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Maryland Coast Smart-CRAB And FEMA 100-year Floodplain Regulations ARWG and Coast Smart Meeting

June 2021

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State CTP Mapping Coordinator**

Maryland Department of the Environment

Topics –

- **100-year Floodplain Regulation History**
- **FEMA's Letter to Governor**
- **FEMA Regulations / Gaps and Overlaps with Coast Smart**
- **(First) Example of Overlap**



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FEMA Regulations

At the Community Level ...

- FEMA Requires a Map / Floodplain Regulations / Documentation / and Enforcement / at the Community Level with Land Use Authority
- Written Agreement via FP Ordinance
- In Order to
 - Provide Federal Flood Insurance within Community
 - Which Also Provides Disaster Assistance



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FEMA Also Includes the State as a Community

Which Means State Projects Need to Meet FEMA Requirements....

- Since 1970's
 - State Maryland has used the State Clearinghouse Process to Provide FEMA Review for State Projects
- In **October 2019 / Letter to Governor**
 - FEMA Is Looking for Validation that **each State Agency** in Maryland is meeting FEMA criteria (State Regulations, Review and Documentation) Or...
 - **May Jeopardize Disaster Assistance**



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Current Maryland Process

- **All State Agencies Have Met the FEMA Criteria for More than 40 years !**
- **FEMA's Issues Came Up in Other States After a Disaster**
- **But as a Result, FEMA has determined that there is a Potential Problem in MD**



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Can Coast Smart Help to meet FEMA Requirements...

- Mapping
 - Current Floodplain Maps and CRAB meet Criteria
- Regulations
 - CRAB (Self Reporting) Regulations
- Documentation
 - Coordination with Community Ensures Alignment with FEMA (LOMR's)
 - Need a Permit Review and Documentation
 - (State Agencies Are Not Subject to Local Permits)



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FEMA Mapping in Maryland

- FEMA created in late 1960's
- Original Flood Studies performed in early 1970's
- Coastal pieces were added in early early 1980's
- FEMA Map MOD started in 2000's
 - (Mainly Digital Conversions / Not New Models)
- Full Updates Started in 2008 / Still in Production
 - (Model Backed and Geo-referenced)
 - (23 Counties Completed or In Production)
- Full Coastal Updates began in 2012
- **CRAB Completed in 2020 ! (Used FEMA as Base Line)**



Summary of State Regulations...

State projects in... Type of Floodplain
Tidal Floodplains Projects Over \$500,000
Tidal Floodplains Projects Under \$500,000
Nontidal Floodplains



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<p>Tidal Floodplains Projects Over \$500,000</p> <p>(Current Requirements)</p>	<p>(Add Check Box)</p> <p>(Self Certification)</p>
<p>Tidal Floodplains Projects Under \$500,000</p> <p>(Current Requirements)</p>	<p>No Review or Process</p>
<p>Nontidal Floodplains</p> <p>(Current Requirements)</p>	<p>Some Overlap with +3 limits</p> <p>(Use Coast Smart Elev.)</p>



