

Extreme Weather and Emergency Preparedness

Community Resiliency Summit 2014
October 8-10, 2014
Tom Ridge Environmental Center (TREC)

Summary

Over three days in October, members of the Erie region's professional and residential communities meet to consider how prepared our community is for the extreme weather and other emergencies associated with climate change. This second annual event is part of a broader effort to build hazard resiliency in the city of Erie and the surrounding region. A collaboration of four local organizations, the Summit was designed to engage elements of the community in a long term effort to institutionalize resiliency planning in the region. Environment Erie, PA Sea Grant, Mercyhurst University and the NW Pennsylvania Green Economy Task Force planned the event and are grateful to our sponsors: the American Red Cross, Erie Insurance, National Fuel, and Walmart for their support. This document provides a summary of this year's summit as well as considering lessons learned and proposing next steps for future activities.

The 2014 Summit began Wednesday evening (October 8) with a screening of *Extreme Realities*, a documentary narrated by Matt Damon, which looks at the link between the extreme weather associated with climate change and geopolitical events. The film was followed by a brief audience discussion about how climate change impacts are being felt now and what that may mean for the Erie region and individual energy choices. *Extreme Realities* thus helped set the stage for the next two days of the summit.

Day two (October 9) included a series of events designed to help homeowners and our community be better prepared for weather related extremes. Thanks to our sponsors, each participating household received a "go bag" containing some of the items that are recommended to have ready in case of emergency. The evening began with another documentary film, *Green City, Clean Waters*, highlighting efforts in residential communities around Philadelphia to manage urban stormwater runoff and thus improve water quality in local waterways. Subsequent speakers provided: an historical look at extreme weather and flooding events in the Erie area; an overview of Erie County emergency management planning; and an introduction to the need for Mental Health First Aid to support both responders to and victims of disasters. Finally, Trish Lawrence of the Red Cross provided a keynote presentation on the importance of having a family plan to deal with emergencies.

Day three (October 10) focused more on the role of professionals in preparing for extreme weather events. The day began with screening of *Green City, Clean Waters* and a post film panel discussion of stormwater management techniques. The morning speakers covered: localized weather events including lake effect snow and single/multi cell thunderstorms; Millcreek's cutting edge StormReady program and how citizens can businesses can participate; and architectural approaches that draw on natural elements to improve resiliency and energy efficiency. The luncheon keynote was delivered by Scott Graham of the national Red Cross. A representative of OSHA discussed the importance of ensuring that disaster response efforts follow safety and health regulations to prevent compounding

the situation. The final panel of the day included representatives of regional utilities – Penelec, National Fuel and the Erie Water Authority. Each described the steps they are taking to anticipate and mitigate the effects on their operations of extreme weather.

Workshop Overview

The 2014 Summit began Wednesday evening (October 8) with a screening of *Extreme Realities*, a documentary narrated by Matt Damon, which looks at the link between the extreme weather associated with climate change and geopolitical events. For example, the film traced the connection between the intense heat wave and drought that dramatically reduced the Russian wheat harvest in 2010. The subsequent Russian ban on wheat exports led to sharp price spikes in the price of wheat and to shortages in import dependent countries in the Middle East. Bread shortages, in turn, led to bread “riots” that helped fuel the Arab Spring rebellions that reshaped the political landscape in the region. The film was followed by a brief audience discussion about how climate change impacts are being felt now and what that may mean for the Erie region and individual energy choices. *Extreme Realities* thus helped set the stage for the next two days of the summit.

Day two (October 9) included a series of events designed to help homeowners and our community be better prepared for weather related extremes. We began with another documentary film, *Green City, Clean Waters*, that highlighted efforts in residential communities around Philadelphia to manage urban stormwater runoff. It both improves the operation of the municipal sewer system and directly reduces contamination reaching local waterways. The film documents a variety of specific techniques – some of which have also been used in the Erie region – like rain gardens, permeable pavement and rain barrels. The film also highlights the way in which these efforts have the additional benefit of building neighborhood cohesion. The film was followed by a discussion with Anita Brooks Dupree of GreenTracks Network, the organization that produced the film.

