

Greenleaf Commission History



Greenleaf Commission History

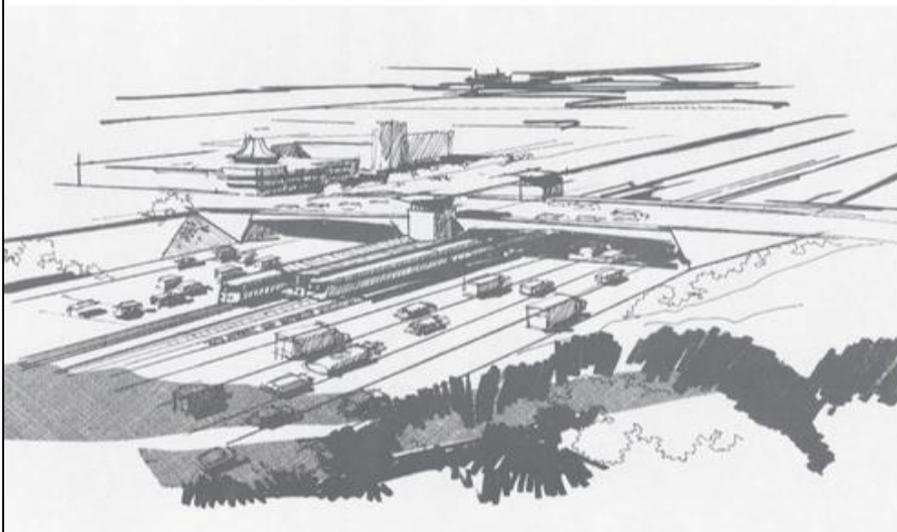
Livonia Vision 21 Master Plan



2013

Green Leaf: Creating Sustainable Livonia

This project outlined the importance of sustainability within the City, emphasizing the importance balance between the economy, society, and the environment. The 2013 Plan identified a number of ways increase energy efficiency, improve conservation, and how to implement city-wide environmentally friendly practices.



Livonia Vision 21 Master Plan

- Greenleaf Plan Cited as Key Project in Livonia's Planning History
- Proposed a Sustainability Initiative for the City of Livonia

Citizen Advisory Group History

2013

- **Greenleaf Plan Created**
- Citizen Advisory Group Formed

2014

- **SEMCOG Community Leader Award**
- Michigan Municipal League Award
- **Greenleaf Web Page Launched**

2015

- **Greenleaf Award Launched**
- Greenleaf Facebook Page Launched
- **MSU Internship Completed**
- Community Recycling Event Conducted
- **Participated in Bike/Walk Steering Committee**
- 2015 Greenleaf Award Recipient Named

2016

- **City Commission Request Submitted to Livonia City Council**
- Completed 64 Gallon Recycling Cart Survey
- **Three Stage Recycling Carts Placed at City Events**
- Potbelly Training Center Sustainability Review Conducted
- **2016 Greenleaf Award Recipient Named**

City Commission History

2017

- **City Commission Status Approved**
- Launched Nextdoor for Public Agencies
- **Recycling Added to Passport to Safety Events**
- Conducted Earth Month Tree Planting Event
- **2017 Greenleaf Award Recipient Named**

2018

- **Participated in Livonia Vision 21 Master Plan Steering Committee**
- Completed 64 Gallon Cart Study
- **Attended Michigan Sustainability Conference**
- Modified Recycling Information
- **Redesigned Greenleaf Commission Web Page**
- 2018 Greenleaf Award Recipient Named

2019

- **Launched Simple Recycling Program**
- Participated in Newburgh Mill Project
- **Identified Native Michigan Trees On City's Suggested Tree Species List**
- Reviewed Renewable Energy Plan Development with Blue Stem Energy
- **Reviewed DTE Renewable Energy Program**
- 2019 Greenleaf Award Recipient Named

2020

- **March 2020 Meeting Postponed (Pandemic)**
- Simple Recycling Restart
- **Master Plan Sustainability Goals Identified**
- Climate Change Recommendations Developed
- **Participated in QCI LLC Plant Plant Tour**
- 2020 Greenleaf Award Recipient Named

Triple Bottom Line

The Three P's (People, Planet, Profit)

People

Embracing Social Equity, Fairness, Health and Wellness

Planet

Practicing Responsible Environmental Management and Conservation

Profit

Supporting Local Economies and Community Resources





People

Nextdoor for Public Agencies

- Free Service Provided by Nextdoor
- Allows Cities and Their Agencies (e.g. Police, Fire, Emergency Management) to Communicate with Residents
- 1,500 Public Agencies in U.S. Use Nextdoor for Public Agencies

