

January 4, 2016

To: Mayor Christopher Taylor and Members of the Ann Arbor City Council  
From: Michael Garfield, Ecology Center  
Laura Rubin, Huron River Watershed Council  
Mike Shriberg, National Wildlife Federation  
Re: Progress Report on Ann Arbor Climate Action Plan

We are pleased to present you with the enclosed report describing the City of Ann Arbor's progress to date on the City's Climate Action Plan.

The three of us served on the panel that drafted the Climate Plan unanimously adopted by City Council in December 2012. For the past two years, we have participated in the Ann Arbor Climate Partnership, a group of individuals and organizations working to engage the larger community in turning the plan into reality.

We would like to highlight the following conclusions:

- The Climate Action Plan goals are consistent with the goals set forth in the agreement reached by 195 countries at the UN Climate talks in December 2015.
- The City has initiated a considerable number of efforts to move the Plan forward. Eight of the 84 actions have already been taken. Another 43 actions are at various stages of planning and development.
- City staff has done an outstanding job of initiating and managing a large number of climate-related projects, despite having fewer resources at their disposal than many of their peers in comparable cities.
- The efforts to date have not yet made a measurable impact on the City carbon emissions. While the 2015 data is still being collected, there is no evidence yet that emissions have declined from the year 2000 baseline.
- In order to reach the goals set out in the Climate Action Plan, the City of Ann Arbor will need to dedicate significantly more resources to climate adaptation and mitigation than it currently spends. The Energy Commission is exploring long-term funding strategies for this work, but in the meantime, the City will need to make short-term investments in these efforts.

Thank you for your consideration of this report and recommendations, and for your support for a sustainable community.

# 2015 Ann Arbor Climate Action Plan Progress Report

## OVERVIEW

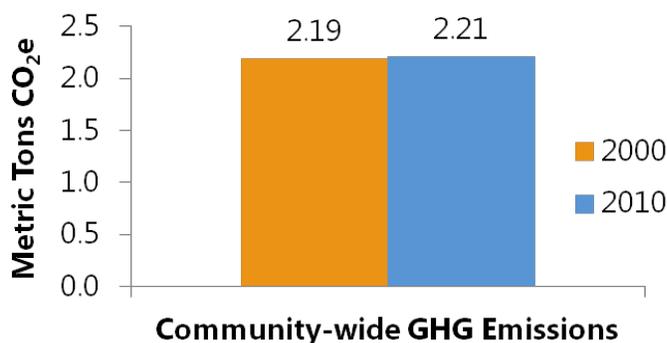
Adopted in 2012, Ann Arbor's Climate Action Plan set two new targets to reduce community-wide greenhouse gas (GHG) emissions.

Mid-term target:

**Reduce CO<sub>2</sub>e emissions 25 percent by 2025**

Long-term target:

**Reduce CO<sub>2</sub>e emissions 90 percent by 2050**



## PROGRESS

From the most recent GHG inventory in 2010, Ann Arbor's community-wide GHG emissions grew slightly, increasing .8% between 2000 and 2010. The City is working to update emissions estimates for 2015.

Ann Arbor's CAP identifies **84 actions** to reduce community-wide GHG emissions. If all actions in the plan are implemented and population growth does not exceed estimates, Ann Arbor could reach its goal of reducing GHG emissions 25% by 2025. Like many other cities, reaching a 2050 target will require additional shifts and priorities among existing and as yet developed technologies and policies. The CAP also includes five strategies to enable Ann Arbor to adapt to changes in climate. The CAP actions are organized into four main sections. This report provides a summary of progress, projects underway or in-progress, and key partners for each of the **four main categories and for adaptation**.

	Underway ✓	In-Progress ▲	Still Getting Started
 <b>Energy &amp; Buildings</b>	1	11	13
 <b>Land Use &amp; Access</b>	3	11	7
 <b>Resource Management</b>	2	15	8
 <b>Community &amp; Health</b>	2	6	5

For a complete list of actions download the Climate Action Plan at:  
[a2energy.org/climate](http://a2energy.org/climate)

