





City of Portsmouth, New Hampshire
COASTAL RESILIENCE INITIATIVE

**Climate Change Vulnerability Assessment
and Adaptation Plan**



This project was funded by the Gulf of Maine Council through a grant from the National Oceanic and Atmospheric Administration (NOAA).

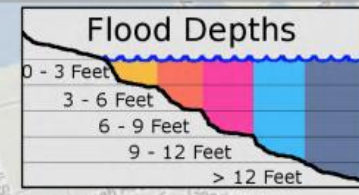


**PREPARE.
PROTECT.
PORTSMOUTH.**

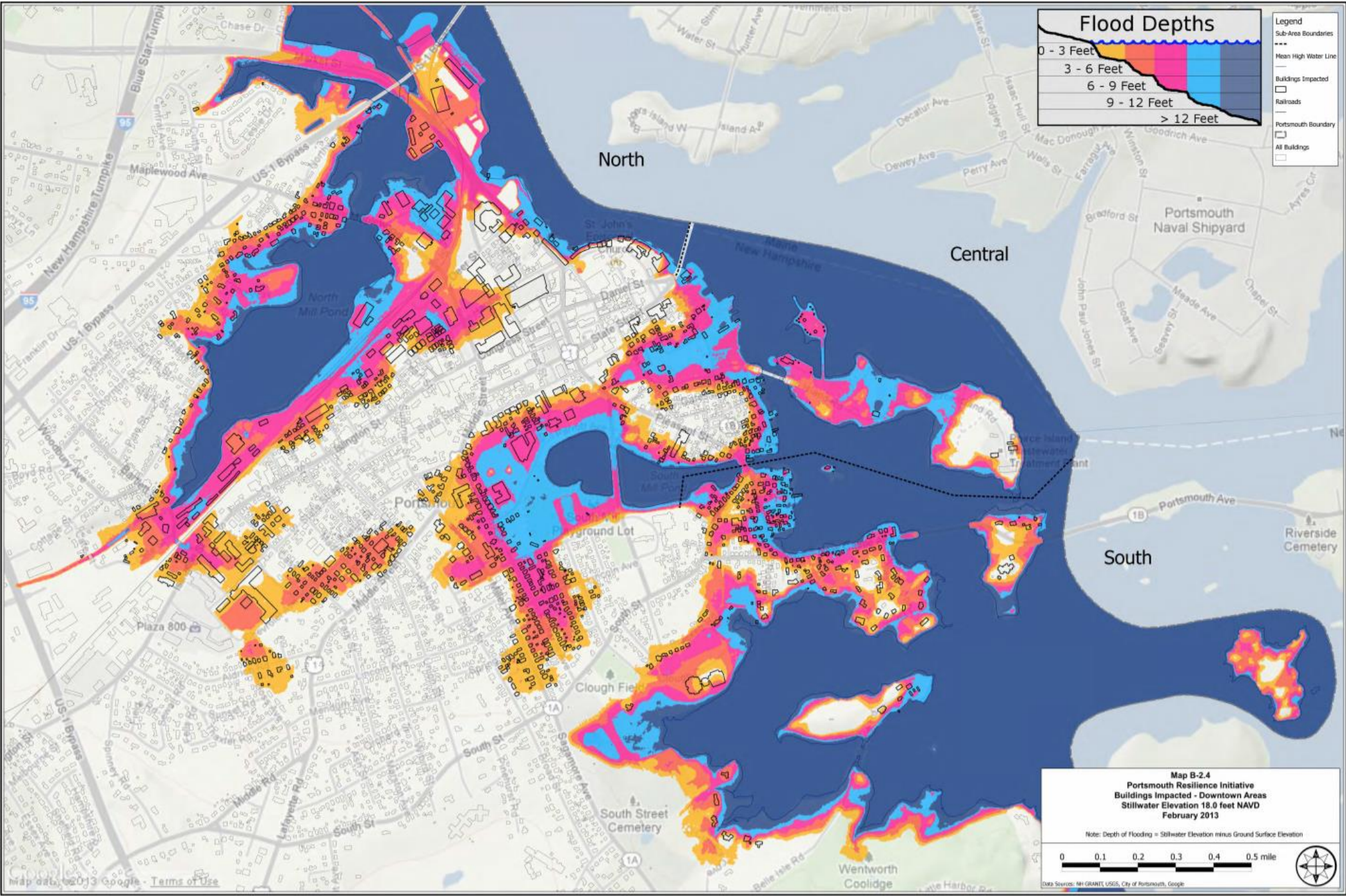








- Legend
- Sub-Area Boundaries
 - Mean High Water Line
 - Buildings Impacted
 - Railroads
 - Portsmouth Boundary
 - All Buildings





