



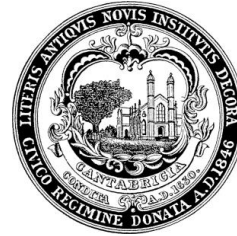
Cambridge Climate Resiliency Tabletop Exercise

Wednesday, 17 January 2018; 1:00 – 4:00 p.m.

Harvard Law School, Wasserstein Building, 2nd Floor, Cambridge, MA 02138

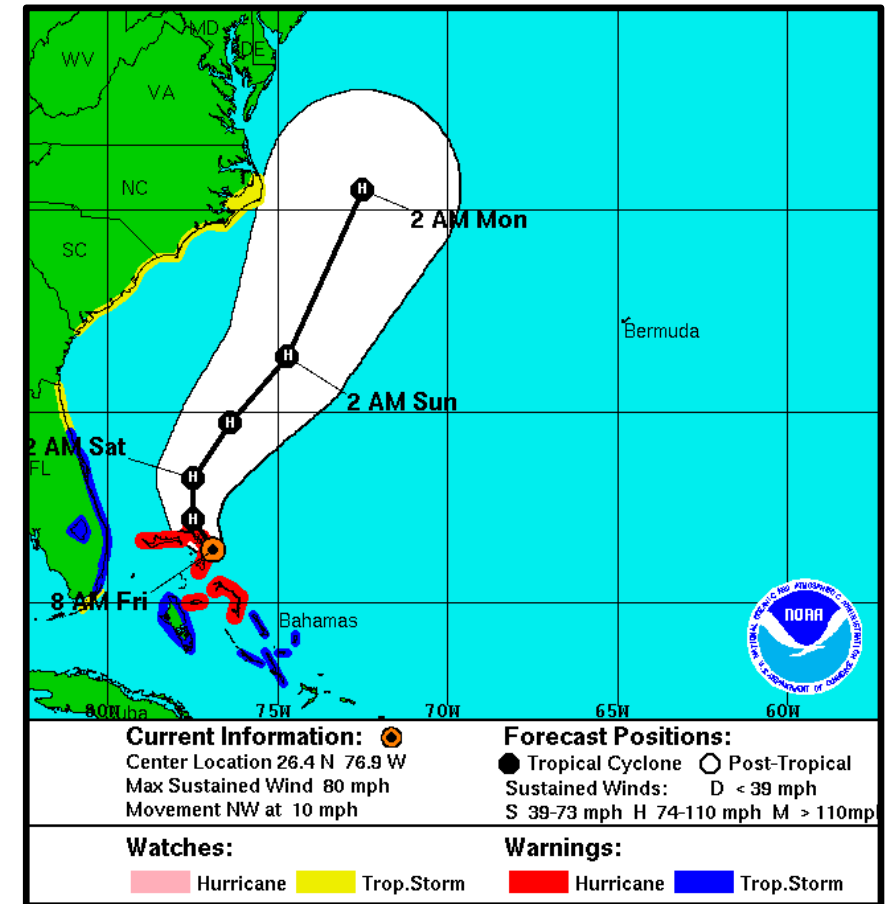


Compact Members



Exercise Agenda

- 1:00 Exercise Introduction
- 1:45 StartEx
- 1:45 Module One: Landfall + 1 Day
- 2:30 Break
- 2:45 Module Two: 1-1.5 Weeks After Landfall
- 3:30 EndEx
- 3:30 Hot Wash
- 3:50 Closing Presentation



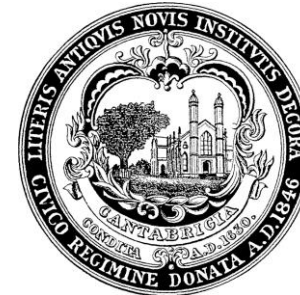
Exercise Planning Process

- Homeland Security Exercise and Evaluation Program (HSEEP):
 - Exercise Planning Team
 - Exercise Planning Meetings
 - Scenario Development
 - Conduct Exercise
 - Improvement Planning
 - After Action Report with issues and lessons learned
 - Plan/Process revisions as necessary



