



WASHTENAW COUNTY

220 NORTH MAIN STREET, P.O. BOX 8645
ANN ARBOR, MICHIGAN 48107-8645

Monday, October 3, 2022

Washtenaw County Community Members -

The County has completed our first draft of Resilient Washtenaw: A Climate Action Plan for Washtenaw County, and today marks the start of three week public comment period where we are looking to hear and talk with you about this plan, what it calls for, and what it will do to address climate change and its consequences for the County and its residents.

A copy of our draft plan can be found here:

Link: [Resilient Washtenaw Climate Action Plan – Draft for Public Comment](#)

As you are aware, Washtenaw County has been working to develop a climate action plan for more than a year. Our goal has been to develop a plan which provides a path to a carbon-neutral county government by 2030, a carbon-neutral county-wide community by 2035, and that makes us resilient to the already present impacts of a changing climate.

Our planning work has focused on engaging the whole of the county to understand climate related concerns and to hear suggestions on what the County can do. During this project we have developed assessments which show us what parts of the County are most susceptible to the negative impacts of climate change, we have investigated the sources of emissions which exist in the County, and we have developed a framework which outlines the strategies our plan will utilize to address climate change and which incorporates the community principles which our plan must support. These efforts have led to the document that we share with you today.

Our goal for this comment period is to give the Washtenaw County community an opportunity to review our plan and to provide comment as to what changes or additions should be made. We believe that this process and the forthcoming feedback will ultimately lead to a better plan, both in terms of the actions proposed and community support. This comment period will run for almost three weeks, through October 21, 2022.

We have set up a brief form for feedback: This form can be found here. Please share widely. We welcome and look forward to your feedback.

Link: [Resilient Washtenaw Community Survey](#)

We are also aware that this document is dense and lengthy and may take much time and effort to fully read and digest. As such we have looked to provide the following resources for those who may be interested in learning more about the purposes of this project, or who may wish to provide comment in a more interactive format.

Project Overview:

On September 19 the Working Session of the Washtenaw County Board of Commissioners received a brief presentation on the draft plan. This video is a link to that presentation. It covers the purpose of the plan, engagement and outreach, the plan framework, and a summary of the draft actions

Link: [September 19 Working Session Presentation: Resilient Washtenaw](#)

Draft Plan Review and Feedback Sessions:

The County has scheduled a series of review sessions to walk through the plan and its contents and to take questions and comments on the plan from those in attendance. Each session will briefly provide some background information about the purpose of the plan, and will then move to review the proposed actions called for in the plan. Each evening will focus on a different group of actions, and are [organized by strategy area](#). Half the time will be used to review the plan, and half for questions and comments. These sessions will be held through zoom. Those interested in attending are asked to register using the links below:

Energy Transition:

Thursday, October 13, 2022 from 6:00 PM to 7:30 PM

https://washtenawcounty.zoom.us/webinar/register/WN_sfS5srX3QyWmQZ2Vjl6SDw

Mobility & Housing:

Monday, October 17, 2022 from 6:00 PM to 7:30 PM

https://washtenawcounty.zoom.us/webinar/register/WN_u90yd3tKSISbp556fQ3IWg

Health:

Tuesday, October 18, 2022 from 6:00 PM to 7:30 PM

https://washtenawcounty.zoom.us/webinar/register/WN_AD6cBeruSi-JwTdqGNFv1g

Infrastructure, Working Lands and Natural Areas:

Wednesday, October 19, 2022 from 6:00 PM to 7:30 PM

https://washtenawcounty.zoom.us/webinar/register/WN_VL0Cd2YEQK27mX7-zK7xcg

Circular Economy:

Thursday, October 20, 2022 from 6:00 PM to 7:30 PM

https://washtenawcounty.zoom.us/webinar/register/WN_0ff5iMc2Q7Ci6L8oysMWHa

Following the closure of the comment period, the project team will be compiling and summarizing the comments we receive. We will then be looking to make updates to the plan based upon this feedback. We anticipate significant amounts of feedback during this process, and do not expect to be able to respond individually to each comment.

From there, our next task will be to bring this plan to the Washtenaw County Board of Commissioners for their consideration and approval. We are planning to do this at their November 16, 2022 meeting. That document will include final version of this plan, inclusive of the modifications that come from this comment period. We will also be bringing recommendations to the Board related to how the county should support the implementation of this plan through funding, staffing, reporting, and the ongoing maintenance and updating of the document.

Thank you for your interest and support of this work. We look forward to receiving your feedback, and to working with all of on this important work.

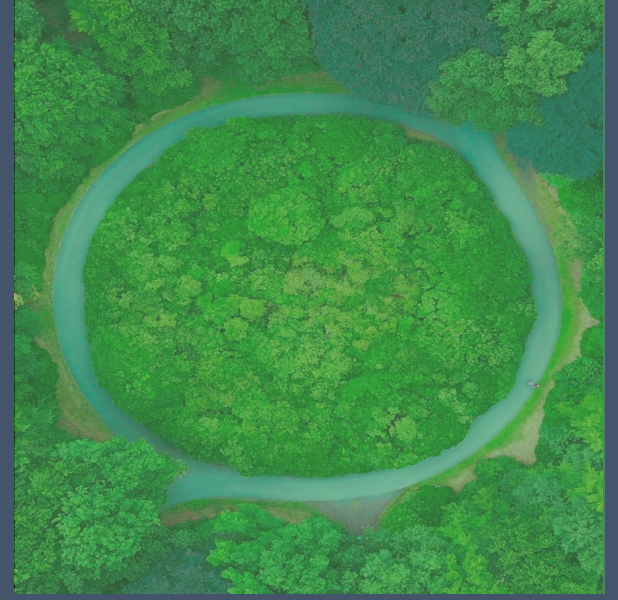
Sincerely,



Andrew DeLeeuw

Director of Strategic Planning, Office of the County Administrator
(734) 222-6824; deleeuwa@washtenaw.org,

Resilient Washtenaw



Welcome Reviewers!

This is a draft version of actions for Washtenaw County's Climate Action Plan. The purpose of these actions are to achieve carbon neutrality by 2030 for County operations, carbon neutrality by 2035 county-wide, and to prepare the county and its residents for the impacts of climate change through adaptation and resilience.

Action #	Strategy	Action Title
1.01	Implementation	Create a Regional Resilience Authority
1.02	Implementation	Carbon Pricing in Decision Making
1.03	Implementation	Create a County-Based Carbon Offset Program
2.01	Energy Transition	100% Renewable Energy Options for Everyone
2.02	Energy Transition	Create Countywide Energy Concierge
2.03	Energy Transition	Expand Bulk Purchase Programs
2.04	Energy Transition	Expand Weatherization Programs
2.05	Energy Transition	Update Building Codes
2.06	Energy Transition	Create Time of Sale Reporting of Energy Use and Costs
2.07	Energy Transition	100% Renewable Energy and Energy Efficiency Upgrades for All County Operations
2.08	Energy Transition	100% Electric and Renewable Buildings and Fleet Policy
2.09	Energy Transition	Electrify County Fleet
3.01	Housing	Infill Housing and Increased Density
3.02	Housing	Model Zoning
3.03	Housing	Emissions Accounting Mechanism
4.01	Mobility and Access	Electric Mobility Options Hub
4.02	Mobility and Access	Improve Transit County-wide
4.03	Mobility and Access	Build All Season County-wide Non-Motorized Transportation Network
4.04	Mobility and Access	Support Regional Transportation Options (RTA)
4.05	Mobility and Access	Reduce VMTs Caused by Road Expansion and Sprawl
4.06	Mobility and Access	Track and Report VMTs by Sector
4.07	Mobility and Access	Improve MPG and MPGE throughout Community-wide Fleet
4.08	Mobility and Access	Expand on Work from Home and Remote Service Access
4.09	Mobility and Access	Provide Financial Incentives to Employees to Walk, Bike, or Use Transit
4.10	Mobility and Access	Support More Efficient School Transportation
5.01	Health	Update the County's Hazard Mitigation Plan
5.02	Health	Create Resilience Hubs Network
5.03	Health	Reduce Heat Islands
5.04	Health	Expand and Maintain County Tree Canopy
5.05	Health	Expand County Education and Outreach Programs
5.06	Health	Create Opportunities for Local Food Production on County Properties
5.07	Health	Prepare Health System for Climate Emergencies
6.01	Preserve Working Lands and Natural Areas	Natural Area Preservation
6.02	Preserve Working Lands and Natural Areas	Farmland Preservation
7.01	Green Infrastructure	Provide Comment on Infrastructure Agency Planning Projects
7.02	Green Infrastructure	Prioritize Public Projects that Reduce Fossil Fuel Use and Prepare for More Extreme Weather
7.03	Green Infrastructure	Urbanized Area Storm Vulnerability Assessment and Prioritization
7.04	Green Infrastructure	County-wide Stormwater Basin Inspection and Retrofit
7.05	Green Infrastructure	Expand Rain Garden Program
7.06	Green Infrastructure	Update Stormwater Regulations
8.01	Circular Economy	Build an Equitable, Low-carbon, and Resilient Circular Economy
8.02	Circular Economy	Develop a County Wide Organics/Compost Program
8.03	Circular Economy	Support and Grow the Washtenaw Regional Resource Management Authority (WRRMA)
8.04	Circular Economy	Build a Multi-dimensional Public Education and Promotion Plan for the Circular Economy
8.05	Circular Economy	Diversify Funding for Circular Economy Work
8.06	Circular Economy	Policy Initiatives to Expand Circular Economy Scope and Infrastructure
8.07	Circular Economy	Incentivize Local Food Production