## ACTIONS

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### Underway

- ✓ Property Assessed Clean Energy Program
- ✓ ArborBike Bikeshare Program
- ✓ Green Streets Policy
- ✓ Urban and Community Forest Management Plan
- ✓ [a2energy.org](http://a2energy.org) - Energy Efficiency Resources Website
- ✓ Green Infrastructure – Stormwater Model Calibration and Analysis
- ✓ Wet Weather Technical Oversight Advisory Group
- ✓ Drive Electric Ann Arbor Partnership
- ✓ Revised Stormwater Standards
- ✓ CodeRed™ Emergency Notification System

### In-Progress

- ▲ Energy Efficiency at Affordable Housing Sites
- ▲ Rental Housing Energy Efficiency Programs
- ▲ Community Biodigester
- ▲ Community Renewable Energy Projects
- ▲ Waste Less: Solid Waste Resource Plan
- ▲ Zero Waste Events
- ▲ Increased Recycling
- ▲ Organics Management Plan
- ▲ Sustainable Funding for Community Energy Efficiency Program
- ▲ Ann Arbor Climate Partnership – Community Outreach
- ▲ Flood Mitigation
- ▲ Climate Adaptation in Capital Planning

## KEY PARTNERS

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### Ann Arbor Climate Partnership (A2CP)

Brings together community stakeholders to implement the climate action plan

### Downtown Development Authority

Installed electric vehicle infrastructure downtown and developing Downtown Street Design Manual

### DTE Energy Multi-Family Program

Partnered with the City to design a pilot program targeted at multi-family rental properties

### Ecology Center

Coordinates Ann Arbor 350 and the A2CP to help Ann Arbor residents to reduce the community's carbon footprint

### getDowntown Program

Encourages downtown employees to commute sustainably

### Huron River Watershed Council

Leads Climate-Resilient Communities effort

### Michigan Department of Community Health

Developed health impact assessment of targeted tree planting in Ann Arbor

### Office of Emergency Management

Coordinates city emergency planning for weather-related and other disasters

### Recycle Ann Arbor

Runs the curbside recycling collection program, operates the ReUse Center, and the drop-off station

### TheRide

Manages public transit systems in the Ann Arbor-area and implementing expanded services plan

### University of Michigan Climate Center

Provides technical assistance and local climate data

### Urban Sustainability Directors Network (USDN)

Offers lessons learned from communities across North America

### Washtenaw County

Coordinates public health and outreach, provides weatherization assistance, and partners in stormwater management

### Washtenaw County Food Policy Council

County-appointed board working on local food issues, like food waste packaging



Volunteer Citizen Tree Pruners

# 2015 Ann Arbor Climate Action Plan: Progress Report



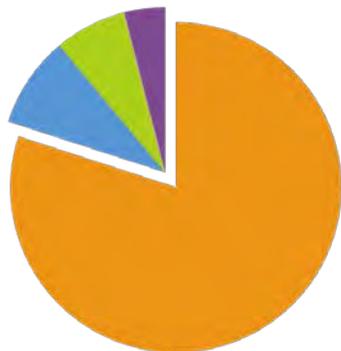
## Energy & Buildings

Goals:  
High Performing Buildings  
Energy Source  
Renewable Energy

### OVERVIEW

In 2012, Ann Arbor City Council adopted its first Climate Action Plan (CAP), which set goals to **reduce community-wide greenhouse gas emissions (GHG) 25% by 2025 and 90% by 2050.**

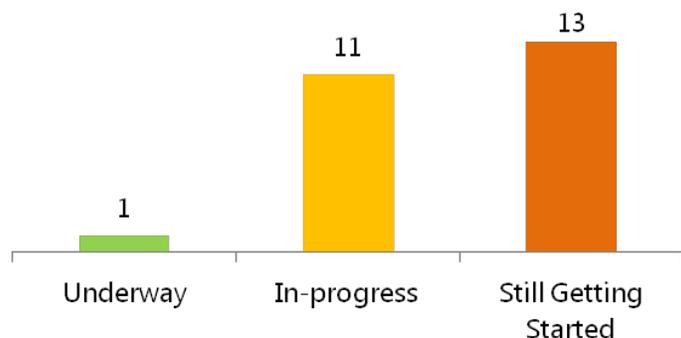
Buildings in Ann Arbor make up 77% of total emissions. To reach our reduction goals, the City and residents need to reduce energy use in buildings through energy efficiency and the use of renewable and low/no carbon energy sources.