Exercise Planning Team – Core Members

- Suzanne Blake, MIT
- John Bulduc, City of Cambridge
- Veena Dharmaraj, Cambridge Compact
- Ari Epstein, MIT
- Brian Mazmanian, Harvard
- Justin McCullen, Novartis
- Jim Goudreau, Novartis
- Brian Gover, Cambridge Fire
- Faina Rozental, MIT



Exercise Structure and Format

- Tabletop Exercise
- FEMA's definition: "a facilitated analysis of an emergency situation in an informal, **stress-free** environment."
- Discussion based (all simulated)
- A "no-fault" exercise
 - **Testing the procedures, not the people**
 - Ask questions, state where we are lacking
 - This is a safe environment



Exercise Materials

- Situation Manual
- Agenda
- Module Summaries
 - To be distributed
- Participant Feedback Form
- Resources Document
 - To be given in exchange for your PFF

**Cambridge Climate Resiliency
Tabletop Exercise
Business Continuity Coordination**

Situation Manual
January 17, 2018



Rules and Expectations

- The facilitator will introduce each module and provide participants with scenario information in the order the events would occur.
- All information will be provided to participants.
- At the end of the module, the scenario will be suspended for questions and group discussion.
- Participants will respond to the situation presented based on their knowledge and their organization's plans and procedures.

Rules and Expectations

- Participants may communicate with other individuals and groups to obtain information they may need.
- This is a training event. Please help us by documenting any issues, gaps, or deficiencies so that we can collectively improve plans and procedures.
- Many issues that come up may not be able to be solved within the scope of this exercise.
 - Parking lot



Assumptions

- Exercise players have received the Situation Manual for the exercise.
- In the absence of clear existing procedures, players will apply individual initiative to satisfy response requirements.
- Real world response actions will take priority over exercise actions.
- Artificialities may occur as the result of the format of the tabletop exercise.



