

# Climate.gov, U.S. Climate Resilience Toolkit, and Climate Explorer

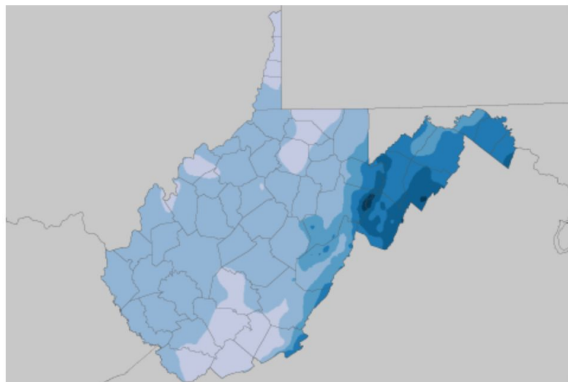
Extreme Precipitation in the Northeast  
Westborough, Massachusetts  
October 15, 2019



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Collabralink Technologies, Inc.

Featured on Climate.gov

1 2 3 4 5



## How can we call something a thousand-year storm if we don't have a thousand years of climate observations?

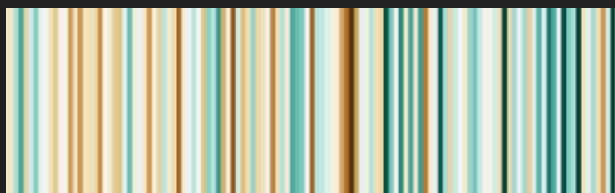
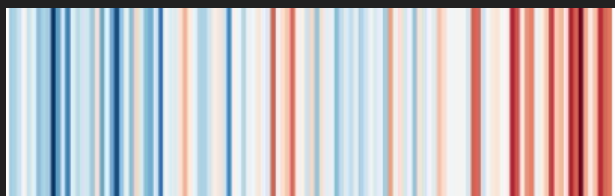
September 29, 2016

Filed in: News & Features

Using the June floods in West Virginia as an example, the Climate Prediction Center's Tom Di Liberto explains how meteorologists are like paleontologists turning the bones of an incomplete skeleton into a complete picture of a dinosaur.

[read more](#)

- Access “Climate Stripes” for cities and counties across the U.S.



NOAA **Climate.gov**  
science & information for a climate-smart nation

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Easy access to climate data, products, and services

Data Snapshots Dataset Gallery Climate Data Primer Climate Dashboard

View published New draft Moderate

### Data Snapshots: Reusable Climate Maps

August 2016

Average Monthly Temperature (°F)

September 2016

Monthly Temperature Outlook

September 17, 2016

Drought Monitor

September 22

Probability of Severe Weather

**Browse the Dataset Gallery**

This visual catalog with convenient filtering options can help you find the climate data you need. How-to instructions can help you navigate data access tools.

[Enter the Dataset Gallery](#)

**GIS Data Locator (Advanced Users)**

[Launch Map Application](#)

**Climate Data Primer**

Ready to learn some of the basics about climate data? Find out about measuring, modeling, and predicting climate and ways to find and use climate data.

The Primer includes information on instruments used to measure weather and climate; how weather observations relate to climate products; how climate scientists check the quality of observations, and tools you can use for exploring climate data

[Open the Primer's table of contents](#)

**Recently Updated Datasets**

- Worldwide Wind Roses - Graphics and Tables

- Plain-language explanations
- Event tracker posts
- Maps & Data
- Education Resources





# Meet the Challenges of a Changing Climate

Find information and tools to help you understand and address your climate risks.

LEARN HOW TO BUILD  
RESILIENCE >

SEE WHAT OTHERS ARE  
DOING >

USE THE CLIMATE  
EXPLORER >

TOUR THE TOOLKIT ▾

MORE  
▾





## STEPS TO RESILIENCE

*Use this framework to discover and document climate hazards, then develop workable solutions to lower climate-related risks. Watch the overview video or click any step to learn more.*

- 1 Explore Hazards
- 2 Assess Vulnerability & Risks
- 3 Investigate Options
- 4 Prioritize & Plan
- 5 Take Action



## TOPICS



[BUILT ENVIRONMENT ›](#)



[COASTS ›](#)



[ECOSYSTEMS ›](#)



[ENERGY ›](#)



[FOOD ›](#)



[HEALTH ›](#)



[MARINE ›](#)



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[TRIBAL NATIONS ›](#)



[WATER ›](#)



## Northeast

Flooding, warming temperatures, and precipitation variability are all growing challenges in the Northeast, and increase the vulnerability of the region's residents, infrastructure, and ecosystems. States and cities are starting to build resilience by incorporating climate change into their planning processes.