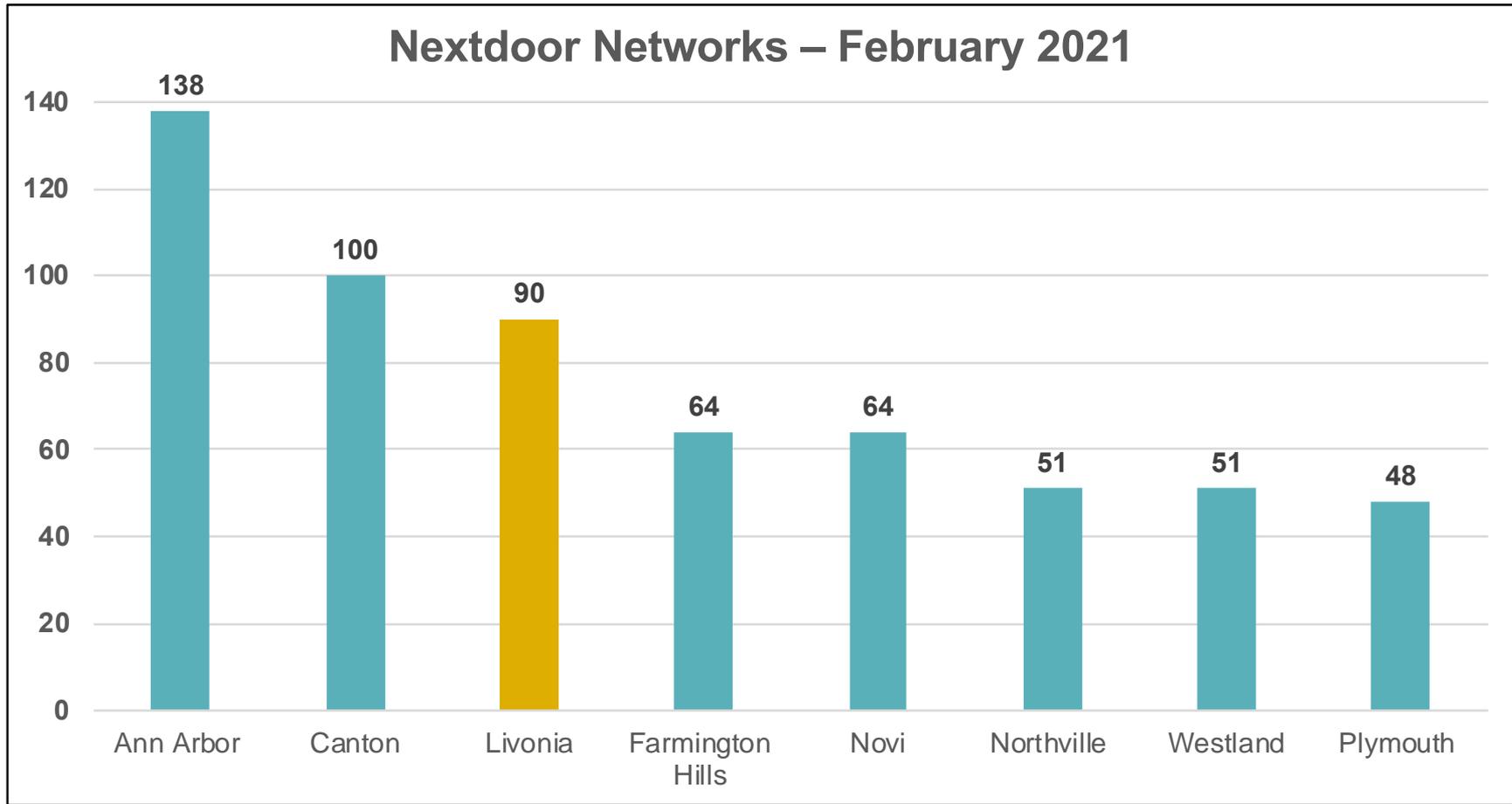


- **Livonia Public Agencies Can Communicate Directly to Livonia Nextdoor Neighborhood Sites**

Nextdoor

- Free, Private Social Network for Neighborhoods
- Over 60% of U.S. Neighborhoods Use Nextdoor (98,784 Neighborhoods)

Nextdoor Neighborhood Networks Livonia v. Surrounding Communities



Greenleaf Commission Worked with Nextdoor and the City of Livonia to Update Neighborhood Maps (Drove Growth from 13 to 90 Networks in Livonia)

Nextdoor for Public Agencies

Current Status

Nextdoor

14.5%
Increase in
Livonia's
Nextdoor
Membership

42.0%
Of All
Livonia
Households
Use Nextdoor

Community Education

Recycling! It Works!



Jim Baringhaus, chairman of the Greenleaf Commission on Sustainability, speaks during a recycling event in this file photo. The commission is moving forward to becoming an official city commission. *File Photo*

Earth Day Tree Planting



Information Booths – City Events



City Events

- Run 2 Save Our Youth
- Passport to Safety
- Music From the Heart
- Take Pride in Livonia Day
- Ice Cream Socials

Community Education



City of Livonia Newsletters

GREEN LEAF

GREENLEAF COMMISSION ON SUSTAINABILITY

Livonia Residents are Key Leaders in Reducing Greenhouse Gas Emissions



2021 City of Livonia Greenleaf Award – Recognizing Environmental Leadership

The City of Livonia Greenleaf Award recognizes local businesses that incorporate environmentally-friendly processes in their daily business operations. The 2021 City of Livonia Greenleaf Award will be presented at the Livonia Chamber of Commerce Leadership and Awards Celebration Event in February 2021. To nominate a business for the City of Livonia Greenleaf Award, contact Jim Baringhaus at jbaringhaus@livonia.gov.

Greenhouse Gas Reduction Update

The Greenleaf Commission met with the University of Michigan Office of Campus Sustainability. The discussion focused on greenhouse gas reduction strategies, developing greenhouse gas reporting guidelines and greenhouse gas measurements for the City of Livonia.

How You Can Reduce Greenhouse Gas Emissions in Livonia

Consuming fossil fuels (such as natural gas, oil, coal, and gasoline) raises the level of carbon dioxide in the atmosphere. Carbon dioxide is a key contributor to the greenhouse effect, which contributes to global warming. You can reduce the demand for fossil fuels, which will reduce the effects of global warming.