Glossary

AATA - Ann Arbor Transportation Authority

AD - Anaerobic Digestion

ARPA - American Rescue Plan Act of 2021

BoC - Board of Commissioners

CBO – Community Based Organization

CDBG - Community Development Block Grant

CVT - Cites, Villages, and Townships

DTE - Detroit Edison

EGLE - Michigan Department of Environment, Great Lakes and Energy

EPR - Extended Producer Responsibility

EV - Electrical Vehicle

FEMA - Federal Emergency Management Administration

GLISA - Great Lakes Integrated Sciences and Assessment

HRWC - Huron River Watershed Council

MDARD - Michigan Department of Agriculture and Rural Development

MDNR - Michigan Department of Natural Resources

MDOT - Michigan Department of Transportation

MEDC - Michigan Economic Development Council

MPG - Miles Per Gallon

MPGE - Miles per Gallon Equivalent

NAPP - Natural Area Preservation Program

NGO - Non-Government Organizations

P3 - Public-Private Partnerships

RAA - Recycle Ann Arbor

RRWC - River Raisin Watershed Council

RTA - Regional Transit Authority

SEMCOG - Southeast Michigan Council of Government

SPARK - Ann Arbor SPARK

TNC - The Nature Conservancy

USGBC - US Green Building Council

VMT - Vehicle Miles Traveled

WATS - Washtenaw Area Transportation Study

WCDPH - Washtenaw County Department of Public Health

WCDPW - Washtenaw County Department of Public Works

WCPRC - Washtenaw County Parks and Recreation

WCRC - Washtenaw County Road Commission

WISD - Washtenaw Intermediate School District

WRRMA - Washtenaw County Regional Resource Management Authority

WWTP - Waste Water Treatment Plant

Strategy

Priority: Low to High
Timeline: Short to Long

Impact: Low to High
Difficulty: Easy to Hard

Action Title

Action Description

What am I looking at? These are draft actions. Each action starts with a slide like this that identifies some key information about what the action is, why it's important, and who should be involved in planning, funding, and implementation. If there is a lot more to explain, a second slide is added to capture that information

Implementation/Lead Dept.

Who is leading from the County?

Community Partners

Who from the community should be involved?

Funding

Where could funding come from?

Staffing

Where will staff or contractors be and how many will we need?

Approval(s)

Which governing bodies will need to approve?

Goals and Evaluation Metrics:

- What goals should we have?
- What metrics should we use to evaluate achieving our goals?

Relevant Principles are Highlighted

ROI
Estimates
will be in
final
version



What is the Return on Investment?



When do we start? For how long?

GHG
Estimates
will be in
final
version



What level of GHGs can this reduce?



Does this apply to the County, Community or CVTs?



What mechanism is used to enable this?

RELEVANT PRINCIPLES



Racial Equity & Environmental Justice



Just Transition



Health



Resilient Economy



Community Partnership




Sustained Communications



1. Implementation

Putting Plans into Action

- 
1. Create a Regional Resilience Authority
 2. Carbon Pricing in Decision Making
 3. Prioritize Local Carbon Offsets

Create a Regional Resilience Authority

Washtenaw County will bring together common interests among the 28 units of local governments, nonprofits and key county employers to explore collaborative solutions that scale significant carbon reduction projects and leverage funds across partners to reduce implementation costs and staff burden.

Implementation/Lead Dept.
Board of Commissioners

Community Partners
Cities, Villages, and Townships

Funding
Membership Fees, Bonds

Staffing
New Staff Required (5-10)

Approval(s)
BoC, CVTs

Goals and Evaluation Metrics:

- Create Regional Resilience Authority by 2024



HIGH



2023



ENABLING -
HIGH



COUNTY &
CVTs



INTERLOCAL
AGREEMENT

IMPLEMENTATION

Create a Regional Resilience Authority

Using national climate partnerships and local service collaborations as a guide, the Regional Resilience Authority is tasked with the following:

- Promoting and encouraging institutional adoption of climate goals and plans
- Share tools and regional knowledge of best climate mitigation and adaptation practices including sample ordinances and operational standards
- Build broad regional public support for actions
- Coordinate actions and implementation
- Provide a mechanism for funding projects of common interest

DRAFT

Carbon Pricing in Decision Making

The transition to a low carbon economy includes significant trade-offs. Setting an internal price on carbon enables units of government to address the risks they face, ensure they choose a productive path for long-term, sustainable success. Using a carefully selected cost of carbon enables acceleration toward the transition to a zero-carbon, sustainable world.

Implementation/Lead Dept.
Board of Commissioners

Community Partners
Cities, Villages, and Townships

Funding
None Needed

Staffing
Finance

Approval(s)
BoC, CVTs

- Goals and Evaluation Metrics:**
- Set a Social Cost of Carbon that the County Utilizes for Decision Making for both Internal and Community Projects
 - CVTs Adopt the County’s Social Cost of Carbon in their Decision Making
 - Establish an Internal Carbon Tax so Projects Realize their Carbon Impacts and the Tax Funds an Internal Decarbonization Revolving Fund
 - CVTs Adopt the County’s Internal Carbon Tax and Create their Own Decarbonization Revolving Fund



HIGH



2023-2035



HIGH



COUNTY & CVTs



INTERNAL POLICIES

IMPLEMENTATION

Carbon Pricing in Decision Making

Social Cost of Carbon - The social cost of carbon is an estimate of the economic costs, or damages, of emitting one additional ton of carbon dioxide into the atmosphere, and thus the benefits of reducing emissions. This cost can be factored into cost-benefit analyses in decision making so both internal capital planning and approval of external development projects realize their full impact on the community. Cost of carbon factors could include public health impacts, species loss, property damage/loss, agricultural productivity loss, increased food prices, eco-system service damage, and social/international conflict.

Internal Carbon Tax - Washtenaw County will explore an internal carbon tax that clearly signals to staff the full cost of carbon and generate a pool of funds that will be used within and across departments to support the county carbon neutrality goals. The county will share this method with other interested CVTs. The tax can:

- De-risk Public Investments
- Provide Transparency to Citizens and Stakeholders
- Provide Common Metrics to Track and Measure Success
- Create Finance Mechanisms to Reduce Emissions

Prioritize Local Carbon Offsets

Even with all the impactful actions in the Resilient Washtenaw plan and other city and township climate plans, we will still need offsets to get to carbon neutrality. We will prioritize local carbon offsets to ensure we are investing in projects that create a carbon sink as close to our community’s emissions as possible. The Regional Resilience Authority can coordinate this local offset market and help residents, businesses, and local units of government offset their emissions in impactful local projects.

Implementation/Lead Dept.
Regional Resilience Authority

Community Partners
CVTs, Business, and Residents

Funding
Carbon Offset Purchases

Staffing
Regional Resilience Authority

Approval(s)
BoC

Goals and Evaluation Metrics:

- Establish Local Offset Program
- Identify targeted high vulnerability areas for tree plantings and solar installations
- Identify potential methane capture opportunities and track CCF of captured methane
- Number of trees planted and carbon sequestration value of these trees
- Biodiversity of ecosystems where additional tree planting and carbon farming is targeted
- Increase amount of privately owned natural areas and farmland that are permanently protected



LOW



2023-2035



HIGH



COMMUNITY,
COUNTY &
CVTs



VOLUNTARY

IMPLEMENTATION

Prioritize Local Carbon Offsets

This program would use payments from organizations within Washtenaw County who require carbon offsets to meet their own climate goals to fund investments elsewhere in the County to sequester and reduce carbon levels in the atmosphere. Program will require start-up funds from the county but will operate as an enterprise fund. The County could then develop financial incentives to help local businesses and institutions get projects off the ground.

Potential projects could include:

- Reforestation
- Carbon Farming/Soil Carbon Sequestration
- Local Food and Consumer Product Production
- Methane Capture
- Direct Air Capture
- Renewable Energy



2. ENERGY TRANSITION

Increase Renewable Energy,
Energy Efficiency, and
Electrification in all Buildings

- 
1. 100% Renewable Energy Options for Everyone
 2. County-wide Energy Concierge
 3. Community Bulk Buy for Solar and Building Electrification
 4. Expand Weatherization
 5. Update Building Codes
 6. Time of Sale and Lease Reporting of Energy Consumption
 7. 100% Renewable Energy and Energy Efficiency for County Operations
 8. 100% Electric and Renewable Buildings Policy
 9. Electrify the County Fleet

100% Renewable Energy Options for Everyone

To fully decarbonize the energy system, residents and businesses must have equitable access to 100% renewable energy options from the grid. There are multiple pathways to achieve this, but it will require a coordinated effort at all levels of government and with community support.

Implementation/Lead Dept.