[Home](#) › [Regions](#) › [Northeast](#) ›

### Key Points:

- *Sea level along coastlines in the Northeast has risen approximately one foot since 1900—a rate that exceeds the global average. Due to local land subsidence in the region, the rate of sea level rise over the next century is expected to continue exceeding global levels.*
- *The Northeast has seen a greater increase in extreme precipitation than any other region in the United States: the amount of precipitation falling in very heavy events between 1958 and 2010 increased by more than 70 percent. The frequency of heavy downpours is projected to continue increasing as the century progresses.*
- *The frequency, intensity, and duration of heat waves in the region is expected to increase through the next century, while the frequency, intensity, and duration of cold air outbreaks is expected to decrease.*

### Northeast

- People and Communities
- Infrastructure and the Built Environment
- Agriculture and Ecosystems
- Building Resilience in the Northeast

### Northeast Regional Resources

[View all Northeast Case Studies ›](#)

[View all Northeast Tools ›](#)

[View all Northeast Reports ›](#)

[View all Northeast Training Courses ›](#)

[New England Federal Partners Webpage ›](#)



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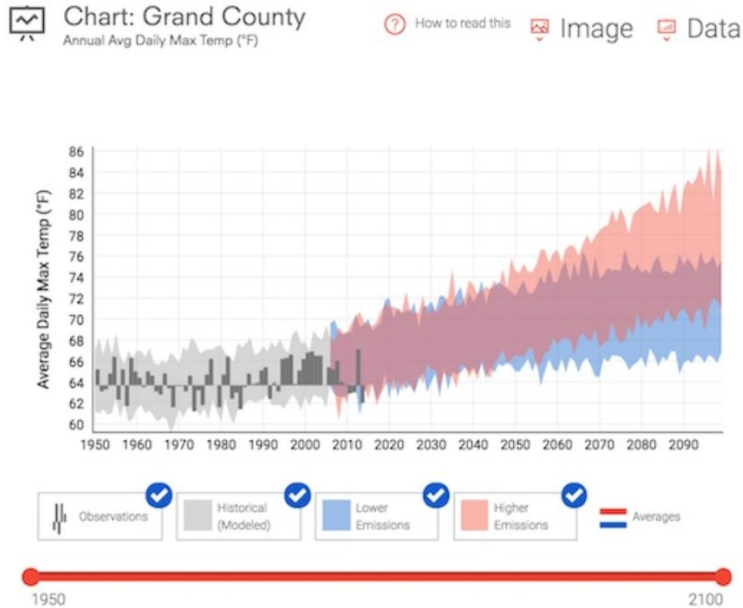


PRINT



# CLIMATE EXPLORER

*This visualization tool generates interactive graphs and maps showing climate projections and observations for any county in the contiguous United States. You can also explore historical temperature and precipitation observations at hundreds of climate stations, and view observed and projected days of high-tide flooding at more than 90 coastal tide-gauge stations.*



Current live version:

<https://crt-climate-explorer.nemac.org/>

LAUNCH THE CLIMATE EXPLORER >

LAUNCH THE CLIMATE EXPLORER (WITH  
INTRODUCTORY SIDEBAR) >

LEARN MORE ABOUT CLIMATE EXPLORER >

<https://climate-explorer3-dev.nemac.org/>

^ Beta version of Climate Explorer 3. OK to use this version with improved navigation. (Note: All projection info in the interface is the same as the live version. We anticipate Version 3 will replace the current version in late 2019)

Explore graphs and maps of historical and projected climate variables for any county in the contiguous United States.

**Enter county, city, or zip code**



or choose from the following suggested cities:

New York City, NY

Los Angeles, CA

Chicago, IL

Phoenix, AZ

Houston, TX






Explore graphs and maps of historical and projected climate variables for any county in the contiguous United States.

