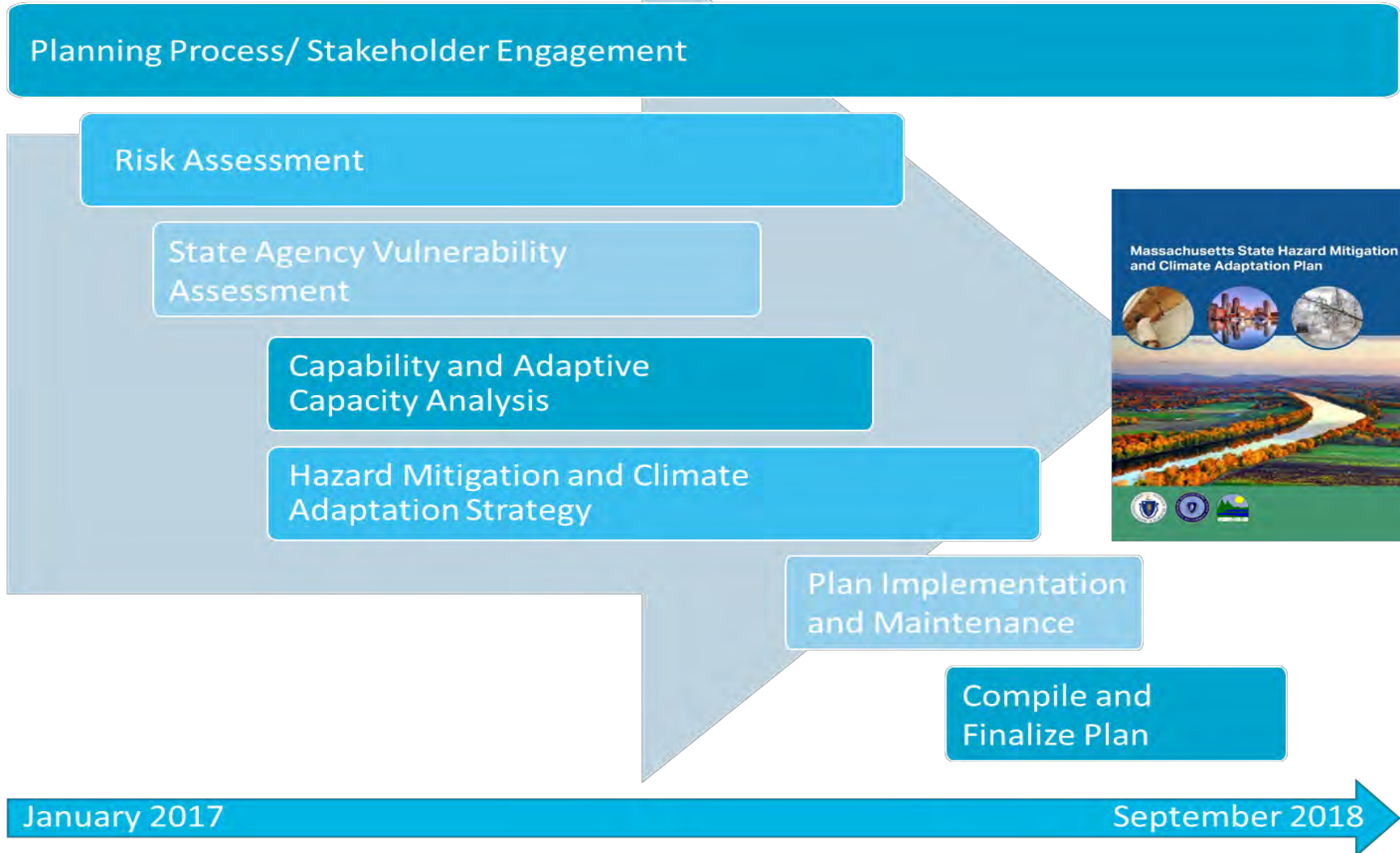


# 2018 Massachusetts State Hazard Mitigation and Climate Adaptation Plan



NOAA Climate Webinar Fall 2019

# MA SHMCAP Planning Process / Timeline



# Stakeholder Engagement



## Stakeholder Workshops

- Series 1 (August 2017): Stakeholder Kickoff
- Series 2 (January 2018): Risk Assessment & Goal Development
- Series 3 (April 2018): Action Development
- Series 4 (August 2018): Public Listening Sessions





**Other Forms of Engagement:** Significant additional engagement at conferences, workshops, with specific groups of advocates and through EBB process

# Climate Change and Natural Hazard Taxonomy

Primary Climate Change Interaction	Natural Hazard	Other Climate Change Interactions	Representative Climate Change Impacts
 <p><b>Sea Level Rise</b></p>	Coastal Flooding	Extreme Weather	Increase in tidal and coastal floods, storm surge, coastal erosion, marsh migration, inundation of coastal and marine ecosystems, loss and subsidence of wetlands
	Coastal Erosion	Changes in Precipitation	
	Tsunami	Rising Temperatures	
 <p><b>Changes in Precipitation</b></p>	Inland Flooding (including Dam Overtopping)	Extreme Weather	Flash flooding, urban flooding, public health impacts from mold and worsened indoor air quality, vector-borne diseases from stagnant water, episodic drought, changes in snow-rain ratios, changes in extent and duration of snow cover
	Landslide	Rising Temperatures, Extreme Weather	

