City Fact Sheet: Ann Arbor, MI

The City of Ann Arbor has a long history as a progressive city with strong community engagement. Despite this, the city faces challenges keeping the community informed of emerging programs and ongoing efforts due to the city's many university students and other transient residents. Ann Arbor also faces the challenge that a significant percentage of property within the city limits falls under the public domain and is not subject to local taxes. Much of this public land also falls outside of the city's regulatory jurisdiction.

**CLIMATE IMPACT**

- **1°F** Increase in Annual Temperatures (from 1951-2012)
- **6.1** Fewer Days Below 32°F (from 1951-2012)
- **41.2%** Increase in Heaviest 1% of Precipitation Events (from 1951-2012)
- **44.8%** Increase in Annual Precipitation (from 1951-2012)
Precipitation 44.8% increase
How many Michigan Stadiums could you fill with the precipitation that falls on Ann Arbor in a single year?

117

Source: GLISA
That’s 23 more than 30 years ago.

Based on 30-year averages of annual precipitation totals recorded at the University of Michigan, COOPID# 200230. Data available from the National Climatic Data Center.
Extreme Storms
41.2% Increase
2010 municipal emissions
2010 U of M emissions

2,000 MTCO2e = 1 square
City of Ann Arbor

Climate Action Plan

2012

84 Actions
Figure 2: 2010 GHG inventory

25% by 2025
GHG Emissions Projections and Actions Impact
(excludes University emissions)

- Business as Usual Scenario (0.7% annual emissions growth)
- Climate Action Scenario to 2025
- 2025-2050 emissions reductions for 2050 target

90% by 2050
<table>
<thead>
<tr>
<th>Action Categories</th>
<th>Action Subcategories</th>
<th># of Actions</th>
<th>Estimated GHG Emissions Reduction (MTCO₂e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy and Buildings</td>
<td>Higher Performing Buildings</td>
<td>25</td>
<td>381,607</td>
</tr>
<tr>
<td></td>
<td>Energy Source</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Renewable Energy</td>
<td></td>
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<tr>
<td>Land Use and Access</td>
<td>Integrated Land Use</td>
<td>21</td>
<td>44,102</td>
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<td></td>
<td>Transportation Options</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Sustainable Systems</td>
<td></td>
<td></td>
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<td>Resource Management</td>
<td>Responsible Resource Use</td>
<td>25</td>
<td>35,522</td>
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<td></td>
<td>Local Food</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Healthy Ecosystems</td>
<td></td>
<td></td>
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<tr>
<td>Community and Health</td>
<td>Engaged Community</td>
<td>13</td>
<td>18,577</td>
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<td></td>
<td>Safe Community</td>
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</table>

*Table 1: Climate action categories and subcategories*
Community Energy

Total = $430 million/yr

- Natural Gas
  - $88,000,000
  - 80 million ccf/yr

- Electricity
  - $150,000,000
  - 1,500 million kWh/yr

- Transportation
  - $192,500,000
  - 55 million gal/yr

Natural Gas and Electricity = $238 million/yr
Municipal Gov’t Energy

Total = $6.2 million/yr

- **Electricity**
  - $4,291,000
  - 44.4 million kWh/yr

- **Natural Gas**
  - $672,000
  - 742,000 ccf/yr

- **Transportation**
  - $1,195,000
  - 428,000 gal/yr
Caulk is cheap.

Caulking and/or weather stripping your home is an inexpensive way to increase energy savings by 2.5% annually. So why not pull the trigger?
PACE yourself. And save energy.
Kerrytown Market & Shops

117,165 kWh
Expected annual electricity usage reduction

$12,888
Expected annual electricity savings

89 Metric Tons of CO$_2$e
Expected annual GHG reductions

The Kerrytown Market & Shops building is the heart of the Kerrytown district, an historic part of downtown Ann Arbor. This mixed-use property features restaurants, retail stores, and a grocery store and its parking lot serves as a venue for the year-round Farmers Market. With PACE financing, lighting upgrades were performed throughout the common areas and many of the tenant spaces.
Over 50% of units are rental
TheRide
Your Way

44% more fixed-route service

90,000 additional fixed-route service hours per year

In addition to the benefits of expanded fixed-route service, seniors and people with disabilities will benefit from expanded dial-a-ride service, making it possible to go more places and travel later on weekdays and weekends.

Visit TheRideYourWay.org

Revised: 10/30/15
Integrating Green Infrastructure and Equity
Modeling Adaptation
<table>
<thead>
<tr>
<th>Precipitation Event</th>
<th>Bulletin 17</th>
<th>Atlas 14</th>
<th>Used to determine…</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 year, 24 hour (bankfull)</td>
<td>2.26”</td>
<td>2.35 (+4%)</td>
<td>Development standards for site detention and retention</td>
</tr>
<tr>
<td>10 year, 12 hour</td>
<td>2.72”</td>
<td>2.9 (+7%)</td>
<td>Sizing of storm conveyance pipes</td>
</tr>
<tr>
<td>100 year, 24 hour</td>
<td>4.36”</td>
<td>5.11 (+17%)</td>
<td>Floodplain boundary. Detention basin capacity.</td>
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<tr>
<td>500 year, 24 hour</td>
<td>6.74</td>
<td></td>
<td>Flood maps. Safety. ID critical facilities for insurance purposes.</td>
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</table>
Figure 5-1 – Potential Infiltration for Green Street Application

Table 5-2 – Future Scenarios Assumptions for Stormwater Management Strategies

<table>
<thead>
<tr>
<th>Future Scenario</th>
<th>2040</th>
<th>2065</th>
<th>2115</th>
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<tbody>
<tr>
<td>Green Streets</td>
<td>25%</td>
<td>50%</td>
<td>100%</td>
</tr>
<tr>
<td>Residential Rain Gardens</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
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<tr>
<td>University Redevelopment</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Downtown Storage and Infiltration</td>
<td>25%</td>
<td>50%</td>
<td>100%</td>
</tr>
<tr>
<td>Commercial and Multi-Family Redevelopment</td>
<td>45%</td>
<td>85%</td>
<td>100%</td>
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</table>
Community Solid Waste Recycling and Compost

Manager and Field Staff

11 million

Community Stormwater

Manager, Stormwater, Forester and Field Staff

7 million

Community Parks

Manager and Field Staff

5 million

Municipal Climate and Energy

Internal Energy Manager

5 million

Community Climate and Energy

Episodic/Temporary Staff Funding

Episodic Contracted support

Major Energy Purchasers and Internal Energy Fund