

Baltimore Flood Resiliency Efforts



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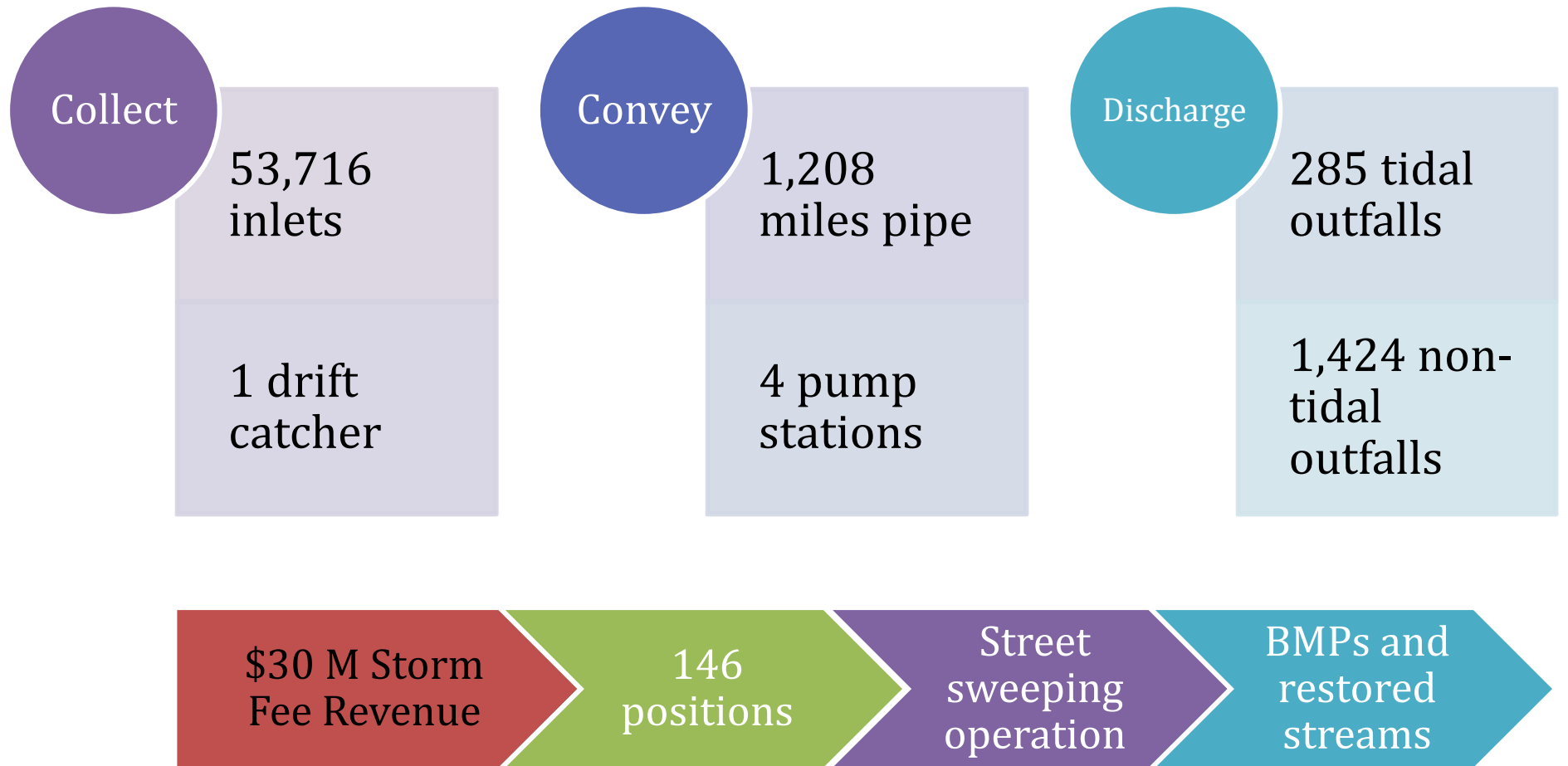


