Baltimore City 2023 Hazard Mitigation Plan Update

Status: Submitted to recipient

Scope of work

The project Scope of Work (SOW) identifies the eligible activity, describes what will be accomplished and explains how the mitigation activity will be implemented. The mitigation activity must be described in sufficient detail to verify the cost estimate. All activities for which funding is requested must be identified in the SOW prior to the close of the application period. FEMA has different requirements for project, planning and management cost SOWs.

Subapplication title (include type of activity and location)	**Baltimore City 2023 Hazard Mitigation Plan Update**

Activities

Primary activity type	**Plan update**
Primary sub-activity type	**Local multi-hazard mitigation plan**
Secondary activity type (Optional)	
Geographic areas description	**Baltimore is a medium-sized city in north-central Maryland. It is located along the Patapsco River not far from where it empties into the Chesapeake Bay. The city is also located on the fall line between the Piedmont Plateau and the Atlantic Coastal Plain, which divide Baltimore into a "lower city" and "upper city." The city's elevation ranges from sea level at the harbor to 480 feet (150 m) in the northwest corner near Pimlico. According to the U.S. Census Bureau, Baltimore City has a total area of 92.1 square miles, of which, 80.8 square miles is land and 11.3 square miles is water. The total area is 12.24% water. Also according to the Census, the City's population estimate has hovered around 600,000 with a slow downward trend since 2014. The City includes five inter-jurisdictional watersheds.**

Hazard sources

Primary hazard source	**Flooding**
Secondary hazard source (optional)	**Severe storm**

Tertiary hazard source (optional)	**Extreme temperature**
Evaluation process description	**The Disaster Mitigation Act of 2000 requires that local mitigation plans be updated every five years. A review and update to Baltimore City's 2018 DP3, our HMP, must be conducted, followed by FEMA approval and City adoption, by December 20, 2023 in order for the Plan to remain in effect. With each 5-year update, Baltimore City strives to improve upon and expand the plan, as well as incorporate the latest HMP best practices. We also strive to effectively and equitably engage the community as a core element of strengthening the plan and identifying stronger mitigation, adaptation, and resilience priorities. The 2023 DP3 update will include changes in local growth and development trends based on new Census 2020 data and a new HIRA that incorporates the latest climate science (including our updated FIRM) as well as new hazards such as human-made hazards. It will also be written with an equity and resilience lens. New and improved action item prioritization criteria will be developed based on extensive community input, the new HIRA, and loss estimations. With the 2023 DP3 update, the City anticipates expanding and strengthening the Natural Systems strategies and placing green infrastructure and other nature-based solutions at the forefront of our response. Many of the strategies that will be prioritized will identify how and where nature may be managed to the City's benefit, and what actions must be taken to eliminate avoidable risks associated with neglected natural systems. Climate-related impacts such as sea level rise, extreme heat, and flooding due to more extreme precipitation events are already affecting Baltimore's environmental, social, and economic systems more than in the past and will continue to do so more intensely into the future. Thus, the DP3 update will continue to be proactive and build upon the climate adaptation components of the plan. We will also integrate existing plans and current planning efforts. We will align the 2023 DP3 update with the new Maryland State Hazard Mitigation Plan and include comparable additions such as human-made threats / hazards and an expanded extreme temperatures section. We will integrate data and priority actions from Baltimore City's 2020 Nuisance Flood Plan, which details impacts of sea level rise on the city's coastline, as**

	well as the city's overarching 2019 Sustainability Plan, which includes an entire chapter on Climate and Resilience. A portion of this plan update will be occurring in tandem with the city's Climate Action Plan update and Comprehensive Plan update, so integrating important and complementary elements will be immensely valuable. Ensuring these plan alignments take place will provide for a stronger and more comprehensive, coordinated, and prioritized HMP. We also intend to build out the other areas of our plan identified in Chapter 7 of the 2018 DP3 and address new lessons learned from the COVID-19 Pandemic such as food insecurity to ensure fewer disruptions to food supplies and systems. We also want to document and codify some of the lessons learned from recent human-made events in order to reduce the disruptions that have at times curtailed essential City services. In order to better protect all residents of Baltimore, this 2023 DP3 update will build off of our previous engagement work and better center people and equity. Through thoughtful and collaborative community engagement and community resiliency planning efforts, the City will better understand how to support our residents before, during, and after disasters – especially those residents who are most vulnerable. The update will work to re-identify the natural hazards the City faces, reassess the potential risks and vulnerabilities associated with those hazards, and engage the community in a more meaningful and impactful way.
Implementation process description	**In addition to following FEMA guidance, each phase of the 2023 DP3 update process will include a component of public involvement with an emphasis on deep engagement in traditionally underrepresented communities. The process seeks to ensure community members are aware of hazard risks, know about opportunities to build resilience, and can learn more about the plans, projects, and initiatives the City is taking to become more adaptive and proactive. We will also seek to better understand community perceptions of risk and gain insight into what hazards and threats most impact their livelihoods. Pre-Planning Phase: In advance of the funding award, we will engage in a pre-planning process to develop the plan update strategy and lay the groundwork for an effective update. We will form a small core team**