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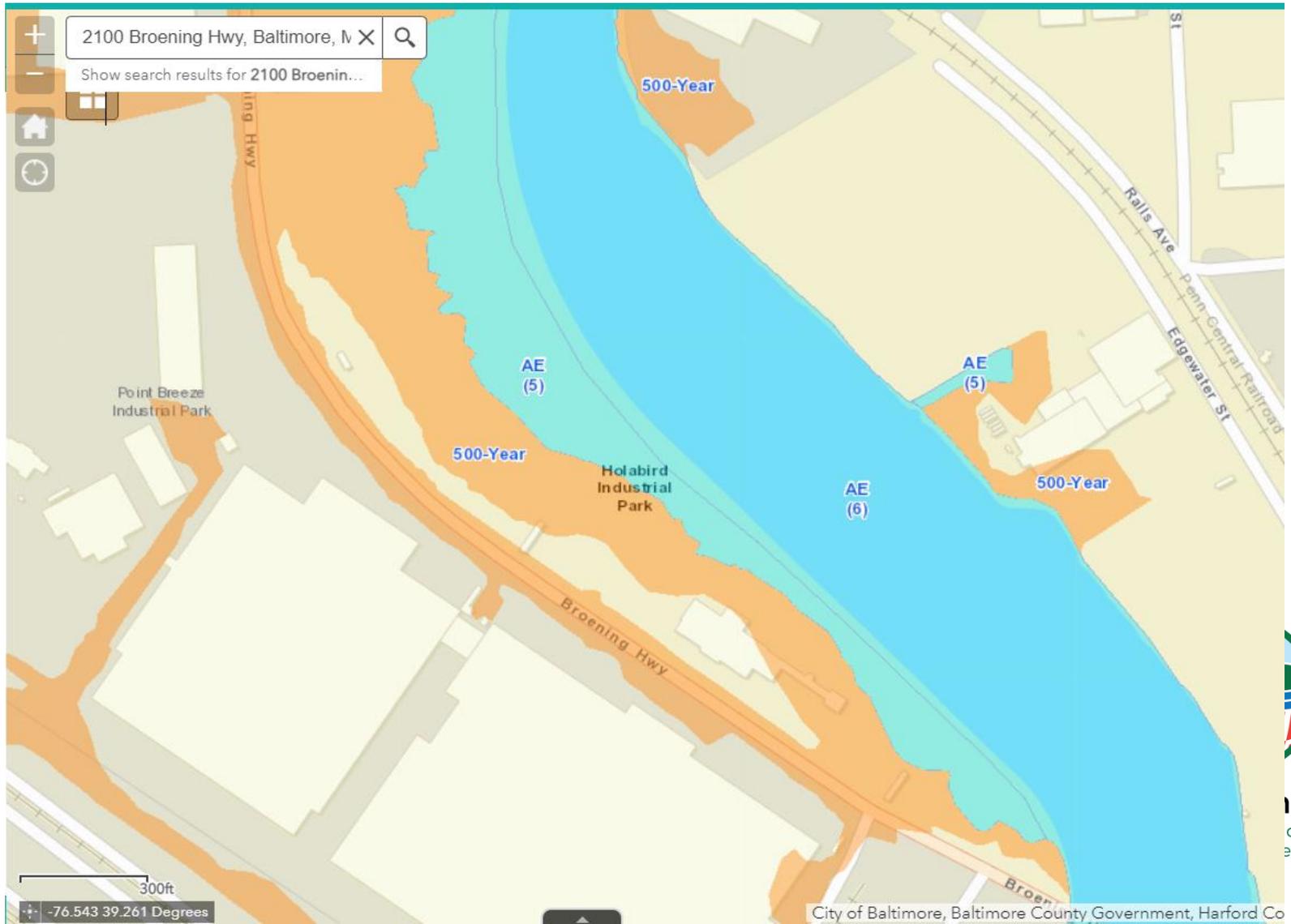
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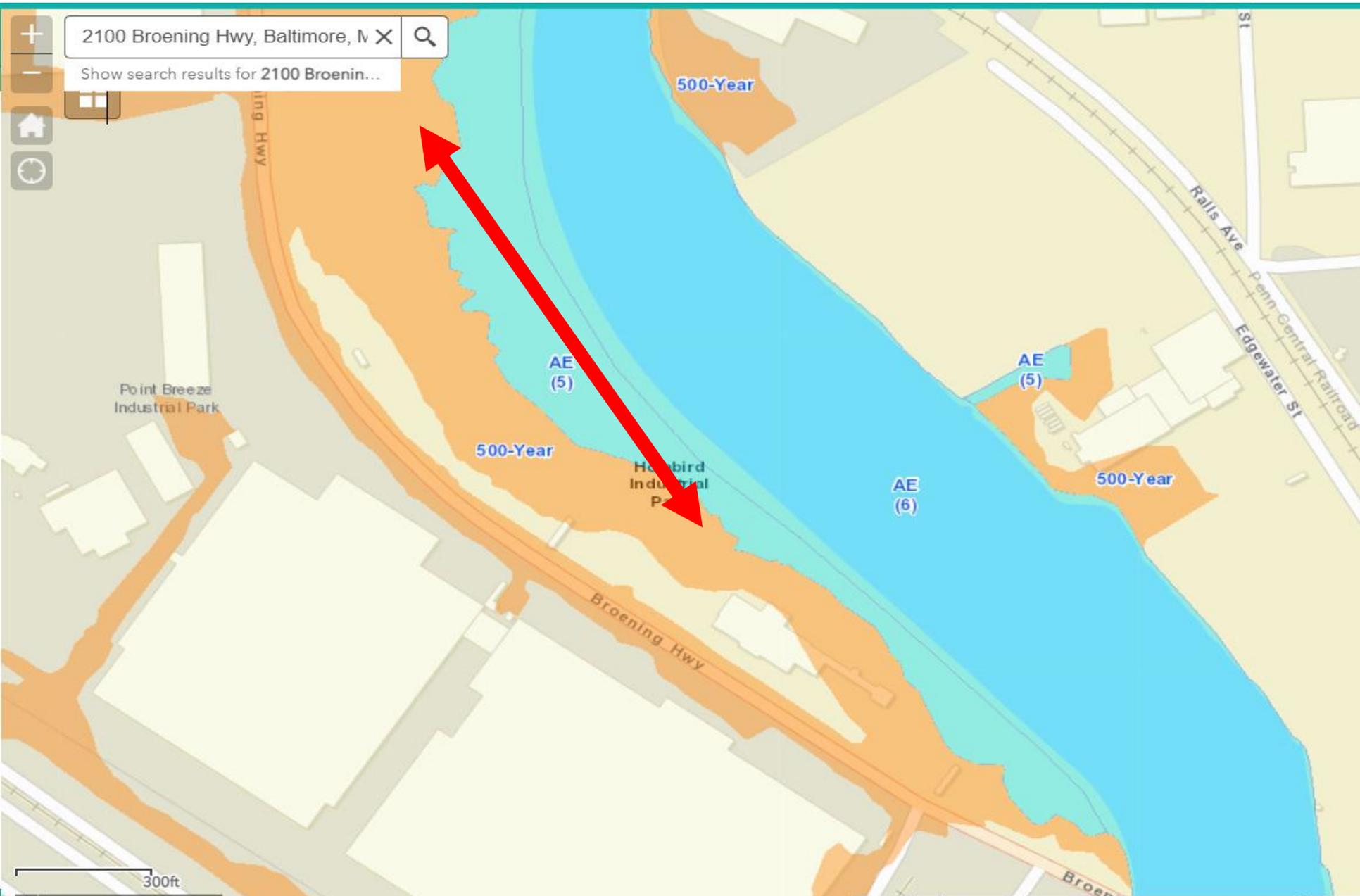