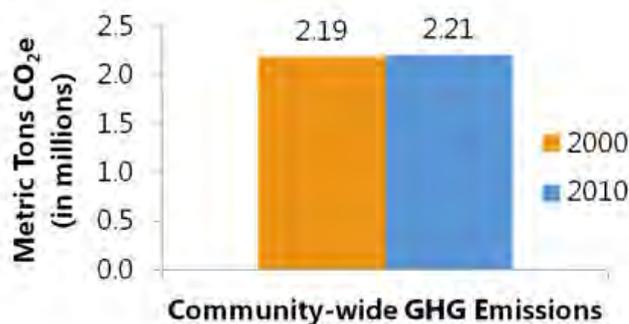
Energy & Buildings actions amount to 80 percent of the total emissions (381,607 MTCO<sub>2e</sub>) reduced by implementing all actions from the CAP

The Energy & Buildings section of the CAP includes over 25 actions.

#### Status of Actions in Energy & Buildings



For a complete list of actions download the Climate Action Plan at:  
[a2energy.org/climate](http://a2energy.org/climate)



Community-wide greenhouse gas (GHG) emissions grew .8% from 2000 to 2010.

### LEADING THE WAY

✓ **EB-9 (Underway):**

**Property Assessed Clean Energy (PACE)**  
**Estimated Annual Reduction: 385 MTCO<sub>2e</sub>**

Ann Arbor launched the first PACE program in the state of Michigan and in its first round loaned over \$500,000 to local property owners to increase energy efficiency in their buildings. Kerrytown Market & Shops, Big Boy Restaurant, Arrowwood Hills Cooperative, and the downtown Goodyear Building participated in the first round.

▲ **EB-2 (In-Progress):**

**Energy Efficiency at Affordable Housing Sites**

The Ann Arbor Housing Commission is retrofitting its properties to meet Enterprise Green Communities Standards of energy efficiency. New construction at the N. Maple, Lower Platt, and White/State/Henry sites are all planned to meet the standards.



**▲EB-10 (In-Progress):  
Rental Housing**

Ann Arbor's housing stock is 55.2 percent rental housing, which accounts for approximately \$29.5 million in energy costs annually. Through a Housing and Urban Development grant awarded to Washtenaw County in 2012, the City launched an effort to reduce energy efficiency in rental housing. The City directly impacted 492 units in over 100 buildings through benchmarking programs, surveys at the time of rental inspections, and a pilot program with DTE Energy. With \$40,000 in seed funding from the University of Michigan Dow Distinguished Awards for Sustainability, the City launched the a2energy Loan Fund for Rental Housing to help fund energy-related improvements in one-to-four unit rental properties across Washtenaw County.

**▲EB-19 (In-Progress):  
Community Biodigester**

Ann Arbor completed an initial biodigester feasibility study in 2014. As a result a biodigester project second phase and partner analysis was added to the City's capital improvement plan with an RFP being issued in 2015.

**▲EB-24 (In-Progress):  
Community Renewable Energy Projects**

Ann Arbor City Council unanimously passed a resolution to explore establishing a community solar pilot program. The City is working with Clean Energy Coalition and community members to increase options for solar power for residences and businesses.

## KEY PARTNERS

### Ann Arbor Climate Partnership

In partnership with the Ecology Center and Huron River Watershed Council, the City launched the Climate Partnership in 2013 with the help of a Partners for Place grant. The Climate Partnership brings together residents, business owners, city commissioners, and community partners to collaboratively implement the Climate Action Plan.

### DTE Energy Multi-Family Program

In summer 2014, the City collaborated with the DTE Energy Multi-family program on a pilot program to expand the existing direct install energy efficiency upgrade program to include two- to five-unit properties. This pilot program installed energy-efficiency upgrades at 98 units in 32 properties. The pilot resulted in estimated savings of 34,000 kWh and 2,600 Therms.

### Washtenaw County

The Weatherization Assistance and Test and Tune Program are free programs offered by the US Department of Energy and DTE Energy. These programs are implemented through Washtenaw County and designed to help qualified residents lower their utility bills.

