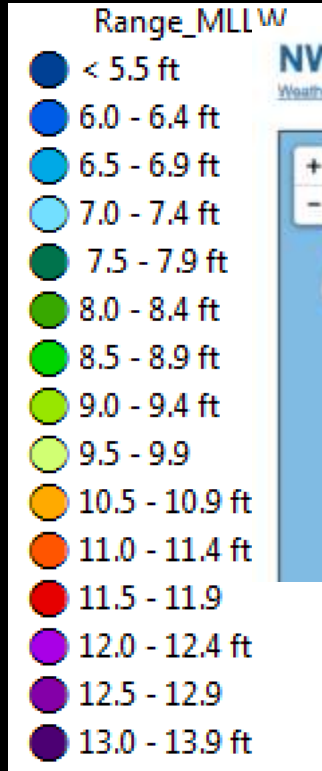


Mapping Inundation via Storm Tide Pathways



NWS Boston - Coastal Flood Threat

[Weather.gov > Boston, MA > NWS Boston - Coastal Flood Threat and Inundation Mapping](#)



2017 Nantucket Coastal Conference | 06 June 17
M. Borrelli, S.T. Mague, T.L. Smith and B. Legare



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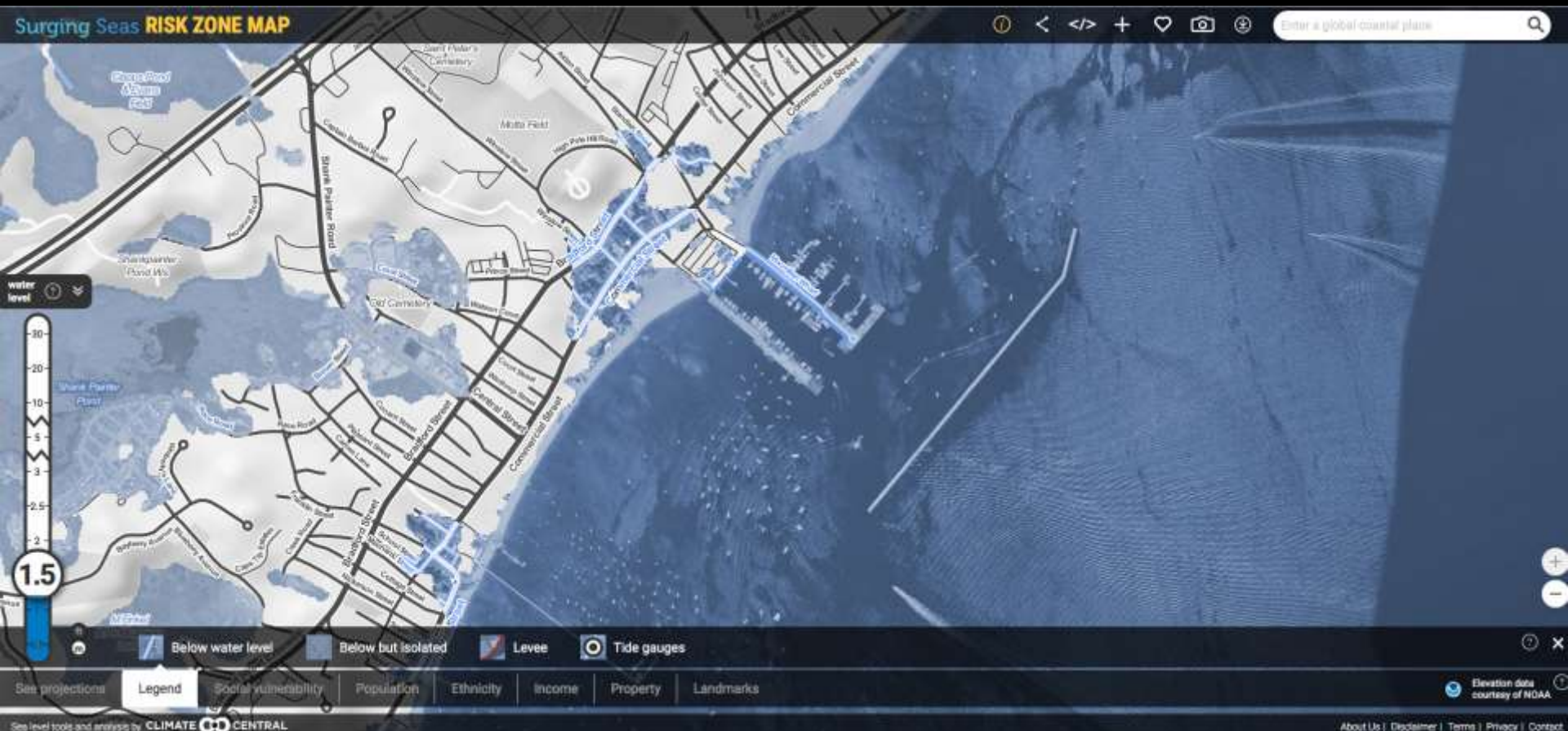


