

## DETROIT CLIMATE ACTION COLLABORATIVE

Climate change is an issue that is quickly gaining momentum throughout the country, particularly in urban communities. Urban residents often face disproportionate exposure to cumulative risks, lack of open and green space, inadequate access to transportation, as well as high rates of asthma and childhood lead poisoning.

Because global temperatures, precipitation, and the frequency of some extreme weather are expected to increase, climate change will affect Detroiters in many ways. Health, agriculture, forests, water resources, energy, wildlife, and recreational opportunities will be affected by climate change.

In 2011, Detroiters Working for Environmental Justice (DWEJ), the oldest urban environmental justice organization in Michigan, convened several key stakeholders from diverse backgrounds to form the Detroit Climate Action Collaborative (DCAC).

The DCAC was established to help governments within the City of Detroit identify short and long term actions to

reduce green house gas emissions, provide expert advice on the most credible, aggressive and economically viable targets, and to develop the city's first Climate Action Plan (CAP).

In order to develop a comprehensive CAP, the DCAC has established six workgroups - Energy; Solid Waste; Parks, Public Space, and Water Infrastructure; Homes and Neighborhoods; Public Health; and Businesses and Institutions.

*DCAC accomplishments to date include:*

- Partnering with the Great Lakes Integrated Sciences and Assessments (GLISA) to develop Detroit climatology.
- Partnering with the University of Michigan (UM) School of Natural Resources and Environment to conduct the city's first municipal and community-level Green-house Gas Inventory.
- In April, DWEJ's Senior Policy Manager and one of DCAC's founding members, Kimberly Hill-Knott received national recognition as a Community Resilience Leader and White House Champion of

Change.

*Kimberly Hill-Knott, Senior Policy Manager, DWEJ*



- Launched the first phase of a community engagement effort to conduct five focus groups with environmental leaders, city of Detroit departments, residential leaders and business leaders.
- The UM Taubman College of Architecture & Urban Planning developed a comprehensive report defining climate change vulnerability in Detroit, and developed a framework for the DCAC Workgroups for developing innovative goals and action plans.

For more information about DCAC contact Kimberly Hill-Knott at [kimberly@dwej.org](mailto:kimberly@dwej.org).  
Image Source: The White House

## NATIONAL CLIMATE ASSESSMENT

Federal Advisory Committee

**Draft Climate Assessment Report**

Released For Public Review



The Third National Climate Assessment (NCA) report is being revised following extensive review by scientists governmental experts, the National Academy of Sciences, and the public. It scheduled to be completed in early 2014.

The NCA analyzes the effects of global

change on the environment, agriculture, energy production and use, land and water resources, transportation, human health and welfare, social systems and bio-diversity; analyzes current trends in both anthropogenic and natural climate change; and projects major trends for the next 25 to 100 years. Information provided by the NCA will help decision makers design adaptation strategies, help citizens prepare for climate change impacts, and help inform how personal decisions impact the environment.

*Did you know experts from around Michigan contributed to the NCA? [White papers](#) focusing on potential impacts, vulnerabilities, and adaptations options to climate variability and change across many Midwest sectors were submitted to the NCA.*

*Image Source: U.S. Global Change Research Program*

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*"People may not agree about why climate change is happening, but it is certainly affecting Michigan."*

- Rick Snyder  
Michigan Governor

*We will respond to the threat of climate change, knowing that the failure to do so would betray our children and future generations."*

- Barack Obama  
U.S. President

## CLIMATE CHANGE PROFILED MICHIGAN

**Grand Rapids** experienced all-time record rains in April - more than 11 inches. This event pushed the Grand River to the highest level ever recorded in downtown Grand Rapids, nearly four feet above flood stage. As the river surged within inches of topping the city flood wall, water bubbled up in basements of downtown buildings including Forslund Condominiums, the JW Marriott, the Amway Grand Plaza Hotel and Plaza Towers. Residents in Plaza Towers were forced to evacuate when a generator

blew and knocked out electricity to the 32-story building. Two bridges closed. The city discharged approximately 429 million gallons of partially treated sewage into the Grand River.

As the state's second-largest city was in a state of emergency, crews scrambled to protect the waste water treatment plant with a wall of sandbags guarding the perimeter. Preliminary estimates placed flood damage in Grand Rapids at more than \$11 million and about \$6 million in other parts of Kent County.

No single rainstorm or flood can be attributed to global warming. But the flood fit a pattern of severe storms and floods predicted to become more frequent in the decades ahead. It is important to begin adaptation planning now. Public health infrastructure, individuals, communities, and government agencies can take steps to moderate the impacts of climate change. For information about climate change adaptation, visit the Environmental Protection Agency's (EPA) [Adaptation Overview](#) page.