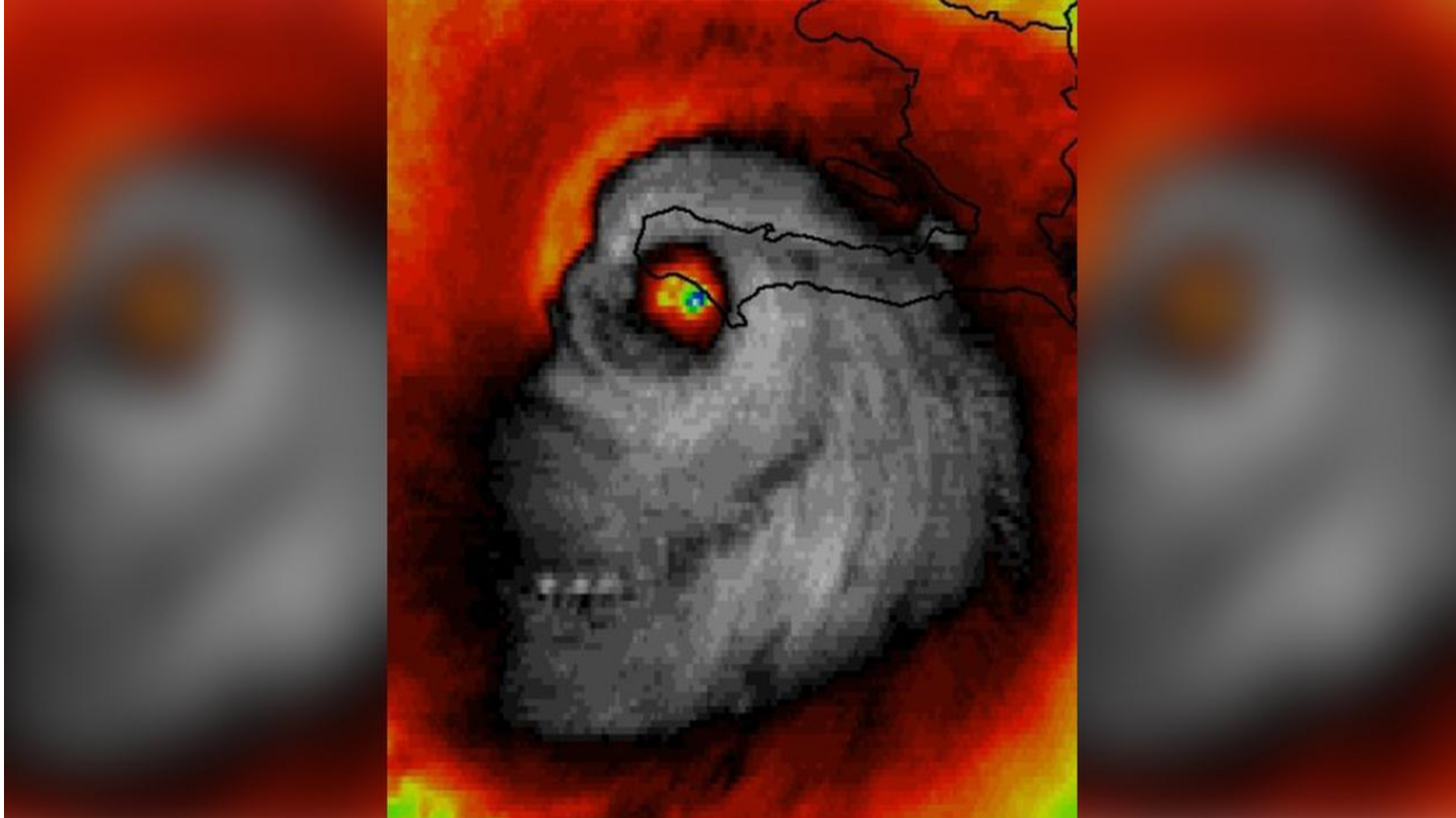
Exercise Purpose and Scope

- **Purpose:** To provide exercise participants the opportunity to practice business continuity procedures and coordination tactics applied to a realistic, climate-based scenario affecting the City of Cambridge, and use lessons learned from the exercise to revise plans and procedures as needed.
- **Scope:** The tabletop exercise will cover business continuity and coordination procedures following a climate-based incident that adversely affects the Cambridge area and causes business interruptions to stakeholders in the City.

Exercise Objectives

1. Discuss **interdependencies on systems** among Cambridge stakeholders including **transportation, vendors, and utilities** for Cambridge businesses and organizations of all sizes.
2. Determine **resource sharing needs** and obstacles in the aftermath of the disaster.
3. Practice **coordination and communication** between Cambridge businesses/organizations as well as with the city and state during a **supply chain disruption** due to a major disaster affecting the Cambridge area.
4. Discuss **lack of staffing** due to transportation infrastructure disruption and care for staff that has stayed in Cambridge to continue operations.
5. Determine **common gaps** in resolving the above issues and move forward on planning next steps to resolve these gaps.

