

Legislative Agenda Topic: Climate Change

GOAL: Meet the challenges of climate change related to:

- Heat waves and droughts
- Flooding and stormwater control
- The built environment
- Air quality
- Emergency response and communication

ISSUES: The climate is changing, evidenced by warming temperatures and more instances of extreme weather such as droughts, heat waves, abnormally heavy rains, floods, wildfires and tornados. The average temperature across the contiguous United States for the first half of 2012 has been the warmest on record, dating back to 1895, according to the National Climatic Data Center. Globally, the 10 hottest years on record have all occurred since 1998. July 2012 was the hottest month on record while September 2012 tied for the hottest September ever according to the National Oceanic and Atmospheric Administration. Glaciers and sea ice are melting.

BACKGROUND: UW-Madison climate scientists predict that Wisconsin's warming trend will increase considerably in the decades ahead. Warming increases the risk of extreme weather as the cycling of water between the ocean, atmosphere and land speeds up, resulting in more intense rainfall and droughts across the globe.

A study by the Union of Concerned Scientist found that dangerously hot weather has increased throughout the Midwest during the past 60 years. Madison suffered from flooding in 2008 and a drought and several 100-degree days in 2012. The city of Madison must adapt to changing conditions. Planning now can help the city protect people, property and resources. A comprehensive plan must include the reduction of heat-trapping greenhouse gas emissions and adaption to climate change impacts.

OPPORTUNITIES: The Wisconsin Initiative on Climate Change Impacts (WICCI) at the University of Wisconsin – Madison is a world class research and modeling group working to help municipalities understand and plan for the local impacts of climate change with tailored tools and models. Madison has a unique opportunity to engage directly with the UW scientists to formulate plans to strengthen resilience to climate impacts, and reduce emissions.

CHALLENGES: Planning for climate change from a city management perspective requires an understanding of the potential scale and scope of the impacts, and a willingness to utilize a cross-agency or interdisciplinary approach to incorporate climate change risks into planning for all city services.

STRATEGIES

Heath waves and droughts

1. Specify locations for cooling centers, direct staff to find out where vulnerable elderly people live and how to communicate with them and transport them if necessary.
2. Budget the addition of portable splash parks.
3. Prepare adequately for possible power outages.
4. Plan how to conserve water in case of drought. Establish a drought policy for water use within the city, and activate the policy based on conditions. Coordinate with the Water Utility to make sure sufficient water is stored to meet needs.

Flooding and stormwater control

1. Re-examine ordinances and wetland/shoreline management programs to make sure they are strong enough to deal with changing climate and extreme weather
2. Analyze infrastructure capacity to make sure stormwater will not overflow and the sanitary sewer network will not back-up into buildings during heavy, long-lasting rainstorms. Ensure the designs of sanitary and stormwater systems are coordinated to minimize high water impacts.
3. Research ways to minimize stormwater inflow and maximize groundwater infiltration. Adopt a net zero runoff site plan requirement.

The built environment

1. Identify 200-year floodplains and prevent future development in those areas.
2. Develop incentives to encourage infill development in areas at low risk for flooding.
3. Direct staff to design and reconstruct roadways to handle changes in temperature and precipitation. Explore new materials and use more permeable surfaces.

Air quality

1. Encourage use of mass transit, walking and bicycling to reduce pollution from carbon-based fuels. Consider a wheel tax.
2. Currently the city is signed up to have 22% of electricity in green power (Metro Transit and Monona Terrace are at about 50%). The city should increase this percentage to 25%, then 30%, then 50% over time.
3. Educate the public about causes and dangers of fine-particle pollution and smog.

Emergency response and communication

1. Educate residents and businesses about the danger of extreme weather and what individuals should do in case of emergency.
2. Continue to work with Dane County and surrounding communities to refine emergency shelter and evacuation plans. Make sure all entities can communicate in an emergency.

MOVING FORWARD:

Relevant City Departments and Committees:

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|----------------------------------------------|-----------------------------------------------|
| City-County Liaison Committee | • City Engineering |
| Common Council Organizational Committee | • Fire Department |
| Economic Development Committee | • Fleet Services |
| Committee on the Environment | • Information Technology |
| Board of Health for Madison & Dane County | • Parks Division |
| Long Range Transportation Planning Committee | • Planning & Community & Economic Development |
| Pedestrian/Bicycle/Motor Vehicle Commission | • Public Health Madison & Dane County |
| Plan Commission | • Streets Division |
| Board of Public Works | • Traffic Engineering |
| Sustainable Madison Committee | • Madison Metro |
| Transit & Parking Commission | |
| Urban Design Commission | |
| Zoning Board of Appeals | |

External Partners:

Department of Natural Resources
University of Wisconsin (Wisconsin Initiative on Climate Change Impacts)
EPA
HHS
Clean Wisconsin

Timeline:

Planning may require 1 – 3 years

Milestones/Tracking Progress:

Need to develop a unique climate change plan for Madison with metrics specific to local needs and opportunities