PORTSMOUTH 2025 MASTER PLAN

Image courtesy of Flickr user Keith Burgie



RESILIENT

GOAL/AC

5.4.5 Ensure an a

5.4.6 Identify and
and other pr

5.4.7 Use sustain
standards in

5.4.8 Develop a lo

5.5 Incorporate
review and

5.5.1 Incorporate
dynamic mo

5.5.2 Plan for resi

5.5.3 Ensure that
change impa

5.5.4 Conduct regu

5.5.5 Implement r
Commission

5.5.6 Amend state

5.5.7 Incorporate c
long-term int

5.5

Incorporate climate change impacts and adaption into all development review and planning efforts.

5.5.1

Incorporate sea level rise projections based the on up-to-date state of the art dynamic models into adaptation planning and land use regulations.

5.5.2

Plan for resiliency of critical services and municipal infrastructure.

5.5.3

Ensure that Hazard Mitigation Plan updates reflect current projections of climate change impacts.

5.5.4

Conduct regular vulnerability assessments at five year intervals.

5.5.5

Implement relevant recommendations produced by the Coastal Risk and Hazard Commission.

5.5.6

Amend state building codes to address the impacts of climate change.

5.5.7

Incorporate climate change adaptation strategies into capital planning for long-term infrastructure protection.