StartEx: Module One



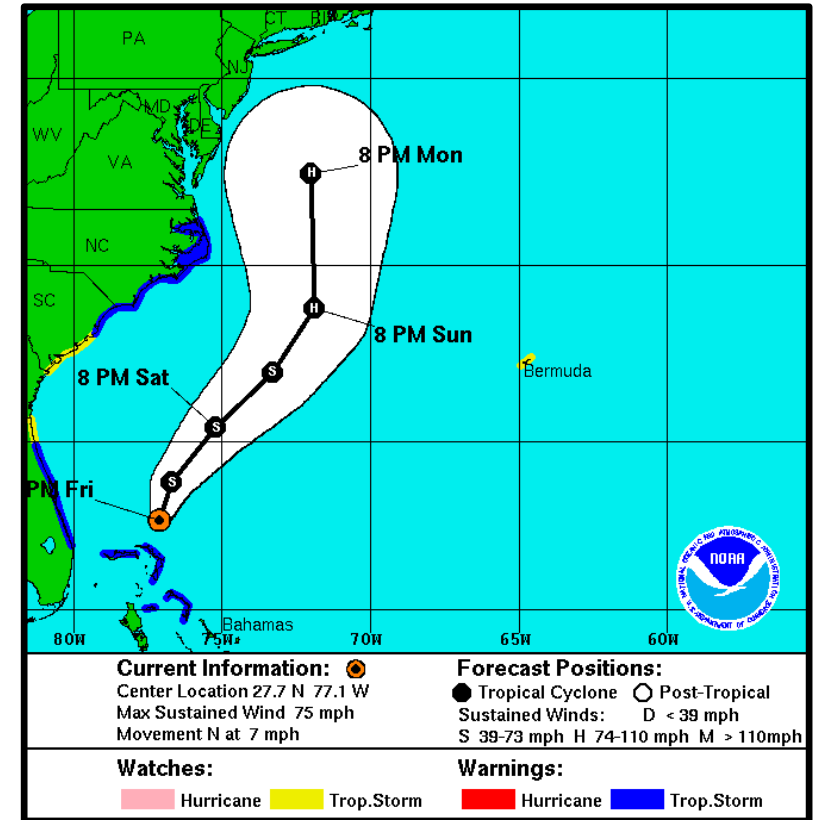
Module One: Landfall + 1 Day

■ Monday, July 11th

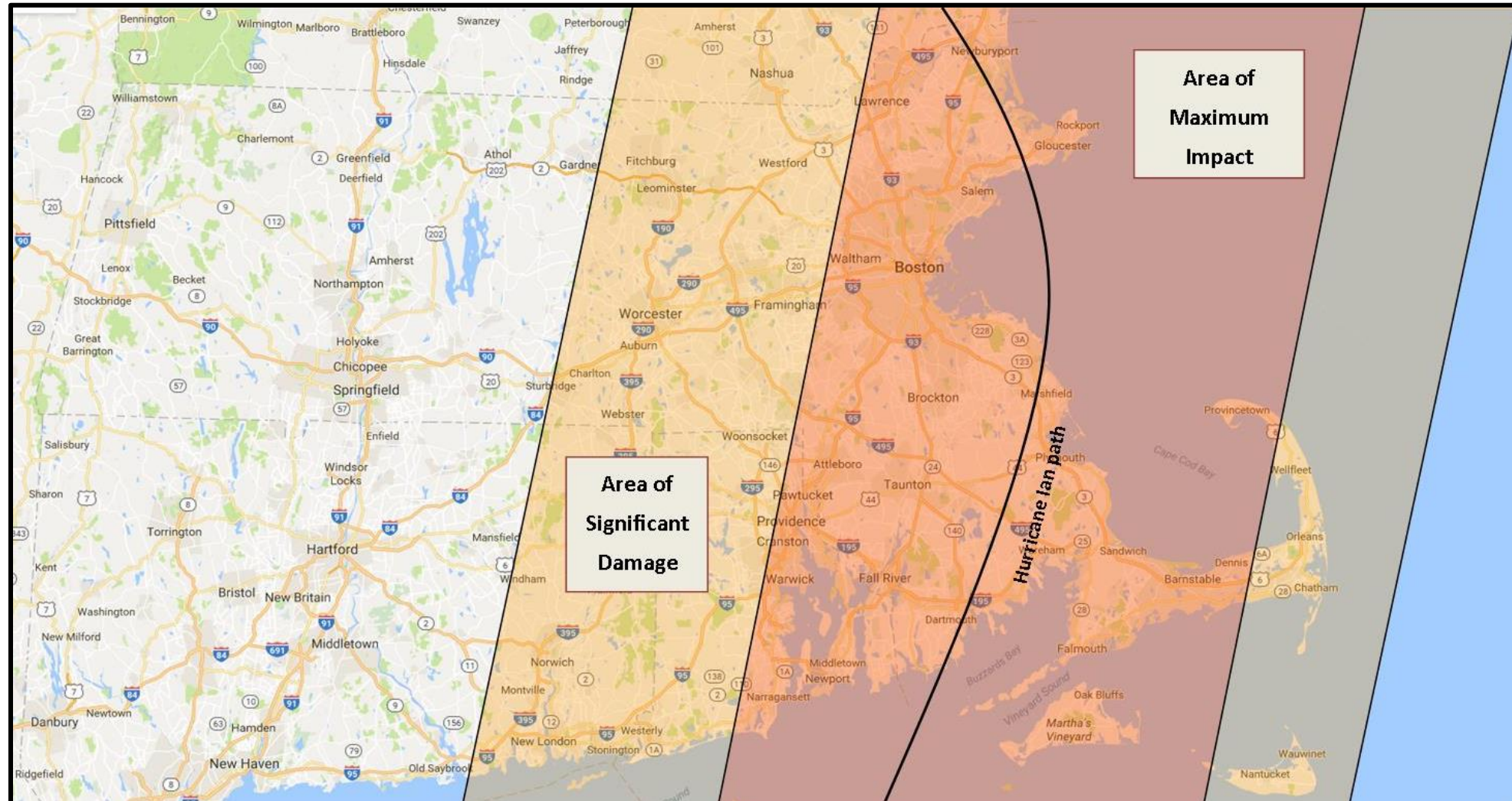
- Hurricane Justin made landfall as a strong Category 2 storm in Dartmouth, MA.
- Hurricane Justin brought 16 inches of rain and sustained winds of 105mph, with gusts over 120pmh.
- Landfall coincided with a full moon high tide; storm surge was over 10-13 feet in some areas.