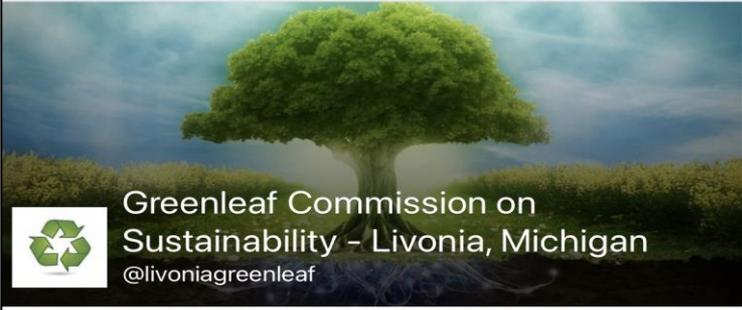
For questions or comments on the Greenleaf Commission on Sustainability, please email Jim Baringhaus at jbaringhaus@livonia.gov.

Greenleaf Commission Facebook Site

Greenleaf Commission on Sustainability...

Overview Ads Inbox Notifications More

age



Greenleaf Commission on Sustainability - Livonia, Michigan
@livoniagreenleaf

Learn More Call

Publish Photo Promote View As

es in the City of Livonia.
ommunities conference in

GREEN INFORMATION TECHNOLOGY (IT)

SAVING OUR NATURAL RESOURCES

The City of Livonia cares about our natural resources and has done several things to try and reduce the waste through our use of IT. These include:

- Since 2002, we have utilized Energy Star features on computers, monitors and printers. These features power down to a minimal level when the equipment is not in use.
- We actually donate most of our obsolete computer equipment to a non-profit organization.
- We have virtualized 18 of our production servers. This represents an approximate savings of \$18,000 per year in power and cooling costs.

For more information on Green IT, view the [Wikipedia page on green computing](#).

VERDIEM POWER MANAGEMENT SYSTEM

In July 2011, we implemented the Verdiem Power Management System which has given us even better control on power usage of our computers. This software actively monitors usage of computers and controls the energy state.




