



OUR FREQUENTLY ASKED QUESTIONS

Q: What is a vulnerability assessment?

A: Vulnerability is the degree to which a system is susceptible to (sensitivity), and unable to cope with (adaptive capacity), adverse effects of extreme weather events like heavy precipitation.

Vulnerability assessments help stakeholders identify:

- 1) What changes in climate are projected to happen and what those changes could mean in terms of local impacts
- 2) the level of exposure the community has to potential changes
- 3) How sensitive the various city and community systems are to projected changes in climate,
- 4) What capacity those systems have to adapt.

Q: What is adaptive capacity?

A: Adaptive capacity is defined as the ability of cities to better prepare for and respond to impacts of weather- and climate-related hazards and changes (e.g., inland flooding, storm surge, droughts, etc.). Participating communities will be able to assess their local adaptive capacity as a part of their customized vulnerability assessment, and the FloodWise project team will further analyse adaptive capacity through surveys, interviews, and a review of literature and publically available documentation.

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Q: What are the project objectives?

A: FloodWise Communities has three main goals:

Goal 1:

Support communities in planning for extreme weather events and their impacts on their stormwater systems. We are committed to training and supporting all communities on this project to complete a customized, guided, step-by-step vulnerability assessment for their local stormwater system using a web-based tool by incorporating tailored local data.

Goal 2:

Determine the ways our step-by-step tool, various technologies (e.g. webinars, online tutorials) and forms of engagement can help local communities, practitioners, and researchers collaborate to develop weather, climate, and socioeconomic information communities can use in existing local planning processes (i.e., emergency management, hazard mitigation, capital improvement).

Goal 3:

Share and communicate what we learn about participating cities' experiences with the tool and different engagement methodologies and apply these findings to enhance the tool to support the planning needs of communities in the Gulf and across the United States.



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Q: Is this project about climate change?

A: This project aims to help communities better prepare for extreme weather and heavy precipitation events through providing custom vulnerability and adaptive capacity assessments. Though not specifically about climate change, FloodWise's custom stormwater vulnerability assessments incorporate tailored weather, climate, and socioeconomic data. These customized data profiles and assessments assist communities in planning for future storms. Community participation helps our team better understand environmental risk and how to make vulnerability assessments and adaptation planning more effective and accessible to local governments.

Q: What will you do with the data? How will we learn about the findings?

A: The results of this research study may be presented at scientific or professional meetings, published in scientific journals, and shared with networks of researchers and practitioners (e.g., the endorsing organizations like the National League of Cities). In these materials, all survey and interview responses (including quotes) will be de-identified from individuals (but may be linked to a specific community), and only data that is already publicly available (weather, climate, and socioeconomic information) will be shared publicly. Individual names and titles of project participants will not be used in any of the results unless we seek the individual's specific approval to do so. The project team will post these materials on the project website and share them with study participants

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Q: Are there any risks to participating in this project? Which information will be made public and which information will remain confidential?

A: We do not anticipate any risks to communities or individuals participating in this project.

The project team is trained to protect privacy and confidentiality for study participants. The names of participating communities will be posted publicly on the project's webpage and used in publications after the project is complete, but individual's names and job titles will be confidential. All survey and interview responses (including quotes) will be de-identified from individuals (but may be linked to a specific community) and only data that is already publicly available (weather, climate, and socioeconomic information) will be shared publicly.

The project team has received approval from the Institutional Review Board (IRB), the body established to protect the rights and welfare of human research subjects, confirming there is no risk to individuals participating in this project.



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Q: Who is the project team? What are their areas of expertise?

A: The project team is a group of researchers and practitioners dedicated to helping communities plan for extreme weather events. We are a group with diverse expertise and experience in the Gulf and other coastal regions with backgrounds in social science, physical science, and local-level decision making and policy. The project is led by the University of Michigan's Great Lakes Integrated Sciences and Assessments (GLISA) team, which has successfully worked with Great Lakes communities to assess stormwater system vulnerability and resilience. GLISA is partnering with the Southern Climate Impacts Planning Program or SCIPP at the University of Oklahoma, Headwaters Economics, Stanford University, and Adaptation International to customize this process for Gulf Coast communities.