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Surging Seas

(<http://sealevel.climatecentral.org/>)



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Why Map Storm-Tide Pathways

1. Useful AND usable to local entities
2. Address current and future concerns
3. Little, to no, computing resources
4. Increase resiliency and autonomy



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- Town of Provincetown

- Town of Truro
- NWS

- Town of Nantucket



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The Project(s)

1. Develop maps of STPs for use by towns
2. Link those STP maps to local tidal datum
 - Install tide gauge if needed
3. Add future levels of inundation to STPs
4. Link with NWS Storm Surge Forecasting Webpage



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1. Develop maps of STP

- ID potential STPs using data viz software
 - Use best available elevation data
 - Fledermaus, ArcGIS
- Field Survey all STPs using RTK-GPS
- Develop hardcopy and digital maps



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Surging Seas RISK ZONE MAP

English (US) ▾

Water level ? ≡

10

9

8

7

6

5

4

3



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Downtown Provincetown



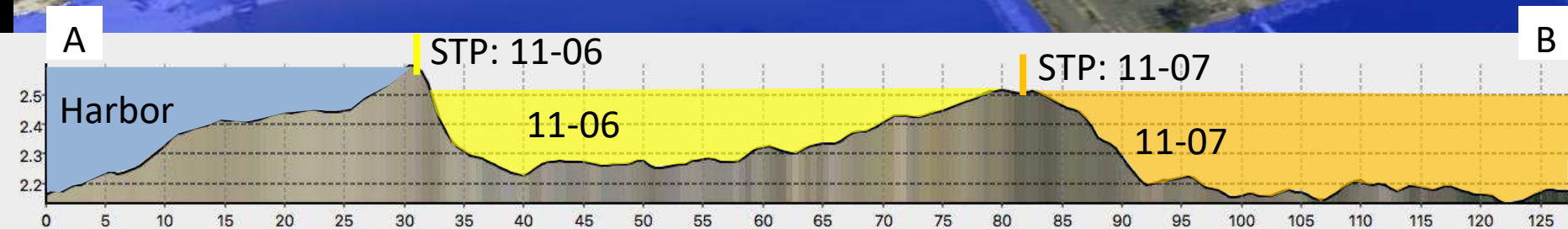
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2.50 m (NAVD 88)



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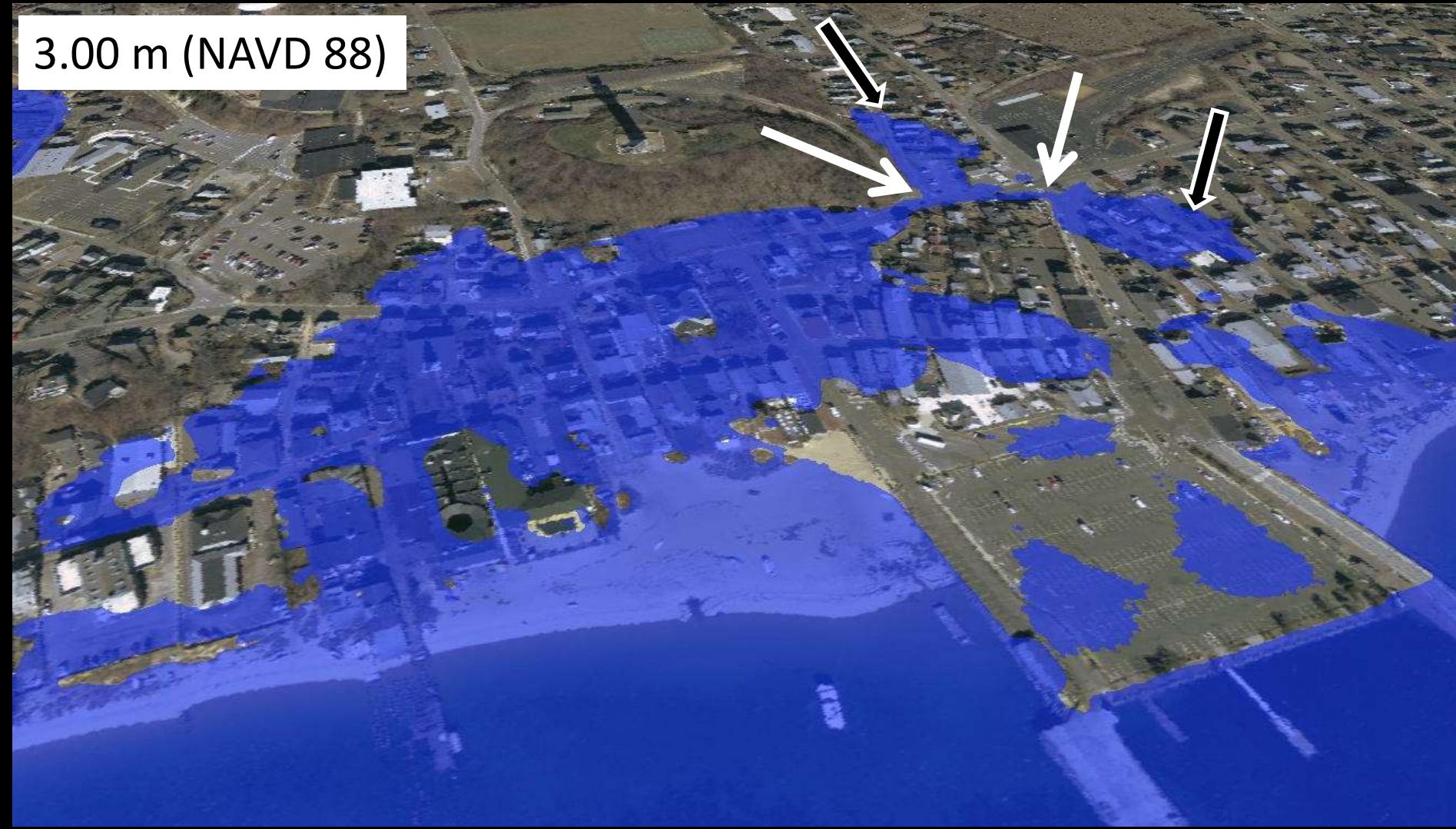