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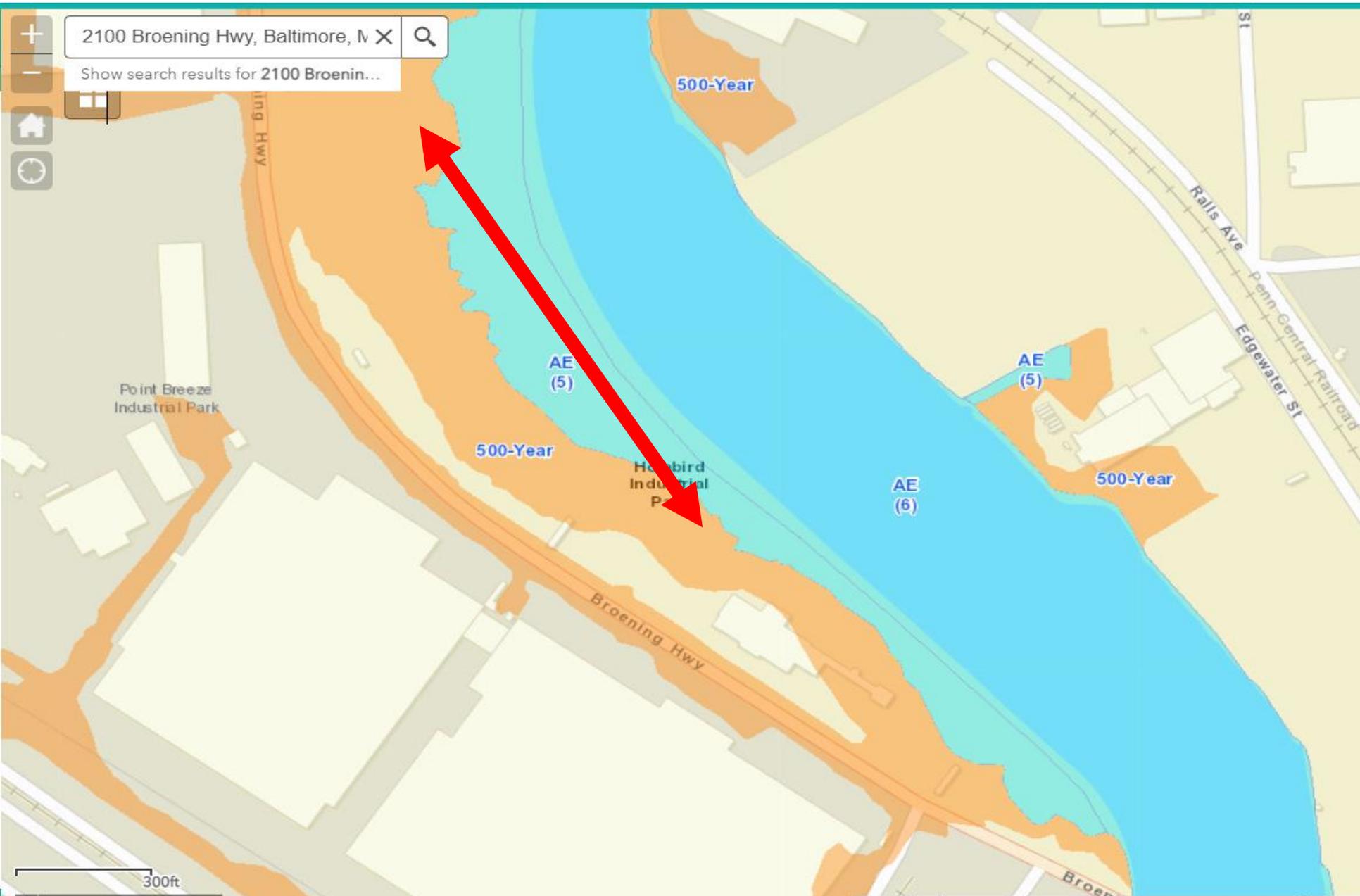
Recent Example at Port ...