Community Awareness

Hometown Life



NEWS

Livonia Greenleaf commission pushes forward with ideas

David Veselenak hometownlife.com

NEWS

Livonia Greenleaf commission talking recycling Thursday

David Veselenak hometownlife.com

NEWS

Livonia Greenleaf Commission seeks nominees for award

Hometown Life

NEWS

Livonia Greenleaf commission looks to become permanent

David Veselenak hometownlife.com

LOCAL NEWS

MSU student, Livonia woman work to promote recycling

David Veselenak hometownlife.com

LIVONIA

Livonia administration will study options to address climate change

[Shelby Tankersley](#) Hometown Life

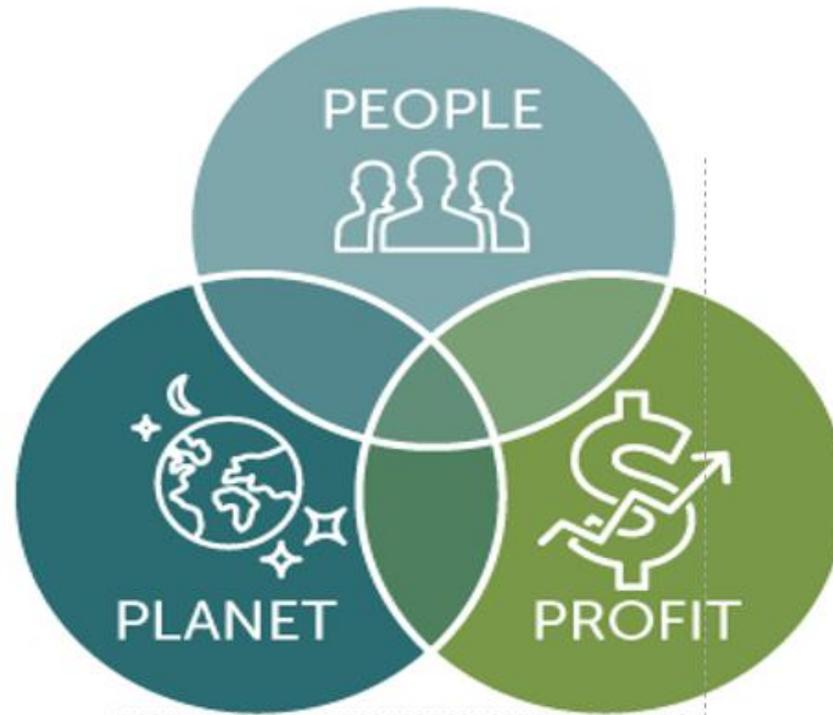
Greenleaf Commission Activities



Information Tables

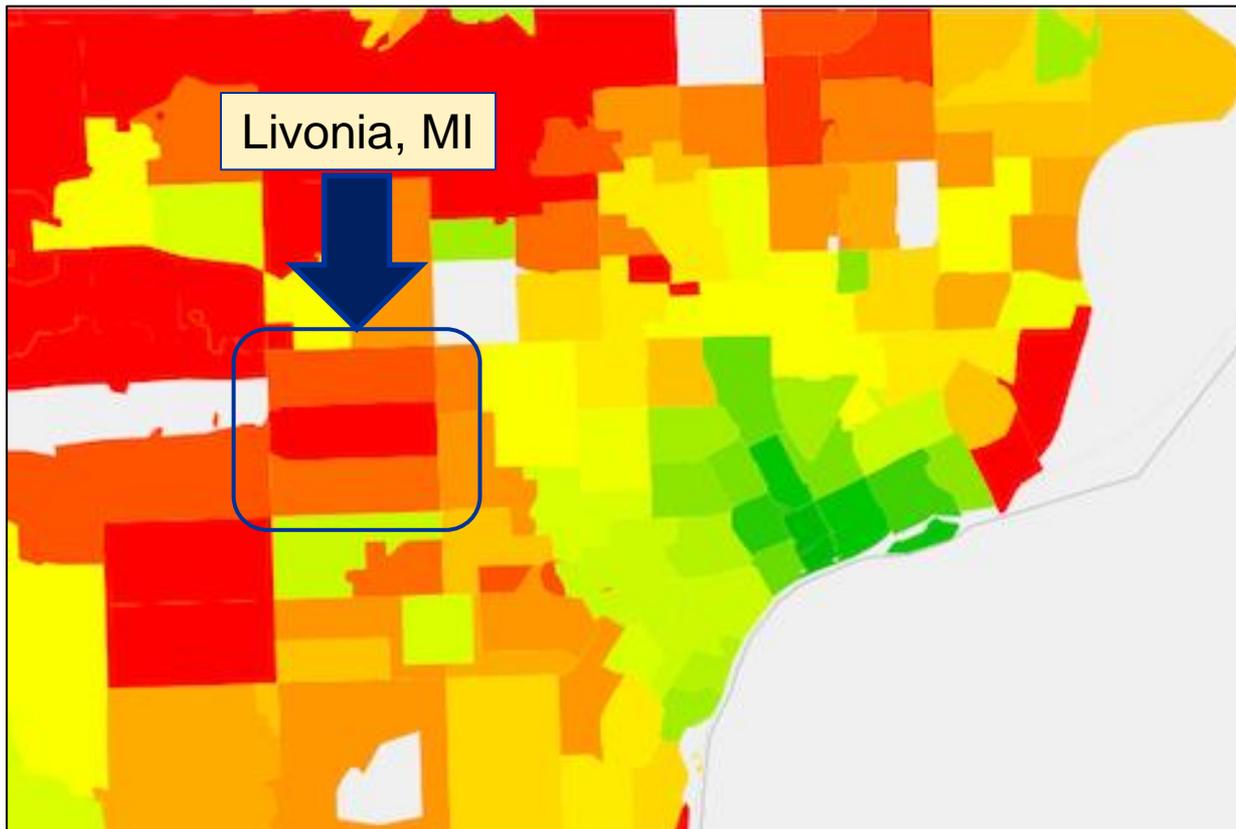
Recycling Cart Promotions





Planet

Average Annual Livonia Household Carbon Footprint by Zip Code (48150, 48154, 48152)

