

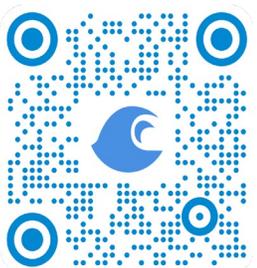


# MyCoast: New Jersey

LBIF SCIENCE SATURDAY

3/15/2025

Amanda Archer, Jacques Cousteau National Estuarine Research Reserve - Rutgers University



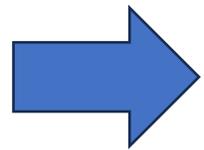
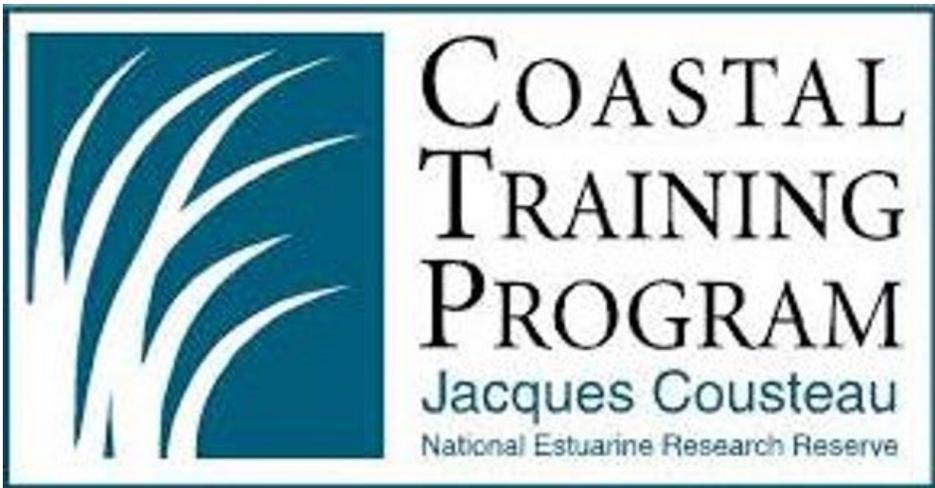
Data Sources: CRSSA, NOAA, NJDEP  
Map composed by CRSSA, 2001



# JC NERR Land Acknowledgement

We acknowledge that the land on which we stand is the ancestral territory of the Lenape People. We pay respect to Indigenous people throughout the Lenape diaspora – past, present, and future – and honor those who have been historically and systemically disenfranchised. We also acknowledge that Rutgers University and JC NERR, like New Jersey and the United States as a nation, was founded upon the exclusions and erasures of Indigenous peoples.



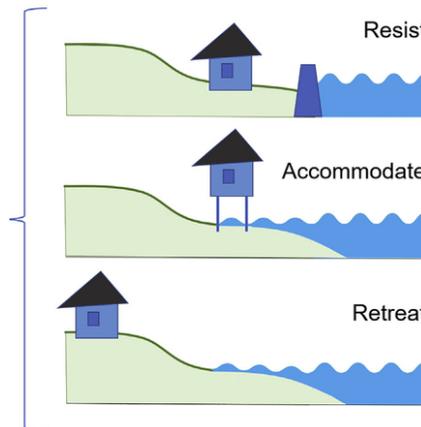


# HIGH TIDE FLOODING

**Twice as frequently as in 2000  
Up to 75 days per year by 2050**

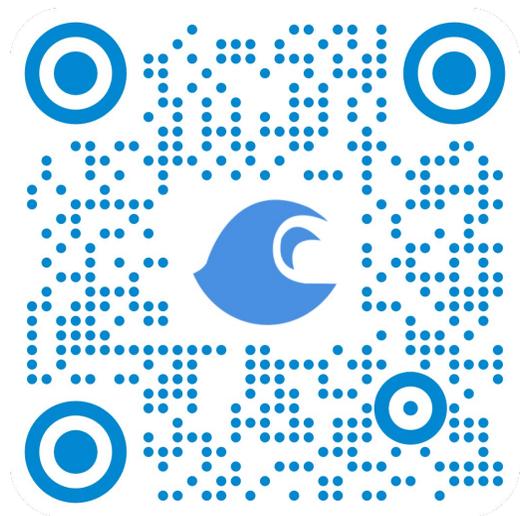
Impacts to homes, businesses, tourism, and livelihoods

Source: NOAA



**MyCoast: New Jersey**

- Portal used to collect and analyze photos of coastal events and places.
- Photos are linked to data about weather and tides to create reports that help stakeholders like government agencies, business owners, and residents understand coastal change and make informed decisions.



MyCoast

NJ MyCoast High Water Places We Love Photo Stations Know Your Tides Rising Together NJ Download App Log In Register More...