## GREAT LAKES STATION CLIMATOLOGIES

The description of the typical climate of a particular place, its climatology, is based on observations collected by local weather stations over many years. The Great Lakes Integrated Sciences & Assessment (GLISA), in partnership with the Office of the State Climatologist, developed summaries of this information for selected sites

across the Great Lakes region. Each summary includes an overview of the climate along with relevant data and graphs. Review climatologies for some Michigan cities:

- [Adrian](#)
- [Ann Arbor](#)
- [Cheboygan](#)
- [East Tawas](#)
- [Flint](#)

- [Gaylord](#)
- [Grand Rapids](#)
- [Ironwood](#)
- [Marquette](#)
- [Muskegon](#)
- [Sault Ste Marie](#)
- [Traverse](#)

## GREAT LAKES CLIMATIC DIVISIONS

In partnership with the Midwest Regional Climate Center and the Office of the Michigan State Climatologist, GLISA developed summaries of the observed historical climate for the Climatic Divisions within the Great Lakes Basin (see map). Each summary includes an over-

view of temperature and precipitation to help guide local-level climate adaptation decisions.

Learn more about [GLISA](#) and resources available for Michigan and the Midwest.

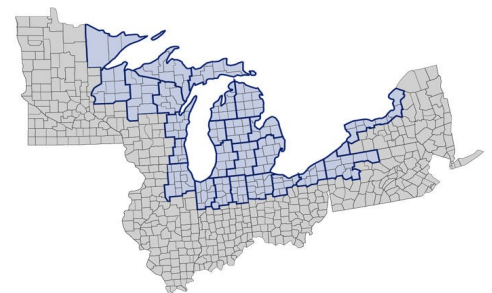


Image Source: Midwest Regional Climate Center (MRCC)

## MICHIGAN CLIMATE COALITION

The Michigan Climate Coalition (MCC) was founded in November 2010 as a partnership of Michigan universities, businesses, nonprofit organizations, and government agencies. It seeks to foster synergy through informative communication and action in order to assist Michigan in responding to climate change.

### 3 Goals of MCC

- **Indexing climate work in Michigan.** The "Climate ID" project collects information about ongoing work related to climate change in Michigan:

reports, initiatives, events, and funding opportunities.

- **Communication and translation.** The MCC translates work - technical reports - to user audiences, making it more accessible.

- **Action and filling in gaps.** The MCC identifies where there are gaps in knowledge, so that targeted research can address those needs.

The MCC is organized around working group themes, and include: Agriculture, Coastal & Great Lakes, Education & Outreach, Energy,

Forests, Health, Inland Waters, Land Use & Planning, Municipalities & Transportation, and Wildlife & Terrestrial Ecosystems.

The MCC is open to all with an interest in climate science, energy efficiency, sustainability and related disciplines. If you are working on climate related research or projects in Michigan, please contact Karissa Weir at [weirkare@msu.edu](mailto:weirkare@msu.edu) to have your work included on the MCC website or in their next newsletter.

This is a great opportunity

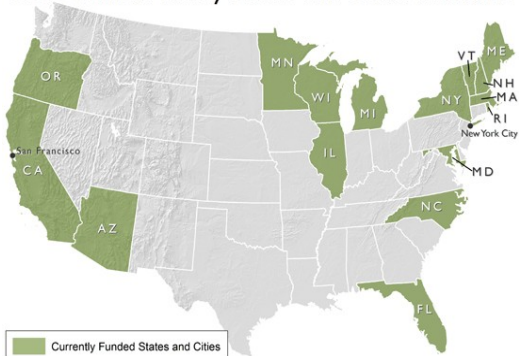
work and/or announce interest in collaboration.

For more information or if you're interested in participating, visit the MCC's website at

[www.miclimatcoalition.org](http://www.miclimatcoalition.org).

## CDC FUNDS 8 ADDITIONAL CLIMATE-READY STATES

### CDC Climate Ready States and Cities Initiative



The Centers for Disease Control and Prevention (CDC) recently funded 8 new states to participate in their Climate-Ready States and Cities Initiative Program. There are a total of 16 funded states and 2 cities. The new awardees are implementing CDC's Building Resilience Against Climate Effects (BRACE) Framework.

A health department's approach to planning for and responding to climate and

weather related health impacts can be greatly enhanced by incorporating emerging integrated models that couple atmospheric science with epidemiology.

The BRACE framework was developed to help health departments incorporate advanced models into other-wise routine planning and response activities.

The BRACE framework involves the following 5 steps:

- 1) **Forecasting Climate Impacts and Assessing Vulnerabilities** - identify the scope of the most likely climate impacts, the potential health outcomes associated with those

climatic changes, and the populations and locations vulnerable to these health impacts within a jurisdiction.