DRAFT – Preparing Portsmouth’s Historic District for Sea Level Rise

Portsmouth, New Hampshire

Prepared by
GEI Consultants, Inc.
5 Milk Street
Portland, ME 04101
207-797-8901

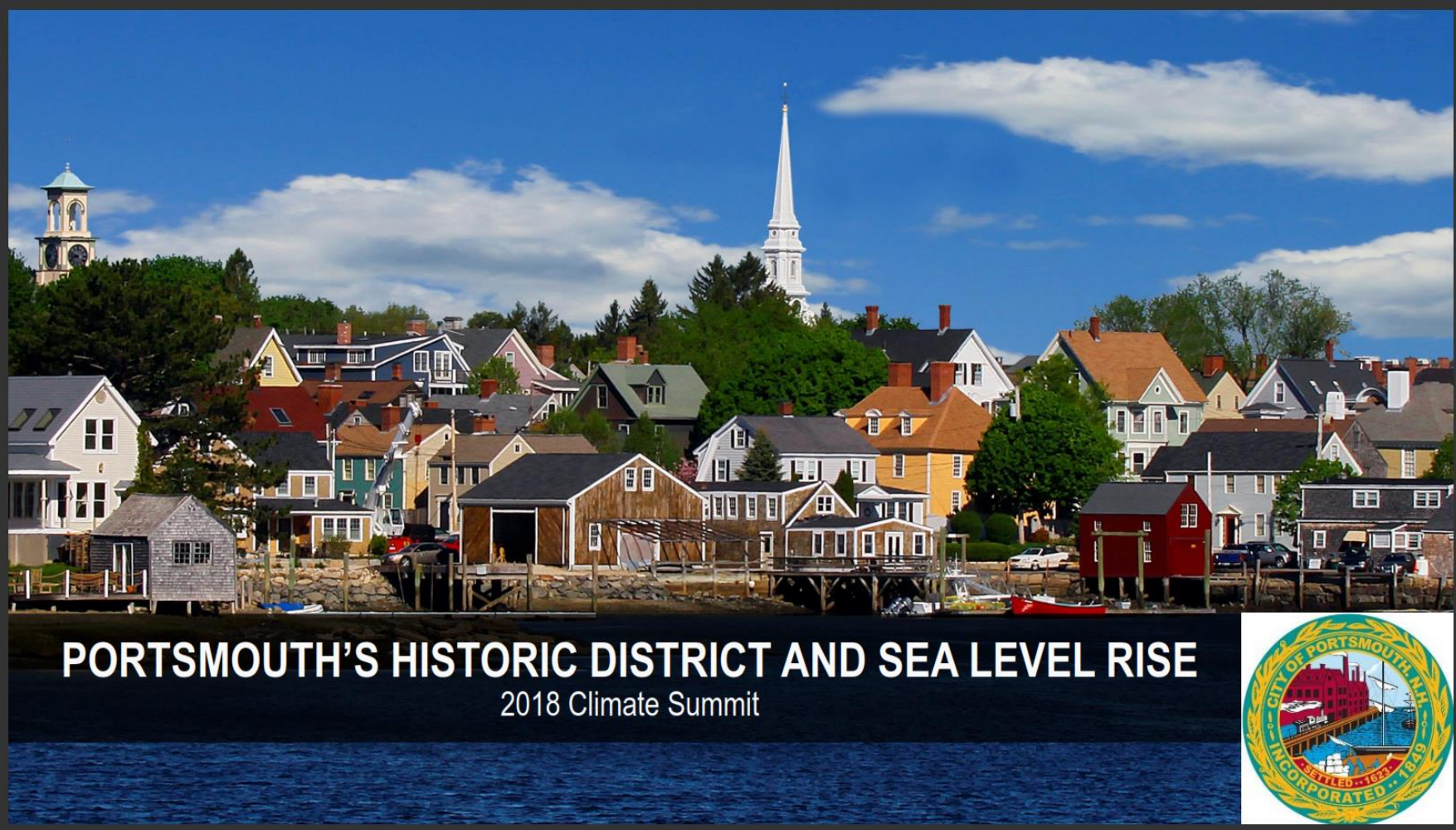
February __, 2018
Project 1702439

Samuel B. Merrill, Ph.D.
Senior Practice Leader

Project Partners:

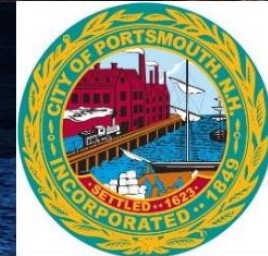


Alexander Gray
Adaptation Specialist



PORTSMOUTH'S HISTORIC DISTRICT AND SEA LEVEL RISE

2018 Climate Summit



Portsmouth Historic Vulnerability Assessment

Portsmouth Historic Properties Climate Change Vulnerability Assessment and Adaptation Planning Initiative

