

# Data Sources and Dates

## Elevation:

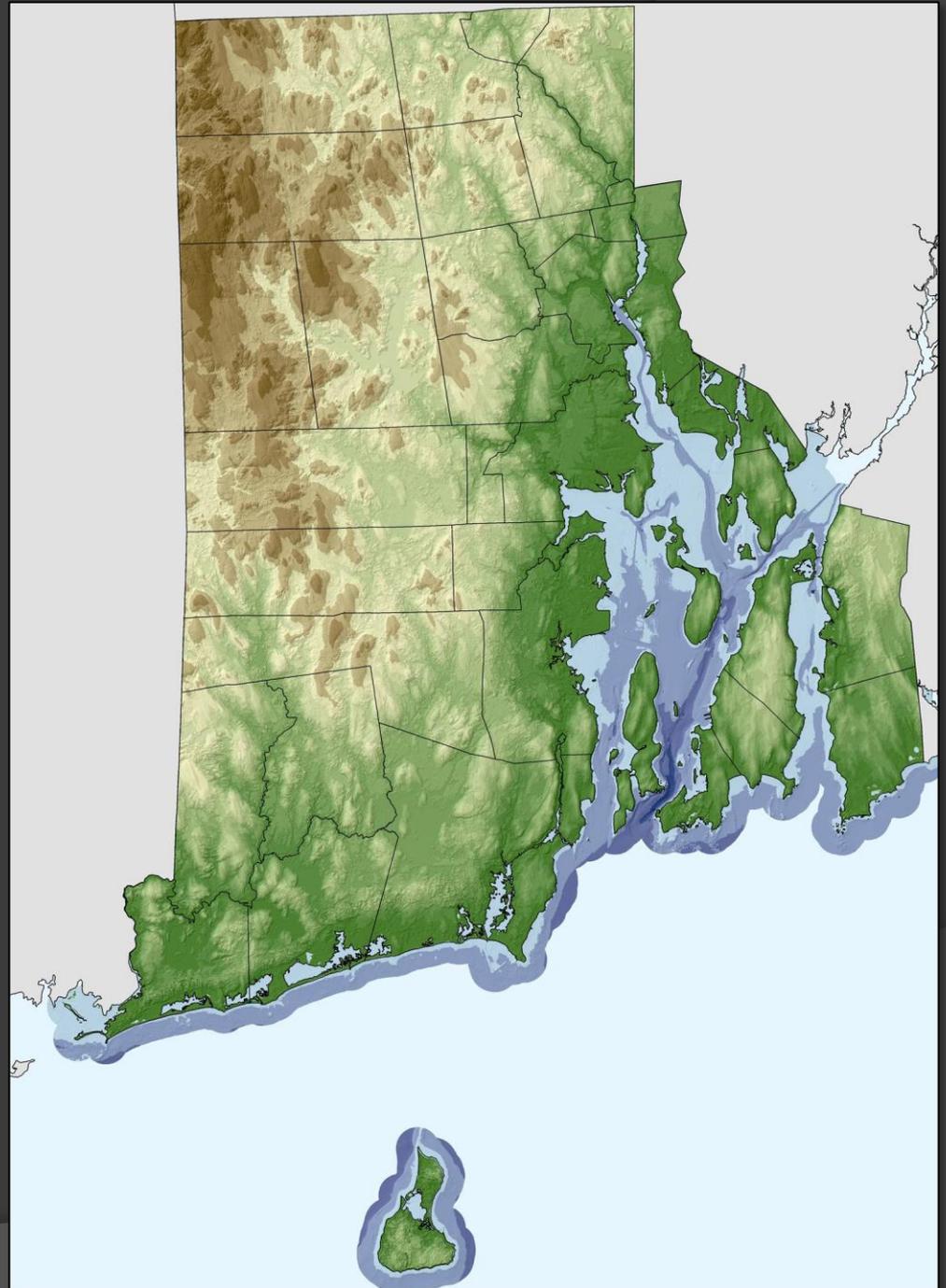
- 2011 USGS LiDAR
- ~ 1m point spacing

## Bathymetry:

- NOS surveys/soundings
- Multiple years/resolutions

## Digital Elevation Model

- RISPF, NAVD88
- 1m pixel, (3.28ft.)