DEPARTMENT OF ENVIRONMENTAL PROTECTION NEW JERSEY

Jacques Cousteau National Estuarine Research Reserve

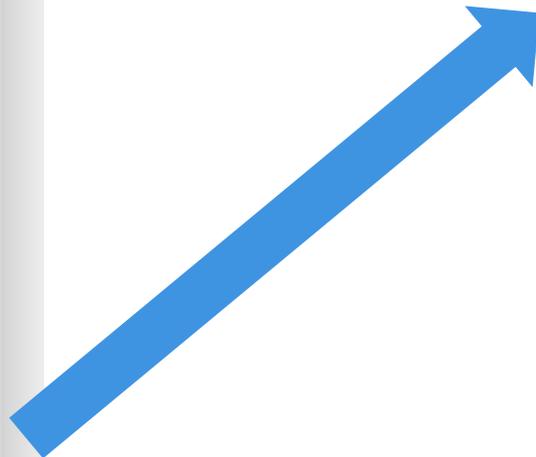
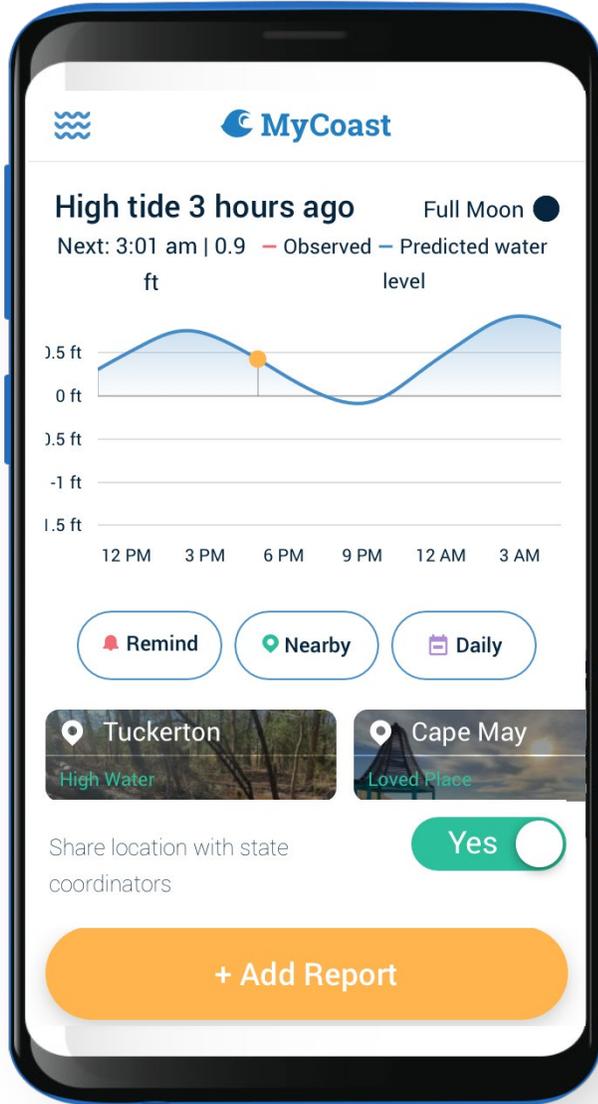
RUTGERS School of Environmental and Biological Sciences DEPARTMENT OF MARINE AND COASTAL SCIENCES

# MyCoast: New Jersey

## Help Document our Changing Coast

The MyCoast: New Jersey portal is used to collect and analyze photos of coastal events and places. Photos are linked to data about weather and tides to create reports that help stakeholders like government agencies, business owners, and residents to understand coastal change and make informed decisions.

# MyCoast: New Jersey



The right smartphone screen displays the "Select Report Type" interface. At the top, it says "Select Report Type". Below this, a green banner states "Report types available in Ocean County, NJ are shown below." There are two report type options listed: "High Water" (with a house icon) and "Places We Love" (with a heart icon). The "High Water" option includes the subtext "Tracking flooding in NJ". The "Places We Love" option includes the subtext "Loved places on the NJ coast".

# New Jersey MyCoast Tools

Use these buttons to view existing photos and submit your own.



## High Water

Tracking flooding  
across the state



## Know Your Tides

Monitoring local tides



## Places We Love

Documenting the coastal  
places we love



## Photo Stations

Community shoreline monitoring



## Rising Together NJ

Sharing flood stories

# BE TIDE SMART

1

## Check your tides

Use [mycoast.org/nj/tides](https://mycoast.org/nj/tides) for local tide information.

2

## Download the MyCoast app

Get tide info and flooding photos on-the-go with the MyCoast app.

3

## Sign up for flood alerts

Use [nixle.com](https://nixle.com) to receive texts with local flood alerts.

4

## Know your risk

Assess your risk from flooding and storms with [njfloodmapper.org](https://njfloodmapper.org).

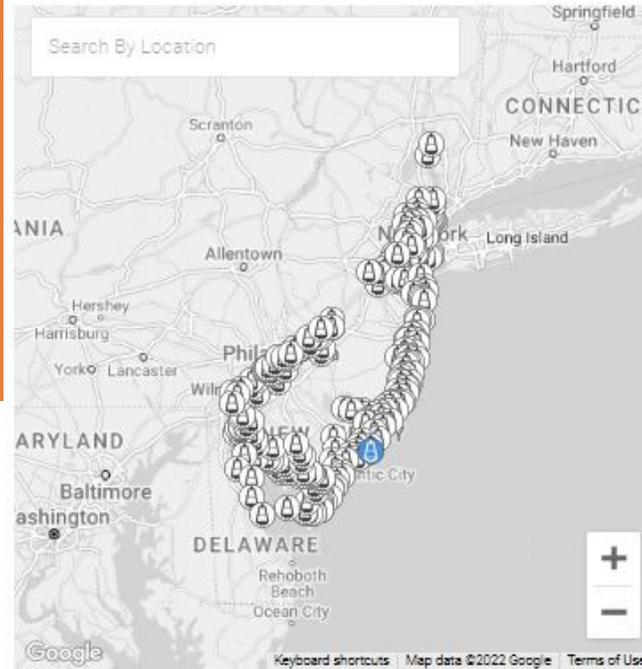


## Sunny Day Flooding

Flooding doesn't only happen during storms. It can occur during very high tides.



### Click on a Station



### Selected Station: ATLANTIC CITY, OCEAN

All heights shown relative to Mean Lower Low Water (MLLW): the daily low tide level averaged over a 19-year period.

