



Maryland
Department of
the Environment

Coast Smart Construction Program Wastewater Addendum

November 20, 2024

Eileen Gladd, P.E.

Senior Engineer, Flood Management Division



Workgroup Members

Eileen Gladd, P.E. - MDE Flood Management Division

Dave Guignet - State NFIP Coordinator

Walid Saffouri, P.E. - MDE ECPP Program Manager

Maia Tainclaux, P.E. - RK&K Wastewater Engineer

Ezgi Kurdoglu - MES Wastewater Engineer

Maryland Association of Municipal Wastewater Agencies (MAMWA)

Joel Caudill, P.E. - WSSC/ MAMWA

Laurens Van der Tak, P.E. - Jacobs/ MAMWA

Lisa Ochsenhirt – MAMWA

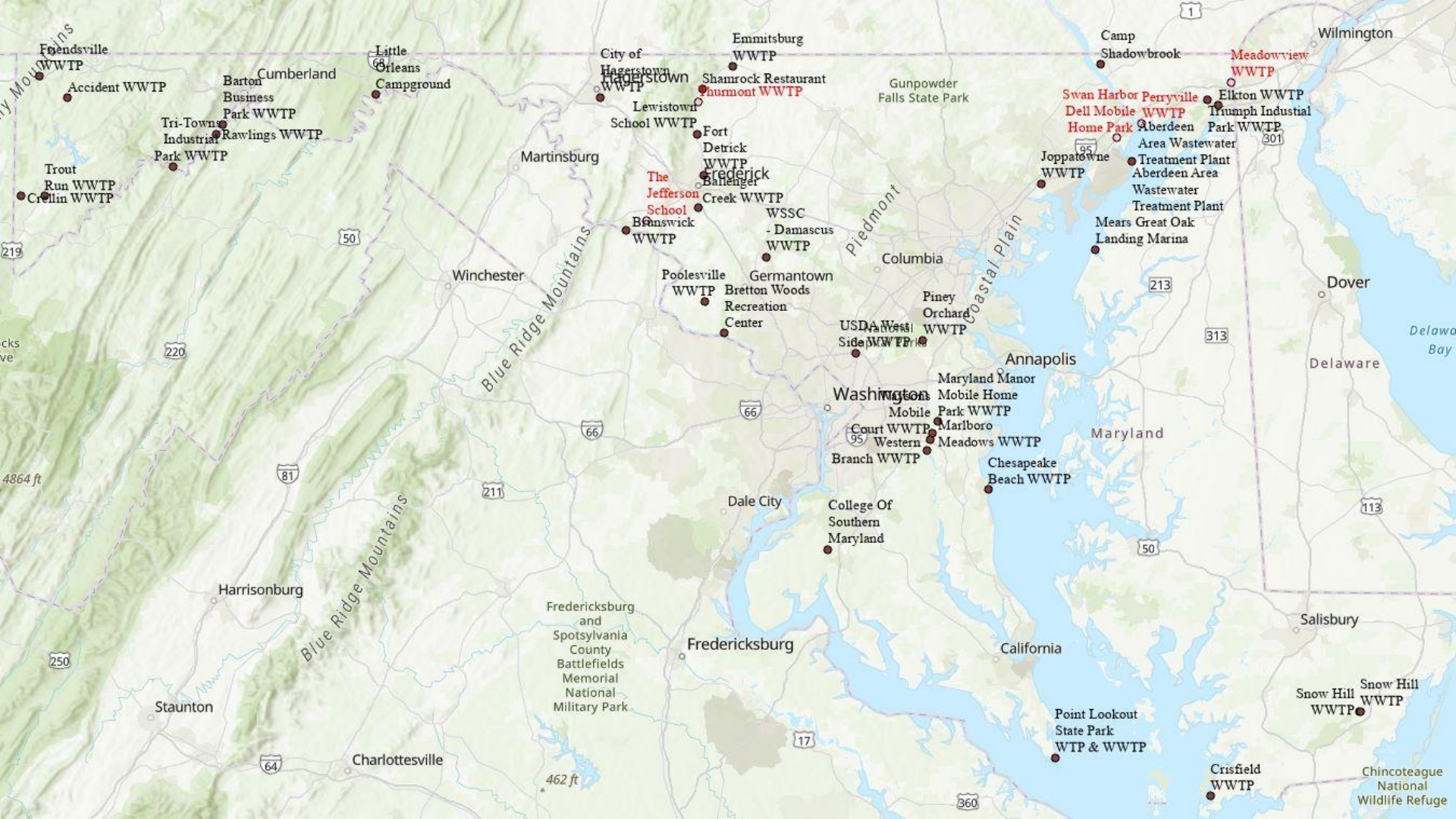
David Kramer, Anne Arundel County/ MAMWA

