



Building Resilient Communities

Climate Adaptation Week
October 7-9, 2013
Tom Ridge Environmental Center (TREC)

Summary

As part of a broader effort to build a more resilient community in the city of Erie and the surrounding region, four organizations came together to engage elements of the community in an effort to begin institutionalizing resiliency planning. Freshwater Future, Environment Erie, PA Sea Grant and the NW Pennsylvania Green Economy Task Force collaborated with support from Highmark and Erie Insurance, to organize and host the event.

Over three days in October we hosted three distinct audiences to consider how the changing climate is and will continue to impact their work. The common theme was to explore proactive ways to incorporate the changing climate into long-term planning and projects. The three audiences included: *community groups* engaged in on-the-ground work from neighborhood improvement and community gardens to watershed improvement; *researchers* engaged in scientific work that while not focusing on climate change may well be impacted by environmental changes associated with climate change; and *facility managers and municipal officials* who must plan for future conditions and respond to immediate needs – particularly stormwater management. The program for each of these audiences was tailored to their specific needs and is described in turn below. Common elements of the three programs included an overview of the climate related changes taking place in the Great Lakes region and the Erie area. Materials provided by Freshwater Future and PA Sea Grant gave attendees a solid introduction to those changes and the impacts they may have on human activity and the environment.

In addition to the formal workshop time, Climate Adaptation Week also included a Wednesday luncheon speaker and two social activities. Over lunch on Wednesday, Andy Walker, Assistant City Manager of Meadville, shared the efforts he helped lead to establish a stormwater plan and financing mechanism for the City of Meadville. Meadville is one of only three Pennsylvania cities to institute a stormwater management fee tied to the impervious surface area of all landowners. For the first social event, Environment Erie organized a Murder Mystery Dinner at TREC on Monday evening October 7. Over 60 guests enjoyed good food and drink all while seeking clues and attempting to solve a wonderfully complex murder or two taking place around them. Second, we capped the week's events with a happy hour presentation by Matt Grey of the Cleveland Mayor's Office of Sustainability. Matt presented an overview of Cleveland sustainability efforts and their recently completed Climate Action Plan.

Workshop Overview

Climate Adaptation Week was comprised of three distinct sessions, each of which targeted a different audience. Each of these three sessions is described in more detail below.



Community Organizations: The first day and a half of Climate Adaptation Week, focused on community organizations – most of which are engaged in small scale community improvement projects. The sequence of presentations and discussions built on information regarding the impacts of a changing climate and how those changes might impact these groups’ existing and future projects. Subsequently, participants worked in breakout groups to identify specific issues that apply to their own projects and what changes or tweaks to their plans might make those projects more resilient to climate related changes. For example, a group considering urban or watershed protection tree planting projects would want to carefully consider species selection in light of the changes to the hardiness zones that have already taken place and that are likely over the next several decades. Likewise, groups planning small scale stormwater management activities (rain barrels and rain gardens) will need to factor in the increasing frequency of intense precipitation events.

The progression of activities with community groups was designed (largely by Freshwater Future) to walk participants through the elements of thinking through how their existing efforts could be bolstered by taking climate related changes into account in the planning and implementation process. Thus by the end of the workshop, participants were well prepared to submit grant proposals to Freshwater Future for resources to add climate adaptation elements to their existing work. Since the workshop, climate week co-hosts have reached out to participants to encourage them to follow up with a grant application and offered to help both with the grant process and implementation of climate adaptation measures in their work.

Researchers: The second half of day two was devoted to researchers whose work may be impacted by climate related changes. For example, a researcher focusing on invasive species in the Lake Erie watershed could see significant shifts in the relative success of invasive species compared with native species as changes to stream or lake water temperature occur. Following brief summaries of the science of climate change and observed and predicted changes in the Great Lakes region, participants engaged in an open discussion of what kinds of questions researchers want answers to in relation to how they can ensure that climate related changes do not undermine the validity or effectiveness of their work. Some of those questions included: 1) how to address climate so it doesn't compromise research results; 2) how to incorporate climate and finding funding sources to do so as part of a project but not changing the focus entirely; 3) how to find funds to support ongoing monitoring that is important for helping to document climate change and associated ecosystem changes. Participants discussed the potential value of future webinars devoted to these questions as a way to help researchers ensure that their work is resilient to the environmental changes linked to climate change.