Resilience Authority

Community Partners

Cities, Townships, Villages, Utilities, Businesses, Residents

Funding

TBD

Staffing

TBD

Approval(s)

BoC, CVTs, MPSC

Goals and Evaluation Metrics:

- 100% Renewable Energy Options Available to All Residents, Businesses, and Local Units of Government
- Renewable Energy Options Available at or Below Current Cost of Electricity
- Renewable Energy comes from Local Sources



HIGH



2030



HIGH



COUNTY,
COMMUNITY
& CVTs



INTERLOCAL
AGREEMENT

ENERGY TRANSITION

100% Renewable Energy Options for Everyone

There are multiple pathways to achieve 100% renewable energy options for everyone, including:

Community Choice Aggregation (CCA) – CCA requires legislation at the state level to enable communities to aggregate into Joint Power Authorities (JPAs). JPAs become the default purchaser of electricity supply for their community, allowing them to offer 100% renewable energy as an alternative to the grid mix of their utility.

Sustainable Energy Utilities (SEUs) – Municipalities can create SEUs to provide a hyper-local alternative to grid-supplied energy via distributed energy, district energy, and community microgrids. Currently, this is allowed by state law for only cities and villages.

Community Solar (CS) – CS allows residents and businesses to buy into a large solar project in their community and receive credits on their utility bill for the energy production. CS is allowed by state law, but at the discretion of the utilities. Legislation is required to enable communities to demand community solar

Utility Green Pricing Programs (GPPs) – Utilities currently offer GPPs, but they cost more per kWh. To achieve equitable access to clean energy, GPPs should be offered at the same price

County-wide Energy Concierge

Washtenaw County will partner to grow a county-wide energy concierge and public engagement program, using its extensive outreach and education programs to support all citizens, especially vulnerable residents, lower-income households, disadvantaged businesses, and local units of government in their energy transition.

Implementation/Lead Dept:
Board of Commissioners, Administration

Community Partners
CVTs, Contractors/Manufacturers

Funding
CDBG, Federal Programs, General Fund

Staffing
Resilience Authority

Approval
BoC, CVTs

- Goals and Evaluation Metrics:**
- Create interlocal agreement by December 2023
 - Develop outreach and marketing materials by December 2023
 - Develop database of service providers, contractors, and product types by December 2023



HIGH



2023-2035



ENABLING - HIGH



COUNTY, COMMUNITY & CITY OF ANN ARBOR



INTERLOCAL AGREEMENT

County-wide Energy Concierge

A concierge-style program creates a one-stop-shop for all community members and institutions, and tailors its services to needs of different groups, such as:

Local Units of Government – provide evaluation and expert consultation on ways to transition away from fossil fuels and access 100% clean and affordable energy

The General Public – inform residents and businesses of all available services, financing, and incentives to transition to 100% clean and affordable energy

Vulnerable and Resource-limited Residents – provide evaluation and connect residents most in need to all available programs to improve their housing, lower their energy burden, access clean and affordable energy, and understand opportunities to work in the clean energy industry

Disadvantaged Business Enterprises (DBEs) – provide evaluation and connect disadvantaged businesses to all available programs to lower their energy burden and access clean and affordable energy. For DBEs in the trades, help connect them to programs and opportunities in the clean energy economy

Community Bulk Buy for Solar and Building Electrification

Expand on successful Solarize program to create bulk buy programs to bring solar installation, heat pumps, geothermal systems, and electric appliances to residents and businesses across the county. Target multi-family properties in addition to single- and two-family homes and businesses.

Implementation/Lead Dept.

Resilience Authority

Community Partners

Michigan Saves, MEECA, Michigan Minority Contractors Association, and Washtenaw Contractors Association

Funding

Federal Funds, General Fund, CVTs

Staffing

Resilience Authority

Approval(s)

BoC, CVTs

Goals and Evaluation Metrics:

- Sign Interlocal Agreement by December 2023
- Conduct at least One Group-Buy per Commission District Annually
- Conduct at least One Group-Buy in Low to Moderate Income Neighborhoods Annually along with Subsidy
- Expand Network of Approved Contractors and Vendors to Include more Disadvantaged Business Enterprises



HIGH



2023-2035



HIGH



COUNTY,
COMMUNITY
& CVTs



INTERLOCAL
AGREEMENT

Expand Weatherization Program

Washtenaw County will greatly expand the current weatherization program to 1,000 homes per year and raise the income limit for eligibility to 300% of the federal poverty level. This program is designed to meet the needs of both low-income homeowners and renters and to support the County goal of reducing the energy burden among the housed with the most need. The program should also strive to grow the number of local MWBE Contractors delivering weatherization services.

Implementation/Lead Dept.
OCED

Community Partners
CVTs, Faith-based Organizations, Service Providers, Habitat for Humanity, OSI

Funding
Michigan Energy Office, Federal Funds (ARPA, IIJA, IRA, LIHEAP, WAP), General Funds, CVTs, Bonds

Staffing
OCED, Local Contractors, Local MWBE Contractors

Approval(s)
BoC, OCED

- Goals and Evaluation Metrics:**
- Weatherize 1,000 Households per Year, on Average
 - 12,000 Households Weatherized by 2035
 - Raise Income Threshold to 300% of Federal Poverty Level
 - Include Rental Properties and Multifamily Buildings
 - Increase Participation by MWBE Contractors



HIGH



2023-2035



HIGH



COUNTY,
COMMUNITY
& CVTs



NONE

Update Energy Building Codes

A history of weak state energy building codes have placed a long-term energy burden on building owners and renters. Washtenaw County will work to support strong building codes that build in efficiency and renewable energy and reduce operation and maintenance costs for owners and tenants. Work with Lobbyists, trade groups, and local governments to pass the 2021 State Building Code and Zero Code Appendix to require all new construction to be more energy efficient and aspire to a net zero carbon impact.

Implementation/Lead Dept.
Building Dept; Administration

Community Partners
CVTs, MEIBC, Sierra Club, RMI, MEC

Funding
DOE, General Funds, CVTs, Bonds

Staffing
Lobbyists, 501(c)4 Associations

Approval(s)
BoC

Goals and Evaluation Metrics:

- State Adopts 2021 IECC Building Code and Zero Code Appendix
- CVTs adopt 2021 IECC Building Code and Zero Code Appendix
- Develop Training and Enforcement Programs to Ensure Compliance



HIGH



2023



HIGH



COUNTY &
CVTs



INTERLOCAL
AGREEMENT

Energy Consumption Reporting at Time of Sale and Lease

Washtenaw County will continue its legacy of waste prevention and right-to-know leadership through a time of sale energy reporting program for businesses. The county will also explore a rental housing energy disclosure program so renters know the full cost of housing and energy. The County will also explore a time of sale electrification prescription program so new home buyers know the costs and benefits of low carbon investments.

Implementation/Lead Dept.

Board of Commissioners

Community Partners

CVTs; REALTORS

Funding

General Fund

Staffing

Building Department

Approval(s)

BoC

Goals and Evaluation Metrics:

- All Home in the County Receive an Energy Audit as Part of the Sales Process
- More New Home Buyers Utilize Green Mortgages to Retrofit their Homes when they Buy them
- Rental Licenses with CVTs Require an Energy Disclosure to Tenants before Signing a Lease
- REALTORS list features on High-Performance Homes on the Multiple Listing Services in the County



MODERATE



2023



ENABLING-MODERATE



COUNTY & CVTs



INTERLOCAL AGREEMENT

100% Renewable Energy and Energy Efficiency Upgrades for County Operations

Building on the history of county efficiency investments and facilities staff leadership, Washtenaw County will build efficiency and renewable energy investments into capital budgets and other facility planning with a goal of 100% of county energy use from renewable sources by 2030. Washtenaw County will develop sufficient staffing to support new state and federal funding opportunities that leverage county funds.

Implementation/Lead Dept.
Facilities

Community Partners
DTE; CVTs

Funding
Federal Sources, State Energy Office, Capital Providers

Staffing
Facilities and Consultants

Approval(s)
BoC

Goals and Evaluation Metrics:

- Maximize Energy Efficiency Investments
- Switch from Fossil Fuels to Electric for all equipment and vehicles by 2030
- Maximize Onsite Solar Development on County Properties
- Procure 100% Renewable Energy for all Electric Needs by 2030
- Evaluate space needs for County Operations and Right-size the building portfolio to reduce total square feet of energy-using office space



HIGH



2023



HIGH



COUNTY



INTERNAL
POLICY

100% Electric and Renewable Buildings and Fleet Policy

Washtenaw County will support the County Operation Carbon Neutrality goal by electrifying new and existing buildings. Indoor air quality will improve for employees and residents visiting county buildings that no longer use combustion.

Implementation/Lead Dept.
Board of Commissioners, Administration, Facilities

Community Partners
Electric Utilities; EV Dealerships

Funding
Bonds, General Funds, Federal Funds

Staffing
Facilities, Purchasing

Approval(s)
BoC

- Goals and Evaluation Metrics:**
- 100% of All New Construction is All-Electric, Renewable Energy-Ready, Energy Storage-Ready, and EV-Ready starting with projects planned in 2023
 - Convert All Existing Buildings to All-Electric, Renewable Energy-Ready, Energy Storage-Ready, and EV-Ready by 2030
 - Negotiate Labor Contract Changes to Create Positions for Servicing Electric Equipment by 2026



HIGH



2023



HIGH



COUNTY



INTERNAL
POLICY

Electrify the County Fleet

Washtenaw County will recognize the co-benefits of fleet electrification including resilience, emission and particulate reductions, maintenance savings, and operator comfort. The county will build fleet electrification into the county budget, capital planning, and asset management programs. Facilities staff will identify county locations with grid and panel capacity for new charging and where panel upgrades may be necessary. Co-locating new EV charging with new renewable energy installations will be a priority.

