Building Resilience and Adapting to Climate Impacts

Sustainable Growth Commission
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BENJAMIN JOHNSON
Born Jan. 3, 1803.
Died Sept. 6, 1876.
Aged 73.
ESLC – Coastal Resilience Program

- Provide assistance and resources to communities for mainstreaming climate preparedness
- Hazard mitigation plans (Queen Anne’s, Talbot, Dorchester)
- Participatory vulnerability assessments (St. Michaels, Kent, & multi-jurisdiction)
- Increase regional capacity for adaptation
- Eastern Shore Climate Adaptation Partnership
- Raise the visibility of rural communities and need for assistance and resources
Definition of Resilience

As one of the country's most vulnerable landscapes to flooding, erosion, and sea level rise, the Eastern Shore can become a national model for coastal resilience in rural communities. A resilient Eastern Shore will be prepared for immediate and long-term coastal hazards and able to survive, adapt, and prosper in the face of uncertainty and vulnerability.
ESCAP Overview

“Promotes learning and collaboration among Eastern Shore communities to prepare for changes in weather patterns, flooding, and other environmental conditions.”

“A venue for partners to provide support, education, technical assistance, and resources to help communities build resilience.”

- 6 counties & 2 municipalities
- 3 state agencies
- 4 academic institutions
- 3 nonprofit organizations
- Emergency management, planning, health, public works, administration
Support Local Planning & Policy

- Hazard Mitigation Plans
- Comprehensive Plans
- Floodplain and Stormwater Ordinance
- Climate and Coastal Vulnerability Assessments
Support State Planning

- State workgroups
- Conferences and seminars
- New planning initiatives
National Coordination/Collaboration

- Land Trust Alliance
- Georgetown Climate Center
- Regional Collaboratives Forum
- LESCAN & RASCL
Projected Climate Impacts

Sea Level Rise
+1.5-2.0 feet by 2050
+5-6 feet by 2100
Faster erosion rates
Chronic coastal flooding
More damaging storm surges
Increased emergency response times
Disruption of public services

Temperature
+4-8 °F
Warmer nights
Longer heat waves
Heat-related health emergencies
Vector-borne diseases
Stress on HVAC & building systems
Wear on roadways

Precipitation
+10-20% annual precipitation
Heavier downpours
Wetter winter/spring
Drier summers
Degraded performance of stormwater infrastructure

Coastal flood days

- **Driven by climate-linked sea level rise**
- **Would have occurred anyway**

*Water level station “U.S. Naval Academy” is 23 miles from Talbot County and is the nearest station analyzed in the Climate Central study behind this figure.*
What Can Residents Do?

Elevate houses and utilities
Convert to solar power
Use energy-efficient lights and appliances
  • Energy Star
Heat and cool efficiently
  • Seal and insulate
Manage water on your property
  • Install a rain barrel & rain garden
Check your insurance coverage
Spread the word
  • Resilience Matters newsletter – sign up at eslc.org

Flood insurance is a drop in the bucket compared to the cost of flood damage. Check your coverage today.

#BeInformed
What Can Government Do?

1) Conduct a resilience assessment prior to undertaking new capital investment projects
2) Develop a multi-year maintenance and upgrade plan for infrastructure and other assets
3) Integrate resilience into capital improvement planning
4) Expand the regulatory floodplain
5) Enact three-foot freeboard requirements in all building codes
6) Regulate Coastal A zones as V zones
7) Participate in the Community Rating System
Funding Options

• State grants
  • DNR Chesapeake and Coastal Program
  • MEMA State Hazard Mitigation Grant Program/Flood Mitigation Assistance

• Federal grants
  • NFWF Resilient Communities Program
  • SBA Mitigation Loans
  • EPA Environmental Protection and Prosperity Programs

• Private grants
  • Chesapeake Bay Trust
  • Climate Resilience Fund
  • Kresge Foundation
  • Rockefeller Foundation
In Conclusion

Support planning and policy at the local and state level.

Build climate awareness among residents across the Eastern Shore.

Consider impacts to businesses, residents, public infrastructure, and the environment.

Challenges vs. Opportunities
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