Q: What is the NAS? What is GRP?

A: The National Academies of Sciences Engineering, and Medicine (NAS) is a private, non-partisan organization that provides objective evidence to inform policy making and benefit society. The Gulf Research Program (GRP) is managed by the NAS to support studies, projects, and activities for the benefit of communities in the Gulf of Mexico. This project is part of GRP's Thriving Communities Grants program which aims to support coastal communities to successfully prepare for, respond, and adapt to stressors and adverse events.

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Q: Who endorses this project? What does this endorsement mean?

A: The project team has earned endorsement from several organizations who work in the Gulf and have experience helping communities prepare for extreme weather events. These organizations include the National League of Cities (NLC), the National Association of Counties (NACO), and Texas Sea Grant. While these organizations are not participating in the project, they understand the project's objectives and anticipated outcomes and encourage participation in this project. These organizations have existing relationships with several members of the project team and are confident we have the expertise to make this project a success. You can find more detail in the endorsement letter the organizations have signed on the project's website.

Q: How long is this project?

A: The National Academy of Sciences has funded this project for three years, but the commitment for community participation is only several months during 2021.



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Q: What is the time commitment for participants?

A: Participants can expect to spend a total of 24 working hours (the equivalent of 3, 8-hour work days) from February to September on on-boarding, engagement, and completing their vulnerability assessment.

Based on the number of participating individuals and the scale of the assessment the community wants to complete, the time commitment may vary. Interested communities will need to:

- Submit an application (1 hour)
- Attend a kickoff webinar (1 hour/individual)
- Complete a survey before using the tool (1 hour/individual)
- Engage with the tool training via their assignment engagement type (8 hours/individual)
- Complete the vulnerability assessment (12-16 hours/individual)
- Complete a post-engagement survey after completing the assessment (1 hour/individual)
- Optional: Complete an interview before and after completing their vulnerability assessment (1 hour/individual/interview)
- Optional: Engage additional municipal departments and/or the public and bring in additional data (e.g., land use)

OUR FREQUENTLY ASKED QUESTIONS



Q: How many people must enroll for my community to participate?

A: We encourage communities to apply to the project regardless of the number of people who can participate. That said, we think communities will see the most benefit from enrolling in this project with multiple people to collaborate on the vulnerability assessment. Communities who have used this tool in the past reported some of the best benefits being better collaboration between municipal departments (e.g., between environmental and stormwater), so having representatives from different departments is a plus. In addition to municipal staff, participants can include other agencies who manage stormwater and/or have authority to make decisions about stormwater management, and other agencies whose work is impacted by extreme weather events.

Q: Is there any data or information we need to provide?

A: The project team will supply each participating community with customized weather, climate, and socioeconomic data profiles that will be used to complete their assessment. To strengthen your community's assessment, you have the option of bringing additional city-specific data like impervious surface, tree coverage, slopes, elevations, and other land use information. This is not required.



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Q: Is there a cost to participate?

A: No, there is no cost to participate, and all trainings, resources and assessments are free to your community. The only resource cities will invest is time (approximately 24 hours or 3, 8-hour working days). We hope that participating in the project will actually save communities money by providing free and customized weather, climate and socioeconomic data as well as training on how to complete a vulnerability assessment for their stormwater system free of charge. Communities who have participated in the past estimate their participation saved them tens of thousands of dollars in consultant fees and anticipate saving additional money in the future by using this information to inform future decision making and better prepare their community for extreme weather events.

Q: Is there any data or information we need to provide?

A: The project team will supply each participating community with customized weather, climate, and socioeconomic data profiles that will be used to complete their assessment. To strengthen your community's assessment, you have the option of bringing additional city-specific data like impervious surface, tree coverage, slopes, elevations, and other land use information. This is not required.

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Q: What if I do not want to participate in a specific engagement (in-person, webinar-assisted or self-guided)? Can I request to be assigned to a particular group?

A: The project team will engage with participating communities at random using one of three kinds of engagement: in-person, webinar-assisted, or self-guided. Picking what kind of engagement we use at random means we cannot accommodate requests to be assigned to a particular group. This random assignment is unbiased and specifically chosen to make the research as useful as possible for future efforts. We intend for all communities to benefit from participating in this study, regardless of which kind of training a community is randomized to receive. After the formal engagement period (February - September), the project team will be available to assist all communities (regardless of kind of training) with additional support to complete successful assessments.