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Secondary Pathways

3.00 m (NAVD 88)

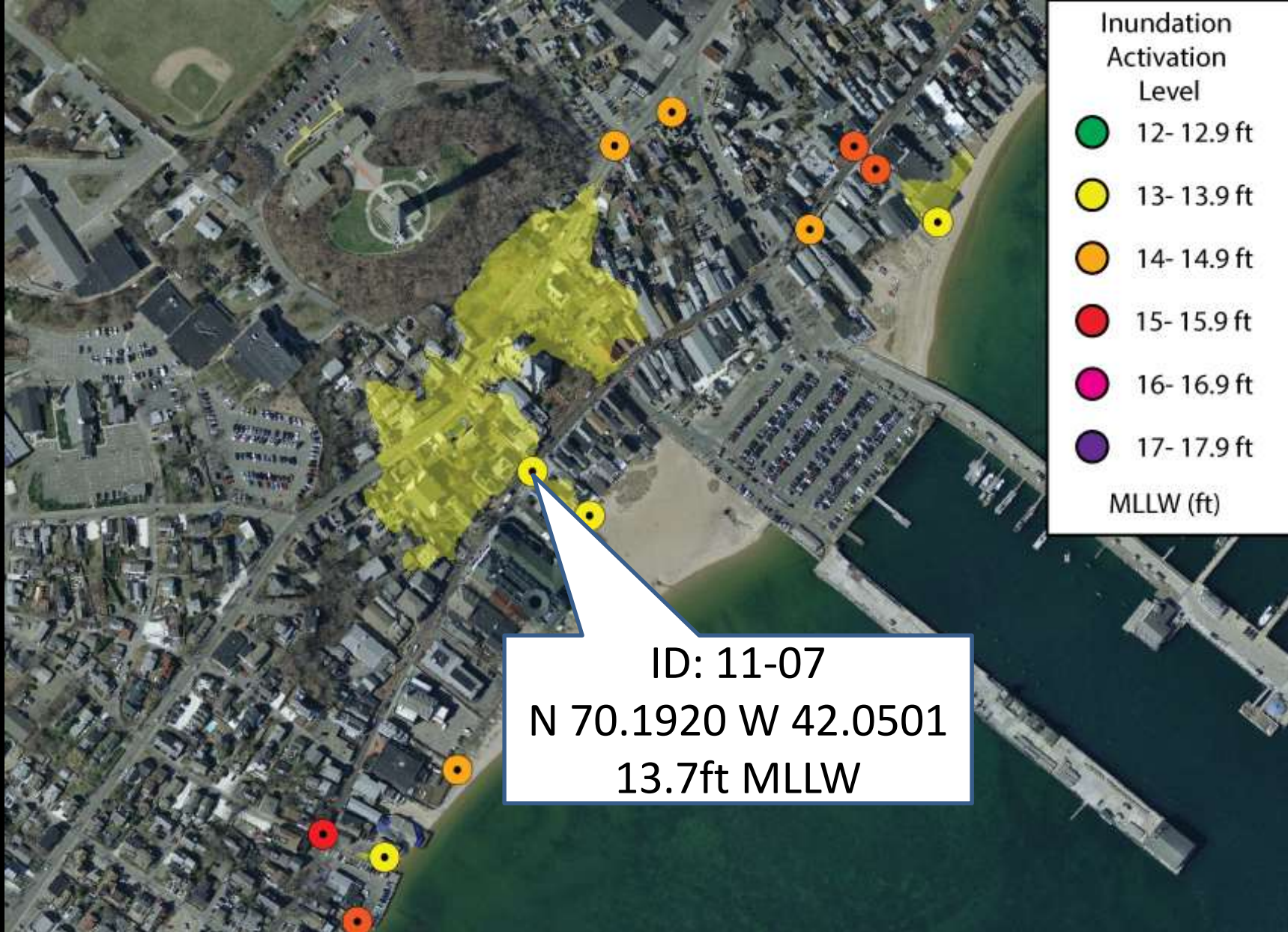


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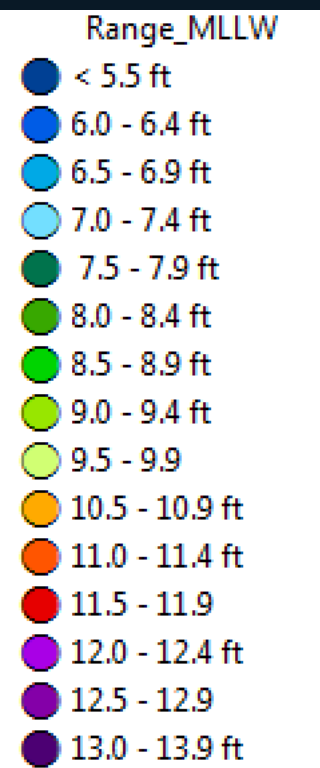


Nantucket

129: Desktop Analysis

72: Final Pathways

45: Field Corrected (>1m offset)



