

SHC 10.5 Guidance for Effective Resiliency Action

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“Provide guidance for partners and stakeholders as they develop effective plans to increase communities’ resilience”

A coupled human-natural systems framework for community resilience



Output Topics/ Products

1. Resilient Coastal Wetlands
2. Strengthening Resiliency in Coastal Watersheds
3. Ecosystem Service Assessment for Building Community Resilience to Flood Risk
4. Contaminated Sites and Resilience
5. Analysis of Community Plans/ Projects for Resilience
6. Resilient Community Planning Module
7. Modeling Urban Dynamics in a Global Change Context

Overarching Goals and Long Term Impacts

This output contains 7 products focused on resilience guidance with particular emphasis on **contaminated sites** and **cross-boundary risk management**. Together, these products will:

EVALUATE
PRACTICE

1. **Evaluate** current approaches, practices, and information quality and flows for **effectiveness**

IMPROVE
GUIDANCE

2. **Create evidence-based guidance, tools, methods**, or other support that communities can use to develop **effective and workable** resilience and recovery plans

TOOLS AND
METRICS

3. **This will include metrics and methods to compare** how human-built, social and natural features contribute to resilience, as well as how these features benefit human health and well-being, and how these relationships shift over time

**EVALUATE
PRACTICE**

Analysis and Story Mapping of Community Plans and Projects for Resilience (10.5.5)

- There is a need to understand the extent to which and how communities evaluate, plan for, and/or invest in resilience, and their varying degrees of success
- This product will develop a search methodology and mine community sustainability grant and completed project databases (e.g., EPIC-N, Rockefeller, EPA) for priority resilience topics/ needs
- Create an interactive, topic-based story map in SHC's Enviro Atlas for use by regional and local-scale decision-makers
- Leverage existing partnership with the Educational Partnerships for Innovation in Communities (EPIC) Network (www.epicn.org)

Short-Term Goals: *Analysis and Story Mapping of Community Plans and Projects for Resilience (10.5.5)*

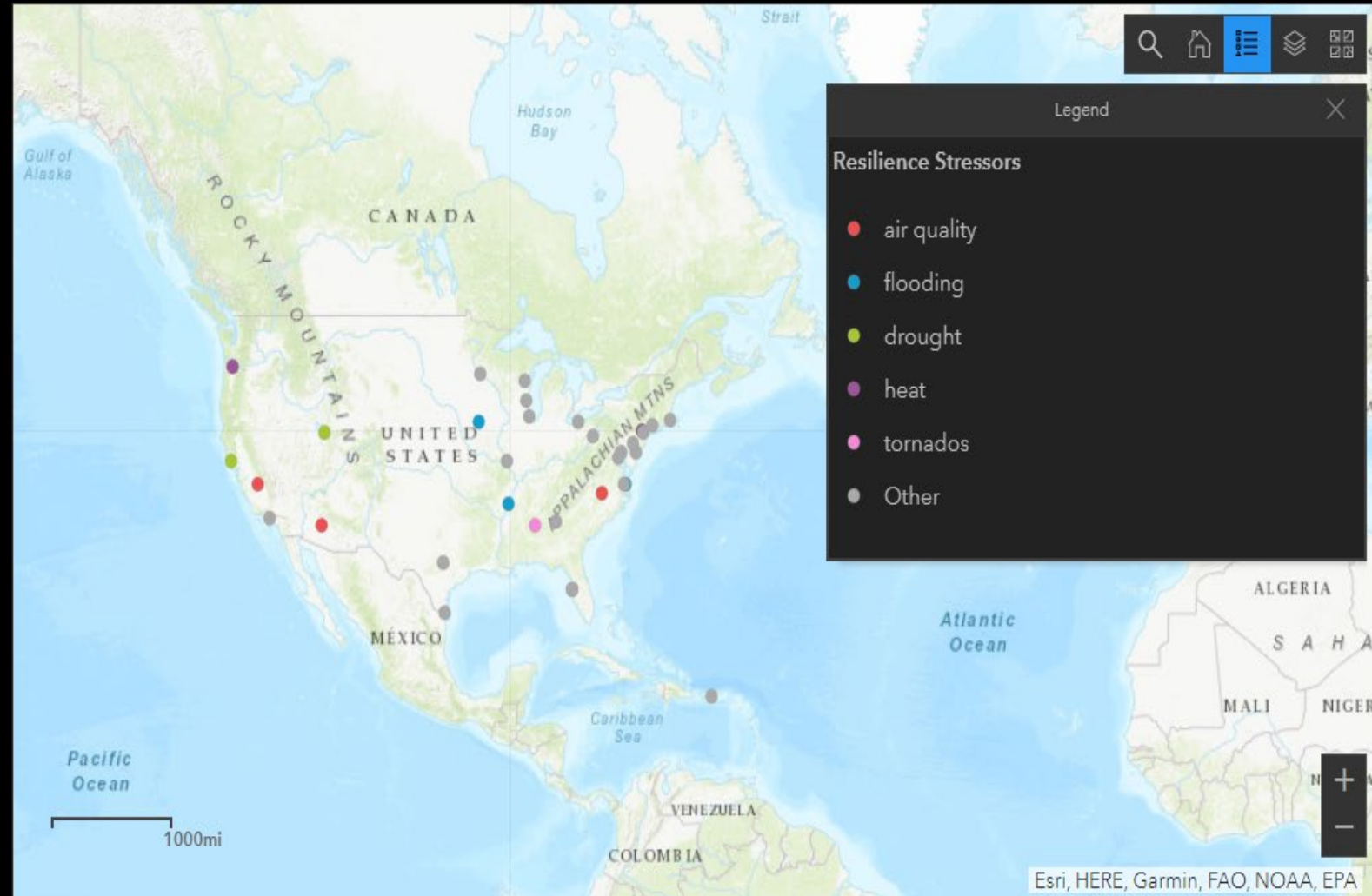
- Identify real world resilience priorities as *defined by the communities we serve*
- How do resilience concepts translate to action in communities?
- Where should EPA focus its support efforts?
- What are the gaps?
- Bridging sustainability and resilience discourse
- Spreading workable ideas: Facilitate partnerships and innovation

