Review: Concepts of Resilience for Coastal Systems

Resilience

Resilience: the ability of a ***system*** to **Prepare for**, **Resist**, **Recover**, and **Adapt** to achieve functional performance under the stress of disturbances **through time**.

Study	Definition
National Academy of Sciences (2012)	"Resilience is the ability to **prepare and plan for**, **absorb**, **recover from**, and more successfully **adapt** to adverse events."
Presidential Executive Order on Climate Change (2013)	"resilience means the ability to **anticipate, prepare for,** and **adapt** to changing conditions and **withstand,** respond to, and **recover** rapidly from disruptions.".

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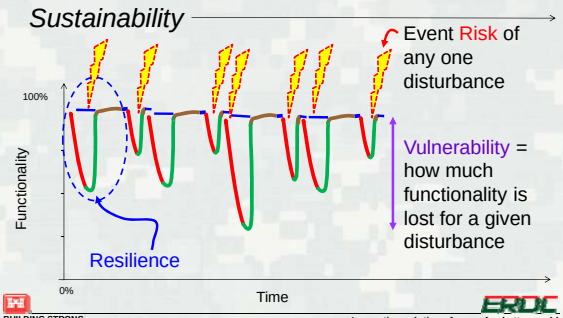
Risk, Vulnerability, Sustainability, and Resilience



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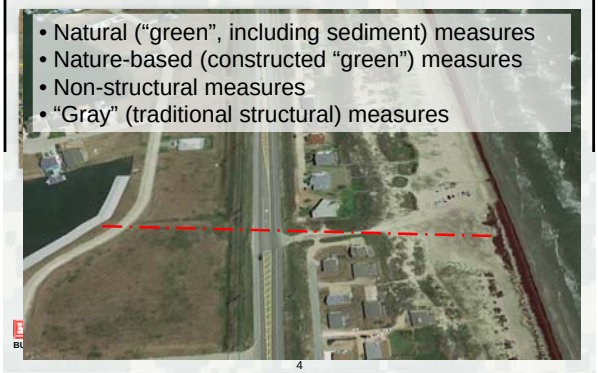
What is a resilient coastal system?

Hypothetical Example: Galveston, TX



- Natural ("green", including sediment) measures
- Nature-based (constructed "green") measures
- Non-structural measures
- "Gray" (traditional structural) measures

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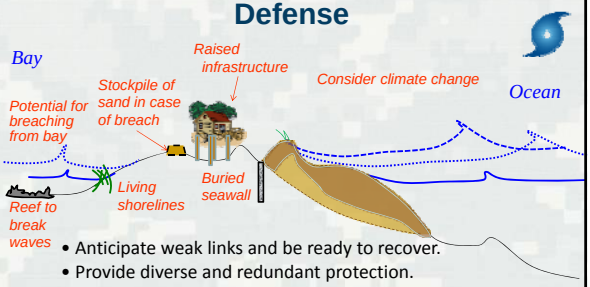
Best Practices & Multiple Lines of Defense



- Anticipate weak links and be ready to recover.
- Provide diverse and redundant protection.
- Ensure availability of alternate networks –components are independent of, and complement each other.
- Provide accessible information for rapid decision-making.

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Questions?

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