



Photo: Peabody Community Foundation

Peabody Community Conversation on Flooding

Final Workshop Report (2024)

Christine D. Miller Hesed

Table of Contents

Overview.....1

Summary..... 1

Pre-Workshop Interviews..... 2

Activities..... 2

 Map Activity..... 2

 Free-Listing Activity..... 4

 Dinner and Presentation..... 4

Guided Discussion of Vulnerability and Adaptation to Flooding in Peabody, KS.....5

Next Steps..... 9

Conclusion.....12

Appendix I: Meeting Agenda..... A1

Recommended Citation: Miller Hesed, Christine D. (2024) Peabody Community Conversation on Flooding: Final Workshop Report. North Central Climate Adaptation Science Center: Boulder, CO.

The workshop described in this report was supported by Cooperative Agreement No. G22AC00405 from the U.S. Geological Survey North Central Climate Adaptation Science Center. Its contents are solely the responsibility of the authors and do not necessarily represent the views of the USGS.



Overview

On December 5, 2023, Dr. Christy Miller Hesed (Regional Climate Adaptation Scientist, North Central Climate Adaptation Science Center), in coordination with the Peabody Community Foundation, hosted a community conversation on flooding in Peabody, Kansas. This workshop brought together community leaders, business owners, pastors, agricultural producers, and residents who have experienced flooding of their homes or businesses to share perspectives on environmental change, learn about past and projected precipitation patterns and their implications for flooding, and discuss vulnerability and possible adaptations to flooding in Peabody. The workshop was held at the Peabody-Burns Elementary School.

Flooding has been a perennial problem for Peabody, with implications for numerous businesses, residences, and the community as a whole. Projected environmental changes have the potential to exacerbate the consequences of flooding events. Opportunities for improvements in downtown Peabody are currently being pursued with leadership from the Peabody Community Foundation. In addition, some attempts have been made to explore opportunities for reducing the impacts of flooding on Peabody; however, the causes and possible solutions are so complex that flooding remains an unaddressed concern. The goal of the Peabody Community Conversation on Flooding was to bring community members together to develop ideas to inform future resilience to flooding.

Summary

The workshop included a mapping activity, a free-listing activity, dinner and a presentation, and guided discussion of vulnerability and adaptation to flooding in Peabody. The 28 workshop attendees were assigned to one of five tables so that each table included at least one person who represented each of the following categories: agricultural producer, pastor or lay leader of a local church, member of a local board or council, and first-hand experience with flooding of their residence or business. (See Appendix 1 for the workshop agenda.)



Photo: Peabody Community Foundation



Photo: Peabody Community Foundation

Pre-Workshop Interviews

The content of the workshop was informed by five interviews with Peabody community members (one to two hours in duration each) and six informal visits to Peabody, which included attending a Peabody Sustainable Development Goals meeting, lunch and conversation at the Peabody Senior Center, guided tours of downtown Peabody and nearby agricultural land with a watershed dam, and visits to the local library, grocery store, and various downtown businesses.



Photo: Steve Meirowsky, Flickr.

Map Activity

As community members arrived for the workshop, they were invited to use blue markers to indicate areas where they have seen flooding in and around Peabody, and red markers to indicate places that are meaningful to them on two maps.

Community members indicated that they had seen flooding from Nighthawk Road and around Peabody City Park and in neighborhoods and in and around downtown buildings south of West 2nd Street from Locust Street to a couple blocks east of North Maple Street (Figure 1). They also indicated areas of flooding of the Peabody Health and Rehab building on North Poplar Street between West 3rd Street and West 4th Street and the agricultural area southwest of Peabody (Figure 2).

Peabody City Park, all of North Walnut Street, the Peabody-Burns Elementary School, the Peabody-Burns Junior and Senior High School, a residence, and the local grain co-op were noted as meaningful places within Peabody (Figure 1). No meaningful places were indicated on the map showing Peabody and the surrounding area, though several people noted verbally that their homes and farmland were further from Peabody and not shown on this regional map (Figure 2). The red markings on the Peabody area map (Figure 2) were made to mark and label waterways and railroads as one table was discussing the routes each of these take.



2 Photo: Steve Meirowsky, Flickr. Peabody Historic Bank Building.



Photo: Peabody Community Foundation



Figure 1 (above): Map of Peabody, Kansas. Areas where community members had seen flooding are marked in blue and areas that are meaningful are marked in red.