Resilience across America: Mock-Up Dashboard

Resilience Roadmap America: A Guide

This dashboard presents an assortment of communities across the USA facing unique challenges due to extreme weather events and changing environmental conditions. Building capacity to meet and recover from these challenges, resilience, requires forethought and planning. A blanket one-size-fits-all approach cannot be used - each community is different, and different locations present unique challenges. The approach used by one community to mitigate flooding hazards may not be appropriate at all to another community facing drought concerns. It is imperative that local communities are empowered to make choices for themselves, and to find cost-effective solutions - not barriers.

The following map highlights several different communities, their stories in approaching resilience, the tools and frameworks they used to plan, and most importantly - the very data and maps they used to evaluate their needs according to the frameworks used. Interested users can easily pan the map or use the search bar



**IMPROVE
GUIDANCE**

Contaminated Sites Problem Formulation and Translational Bridge Workshops (10.5.4)

- Connecting the dots between site level resilience and “community resilience”
- Moving beyond the fence line”
- Define/ refine *what we mean* by community resilience in the context of contaminated sites
- Initial problem formulation workshop:
February, 2020
- 57 participants from across EPA and partner organizations



Short-Term Goals: *Contaminated Sites Problem Formulation and Translational Bridge Workshops (10.5.4)*

- Better understand and define the problem including key elements and connections
- Identify gaps, synergies, and connections between research and practice/ programs
- Facilitate collaboration between ORD scientists and other EPA, Federal, State, Tribal, and Local decision makers
- Create guidance for EPA researchers and program staff working on key topics