PARTMENT OF PUBLIC WORKS BALTIMORE CITY DEPARTMENT OF PUBLIC



March 11, 2022

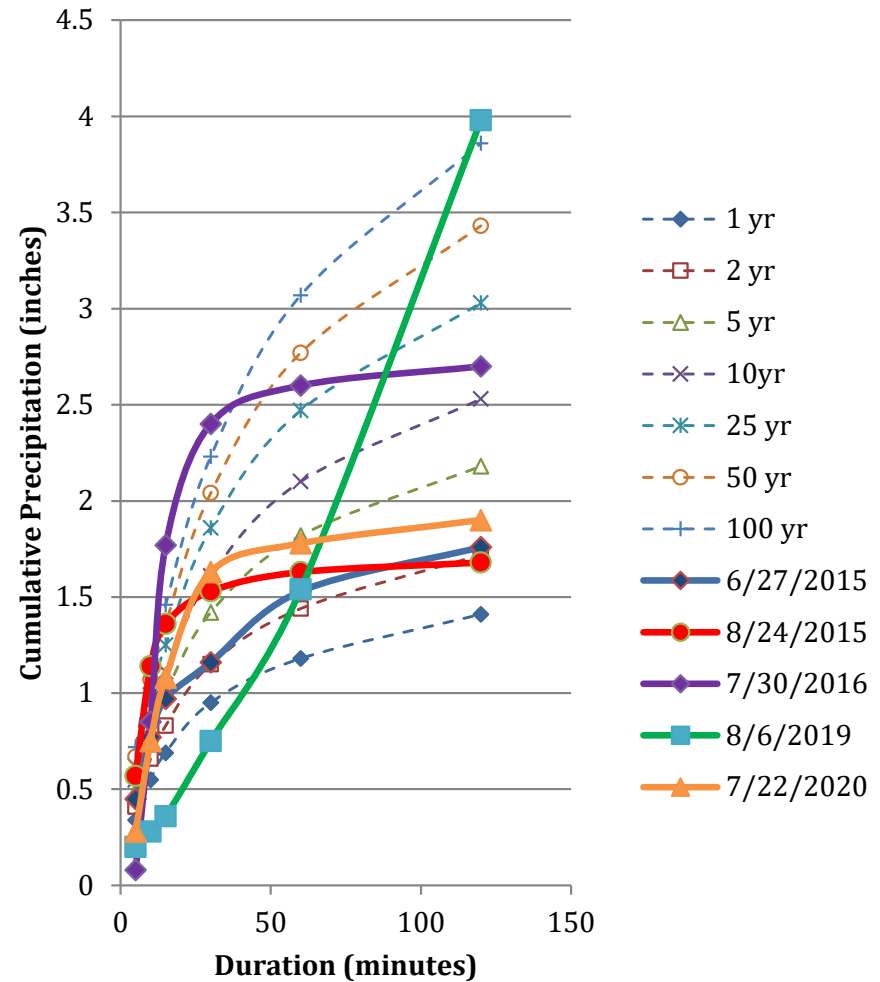
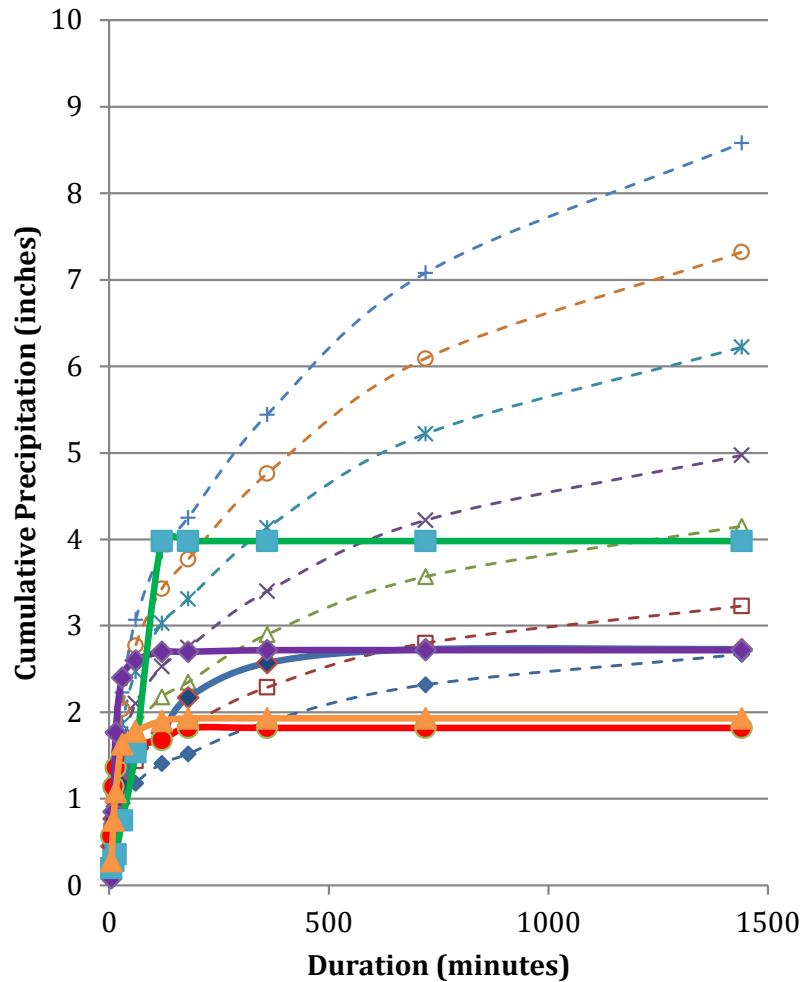
Baltimore City Stormwater Assets