Place Fill for Storage & Maintenance



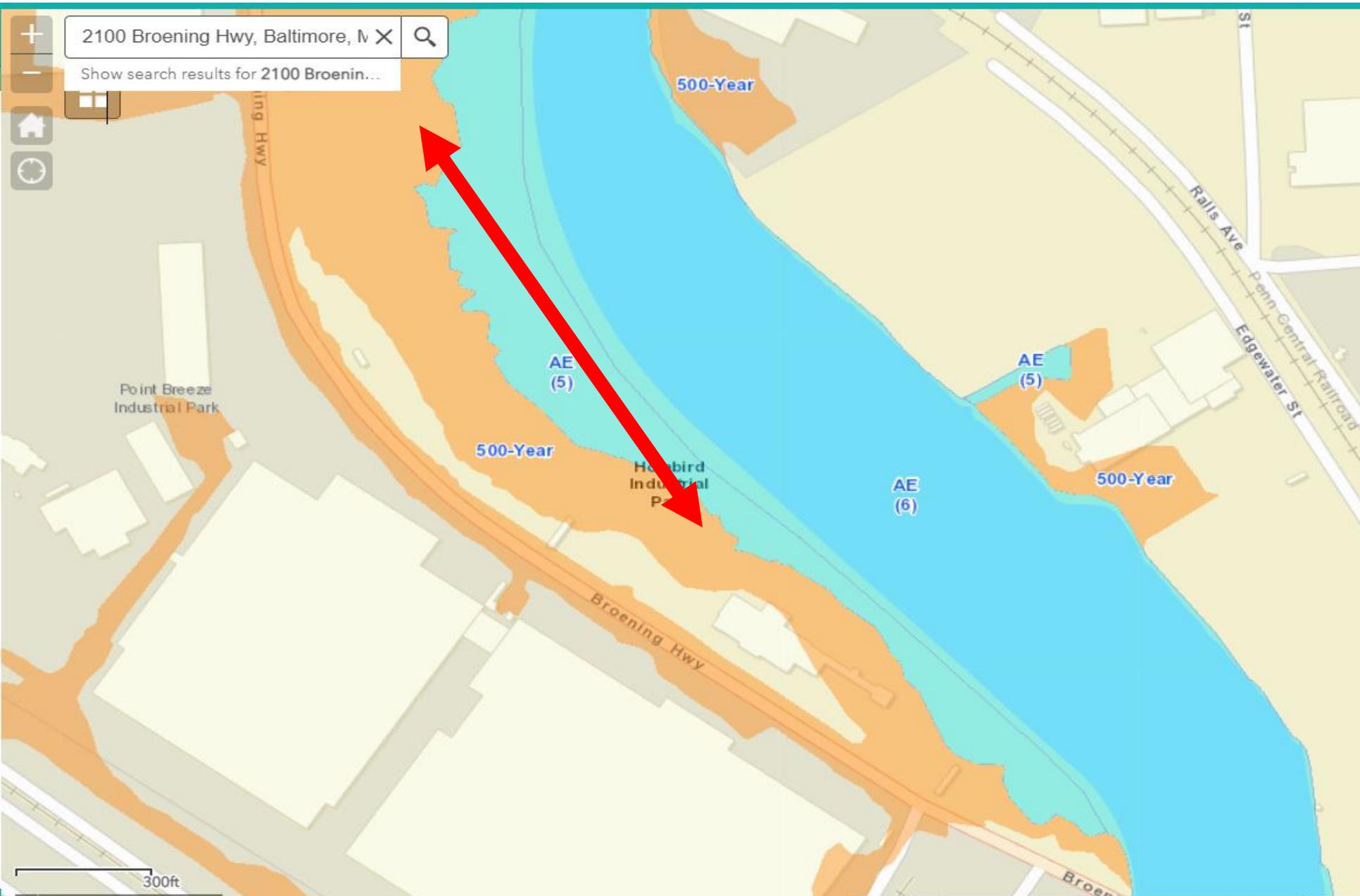
CRAB Criteria: (Fill to Elev. 9.0)