Westborough, MA|



 **Westborough** Massachusetts, USA

powered by 

Chicago, IL  
Phoenix, AZ  
Houston, TX

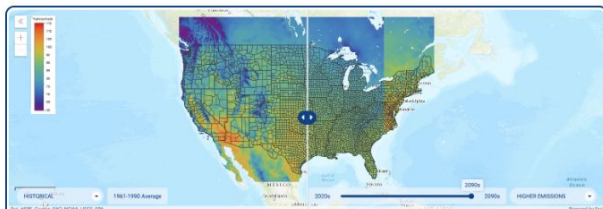




Westborough, MA



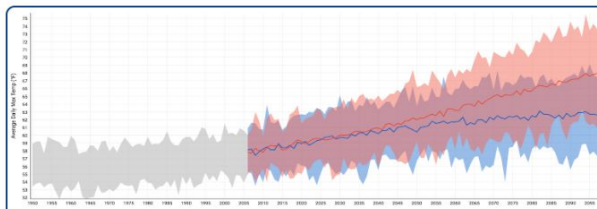
Select one of the following for Westborough, MA in Worcester County Avg Daily Max Temp (°F)



### National Climate Maps



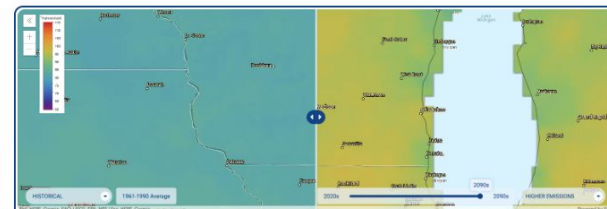
Maps show observed and modeled data for the United States.



### Local Climate Charts



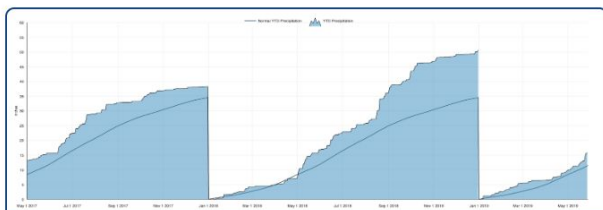
Graphs show observed and modeled data for the county of your selected location.



### Local Climate Maps



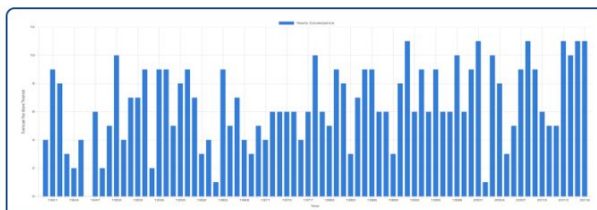
Maps show observed and modeled data for the county of your selected location.



### Historical Weather Data



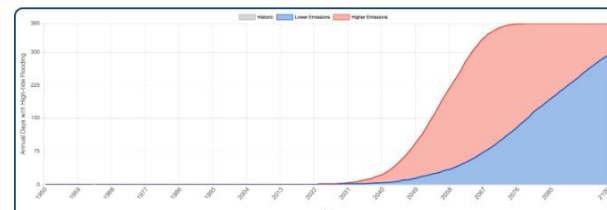
Graphs for individual observing stations let you compare daily temperatures and precipitation totals to long-term averages.



### Historical Thresholds



Set the threshold for temperature or precipitation, to see how often that value has been exceeded per year.



### High-tide Flooding



Height above the long-term average of the daily highest water level, also known as mean higher high water (MHHW).