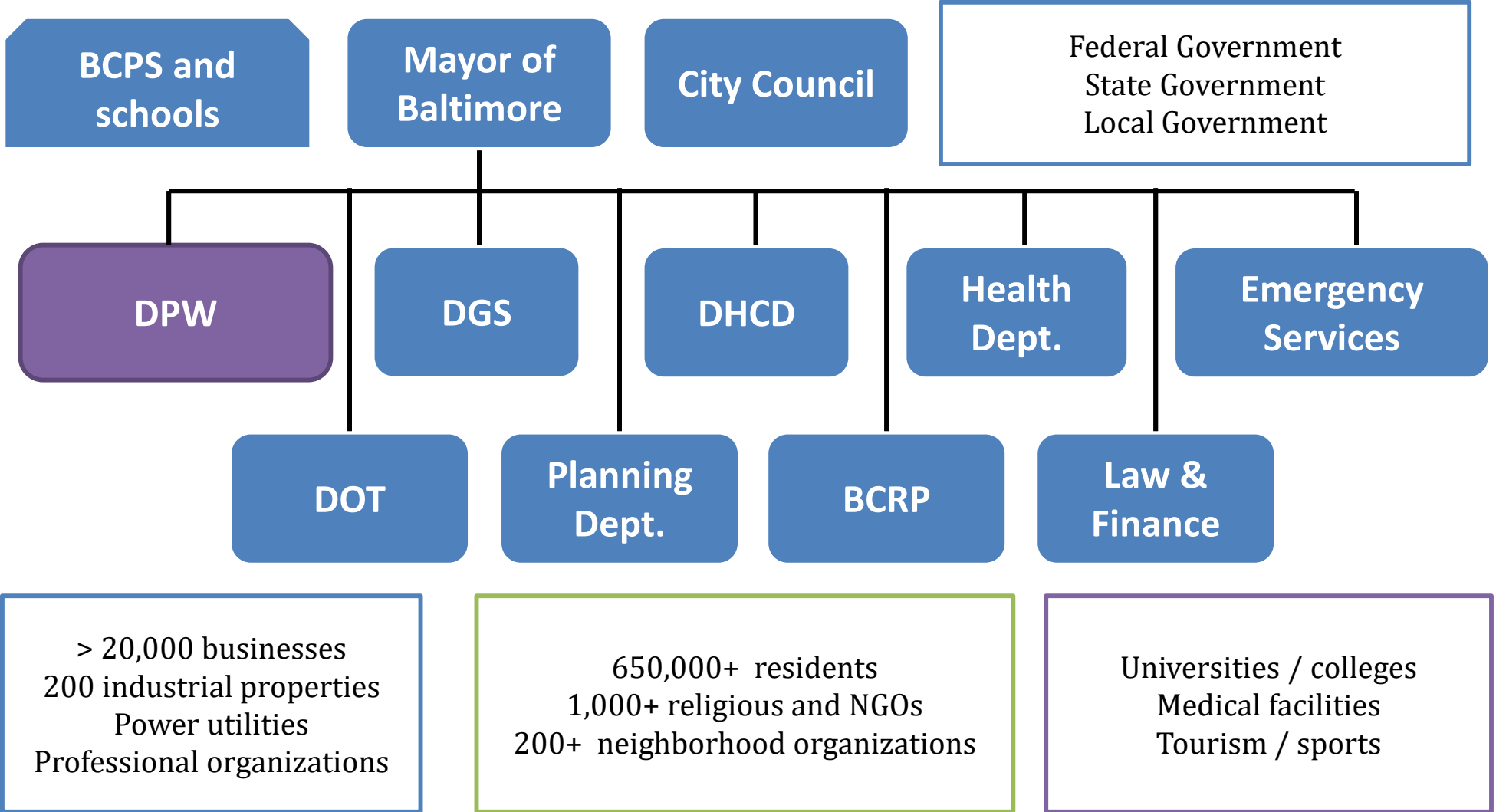
Resilience Building



Micro-Burst Events



Flood Partners



Work to Date

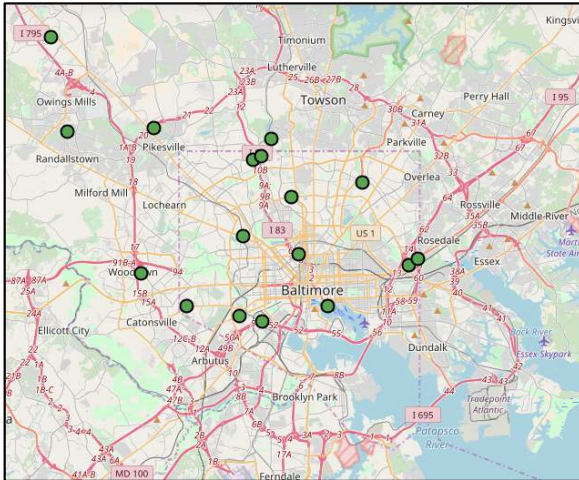
- Floodplain management:
 - City Code exceeds federal standard for FPM
 - Nuisance Flood Plan (2020)
 - Community Rating System Score = 5
- 10-year + 100-year control requirements
- Storm fee incentive programs
- Sustainability and Resiliency Sub-Cabinet

Resources

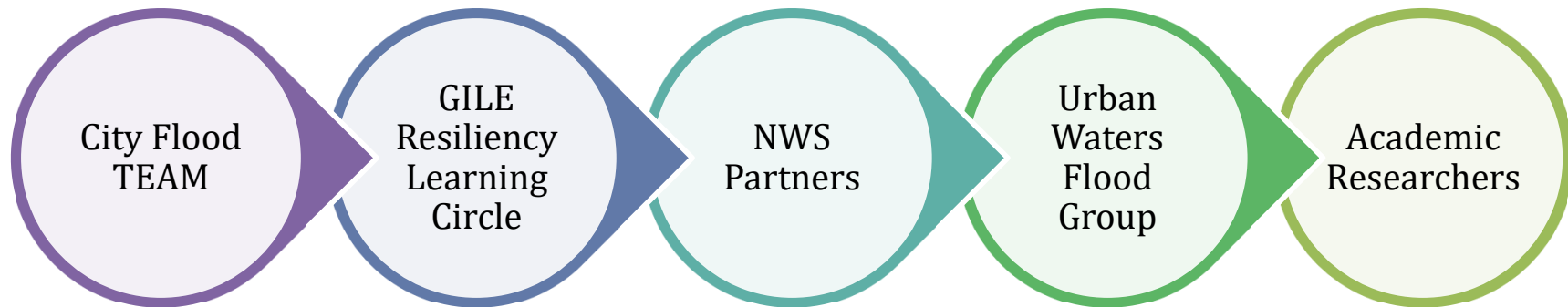
1. 2018 Disaster Planning Project Plan (DP3)
2. MS4 Annual Reports
3. EOP- Flood Annex
4. *The Value of Urban Flooding*
5. *Framing the Challenge of Urban Flooding in the US*
6. *BMC Climate Change Resource Guide for Public Works and Transportation*



Work In Progress



- CIP for storm drain improvements / flood mitigation
- Flood ALERT system upgrade to Flood ALERT 2
- Increasing pro-active inlet cleaning
- H & H Model of entire storm drain system
- Partner collaboration