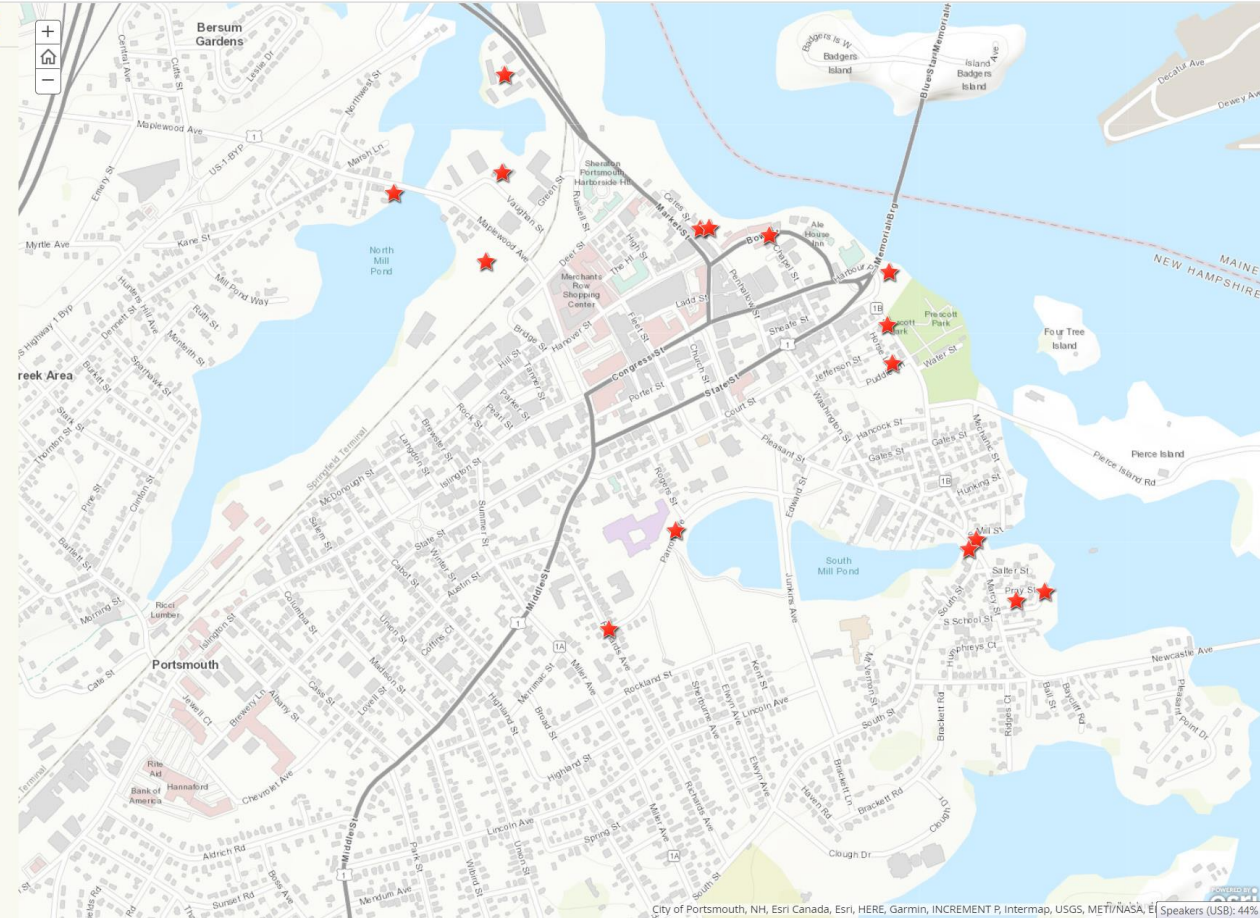
Using coastal flooding projections, Historic District studies, and input from the Local Advisory Committee, a set of adaptation actions has been developed to illustrate a range of approaches that may merit further consideration by the City. For each of 16 actions, this site discusses feasibility, potential effectiveness, cost, and impact on historic character.