Region Based



Home



National Maps



Local Charts



Local Maps



Historical Data



Historical Thresholds



High-tide

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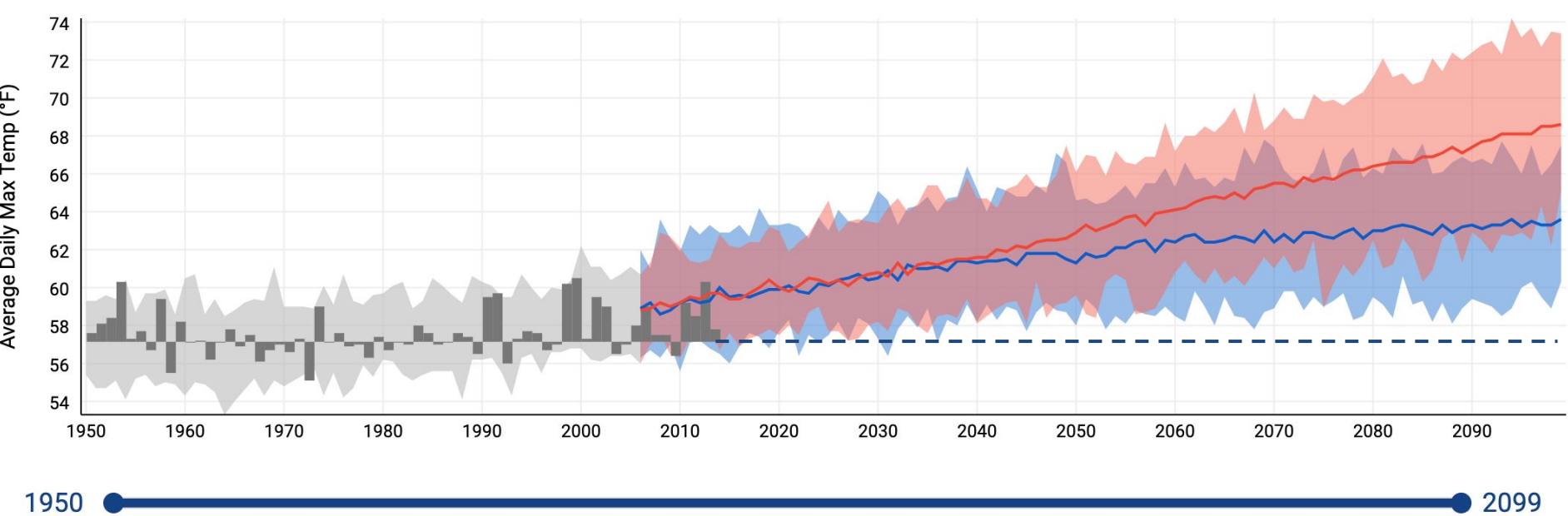
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Historical Thresholds

🌊
High-tide



Westborough, MA



Stations



Downloads



## Westborough, MA in Worcester County - Avg Daily Max Temp (°F)

Avg Daily Max Temp (°F)

Chart

Map

Annual

Monthly

Temperature

Avg Daily Max Temp (°F)

Avg Daily Min Temp (°F)

Days w/ max > 90°F

Days w/ max > 95°F

Days w/ max > 100°F

Days w/ max > 105°F

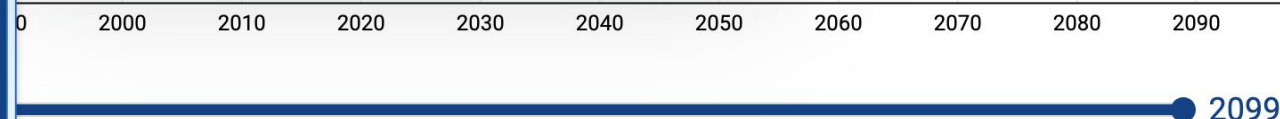
Days w/ max < 32°F

Days w/ min < 32°F

### Average Daily Maximum Temperature (°F)

A day's highest (maximum) temperature usually occurs in the afternoon. Averaging the daily high temperatures over any period results in a mean maximum temperature for that period.

Maximum temperature serves as one measure of comfort and safety for people and for the health of plants and animals. When maximum temperature exceeds particular thresholds, people can become ill and transportation and energy infrastructure may be stressed.



Historical-Observed

Historical Modeled

Lower Emissions

Higher Emissions

Region Based

Station Based



Home



National Maps



Local Charts



Local Maps



Historical Data



Historical Thresholds



High-tide

**Westborough, MA**



Stations



Downloads



## Westborough, MA in Worcester County - Avg Daily Max Temp (°F)

Avg Daily Max Temp (°F)