- 2) **Projecting the Disease Burden** - estimate or quantify the additional burden of health outcomes due to climate change - to support prioritization and decision making.

- 3) **Assessing Public Health Interventions** - identify the most suitable health interventions for the health impacts of greatest concern. The health impacts will have been quantified or better defined in the previous health risk assessment step.

- 4) **Developing and Implementing a Climate and Health Adaptation Plan** - develop and implement a health adaptation plan for

climate change that addresses health impacts, gaps in critical public health functions/services, and a plan for enhancing adaptive capacity in the jurisdiction.

- 5) **Evaluating impact and improving quality of activities** - evaluate the processes used, determine the value of utilizing the framework and the value of climate and health activities undertaken. This step is also important for quality improvement and to incorporate refined inputs such as updated data or new information.

*Content & Image Source: Centers for Disease & Prevention*

## State Of Michigan

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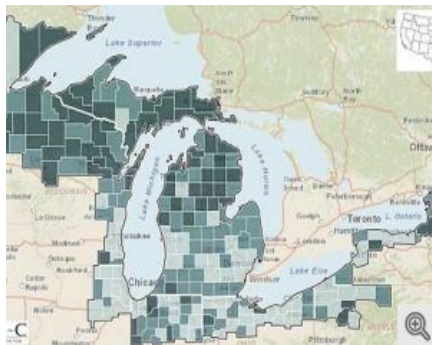
[www.michigan.gov/climateandhealth](http://www.michigan.gov/climateandhealth)

Michigan Department  
of Community Health



Rick Snyder, Governor  
James K. Haveman, Director

## UNIVERSITY OF MICHIGAN AND HEADWATERS ECONOMICS LAUNCH INTERACTIVE MAP TO SUPPORT CLIMATE CHANGE ADAPTATION PLANNING IN GREAT LAKES



Screenshot of interactive map that shows how the social and economic characteristics of the Great Lakes Region are impacted by regionally specific changes in climate. It was developed in partnership with the Great Lakes Adaptation Assessment for

and decision-makers easy access to targeted data to help them plan for, and adapt to, the regional impacts of climate change.

The free online tool, "Socioeconomics and Climate Change in the Great Lakes Region" map, provides social, economic and demographic statistics on 225 counties in the region, overlaid with detailed data about municipal spending, land-use change and climate change characteristics.

A jointly developed interactive map launched by the University of Michigan's Graham Sustainability Institute and Headwaters Economics gives Great Lakes policymakers

The online tool includes historical data from 1951 to 2011, and covers counties in the states of Minnesota, Wisconsin, Michigan, Illinois, Indiana, Ohio, Pennsylvania and New York.

The online map is available for use at no cost through both the Graham Sustainability Institute [www.graham.umich.edu](http://www.graham.umich.edu) and Headwaters Economics <http://headwaterseconomics.org> websites.

*Image Source: Headwaters Economics*

### MICHIGAN CLIMATE & HEALTH PROGRAM (MICHAP) EVALUATION COMING SOON

Since 2009, MDCH has received funding from CDC to develop capacity in Michigan for a public health response to climate change. Now that the current funding period is coming to an end, we want to evaluate the impacts of MICHAP activities on local health departments. MICHAP is requesting that public health professionals be on the look out as the survey will be distributed soon to Health Officers, Environmental Health Directors, Emergency Preparedness Coordinators, and Health Educators/Health Promotions Directors. Please

contact Martha Stanbury at [stanburym@michigan.gov](mailto:stanburym@michigan.gov) or Dominic Smith at [smithd82@michigan.gov](mailto:smithd82@michigan.gov) with questions.

### 2012 WEST NILE VIRUS IN MICHIGAN UPDATE

Many states experienced a resurgence of arbovirus activity in 2012 with 5,674 human West Nile Virus (WNV) cases and 286 deaths reported in the U.S., the second highest number since 2003. Michigan was no exception with 202 cases and 17 deaths, the most human cases of WNV reported in the state since 2002. Of the 202 Michigan cases, 143 (71%) were classified as the more serious neuroinvasive disease

(e.g., meningitis, encephalitis, acute flaccid paralysis). Many survivors of neuroinvasive WNV required long-term rehabilitation.

#### *Epidemiology At A Glance:*

- The age range for Michigan WNV cases was 2-91 years with a median age of 57 years.
- The case fatality rate for patients with neuroinvasive disease was 12%.
- Blood donor screening detected 38 donors with evidence of WNV in their blood at the time of donation. Of these, 11 became symptomatic.
- 52% of cases were male.

To learn more about WNV, visit [www.michigan.gov/westnile](http://www.michigan.gov/westnile)