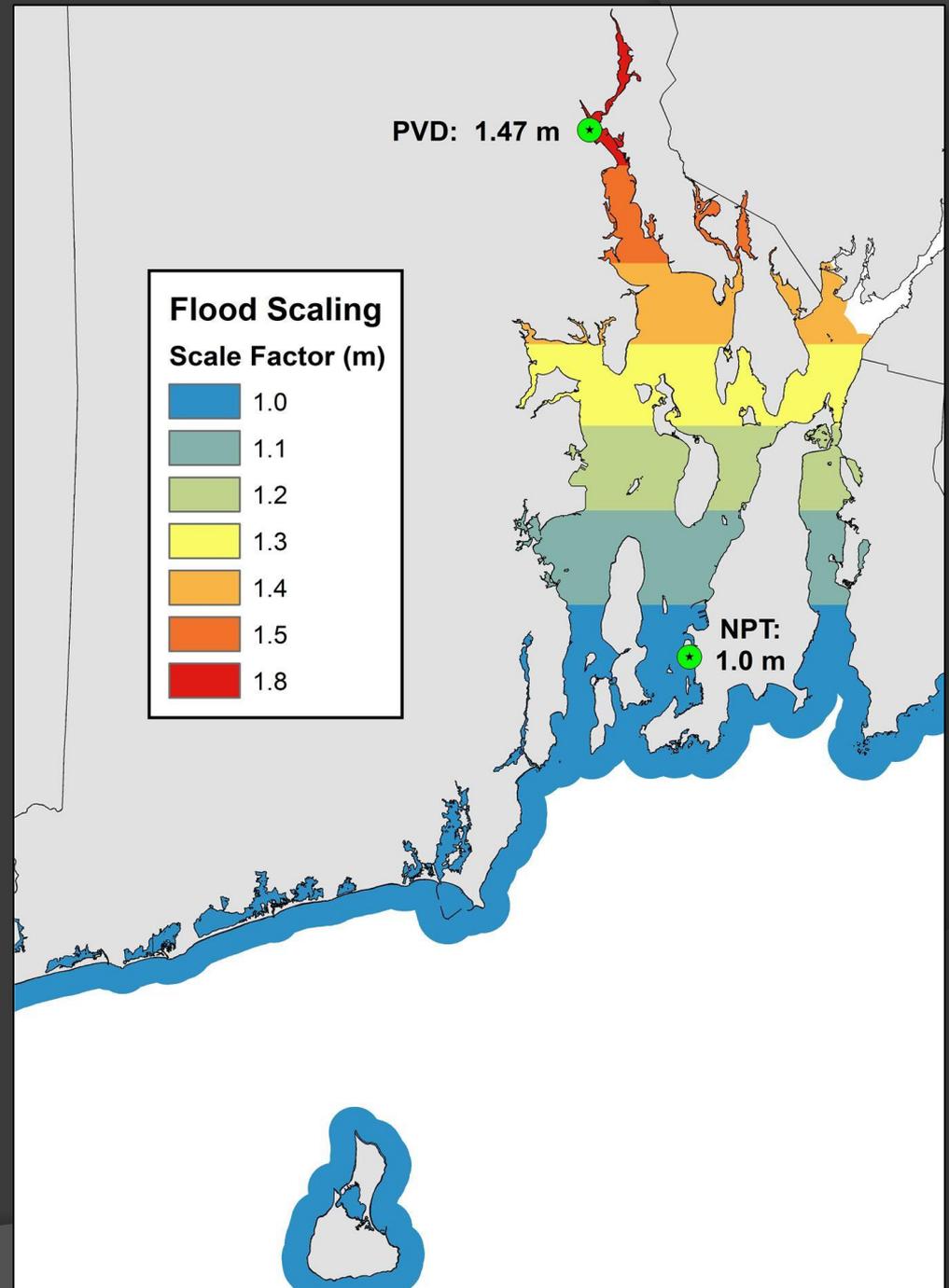
# Scaling the Flood Surfaces

## Newport Water Levels (Above NAVD88)

Event	Meters	Feet
25 Year	2.29	7.51
50 Year	2.80	9.19
100 Year	3.46	11.35