Current Inland Flooding Focus Areas

Riverine:
Jones Falls / Union
Avenue

Riverine/ Pluvial:
Frederick Avenue/
Maidens Choice

Pluvial:
Patapsco Avenue
/ Cherry Hill



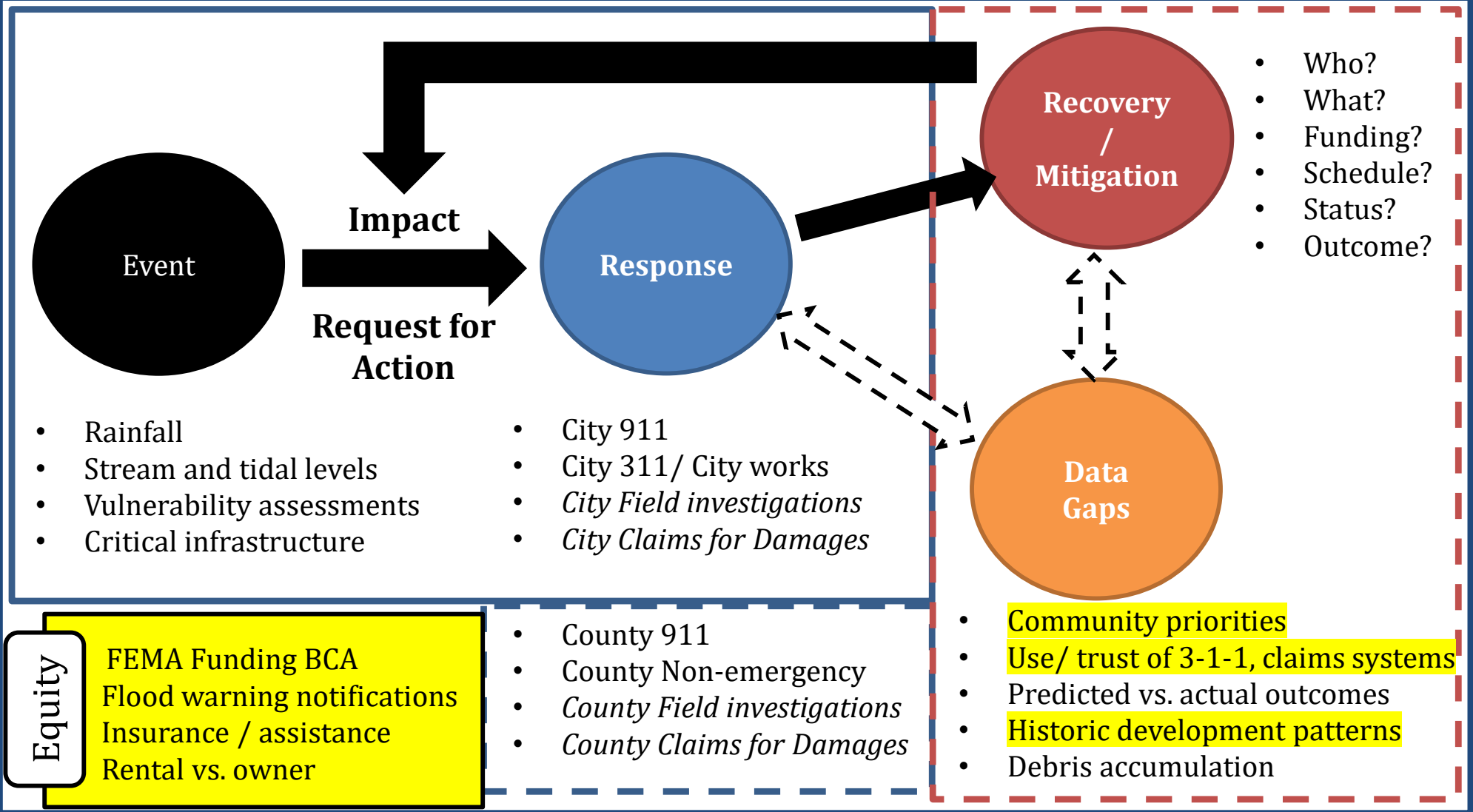
Pluvial:
35th and Hillen

Pluvial:
Pulaski Highway

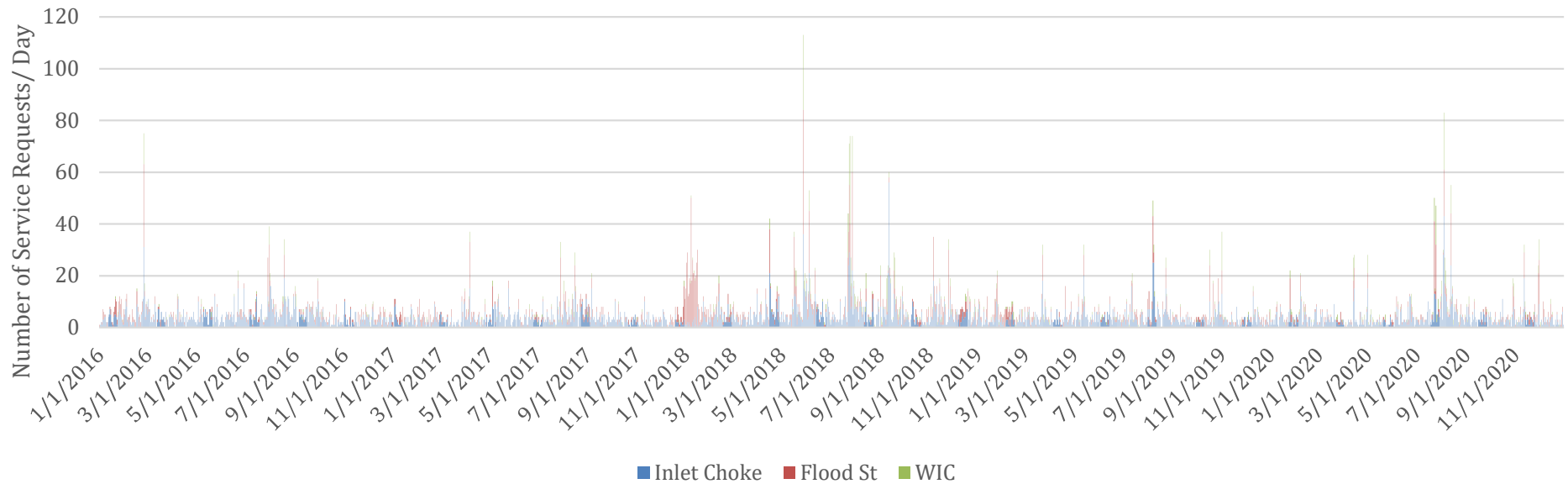
Pluvial:
Northpoint Road /
Erdman Underpass