Day two continued with a series of presentations and a keynote speaker from the local Red Cross. Dale Robinson, head of Erie County Emergency Management, spoke about setting the politics of global warming aside and focusing on the need to improve community resiliency in the face of a wide range of risks, including severe weather. He touched on a number of ways individuals and communities can be better prepared. Thomas Cook, Asst. Professor of Public Health at Mercyhurst University, spoke of Mental Health First Aid - the often overlooked need to address the mental health needs in the wake of disasters. Professor Cook stressed the importance of individual resiliency (as supported by mental health services) to the community rebuilding process following disasters and emergencies.

Day two’s keynote speech was delivered by Trish Lawrence, Director of Disaster Services for the American Red Cross. She stressed the importance of a family plan to deal with emergencies and provided tips, strategies and tools (including new Red Cross apps) that families can use to boost their preparedness. With help from the Red Cross and other sponsors, we were able to give the first 45 families in attendance “Go-Bags” filled with some of the basic materials all families should have at the ready. Ms. Lawrence also reviewed the contents of a well prepared “Go-Bag.” The final presentation of day two was by Sarah Jamison of the National Weather Service in Cleveland. Ms Jamison provided an in depth look at extreme weather and flooding events in the Erie region. After reviewing historical

events that many in the audience remember or heard about, she addressed the increased likelihood of future extreme weather events based on recent observed trends in the Great Lakes region.

Day three, Friday October 10, was a full day of presentations focusing more on the role of professionals in building community resiliency to and preparedness for extreme weather. Again the day began with a screening of Green City, Clean Waters and discussion with the filmmaker and Dan Dahlkemper of Dahlkemper Landscaping. Again the value of relatively low tech stormwater management techniques was stressed. Adam Trott, Architect, provided an introduction to Biohilic Design as a key piece of evolving our built environment to be more resilient and energy efficient. This approach to design is informed by and incorporates the natural world around us. Mr. Trott reviewed specific applications of this principle in his work and provided advice on how individuals or businesses can move in this direction.

The final two morning presentations were by Kerry Moyer of Edinboro University and Matthew Exley of Millcreek Office of Emergency Management. Professor Moyer shared his expertise in mesoscale weather systems such as lake-effect snow bands and single or multi cell thunderstorm – both endemic to our region. He reviewed how these relatively small scale weather systems are generated and the types of threats they pose for communities seeking to become better prepared. Mr. Exley reviewed Millcreek Township's cutting edge StormReady program as well as ways individuals and businesses should prepare for emergencies. As part of the StormReady program, Millcreek conducted a thorough review and revision of emergency plans for a wide range of events and developed a proactive communications strategy using a variety of approaches to inform residents of actual or threatened emergencies.

Over lunch, attendees heard from our keynote speaker, Scott Graham, Disaster Executive for Mid-Atlantic Division of the American Red Cross. Mr Graham focused on one of the most preventable disasters – home fires – and what the Red Cross is doing to educate the public about avoiding fatal home fires. Mr. Graham also introduced several recently developed apps the Red Cross has created as part of efforts to educate and interact with the public regarding disasters and emergencies. An engaging speaker, Mr. Graham exhorted participants to get personally involved in improving local preparedness.

After lunch, Rich Pietron of OSHA (the Occupational Safety and Health Administration) addressed safety after the storm. He stressed the importance ensuring that individuals and companies involved in post storm mitigation services follow safety and health regulations. Post storm recovery thus poses its own set of risks to those working on those efforts, risks that can be minimized by adhering to applicable OSHA regulations and guidance.