#### Tides Today



#### Upcoming Tides

(Scroll to see future days)

Date	Time	Type	Height
Today	3:45 PM	High	4'1"
	10:24 PM	Low	0'11"
Tomorrow	4:30 AM	High	3'5"
	10:15 AM	Low	1'1"
	4:27 PM	High	4'2"

(Click here for full tide details from NOAA Tides & Currents)



# Know Your Tides

# When Will Tides be Higher?

According to NOAA's monthly high tide flooding outlook, in 2025 New Jersey will see higher than normal tides on:

March 28-31

April 26-30

May 25-28

October 5-12

November 4-9

December 2-8

 MyCoast: New Jersey



## KING TIDES ARE COMING!

Did you know that tides are influenced by the moon? This summer, a full moon will be the closest to the earth during its monthly orbit, causing higher than normal tides. Upload high water photos during contest dates for a chance to win prizes!

**Wave 1 begins July 31 and closes August 5**

## King Tide Photo Contest Results

### Summer 2023 Winners Gallery

A total of 163 high water reports documenting flooding in NJ communities were submitted during the MyCoast Madness King Tide Photo Contest during the summer of 2023.

#### King Tide Champion



George Noble  
Raritan Bay, Keyport, NJ

[View Report](#)

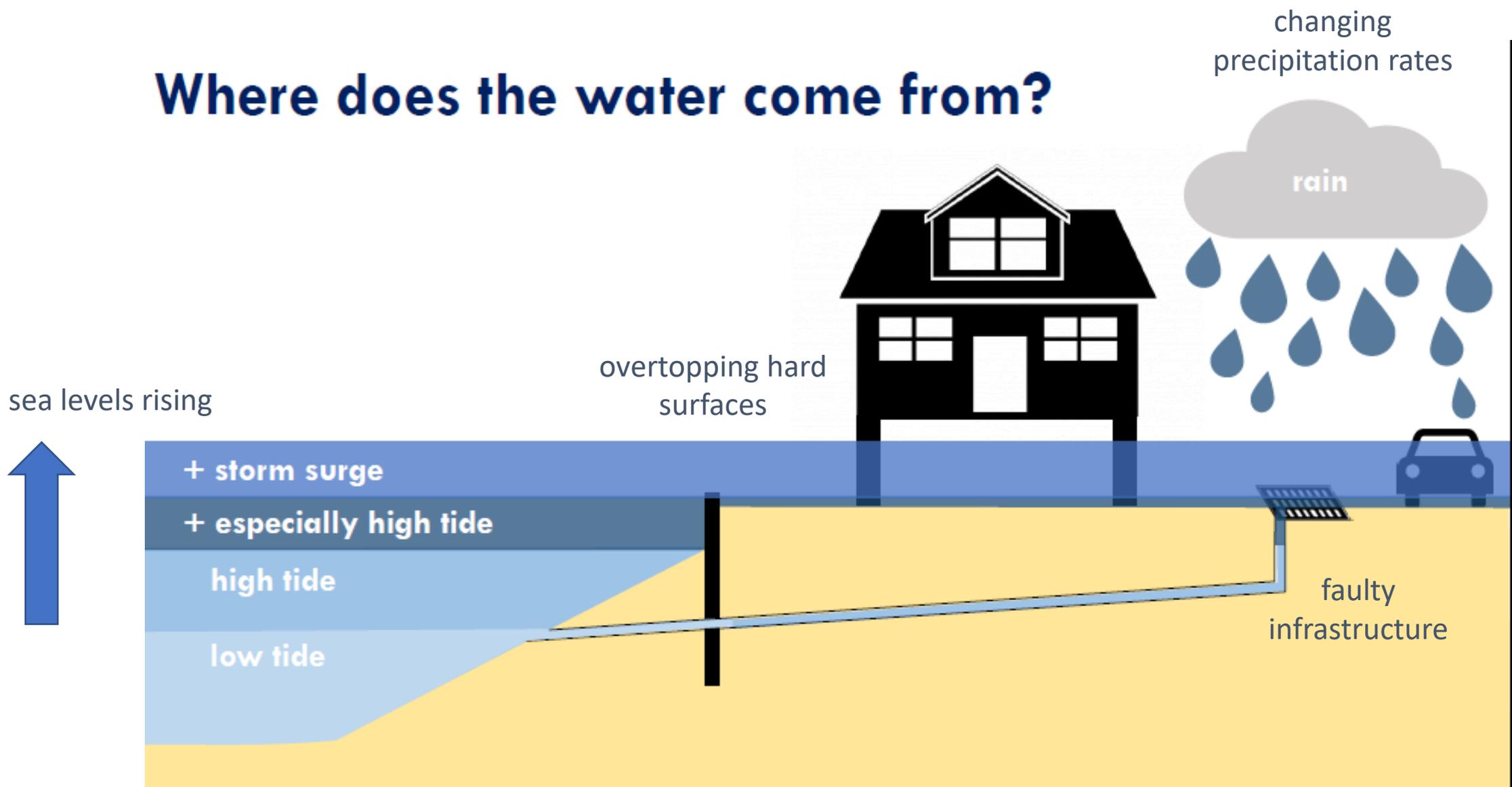
#### King Tide Runner-Up



John Pitts  
Atlantic Ocean, Margate City, NJ

[View Report](#)