Flood Data Repository & Equity



3-1-1 Usage

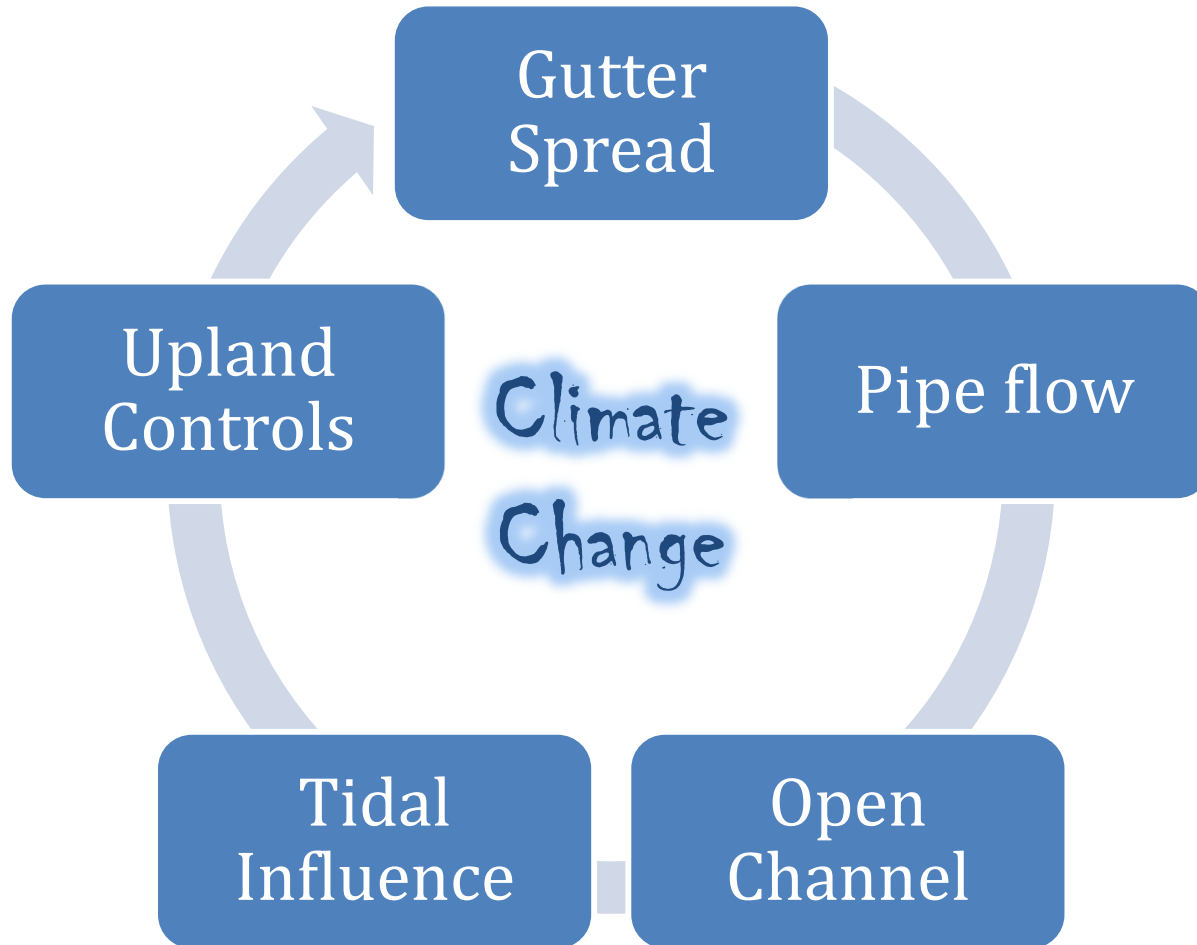


Outreach event at 35th & Hillen (3/27/21):

- 161 homes, 71 participated
- 48 reported flooding around their property
- 33.8% report always use 3-1-1 and 36.6% never use 3-1-1
- Of those who don't use 3-1-1, 23.9% did not know what the 3-1-1 system is.