Implementation/Lead Dept.
Board of Commissioners, Facilities, Fleet Managers

Community Partners
Auto Manufacturers and Dealers; Electricians

Funding
General Fund, Federal Funds

Staffing
Existing

Approval(s)
BoC

- Goals and Evaluation Metrics:
- Electrify All County Light-duty Vehicles by 2030
 - Track and Explore Opportunities to Cost-Effectively Replace Heavy-Duty Electric Vehicles by 2035
 - Install EV Charging Stations at All County Facilities and Fleet Storage Areas by 2027
 - Negotiate Labor Contract Changes to Create Positions for Servicing Electric Vehicles by 2026



MODERATE



2023-2035



HIGH



COUNTY




INTERNAL POLICY



3. Housing

Equitable Decarbonization and
Preservation of Affordability

- 
1. Infill Housing and Increased Density
 2. Model Zoning
 3. Create Emissions Accounting Mechanism

Infill Housing and Increased Density

The County’s best opportunity for significant emission reductions is to create new infill housing that is closer to job centers and along transit lines. Partner with local governments to incentivize infill housing and increase density along major transit and active transportation corridors. Work with local government and housing agencies to increase the number of housing units, particularly affordable housing units along principal active transportation and transit routes.

Implementation/Lead Dept.

Resilience Authority

Community Partners

CVTs, School Districts, Housing Agencies

Funding

General Fund

Staffing

Resilience Authority

Approval(s)

BoC

Goals and Evaluation Metrics:

- Net Increase in New Net Zero Housing Units in Population Centers and Along Transit Lines
- Net Increase in New Affordable Housing Units
- Housing Units per Square Mile Increased through Density
- Percent of Construction for New Housing Done by MWBE Contractors



MODERATE



2023-2035



HIGH



COUNTY &
CVTs



INTERLOCAL
AGREEMENT

Housing

Priority: High
Timeline: Short Term

Impact: High
Difficulty: Easy

Model Zoning

Create climate mitigation and adaption related model zoning ordinance language to share with local governments. The model ordinances will be best practices for renewable electricity and renewable siting, infill housing, transit-oriented development, urban service areas, natural area and farmland preservation, open space and landscaping, green infrastructure, parking, and building materials.

Implementation/Lead Dept.

Resilience Authority

Community Partners

CVTs, Consultants

Funding

Resilience Authority

Staffing

Resilience Authority; Consultants

Approval(s)

CVTs

Goals and Evaluation Metrics:

- Database of Model Ordinance Language
- Number of CVTs Adopting Model Zoning Language



HIGH



2023-2035



ENABLING - HIGH



COUNTY & CVTs



CVT Zoning

Emissions Accounting Mechanism

Ensure that any housing which must be built outside of existing service boundaries (water, sewer, transit) report and account for emissions from construction of buildings and associated infrastructure, loss of natural area, and transportation needs of future occupants.

Implementation/Lead Dept.

Resilience Authority

Community Partners

CVTs

Funding

Resilience Authority

Staffing

Resilience Authority; Consultants

Approval(s)

CVTs

Goals and Evaluation Metrics:

- Emissions Formula for New Development Created
- Formula Integrated into Approval Process for New Housing Developments



MODERATE



2023



MODERATE




COUNTY &
CVTs



ADVISORY

4. MOBILITY AND ACCESS

Reduce emissions from transportation and support mobility modes that eliminate fossil fuel use and reduce total VMTs by 50%

- 
1. Electric Mobility Options Hub
 2. Improve Transit County-wide
 3. Build All-Season County-wide Non-Motorized Transportation Network
 4. Support Regional Transportation Options (RTA)
 5. Reduce VMTs by Sector
 6. Track and Report VMTs by Sector
 7. Improve MPG and MPGE throughout Community-wide Fleet
 8. Expand on Work from Home and Remote Services Access
 9. Provide Financial Incentives to Employees to Mode Shift
 10. Support More Efficient School Transportation

Electric Mobility Options Hub

Provide incentives, education, and guidance to help the community move to electric mobility options for commuting, commercial fleets, and off-road purposes (e.g., farming, construction, recreation). Assist all owners of electric mobility options to utilize onsite and/or public renewable energy powered charging.

Implementation/Lead Dept.
Resilience Authority

Community Partners
Dealerships, Fleet Owners, CVTs

Funding
Federal Grants, State Grants, Local Philanthropy,

Staffing
Resilience Authority

Approval(s)
Board of Commissioners

Goals and Evaluation Metrics:

- Share of vehicle miles travelled with electric mobility options
- Share of electric use by electric mobility options that is powered by onsite renewable electricity



MODERATE



2023-2035



HIGH



COUNTY,
COMMUNITY
& CVTs



INTERLOCAL
AGREEMENT

Improve Transit County-wide

Explore opportunities to partner with The Ride (AAATA), Regional Transit Authority (RTA), AMTRAK, and Cities, Villages, and Townships (CVTs) to provide more frequent and consistent transit service on principal commuting corridors between population centers. The County can facilitate on-going analyses and discussion of routes, frequency and types of transportation options offered in Washtenaw County while prioritizing connection to low opportunity index and vulnerable neighborhoods with employment, commerce, education and health care.

Implementation/Lead Dept.
AAATA

Community Partners
CVTs, RTA, AMTRAK

Funding
Federal Grants, State Grants, Local Philanthropy, Transit Millage

Staffing
Community Partners

Approval(s)
Board of Commissioners

Goals and Evaluation Metrics:

- More Frequent and Expanded Bus Service Hours and Routes
- Increased Service between Cities and Villages and Regional Transit Centers in Ann Arbor and Ypsilanti



LOW



2030



HIGH



COUNTY,
COMMUNITY
& CVTs



INTERLOCAL
AGREEMENT

Complete All Season County-wide Active Transportation Network

Washtenaw County recognizes the goal of reducing Vehicle Miles Traveled using a variety of infrastructure investments and incentives. The county will explore opportunities to create connected paths and to support the use of recreation paths as commuting corridors between population centers. The County should continue to cost-share and work with CVTs to complete the Border-to-Border Trail and identify routes for new on- and off-road facilities that connect neighborhoods to the Border-to-Border Trail.

Implementation/Lead Dept.
WCPRC, WCRC

Community Partners
The Ride, CVTs, MDOT, MDNR

Funding
Multiple Sources – federal, state and local; private foundations

Staffing
WCPRC

Approval(s)
Board of Commissioners, WCPRC, WCRC

Goals and Evaluation Metrics:

- Number of linear miles added to the Border-to-Border Trail
- Number and location of local active transportation projects connecting to the Border-to-Border Trail network
- Number of linear miles of marked and/or protected bicycle lanes
- Incentivize developers to include non-motorized features in new housing stock
- Set goals for MWBE Contractors on Projects



LOW



2023



MODERATE



COUNTY,
COMMUNITY
& CVTs



INTERLOCAL
AGREEMENT

Support Regional Transportation Options

Continue to support the Regional Transit Authority’s work to create a public transit system that connects all of Washtenaw, Wayne and Oakland Counties. This includes on-going support for funding and prioritizing connections that provide frequent and consistent service to Washtenaw County residents.

Implementation/Lead Dept.
Board of Commissioners

Community Partners
The Ride (AAATA), RTA

Funding
RTA Millage

Staffing
RTA

Approval(s)
BoC

Goals and Evaluation Metrics:

- Expansion of RTA-connected services to connect to all portions of Washtenaw County
- Increased access to job centers and destinations for high vulnerability neighborhoods.



LOW



2023-2035



MODERATE



COUNTY &
CVTs



BOARD
RESOLUTION

Reduce Vehicle Miles Traveled Caused by Road Expansion and Suburban Sprawl

Track and report the number of VMTs that are produced by road expansions and suburban sprawl. Calculate the emissions and consider a carbon price be assigned to all road expansion projects.

Implementation/Lead Dept.

Administration, WCRC

Community Partners

Washtenaw Area Transportation Study (WATS)

Funding

WATS, WCRC, SEMCOG

Staffing

WATS, WCRC

Approval(s)

Board of Commissioners

Goals and Evaluation Metrics:

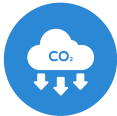
- Establish a database for VMTs and changes due to road expansions (and/or lane reductions)
- Use VMT calculations to consider carbon price as a part of all road projects
- Implement county-wide “anti-idling” policy



MODERATE



2024



MODERATE



COUNTY &
CVTs



INTERNAL
POLICY

Track and Report VMTs and Emissions by Sector

Track and report the number of VMTs by sector to better calculate the emissions and develop strategy to reduce residential, commercial, industrial, and agricultural emissions.

Implementation/Lead Dept.
Administration

Community Partners
Washtenaw Area Transportation Study (WATS)

Funding
WATS, SEMCOG, Federal Government

Staffing
WATS, SEMCOG

Approval(s)
Board of Commissioners

- Goals and Evaluation Metrics:**
- Establish a database for VMTs
 - Provide annual VMT reports on public dashboard



LOW



2023-2035



ENABLING-
MODERATE



WATS, WCRC,
RESILIENCE
AUTHORITY



INTERNAL
POLICY

Improve MPG and MPGE Throughout Community-wide Fleet

Track and improve the MPG and MPGE (miles per gallon equivalent) community-wide fleet (public and private fleets).