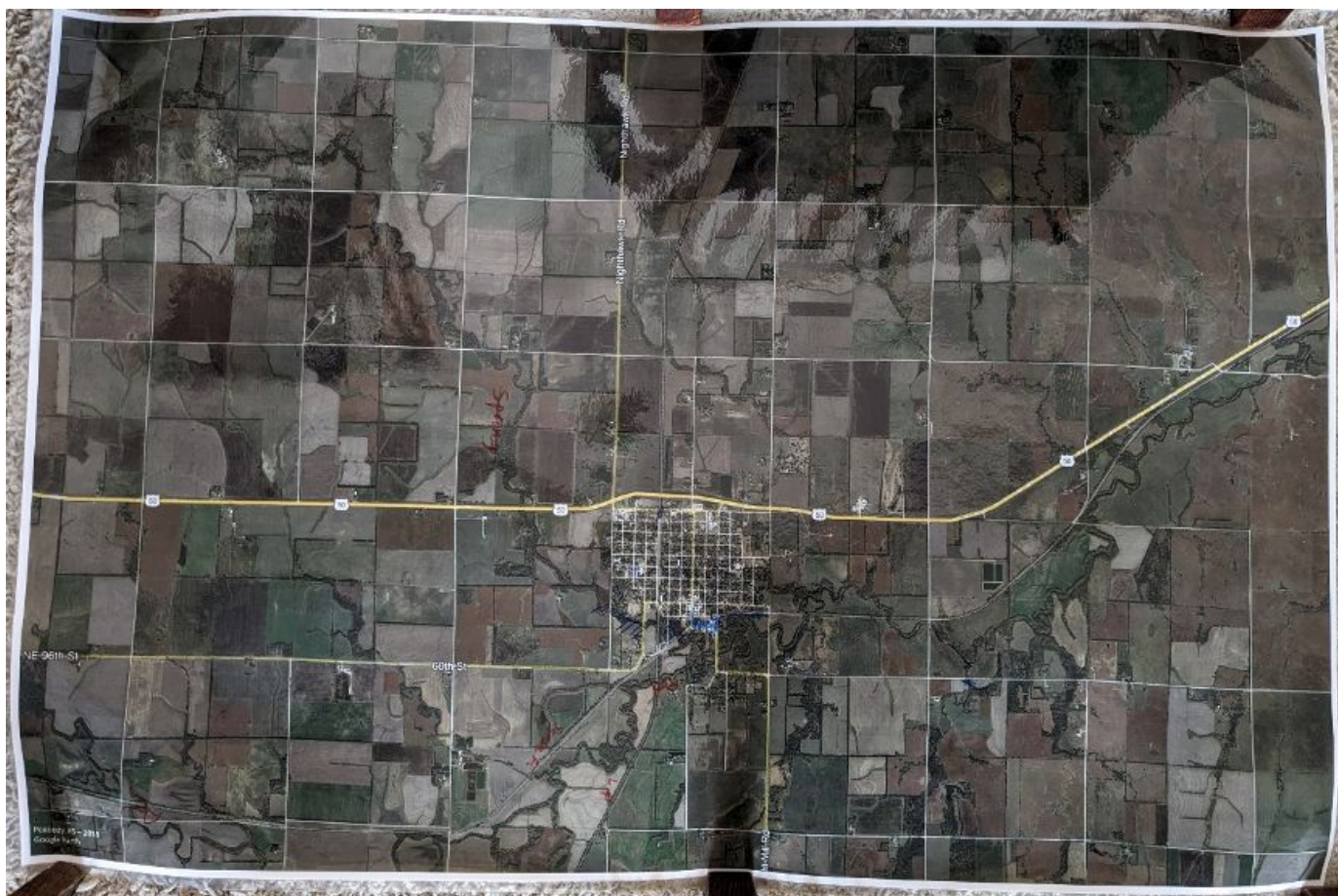


Figure 2 (above): Map of Peabody, Kansas and the surrounding area. Areas where community members had seen flooding are marked in blue. Red marks label waterways and railroads.

Free-Listing Activity

As a warm up exercise, workshop attendees were asked to “freely list the words that come to mind when you think of ‘climate change.’” Individuals worked independently for about five minutes before working with others at their table to create a larger list of words.

After about ten minutes, each table reported out to the whole room what words they had come up with and the workshop attendees were asked if there were any additional words that came to mind. Finally, workshop attendees were asked to independently identify which words they thought were “most important.” Altogether, 102 words were identified, with 27 of those words identified by two or more people as “most important” (Table 1). The words listed included expected physical impacts of climate change, including: hot, cold, temperature, flooding, and drought. Other words highlighted human dimensions of climate change, including: government, regulations, and money. Overall, this exercise suggested that perspectives on climate change were quite varied among the workshop attendees.