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Q: : What happens if we enroll, but we can't continue or finish the project?

A: The project team is committed to helping every enrolled community complete a stormwater vulnerability assessment regardless of the kind of training you are assigned to or if your capacity to participate in the project changes. We will be available to respond to questions via phone or email after the formal engagement period and can provide self-guided communities training via interactive webinars if they need additional support. If at any point, you are no longer able to participate, we will still ask you to complete a post-engagement survey so we can learn more about your experience, and we can work together to find ways to support completing your assessment.

Q: What are the expectations of the community after the project ends?

A: After completing the post-engagement survey and optional interview, we ask that communities who have participated in the project remain responsive to the project team for occasional (every 6 months-1 year) brief email or phone follow-ups on how the tool and datasets are being used so we can improve the tool and process for other communities. While not an expectation, communities will have continued access to the customized vulnerability assessment tool for future land use plans, zoning ordinances, public health initiatives, etc.

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Q: What resources/support will be available after the project ends?

A: Participating communities will be able to continue accessing and using the tool and information after the project ends. The project team will continue to be available on an as needed basis to respond to questions from all communities via phone or email.

Q: How has the pandemic affected the project? Will there be in-person engagements? If not, what's the alternative?

A: The project team's first priority is the health and safety of all participants. We have delayed our project until 2021 and hope to work on the ground with practitioners randomly selected for in-person engagements. We will follow local guidance and best practices and work with participating communities to determine whether and how to plan in-person engagements. If in-person engagements are not possible, we will develop an alternate engagement strategy for all communities (regardless of training mode) that will allow cities to complete the assessment and the project team to compare different engagement methodologies.



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Q: What is the FloodWise tool? How will it work?

A: The tool is an online, guided, step-by-step process that walks users through examining vulnerabilities to their community's stormwater system such as high-risk pipes and infrastructure, capacity limitations and potential disruptions to critical infrastructure and emergency services. Practitioners respond to individual questions about their local stormwater system, incorporating local weather, climate, and socioeconomic data (provided by the project team) to produce a tailored, comprehensive stormwater system vulnerability assessment for their community. The project team will support participating communities in using the tool to complete this comprehensive assessment, including providing customized training materials. Multiple individuals from each participating community will be able to use the tool as they work together on the assessment.

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Q: How was the tool developed? Where did it come from?

A: The tool was first developed in 2017 in collaboration with 5 Great Lakes communities with funding from the Urban Sustainability Directors Network (in partnership with the Huron River Watershed Council, Headwaters Economics, GLISA, and the Great Lakes Climate Adaptation Network). The project team and the practitioners worked together to ensure the tool meets the needs of small and mid-sized cities making decisions on updating and implementing existing planning processes. With additional funding from the National Oceanic and Atmospheric Administration and the guidance of 12 additional cities, the tool was adapted to specifically meet stormwater system planning needs. Always improving, the tool is enhanced by user feedback, and as a participant, your insight is both valued and critical to ensuring the tool is useful for your community communities across the nation.

Q: What is the FloodWise tool? How will it work?

A: The weather, climate, and socioeconomic data the project team provides participating cities come from existing, credible, and publicly available data sources relevant to the Gulf region.



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Q: How can I use the results and information? How have other communities used this tool?

A: Communities that have used the tool previously report several beneficial outcomes from this information: updating land use plans and zoning ordinances, communicating extreme weather risks, developing public health initiatives, and more. Additional applications include increased awareness of vulnerable neighborhoods, improving hazard mitigation plans and emergency operations, identifying feasible green infrastructure projects, improving public outreach, and initiating cross-departmental conversations. This extensive assessment and engagement process will also identify best practices for building collaborative relationships that improve local stormwater systems and community resilience, which can be replicated throughout the US, further advancing local resilience to impacts of extreme weather events. For a detailed list of outcomes and quotes from cities who have used the tool, please contact us at ProjectTeam@floodwisecommunities.org.