Implementation/Lead Dept.
Resilience Authority

Community Partners
Washtenaw Area Transportation Study (WATS)

Funding
WATS, SEMCOG, Federal and State Government

Staffing
WATS, SEMCOG, Resilience Authority

Approval(s)
Board of Commissioners

Goals and Evaluation Metrics:

- Establish a baseline average for total fleet MPG and MPGE by 2024



N/A



2024-2035



ENABLING-MODERATE



WATS & SEMCOG



INTERNAL POLICY

Expand on Work from Home and Remote Service Access

Expand and refine work from home options for staff and provide remote service centers and service delivery options to access county services

Implementation/Lead Dept.

Administration

Community Partners

CVTs

Funding

General Fund

Staffing

Department Heads

Approval(s)

Board of Commissioners

Goals and Evaluation Metrics:

- Revise certain job descriptions to include work from home options
- Increase locations for remote service centers that provide access to all county services (permitting, licenses, District Court)
- Incentivize use of mass transit and non-motorized community approaches for staff



MODERATE



2025



MODERATE



COUNTY



INTERNAL
POLICY

Provide Financial Incentives to Employees to Walk, Bike or Use Transit

Create benefits to promote biking, walking, and transit use for staff.
Negotiate an end to subsidized parking for staff.

Implementation/Lead Dept.

Administration

Community Partners

County Bargaining Units

Funding

General Fund

Staffing

Labor Relations

Approval(s)

Board of Commissioners

Goals and Evaluation Metrics:

- Number of transit passes, bike/ebike credits provided
- Number of employees commuting by bicycle, transit, or by walking



MODERATE



2024



MODERATE



COUNTY



INTERNAL
POLICY

Support Efficient School Transportation

In recent years, school districts across the county have cut back bussing options for students which has resulted in an exponential increase in the number of individual families driving students to schools – even neighborhood schools. The County should provide support to Washtenaw Intermediate School District (WISD) and the nine individual school districts to expand bussing options and discourage driving.

Implementation/Lead Dept.
Administration

Community Partners
WISD, School Districts, AAATA

Funding
General Fund

Staffing
WISD

Approval(s)
Board of Commissioners

Goals and Evaluation Metrics:

- Increase bussing options in every school district
- Track bus ridership vs. individual car transportation by school and district
- Provide Annual Emissions Impact Report



LOW



2030



MODERATE




COUNTY &
CVTs



BOARD
RESOLUTION



5. HEALTH

- 
1. Update County Hazard Mitigation Plan
 2. Create Resilience Hubs Countywide
 3. Reduce Heat Island Effect
 4. Expand And Maintain County Tree Canopy.
 5. Expand County Education/Outreach Programs
 6. Create Opportunities For Local Food Production On County Properties
 7. Prepare Health System For Climate Emergencies

Update the County’s Hazard Mitigation Plan

The County should update the Hazard Mitigation Plan to better address equity and climate-related emergencies. This includes preparing the health system for disease migration, preparing reactions to climate-caused emergencies (extreme heat/cold, flooding, storms, power outages), and identifying threats to drinking water and air quality.

Implementation/Lead Dept.
Emergency Management

Community Partners
CVTs, GLISA

Funding
General Fund

Staffing
Emergency Management

Approval(s)
Board of Commissioners

Goals and Evaluation Metrics:

- Reduce population that is vulnerable to high heat, flooding, and high energy costs
- Develop action plan to react to climate-caused emergencies (floods, storms, drought, wildfire, extreme temperatures)



N/A



2024



RESILIENCE/
ADAPTATION



COUNTY



PLAN

Create Resilience Hubs County-wide

Resilience hubs are multi-purpose community-serving facilities designed to support residents, distribute resources (food, information, heating, cooling), reduce carbon emissions, and to help coordinate emergency response. Resilience hubs can be staged in community centers, recreation centers, government buildings, or other trusted community spaces. These hubs provide access to electricity, heating and cooling; food, water, tools, and sometimes shelter; communications; logistical support for community partners; and access to basic health and medical supplies.

Implementation/Lead Dept.

Emergency Management

Community Partners

CVTs, Faith-based Organizations, Community-based Organizations, School Districts, Public-Private Partnerships

Funding

General Fund, Federal and State Funds

Staffing

Emergency Management, Consultant

Approval(s)

Board of Commissioners

Goals and Evaluation Metrics:

- Connect Emergency Management to Network of CBOs and CVTs with Resilience Hubs Sites, to Plan Service Mix, and Hold Community Meetings to Get Feedback
- Evaluate Potential Sites for Energy Efficiency, Renewable Energy, Backup Storage, and Internet and Communications Access
- Expand Network of Resilience Hubs in Vulnerable Communities to be within 2 Miles of all households in Urbanized Areas and within 5 Miles of Rural Areas
- Increase Overall Number and Location of Resilience Hubs



LOW



2023-2025



RESILIENCE/
ADAPTATION



COUNTY,
COMMUNITY
& CVTs



INTERLOCAL
AGREEMENT

Reduce Heat Island Effect

Heat islands are created in urban areas where buildings, roads and impervious surfaces absorb and re-emit solar heat. Reducing the impact of this effect requires better urban planning to incorporate tree canopy, green space, and water. Building material and color considerations also play a huge role in reducing the heat island effect. Effort should concentrate on high vulnerability neighborhoods

Implementation/Lead Dept.

Resilience Authority

Community Partners

WCWRC, CVTs, Faith-based Organizations, School Districts, CBOs

Funding

Foundations, Federal and State Grants

Staffing

Resilience Authority

Approval(s)

Board of Commissioners

Goals and Evaluation Metrics:

- Create inventory of trees/tree canopies in areas with a high vulnerability index
- Increase in the amount of tree canopy in vulnerable areas and overall
- Monitor Day and Nighttime Temperatures in Vulnerable Communities to Identify Hot Spots
- Reduction in temperature differentiation between urban and outlying portions of the county
- Development of best practice building and urban design ordinances



LOW



2023-2035



RESILIENCE/
ADAPTATION



COUNTY,
COMMUNITY
& CVTs



PLANNING

Increase Tree Canopy County-wide

Tree canopy is an essential tool to reduce vulnerability to extreme heat. Studies show that vulnerable populations typically have substantially less tree canopy in their neighborhoods, create more extreme heat conditions and exacerbating the heat island effect. Significant tree planting is needed on both public and private property. The benefits of tree plantings are typically realized 10-20 years after planting.

Implementation/Lead Dept.

Resilience Authority

Community Partners

CVTs, Faith-based Organizations, School Districts, CBOs

Funding

General Fund, Foundations, Federal and State Grants

Staffing

Resilience Authority

Approval(s)

Board of Commissioners

Goals and Evaluation Metrics:

- Identify, locally appropriate species that will thrive and grow quickly
- Create inventory or trees/tree canopies in areas with a high vulnerability index
- Increase in the amount of tree canopy county-wide, focusing on vulnerable communities
- Work with CVTs to develop tree planting initiatives in public right of way and provide revised building material, landscape, tree preservation and impervious surface ordinances.



LOW



2023-2035



RESILIENCE/
ADAPTATION



COUNTY,
COMMUNITY
& CVTs



NONE

Expand Education and Outreach Programs

Create partnerships between the County and community groups. Provide County staff support to community groups to develop, collect and maintain an on-going database of crowd-sourced environmental monitoring data (including but not limited to air and water quality, flooding, temperature, precipitation, and water levels) which is reported to the County and provided on a public dashboard.

Implementation/Lead Dept.
WCDPH

Community Partners
CVTs, Faith-based Organizations, School Districts, CBOs

Funding
General Fund, Foundations, Federal and State Grants

Staffing
WCDPH

Approval(s)
Board of Commissioners

Goals and Evaluation Metrics:

- Number and locations of monitoring activities for air quality, heat, water quality, and flooding
- Direct Staff Support for Monitoring in Vulnerable Areas, and Volunteer-led Efforts Across the County
- Creation of data monitoring and reporting application and/or web-based dashboard



LOW



2023-2035



RESILIENCE/
ADAPTATION



COUNTY,
COMMUNITY
& CVTs



NONE

Create Opportunities for Local Food Production on County Properties.

There is limited space available, even for raised beds, on most County sites and that land should be prioritized for renewable energy generation. The greatest opportunity is on WCPRC land currently leased for row crop production.

Implementation/Lead Dept.
WCPRC, WCDPH

Community Partners
CVTs, Faith-based Organizations, School Districts, CBOs, Growing Hope, MSU SAFR, Agricultural Extension

Funding
General Fund, Foundations, USDA, EPA

Staffing
Resilience Authority

Approval(s)
Board of Commissioners

- Goals and Evaluation Metrics:**
- Inventory and assess food production potential of all county-owned land
 - Encourage "Buy Local" initiatives to support local food producers
 - Grow access to county-owned food plots
 - Update public health and zoning ordinances to enable more home production and sale of food
 - Strengthen link between farmers and food pantries to expand availability of food



LOW



2026-2035



RESILIENCE/
ADAPTATION



COUNTY,
COMMUNITY
& CVTs



LAND LEASE

Prepare Health System For Climate Emergencies

Prepare the public health system so that food, water, medical care, and supplies can be distributed to vulnerable populations during any climate related emergency.