# Climate Change and Natural Hazard Taxonomy *(continued)*

Primary Climate Change Interaction	Natural Hazard	Other Climate Change Interactions	Representative Climate Change Impacts
 <p><b>Rising Temperatures</b></p>	Average/Extreme Temperatures	N/A	Shifting in seasons (longer summer, early spring including earlier timing of spring peak flow), increase in length of growing season, increase of invasive species, energy brown-outs from higher energy demands, more intense heat waves, public health impacts from high heat exposure and poor outdoor air quality
	Drought	Changes in Precipitation	
	Wildfires	Changes in Precipitation	
	Invasive Species	Changes in Precipitation, Extreme Weather	
 <p><b>Extreme Weather</b></p>	Hurricanes/Tropical Storms	Rising Temperatures, Changes in Precipitation	Increase in frequency and intensity of extreme weather events, resulting in greater damage to natural resources, property, and infrastructure, as well as increased potential for loss of life
	Severe Winter Storm	Rising Temperatures, Changes in Precipitation	
	Nor'easter	Rising Temperatures, Changes in Precipitation	
	Tornados	Rising Temperatures, Changes in Precipitation	
	Other Severe Weather	Rising Temperatures, Changes in Precipitation	
<b>Non-Climate Influenced Hazards</b>	Earthquake	N/A	There is no established correlation between climate change and this hazard

# Five Main Sectors Assessed



Populations



Government



Built environment



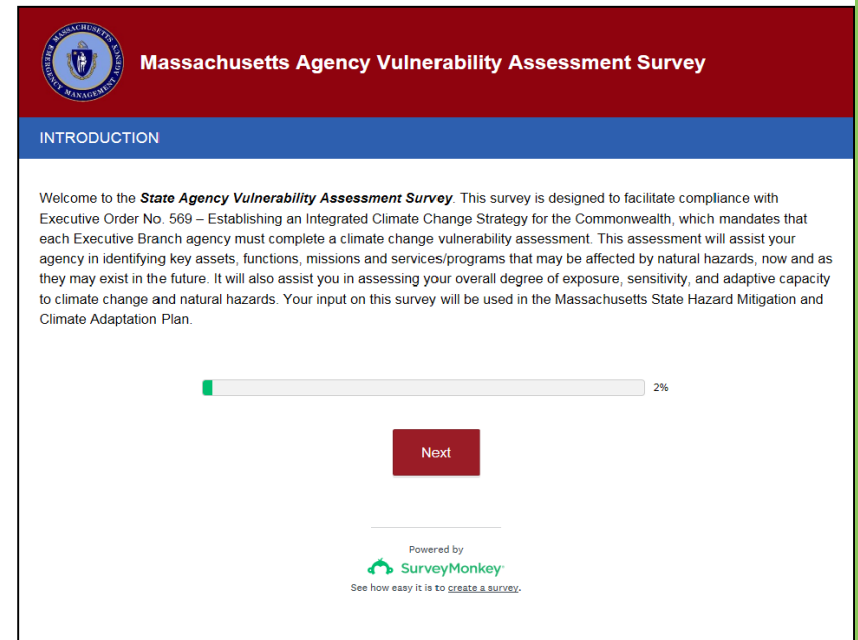
Natural resources and environment



Economy

# State Agency Vulnerability Assessments

- Goal: Identify how each agency’s mission, functions, services and physical assets may be impacted by natural hazards and climate change impacts, now and in the future, and to identify the factors leading to vulnerability in order to develop enhancements and design adaptation strategies.
- Process involved an online survey and generation of a vulnerability assessment report; completed by over 70 state agencies.
- Results incorporated into the Risk Assessment, State Capability and Adaptive Capacity Analysis, and Hazard Mitigation and Climate Adaptation Actions.



# Our Strategy

## Goals

1. Enhance Commonwealth's resiliency to natural hazards and climate change by **integrating programs and building institutional capacity**.
2. Minimize impacts of natural hazards and climate change with **forward-looking policies, plans, and regulations**.
3. Understand vulnerabilities and risks and develop immediate and long-term **risk reduction strategies for current and future conditions** using best available science.
4. Increase resilience of state and local government, people, natural systems, built environment, and economy by investing in **performance-based solutions**.
5. Support implementation of this plan through increased **education, awareness, and incentives** for action for state agencies, local governments, private industry, non-profits, and general public.