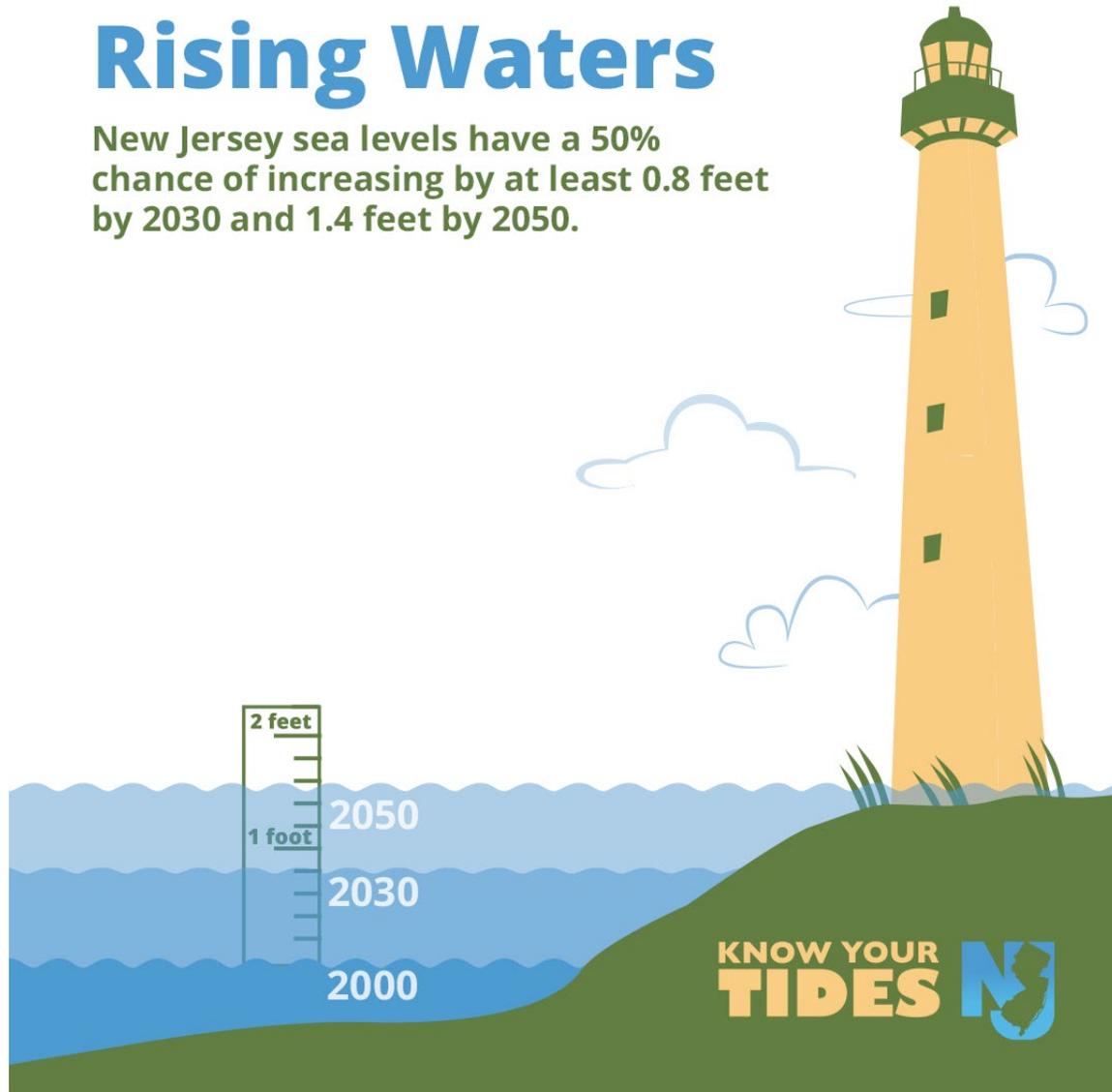
# Where does the water come from?



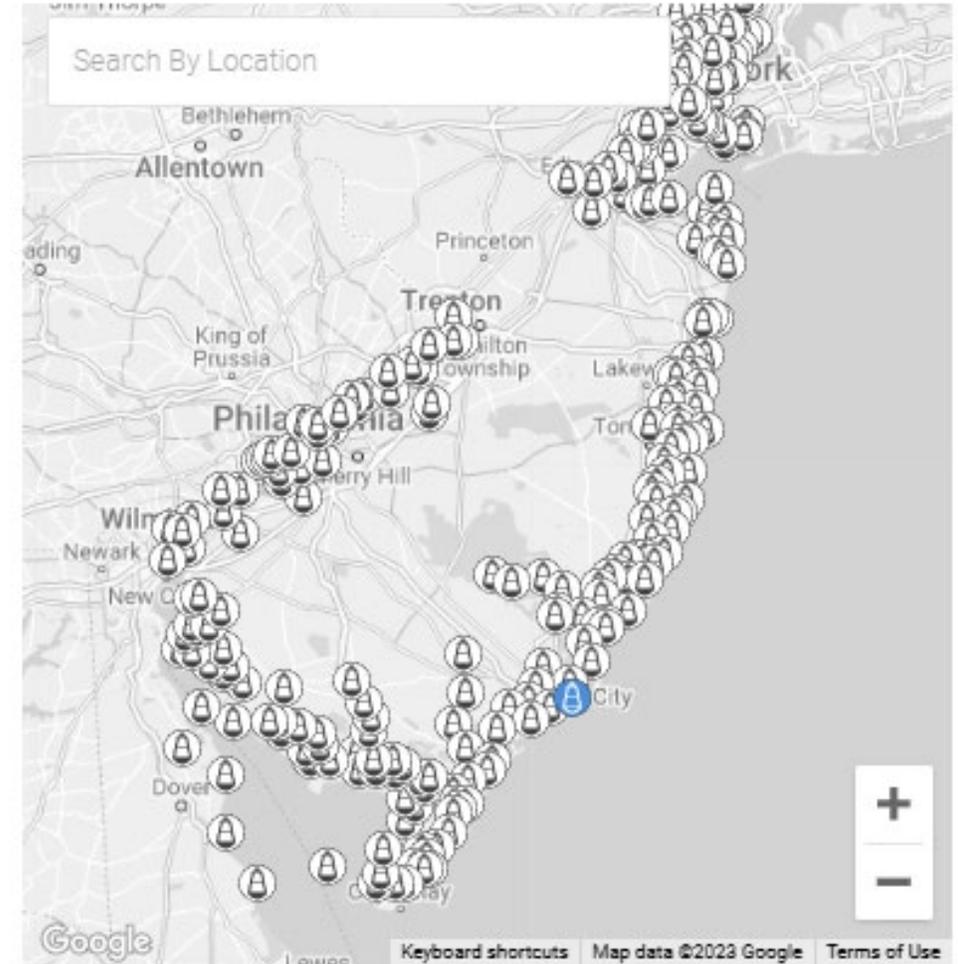
"The Perfect Storm" isn't always a storm