## WHAT'S NEXT?

**EB-2:** Investigate community solar installations at Ann Arbor Housing Commission sites

**EB-9:** Finance round two of the PACE program

**EB-10 & EB-11:** Update housing code revisions

**EB-12:** Pilot building energy benchmark use in city-owned and volunteer commercial properties

**EB-24:** Work with Clean Energy Coalition and partners on community solar opportunities



Ann Arbor's LEED Gold  
Municipal Center

# 2015 Ann Arbor Climate Action Plan: Progress Report



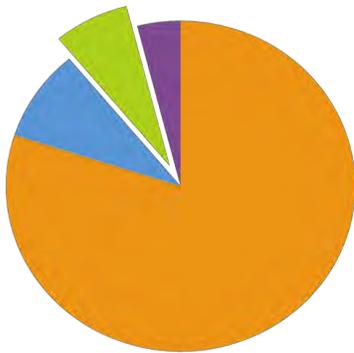
## Resource Management

Goals:  
 Responsible Resource Use  
 Local Food  
 Healthy Ecosystems

### OVERVIEW

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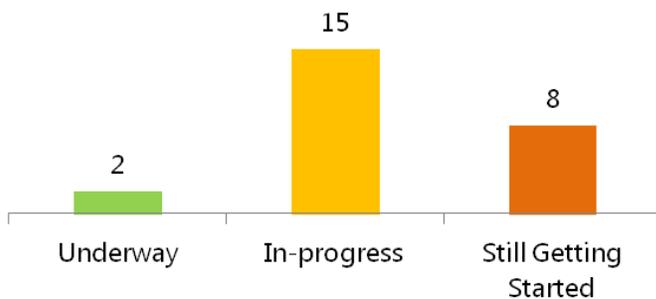
The waste sector accounts for less than 1% of GHG emissions in Ann Arbor, but this does not account for all upstream impacts of producing materials. Reducing waste sent to landfills and effectively preserving and enhancing our natural systems, such as the urban forest and key watershed areas, mitigate climate impacts to the community.



Resource Management actions amount to 7 percent of the total emissions (35,522 MTCO<sub>2</sub>e) reduced by implementing all actions from the CAP

The Resource Management section of the CAP includes 25 actions.

#### Status of Actions in Resource Management



For a complete list of actions download the Climate Action Plan at: [a2energy.org/climate](http://a2energy.org/climate)

### LEADING THE WAY

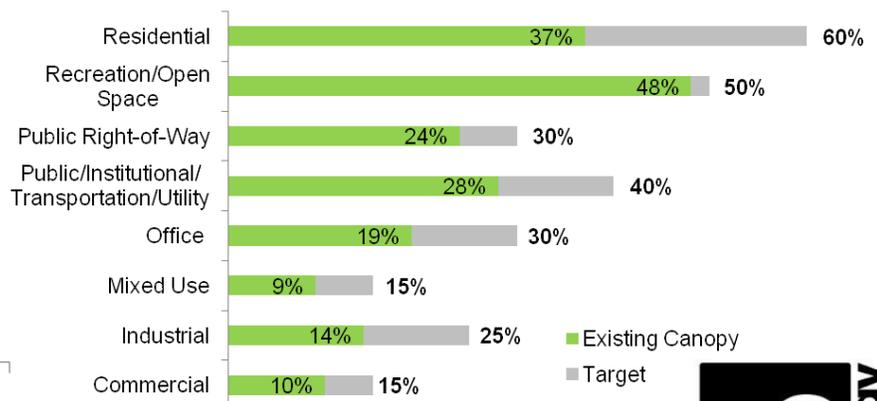
✓ **RM-1 (Underway):  
Green Streets Policy**

In 2014, Ann Arbor City Council adopted a Green Streets Policy that sets stormwater infiltration standards for public street construction and reconstruction.

✓ **RM-25 (Underway):  
Urban and Community Forest Management Plan**

In 2014, City Council adopted Ann Arbor's first Urban and Community Forestry Management Plan, which sets targets to achieve different tree canopy goals for each land use category. The City is undertaking several programs to maintain and improve the health and condition of trees. For example, the Citizen Pruner program trains volunteers on how to prune young trees to develop strong structure and proper form. The Plan acknowledges a changing climate is altering favorable species in our region.

#### Tree Canopy Targets by Land Use



**▲RM-6 (In-Progress):**

**Waste Less: Solid Waste Resource Plan**

City Council approved the Waste Less: Solid Waste Resource Plan in 2013. The plan identifies strategies to work towards zero waste and to increase citywide waste diversion to 40%. The City surpassed this target in 2013 and 2014.