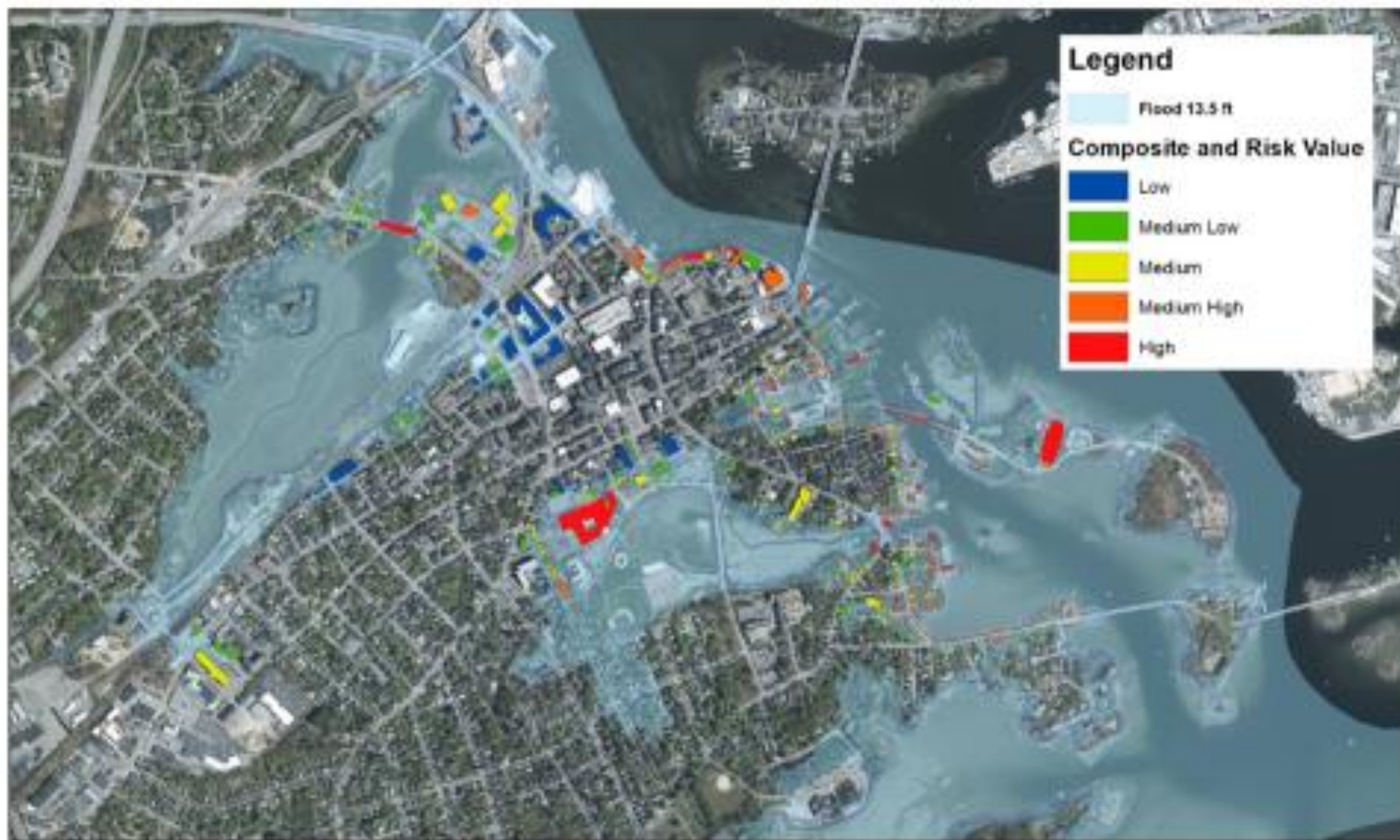


Strategy #1



230 Maplewood Avenue (Christian Shores area)





0 600 1,200 2,400 Feet