Table 1 (right): Words selected by at least two workshop attendees as “most important” from a list of 102 words that were generated when attendees were asked to “freely list the words that come to mind when you think of ‘climate change.’”

Word	Number of People Who Identified the Word as “Most Important”
government	10
regulations	6
changes	4
drought	4
flooding	4
money	4
overreach	4
politics	4
always has been change	3
extreme	3
food	3
habitat loss	3
migration	3
policy	3
pollution	3
scarcity	3
species loss	3
weather	3
adapt	2
cold	2
displacement	2
emissions	2
fossil fuels	2
future generations	2
greenhouse gases	2
how to deal	2
temperature	2

Dinner and Presentation

During dinner, Christy Miller Hesed gave a presentation that provided a brief overview of flooding events in Peabody from 1891 to the present, discussed factors that can contribute to flooding, described how scientists predict future precipitation and drought over the short and long term, and explained how environmental changes might affect Peabody. The presentation was given in a conversational style such that workshop participants were invited to share their memories and knowledge of flooding events in Peabody and the surrounding area. Many workshop participants had a great deal of knowledge about the flooding events and were very engaged in this portion of the workshop. The presentation concluded with an explanation that, due to the increased heat in the atmosphere, the risk of floods and droughts is expected to increase over the coming decades.

Guided Discussion of Vulnerability and Adaptation to Flooding in Peabody, KS

1

What do you love most about Peabody and the surrounding area? What are the community's strengths?

"1. People and 2. People."

There was overwhelming consensus that the people of Peabody are what participants love most about their city. Participants described the people in Peabody as friendly, very welcoming and very generous. They described Peabody as an optimistic and giving community, with a high level of volunteerism and engagement in efforts to make the city better. Participants discussed how the Peabody community works together to support the local schools and local organizations like the HUB (a non-profit that provides a safe and drug-free place for teens to socialize, play games, and interact with positive adults), and described how people show up to offer help and support whenever there's a need.

"It's Home"

Participants love many aspects of Peabody as a place including its strong sense of history, geographic location, small size that "allows you to know everyone," abundance of trees, ability to see the stars, and the community's connection to agriculture that grounds them in their local landscape. Local events and institutions also help to make Peabody a special place to those who live there. Workshop participants value the community events like the Fourth of July celebration and the "Come Home for Christmas" event. The local schools are highly valued in the community. One participant noted that their high school teachers had changed their life. Another participant noted that a significant number of local high school graduates come back to Peabody to work and teach in the local schools. Other valued aspects mentioned included the local swim team, Peabody City Park, the grocery store with fresh produce, "Main Street" (N Walnut St), historic building preservation, the recent establishment of several new businesses, the availability of funding and grants for local projects, and good informal communication (email) among residents.

2

How does flooding impact Peabody and the surrounding area?

"Damage happens to our historical buildings."

Participants discussed the physical impacts of flooding on the south end of Peabody and along the main street (N Walnut St). The flooding damages historical buildings, washes out roads and sidewalks, causes rot and mold, and affects the sewage system.

Participants broke out into five groups where they worked together to respond to five questions related to vulnerability and adaptation to flooding in Peabody, KS. The main points from those discussions are summarized here. Each italicized section header is a direct quote from the discussion or notes taken by one of the participants.



Photo: Alex Moot

Also, in response to repeated flooding, the railroad bed at the south end of Peabody has been raised, which can exacerbate flooding events by trapping the water in the southern part of town.

“You lose the ability to collect property taxes on all those on that land.”

Flooding in Peabody causes many different economic impacts. Many commercial properties are on the south end of Peabody where flooding is common. Participants discussed how flooding affects the insurability and resell value of properties and increases costs for businesses and homeowners that have to purchase required flood insurance and/or pay for cleanup and repairs after a flood.

The flooding also has a large economic impact on the city of Peabody, as each flood requires the use of city resources, including emergency services and man hours. Peabody’s tax base diminishes as flooded homes don’t get fixed, which leads to an increase in everyone else’s taxes. Flooding also hinders the economic growth of Peabody by discouraging people from moving to Peabody or locating their business in downtown Peabody, and by discouraging funders from investing in Peabody projects. Rebuilding in the flood plain requires special engineering of the building to accommodate flooding, which is another cost and deterrent from investment in the area. Community events, such as the “Sunday Cruise,” must sometimes be canceled due to flooding, and this reduces the amount of money coming into the community from outside tourists.