**▲RM-18 (In-Progress):**

**Zero Waste Events**

The Waste Less: Solid Waste Resource Plan recommends that all city-sponsored events are zero waste. The 2015 Ann Arbor Green Fair was a zero waste event. Recycle Ann Arbor also received a \$19,500 grant from the Michigan Department of Environmental Quality to expand the number of zero waste events in Ann Arbor.

**▲RM-19 (In-Progress):**

**Increased Recycling**

The City is working with Recycle Ann Arbor on a pilot to increase recycling rates in multi-family rental properties. Multi-family properties have the lowest recycling rates and since Ann Arbor is over 50% rental housing, offer a significant opportunity to improve community-wide recycling.

**▲RM-22 (In-Progress):**

**Organics Management Plan**

In May 2015, Ann Arbor City Council allocated \$100,000 to develop a comprehensive organics management plan.

## KEY PARTNERS

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**Washtenaw County Water Resources Commission**

Through programs like the Master Rain Gardener program, the Washtenaw County Water Resources Commission is helping to reduce stormwater runoff and improve water quality. The Master Rain Gardener program trains residents on how to build and maintain residential rain gardens.

**Washtenaw County Food Policy Council**

Established in 2012, the Washtenaw County Food Policy Council has a mission to increase and preserve access to safe, local and healthy food for all residents of Washtenaw County. The council is appointed by the Washtenaw County Board of Commissioners. One of the current efforts of the council is reduce food waste and packaging.

**Recycle Ann Arbor**

Recycle Ann Arbor runs the curbside recycling collection program, operates the ReUse Center, and the drop-off station, which accepts hard-to-recycle items, like Styrofoam and electronics.

## WHAT'S NEXT?

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**RM-13:** Washtenaw County Food Policy Council's Waste & Packaging policy action team focuses on packaging waste

**RM-15:** Evaluation of downtown zoning premiums underway

**RM-20:** Ann Arbor Climate Partnership and Environmental Commission discussing construction and demolition ordinances

**RM-15:** Preservation of farmland and local food production through the greenbelt program



Residential Rain Garden

# 2015 Ann Arbor Climate Action Plan: Progress Report



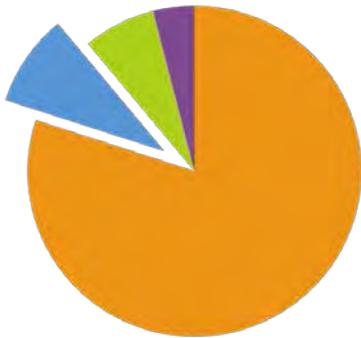
## Land Use & Access

Goals:  
Integrated Land Use  
Transportation Options  
Sustainable Systems

### OVERVIEW

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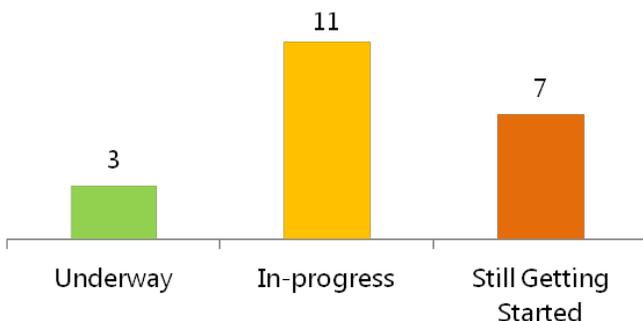
The transportation sector accounts for 22% of greenhouse gas (GHG) emissions in Ann Arbor. Reducing vehicle miles traveled (VMT), encouraging more compact patterns of developing, and creating more transportation options, like buses and bike infrastructure, will lower GHG emissions in this sector.



Land Use & Access actions amount to 9 percent of the total emissions (44,102 MTCO<sub>2</sub>e) reduced by implementing all actions from the CAP

The Land Use & Access section of the CAP includes over 20 actions.

#### Status of Actions in Land Use & Access



For a complete list of actions download the Climate Action Plan at:  
[a2energy.org/climate](http://a2energy.org/climate)

### LEADING THE WAY

#### ✓ LU-8 (Underway): Bike Share Program

ArborBike, a community bike share program, launched in the summer of 2014 with 14 stations and 125 bikes. The bike share program was developed through the support and partnering of the Clean Energy Coalition, the University of Michigan, the City of Ann Arbor, and the Ann Arbor Area Transportation Authority (TheRide).

