FROM

NAME & TITLE	AVA RICHARDSON, DIRECTOR
AGENCY NAME & ADDRESS	OFFICE OF SUSTAINABILITY 8TH FLOOR, 417 EAST FAYETTE STREET
SUBJECT	CITY COUNCIL BILL #23-0385/ Study and Report – Baltimore City Climate Resilience Authority

CITY of BALTIMORE

MEMO

DATE:

TO

The Honorable President and
Members of the City Council
City Hall, Room 400
100 North Holliday Street

June 11, 2023

Position: Support with amendments

The Office of Sustainability is in receipt of City Council Bill #23-0385 – Study and Report – Baltimore City Climate Resilience Authority. CCB#23-0385 calls for a review of a climate/resilience authority or similar organizations, that can bolster investments in climate mitigation and adaptation across Baltimore City.

The Office of Sustainability recommends approval of CCB#23-0385 with amendments that factor in the current efforts across the city to more proactively achieve climate resilience – primarily the FEMA-mandated Disaster Preparedness and Planning Project (DP3), Climate Action Plan, (both of which will be updated in 2023) and the city's 2020 Nuisance Flood Plan (NFP). These plans outline evidence-based climate adaptation and mitigation strategies the city can take to enhance resiliency. The 2018 DP3 is the city's All Hazards Mitigation Plan (AHMP), which outlines feasible and effective climate mitigation and adaptation recommendations for the below hazards, identified as posing the most significant threats for Baltimore:

- Flooding
- Coastal Hazards: Tropical Storms and Hurricanes, Nor'Easter, Sea Level Rise, and Storm Surge & Coastal Inundation
- Precipitation Variability: Precipitation, Winter Storms, Drought, Dam Failure
- Extreme Wind: Associated with Storms, Derechos, Tornados
- Extreme Heat and Air Quality
- Additional Hazards: Earthquakes, Lightning and Hail, Tsunamis

The purpose of an AHMP is to identify policies and actions that can be implemented over the long term to reduce risk and future losses. In order to do so, a major component of the AHMP is a risk assessment. This process is a necessary first step for DP3: identifying the nature, location, intensity and probability of a threat, and then determining Baltimore's vulnerabilities and exposure to that threat while considering the capacities and resources available for the City to address or manage it. Baltimore's risk assessment comprises the bulk of the 2018 DP3.

Vulnerability assessments from the 2018 DP3 reflected high risk levels for floods, storms, wind, extreme heat and sea-level changes as depicted in Table 1: Overall Hazard Risk Ranking. The exposure (lack of defense), sensitivity (degree to which a system is affected), and Adaptive Capacity (ability to recover) of an individual or asset for each hazard is considered in the

vulnerability assessment. DP3 recommendations call for enhancing resiliency in four categories - infrastructure, buildings, natural services and public services.

Table 1: Overall Hazard Risk Ranking

Hazards	Probability	Deaths	Injuries	Damages	Local Risk Perspective	Hazard Risk Ranking
Flooding						
Flood	3	4	4	4	4	19
Dam Failure	1	1	1	1	2	5
Coastal Hazards						
Tropical Storms & Hurricanes	1	1	1	4	4	11
Storm Surge/Coastal Inundation	2	1	1	2	3	9
Sea Level Change	4	1	1	4	4	14
Tsunami	1	1	1	1	1	5
Precipitation Variability						
Thunderstorms (Lightning & Hail)	1	4	4	1	3	13
Winter Storms & Nor'easters	4	4	4	4	3	19
Drought	1	1	1	4	2	9
Wind						
Thunderstorm Winds & Derechos	4	4	4	4	3	19
Tornados	1	1	4	3	2	11
Extreme Heat						
Heat & Air Quality	4	4	4	1	4	17
Land						
Earthquakes	1	1	1	4	1	8
Landslump/Subsidence	1	1	1	1	1	5
Sinkholes	3	1	1	4	3	12

In the updated 2023 DP3, Baltimore will outline what the city will and can do to protect communities, critical facilities and other property from diminished quality of life, damages or loss, respectively, by assessing various hazards and risks, ways to mitigate those risks, and the timely investments needed to enhance Baltimore City's climate resiliency. Public and stakeholder participation, feedback and stakeholder engagement are vital to the DP3's planning process. The most recent status reports for DP3 are available on our website here, reflecting progress on climate resilience measures across the city.

