

# How the Federal Government Can Support Building Sustainable Infrastructure

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## Sustainability

A sustainable system inherently requires resilience to disturbances

Desired future including long term system health and persistence

Outcome-focused + process-based actions for future needs

Tradeoffs between social, economic and ecological outcomes with respect to a system's intended function

## Resilience

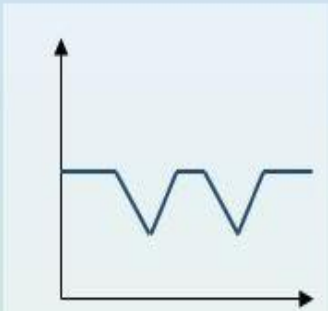
A resilient system is not inherently sustainable

Capacity to address disturbance events

Process-focused and include short- and long-term response to disturbance events

Capacity to prepare, absorb, recover and adapt with respect to disturbance events

## Resilience Concepts are applied, with limited focus on Adaptation



**Static Performance**  
*Return to normal function*

A structure is rebuilt to pre-disaster conditions



**Adapt between disturbances**  
*Add function over time. Requires strategic planning.*

A structure is rebuilt to pre-disaster conditions. Later, additional capacity is added to account for future needs.



**Adapt between and to disturbances**  
*Seize opportunity through crisis. Requires adaptive management*

A structure is rebuilt stronger, larger, and to account for future needs and disturbances.



## Sustainability and Resilience Concepts are applied, with strong focus on Adaptation

# USACE Initiatives

Remote Monitoring for Risk Analysis

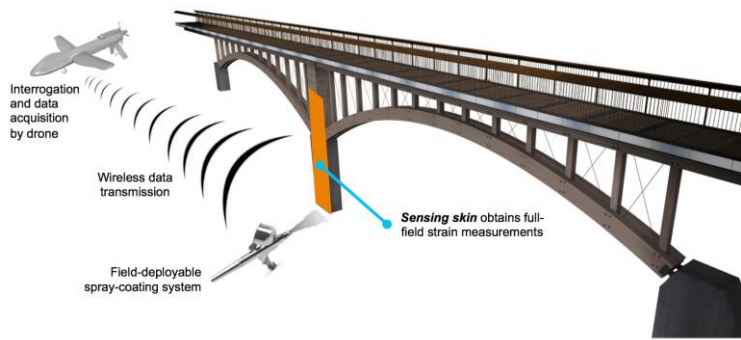
Interagency Hurricane Season Review



Travel Time Atlas

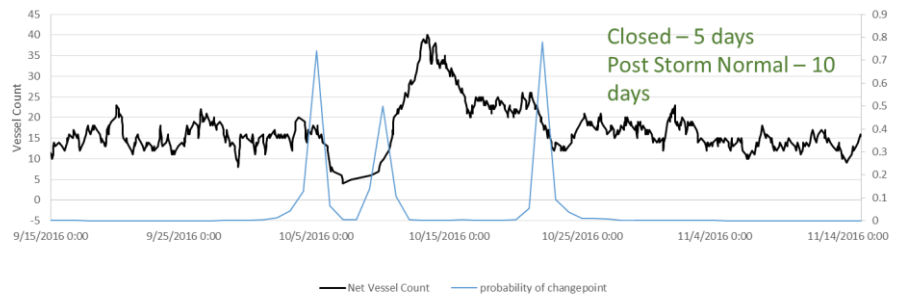


Structural Health Modeling



Quantifying Port Recovery

Port of Savannah – Net Vessel Count for 2016 Hurricane Matthew



Port of Savannah - Net Vessel Count for 2017 Hurricane Irma

