SR 1 Coastal Corridor Resiliency Study



Center for Inland Bays

CCMP Implementation Committee Meeting

October 24, 2022

Jim Pappas, P.E.

Director

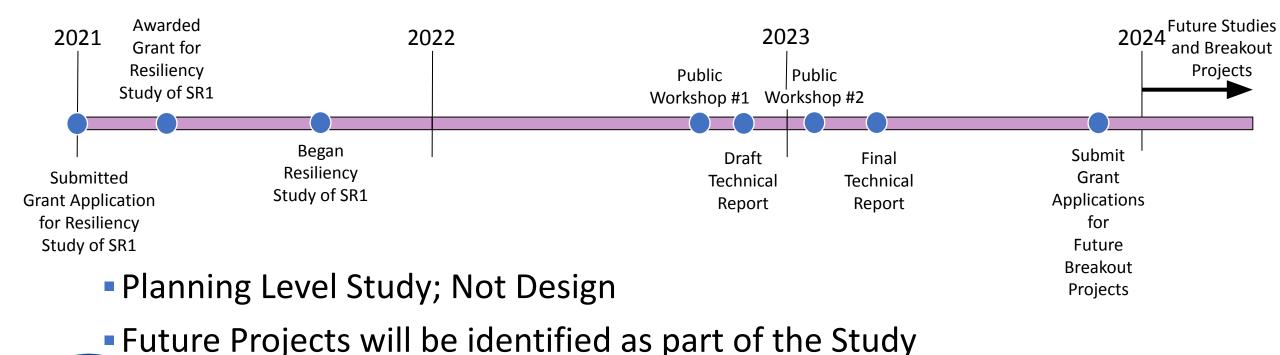
Transportation Resilience & Sustainability





Study Expectations

SR1 Coastal Corridor Resiliency Study Timeline



Purpose and Need

- What is the purpose of the Study?
 - Establish existing and future conditions to identify the magnitude of need.
 - Identify a range of potential mitigation alternatives to address needs.
 - Establish criteria to evaluate the potential mitigation alternatives.
 - Evaluate the conceptual mitigation alternatives.
 - Work with public and stakeholders, determine preferred alternatives.

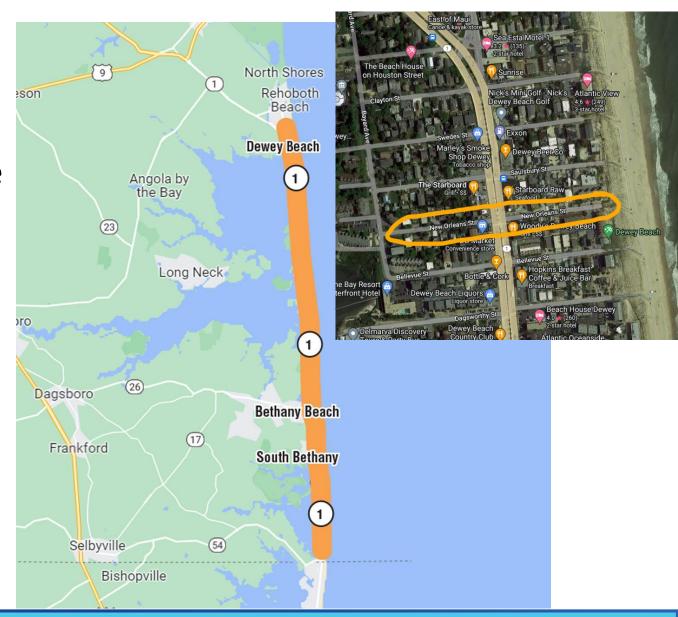


Purpose and Need

- Why is this Study needed?
 - SR1 is the Primary Evacuation Route for Bethany Beach, South Bethany Beach, Fenwick Island, and Ocean City Maryland.
 - Closure of SR1 between Indian River Bridge and Dewey Beach results in an 18-mile detour.
 - Improve the overall resiliency of SR1 to reduce maintenance cost and ensure a direct route of travel.
 - Supports the 2016 Multi-Jurisdictional All Hazard Mitigation Plan and the 2018 State of Delaware All Hazards Mitigation Plan.
 - SR1 is vital to the economic well-being of the area and the State as a whole.
 - SR1 provides the link for those looking to visit the Delaware beaches and provides
 year-round travelers and residents ease of access to coastal communities.