# Rising Waters

New Jersey sea levels have a 50% chance of increasing by at least 0.8 feet by 2030 and 1.4 feet by 2050.



Click on a Station



# NJ Sea Level Rise Projections

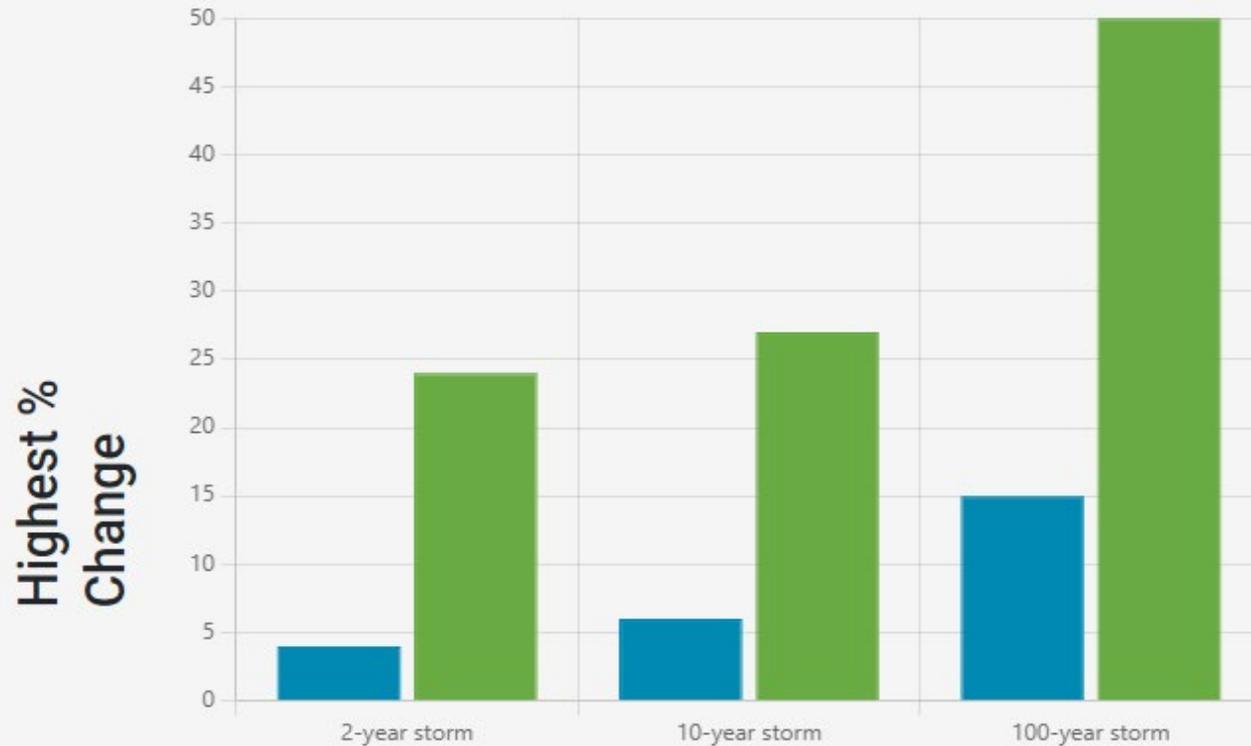
**New Jersey Sea-Level Rise above the year 2000 (1991-2009 average) baseline (ft)\***

		2030	2050	2070			2100			2150		
		Emissions										
Chance SLR Exceeds				Low	Mod.	High	Low	Mod.	High	Low	Mod.	High
Low End	< 95% chance	0.3	0.7	0.9	1.0	1.1	1.0	1.3	1.5	1.3	2.1	2.9
Likely Range	< 83% chance	<b>0.5</b>	<b>0.9</b>	<b>1.3</b>	<b>1.4</b>	<b>1.5</b>	<b>1.7</b>	<b>2.0</b>	<b>2.3</b>	<b>2.4</b>	<b>3.1</b>	<b>3.8</b>
	< 50% chance	<b>0.8</b>	<b>1.4</b>	<b>1.9</b>	<b>2.2</b>	<b>2.4</b>	<b>2.8</b>	<b>3.3</b>	<b>3.9</b>	<b>4.2</b>	<b>5.2</b>	<b>6.2</b>
	< 17% chance	<b>1.1</b>	<b>2.1</b>	<b>2.7</b>	<b>3.1</b>	<b>3.5</b>	<b>3.9</b>	<b>5.1</b>	<b>6.3</b>	<b>6.3</b>	<b>8.3</b>	<b>10.3</b>
High End	< 5% chance	1.3	2.6	3.2	3.8	4.4	5.0	6.9	8.8	8.0	13.8	19.6