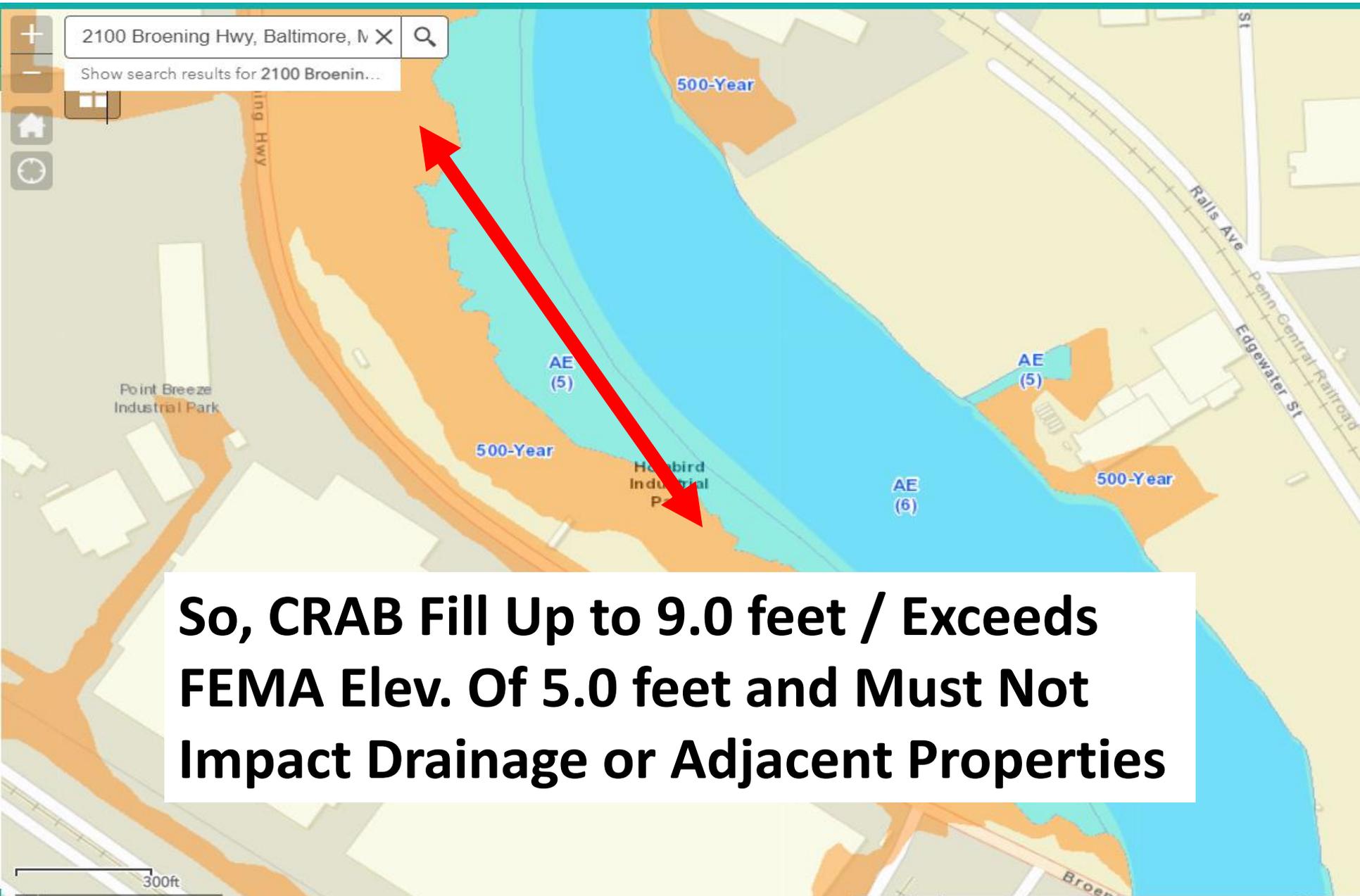
But Most FP Regs Only Allow Fill Below BFE of 5.0 ft