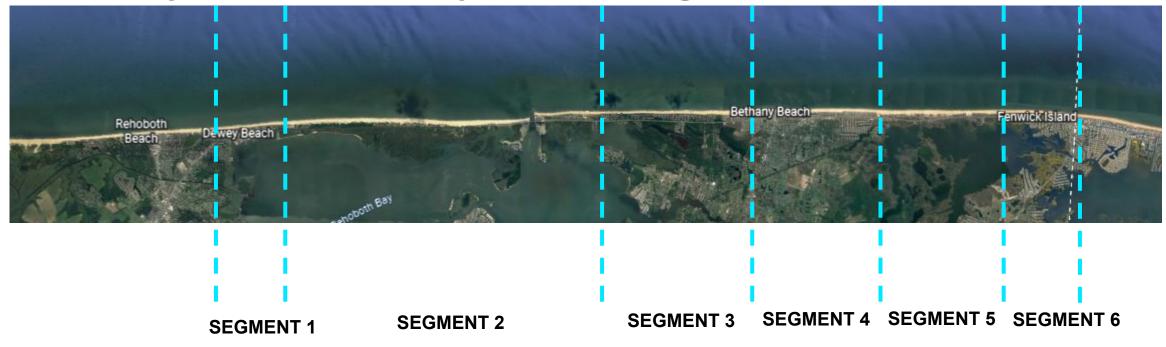
Study Area

- Sixteen (16) miles of State Route1 (SR1) Coastal Highway
- Northern Limits
 - Dewey Beach New Orleans Street
- Southern Limits
 - Maryland State Line





Study Area – Proposed Segments



Six (6) Segments – based on surrounding terrain conditions



Study Area -Dewey Beach to North Bethany



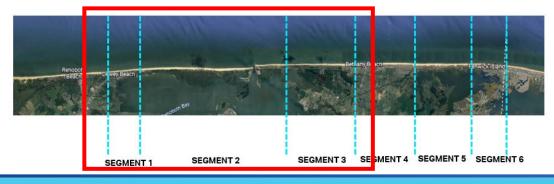




SEGMENT 2



SEGMENT 3





Study Area - Bethany Beach to Maryland







SEGMENT 4

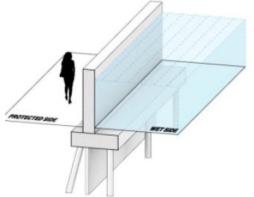
SEGMENT 5 SEGMENT 6





Examples of Primary Flood

NA:+:~~ /Protection



EXPOSED FLOODWALL



BURIED FLOODWALL / STRUCTURAL DUNE MANTALOKING, NJ, MOTT MACDONALD



SHORT-TERM DEPLOYABLES



PERMANENT DEPLOYABLES FLIP UP GATES BLOOMSBURG, PENNSYLVANIA



RAISED & REROUTED ROADWAYS
STATE ROUTE 54, SUSSEX COUNTY, DELAWARE



Examples of Secondary Flood Mitigation/Protection



LIVING SHORELINES



REVETMENTS MAYPORT, GEORGIA

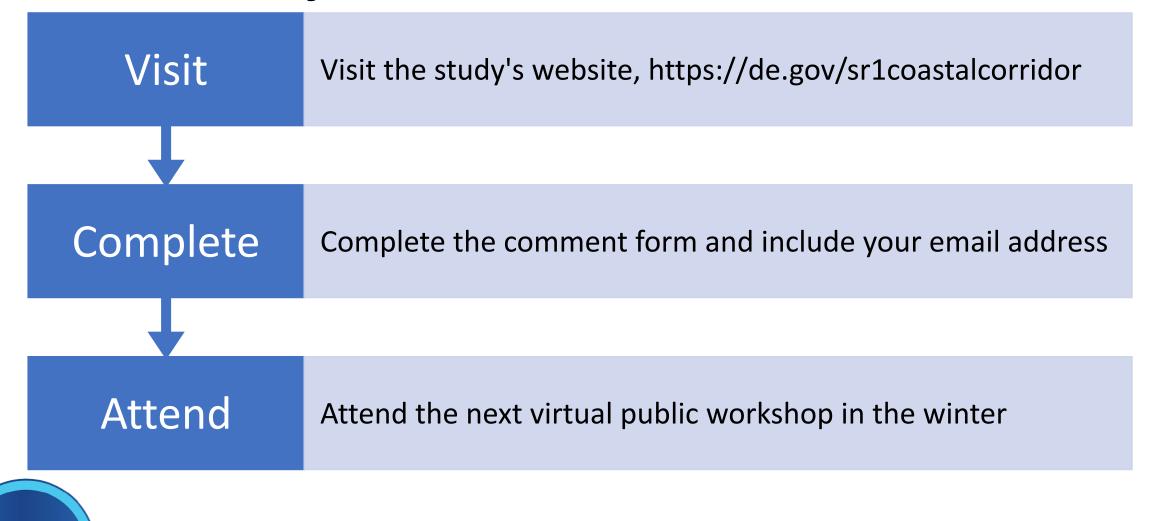
Next Steps

- Model the following storm events for each of the six segments:
 - 10-year storm event for existing and future condition
 - 100-year storm event for existing and future conditions
- Perform erosion analysis
- Apply the evaluation criteria to the various mitigation alternatives.

- Hold the second public workshop in early 2023.
- Prepare report of the findings.
- Prioritize segments and mitigation alternatives.
- Identify and submit grant applications to advance the study recommendations into projects for design.



How to Stay Involved



Thank you for your time and attention

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