#### ✓ LU-12 (Underway): Enhanced Transit Service

In 2014, Ann Arbor, Ypsilanti, and Ypsilanti Township residents approved a mill tax increase to expand transit services through the TheRide. Expanded services include later service on routes, new routes, and more frequent service. Currently, over 90% of residents in Ann Arbor and Ypsilanti are located within ¼ mile of a TheRide stop. The ¼ mile access goal for transit is also part of CAP strategy LU-17.

#### ✓ LU-18 (Underway): Electric Vehicles

The Drive Electric Ann Arbor Partnership formed in 2014 and supports wider adoption of electric vehicles in the community. The partnership includes the Downtown Development Authority, local non-profit and advocacy organizations, DTE, University of Michigan, and local businesses.



**▲LU-1 (In-Progress):**

**Regional Approaches to Land Use**

Reimagine Washtenaw is a multi-jurisdictional planning effort to improve land use and transportation along the Washtenaw Avenue corridor. It includes the four communities that have frontage along the corridor: the City of Ann Arbor, the City of Ypsilanti, Pittsfield Charter Township, and Ypsilanti Charter Township.

**▲LU-4 (In-Progress):**

**Downtown Zoning Amendments**

The Downtown Zoning Premium Evaluation is an effort to determine if the current premium options offered in the City's Zoning Ordinance reflect needs and goals for downtown Ann Arbor, especially with regard to housing affordability, energy efficiency, and quality design.

**▲LU-9 (In-Progress):**

**Connector Study**

TheRide, the City of Ann Arbor, the Ann Arbor Downtown Development Authority, and the University of Michigan are collaborating on a connector study to develop a plan for high-capacity transit (e.g., bus, bus rapid transit, light rail, or automated guideway) in an arc from northeast to south Ann Arbor.

## KEY PARTNERS

**Ann Arbor Area Transportation Authority  
(TheRide)**

TheRide manages public transit systems in the Ann Arbor area, including Ann Arbor, Ypsilanti, and Ypsilanti Township. TheRide is a partner on the Connector Study and is engaged in the Ann Arbor Climate Partnership. In 2014, TheRide opened the new and improved Blake Transit Center in downtown Ann Arbor.

**Ann Arbor Downtown Development Authority**

The Downtown Development Authority (DDA) is a leader in installing electric vehicle (EV) charging stations in downtown parking sites. Over 20 EV-charging stations have been installed to date. The DDA also maintains a website of EV charging station locations and availability.

**getDowntown Program**

The getDowntown Program provides commuting programs and services to employees and employers in downtown Ann Arbor. Programs and services include the Commuter Challenge, bike locker rentals, Zipcars, and the go!pass program, which provides unlimited TheRide passes for downtown employees.

## WHAT'S NEXT?

**LU-9:** Start of Regional Transit Authority open houses for regional rail discussions and ongoing Ann Arbor Station evaluation

**LU-16:** Ann Arbor Climate Partnership's first celebration season focused on encouraging sustainable transportation

**LU-18:** Participate in National Drive Electric Week in September

**LU-19:** Develop Street Design Manual in partnership with the DDA



Bike rack on TheRide bus

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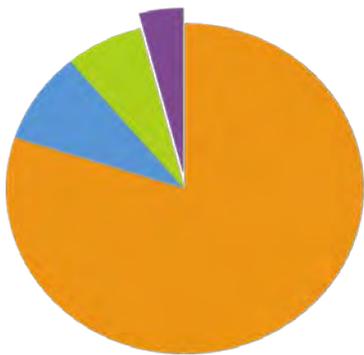
## Community & Health

Goals:  
Engaged Community  
Safe Community

### OVERVIEW

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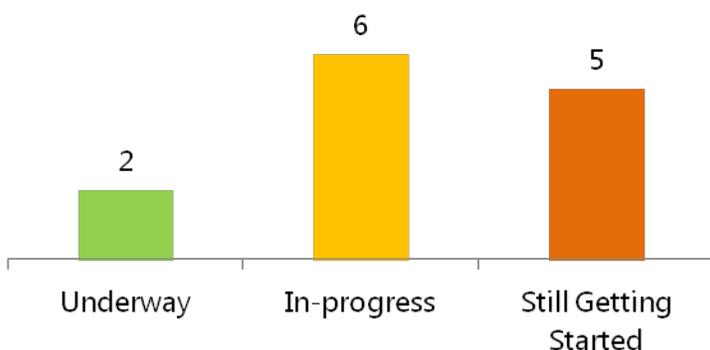
Reducing greenhouse gas (GHG) emissions in Ann Arbor contributes to a safer and healthier community. Meeting the goals set in the CAP also depend on a strong community engagement.



