



**March 8, 2012**

**Summary Report for Community Decision Makers  
Nurture Nature Center Forum  
The Future of the Lehigh Valley:  
What Will Climate Change Mean for Us?**

This report summarizes the results of a community forum on climate change in the Lehigh Valley held at Nurture Nature Center (NNC) on February 9, 2012. The report synthesizes the perspectives of a diverse public audience on the topic, and reveals that a majority of forum attendees feel that climate change is an issue that should be addressed at the local level. This report is designed for local decision-makers and other stakeholders to provide them with detail about the concerns and priorities of the local community related to climate change.

NNC's mission is to help communities address local environmental risks through science, art, and dialogue. With support from the National Oceanic and Atmospheric Administration (NOAA)<sup>1</sup>, NNC hosted a community forum on climate change in the Lehigh Valley at its Center in Easton, Pennsylvania. Over 90 people attended the event and about 80 participated in the dialogue. This forum was part of a four-part series on climate change hosted by NNC. The four-part series began with two lectures from Dr. Sahagian, a climate expert from Lehigh University, on global climate change. The lectures were titled *Climate 101: The Nature of Climate* and *Climate 102: A People Planet*. These lectures were followed by the community discussion forum. An art-based workshop that focused on land use concluded the four-part series. This report will summarize the results of the forum only.

The forum provided an opportunity for discussion about community-specific issues related to climate change at a local level, particularly flooding. The program helped to educate

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community members about climate and flooding and to gather and share with area decision-makers their meaningful feedback, including concerns and priorities about localized climate change. About thirty of the participants were in attendance because a professor had suggested they attend the forum as part of a class assignment. Other attendees were interested in learning more about climate change or discussing the issues with community members.

Participants understood that their feedback would be summarized in a report that would be delivered to decision-makers in their community. This report, compiled by NNC, contains a summary of the community responses during the forum as well as results from a survey conducted by RMC Research Corporation, an independent project evaluator funded through the NOAA grant.

### **Program Format**

The forum began with a short presentation by Dr. Sahagian that summarized his previous Climate 101 and 102 lectures and then described climate change on a regional level. After a short question and answer session, the attendees were seated at tables of 5 or 6 for a facilitated discussion of two multiple choice questions. A table facilitator trained by NNC was seated at each table to help ensure that participants followed established dialogue rules, and to record the general substance of the discussion at each table. Although the questions were multiple choice, participants were given the option of writing a separate answer if the multiple choice options were not one the participant wanted to choose. Participants were asked to think quietly about the question for a couple minutes and then hold a conversation at their table for about ten minutes before answering the question. Following the deliberation, table facilitators summarized their table's discussion to the larger audience. The program concluded with a short open floor period, in which participants were invited to share whatever they wanted relevant to climate change and flooding.

The first question posed, with answers, was:

Is it the responsibility of the local community to address climate change?

- a. No, this is not a local issue, but a global one
- b. Yes, each person or community should do what they can
- c. No, I don't believe climate change is a pressing issue
- d. No, regulations need to be made on the state and federal level
- e. Other.

The second question, with answers, was:

If we can expect wetter conditions in the future and therefore more flooding, how do you think local communities should prepare? (Please rank the following from 1 (lowest priority) to 5 (highest priority))