And Fill in CRAB / Not For Storage Sites

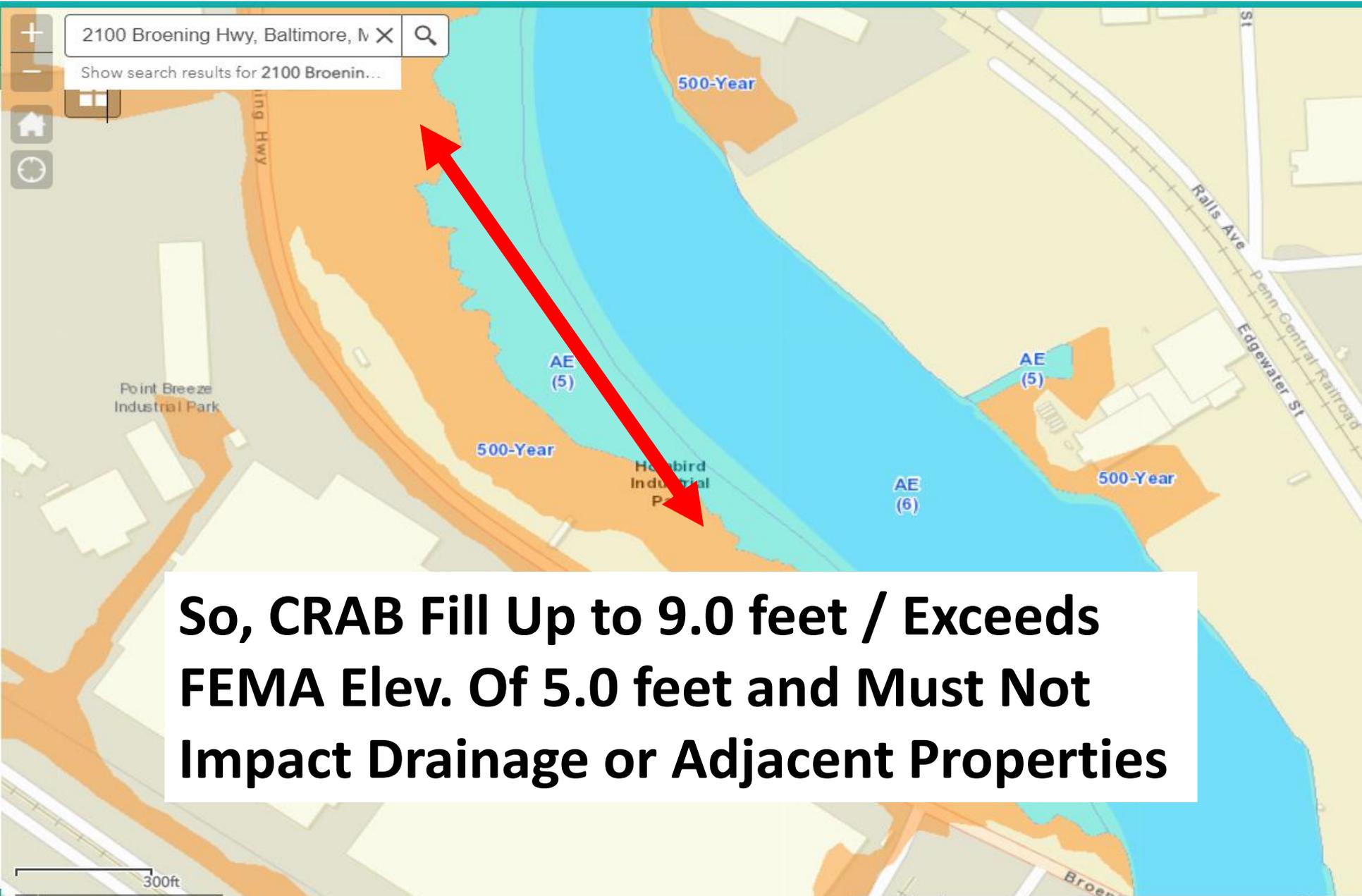


And Fill in CRAB / Not For Storage Sites



So, CRAB Fill Up to 9.0 feet / Exceeds FEMA Elev. Of 5.0 feet and Must Not Impact Drainage or Adjacent Properties

How to Match Intent of CRAB & FEMA Letter ?