H & H Model

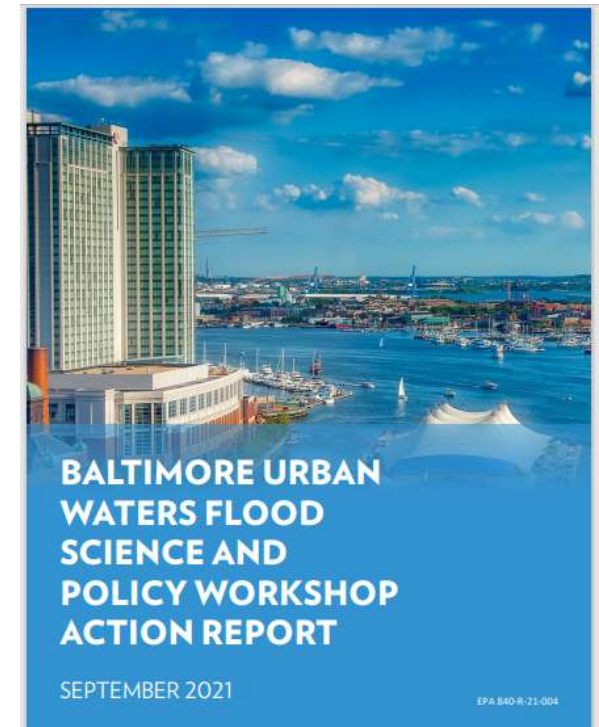


- \$20 M over 5 years
- Software and hardware evaluation
- Policy and data review
- Modeling Handbook
 - Design storms
 - System focus
 - Survey and condition assessments
- Field data collection and assessment
- Model development and calibration
- Model communication



Workshop #1: Summer 2020

- Flood science and impacts
- Data and technical resources
- Government coordination and policy
- Equity and social vulnerability
- Outreach and education



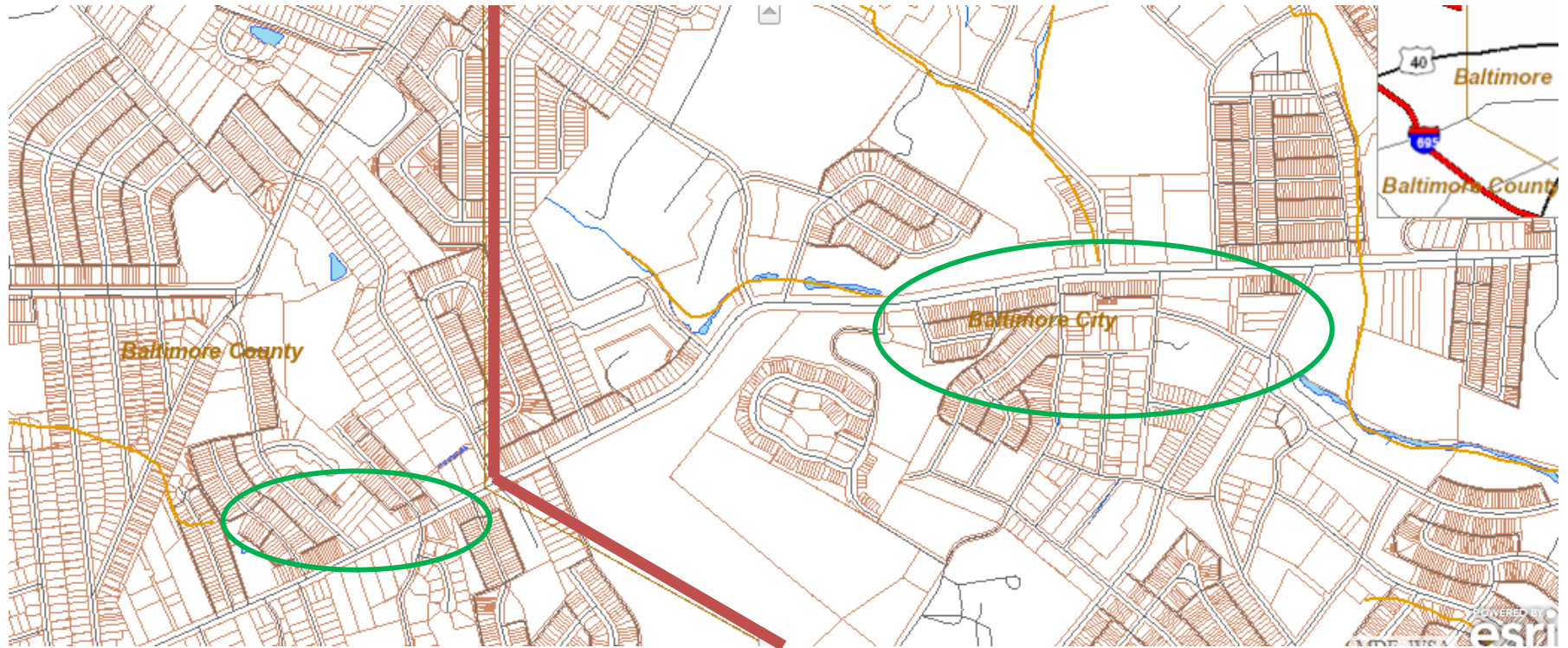
*Consider flood mitigation and stormwater management
in the context of a whole watershed*