Implementation/Lead Dept.
WCDPH

Community Partners
CVTs, Faith-based Organizations, School Districts, CBOs, Growing Hope

Funding
General Fund, Foundations

Staffing
WCDPH

Approval(s)
Board of Commissioners

Goals and Evaluation Metrics:

- WCDPH Staff work with Emergency Manager oversee update of County Hazard Mitigation Plan.
- Implement Resilience Hub development and deployment.
- Identify and publicize disease/infection migration and other public health threats



LOW



2023-2035



RESILIENCE/
ADAPTATION




COUNTY &
CVTs



NONE

An aerial photograph of a combine harvester working in a field, with a teal overlay. The harvester is moving from left to right, leaving a trail of harvested grain behind it. The text "6. PRESERVE WORKING LANDS AND NATURAL AREAS" is overlaid in white, bold, sans-serif font on the left side of the image.

6. PRESERVE WORKING LANDS AND NATURAL AREAS

- 
1. Natural Area Preservation
 2. Farmland Preservation

PRESERVE WORKING LANDS AND NATURAL AREAS

Priority: Low
Timeline: Long Term

Impact: Moderate
Difficulty: Hard

Natural Area Preservation

Preserve sensitive and ecologically significant natural areas including wetlands and water bodies, riparian corridors, floodplains, native forests and forest fragments, sensitive ecosystems, key aquifer recharge areas. Partner with CVTs and NGOs to acquire land and conservation easements.

Implementation/Lead Dept.
NAPP/WCPRC

Community Partners
CVTs, Legacy Land Trust, Raisin Valley Land Trust, SE Michigan Land Conservancy, TNC, Huron River Watershed Council, River Raisin Watershed Council

Funding
NAPP

Staffing
NAPP/WCPRC

Approval(s)
WCPRC

- Goals and Evaluation Metrics:**
- Increase total acreage of natural areas protected
 - Continue natural area acquisition through the County's Natural Areas Preservation Program (NAPP).
 - Pursue FEMA funding to buy out homes and structures and permanently conserve land within the 100-year floodplain.
 - Work with landowners to incorporate best conservation practices
 - Encourage landowners to participate in the USDA Conservation Reserve program



LOW



2023-2035



RESILIENCE/
ADAPTATION



COUNTY,
COMMUNITY
& CVTs



ORDINANCE

PRESERVE WORKING LANDS AND NATURAL AREAS

Priority: Low

Timeline: Long Term

Impact: Moderate

Difficulty: Hard

Farmland Preservation

Preserve high-quality farmland for active agricultural production with an emphasis on local food production and distribution. Work with the state to authorize a county-wide purchase/transfer of development rights program within Washtenaw County

Implementation/Lead Dept.
TBD

Community Partners
Greenbelt Program, CVTs, Land Trusts, MDARD, Washtenaw Farm Council, MSU Extension, Land Conservancies

Funding
USDA

Staffing
TBD


Approval(s)
WCPRC

Goals and Evaluation Metrics:


- Quantity/Inventory of active working agricultural lands
- Increase number of protected acres in active agriculture
- Create "Buy-Local" connecting farmers to local markets and food distribution networks
- Increase participation in the State Farmland and Open Space Preservation Program



LOW




2023-2035



RESILIENCE/
ADAPTATION




COUNTY,
COMMUNITY
& CVTs



ORDINANCE



7. GREEN INFRASTRUCTURE

- 
1. Provide Comment on Infrastructure Agency Planning Projects
 2. Prioritize Public Projects That Reduce Fossil Fuel Use and Prepare For More Extreme Weather
 3. Urbanized Area Storm Vulnerability Risk Assessment And Prioritization
 4. Countywide Stormwater Basin Inspection And Retrofit
 5. Expand Rain Garden Program
 6. Develop New Stormwater Regulations

Provide Comment on Infrastructure Agency Planning Projects

Provide official comment on all infrastructure agency (WCRC, MDOT, WATS, SEMCOG) projects. Incorporate Climate Change Scenarios in All Infrastructure and Building Projects. Incorporate Emissions From Building Materials and Induced Demand In Project Models

Implementation/Lead Dept.

Administration

Community Partners

CVTs, CBOs

Funding

WCWRC

Staffing

WCWRC

Approval(s)

WCWRC

Goals and Evaluation Metrics:

- Pass Board Resolution to provide official comment on all infrastructure agency projects
- Develop evaluation model to identify emissions impacts of projects and building materials
- Hire and designate staff (or contract with the Resilience Authority) to provide analysis of all infrastructure proposals
- Incorporate climate change scenarios (increased precipitation, extreme temperatures, population) into review of and planning for all infrastructure projects



MODERATE



2023-2035



ENABLING - MODERATE



COUNTY & CVTs



POLICY

Prioritize Public Projects that Reduce Fossil Fuel Use and Prepare for More Extreme Weather

Capital improvement planning should prioritize capital projects that both reduce fossil fuel use and help to prepare the county for more extreme weather events.

Implementation/Lead Dept.

Finance

Community Partners

Resiliency Authority

Funding

General Fund

Staffing

Finance

Approval(s)

Finance

Goals and Evaluation Metrics:

- Incorporate fossil fuel use, projected emissions, emissions of building materials, into capital project scoring
- Develop a baseline that capital projects be designed to withstand weather impact of climate change (precipitation, temperature, storms)



MODERATE



2023-2035



MODERATE



COUNTY



INTERNAL
POLICY

Urbanized Area Storm Vulnerability Risk Assessment And Prioritization

Outside of Ann Arbor, it is unclear who is most vulnerable to storms exceeding the capacity of systems designed decades ago or what mitigation measures are most appropriate. While some of the most vulnerable areas and some improvements are clear, a majority are still likely unknown.

Implementation/Lead Dept.

WCWRC

Community Partners

CVTs, CBOs

Funding

WCWRC

Staffing

WCWRC

Approval(s)

WCWRC

Goals and Evaluation Metrics:

- Develop County-wide Storm Vulnerability Risk Assessment and map
- Prioritize flood mitigation projects in vulnerable areas



MODERATE



2024



RESILIENCE/
ADAPTATION



WCWRC



PLAN

Countywide Stormwater Basin Inspection And Retrofit

The most cost-effective storm resilience program would be accomplished by upgrading existing stormwater basins. There over 1,500 stormwater basins associated with developments countywide. Many do not function as intended and a majority may be private.

Implementation/Lead Dept.
WCWRC

Community Partners
CVTs, CBOs, Private Developments

Funding
WCWRC

Staffing
WCWRC

Approval(s)
WCWRC

Goals and Evaluation Metrics:

- Prepare Countywide Assessment and Study
- Develop an implementation plan, prioritizing the most vulnerable communities
- Pursue incentive/match funding to implement improvements to private basis
- Implement Recommendations of Study



MODERATE



2023-2035



RESILIENCE/
ADAPTATION



WCWRC



INTERLOCAL
AGREEMENT

Expand Rain Garden Program

Expand the County rain garden program to focus on improvements in low-opportunity and high-vulnerability neighborhoods/areas.

Implementation/Lead Dept.
WCWRC

Community Partners
CVTs, CBO

Funding
WCWRC

Staffing
WCWRC

Approval(s)
WCWRC

Goals and Evaluation Metrics:

- Increase rain garden stormwater storage capability county-wide



MODERATE



2023-2035



RESILIENCE/
ADAPTATION



WCWRC



NONE

Update Stormwater Regulations

Develop new stormwater regulations (for new development), based on a 500-year flood with a buffer that assumes more precipitation and more extreme storms. Explore more stringent stormwater upgrade requirements for existing development renovations. All county projects and infrastructure agency projects (WCRC, MDOT) should meet or exceed county stormwater requirements.

Implementation/Lead Dept.
WCWRC

Community Partners
CVTs

Funding
WCWRC

Staffing
WCWRC

Approval(s)
WCWRC

Goals and Evaluation Metrics:

- Revised Stormwater Regulations



LOW



2026




RESILIENCE/
ADAPTATION



COUNTY &
CVTs



ORDINANCE

An aerial photograph of a lush green forest island in the center of a winding river. The river flows in a circular pattern around the island, creating a natural moat. The surrounding forest is dense and green. The title '8. CIRCULAR ECONOMY' is overlaid in large white letters on the left side of the image.

8. CIRCULAR ECONOMY

1. Build an Equitable, Low-carbon, and Resilient Circular Economy
2. Develop a County Wide Organics/Compost Program
3. Support and Grow the Washtenaw Regional Resource Management Authority (WRRMA)
4. Build a Multi-dimensional Public Education and Promotion Plan for the Circular Economy
5. Diversify Funding for Circular Economy Work
6. Policy Initiatives to Expand Circular Economy Scope and Infrastructure
7. Incentivize Local Food Production

*A circular economy is one that designs out waste, keeps materials in use, and which regenerates natural systems (Ellen MacArthur Foundation)

Build an Equitable, Low-carbon, and Resilient Circular Economy

Manage material streams for their highest and best use to build an equitable, low-carbon, and resilient circular economy.