\*2010 (2001-2019 average) Observed = 0.2 ft

## Highest Observed and Projected Precipitation Change

■ Observed Precipitation Change Since 1999  
■ Projected Precipitation Change Under a Moderate Emissions Scenario for 2050-2099



NOAA Precipitation Study (2021)

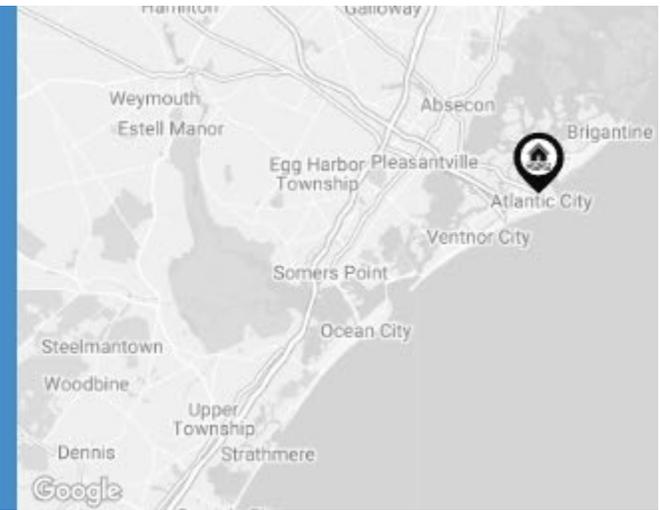
Higher temperatures increase the energy in storms and allow the atmosphere to hold more water, which increases the potential for more intense precipitation and flooding.

# Atlantic City, NJ Atlantic County

High Water Report  
by **Angela Walters**

01/23/2023 | 9:53 am

# High Water



[View on NJFloodMapper](#)



01/23/2023 | 9:53 am

## Tidal Overview

1 hours 17 minutes after high tide

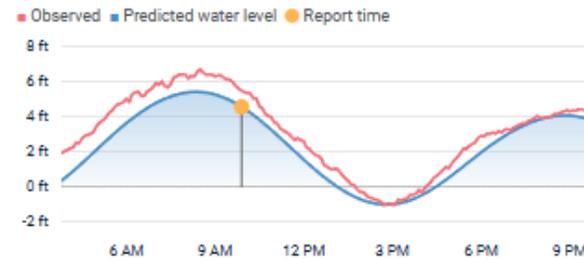
Data from **ATLANTIC CITY, OCEAN** (1 miles away)

All heights shown relative to Mean Lower Low Water (MLLW): the daily low tide level averaged over a 19-year period.

Water Level (at time of report): 9:53 am, 5.7'

High Tide (Predicted): 8:22 am, 5.4'

High Tide (Observed): 8:36 am, 6.4'



The accuracy of the predicted tides at the photo location may vary depending on distance from the nearest tide station and due to wind, rain, and other short-term meteorological events.

[\(Click here for full tide details from NOAA Tides & Currents\)](#)

## Weather Overview



Wind Speed: 11.7 MPH

Wind Direction: WSW (255°)

Temperature: 40°F

Rainfall (Calendar Day): 0.27"

Rainfall (Past 24 Hours): 0.63"