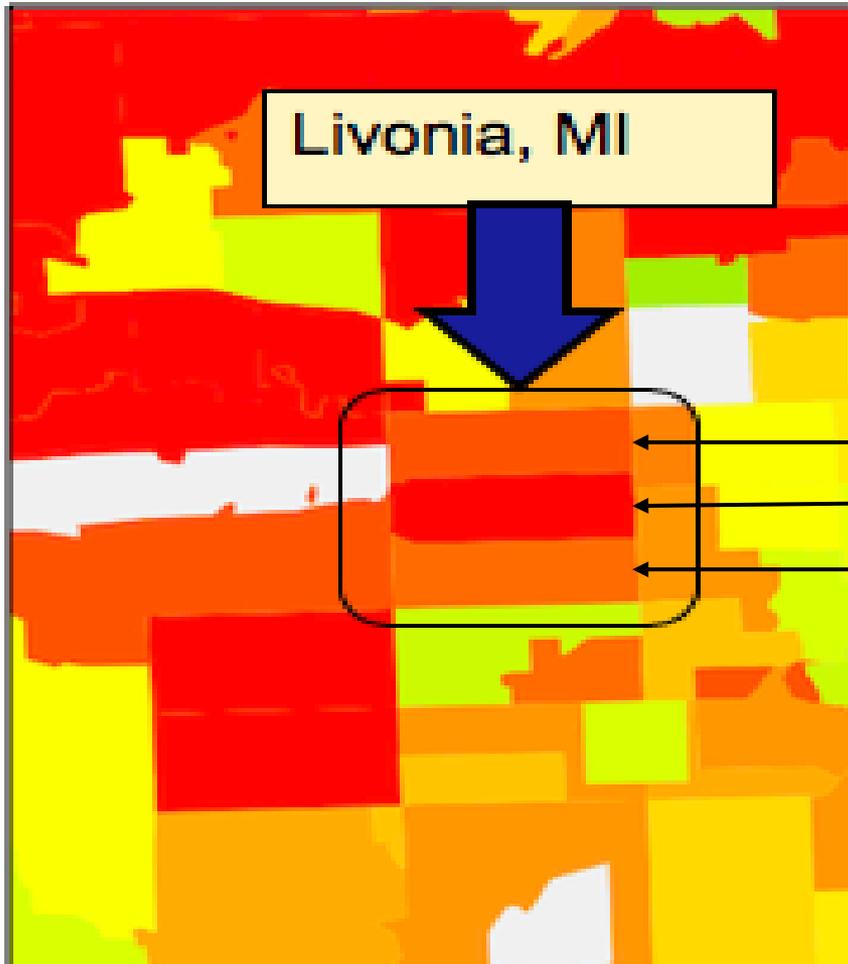


Carbon Dioxide Emissions by ZCTA

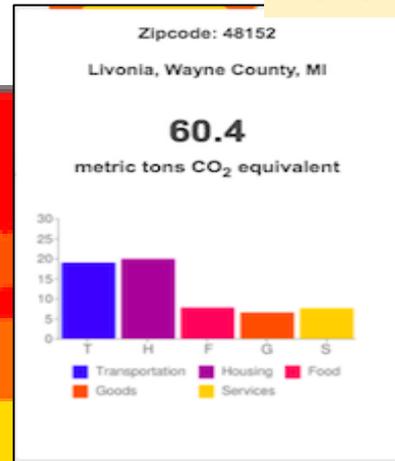
metric tons of CO² Equivalent

2.93 - 11.36	■
11.37 - 12.89	■
12.90 - 13.92	■
13.93 - 14.82	■
14.83 - 15.65	■
15.66 - 16.57	■
16.58 - 17.59	■
17.60 - 18.91	■
18.92 - 20.64	■
20.65 - 241.15	■

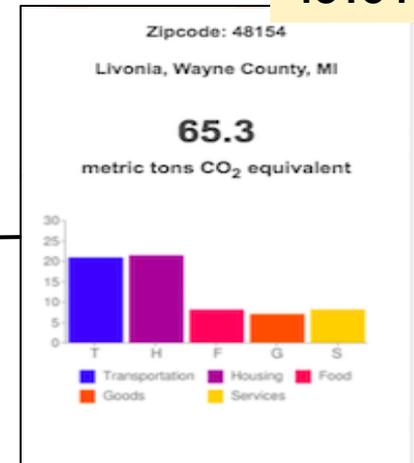
Average Annual Livonia Household Carbon Footprint by Zip Code (48150, 48154, 48152)



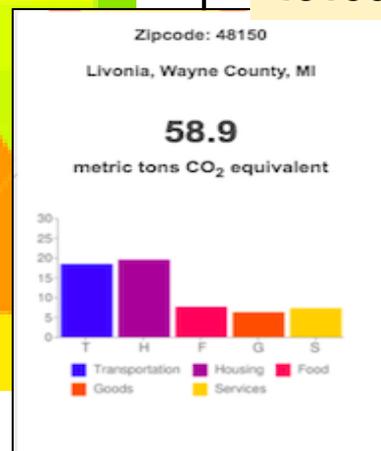
48152



48154

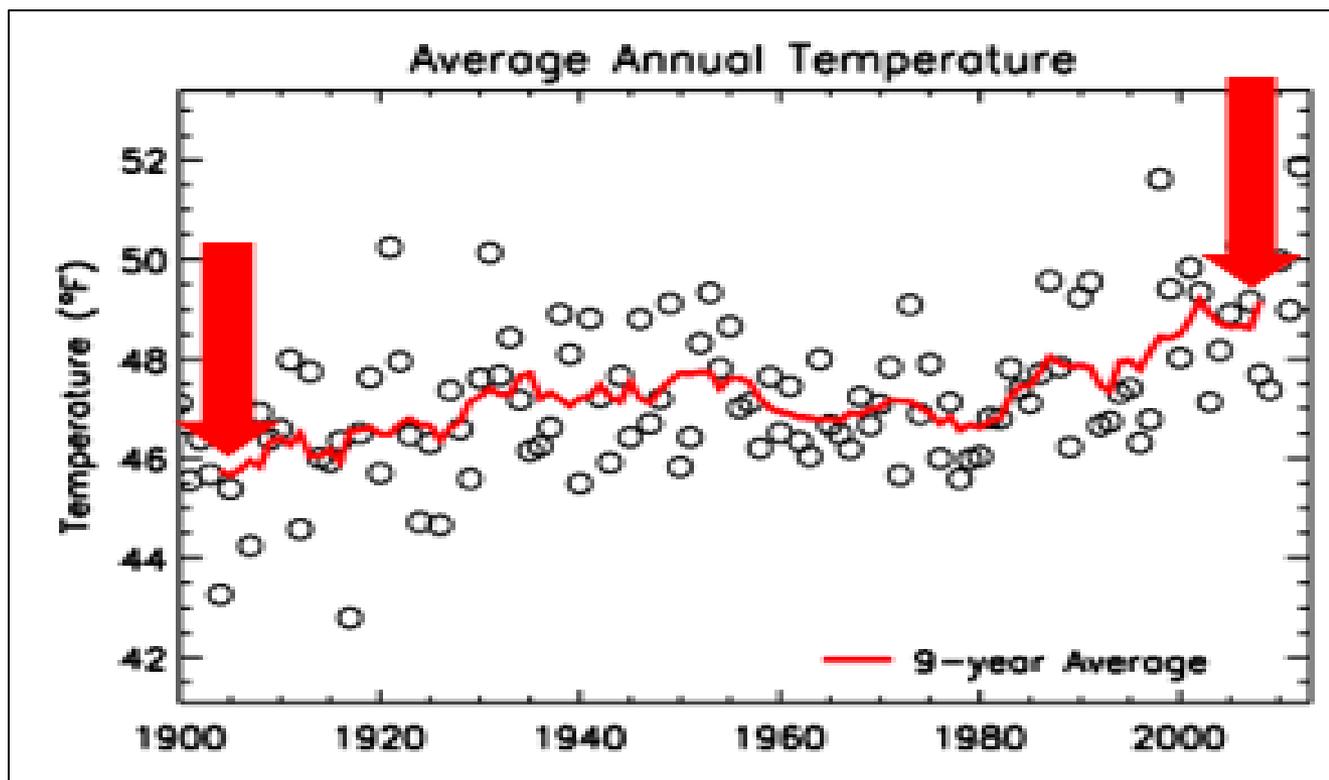


48150



- - Transportation
- - Housing
- - Food
- - Goods
- - Services

Livonia, MI Climate Change (1900 – 2011)