Implementation/Lead Dept.

DPW

Community Partners

Recycle Ann Arbor, Western Washtenaw Recycling Authority,

Funding

Tipfees, commodity sales revenue, and bonding capital

Staffing

Privatized

Approval

DPW/Water Resource Commissioner, County Board of Commissioners, Local Units

Goals and Evaluation Metrics:

- Set and achieve a goal of 45% diversion of waste by 2030 and 60% by 2050
- \$36.0M Circular economy investment
- 5,000 new jobs
- \$324M annually in additional labor income



HIGH



2023 - 2050



ENABLING
HIGH



COMMUNITY,
COUNTY,
CVTS



INTERLOCAL
AGREEMENT,
CONTRACTS

Build an Equitable, Low-carbon, and Resilient Circular Economy

Using an accelerator approach to leverage private and public investment, raising the overall recycling rate from the current rate of 25% to 45% and then to 60%, enables the best ideas of both the private and public sectors to coalesce in a fashion that enables big changes in our overall recycling rates.

A blend of single stream curbside collection, commercial collection, and rural extended drop-off creates a comprehensive county-wide collection infrastructure to support higher overall recovery.

Support in the form of infrastructure investment and organizational structures (e.g. recycling and waste authority) at the county level will enable services to be fairly distributed across the county from traditionally underserved urban multi-family housing-based communities to affluent urban/suburban to rural and lower density farming communities.

Develop a County Wide Organics/Compost Program

Recovery of organic material through digestion (aerobic or anaerobic) produces soil amendments and conditioners that divert methane producing materials from organics and sequester carbon in the soil after use. This “double-win” makes composting a critical component of a circular economy initiative.

Implementation/Lead Dept.
WCDPW

Community Partners
CVTs; Private waste haulers, Recycle Ann Arbor, NextCycle

Funding
Tipfees, material sales, private investment

Staffing
WCDPW, Private Contractors

Approval(s)
Board of Commissioners

Goals and Evaluation Metrics:

- Expand curbside/dropoff organic collection to the entire county by 2030
- Leverage existing yard waste collection programs for co-collection of residential FW
- Expand organic collections for food service businesses
- Expand organic collection to multi-family housing by 2030
- Leverage local unit WWTP plants AD digestors for the production of renewable natural gas



MODERATE



2023 - 2025



HIGH



COUNTY AND
CVTS



INTERLOCAL
AGREEMENT

Develop a County Wide Organics/Compost Program

Several avenues exist for substantial increase in organics recovery: They include:

Donation - Aggressive promotion of food donation to food rescue organizations for the purpose of feeding people.

Animal Feed - Promotion of informal relationships between farmers to deliver select streams of material for animal feed. Spent malt from breweries are an established stream of animal feed in areas near brewing operations.

Residential Food Waste Collection - “piggy backing” residential food waste (FW) recovery from single family homes on existing yard waste (YW) collection programs. This collection approach has a marginal cost of nearly zero but requires the ability of local YW composting sites to accept FW in small quantities (usually less than 10 – 15% of total volume).

Commercial Organics Collection - Establishing commercial collection routes in urban environments to recovery FW from restaurants, grocery establishments, and other food preparation entities. Exploration of the use of degradable food service ware can enhance these activities in certain situations.

Anaerobic Digestions (AD) - Encouraging liquification of pre- and post-consumer food within institutional (university, school kitchens, jail, places of worship) for delivery to WWTP for digestion.

Prevention Approaches - Promotion of economic solutions that enable organics waste prevention and other activities through the use of app-based activities like reusable takeaway containers.

Support and Grow the Washtenaw Regional Resource Management Authority (WRRMA)

Washtenaw County formed a resource management authority in 2019. While organization efforts have moved forward and include a significant majority of county-wide population and geography, this effort needs to accelerate and grow its capabilities as a key part of the county sustainability effort.

Implementation/Lead Dept.
WCDPW

Community Partners
CVTs; Private waste haulers, Recycle Ann Arbor

Funding
Tip fees, commodity sales, private investment, bonding capital

Staffing
WCDPW, privatized

Approval(s)
WCDPW, County Commission, Local Units

Goals and Evaluation Metrics:

- Set and achieve a goal of 45% diversion of waste by 2030 and 60% by 2050
- \$36.0M Circular economy investment
- 5,000 new jobs
- \$324M annually in additional labor income



HIGH



2023 - 2030



ENABLING
HIGH



COUNTY AND
CVTS



INTERLOCAL
AGREEMENT,
CONTRACTS

Support and Grow the Washtenaw Regional Resource Management Authority (WRRMA)

City of Ann Arbor MRF – The current facility (operated and partially owned by RAA) is old with temporary equipment upgrades allowing it to operate more efficiently. The upgrade is not a long-term solution to the city’s needs and requires a larger and more sophisticated facility (~\$50M Capital Expense). The current facility can serve in the interim, but the Authority should effectuate a transition to a newer and larger regional facility as high priority.

Organics Recovery – As referenced previously, more capability is required for comprehensive recovery of organics. The capability should complement existing services (e.g. current YW sites), leverage WWTP digester capacity (i.e. bring liquified FW to existing plants), develop green field facilities as required, implement comprehensive source separated collection programs, and build markets for digestate and composted soil products.

Construction and Demolition (C&D) Recovery Facility – A major area of opportunity for greater recovery and landfill diversion comes from the reuse and recovery of waste flows from construction and demolition sites.. Most likely these efforts will require marketplace development for streams like gypsum board and other lower value materials. Policy initiatives would also provide incentives for the private sector to participate in C&D material diversion.

Comprehensive Collection - Integration of a county-wide collection system should accompany new facility (s) development. Employing “hub and spoke” approaches, comprehensive rural drop-off, and upgraded multi-family collection will need to accompany the already established urban and suburban curbside collection programs. Policy initiatives like enhanced bottle bill and EPR would accelerate progress in this area.



Build a Multi-dimensional Public Education and Promotion Plan for the Circular Economy

Expand on existing programs to support local business decarbonization and resilience. Implement Restaurant Pledge program, and Energy Concierge. Create group purchasing opportunities, promote reusable and compostable container use, and build county-wide commercial recovery through composting.

Implementation/Lead Dept.

WCDPW, WasteKnot, Pollution Prevention (P2) and Clean Streams

Community Partners

Resilient Washtenaw Green Business program, DDAs, RAA, Chambers of Commerce

Funding

EGLE, County Recycling Authority, Landfill host community fee

Staffing

WCDPW, RAA, CVT Staff

Approval(s)

WCDPW, County Commission, CVTs

Goals and Evaluation Metrics:

- Provide organized grease collections supported by DDA's in urban areas
- Leverage awards to engage chefs/ owners in recovery activities
- Provide multi-lingual training materials to support business organizations



MODERATE - HIGH



2023



MODERATE



COMMUNITY, COUNTY, CVTS



INTERLOCAL AGREEMENT, CONTRACTS

Build a Multi-dimensional, Public Education and Promotion Plan for the Circular Economy

Education and Promotion programs increase overall community recovery AND reduces contamination in recycling streams. Both vary widely: Best performing communities see recovery as high as 800 lbs. per household/year and contamination rates at or less than 10%. Conversely, poorer performing communities experience recovery at 250 lbs. per household/year and contamination rates approaching 30% or higher. Key tools for achieving the more successful outcomes include:

Startup Funding - WRRMA will need a “jump start” programming to ensure program uptake as a new set of comprehensive circular economy services and infrastructure come online with budgets ~\$8.00 - \$10.00/household/year for the initial five-year period of program initiation. Current budget levels could be reallocated to cover a portion of the early publicity and training efforts, but supplemental funds from county budget, landfill host fees, and/or grant funds will be required to make up the difference.

Maintenance Funding – Ongoing efforts \$6.00/household/year, especially when services are diverse in nature and spread county-wide. Stable funding for this function is essential and decision-makers should be aware that these efforts are not “discretionary” because without them long-term consequences are fatal to the success of a circular economy program.

Build a Multi-dimensional, Public Education and Promotion Plan for the Circular Economy (continued)

DEI Considerations – Delivery of circular economy services to disadvantaged communities is a trouble spot. With housing stock disproportionately made up of multi-family housing complexes, the relationship to traditional curbside collection gets broken and with it, the motivations to participate are severely limited. Service provisions is often left to the “free market” where responsible waste haulers invest minimally in recovery activities. Residents easily miss educational events if they are too infrequent and have little understanding of how to effectively participate in recovery efforts. And often convenience is limited, forcing community members to engage in harder work to participate in the system. Taken together, these factors often demonstrate systemic discrimination and exclusion from one of the most popular American means of engaging in sustainable activities.

Frequency, Consistency and Cultural Sophistication of Touch – A greater frequency is required to reach residents in housing where units turnover frequently. Whether low-income housing or student dwellings, the frequent education of residents and their landlords/facility managers is a requirement to gain even a basic level of participation. In the same manner, county-wide programmatic consistency will enable better resident behavior when they change residences. Finally, communication tools need to integrate different languages, universal icons, and other approaches that utilize a wide range of communication tools to ensure that each resident can be “spoken” to.

