

I. AGENDA

- F. I. Resiliency Study, March 14, 2023
 - Recent Sea Level Rise (SLR) efforts in Delaware
 - FI 2023 Comprehensive Plan: Chapter 7, Resiliency
 - Projected SLR from 2030 to 2080
 - Probable impacts by street
 - Short term action items: 2030-2040
 - Although AECOM's primary focus was on the bayside, beach replenishment is an action item for 2030-2040
 - Medium term action items: 2050-2060
 - Break and refreshments/Information Stations
 - Fill out comment/question forms (also for feedback and follow-up)
 - Moderated Q&A

II. SEA-LEVEL RISE RESILIENCY EFFORTS TO DATE:

2015 - Sea Level Rise Vulnerability Study (AECOM)

- *Town of Fenwick Island: Preparing for Sea Level Rise* (brochure)

2016 - Needs Assessment for town of Fenwick Island (Salisbury University)

2017 - Fenwick Island Comprehensive Plan (AECOM)

2019 - Community Sustainability Plan (KCI)

2023 - New Sea Level Rise Vulnerability Study (AECOM)

- Draft Fenwick Island Comprehensive Plan (Fenwick Island Planning Commission, University of Delaware, Institute for Public Administration)

- *Inventory of street-end bulkhead/riprap*

- *Pending: survey of existing bulkhead heights, Simpler Surveying*

- *Flooding & Resiliency Information and Discussion Sessions (Infrastructure C.)*

III. AECOM RESILIENCY STUDY CONCLUSIONS

- F.I. is at risk from sea-level rise, from both the bay and ocean.
- F.I. is highly susceptible to daily tidal inundations and tidal surges during inclement weather, as well as major storms such as hurricanes and Nor'easters.
- Projection for 2080:
 - 82% of existing buildings west of Route 1 could be inundated twice daily if nothing is done.
 - 43% of all roadways will be inundated during high tides.
- To substantiate these warnings, AECOM provided maps showing tidal inundation for the years 2030, 2040, 2050, 2060, 2070, and 2080, available on the town website.

IV. AECOM PREDICTED SLR IMPACTS: 2050, 2060, and 2070

<u>Short-term 2050-60</u>	<u>Mid-term 2060-70</u>	<u>Long-term 2070-80</u>
• Shultz	W Indian	Wright
• W Dagsboro	W Farmington	Bay
• McWilliams	W Cannon	Winward
• Bora Bora	W Bayard	Ebb Tide Cove
• W Houston	W Atlantic	Bayard ext.
• W Georgetown	W S. Carolina	Bay Side

<u>Short-term 2050-60</u>	<u>Mid-term 2060-70</u>	<u>Long-term 2070-80</u>
<ul style="list-style-type: none"> • W Essex • Madison • Glenn • W James • Municipal Facilities 	Mermaid	Surf Oyster Bay High Tide W Maryland & Island

V. AECOM'S SUGGESTED NEAR-TERM TASKS 2030-2040

- Raise awareness of impact of sea-level rise
- Continue to monitor the science of SLR and work with State, County, DELDOT and DNREC and utilize the recommendations and implementation matrix of our Comprehensive Plan.
- Continue to advocate and support beach replenishment (State, DNREC and Army Corps of Engineers)
- Begin the additional engineering, planning, and surveying for bulkhead replacement and other mitigation projects
- Consider codifying requirements for dwellings, pavements, and drainage.
 Note: Town Code (81-1) requires shoreline properties install and maintain permanent structures to control erosion such as bulkheads and riprap.

VI. AECOM'S SUGGESTED TASKS FOR 2050+

- Elevate bulkheads to 4-ft NVD88 standard by 2050
 - Requires additional engineering, planning and funding
 - All properties same elevation
 - Vinyl bulkheads have high level of protection and are cost effective
- Elevating (some) residences
- SLR Guidelines: building materials, landscaping, building settings, etc.
- Raising streets
 - Coordination with DELDOT
 - Impact on businesses and others fronting on Route 1

VII. FUTURE INFRASTRUCTURE COMMITTEE EFFORTS

- Continue to provide updated information to the community including an updated Town website and community engagement opportunities
- Continue research into sea-level rise
- Continue to explore engineering solutions
- Continue to monitor the efforts of coastal towns
- Continue working with other governments and organizations
- Complete installation of back flow preventers
- Simpler survey (bulkhead highlights)
 - New signage indicating 4' NAVD'88 (photo)
- Suggest code changes to Code and Ordinance Committee