■ Tuesday, July 12th (today)

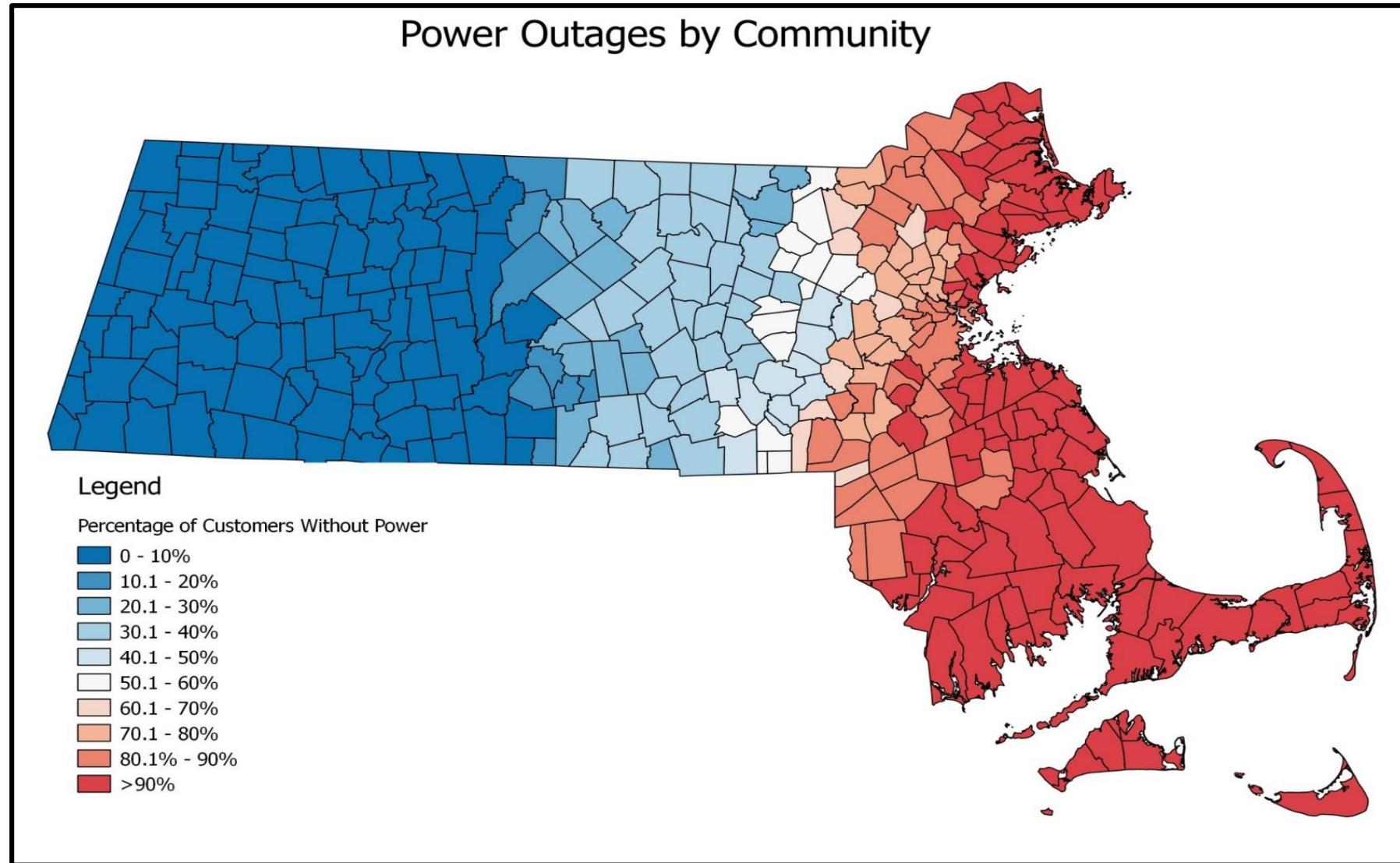
- MBTA underground stations have been flooded and restoration will take at least 1-2 weeks.
- Wireless service is intermittent.
- Cambridge has experienced an 87% loss of power City-wide.
- All immediate life safety issues have been addressed.