Diversify Funding for Circular Economy Work

Washtenaw County recognizes the environmental, economic, and equity benefits of investing in the circular economy. Building on the current investment offered to NextCycle Michigan teams, Washtenaw County will begin tracking metrics on the county circular economy and explore an integrated staffing and funding approach with key partners including OCED, SPARK, EGLE, MEDC and other private sector partners.

Implementation/Lead Dept.

WCDPW, CVT's, State/Federal Agencies

Community Partners

SPARK, EGLE, MEDC

Funding

Impact investors, EGLE, WCDPW bonding, banks

Staffing

WCDPW, CVTs, Entrepreneurs

Approval(s)

WCDPW, County Commission, Investors, EGLE Grants, MEDC

Goals and Evaluation Metrics:

- Create \$36.0M in investable projects
- Increase circular economy workforce by 5,000 individuals



HIGH



2023 - 2050



ENABLING
MODERATE



COUNTY,
CVTS,
COMMUNITY



CONTRACTS

Diversify Funding for Circular Economy Work

The nature of circular economy investment has evolved in the last 20-years. New commercial lending institutions, and equity investors, philanthropic and impact investors have emerged and are seeking stable, long-term investments that can fulfill the requirements of their ownership and management teams. New participants in this investor class include:

State Environmental Agencies – State agencies have provided grants to support circular economy efforts in many situations. However, recently, those agencies are seeking to increase the impact of these grants and create long-term sustainable businesses. Together, this has forced agencies to get away from a granting mindset and instead seek an investment mindset that values underlying organization capability to identify and implement a successful business case. Simply put, things work better when a project (whether governmental, non-profit, or for-profit) has an opportunity make its revenues exceed its costs.

Impact Investors – Like their colleagues in the state agencies, a broader understanding of capital needs and deployment has spread to philanthropies, special purpose equity funds, institutional investors, and even family offices. In these cases, outcomes are measured not only by financial return (remains important), but by social and environmental outcomes. The emergence of equity funds like Closed Loop Partners and Generate Capital are augmented by smaller divisions in larger traditional funds that are seeking their own opportunities in the field.



Diversify Funding for Circular Economy Work

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Accelerators – There is a recognition that entrepreneurs of all stripes need help to make their dreams operational and profitable. To meet this need, purpose-built and existing high-tech accelerators and incubators are being deployed nationwide in an effort to curate better “Deal flow” and create support for entrepreneurial activities focused on building a circular economy. One such approach is NextCycle, an accelerator that is support in circular economy public, non-profit and for profit entrepreneurs within four states (Colorado, Michigan, Washington, and Ohio). In the most mature of these efforts more than \$0.5B in investment has been made in more than 50 projects.

Federal Funding – Both infrastructure (Build Back Better) and Inflation Reduction Act (Climate bill) identify substantial funds (\$ billions) for the purpose of upgrading the infrastructure focused on circular economy development. Over the course of the next five years, these funds in the form of R&D support, regional acceleration, and low-interest loans will be increasingly available as the systems for their deployment come on-line.

Policy Initiatives to Expand Circular Economy Scope and Infrastructure

Extended Producer Responsibility (EPR), expanded container deposit (“Bottle Bills”) plans, and eco-modulation are all policy tools that can dramatically increase waste diversion and use of recovered commodity streams. Formal programs are either in place or being implemented in 10 states with consideration of similar legislation in at least six more.

Implementation/Lead Dept.
WCDPW, County Commissioners

Community Partners
RAA, Signal Fire/RRS, Ecology Center

Funding
Corporate Stewards

Staffing
WC

Approval(s)
WCDPW, County Commission

- Goals and Evaluation Metrics:**
- Expand bottle bill to include non-carbonated drink containers, film plastic and flexible packaging
 - Support EPR efforts to fund recovery efforts for all printed paper and packaging (PPP) materials in the waste stream
 - Provide research and development opportunities for the recovery of additional components of the waste stream.



LOW



2023 - 2035



ENABLING
HIGH



COMMUNITY



STATE
LEGISLATION

Policy Initiatives to Expand Circular Economy Scope and Infrastructure

Supportive policy initiatives can both increase overall participation in the circular economy as well as provide a more stable stream of funding for development and operation of necessary circular economy infrastructure. Specific approaches include:

Deposit Systems - Expand to cover more packaging types ranging from non-carbonated beverage containers to flexible packaging.

Extended Producer Responsibility (EPR) – Product stewardship goes beyond extended producer responsibility (EPR), which involves producers taking physical or financial responsibility for managing the environmental impact of their products only at the post-consumer state of their life cycle. Successful legislative efforts in Oregon, Maine, Colorado and California along with proposed legislation in half a dozen more states suggest that EPR in some fashion will be spreading across the US. A major concern among the producer community is that EPR will be insufficiently harmonized and create substantial operational and economic friction.

Eco-Modulation - Eco-modulation is the concept of penalizing the use of materials that are less environmentally friendly and rewarding the use of those which are better - for example, through charging a higher rate of tax for products that are harder to recycle or offering fee reductions for materials which can be easily recycled.

Incentivize Local Food Production

Preserve high-quality farmland for active agricultural production with an emphasis on local food production and distribution. Work with the state to authorize a county-wide purchase/transfer of development rights program within Washtenaw County

Implementation/Lead Dept.

Washtenaw County Food Policy Council

Community Partners

Washtenaw County Farm Council, Farm Bureau, MSU Extension

Funding

TBD

Staffing

TBD

Approval(s)

Board of Commissioners

Goals and Evaluation Metrics:

- Create “Buy-Local” connecting farmers to local markets and food distribution networks
- Develop potential financial incentives (property tax, tax credits etc.) the County can provide to encourage the production of food that is sold and distributed within Washtenaw County.
- Work with community partners to create mechanism to track production and distribution of food within Washtenaw County



LOW



2023-2035



LOW



COUNTY,
COMMUNITY
& CVTs



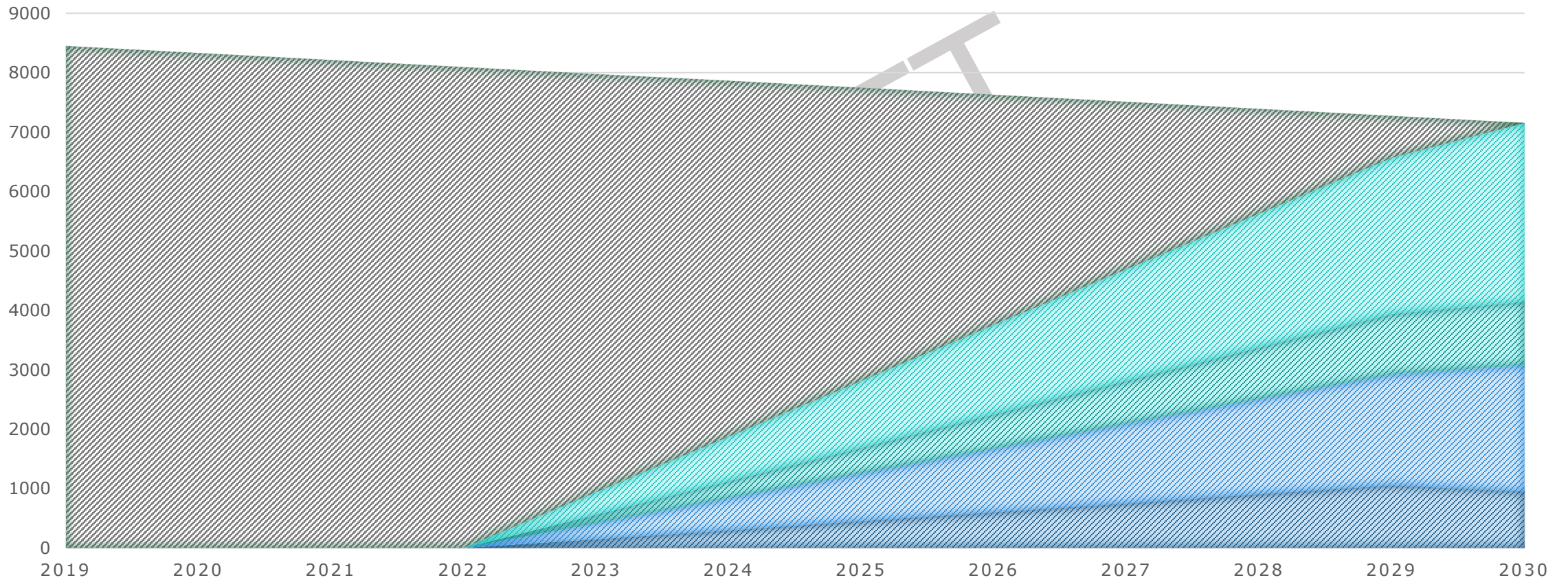
INTERLOCAL
AGREEMENT

Feedback

DRAFT

COUNTY GOVERNMENT EMISSIONS WEDGE REDUCTIONS TO ACHIEVE CARBON NEUTRALITY BY 2030 (MTCO2E)

■ Building Electricity Use ■ Building Natural Gas Use ■ Fleet
■ Grid Renewable Energy ■ BAU



COMMUNITYWIDE EMISSIONS WEDGE REDUCTIONS TO ACHIEVE CARBON NEUTRALITY BY 2035 (MTCO2E)

■ Buildings ■ Transportation ■ Waste ■ Grid Renewable Energy ■ Carbon Offsets ■ BAU