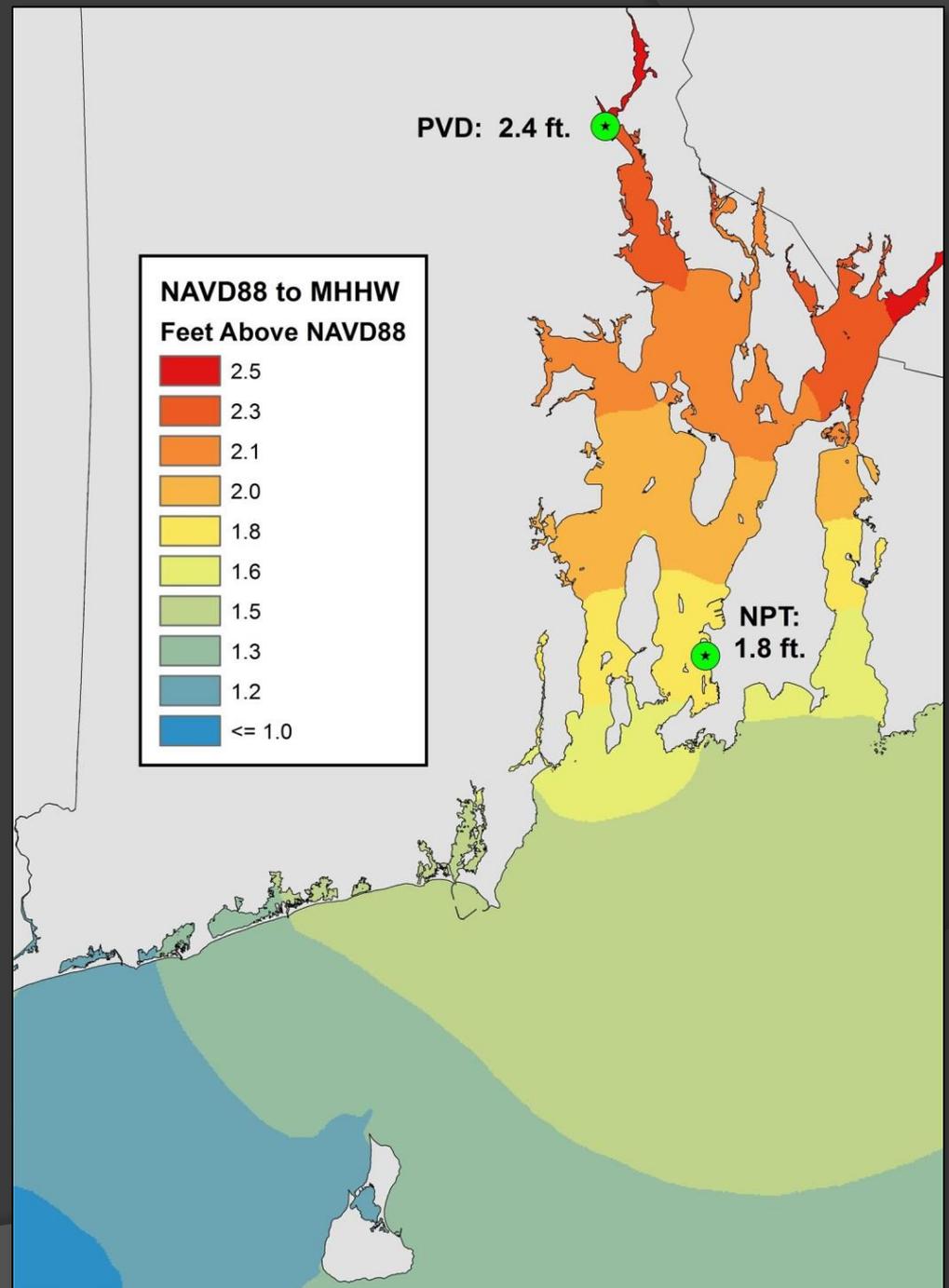
Inundation =

(NPT Flood Depth) \* (Scale Factor)



# Converting Between NAVD88 and MHHW

MHHW Inundation =  
(Scaled Flood Depth) - (MHHW  
Conversion)