- **Open Circles** - Average Temperature of a Single Year
- **Solid Lines** - Represents a 9-year Running Average of Temperature

Livonia, MI Climate Change – Future Trends

Cities Impacts & Adaptation Tool (CIAT)

- Provides Climate-Trend Data for Climate Adaptation
- Groups by Counties with Similar Climates



Livonia, MI Climate Change Forecast	Annual Average (1981 – 2000)	Projected Annual Average (2041 – 2070)
Temperature	48.139 °F	53.02 °F

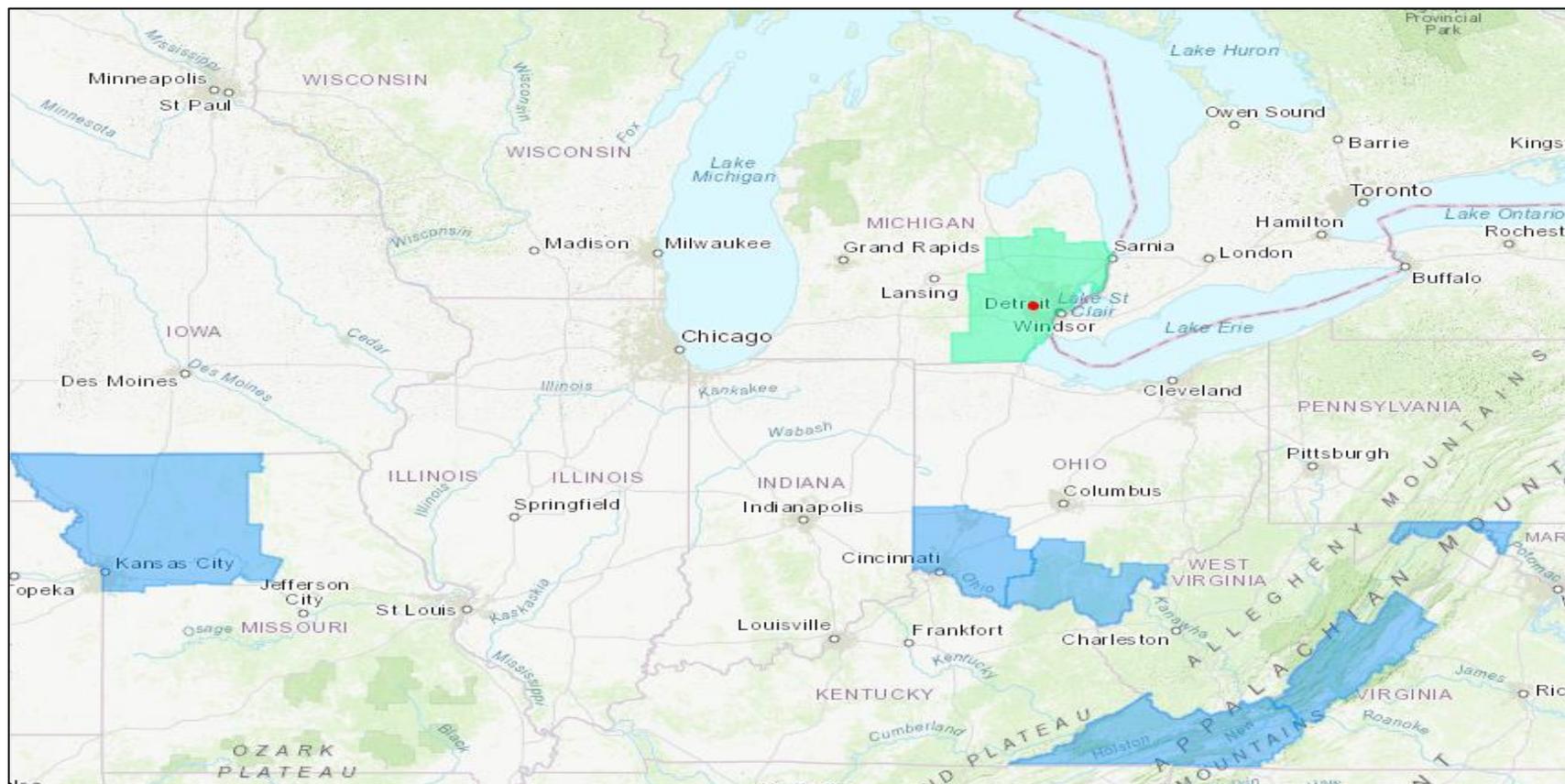
Livonia, MI Climate – Projected Change

Average Temperatures – Livonia, MI

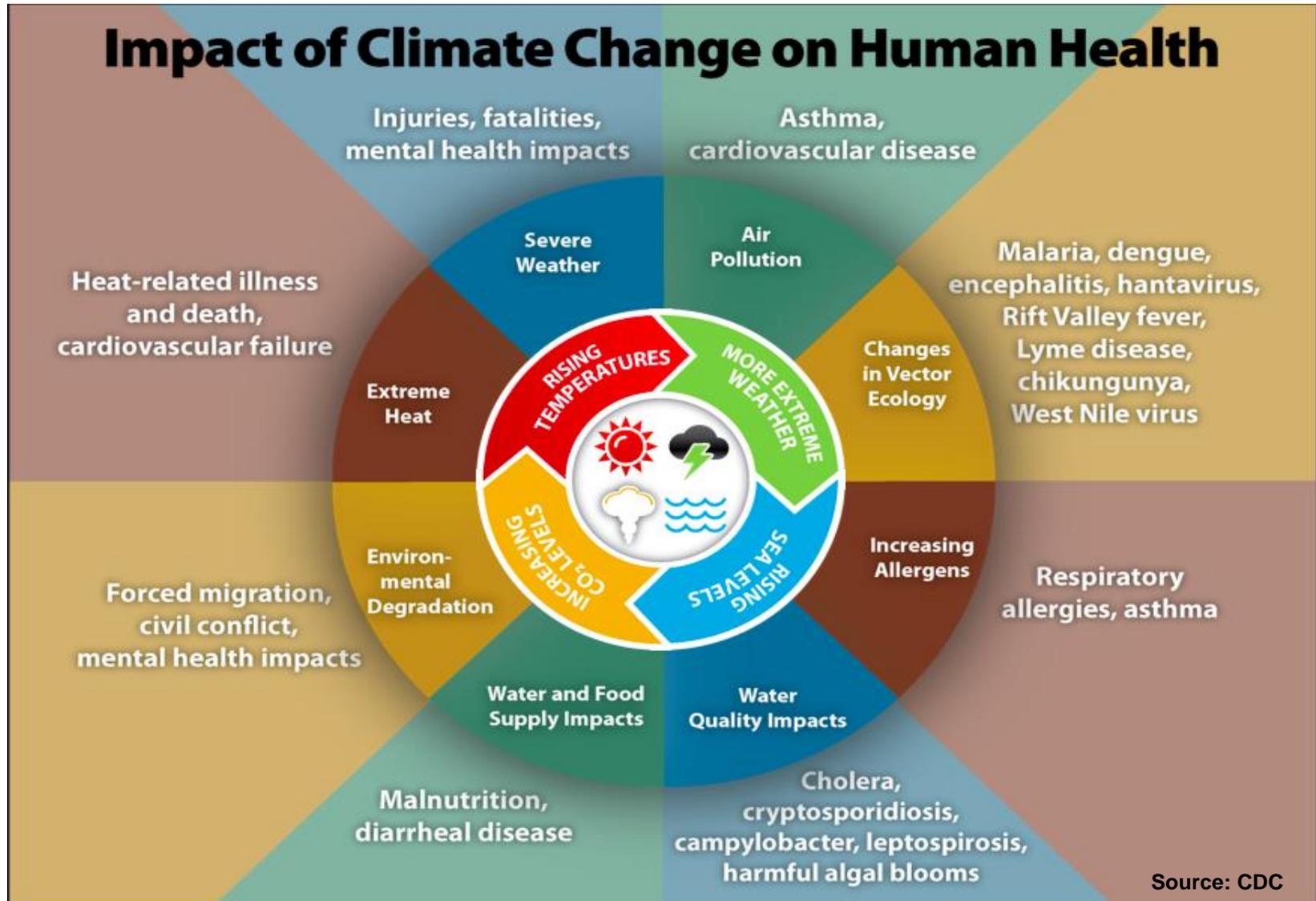
Season	Current Temperature (°F) (1981 – 2010)	Observed Change (°F) (1981 – 2010) v (1951 – 1980)	Projected Change (°F) (2041 – 2070) v (1981 - 2010)
Annual	48.14	1.1	2.74 to 7.02
Winter	25.77	1.99	2.53 to 7.89
Spring	46.58	1.28	1.32 to 7.16
Summer	69.53	0.66	1.9 to 7.98
Fall	50.67	0.49	2.31 to 7.27

Livonia, MI Climate – Projected Climate Change

Livonia's Projected Climate Change (2041 – 2070) Existing Cities That Project Livonia's Future Climate



Climate Change Impact



Livonia Environmental Town Hall



- Greenleaf Commission Conducts "Livonia Environmental Town Hall" with Livonia Residents
- Zoom Meeting Format
- Gain Livonia Resident Feedback on Environmental Issues
- Incorporate Livonia Resident Feedback Into Climate Change Initiatives



Livonia Sustainability Town Hall

April 27, 2021



- **Session 1 – Livonia Climate Change Review**
 - Climate Warming Review
 - Climate Status – Livonia, Michigan
 - Resident Breakout Session 1 – Discussions
 - Group Report Out – Resident Breakout Session 1
- **Session 2 – Addressing Climate Change in Livonia**
 - Resident Recommendations to Address Climate Change in Livonia
 - Resident Breakout Session 2 – Discussions
 - Group Report Out – Resident Breakout Session 2
- **Session 3 - What Can You Do to Address Climate Change?**
 - Discuss Resident Actions to Address Climate Change

“A Better Livonia Through a Better Environment “

Livonia – Recycling Recognition



NEWS

DEQ recognizes Livonia for recycling excellence

- Achieved Recycling Rate of +50% for Many Years
- Curbside Recycling (25+ Years)
- Household Hazardous Waste/Electronics Waste Disposal Practices
- Wood Chips from Tree Maintenance
- Strong Recycling Communication
- Accepting a Wide Variety of Materials for Recycling

