



### LEGEND

**Hurricane Surge Inundation**

- Category 1
- Category 2
- Category 3
- Category 4

**Transportation**

- Limited Access Highway
- US Highways
- State/Local Highways
- Local Road
- Railroad
- Airport

**Facility Location Key**

- Hospitals
- Schools
- Police
- Fire

**Hydrographic Features**

- Water
- Wetlands

**Political**

- Town Boundary
- State Boundary

### NOTES & SOURCES

Hurricane surge elevations were determined by the National Hurricane Center using the PV2 SLOSH model basin, and assumed peak hurricane surge arriving at mean high water.

The hurricane surge inundation areas shown on this map depict the inundation that can be expected to result from a worst case combination of hurricane landfall location, forward speed, and direction for each hurricane category.

The source of basemap transportation features such as roads and railroads is Tele Atlas 2009. The source of other basemap features are MassGIS.

The primary elevation data source was MassGIS Digital Terrain Model (DTM) files which were made available in April 2003. This data was supplemented with LiDAR data provided by the cities of Boston and Cambridge. The data was collected on November 9th & 10th, 2009. The area adjacent to the Amelia Earhart Dam was supplemented with LiDAR collected by Photo Science for USGS between late 2010 and early 2011.

Hurricanes of a certain category and movement direction can produce a tidal surge that exceeds the height of the Charles River Dam and the Amelia Earhart Dam. For details see Table 1 and Table 2 on the lower left of the map.

### TITLE

Massachusetts Hurricane Evacuation Study  
Hurricane Surge Inundation Mapping  
March 2014  
CAMBRIDGE

Table 1: Hurricane Surge Elevations at the Charles River Dam Worst Case Scenario (including NW and WNW moving hurricanes)

Charles River Dam Top Elevation (ft)	Hurricane Category	Hurricane Surge Elevations on the Boston Harbor Side of the Charles River Dam (ft)		Approximate Depth of Surge on Top of Dam (ft)	Approximate Duration of Overtopping (min)
		NAVD88	MDC		
11.55	CAT 1	11.4	117.85	-	-
	CAT 2	15.7	122.15	4.2	80
	CAT 3	20.1	126.55	8.6	100
	CAT 4	23.7	130.15	12.2	140

Note: Elevation NAVD88 feet + 106.45 feet = Elevation MDC feet.

Table 2: Hurricane Surge Elevations at the Amelia Earhart Dam Worst Case Scenario (including NW and WNW moving hurricanes)

Amelia Earhart Dam Top Elevation (ft)	Hurricane Category	Hurricane Surge Elevations on the Boston Harbor Side of the Amelia Earhart Dam (ft)		Approximate Depth of Surge on Top of Dam (ft)	Approximate Duration of Overtopping (min)
		NAVD88	MDC		
11.55	CAT 1	11.5	117.95	-	-
	CAT 2	16.9	123.35	5.4	80
	CAT 3	20.6	127.05	9.1	100
	CAT 4	24.8	131.25	13.3	160

Note: Elevation NAVD88 feet + 106.45 feet = Elevation MDC feet.

0 1500 3000 Feet