**TOOLS AND
METRICS**

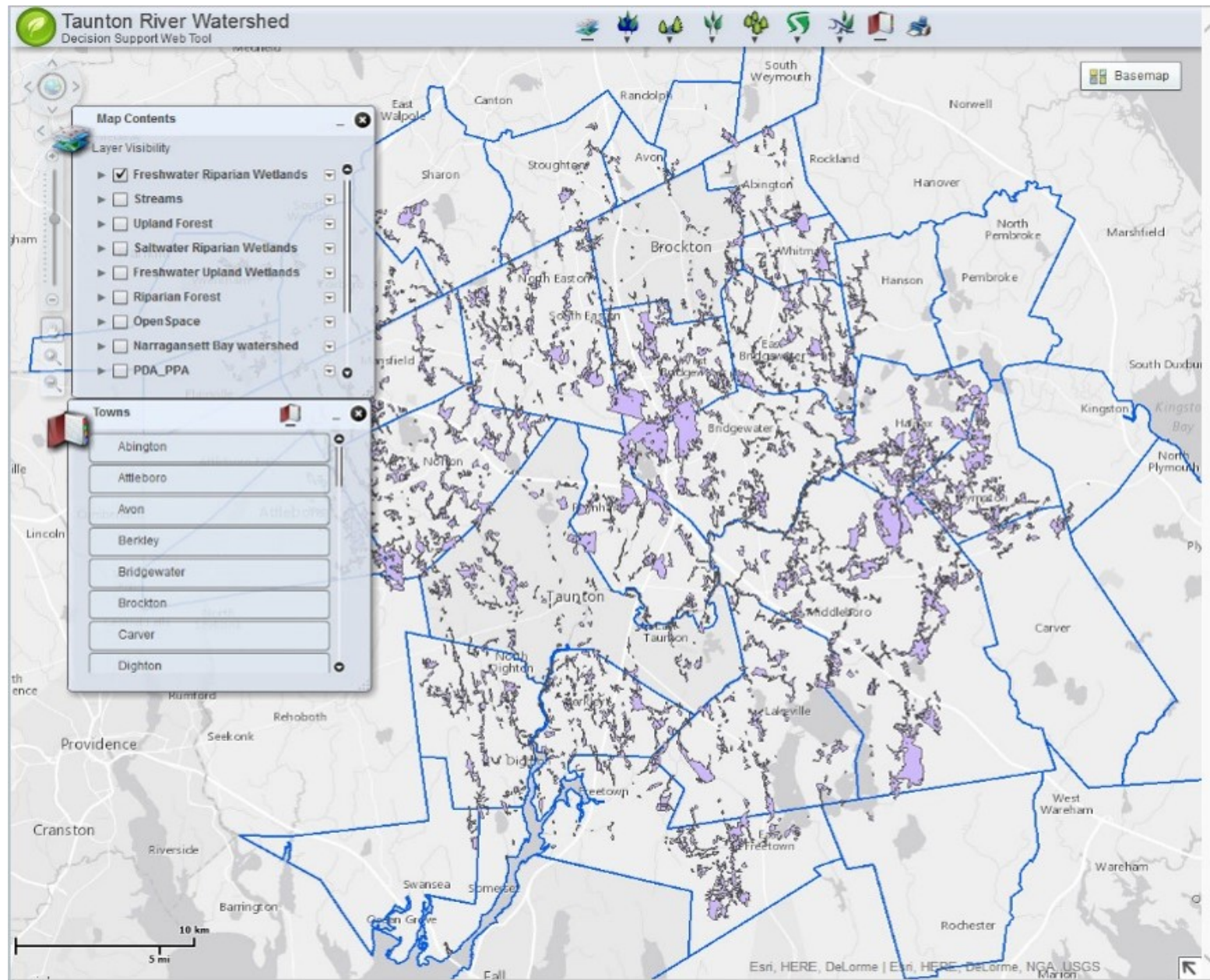
Ecosystem Services and Ecological Integrity Decision Support System: Strengthening Resiliency in Coastal Watersheds (10.5.2)

- This product will develop a coastal watershed resiliency decision support system promoting integrated assessment of coupled ecosystem services and human wellbeing.
- Translating ecosystem service improvements to resilience improvements represents an important capability gap
- Includes 3 levels of functionality: ArcMap, Web-based, Story-Map
- Compare coupled social and ecological impacts of different watershed improvement/ restoration options across 6 benefit categories

Short-Term Goals: An Ecosystem Services and Ecological Integrity Decision Support System: Strengthening Resiliency in Coastal Watersheds (10.5.2)

- Connect the dots between ecosystem services and resilience assessment/prediction
- Linking existing EGS conditions to existing + potential community assets and vulnerabilities
- Recent expansion to CBPO program partners and EPA Region 3
- Incorporate a Rapid Benefits Indicator approach to streamline socio-economic impact assessment





Thank you!

List of Partners (Whole Output):

- Acadiana Louisiana Planning Commission
- Environmental Partnerships in Communities Network
- EPA Chesapeake Bay Program
- EPA Office of Brownfields and Land Revitalization
- EPA Office of Community Revitalization
- EPA Office of Environmental Justice
- EPA Office of Resource Conservation and Recovery
- EPA Office of Water
- EPA Office of Wetlands, Oceans and Watersheds
- EPA Regions 1,2,3,4,6,9,10
- Louisiana Governor's Office of Homeland Security
- Louisiana Office of Community Development;
- Narragansett Bay Estuary Program
- Partnership for the Delaware Estuary
- Rhode Island Coastal Resource Management Council
- Rhode Island Dept of Health
- Rhode Island Natural History Survey
- Rhode Island Save The Bay
- US National Estuarine Research Reserve