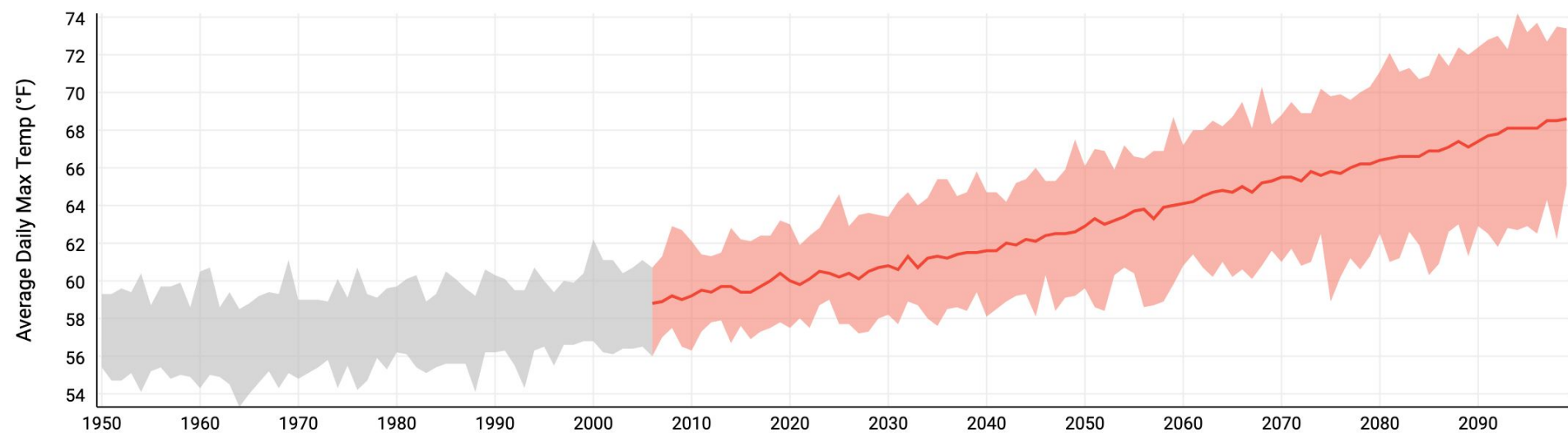


Chart

Map

Annual

Monthly



1950

2099

Historical Observed

Historical Modeled

Lower Emissions

Higher Emissions

Region Based

Station Based



Home



National Maps



Local Charts



Local Maps



Historical Data



Historical Thresholds



High-tide

Westborough, MA



Stations



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## Westborough, MA in Worcester County - Avg Daily Max Temp (°F)

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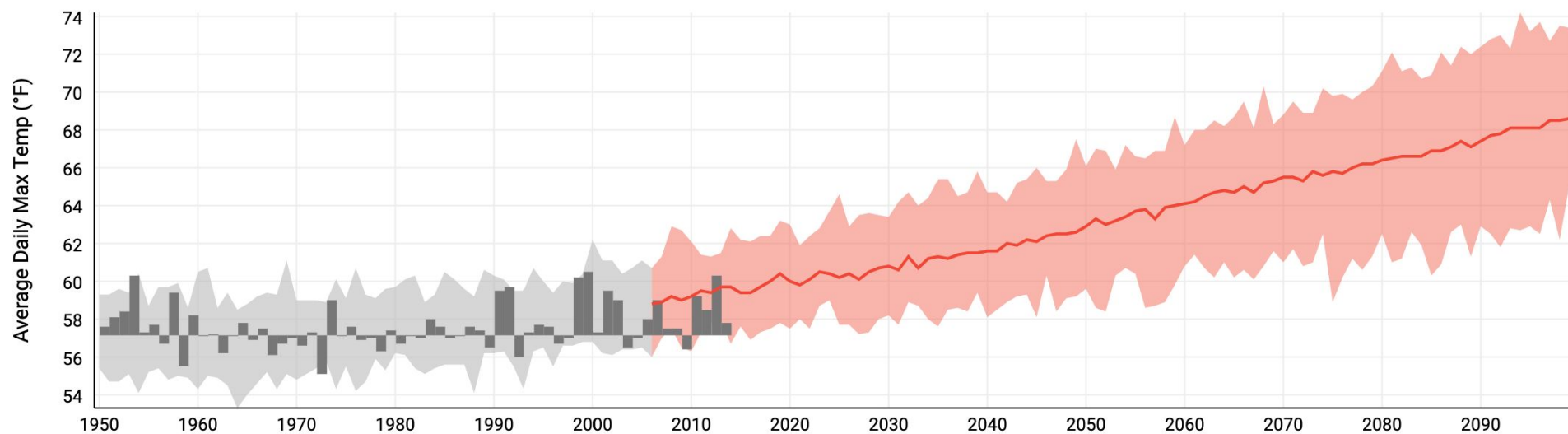


Chart

Map

Annual

Monthly



1950

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Historical Observed

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National Maps



Local Charts



Local Maps



Historical Data



Historical Thresholds



High-tide