Community & Health actions amount to 4 percent of the total emissions (18,577 MTCO<sub>2</sub>e) reduced by implementing all actions from the CAP

The Community & Health section of the CAP includes 13 actions.

#### Status of Actions in Community & Health



### LEADING THE WAY

✓ **CH-2 (Underway):**  
**a2energy.org**

The City and Clean Energy Coalition launched a2energy.org, a web-based outreach and education effort that promotes energy efficiency and the use of renewable resources to residents and businesses across the City of Ann Arbor. The website includes videos on local climate impacts, tips to save energy, and financing tools and links for property owners.

✓ **CH-8 (Underway):**  
**Green Infrastructure**

As part of a Green Streets Policy adopted in 2014, Ann Arbor is taking steps to increase green infrastructure communitywide, such as installing rain gardens along Miller Avenue. The City's Stormwater Model Calibration and Analysis Project helps the City of Ann Arbor identify aspects of the City's stormwater system that would benefit from improvement. The model will help drive data-driven, citizen-informed decisions about the best way to improve green and grey infrastructure systems. Preliminary model calibration was performed in 2012 using available data sources, additional calibration data was collected in 2013, and final model calibration and analysis using the collected information was completed in 2014. A report was released in early 2015.

For a complete list of actions download the Climate Action Plan at:  
[a2energy.org/climate](http://a2energy.org/climate)



### ▲CH-1 (In-Progress):

#### Sustainable Funding for Community Energy Efficiency Program

In 2014 and 2015, Ann Arbor City Council allocated budget dollars to support community-facing climate action programs. The Energy Commission also formed a subcommittee to research sustainable funding mechanisms used in communities to further energy efficiency.

### ▲CH-6 (In-Progress):

#### Ann Arbor Climate Partnership (A2CP)

The Ann Arbor Climate Partnership brings together residents, business owners, city commissioners, and community partners to collaboratively implement the Climate Action Plan. The A2CP is working to encourage residents and businesses to take action to lower GHG emissions.

## KEY PARTNERS

### Ecology Center

The Ecology Center is a 42-year-old Ann Arbor-based non-profit that spearheaded development of the city's recycling programs, park system, clean energy programs, sustainable transportation initiatives, greenbelt land preservation program, and other projects at the county, regional, and state levels. The Ecology Center coordinates Ann Arbor 350 and the A2CP which both aim to mobilize Ann Arbor residents to reduce the community's carbon footprint.

### Michigan Department of Community Health

The City and the Michigan Department of Community Health collaborated to conduct a health impact assessment of tree planting within Ann Arbor. The assessment evaluated potential health impacts to targeting tree planting in areas in the community with low-income and vulnerable populations.

## Washtenaw County

Climate impacts often relate to public health outcomes. While the City takes steps to improve the quality of life for residents, Washtenaw County Public Health is the lead agency on public health issues and outreach.

### Emergency Management

The Office of Emergency Management coordinates City emergency planning for weather-related and other disasters, maintains an emergency operations center, conducts emergency preparedness training, and operates a citywide storm/tornado warning siren system.

## WHAT'S NEXT?

**CH-1:** Investigate funding mechanisms for community-facing energy efficiency programs

**CH-2:** Work with A2CP to launch a community campaign targeted at lowering GHG emissions

**CH-10:** Implement Urban and Community Forest Management Plan to increase tree canopy on public and private land and reduce urban heat island impacts

**CH-11:** Idling ordinance proposal from the Environmental Commission



a2energy Table at Annual Green Fair in June

# 2015 Ann Arbor Climate Action Plan: Progress Report



## Adaptation

Taking measures to prepare for unavoidable climate change

### OVERVIEW

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Adaptation refers to the need to adapt to the inevitable impacts of climate change, regardless of future greenhouse gas (GHG) emission reductions. Ann Arbor's Climate Action Plan (CAP) recommends pursuing both mitigation actions – to reduce GHG emissions – and adaptation actions – to adapt to expected and experienced climate impacts.