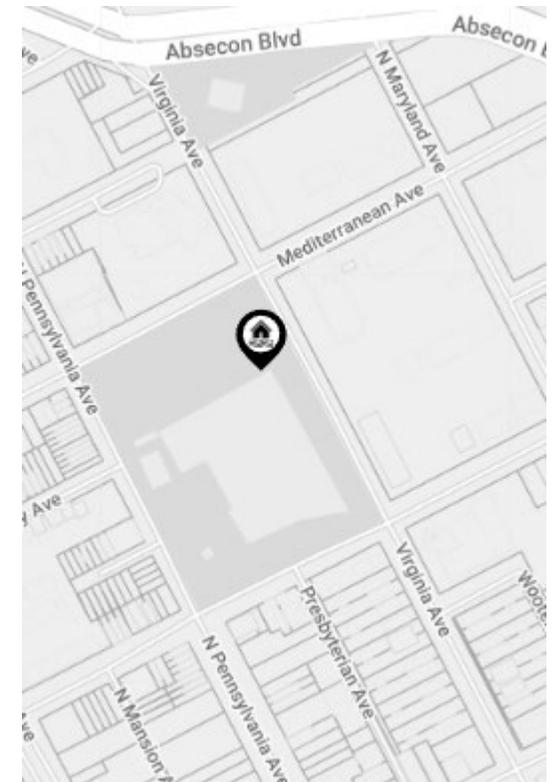
## Riverine Overview

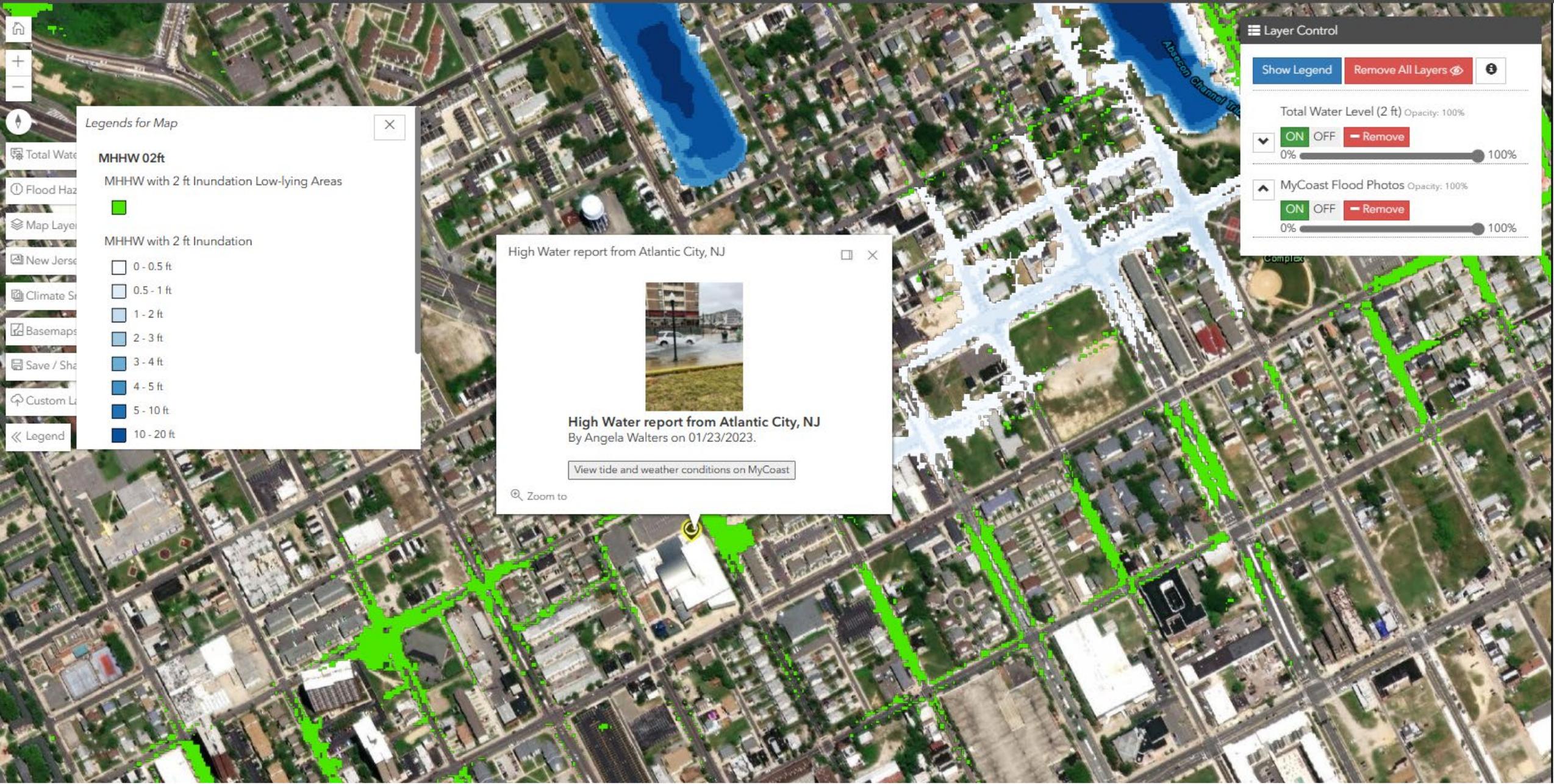
Data from **ABSECON CREEK AT ABSECON NJ** (6.9 miles away)

Water level: 3.15' (NWS Flood Status: Not defined)

[\(Click here for full riverine details from USGS\)](#)

**Source of Flooding:** Ocean





Legends for Map

**MHHW 02ft**  
MHHW with 2 ft Inundation Low-lying Areas

**MHHW with 2 ft Inundation**

- 0 - 0.5 ft
- 0.5 - 1 ft
- 1 - 2 ft
- 2 - 3 ft
- 3 - 4 ft
- 4 - 5 ft
- 5 - 10 ft
- 10 - 20 ft

High Water report from Atlantic City, NJ



**High Water report from Atlantic City, NJ**  
By Angela Walters on 01/23/2023.

[View tide and weather conditions on MyCoast](#)

Zoom to

Layer Control

Show Legend Remove All Layers

Total Water Level (2 ft) Opacity: 100%

ON OFF Remove

0% 100%

MyCoast Flood Photos Opacity: 100%

ON OFF Remove

0% 100%

Map navigation controls including Home, Zoom In (+), Zoom Out (-), and a compass icon.

**Legends for Map**

**MHHW 03ft**  
MHHW with 3 ft Inundation Low-lying Areas

**MHHW with 3 ft Inundation**

- 0 - 0.5 ft
- 0.5 - 1 ft
- 1 - 2 ft
- 2 - 3 ft
- 3 - 4 ft
- 4 - 5 ft
- 5 - 10 ft
- 10 - 20 ft



**Layer Control**

Show Legend Remove All Layers

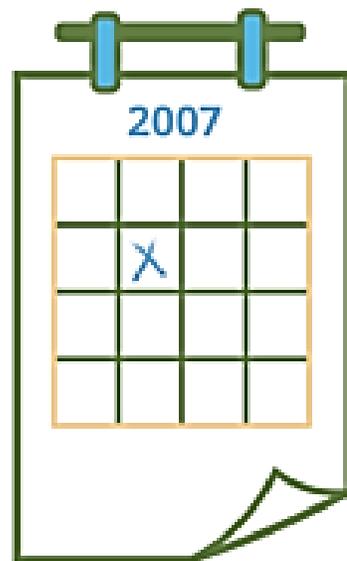
Total Water Level (3 ft) Opacity: 100%  
ON OFF Remove  
0% 100%