The 2020 Nuisance Flood Plan addresses the phenomenon of "*...high flow, overflow or inundation by water which causes damage.*" It is typically unrelated to particular storm events, though it may be exacerbated by long-duration wind events or passing storm systems and the astrological factors. A StoryMap of the NFP is also available on our website, showing where nuisance flooding occurs or has the potential to occur across 6 nuisance flood zones. Assets at risk of damage due to nuisance flooding such as municipal buildings, private property or manufacturing facilities, energy infrastructure, retail space, public pedestrian areas are indicated for each zone.

Community Resiliency Hubs also serves a vehicle to recover and resilience for communities. Citywide, the number of Resiliency Hubs has grown to more than 15. These trusted community organizations provide necessary resources in preparation for, during and after disaster events to

propel recovery and instill stability in impacted communities. The city's network of Resiliency Hubs served as distribution sites for masks, gloves, or other personal protective equipment, food and as vaccine centers during the COVID-19 pandemic. A number of Resiliency Hubs also function as cooling centers during the Code Red Extreme Heat season, serving a respite from excessive heat, providing water and supporting citywide coordination to address acute heat-related health events.

Amendments to follow reflect the data, analysis and modeling outlined the city's DP3/AHMP, CAP, NFP and other citywide efforts that address some of the request in CCB# 23-0385.

**Note: Text in [brackets] includes edited text with suggested amendments.*

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Lines 9-14: This timeline does not factor in the time it may take to execute an agreement with a consultant for the study. In consideration of agreement approval timelines, one year will be needed to fulfill the requests of CCB# 23-0385.

[(a) No later than 1-year ~~180 day~~s after enactment of this Ordinance, the Director of Finance, the City Solicitor, the Director of Transportation, the Director of Public Works, the Director of Planning, and the Director of Sustainability shall submit a report detailing how Baltimore City may establish a local climate resilience authority originally authorized by Chapter 236 of the Acts of 2020, now codified as Title 22 {"Resilience 14 Infrastructure"} of the State Local Government Article.]

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Lines 6-7: We recommend expanding the assessment to include a national scope to better understand how resilience authorities function in other states, jurisdictions and regions.

[a structural review of existing and prospective local climate resilience authorities nationally and throughout the State of Maryland;]

Lines 12-18: Climate mitigation and adaptation strategies are outlined in the city's Climate Action and Disaster Preparedness Plans, respectively. Other citywide planning document also outline many strategies goals and action that help to mitigate the risks and impacts of climate change. Amendments below factor these planning efforts into the bill text.

[(iv) Factoring in ~~Potential~~ climate mitigation strategies ~~specific~~ relevant to a Baltimore City climate resilience authority currently captured in the 2019 Sustainability Plan, 2023 Climate Action Plan and the city's FEMA-mandated Disaster Preparedness and Planning Project (DP3), the Nuisance Flood Plan (NFP) and other climate related citywide programs, while assessing gaps in strategies, data and analysis:

(1) continually leverage and reassess~~ing~~ the vulnerability data and analysis captured in the DP3 and NFP to ~~of~~ enhance local infrastructure resilience, mitigate the environmental ~~to the~~ impacts of climate change and seek to bridge gaps in data needs;

(2) ~~determining~~ supporting the implementation of initiatives, strategies and actions outlined in citywide climate-related plans, that protect the City's local infrastructure and environment or explore new initiatives as necessary;

(3) leveraging currently planned and future ~~the selection of~~ projects to embed climate mitigation, adaption and resilience priorities into and project implementation to protect people, property and communities from the adverse the effects of climate change; and

(4) ~~the~~ designing and implementing ~~implementation of~~ selected projects by a local climate resilience authority.]

The Office of Sustainability recommends **approval with amendments** of City Council Bill #23-0385, to align the bill text with current climate action planning across Baltimore City and avoid duplicating current efforts, focusing the requested study on funding mechanisms, governance structures for a resilience authority and gaps in current climate data.

Please contact Ava Richardson, Sustainability Director, at 410-396-8630 or ava.richardson@baltimorecity.gov with questions regarding this bill report.

cc: Ms. Nina Themelis, Mayor's Office
The Honorable Mark Conway, Councilmember, District 4
The Honorable Phylicia Porter, Council Representative to the Commission on Sustainability
Ms. Brittany Vendryes, Esq., Executive Director, Environmental Control Board
Mr. Chris Ryer, Planning Director
Ms. Valerie Rupp, Climate & Resilience Manager
Mr. Matthew Stegman, City Council President's Office
Ms. Natawna Austin, Council Services