comprised of key staff from the Office of Emergency Management and the Department of Planning. The FEMA 2018 DP3 Plan Review Tool will be reviewed to assess and reaffirm which plan improvements should be considered in the update, assess any new mitigation priorities (i.e. historic resources, food systems, human-made hazards). The FEMA Hazard Mitigation Training & Technical Assistance Modules including Module 1: Planning Process will also be consulted. The integration of other complementary planning processes, such as any process/community outreach alignment with our Climate Action Plan update, will be evaluated. We will also reach out to MEMA and FEMA to touch base, establish a relationship, and seek technical advice/expertise. We will also conduct a preliminary stakeholder analysis to identify potential partners and consultant team(s). We will then develop consultant RFP's and solicit applications. Planning Process / Community Engagement: Once the funding award is active, we will review consultant RFPs and finalize the selection and onboarding of a consultant team. We will take the first few months of the plan update process to do a deeper stakeholder analysis and begin reaching out to community and agency partners to increase awareness and involvement and improve integration of hazard mitigation with other community initiatives. We will secure involvement of a mitigation planning team / Advisory Committee in both the Plan Update development and implementation processes. Advisory Committee members will include relevant members of the 2018 DP3 update Advisory Committee (such as key city agency partners, community representatives, and public officials) to encourage sustained participation as well. We also anticipate forming an Equity Task Force comprised of knowledgeable community leaders and equity experts to ensure that equity is embedded in the entire plan update and implementation process. We will meet with our Advisory Committee and Equity Task Force teams to formalize our equitable public outreach and plan update strategy and develop diverse engagement techniques such as workshops, webinars, surveys, and public hearings. Adjustments and enhancements to the DP3 update strategy and timeline will be made collectively, as needed. Consultant team members will also participate in Advisory Committee and Equity Task Force meetings in addition to regular core-team meetings. We will maintain regular

engagement and sustained participation of the Advisory Committee, the Equity Task Force, and the general public throughout the Plan Update process to ensure full coverage of issues and community priorities are reflected in the plan, as well as develop broad support for ultimate plan implementation. We will make sure our community engagement approach includes educational components as well as input solicitation. Risk Assessment: We will co-identify areas of the plan for revision and continue community engagement, advisory committee and equity taskforce meetings, throughout this consultant-supported technical assessment period. We will work alongside our consultant team to build on previous planning efforts and take the next steps to enhance data available for the comprehensive Risk Assessment. We will look back and assess any data gaps and deficiencies in the 2018 DP3 update and will strategize on how to fill them with the 2023 DP3 update. Using the Hazus tool, a new HIRA for all previously included hazards will be performed as well as the inclusion of newly identified hazards. FEMA's 'Integrating Manmade Hazards into Mitigation Planning' resource will be consulted for suggestions and information on including these types of hazards in the mitigation plan. Our new FIRM will be incorporated into the flood-risk assessments. We will also look to the new State Mitigation Plan to see if any new data sources or analyses will support our city's risk and vulnerability assessments. We aim to closely follow the process used in our last plan update. Simultaneously, the implementation of our previously developed and agreed upon public engagement strategy will take place. A diversity of engagement methods will be used with an emphasis on tactics to reach underrepresented voices in the city. Mitigation Strategy: During this time, select participants from the Advisory Committee and Equity Task Force as well as the core team will form a Mitigation Strategy Sub-group and conduct a deep analysis of the mitigation strategies and actions from the 2018 DP3. They will assess progress on previously identified mitigation strategies and discuss the realistic actionability of those strategies where progress was not made. They will report in on city agency priorities as well as any shifts that have taken place. They will re-identify realistic and attainable mitigation actions and implementation plans and develop new ones based on newly