Simple Recycling



- Curbside Collection of Used Textiles and Small Household Items
- No Cost Service to City of Livonia

Launch Date: December 2019

National Drive Electric Week - Livonia

September 25, 2021



Posts:

- City of Livonia (Livonia Community)
- Schoolcraft College
- Friday Musings
- Tesla Motor Club
- West Michigan EV Club
- EV Connections Newsletter
- National Drive Electric Week
- AllEvents
- Stayhappening.com

Event Support:

- Plug-In America
- National Drive Electric Week
- Consumers Energy
- DTE Energy

National Drive Electric Week - Livonia

September 25, 2021





Profit

City of Livonia Greenleaf Award



Award Trophy Created from a Historic Livonia Farmhouse
by The End Grain Woodworking Company



City of Livonia Greenleaf Award



City of Livonia Greenleaf Award



Greenleaf Award Recognizes Livonia Organizations for Environmental Leadership

Year	Organization	Recognition
2015	Kohl's	LEED Certification for Livonia store. Member of U.S. Green Building Council.
2016	Madonna University	Franciscan Center Awarded Gold Level LEED Certification. First LEED Certified Building in Livonia.
2017	Livonia Garden Club	Supports Educational Programs, Environmental Awareness and Promotes Civic Projects in Livonia Community since 1969.
2018	The End Grain Woodworking Company	Utilizes Wood from Deconstructed Buildings that would be Diverted to Landfills. Materials Used to Create Sustainable Products.
2019	GLR Advanced Recycling	Creative Approach to Recycling Scrap Vehicles and Diverting Them from Landfills. Work with National Alliance on Mental Health Donation Program.
2020	Aristeo Construction	Received Wildlife Habitat Certification (WHC) for Pollinator Garden. Voluntary Sustainability Standard. Award is Unique to Livonia.
2021	Livonia Public Schools	Greenhouse Gas Reductions Efforts in 19 LPS Schools and the Addition of 22 Propane-Fuel Buses to Fleet.
2022	Storch Magnetic Company Inc.	Responded to COVID-19 Pandemic By Developing Magnetic Air Filter Which Facilitated a Safe Work Environment.



Current Direction

Climate Change Actions - Recommendations

1. Livonia Vision 21 Master Plan – Evaluate Progress on Sustainability Goals
2. Adopt No Idling Guideline for City of Livonia Facilities
3. Promote Electric Vehicle Ownership in Livonia
4. Launch a Livonia Greenhouse Gas Emission Measurement Process
5. Launch a Livonia Tree Inventory Process – Based on I-Tree Software Suite
6. Evaluate Livonia Transition to Renewable Energy
7. Develop a Climate Action Plan for the City of Livonia

Recommendation

Livonia Vision 21 Master Plan



1. Recommendation: Evaluate Progress on Sustainability Goals in Master Plan

#	Livonia Vision 21 Master Plan Objective
1	1.4 Promote the development of multiple small-scale and walkable commercial and service districts that serve the immediately adjacent neighborhoods.
2	2.2 Promote the use of alternative modes of transportation such as ridesharing, bicycling, walking, and transit throughout the metropolitan area.
3	2.3 Improve the City's network of trails, bicycle amenities, and other connections.
4	2.4 Implement a comprehensive pedestrian network that focuses on creating safe intersections and crossings, encourages pedestrian-scale streetscapes, and supports walkable land use arrangements.
5	2.5 Prepare for the emergence of new transportation technologies by revisiting traditional uses of the transportation network and by investing in innovative mobility strategies and "smart" infrastructure.
6	3.1 Promote land use patterns that increase sustainability, support broadband provision and green technology, and resiliency in buildings and transportation systems by making sustainability a critical element when developing new zoning regulations and modifying old regulations and the Future Land Use map.
7	3.2 Conserve and restore open spaces, waterways, tree canopies, and other natural resources to increase resiliency, adaptability, and biological integrity.
8	3.3 Commit to mitigating the City's climate impacts, including reducing energy, land, and water consumption and improving outdoor and indoor air quality.
9	3.4 Think beyond first costs and consider long-term, cumulative impacts when making infrastructure and policy decisions.
10	7.4 Increase the use of renewable resources to reduce dependence on fossil fuels
11	Livonia Bike Loop: Continue efforts to construct the Livonia Bike Loop recommended in the 2015 Bike Walk Livonia Plan.
12	Transit and Innovative Mobility Study: Enhance the City's transportation vision by exploring a new vision for transit and shared mobility in Livonia.

Greenleaf Commission – Current Initiatives



Green Infrastructure

Tree Replacement/Tree Ordinances

Electric Vehicle Infrastructure

Recycling & Solid Waste Policies

2022 Initiative Teams

Green Infrastructure

- Terry Cullum
- John Grzebik
- Nikki Mehelich

Tree Ordinance & Tree Replacement

- Jim Baringhaus
- John Grzebik
- Nikki Mehelich
- Katie Mullett

EV Infrastructure

- Jim Baringhaus
- Betsy Calhoun
- Terry Cullum

Recycling & Solid Waste

- Betsy Calhoun
- Terry Cullum
- Katie Mullett
- Mike Shesterkin



Jim Baringhaus

Chairperson – Greenleaf Commission on Sustainability

City of Livonia, Michigan

jbaringhaus@livonia.gov