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroX, GeoMapping, AeroGRID, IGN, IGP, swisstopo, and the GIS User Community

Range_MLLW

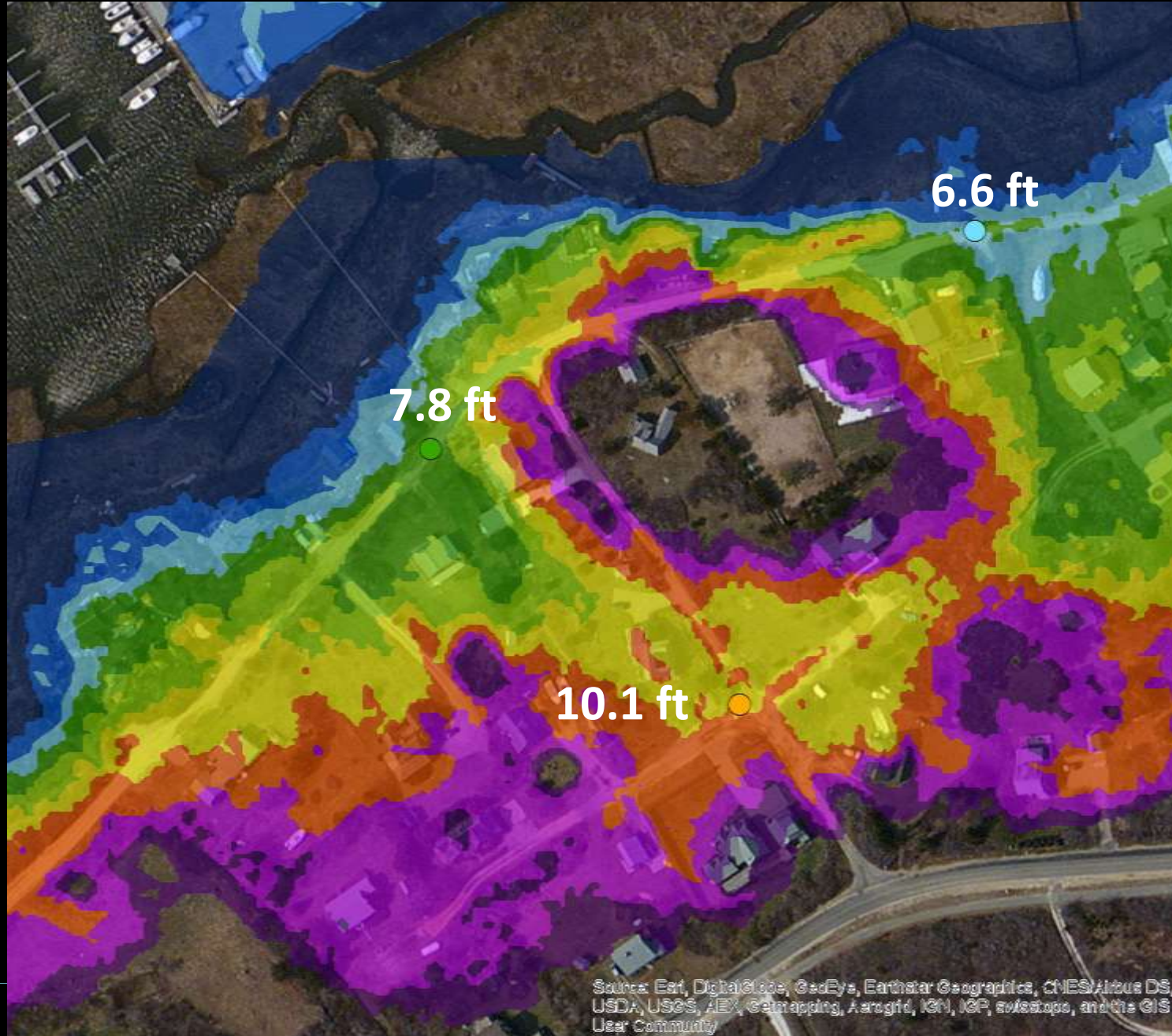
- < 5.5 ft
- 6.0 - 6.4 ft
- 6.5 - 6.9 ft
- 7.0 - 7.4 ft
- 7.5 - 7.9 ft
- 8.0 - 8.4 ft
- 8.5 - 8.9 ft
- 9.0 - 9.4 ft
- 9.5 - 9.9
- 10.5 - 10.9 ft
- 11.0 - 11.4 ft
- 11.5 - 11.9
- 12.0 - 12.4 ft
- 12.5 - 12.9
- 13.0 - 13.9 ft