	identified hazards. The Mitigation Strategy Sub-group will also analyze the community input that was collected throughout the public engagement processes to determine community mitigation and resilience priorities and incorporate them into the re-development and re-prioritization of the mitigation strategies. Duplicative implementation actions will be consolidated. They will also seek to develop a new prioritization rating system that will focus on actionable implementation and centering community resilience goals. Complementary plans and their respective strategies will also be consulted to enhance integration of strategies. Plan Assembly: All technical analyses and relevant community engagement components will be written and compiled into the plan document. The plan will then go through an editing and formatting process. Then it will go through an internal review process to ensure FEMA requirements and suggestions have been met in advance of a draft submittal and informal MEMA/FEMA review of the plan. Then feedback and edits will be incorporated. After this process, we will hold a public comment period for the plan and all relevant feedback will be included. Plan Adoption: After internal edits, informal review of the plan, and a sufficient public comment period, the final 2023 DP3 update will be submitted to FEMA for formal review and approval. During this time, the plan will be presented to the Baltimore City Commission on Sustainability and various support letters from partner agencies will be compiled. When the plan is in APA status, the plan will be presented in front of the Baltimore City Planning Commission along with the letters of support at their monthly planning commission meeting. Once the plan is adopted by the planning commission, the adoption resolution will be provided to the State and FEMA. All of this will happen in advance of the 2018 DP3 expiration date of 12/20/2023. Plan Maintenance and Implementation: The Baltimore Office of Sustainability, in collaboration with the Commission on Sustainability and Mayor's Office of Emergency Management, will be in charge of maintenance, monitoring, and annual reporting for the 2023 DP3.
Primary sources description	**This update seeks to better integrate local emergency management, public works, public safety, public health, and the public and private sectors into the hazard identification and mitigation process. Each hazard treated in the**

2018 DP3 will be revisited using current data and a broader, multidisciplinary approach. New hazards not included in the 2018 DP3 will be identified and analyzed, such as human-made hazards. Pre-identified areas for expansion that were outlined in Chapter 7 of the 2018 DP3, such as food systems resilience and hazard mitigation planning strategies for the city's historic resources, will be developed based on recent experiences and planning developments. Our skilled consultant team will pull data from the latest, most accurate sources such as USGS and NOAA. Critical infrastructure to be re-catalogued includes security-sensitive locations designated by BPD; hospitals; nursing homes; senior housing complexes; utility infrastructure; hazardous materials storage and transportation facilities; government facilities; and large-capacity venues. While the City has geodata on various types of infrastructure, much of the data needs to be updated, verified, catalogued, and developed in greater detail and with greater prioritization. The validation and enhancement of infrastructure data is essential in order to measure the impact of each hazard and design efficient and inclusive mitigation projects. Cross-referencing existing plans and tapping into concurrent planning processes will be an important part of this update. Most notably, a portion of the 2023 DP3 update process will overlap with the city's 10-year Climate Action Plan update. Integrating these plans and their common goals of equitable community engagement, climate adaptation and hazard awareness, and resilience-building will help align these plans in a way that hasn't been done in the past. We will also integrate priorities from the 2020 Nuisance Flood Plan, the 2019 Sustainability Plan, the Baltimore Metropolitan's Council regional emergency food system plan, the Office of Emergency Management's updated Emergency Operations Plan. The update to the DP3 will also be linked to the update of the City's Comprehensive Master Plan that is used to guide growth and development in the City. The City Charter-mandated Comprehensive Master Plan is used to guide the City's capital budget which funds improvements of the City's physical plans and facilities – projects like resurfacing streets, reconstructing bridges, and renovating or buildings of schools, water treatment plants, and police and fire stations. This linkage will increase awareness and allow capital improvements dollars

	to better follow the capital improvement needs of Baltimore's citizens. We will especially look to the new State of Maryland Hazard Mitigation plan as a key guiding document and an example of modern HMP best-practices and look to HMP's of surrounding counties to align hazard mitigation strategies that cross-cut geo-political boundaries.
Staff and resources description	**Staff on the Advisory Committee will include representatives from the Department of Planning, Department of Public Works, Office of Emergency Management, Mayor's Office of Information Technology, Public Works, Public Health, Fire, Police, Transportation, and other local or regional public agencies that possess subject matter expertise on hazards and infrastructure in the City of Baltimore. The core team will comprise of DOP and OEM staff as well as consultant team members. Select private sector partners and members of the public will be a part of the Advisory Committee and/or the Equity Task Force. We are able to directly access many of these resources via standing frameworks, namely the Joint Executive Committee for Homeland Security, Urban Areas Security Initiative (UASI), and the Local Emergency Planning Committee (LEPC). Another great resource that we will consult with throughout the process is our city's Commission on Sustainability, which is comprised of appointed experts and community leaders who advise on sustainability-related policies, processes, and decisions. We will secure the services of a consultant(s) team to assist in risk assessment, mitigation activities development, and document creation. A wider range of public and private sector stakeholders will be invited and encouraged to participate throughout the plan update and implementation process through our community engagement process.**
Additional comments (optional)	**See the attached document for the SOW narrative, including a more built-out 'Implementation Process Description.'**

Attachments

Filename	Date uploaded	Uploaded by	Label	Description	Action

Filename	Date uploaded	Uploaded by	Label	Description	Action
2020 BRIC Grant Application Narrative.docx	11/20/2020	aubrey.germ@baltimorecity.gov	Scope of Work Attachments	This is the SOW narrative, including a more built-out 'Implementation Process Description.'	

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