“Once you experience [flooding], then you get scared for every storm.”

While not explicitly discussed as much as economic impacts, the emotional and psychological impacts of flooding were evident in the conversations. Participants – especially those who had experienced a flood before – acknowledged their worry about the possibility of a flood every time it starts raining.

“Flooding gives people a chance to help each other.”

Workshop participants raised an unexpected, but important, impact of flooding on Peabody that aligns with the number one thing participants love about Peabody – good people show up to help with clean up. While workshop participants clearly wish there was a quick and easy solution to end the recurring floods, they also acknowledged that there is a silver lining, which is that the floods provide an opportunity to be able to come together as a community to help and receive help from one another.



Photo: Hans, Pixabay

3

What resources or strategies has the community used to deal with flooding in the past?

“Live with it!!!”

Discussion around the resources and strategies used to address flooding in the past included the perspective that, overall, not much was done to address the problem, and that people just had to live with it. Home or business owners were responsible for taking care of their own properties when they flooded, though volunteers helped out. Sometimes solutions were found; as one person pointed out, the library “somehow” was able to address the problem of flooding successfully enough that the library basement is now used.

“They started putting those watershed dams in after [the flood of 19]51 for the most part.”

Workshop participants also described past efforts at addressing the flooding through watershed dams, debris clearing, and other efforts to affect the flow of water. Some of these efforts were more successful than others. Watershed dams were described as important for reducing downstream flooding. In the Peabody area, there are six existing watershed dams and one more that will soon be constructed. Participants also discussed past efforts to clean the silt, trash, and wood out of the creeks and remembered the cleanout of Doyle Creek in particular. Keeping the creeks clear of debris was described as a successful approach to reducing flooding in the past. A third intervention described was the 3-foot by 3-foot tunnels built by Maple Street when the railroad came through. These tunnels do not have flood gates and work well at mitigating impacts of little floods, but are not effective for big floods. Participants also described an effort to pile debris from construction and other jobs along the sides of the creek to create a dam, but this effort was unsuccessful because it was not big enough to keep the water from reaching Peabody.

4

What resources or strategies does the community use to deal with flooding in the present?


“I think the watershed dams and those kinds of things have really helped.”

Workshop participants discussed how the existing watershed dams help to reduce the amount of flooding that Peabody experiences, but noted that there are many more watershed dams that are yet to be built. Participants also described how keeping the creek beds cleared out was helpful for reducing flooding, and noted that Marion County had cleaned out Spring Creek.

“When it floods everybody’s downtown doing sandbags.”

Using sandbags to reduce flooding was discussed by all five discussion groups. Nearly everyone had memories of the community coming together to help fill and stack sandbags. People reflected that the sandbags definitely helped to prevent flooding from water coming into the downtown businesses from the street. While sandbagging can be effective, the logistics of obtaining, filling, and placing the sandbags was not clear to everyone, and some people pointed out ways in which sandbagging was inefficient or could be improved.

One person explained that sand was brought in (by an unspecified entity) for volunteers to bag; however, workshop participants described how the timing for sandbag filling and placement could be improved. One participant explained that emergency management has to give a green light before sandbagging can begin, and that being allowed to start sandbagging earlier could help to prevent more flooding of buildings.

A photograph showing a flooded agricultural field. The water is murky and reflects the sky. In the background, there are green trees and a few buildings. A paved road curves along the right side of the field.

“It was raining for three days. And I was like, ‘shouldn’t we be doing something about this?’ But we had to wait for the green light. We were eight hours behind. We should have been sandbagging eight hours prior and that would have at least saved my building.” (Resident of Peabody, KS)

"When you're up there sandbagging in the rain, you [are] running on sheer adrenaline at night. It's pouring down rain and you get called out of bed, and you're like, "Whoo!" and you just go, you know?" (Resident of Peabody, KS)



Photo: Andrea Booher, FEMA

A suggestion was raised to have sandbags pre-filled and ready to go, stored somewhere where they would be protected from degradation by UV light. Then when a flood warning is issued, businesses in the flood zone would already know that they had a number of sandbags allotted to them. The last-minute timing for preparing sandbags is stressful.

"The resources on the cleanup are the volunteers. A lot of volunteers coming in."