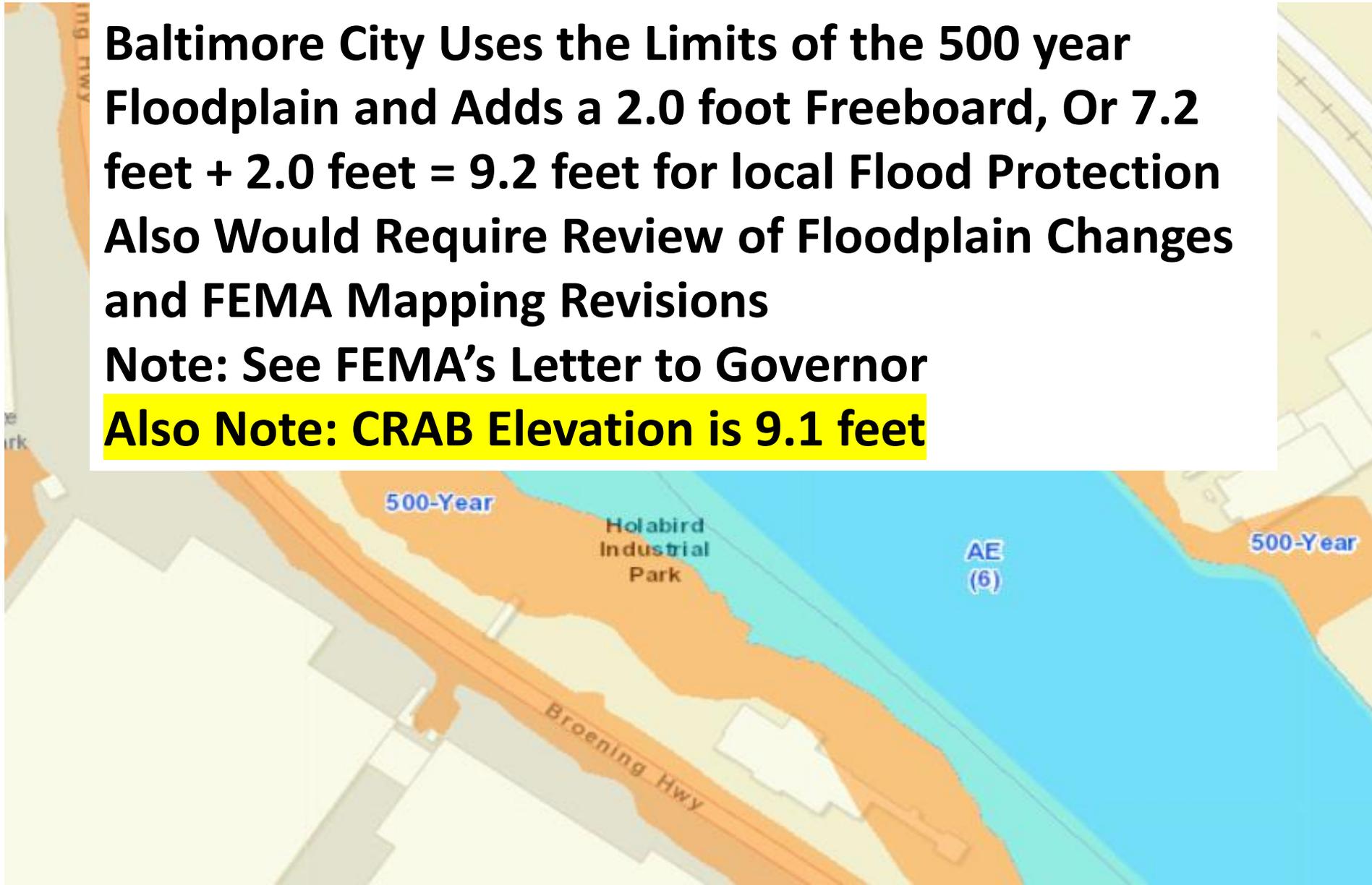
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So, We Contacted Balt. City FPM...