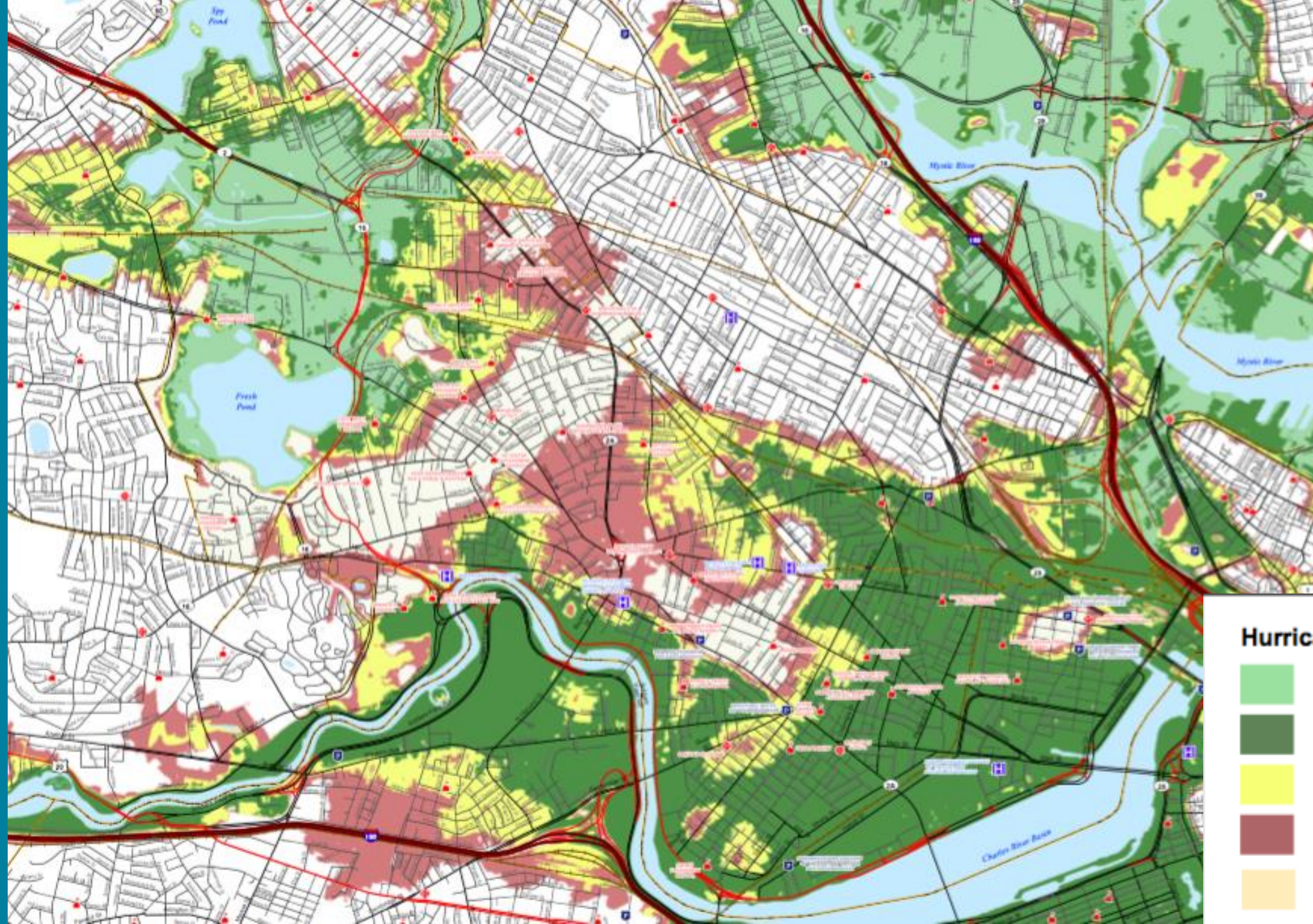


Module One: Landfall + 1 Day

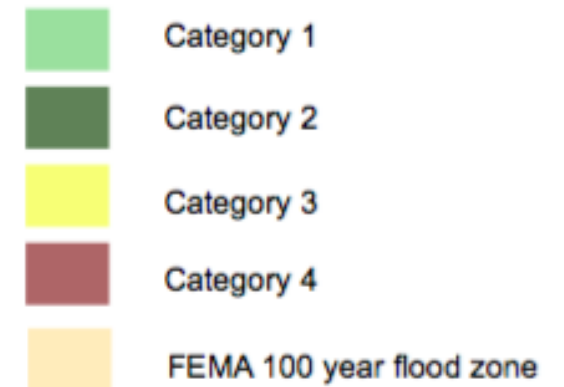


Module One: Landfall + 1 Day





Hurricane Surge Inundation



Module One: Landfall + 1 Day

Key Issues/Questions

■ Self-Reflection (10 min)

1. From your perspective, what are your initial concerns/priorities upon receiving this information?
2. What have you done as a business/organization to prepare for this type of situation from the continuity perspective?