Workshop participants described how home and business owners were ultimately responsible for cleaning up and making repairs after a flood, but that volunteers helped out a lot. The local churches also play an important role in supporting the community after the flood. One church helped to support the cleanup of the Peabody Senior Center.

5 What is your vision for the future of Peabody and the surrounding area?

"[I want Peabody] to still be here for my grandchildren to enjoy."

Preservation and improvement were the main themes that emerged from the visioning discussion for the future of Peabody and the surrounding area. Most of the discussion of how Peabody could be preserved and improved focused on economic concerns, and participants suggested that the local economy and local tax revenues might be increased through efforts to attract industry, tourists, new residents, and promoting a "shop locally" ethic. Improvements to infrastructure could help to make Peabody more attractive, and workshop participants suggested specific improvements including fixing the roads, building more watershed dams, constructing new affordable housing, installing new water lines, improving access to affordable high-speed internet, restoring the unique historic downtown, and decreasing the railroad noise.

Next Steps

The guided discussion exercise concluded by asking workshop participants to consider what resources or information would help Peabody to achieve their vision for its future and to identify some next steps that could be taken to move toward that vision.

Workshop participants identified the following **needed resources and information**:

- Money from grants and local taxes;
- Statistics on the impact of flooding; and
- Someone who can coordinate and facilitate plans to prepare for and respond to flooding.



Workshop participants described several next steps that could be taken to address their issue with flooding. Suggestions that would help to **reduce the severity of future flooding** included:



Building more watershed dams

Working with Marion County to establish a regular schedule for keeping the bed of Spring Creek cleaned out



Building relationships with the railroad company and request that they maintain or modify their infrastructure to reduce flooding

Cleaning out downspouts



Figuring out how to make the historic buildings as flood-proof as possible

Tearing down condemned buildings in the flood plain

Prohibiting new building in the flood plain while also increasing the flexibility of regulations so home and business owners can prepare and respond as needed to flooding



Exploring the possibility of a rubber dam or dike

Conducting an assessment of the flood-prone area to determine where infrastructure may need to be fixed, modified, or moved to reduce the impact of future flooding

Suggestions that would help to improve response during and after a flood included:

Building good relationships with Marion County emergency management officials



Developing a broader network of assistance to step in during a flood (in case Peabody Fire Department has to respond to a fire, for example)



Developing and maintaining a list of reliable contractors for flood recovery



Establishing relationships with representatives from FEMA and the Red Cross to get clarity on the ways they can and cannot assist before, during, and after a flooding event



Identifying and/or developing additional resources for assistance with flood cleanup and recovery efforts

Suggestions that would improve Peabody's resilience to flooding included:

Promoting economic development in Peabody by...



Educating consumers on the importance of buying local



Encouraging business owners to keep shelves stocked

Photo: Peabody Community Foundation, Facebook



Establishing a Chamber of Commerce to support new and established businesses



Attracting developers and investors



Renovating and reviving Peabody's downtown



Creating more affordable housing outside of the floodplain

Leveraging resources and expertise, including...

- Peabody Community Foundation
- Peabody Main Street Association
- Peabody Land Bank
- USDA Rural Development Office

Photo: USDA Rural Development, Flickr

Conclusion

Peabody has a rich history and a population with a wealth of experiential knowledge about how the community has pulled together to address past flooding events. The workshop participants had somewhat diverse views about the challenges facing Peabody; however, they shared a dedication to improving their town and the surrounding area. Though Peabody faces numerous challenges, including recurring flooding, lack of affordable housing, and a need for increased economic development, the enthusiasm and commitment that workshop participants expressed for their town and neighbors suggests that these challenges may be met.

The greatest obstacle facing this group of dedicated citizens may be figuring out how to access expertise and resources to help them to navigate the complex landscape of environmental regulations and funding opportunities and to identify effective solutions for reducing the impacts of recurring flooding in Peabody. ●



Photo: Kaishin Chu



Community Conversation on Flooding in Peabody
Peabody-Burns Elementary School Cafeteria
506 N Elm St, Peabody
Tuesday, December 5, 2023 | 5:30 – 8:30PM

Meeting Agenda

5:30 – 5:45	Registration & Map Activity
5:45 – 6:00	Welcome and Introductions
6:00 – 6:30	Free-Listing Activity
6:30 – 7:00	Dinner & Presentation
7:00 – 8:00	Guided Discussion of Vulnerability & Adaptation
8:00 – 8:30	Final Thoughts & Wrap Up