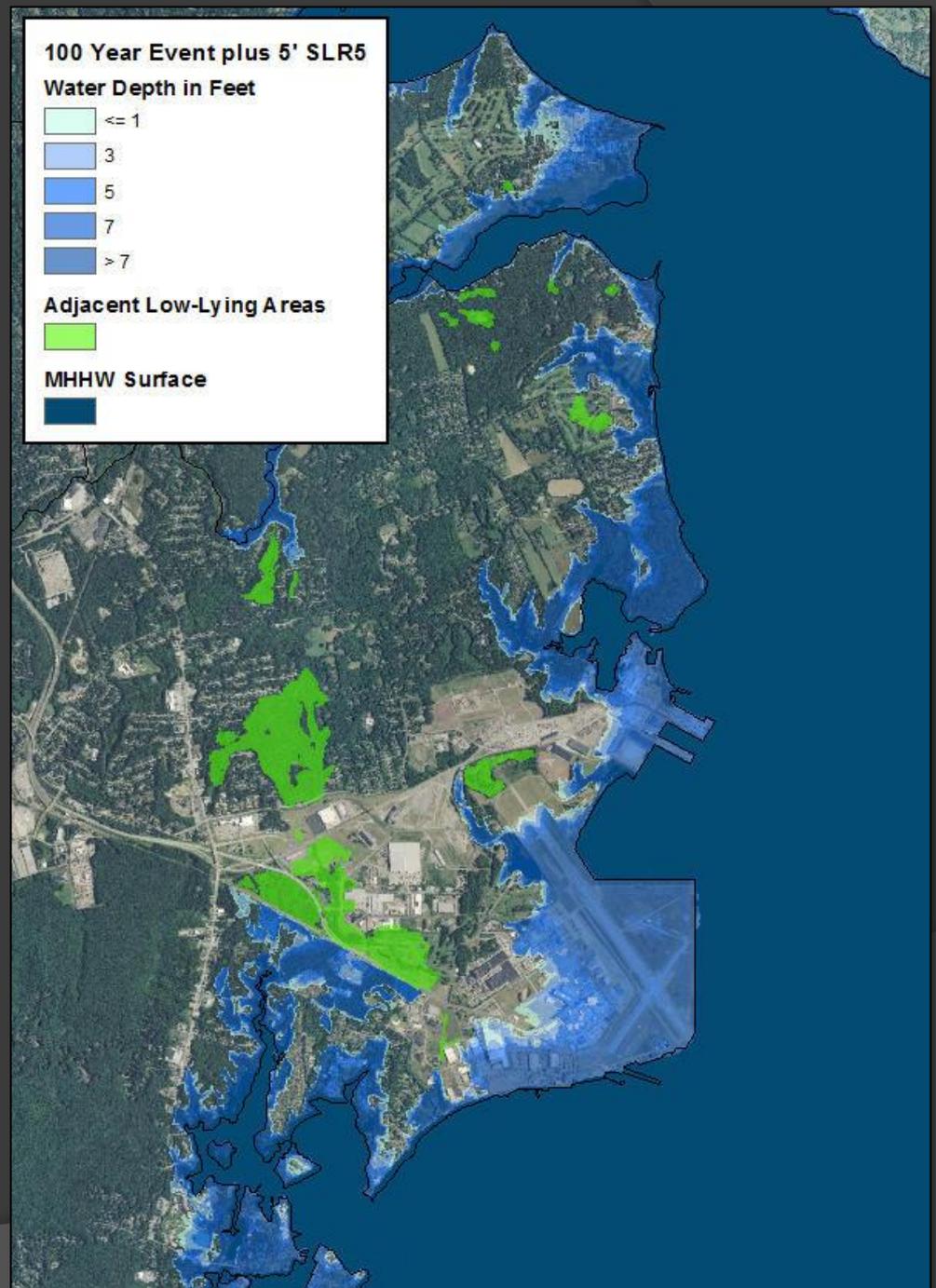
# Cleaning the Results

- Remove MHHW surface
- Group all connected pixels
- Isolate unconnected low-lying areas  $> 1$  acre



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# 25-Year Event

## Modeled Inundation Layers

100 Year Event

100 Year Base Flood Level



Base Flood Plus 1' SLR



Base Flood Plus 3' SLR



Base Flood Plus 5' SLR



# 50-Year Event

## Modeled Inundation Layers

100 Year Event

100 Year Base Flood Level



Base Flood Plus 1' SLR



Base Flood Plus 3' SLR



Base Flood Plus 5' SLR



# 100-Year Event

## Modeled Inundation Layers

100 Year Event

100 Year Base Flood Level



Base Flood Plus 1' SLR



Base Flood Plus 3' SLR



Base Flood Plus 5' SLR





# 100-Year Event Plus 5' SLR



# Online Map Access

URI EDC Web Mapping Portal

<http://edc.maps.arcgis.com/>

Search for “Scaled SLR”

MAP GROUPS Sign In scaled slr

THE UNIVERSITY OF RHODE ISLAND ENVIRONMENTAL DATA CENTER

Public Applications

« RI Digital Atlas Rhode Island Digital Atlas: Gallery »

Rhode Island Lighthouses

Rhode Island Submerged Aquatic Vegetation (SAV)

URI/NPS Backbone Monuments app

The Environmental Data Center (EDC) is a geographic information system (GIS) laboratory in URI's Department of Natural Resources Science, College of Environmental and Life Sciences (CELS). Major areas of research at the EDC are spatial data modeling, ecological mapping, and data integration for environmental applications.

The mission of the EDC is to support the use of contemporary tools of spatial data processing in the analysis of environmental data. This is achieved through collaborative research with faculty in the Department of Natural Resources Science and projects with agencies external to URI.

The EDC is the center of technical expertise in GIS for the state of Rhode Island. The Rhode Island Geographic Information System (RIGIS) database is stored at the EDC. The RIGIS database is the most comprehensive and detailed of any state in the country and contains information on almost all aspects of Rhode Island's natural and cultural resources.