Baltimore City Uses the Limits of the 500 year Floodplain and Adds a 2.0 foot Freeboard, Or 7.2 feet + 2.0 feet = 9.2 feet for local Flood Protection Also Would Require Review of Floodplain Changes and FEMA Mapping Revisions

Note: See FEMA's Letter to Governor

Also Note: CRAB Elevation is 9.1 feet



Summary

Tied to Coastal 100 year + 3 feet

- **We Don't Know (yet) Where All the Overlaps or Gaps Are**
- **Current CRAB Regulations Are More than a Great Start, but Need More...**
 - **Documentation and Coordination**
 - **Review Authority**

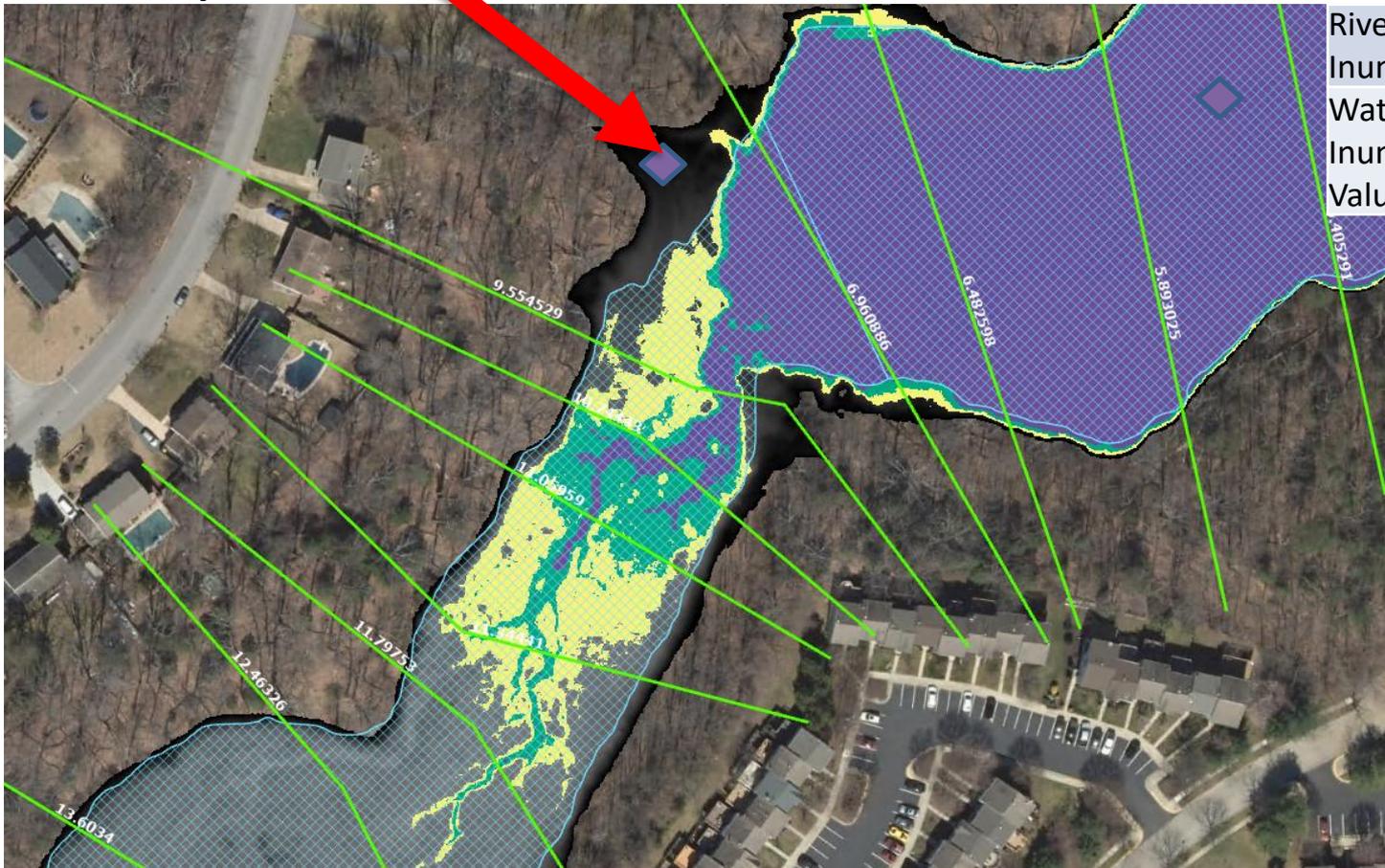


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Coastal and Riverine Transition

Riverine interpolation is more conservative in this area – recommend to use these values, when possible

Coastal CRAB Inundation	7.71
Riverine CRAB Inundation	7.55
Waterfall Inundation Value'	0.16



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Questions / Comments /

Dave Guignet

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**Outreach Info and CRAB Tool:
mdfloodmaps.net**



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