Special Thanks to: Ryland Taylor and Matt Smith



Workgroup Goals

1. Produce an addendum to the *Maryland Coast Smart Council - Coast Smart Construction Program 2020* for wastewater infrastructure projects
2. **Clarify the existing guidance** for application to wastewater construction and reconstruction projects
3. Mitigate future flood risks in a way that is judicious with public funds and cost-effective over the design life (or remaining useful life) of a facility
4. Prevent the intermixing of untreated wastewater with floodwaters during flood events - consider *risk to* the WWTP and *risk from* the WWTP
5. Align Coast Smart with ASCE 24-14 Building Codes, EPA, and FFRMS





Notes from Workgroup

- Letter of Support from Maryland Association of Municipal Wastewater Agencies (MAMWA)
- General agreement that there is a need for increased flood resiliency, and funding for that resiliency
- Appreciation for wastewater specific guidance



Maryland Association of Municipal Wastewater Agencies, Inc.
Washington Suburban Sanitary Commission
14501 Sweitzer Lane, 7th Floor
Laurel, MD 20707
Tel: 301-206-7008

November 20, 2024

MEMBER AGENCIES

Allegany County
Anne Arundel County
City of Baltimore
Baltimore County
Town of Berlin
Cecil County
Charles County
City of Cumberland
D.C. Water
Frederick County
City of Hagerstown
Harford County
City of Havre de Grace
Howard County
Ocean City
Pocomoke City
Queen Anne's County
City of Salisbury
Somerset County Sanitary District
St. Mary's Metro. Comm.
Washington County
WSSC Water

Members of the Coast Smart Council
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, Maryland 21230

Re: Proposed Coast Smart Guidelines for Wastewater Treatment Plants

To the Honorable Members of the Maryland Coast Smart Council:

I am writing today on behalf of the Maryland Association of Municipal Wastewater Agencies (MAMWA).

MAMWA is comprised of local wastewater treatment agencies that own and operate municipal wastewater treatment plants (WWTPs), also known as publicly owned treatment works (POTWs), serving approximately 95% of the State's sewered population.

CONSULTANT MEMBERS

Black & Veatch
GHD Inc.
Greedy and Hansen Engineers
Hazen & Sawyer
HDR Engineering, Inc.
Jacobs
Ramboll Americas
Whitman, Reardon & Assoc.
Nylem, Inc.

Since June, MAMWA has been working with the Maryland Department of the Environment's (MDE's) Stormwater, Dam Safety, and Flood Management Program on a wastewater-specific addendum (Addendum) to the current Maryland Coast Smart Council Coast Smart Construction Program document (2020). MAMWA has a strong interest in the Addendum as it will apply to many of our members with facilities located in the Coast Smart-Climate Ready Action Boundary (CS-CRAB).

MAMWA raised a question during discussions with MDE about the applicability of the Addendum to substantial improvement (SI) projects that do not include substantial damage at wastewater plants because the larger Construction Program document does not seem to apply to SI projects. MAMWA's goal throughout discussions has been parity between the wastewater sector and other types of state and local construction.

MDE staff recently shared that the larger Program document does not apply to SI projects, per advice from the Attorney General's Office.

With this explanation, MAMWA supports the adoption of the final version of the Wastewater Addendum, as presented by MDE staff during the Coast Smart Council's November 20, 2024, meeting.