2015 Aerial Photography from NHDRAWIT

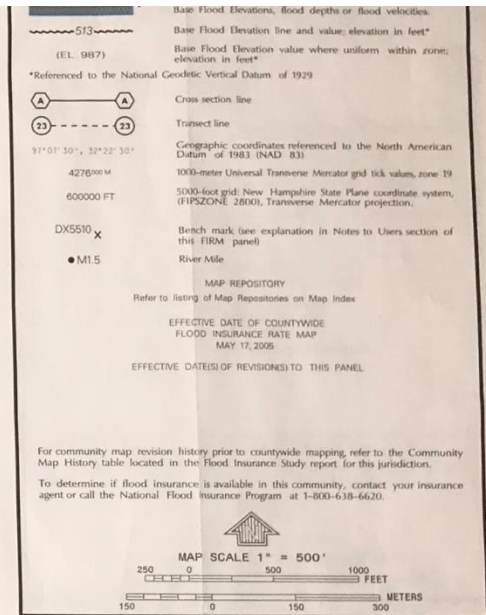
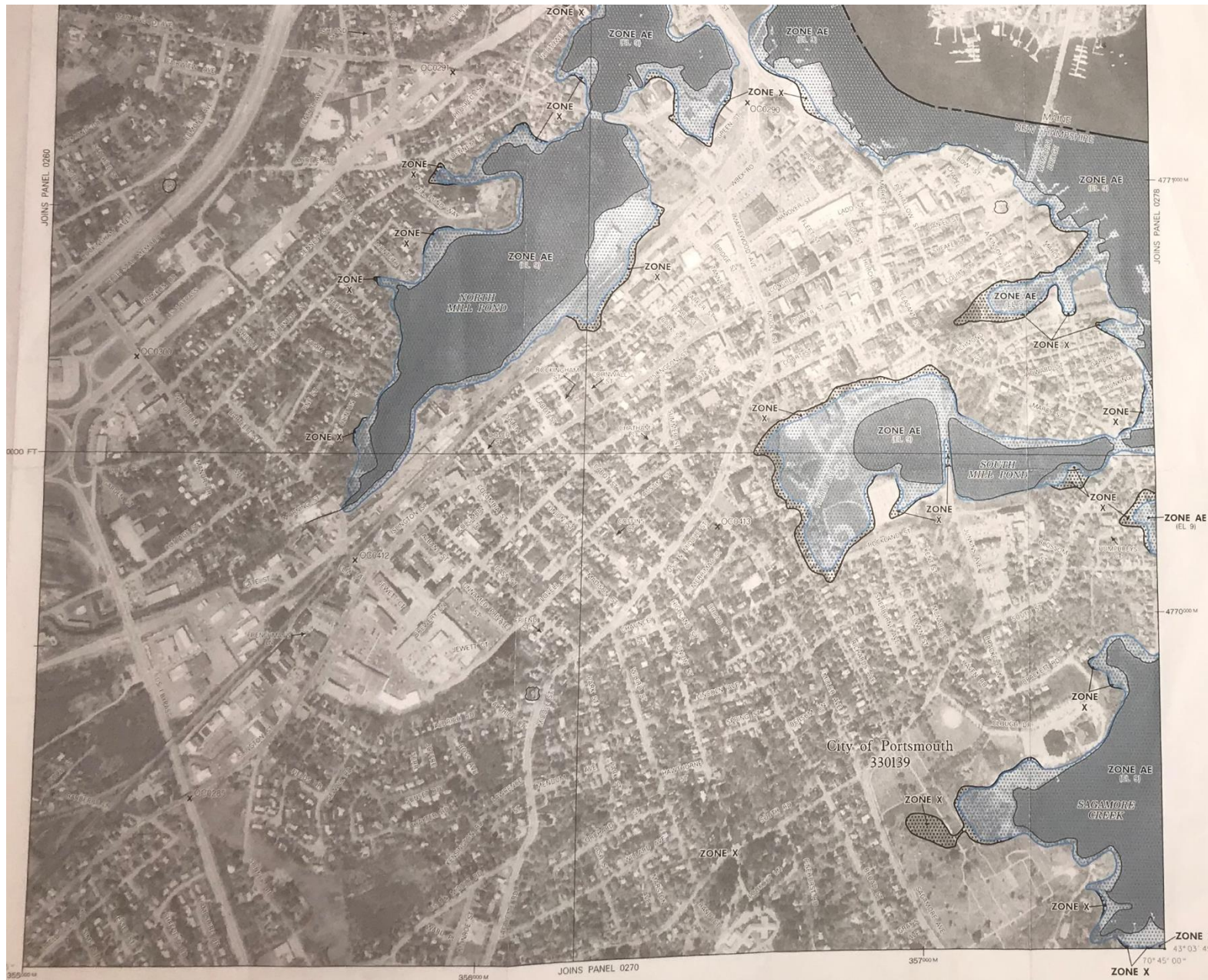