# Our Strategy

## Actions

- Identified for all Executive Offices and more than 20 state agencies
- Address at least one of the primary climate change interactions and associated climate change impacts identified in risk assessment
- Include specific details, such as completion time frame, lead agency, agency priority score, and possible funding sources
- Vetted by tiger team

# SHMCAP Implementation

- September 2018 – SHMCAP
- October 2018 – March 2019 conversations and work begin on the implementation of the SHMCAP.
- December 2018 – Climate Hazard Adaptation and Resilience Masterplan (CHARM)
- April 2019 RMAT begins to form. A PMT of Climate Resilience agency leads is established to procure a vendor to support RMAT with resiliency actions

# SHMCAP Implementation cont.

- July 2019 – MEMA hires a Hazard Mitigation and Climate Adaptation Coordinator to lead implementation of SHMCAP and co-lead RMAT with EEA
- August 2019 – Governor Baker and Lt. Governor Polito launch RMAT
  - First meeting of Climate Change Coordinators
  - Followed by panels of state, municipal, and business leaders to discuss partnering on climate resilience in the Commonwealth.
- Municipal Vulnerability Program – 157 designated communities with additional 92 currently pursuing designation.
- Bill S.10 - This bill provides a dedicated revenue stream for the Global Warming Solutions Trust Fund, which will be used to expand funding for Commonwealth communities preparing to meet the challenges of climate change. A real estate excise fee.

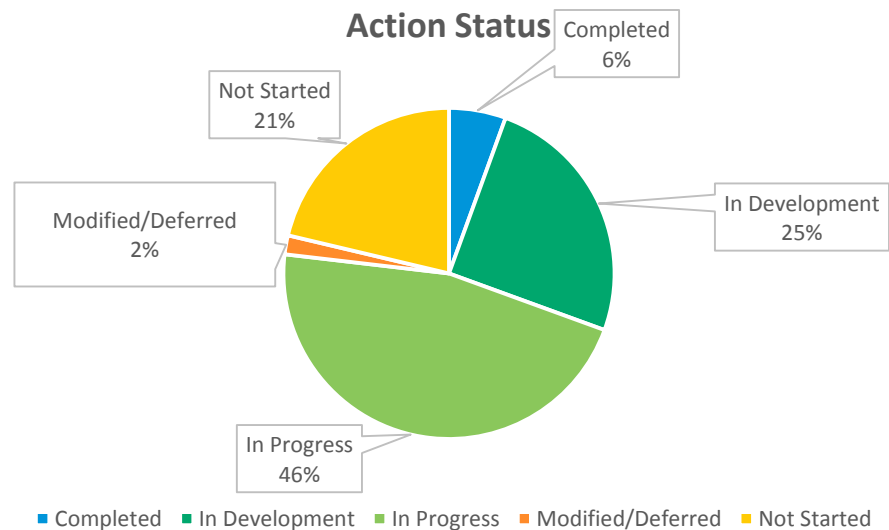
# RMAT Roles & Responsibilities

- Participate in **quarterly meetings**, annual and post-disaster plan reviews, and 5-year updates
- Coordinate **completion of required actions** for each Executive Office
- Ensure **new data** is incorporated into the SHMCAP
- **Increase general understanding** of the SHMCAP through outreach, engagement, socializing the CC Clearinghouse
- **Build collaborative partnerships** to implement the SHMCAP
- Lead the SHMCAP's **5 year update** with MEMA

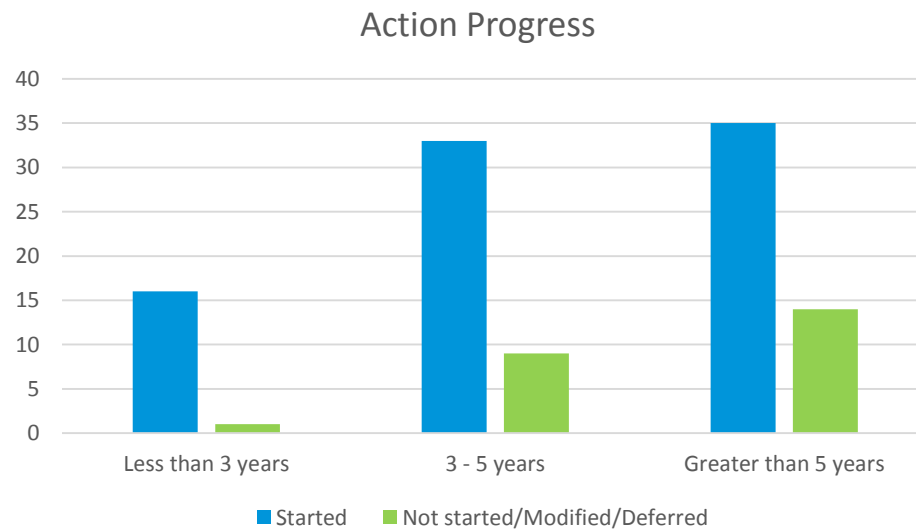


# SHMCAP Action Tracker

- August 2019 Action Tracker updated



# SHMCAP Implementation cont.



# Next Steps

- October 2019 – First full RMAT Quarterly Meeting
  - Annual Plan Review
  - Work to increase capabilities to solve identified challenges and opportunities