#### Expected Climate Impacts for Ann Arbor:

- Warmer average temperatures
- Warmer low and nighttime temperatures
- More potential for extreme heat and drought
- Shorter winters
- More total precipitation
- More severe precipitation events

According to Great Lakes Integrated Sciences and Assessments, annual precipitation in Ann Arbor increased 25% over the last 30 years compared to the previous 30 years. The frequency of extreme storms also increased 38% in this same timeframe. Climate impacts will impact city services and both natural and constructed infrastructure systems.

Undertaking adaptive strategies will make Ann Arbor more resilient to local climate impacts. For instance, increasing the capacity of green infrastructure, including more rain gardens and more tree canopy, will better prepare Ann Arbor for larger storm events. Increasing infiltration and detention of stormwater in extreme events decreases runoff to the river, which mitigates flooding and improves water quality.

### LEADING THE WAY

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Ann Arbor's CAP identifies five adaptation strategies to better prepare the community for changes in the local climate.

#### 1. Implement "No Regrets" Adaptation Actions

"No regrets" adaptation refers to actions that, when implemented, have benefits both under current climate conditions and under potential future conditions.

##### ✓ Wet Weather Technical Advisory Group (Underway):

In 2014, the City formed the Wet Weather Technical Oversight Advisory Group (TOAG) to advise and provide technical expertise and feedback to the City and Washtenaw County Water Resource Commissioner on overlapping wet weather projects, including the Stormwater Model Calibration and Analysis, the Upper Mallets Stormwater Conveyance Study, and the Sanitary Sewer Wet Weather Evaluation.

##### ✓ Drive Electric Ann Arbor Partnership (Underway):

As a collaborator in the Drive Electric Ann Arbor Partnership, the City is working to increase electric vehicle (EV) infrastructure across the city. Increasing EV infrastructure and encouraging the inevitable shift to EVs will increase public health conditions by improving air quality and reducing GHG emissions.

For a complete list of actions download the Climate Action Plan at:

[a2energy.org/climate](http://a2energy.org/climate)



## 2. Protect citizens from health and safety hazards

### ▲ Flood Mitigation (In-Progress):

With two FEMA Flood Mitigation Grants, the City removed several structures within the Allen Creek floodway including structures on W. Kingsley and N. Main. The City is developing a new floodplain ordinance to delineate a process for development in the floodplain.

## 3. Ensure an integrated systems planning approach to the building and natural infrastructure for all climate change planning scenarios

### ✓ Revised Stormwater Standards (Underway):

The Washtenaw County Water Resources Commission recently revised stormwater standards to increase the size of the 1% storm that are better aligned with climate change predictions. Revising this standard allows for more accurate stormwater planning and green and grey infrastructure design.

## 4. Integrate climate projections into all City planning across all systems

### ▲ Climate Adaptation in Capital Planning (In-Progress):

In September 2013, the City partnered with the University of Michigan's (UM) Great Lakes Adaptation Assessment for Cities to discuss expected climate changes, impacts on service delivery, and proposed solutions. The City is now looking to incorporate adaptation into capital improvements planning.

## 5. Update and maintain technology and plans to support emergency management responses to extreme climate events

### ✓ CodeRed™ (Underway):

The CodeRED™ Emergency Telephone Calling System is used for mass emergency notifications to notify residents and businesses, within minutes, of an emergency or a potential hazard.

## KEY PARTNERS

### Huron River Watershed Council (HRWC)

The Climate-Resilient Communities project brings together community stakeholders to discuss and prepare for climate impacts within the watershed. HRWC also leads the Ann Arbor Climate Partnership priority team on adaptation.

### University of Michigan Climate Center

The Climate Center provides technical assistance and historical and projected local climate data to guide local planning.

### Urban Sustainability Directors Network (USDN)

As a member of USDN, Ann Arbor has access to adaptation resources and lessons learned from other peer cities across North America.

## WHAT'S NEXT?

- ▲ Implement Green Streets Policy and increase green infrastructure throughout the city to decrease stormwater runoff
- ▲ Use Stormwater Model Calibration and Analysis Project to identify aspects of the city's stormwater system needing improvement
- ▲ Increase tree canopy and diversity to lower urban health island impacts and energy costs
- ▲ Increase energy efficiency and renewable energy use in Ann Arbor Housing Commission sites
- ▲ Evaluate community biodigester to minimize landfilled materials



Miller Avenue Rain  
Garden