Located at the southern reaches of the Great Lakes region in southern Ohio, the City of Dayton faces similar challenges to other ‘rust belt’ cities. Dayton’s population peaked in the 1960’s at approximately 260,000 and since then has declined to the current population of 141,527. Parts of the city have upwards of 30% vacancy rate. Despite these challenges, the city staff is determined and energized to develop a more sustainable city so that Dayton becomes a ‘city of choice’ for the region and beyond.

**UNIQUE FACTS**
- Conducted a regional survey that helped identify challenges and opportunities for addressing climate change in Dayton, Ohio.
- Survey team consisted of city staff, the Miami Conservancy District (MCD), The Miami Valley Regional Planning Commission (MVRPC), and Wright State University (WSU).

**OPPORTUNITIES**
- The Great Miami Aquifer underneath Dayton is an important asset for the city, helping to attract and retain high volume users and complementary businesses.
- City staff have strong cross-sector partnerships enabling them to quickly raise awareness about issues related to the impacts of climate change.
- Residents have a broad awareness that climate change exists and that it negatively impacts them.

**CHALLENGES**
- City staff has identified five key service areas: Water, Public Health, Infrastructure/Transportation/Energy, Emergency Management, and Natural Systems which will be impacted by climate change but still need to implement next steps to increase community engagement.
- The loss of industry and population over the past several decades has made addressing climate change a major financial challenge.

**CLIMATE IMPACT**
- More Days in the Growing Season (1951-2012)
  - 9
- Fewer Days Below 32°F (1951-2012)
  - 7.7
- Increase in Days with 1.25” or More Precipitation (1951-2012)
  - 143%
- (4.4 day) Increase in Annual Precipitation (1951-2012)
  - 30%
ADAPTATION PROJECT:
CLIMATE CHANGE SURVEY

The City of Dayton, Ohio conducted a survey to assess community beliefs, attitudes, knowledge, and behaviors as they relate to climate change. The city collected responses from 516 participants and summarized the findings in a technical report.

Four Survey Venues:
• Neighborhood Leadership Institute
• City of Dayton Employees
• Dayton International Airport
• University of Dayton River Summit

The project was made possible due to strategic partnerships across multiple departments:
• City of Dayton (Aviation, Economic Development, Planning/Community Development, and Water)
• Miami Conservancy District (MCD)
• Miami Valley Regional Planning Commission (MVRPC)
• Wright State University (WSU)

If funding becomes available, the next step is to use the survey findings to develop a persuasive messaging campaign designed to increase community engagement and behaviors that provide personal and regional resilience to climate change. The survey structure was based on the “Climate Change in the Ohioan Mind” report provided by the Yale Project on Climate Change Communication.

SURVEY RESULTS

<table>
<thead>
<tr>
<th>%</th>
<th>Believe Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>69%</td>
<td>Believe climate change is important</td>
</tr>
<tr>
<td>71%</td>
<td>Believe people can reduce climate change</td>
</tr>
<tr>
<td>44%</td>
<td>Willing to give money to affect climate change</td>
</tr>
<tr>
<td>69%</td>
<td>Believe their work is affected by natural disasters</td>
</tr>
<tr>
<td>77%</td>
<td>Believe climate affects human health</td>
</tr>
<tr>
<td>83%</td>
<td>Believe climate change is affected by many factors</td>
</tr>
</tbody>
</table>

ADAPTATION WORKSHOP

The City of Dayton, with support from the Climate Center, held their first Climate Change Adaptation and Resiliency Workshop on June 25, 2013. Participants included over sixty-five city staff, elected officials, and key community stakeholders who learned about steps to build and maintain an economically vibrant, environmentally healthy, and resilient community.

The goals of the workshop were to:
• Identify what a changing climate means for city officials and staff.
• Identify how the city can take steps to build and maintain an economically vibrant and resilient community.

For more information visit:
graham.umich.edu/climate/adaptation/urban/dayton
Cover photo courtesy of Wikimedia Commons

GLAA-C
Great Lakes Adaptation Assessment for Cities

The Great Lakes Adaptation Assessment for Cities increased understanding about the challenges and opportunities municipalities face when adapting to climate change. This effort was supported by the Kresge Foundation and the University of Michigan’s Graham Sustainability Institute, which fosters sustainability through knowledge, learning, and leadership. For more information on the project, see: www.graham.umich.edu/climate.