The final segment of the three day summit was a panel discussion of efforts being taken by local utility companies to plan for extreme weather and sure continuity of service. Dale Robinson, Erie County Emergency Response Coordinator, moderated the panel. Bill Jerin of PENELEC discussed how Penelec is preparing for extreme weather. He also highlighted a number of safety issues for homeowners and businesses related to their electric service and weather extremes. Michael Anderson, Safety Manager for National Fuel, addressed the natural gas delivery system and severe weather. While most pipeline infrastructure is underground and somewhat protected from weather, there are still a number of weather related risks to the system. Mr. Anderson's presentation reviewed those risks with a focus on what homeowners and businesses can do to minimize safety risks associated with natural gas and sever weather. Finally, Craig Kern, of Erie Water Authority, described the 15 year effort the Authority

has undertaken to invest in critical infrastructure and systems to ensure uninterrupted service. Mr. Kern describe how Erie Water Works has used the Climate Resilience Evaluation and Awareness Tool to position itself as a leader in Emergency Preparedness in Pennsylvania and beyond among water utilities. He also described the work to be done Erie Water Works in collaboration with partners and customers to build a thriving and resilient community.

A note on process: Planning for the 2014 Summit began in January and the core planning team met at least monthly throughout the year. We develop a timeline for the year of activities and milestones in the planning process. In April we hosted a broader stakeholder planning meeting to which we invited individuals involved in some aspect of extreme weather and/or emergency planning. This group provided valuable direction for planning the summit. Subsequently, we issued a call for presenters inviting interested individuals to present an idea of a presentation they would be willing to make relating to the topic of extreme weather and community resiliency. In addition, we developed a list of potential presenters that we reached out to individually given their particular and relevant expertise.

Lessons Learned

Based on participant responses to evaluation forms and subsequent discussions among the organizers of the Community Resiliency Summit, we have identified the following lessons learned. Some of which need further consideration.

- Given the use of a call for presenters approach, we ended up with several sessions that were not directly relevant to the focus of the summit. We need to be more disciplined about only including those panels or speakers that are on point.
- It was good to have exhibitor space – but we need to expand that space and perhaps hold an evening poster session or social hour that maximizes attendees exposure to exhibitors and allows interaction.
- Getting professionals to attend continues to be a challenge. We felt that shortening the session devoted to a professional audience may help boost participation.
 - Offer certifications or CEU to attract more professional attendance
- Some of us like the idea of more concurrent sessions – offering attendees more choices within the larger summit.
- The evening event for homeowners would be better if it started and ended earlier, and included shorter individual sessions.
- Include either more or longer breaks in the program to encourage networking among participants and presenters. This could also support the expanded use of the exhibitor space during the event.
- Consider alternative formats. Perhaps several smaller events over the year rather than one larger event. This idea in particular needs further reflection.
 - Summer weekend / outdoor festival with vendors, tours of TREC & garden areas?
 - Workshop oriented vs results oriented (learn stuff or get stuff done) ?
 - Jan-April best time for indoor workshops
 - Split sessions: homeowners in the spring /professionals in the fall (address timeline accordingly)?
 - November is best time for farmers (Agricultural focus/topic)

- Although efforts to promote the summit were better in 2014, this needs continual improvement.
 - Publishing the NIE page earlier would be good to help drive registration.
 - Incorporate / utilize social media, Facebook, photos
- Increase “natural” content – make clearer connections to climate change
- Process improvements:
 - Provide speakers with a bio template for their completion
 - Develop media/technology plan: e.g., speakers requested lapel mic
 - Obtain speaker preferences prior to event date and prepare
 - Requests speaker presentations ahead of time

Next Steps/Future Activities

We anticipate continuing the annual community resiliency summit, although as described above, we continue to seek ways to refine our approach to be most effective. For 2015, we are planning to focus on the impact on tourism and recreation of climate related changes in the Erie region.

An exciting new role for our group may be to lead implementation of part of the Destination Erie long term regional plan, which calls for Climate Action Planning as one of the key Environmental priorities. We will be continuing to formalize our collaboration by defining governance more clearly and developing a committee structure to clarify roles and engage additional stakeholders as we expand our efforts. Finally, we are developing a funding raising strategy to support this broader role in regional climate planning.