

BIG IDEA “ F” CONCEPT PAPER

Infrastructure

SUMMIT GOAL:

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

Purpose and goals of Big Idea

Our primary purpose is to reform federal, state and municipal funding programs to make infrastructure more resilient to flooding and other climate impacts.

Federal, state and municipal infrastructure funding programs currently include conflicting incentives and disincentives and too often support building infrastructure in places of extremely high risk, such as floodplains, river corridors and coastal areas highly vulnerable to storm surge.

Smarter public investments in the built environment will minimize the high costs of response and recovery after repeated disasters, and should protect public health and safety, private property and the health of the environment. Ideally, these investments in resilience will also help to reduce carbon emissions.

In addition to identifying potential reforms of federal, state and municipal funding programs, a secondary goal is to foster an exchange of best practices between and among states in the New England region, private sector utilities, and insurance companies. Practices include those being used to assess climate-related vulnerabilities and risks for infrastructure, set better standards for resilient siting and design, and raise awareness of the importance of resilient infrastructure investments during disaster recovery.

Scoping actions – potential impediments and strategies to address them

1. Develop a high-level inventory of state and federal programs that contribute significant funds to development of municipal and regional infrastructure (examples include water and waste water systems, regional electric grids, or road networks).
2. Develop a preliminary set of recommendations to transmit to the White House Task Force on Climate Preparedness and Resilience through Governor Shumlin and Deb Markowitz, who represents the Governor as the lead of one of the Task Force subcommittees on infrastructure.
3. Recommend a process – including participants, timeline etc. – for developing more detailed recommendations. Elements of this process *could* include some or all of the following steps:
 - **Discussion among participating New England state and municipal governments** about what approaches and methods they are finding effective for:
 - identifying future climate-related risks for infrastructure; and
 - ensuring that their own capital project planning, prioritization and development takes account of climate-related risks and leads to investments in systems that can prevent, withstand and bounce

back from future damage, as well as systems with a low-carbon footprint.

- **A series of regional roundtables** organized by infrastructure sector – energy, telecommunications, water and wastewater and transportation – to bring together private sector owners and operators with government agencies for a discussion about the climate risks for that sector and about the kinds of incentives, information and tools necessary to support infrastructure projects that adequately account for these risks
 - **Consultation with federal and state agency program managers** (Federal Highways; the Department of Energy; FEMA; the Department of Housing and Urban Development; and New England state agencies of transportation, energy and housing and community development) to identify ways that funding programs can create incentives and requirements that drive the siting and construction of resilient infrastructure, while also eliminating existing incentives to build (and rebuild after disasters) in extremely hazardous locations. These consultations could also explore ways to address the many barriers that result from a lack of alignment across agency programs, for example, in those cases where funding for hazard mitigation may be available from one agency (FEMA), but federal regulations administered by other agencies create barriers to using that funding to prepare infrastructure for future climate conditions. Recommended actions will aim to minimize the high costs of response and recovery after repeated disasters, and protect public health and safety, private property and the health of the environment
 - **Discussions between our group members and representatives of firms or professional associations that engineer infrastructure** to discuss how public agencies and private engineering firms in the New England region can begin to develop and fully utilize new engineering standards based on future projected climate patterns, rather than past climate patterns. These discussions should grapple with the institutional and cultural barriers to this kind of change, as well as the information-related barriers.
 - **Consultation with New England reinsurance companies** to explore their informational resources for understanding risk and to explore how state governments might help insurance companies reduce the costs they incur due to disaster recovery claims. These consultations could also explore limitations that state insurance regimes place on types of risks and pricing frameworks that insurance companies may use. For example, is there any way to incorporate longer-term climate risk into current insurance prices, or to make it easier for insurance companies to differentiate between infrastructure owners who have incorporated more resilience measures and those who haven't?
4. Finalize a set of proposed actions and potentially seek endorsement for some or all of those actions from the New England governors

Immediate actions – low hanging fruit

This work group could aim to develop preliminary recommendations and propose them to the White House Task Force on Climate Preparedness and Resiliency, and the federal

Interagency Council of the same name. Recommendations would need to be forwarded in mid-April to ensure their consideration by Task Force members.

Impediments and how to work through them

In the implementation phase of this Big Idea (post-May) convening and facilitation services would be essential for orchestrating dialogue with the private sector about how best to encourage and enable resilient infrastructure investments at the local, regional and state-wide levels. For example, regional roundtables by infrastructure sector could be very fruitful, but would take staff resources to organize.

Needs: financing, state/agency resources, data

See above describing need for convening and facilitation services

Partners

- Experts in programs that fund different types of infrastructure housed in different agencies (state DOTs, state housing and community development agencies, state departments of emergency mgt and homeland security, federal highways, federal transit authority, HUD, etc.)
- Utilities and other owners of critical infrastructure in New England
- Private sector re-insurance companies
- American Bar Association
- Professional Associations for Engineers

Timeline

We estimate this project would take approximately one year (beginning in June)

Linkages to other big ideas

The closest linkage is with the group exploring how we can support municipalities to integrate adaptation planning into the municipal process as “business as usual” starting with public safety.