Source: Esri, DataCubes, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, IGP, swisstopo, and the GIS User Community

Range_MLLW

- < 5.5 ft
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- 7.0 - 7.4 ft
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- 10.5 - 10.9 ft
- 11.0 - 11.4 ft
- 11.5 - 11.9 ft
- 12.0 - 12.4 ft
- 12.5 - 12.9 ft
- 13.0 - 13.9 ft



Surging Seas RISK ZONE MAP

English (US)



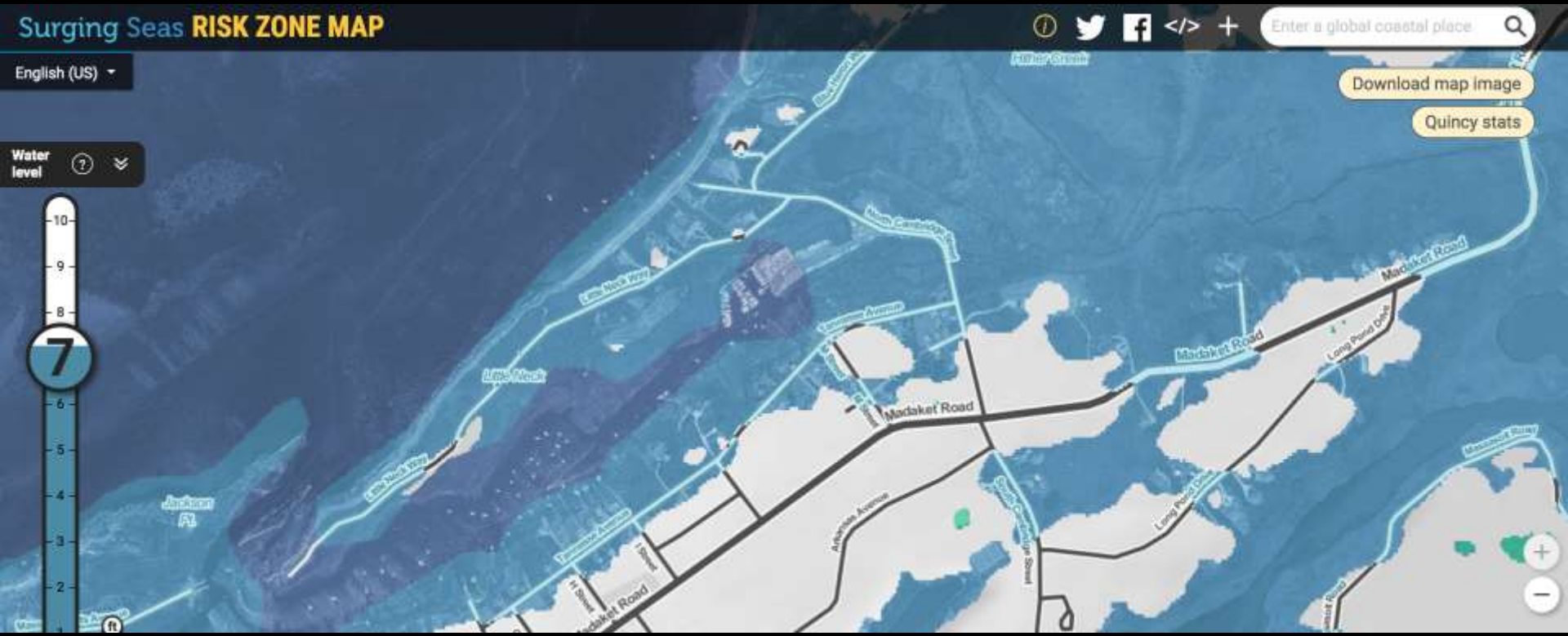