MAMWA Letter to Coast Smart Council
November 20, 2024
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We would like to thank MDE staff, and particularly Ms. Eileen Gladd, for requesting MAMWA's feedback on this important document. MDE staff's professionalism was notable, as was their willingness to actively engage with our Membership. They worked diligently to review and incorporate MAMWA's suggested improvements to the Addendum.

Please feel free to reach out to me if you have any questions.

Sincerely,

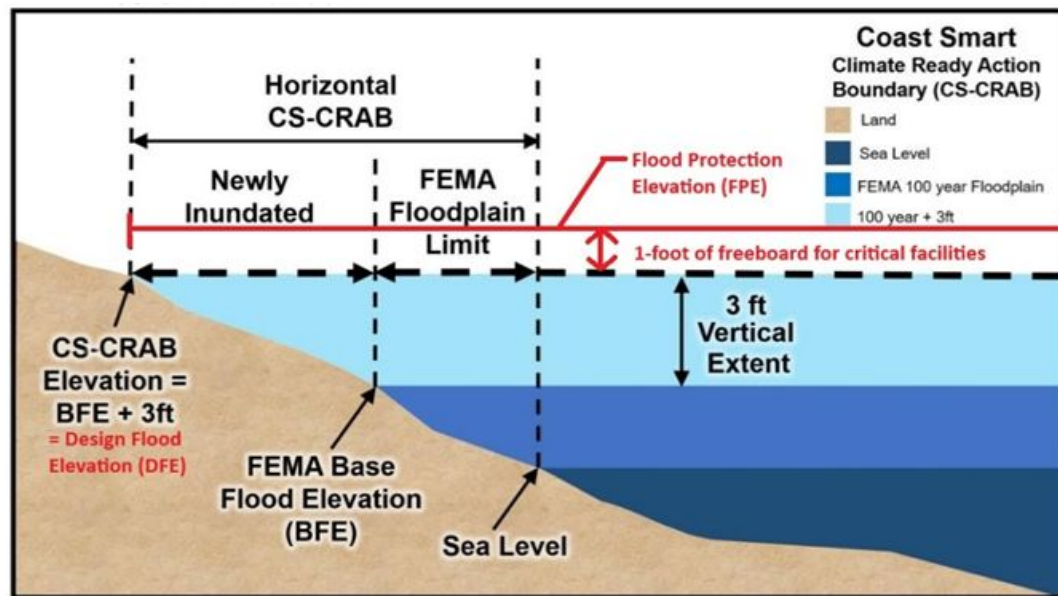
Lisa Ochsenhirt
MAMWA Deputy General Counsel

cc: Eileen Gladd, P.E., MDE
MAMWA Members



Addendum Content Highlights

- Defined **Design Flood Elevation (DFE)** and **Flood Protection Elevation (FPE)** to align with consensus-based standards, MD Model Floodplain Ordinance, and building codes.





Addendum Content Highlights

- Clarifies calculation of Substantial Damage
 - Responsible party for determining SD
 - Calculation for a link in a system
 - Built-in equipment inclusion



Addendum Content Highlights

- Clarified applicability
 - Substantial Improvement projects that are not also Substantial Damage
 - Coastal Areas
 - Pump stations



Addendum Content Highlights

- Provides suggestions for vulnerability assessment (even if Coast Smart does not apply)
 - recommends prioritizing relocation when feasible to align with Coast Smart priorities
- Provided reminders for NFIP compliance.



Addendum Content Highlights

- Clarified that wastewater facilities are critical infrastructure
- Specified structural design calculations at the CRAB (DFE)
- Identified common design considerations (sump pump discharges, generator height, check valves, etc) - but not intended to be an exhaustive list



Addendum Content Highlights

- Provided NFIP guidance on wet and dry floodproofing
- Explained how to identify Coastal A zones and design implications



Considerations

Gaps between State (Coast Smart) and Federal (FFRMS)

1. Applicability to structures in Riverine CRAB
2. Applicability to facilities
3. Applicability to Substantial Improvement projects

Thank you to the Workgroup members
and the Coast Smart Council