

BIG IDEA “A” CONCEPT PAPER

Vulnerability Assessments

SUMMIT GOAL:

“To launch collaborative actions from regional leaders that will make New England communities resilient to climate change”

Purpose and Goals of Big Idea

The overall effort shall consist of three workstreams;

1. Data,
2. Laboratory, and
3. Marketing.

The experiences of the communities or region(s) and available data will be collected into a data-driven¹ roadmap for other New England communities. It is understood that the feasibility of tools and use of data will be different from community to community. A laboratory will be conducted, in the form of pilot communities or region(s) in New England, that can implement, test, and showcase vulnerability assessments (VA) and ultimately, adaptation/resiliency strategies. Ultimately a marketing program will be developed to integrate the work of the laboratory and data phases which will result in replication of local assessment and resilience efforts throughout New England. The goals include:

1. To provide a showcase of lessons learned and data-driven, optimum adaptation/resiliency practices for New England communities.
2. To test out, aggregate, and process data on optimum vulnerability assessment tools and adaptation/resiliency planning for pilot communities, including Environmental Justice communities.
3. To disseminate region-specific, information on the best tools and practices (including available funding from partners) in a practical, easy-to-use format for New England communities.
4. To market vulnerability assessments and resilience planning throughout New England.

Desired Outputs/Outcomes- *linked to the Summit goal*

A greater level of local resources and capabilities that will enable New England communities to become more resilient to climate change. Outputs include: Findings from number of vulnerability assessments conducted and /or reviewed, and resiliency plans developed and implemented at the local level, resulting in changes at the local level. Outcomes include: reduction in severe impacts from extreme weather, especially a reduction in catastrophic flooding of water infrastructure and other critical service interruptions.

Scoping Actions – *strategies*

The overall regional effort consists of three phases: the Data Phase; the Laboratory Phase; and the Marketing Phase. While some of the phases will be conducted concurrently, it is expected that each phase will build off each other and the work of the other Big Idea teams.

¹ Data: TBD for this project, will incorporate Idea ‘D’

Vulnerability Assessment and Resilience Data Phase- Review and catalog existing data and tools. This data includes lessons learned from past storms (Irene and Sandy), best practices, as well as other VA work already done around the region. Critical data needs will be identified for conducting the Laboratory for Community VA and Resilience Planning.

Framework for Laboratory Phase – Select and work with pilot communities to identify assessment and resilience planning priorities, test out tools and best practices, and develop recommendations for resilience. In order to gain the greatest insight, pilot communities shall represent a variety of geographical, environmental, political, and socio-economic conditions. Community Vulnerability Assessments and Resilience Planning may cover components from among the following menu:

TOP TEN COMPONENTS OF A COMMUNITY VA and RESILIENCE PLAN

	ASSESSMENT (What has been done)	PLANNING (What can they do)
1. ORDINANCES/ LAND USE REGULATIONS/DESIGNS*	X	X
2. DEBRIS MANAGEMENT PLANS	X	X
3. INFRASTRUCTURE (WATER and ENERGY) ^{2*}	X	X
4. DAM SAFETY	X	X
5. EMERGENCY RESPONSE PREPAREDNESS	X	X
6. FLOOD ZONE/GIS MAPPING AND MITIGATION*	X	X
7. SURVEILLANCE/MODELLING FOR EXTREME WEATHER*	X	X
8. ECOSYSTEMS/LAND USE*	X	X
9. PUBLIC EDUCATION/CITIZEN INVOLVEMENT*	X	X
10. ECONOMIC RESILIENCE/FUNDING	X	X

TASKS FOR EACH COMPONENT

1. Describe scope
2. Identify vulnerability assessment tools and data needs
3. Assign lead agencies/support organizations for each component
4. Pursue opportunities for technical assistance/support
5. Assess interdependencies and inter-municipal impacts

*Opportunities for Coordination with Big Ideas B, D and E

Framework for NE-Wide Marketing Phase –

Based on an evaluation of existing programs that advance community involvement in resilience planning (e.g. Rockefeller Foundation; ICLEI), a New England-wide adaptation/resilience marketing campaign will be designed and implemented to recognize and encourage communities to take action to prepare for climate change. The best tools and practices tested out in the laboratory phase will be shared and promoted as part of this marketing campaign.

Immediate Actions - low hanging fruit (Gearing Up for Local Assistance!)

² Water Infrastructure includes: Drinking Water, Wastewater and Stormwater Assets

- Inventory vulnerability assessment tools and checklists covering as many of Top Ten Components as possible (list).
- Define exposure, data and timeframe needs for optimum vulnerability tools and checklists
- Identify successful local adaptation/resilience plans (compilation), as recommended by states or other partners
- Compare and contrast existing programs to engage and incentivize communities aimed at advancing climate change adaptation and resilience planning at the local level (report out).
- Initiate discussions on available assistance – see below (list).
- Agree on method and timeframe for identifying a variety of pilot communities as the laboratory for VAs and resilience planning (focused implementation plan).

Needs: Financing, State/Federal Agency Resources, Data

- **Financial Wish List:** seed money for local engagement with community leaders and non-profit groups (e.g. youth groups); contractor assistance for flood zone/elevation mapping and modeling;
- **State/Federal Resources:** technical experts on Top Ten Components (e.g. Debris Management, Water Infrastructure); in-kind services on project management and research; GIS and flood mapping; climate change impact modeling; VA and Resilience planning assistance; emergency response preparedness training.
- **Data:** Flood zone mapping; GIS maps; elevation of critical infrastructure; land uses and zoning; local plans; climate change impact modeling; local budgets.

Partners

Universities; non-profits; foundations; grassroots volunteer groups and local, state and federal agencies.

Timeline

- 1-2 years for laboratory phase
- An additional year for data aggregation, processing, and dissemination.
- An additional year for region-wide implementation and evaluation.

Linkages to other Big Ideas (see above starred components)