Municipalities and Facility Managers: The third and final day of Climate Adaptation Week was designed for those with larger scale responsibilities. Again, the program included a brief introduction to climate change and the observed and predicted changes in the Great Lakes and Erie region. The most tangible impact that participants in this group are dealing with is increasing stormwater runoff associated with more intense precipitation events and larger impervious surfaces associated with development. At the same time, municipalities in particular are under increasing legal requirements to manage stormwater. Consequently, we scheduled a presentation by Andy Walker, Assistant City Manager of Meadville, PA, to provide an overview of the efforts there to a) identify, prioritize and quantify the stormwater related needs in that community and b) generate the resources necessary to finance those needs without drawing on the city’s general fund resources. Mr. Walker described the



process by which the Meadville community agreed to adopt a stormwater management fee program that is tied explicitly to the impervious surface area of each parcel within the city. The program for this audience concluded with a demonstration of Wii-Table technology which allows users to overlay data (such as 100 or 500 year floodplain data) onto interactive maps of the region using a table top display. This allows groups of 5-8 people to collectively experiment with the impacts on local facilities, infrastructure, residents, or vital ecosystems of differing assumptions regarding flood events. The technology has far reaching potential for planners and the public to conduct scenario planning exercises, and was well received by participants. Based on feedback from this session, a follow-up workshop will be scheduled for 2014 that provides in-depth formal training on the WeTable software, its use, and application.

Lessons Learned

Based on participant responses to evaluation forms and subsequent discussions among the organizers of Climate Adaptation Week, we have identified the following lessons learned. Some of which are expressed in terms of questions that need further consideration.

1. Greater time for prep and outreach. Many of us felt that if we had programmed more time to conduct outreach to specific potential participants that we could have generated larger attendance. We know for example, that there are numerous other community organizations involved in activities that will be impacted by climate changes, but because those impacts may not be immediately clear to those involved, greater emphasis on individual outreach is needed to draw them in. Nevertheless, we anticipate that by beginning with even a relatively small number of organizations will lead to wider acceptance of similar efforts in the future.
2. We discussed without resolving the dilemma of hosting the events at the Tom Ridge Environmental Center as opposed to a downtown or community venue closer to our target audience. While TREC has state of the art facilities and is available at no cost to organizations housed there, it is distant from many target neighborhoods and transportation may be an impediment for some. On the other hand, part of the value of hosting at TREC is to expose the greater public to the facility and its resources. Moreover, replicating the event at multiple neighborhood based facilities will undoubtedly increase the cost of holding these workshops.
3. Start small and build out from there. Erie, like many communities, needs to see examples of successes for ideas to catch on. Climate Week was a new concept in the Erie community and as such had to compete with many other activities and events. We anticipate that by engaging even a handful of community organizations, researcher and municipal officials in incorporating climate adaptation planning into their activities, we will be able to leverage those successes into broader interest and engagement in the future.
4. Finding the right language to engage the community. “Climate Change” may be an accurate term, but if it turns people off, then we need a different vocabulary to engage the community. Thus in future outreach and efforts we intend to focus on “building resilient communities” as an alternative to an explicit focus on climate change or global warming.

Next Steps/Future Activities



1. Work with participants to implement climate adaptation elements into their projects.
2. Plan further outreach to similarly situated community organizations to make them aware of what others are doing and potential source of funding through Freshwater Future.
3. Support proactive municipalities in their efforts to systematically address stormwater issues and seek ways to promote secure revenue streams to fund those efforts.
4. Continue to highlight planning tools and best practices for climate adaptation planning in the region.
5. Consider holding a similar series of workshops in the future to both highlight local success stories and to draw other organizations into the effort.
6. When opportunities present, work with political, community and business leaders to promote more coherent and region-wide climate adaptation planning.