

Exhibit A – Executive Summary

Commonwealth of Massachusetts

Ph2ExhibitAExecutiveSummaryMA.pdf

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Dropbox to all MA Phase 2 NDRC Application directories (Exhibits, B, D, and E, and Attachment F):

<https://www.dropbox.com/sh/eyranc7kpwhebu/AABEDWjKwKGrbv5l2xnwAIDfa?dl=0>

The Problem. Massachusetts (MA) must become more resilient to events such as the six federally declared disasters that occurred in 2011 to 2013. These events caused tremendous damage to infrastructure, housing, environment, and economies. Low to moderate income populations have found recovery especially difficult. Housing and municipal infrastructure were damaged; beaches and riverbanks eroded; and areas de-vegetated. Compounding the need for resilience is the evidence that the climate has already changed and is predicted to continue - temperatures are increasing, sea level is rising and precipitation is more intense and frequent.

Threshold Criteria. To qualify for the NDRC, the MA Team demonstrates that 3 “target areas” in MA satisfy the HUD criteria of Most Impacted and Distressed and have Unmet Recovery Needs. These target areas are: the Deerfield River Subwatershed with nine towns - Buckland, Charlemont, Colrain, Greenfield, Hawley, Heath, Monroe, Rowe, and Shelburne, impacted by 3 disasters including Tropical Storm Irene; Springfield, impacted by five, including the tornadoes; and Williamstown, impacted by 4, including Tropical Storm Irene. In addition, all of MA is a target area for resilience planning under this application.

Capacity of the MA Team. MA has assembled an experienced Team that is eager to assist localities in becoming more resilient. The MA Team, led by the MA Department of Housing and Community Development (DHCD) with project, programmatic and technical support from the Executive Office of Energy and Environmental Affairs (EEA), includes state agencies, regional partners (including four regional planning agencies), a charity, nonprofit organizations, universities, municipalities, and consultants.

Need and Extent of Problem. Land-bound hurricanes, snow storms, tornadoes, and coastal storms have all ravaged the state; they were particularly devastating to low- and moderate-income communities. Although federal relief funding has helped significantly, it has not covered the total cost of repairing and restoring the damage, or resilience-building. The MA Team has developed projects that directly address the impacts and the post-disaster threats remaining in our most challenged areas as a result of existing unmet recovery needs and potential threat due to climate change. Team Members have been actively addressing these issues

through EEA's 2011 Climate Change Adaptation Report, which evaluated strategies to adapt to predicted climate change, and through numerous vulnerability assessments, adaptation planning efforts, climate resiliency building, and infrastructure fixing projects that the state has funded since then. It is time to envision and create a more resilient MA with anthropogenic and natural systems that are better equipped to cope with extremes and new climate change patterns.

Approach. Through *Re-Engineering Resilient Communities: Using Blue-Green Infrastructure*, the MA Team will make needed repairs, develop tools and approaches, and provide financial and technical assistance for climate resilience-building and economic revitalization to enable low-income populations to recover from disasters. To prepare for this Phase 2 application, the MA Team reached out to local, state, federal, nonprofit, university and private stakeholders. The consultations took the form of emails, phone calls, information sharing, site visits, meetings, and public hearings. Proposed activities include: Trees for Resilience to increase trees and stormwater tree boxes in Springfield and Greenfield; Reliable Electricity and Heat for Low Income Populations to enable impoverished populations to gain access to affordable clean energy; and grey and green infrastructure interventions in Springfield to address flooding. The application also includes the Deerfield River Watershed Resiliency Project that couples economic and environmental resilience: forestry management with creation of a forestry products market through the Mohawk Trail Woodlands Partnership; upgrading of stream-crossings, streambeds and river banks for resiliency; Fix-It-First projects to address impacts from the declared disasters; and Planning activities to ensure institutionalization of climate resiliency for future application across the state.

Leverage and Commitments. Direct Leverage of \$79,893,303 is firmly committed and comes from the MA Executive Office of Energy and Environmental Affairs and its agencies, MA Department of Transportation, U.S. Endowment for Forestry & Communities, Inc., and the Town of Greenfield. In addition, supporting leverage of \$69,363,297.54 is firmly committed. Total leverage is \$149,202,600.54.