Composite and Risk Value Map:
Buildings



GEI





NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0259E

FIRM
FLOOD INSURANCE RATE MAP
ROCKINGHAM COUNTY,
NEW HAMPSHIRE
(ALL JURISDICTIONS)

PANEL 259 OF 681
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS
COMMUNITY **NUMBER** **PANEL** **SUFFIX**
 PORTSMOUTH, CITY OF 330139 0259 E

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
33015C0259E
EFFECTIVE DATE
MAY 17, 2005

Federal Emergency Management Agency

Article 6 Overlay Districts

10.613 Overlay District Locations

10.613.10 The **Flood Plain District (FP)** consists of:

(a) all lands designated as **special flood hazard areas** by the Federal Emergency Management Agency (FEMA) in its “**Flood Insurance Study** for the County of Rockingham County, NH” dated May 17, 2005 or as amended, together with associated **Flood Insurance Rate Maps (FIRM)** dated May 17, 2005 or as amended, which are declared to be part of this Ordinance and are hereby incorporated by reference; **and**

(b) **all extended flood hazard areas as defined in Section 10.622.20** each of which shall be contiguous and adjacent to a **special flood hazard area** and shall be delineated on the basis of mapped or surveyed elevations.

10.613.20 The **Historic District** is identified on the Zoning Map.

10.613.30 The **Downtown Overlay District (DOD)** is identified on the Zoning Map.

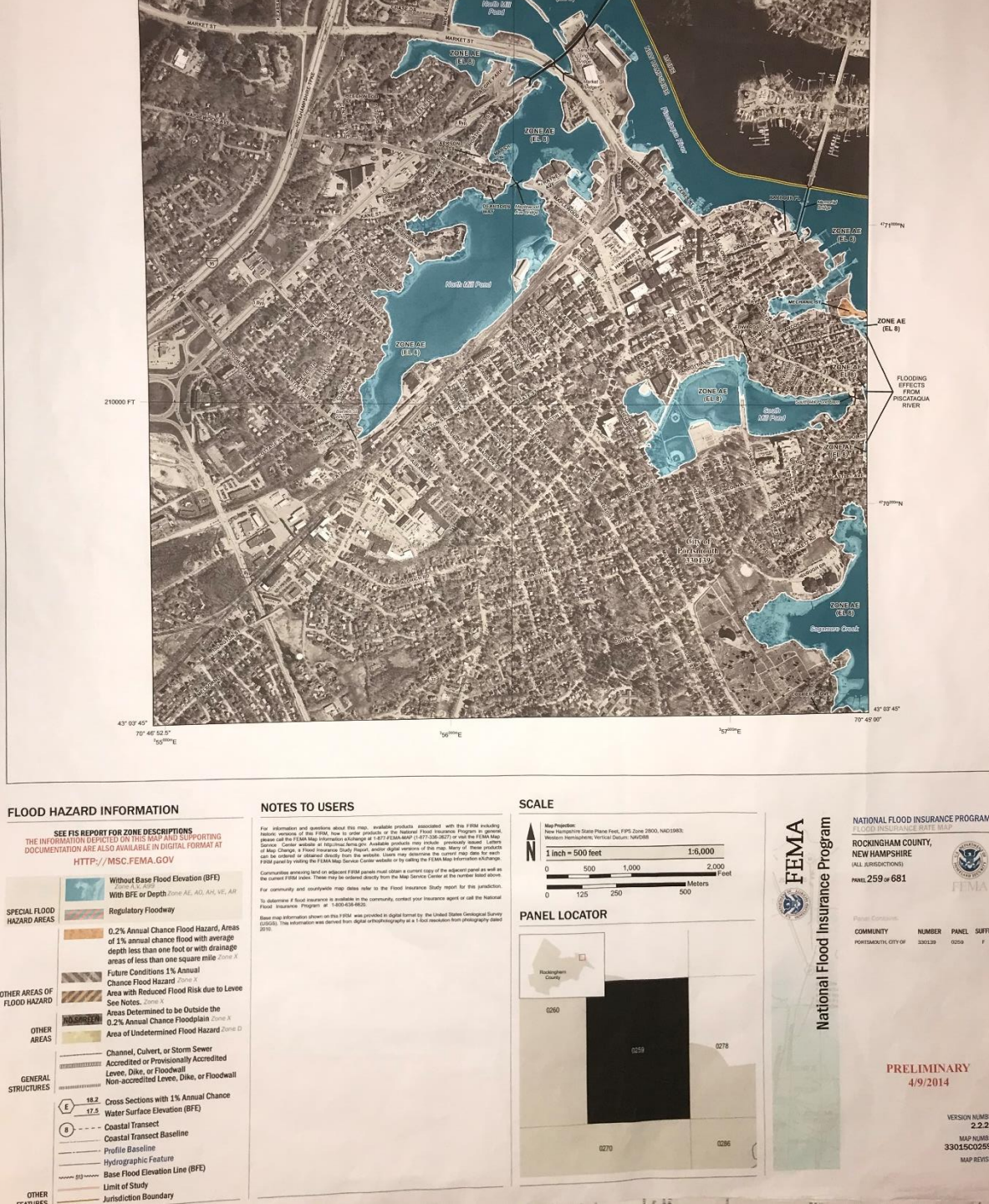
10.613.40 The **Osprey Landing Overlay District (OL)** is identified on the Zoning Map.