Enter a global coastal place



Download map image

Quincy stats

Water level

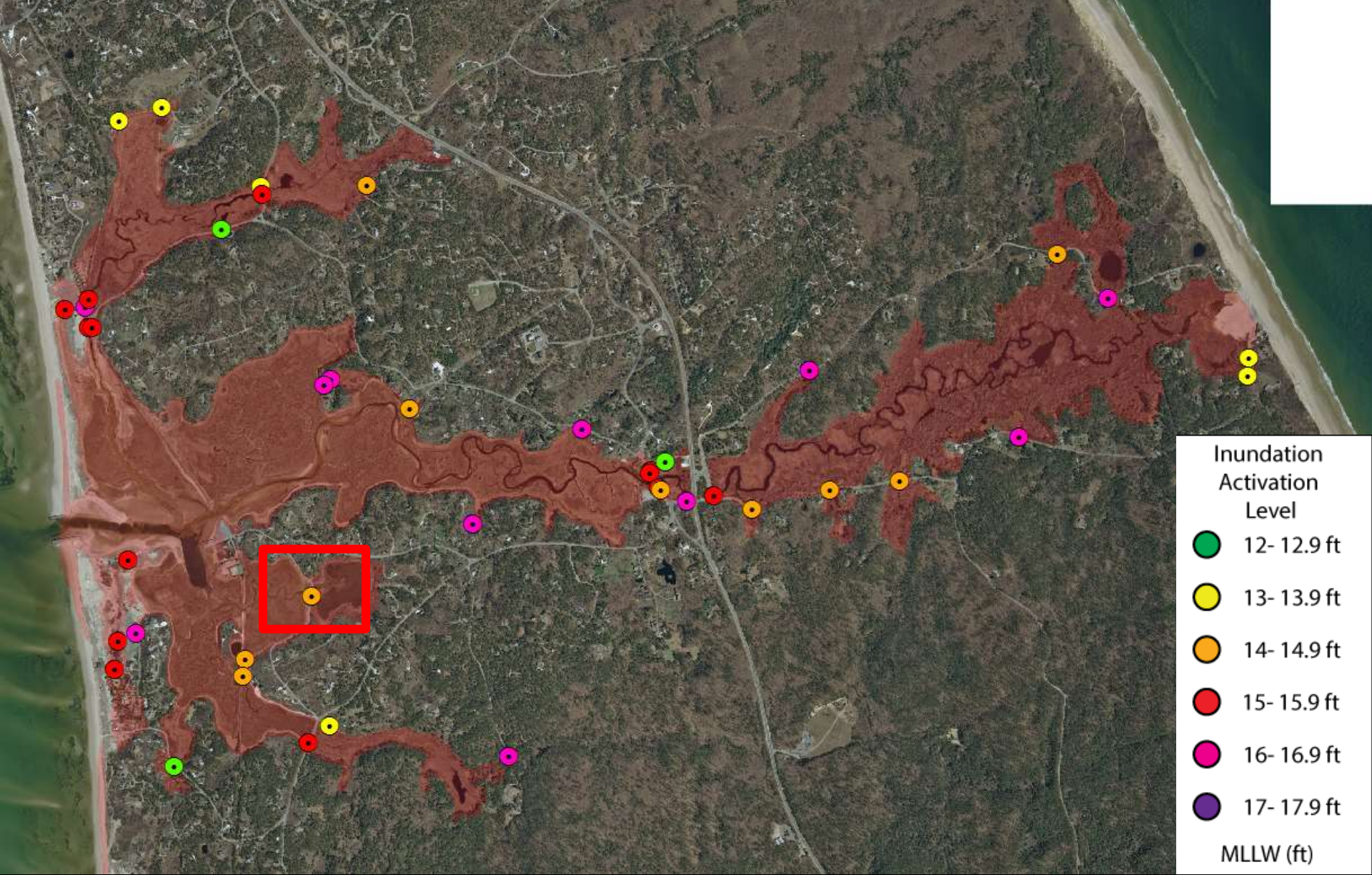


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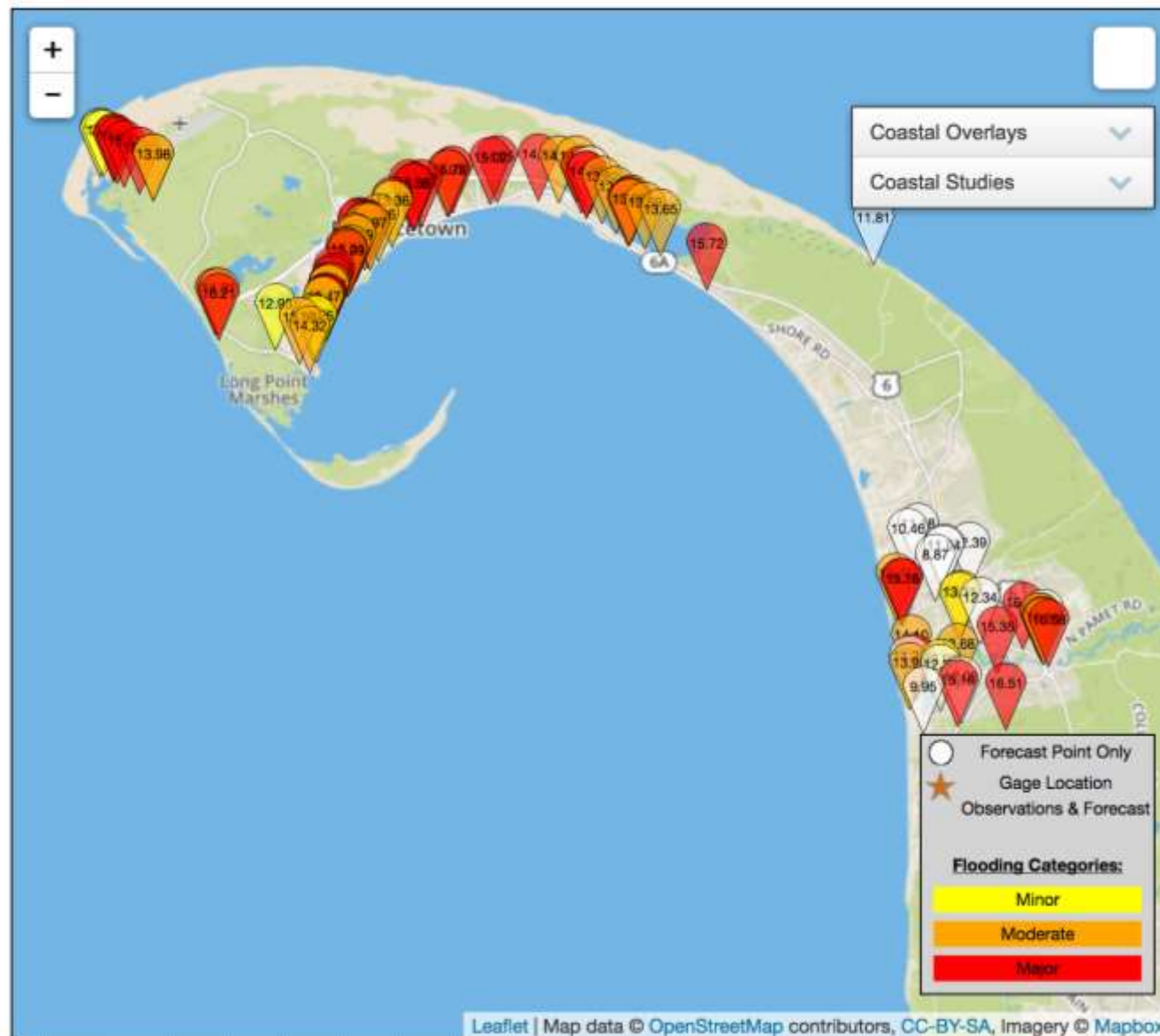