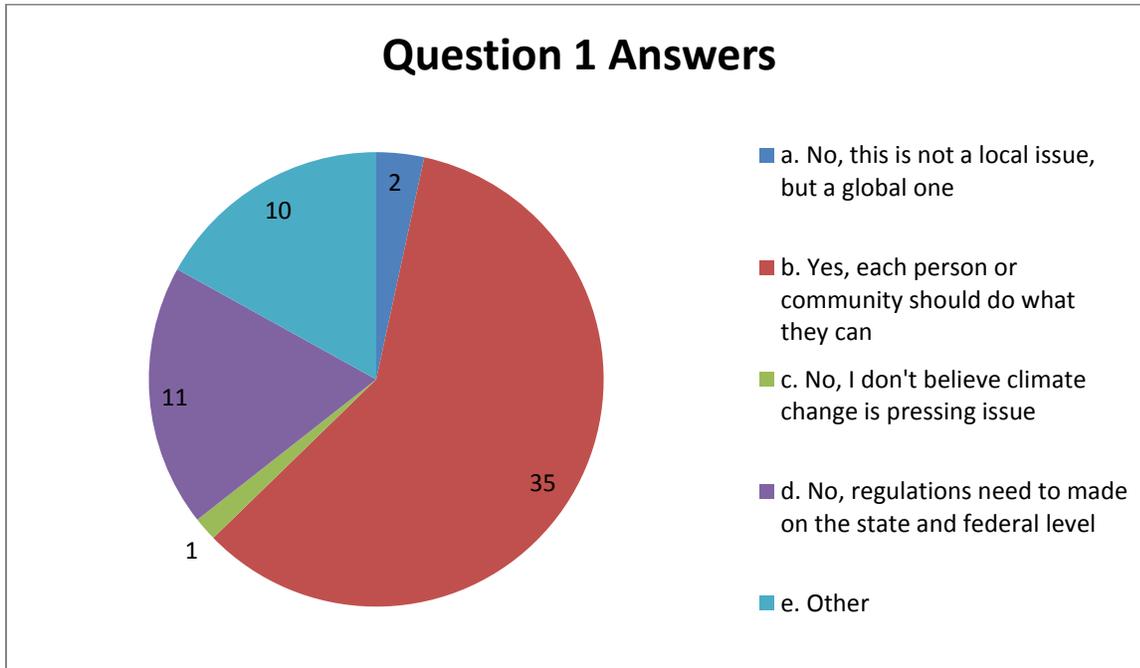
- a. Design and build infrastructure to accommodate increased storm water
- b. Develop better flood warning and preparedness systems
- c. Restrict building in the floodplain

- d. Better protect existing housing in the floodplain
- e. Other

**Community Response to Questions Posed**

Participant responses to questions 1 and 2 are shown below.

Responses to Question 1:

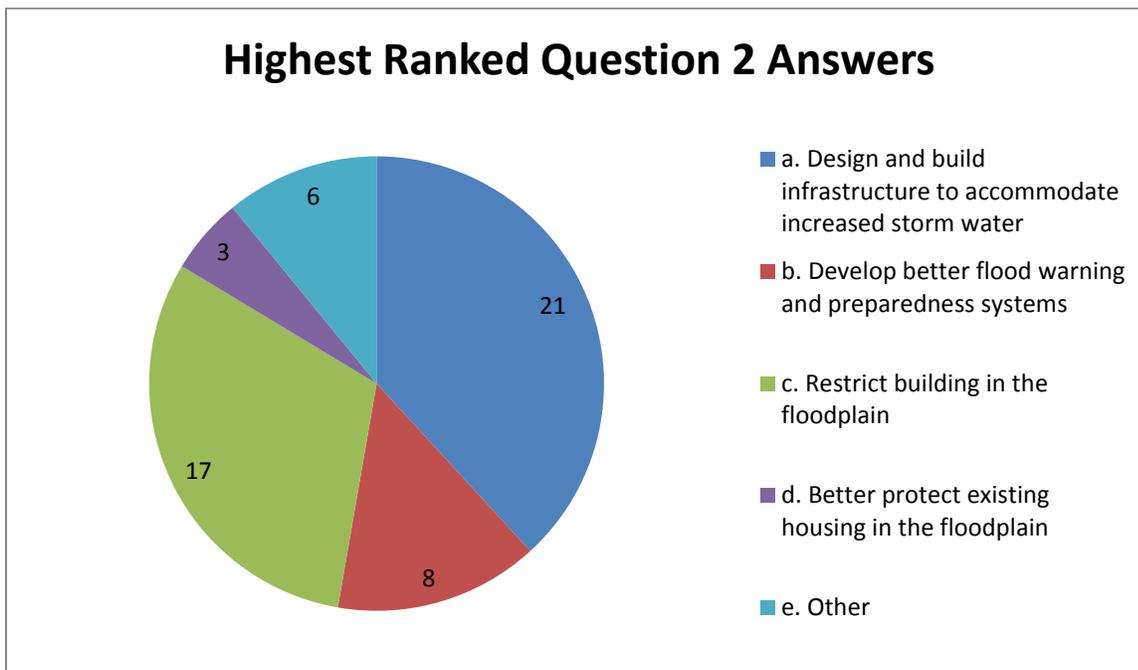


A few people answered both b and d. For those answering other, the responses were as follows:

- Not an individual effort alone, nor government alone, but as local communities, is the only way to do this and those community efforts include government and individual roles.
- Starting locally will only solve part of the problem. Adapt at local level, mitigate at global level.
- Let's have global, national, state, local and individual action. We need actions at all scales.
- This is a local issue as well as a global one.
- Option b with the addition that federal and state agencies provide a vision of what needs to be done, educate all of the problem, and establish or recommend goals for the nation, state, and community.
- It is a local issue; however regulations should be implemented specific to the local regions.

- Every person should have an awareness, but people/companies making decisions involving CO2 and fossil fuels have the most power.
- Must be both local and large scale changes must be made.
- The concept of manmade climate change is so divisive that workable solutions via energy policy and smart growth issues should be based on economic principles rather than on political issues (i.e.: IPCC positions).
- It is the responsibility of all levels of society/government to take a role in addressing climate change (individual, local, state, federal, etc.).

Responses to Question 2:



For those answering other, the responses were as follows:

- Encourage those in the floodplain to move.
- Get people to learn all of the above. And use permaculture strategies to increase the ability of the soil and landscape to absorb and store water for drought; direct water to where it's useful. Get government to respond to this with community.
- All of the above.
- Educate the public of the projected future flooding concerns.
- Educate public of importance – make compelling case for change! Establish right priorities.
- Restore existing floodplains.

## Survey Results as Summarized by Independent Project Evaluator, RMC Research Corporation

The next section of this report comes directly from a report by independent project evaluator RMC Research Corporation, which summarized the results of a survey that was given to participants at the conclusion of the forum. Fifty-seven discussion participants completed the surveys.

### 1. Community Preparedness

Fifty-three participants (92%) responded to a question about whether they believe their community is prepared for potential changes as a result of global climate change. The greatest number (68%) said they did not believe their community was prepared; 26% said they believed their community was prepared, and 6% answered “yes and no”—they believed their community was prepared in some respects but not in others.

Asked to explain their answers, 81% added information. A preponderance of responses (27) described their communities as unprepared.

Thirteen of these 27 responses concerned a **lack of education**:

- *Despite the display of knowledge among tonight's participants, I believe there is massive ignorance, indifference, and denial here and around the country.*
- *I don't think enough people are educated or care.*
- *I don't think the community is properly educated yet to make appropriate decisions.*
- *A community needs to have a shared understanding of the problem and potential corrective actions.*
- *I think a large part of our community is unmotivated to learn more about today's leading issues*
- *Because people are not aware of this issue or they do not take this issue seriously to change.*
- *I think we as a society are still not understanding the impact of climate change - need more education.*
- *People are not educated on the issue.*
- *We don't have either knowledge, awareness, or community sense yet.*
- *In general, I believe community is under/mis informed on issues.*
- *Too much denial, apathy, or lack of education exists.*
- *Need more education for general public to take this seriously.*
- *Needs to be something everyone is aware of and prepared for - not nearly enough people know.*

Eight respondents pointed to preparation for the effects of climate change as a **low priority** in most people's minds:

- *I don't think in the economic climate, it is high on many people's priority list*
- *I live in a suburban environment where climate change is a very low priority.*
- *There is no talk about this topic in my town.*

- *Judging by the amount of people and the types of answers I don't think the majority is ready.*
- *Most Americans are unprepared. We as a nation are trying to avoid this issue.*
- *Not convinced that the majority really cares about this - how do we get the nay-sayers out?*
- *People can't change overnight there have been small initiatives but nothing has really taken flight.*

Another eight cited **other reasons** for their communities' unpreparedness:

- *We just keep digging ourselves into a hole.*
- *I feel most living in eastern/along flood plains will be opposed to relocating.*
- *I live in a flood plain so we do have systems, but there are many areas of life we are not prepared for.*
- *Because not everyone was here tonight.*
- *Community is the greater Lehigh Valley - no planning at that level*
- *Climate change is somewhat unpredictable, which makes it hard to prepare for.*
- *If it is, I don't know the plan*

Six respondents reported hope that **change is possible**, as in:

- *I'm busy at work trying to prepare people*
- *Because there are forums like these*
- *Easton has many opportunities to change itself.*
- *Community could do more to ready buildings for flooding and restrict people from building in the flood plain.*

And eight participants indicated their communities **were prepared**, as in:

- *I come from a relatively educated & resourceful community that lives on a river & 10 miles from the ocean, so we know a lot about flooding.*
- *I think people are eager to change from our abusive environmental history.*
- *I think these issues are increasingly in planner/engineers and people's plans/thoughts.*
- *People appear motivated to change for better good.*
- *The fact we have this [forum] shows that people are ready for change.*
- *There are many passionate people devoted to change but the challenge will be influencing others.*
- *Yes, but I think it is important to approach changes from a pragmatically motivated basis.*

## 2. Regional Effects of Climate Change

Participants were asked how they thought climate change would affect them locally. Forty-eight participants, or 84%, answered this survey question.

Sixteen people identified **increased flooding** as a future consequence, for the greatest number of responses. Several people elaborated or expanded on flooding, as in:

- *Flooding, changes in seasons, etc.*
- *Flooding; heat waves and their impact on the poor and the elderly.*
- *Increased flooding, more pressure to assist low-income areas during emergencies, such as 100 degrees F days in summer.*
- *Increased precipitation and deforestation already affects this area, along with rampant development.*
- *More flooding, health issues (more allergies, asthma, etc.), negative agriculture impacts*
- *More flooding - really bad in Easton. I don't really want to return to this region once school is over.*

Eight people identified **changes in weather**, as in:

- *Warmer/colder/wetter/dryer when it shouldn't be*
- *Sounds like the temperature is going to warm and more rainfall in winter. We have some control over climate change but we must act.*
- *Warmer winters, which is bad & boring.*

Two people cited **ecological consequences**, for example:

- *Loss [of] key native species, propagation of invasive or species not historically part of region; more storm water/flooding issues*

Two people suggested that local changes will unfold **predictably**:

- *Exactly the way that the models predict; they have been remarkably accurate thus far.*
- *It's probably carrying disastrous potential, faster than most predictions and coupled with economic instability peak oil issues. We need to get ready.*

Four people anticipated **social changes** as a result of climate change:

- *Bring us closer as a community & educate more people about climate change*
- *I think we may need some changes in policies.*
- *It will cause disruption in economical [sic] and social levels.*
- *It will force the community to belatedly address the issue.*

Four people registered **uncertainty**:

- *I do not know - it may not be knowable without further recording of actual temps and rain patterns - not computer models.*
- *Not sure.*
- *Not sure yet.*

- *To investigate - not sure.*

Thirteen people identified broad, non-specific effects.

### 3. Follow-up Actions

Fifty-four people, or 82%, rated the likelihood of taking five specific actions.

	<b>Not likely</b>	<b>Likely</b>	<b>Very likely</b>	<b>Not applicable</b>
Learn more about climate change.	17% (9)	24% (13)	52% (28)	7% (4)
Contribute to conversations and share ideas with friends, family, or colleagues about climate change.	6% (3)	33% (18)	59% (32)	2% (1)
Attend additional forums on this or other topics.	20% (11)	44% (24)	33% (18)	2% (1)
Get involved in community planning or attend municipal meetings related to what was discussed today.	28% (15)	41% (22)	30% (16)	2% (1)
Re-visit the Nurture Nature Center.	13% (7)	24% (13)	59% (32)	4% (2)

It is notable that nearly three in 10 participants indicated they were not likely to get involved at the community or municipal level in climate change discussions or activities.

### Conclusions

During the facilitated discussion, more than half of program participants felt that climate change is the responsibility of the local community. When asked about preparing for flooding, most participants ranked designing and building infrastructure to accommodate increased storm water and restricting

building in the floodplain highest among the choices given. Survey results of participants showed that the majority of people did not believe their communities were prepared for climate change, primarily because of lack of education. When asked about regional effects of climate change, increased flooding and changes in weather were most often noted. When asked about follow-up to the forum, over forty percent said they would get involved in community planning or attend municipal meetings related to climate change in their community, almost sixty percent planned to contribute to conversations and share ideas with friends, family or colleagues about climate, while over fifty percent said they would learn more about the topic.