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Workshop #2: Summer 2022

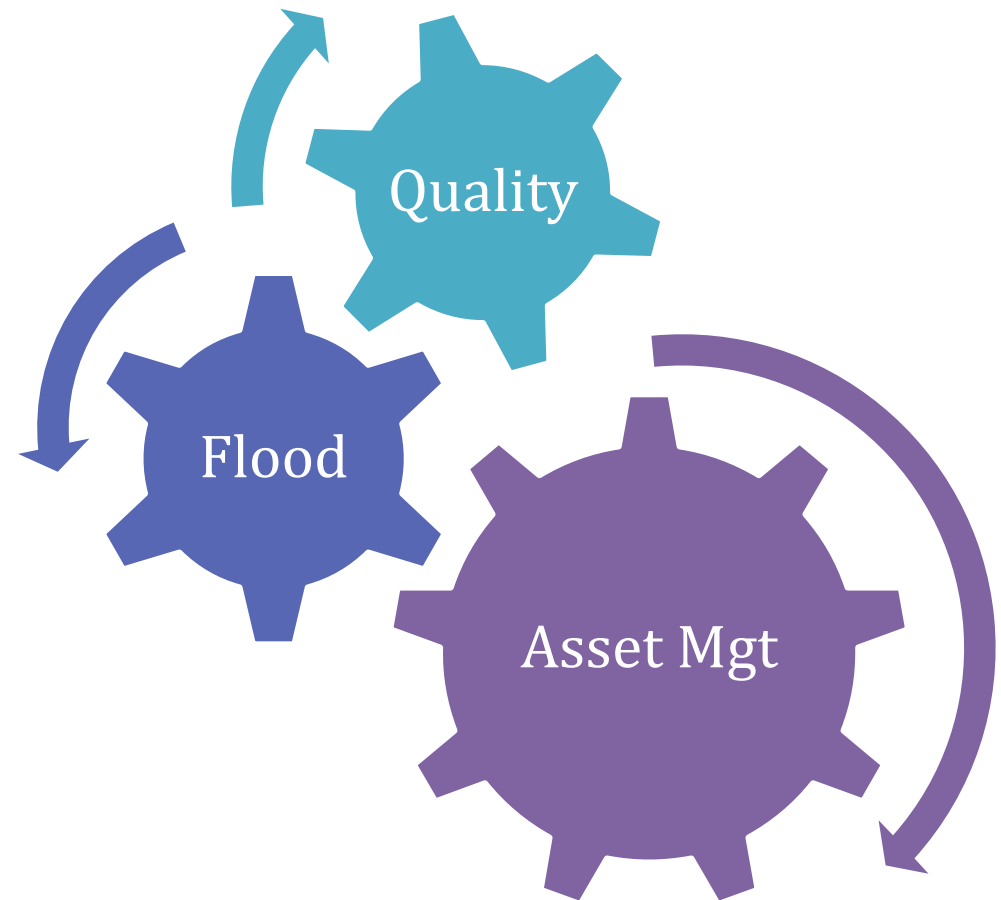


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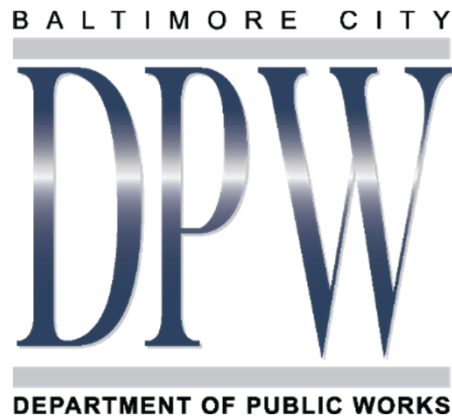


Last Thoughts

- Data, data, data!!
- Understand controls
- No vacuums. No silos. No silver bullets.
- People, then pipes, then people again.
- Partnerships are key.



Thank you for your time.



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