NWS Boston - Coastal Flood Threat and Inundation Mapping

Boston, MA

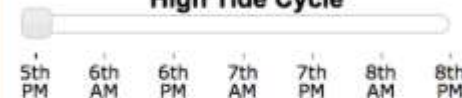
Weather Forecast Office

[Weather.gov](#) > [Boston, MA](#) > NWS Boston - Coastal Flood Threat and Inundation Mapping



Forecast Issued:
NA

High Tide Cycle



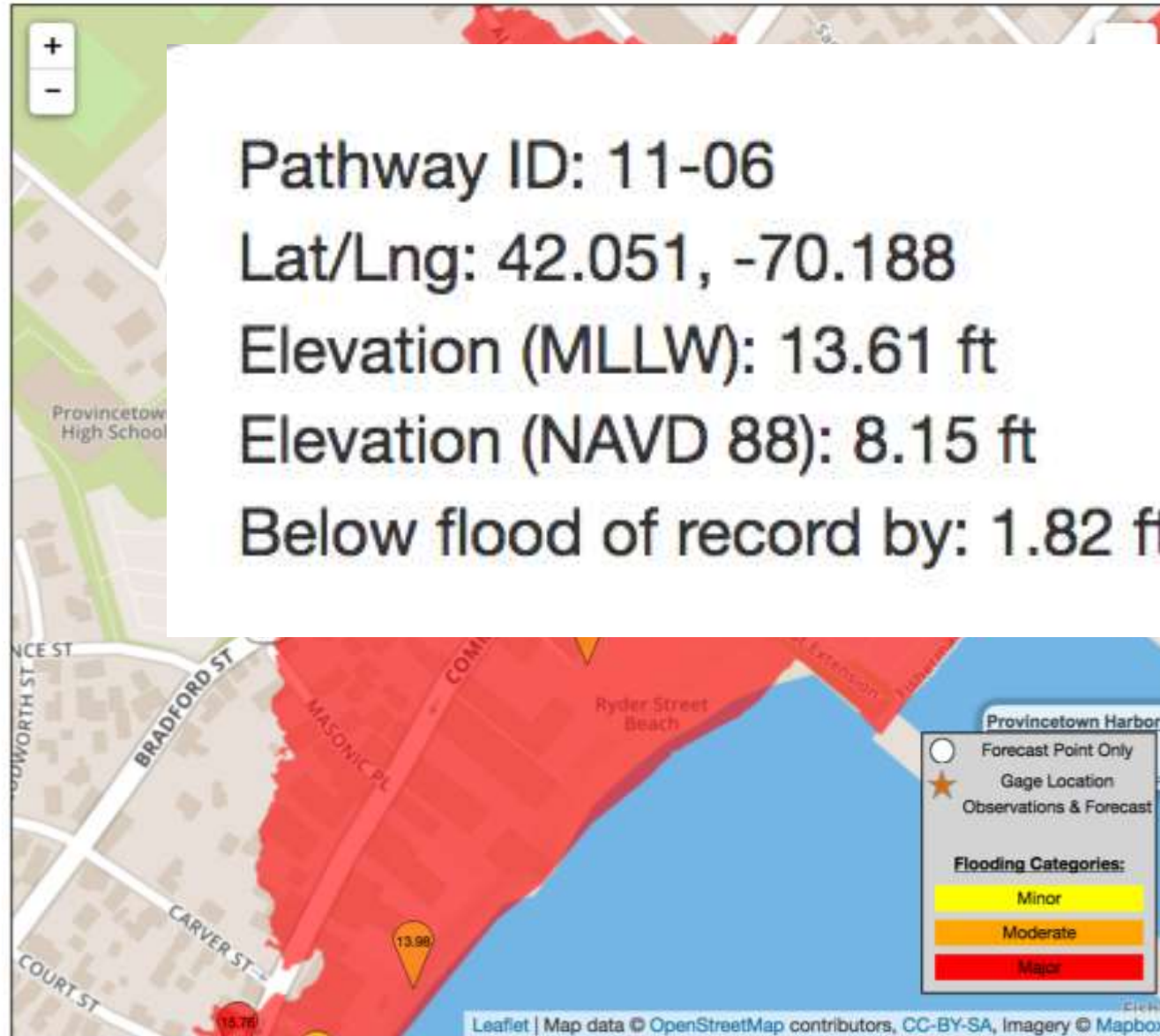
- Inundation Overlay -
Total Water Level Height
(ft MLLW)



NWS Boston - Coastal Flood Threat and Inundation Mapping

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Boston, MA
Weather Forecast Office



Forecast Issued:
NA



ght



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- Patricia Bowie



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- Richard Waldo (DPW Director)
- Rex McKinsey (Harbormaster)



Town of Truro:

- Richard Waldo (DPW Director)
- Rex McKinsey (Harbormaster)



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- James Notchey