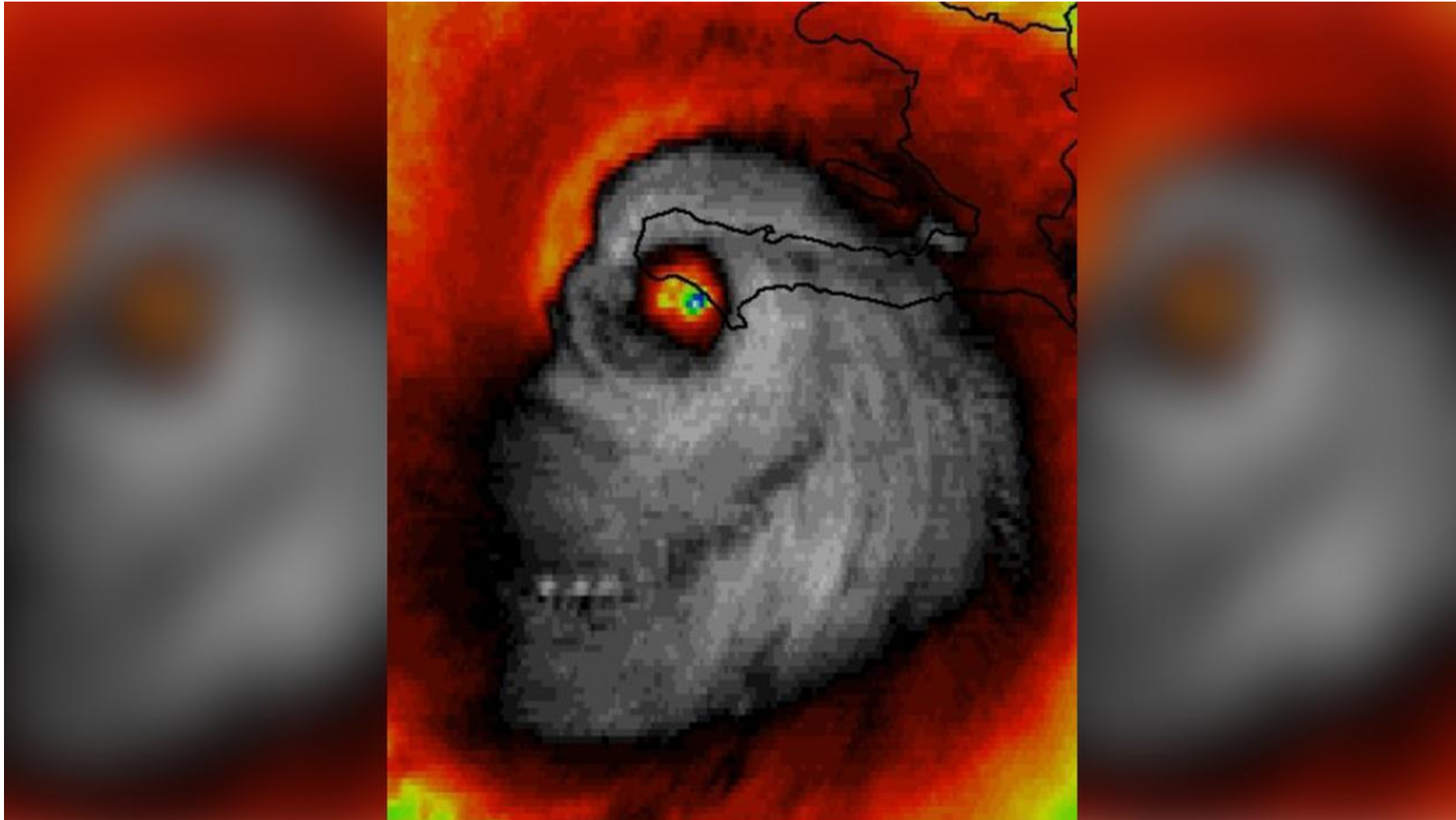
■ Group Discussion

1. Who do you envision you would have on site to manage the immediate recovery and continuity priorities?
2. What external resources are you relying upon for your immediate recovery and continuity needs?
3. What organizations within Cambridge are you relying upon for coordination and resources?
4. Based on the above, what problem areas/challenges can you identify?

EMAIL YOUR NOTES!

justin.mccullen@novartis.com

Module Two



Module Two: 1-1.5 Weeks After Landfall

- Damages still being assessed
- K-12 schools are still closed
- MBTA has resumed limited service, underground light rail service is suspended for another week; Commuter Rail also running on a modified schedule
- Much of Cambridge is still without power
- Flood damage remains in low-lying areas and basements
- Debris removal is ongoing

Module Two: 1-1.5 Weeks After Landfall

■ Key Issues/Questions

1. What staffing resources would you have available at this point? How are you accounting for this? How would you care for/support any staff that remain on site?
2. Which external resources are you continuing to rely upon? With resource shortages occurring in the region, how are you prioritizing resource requests?
3. What organizations within Cambridge can you coordinate with to share resources?
4. Based on the above, what problem areas/challenges can you identify?

Hot Wash

- What went well?
- What did not go well?
- What plans/initiatives would you like to see come out of this exercise to enhance coordination across Cambridge?



Thank you for attending!

PLEASE FILL OUT YOUR EVALUATION FORMS!