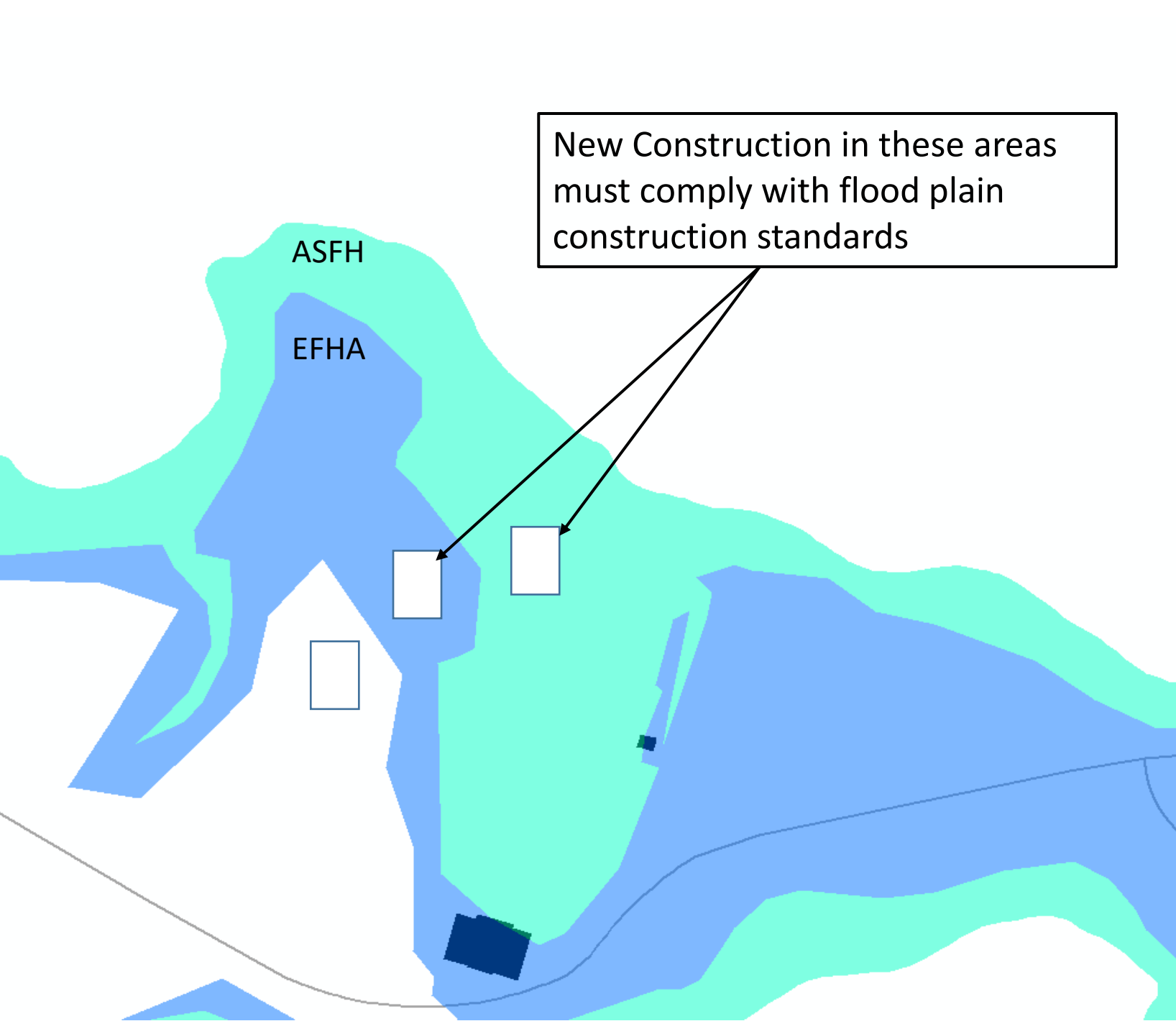
10.613.50 The **Airport Approach Overlay District (AA)** consists of:

(a) the Approach Zones shown on the Airport Obstruction Chart AOC 678 with the associated Obstruction Data Sheet ODS 678 (Surveyed October 1990, 1st Edition, for Pease Air Force Base, Portsmouth, NH), along with two detailed drawings (Exhibits 1 and 2), a legend (Exhibit 3), and the accompanying FAR Part 77.25, Civil Airport Imaginary Surfaces (Exhibit 4), all of which documents collectively are hereinafter called the “Airport Obstruction Chart” or “AOC”; and

(b) **all** the land within a distance of two miles from the **airport** reference point shown on the Pease International Tradeport Approach Map.

10.613.60 The **Highway Noise Overlay District (HN)** is identified on the Zoning Map.





Area of Special Flood Hazard (ASFH)
Extended Flood Hazard Area (EFHA)

Example: If a new residential building is built in the ASFH or EFHA after January 1, 2020, the building will be required to be elevated to 2-ft above BFE.