MyCoast Flood Photos Opacity: 100%  
ON OFF Remove  
0% 100%

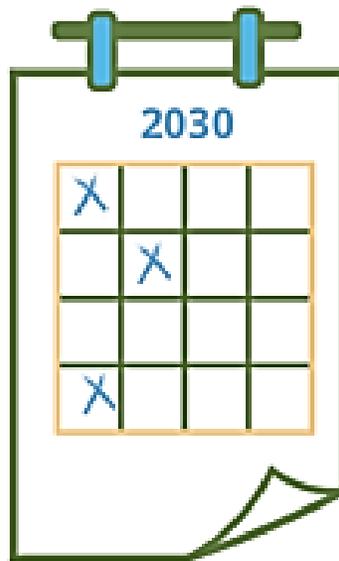
Map layer management sidebar with icons for Total Water, Flood Haz, Map Layer, New Jersey, Climate S, Basemaps, Save / Sha, Custom L, and Legend.

# More Sunny Day Flooding

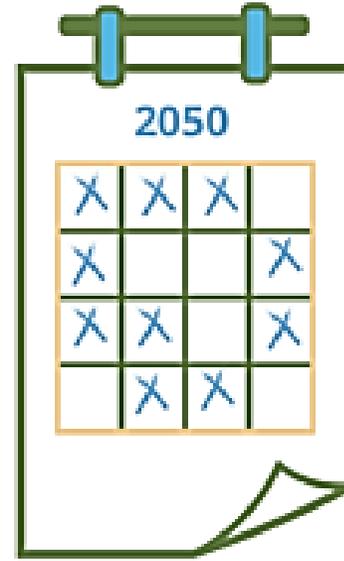
In 2007, Atlantic City experienced 8 tidal (sunny) flooding days.



By 2030, there's a 50% chance that will increase to 34 days.



And by 2050, it could reach 120 days a year.

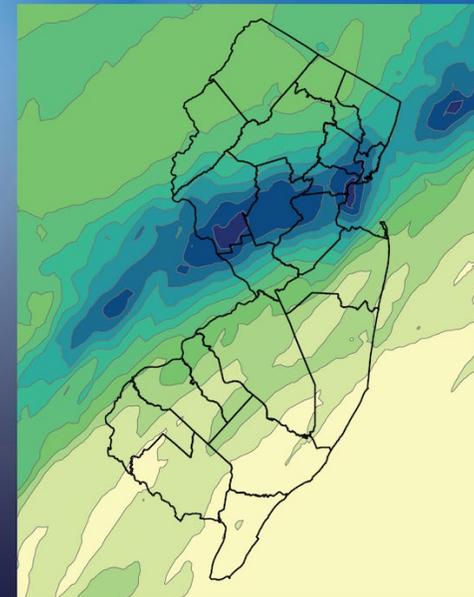


# RISING TOGETHER NJ

Everyone in New Jersey has a flood story to share. Some stories are about small changes over time, others are about life-changing events. Join us in telling New Jersey's high water story by participating in Rising Together, NJ—a forum for everyone to share their New Jersey flooding experiences. By sharing our stories, we'll be better prepared to rise together in the future.



## What was your Ida experience?



11 inches



Rainfall over 48 hours during Ida

1 inch



Data courtesy the New Jersey Climate Change Resource Center at Rutgers University.



**What Happened:** Barnegat Bay flooded streets and property on 12 23 2022

**When Did it Happen:** 2022-12-23

**How Did it Affect You:** On this day, and for a few days after- Bay tide rose to highest level since Sandy. Roads impassable, police activity needed to transport residents. Health related issues led to residents transported out of community by either police or ambulance. Roads being raised by local Brick/Toms River municipalities at a cost of several million dollars. But under these circumstances, higher roads will not solve access problems. Certainly, getting worse in terms of heavy flooding past several years.

**Did The Experience Change How You Think About Flooding:** Since flooding getting so much worse year to year- value of home holding steady or rising becomes a concern and need to consider selling out eventually before values start to fall.



# Submitting Past Reports

- MyCoast allows you to upload pictures from any past flooding event. The date, time, and location of the photo will automatically be linked upon submission.
- If the photo is not embedded with that information, it is important to review when and where the photo was taken to ensure an accurate report.
- We **encourage** submissions of past flooding so that we can compare them to recent reports.

04/26/2021 | 9:25 am

## Tidal Overview

2 hours 7 minutes after high tide

Data from **ATLANTIC CITY, OCEAN** (5.8 miles away)

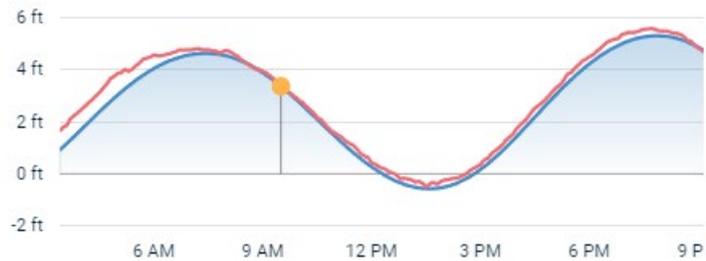
All heights shown relative to Mean Lower Low Water (MLLW): the daily low tide level averaged over a 19-year period.

Water Level (at time of report): 9:25 am, 3.7'

High Tide (Predicted): 7:23 am, 4.7'

High Tide (Observed): 7:18 am, 4.8'

■ Observed ■ Predicted water level ● Report time



The accuracy of the predicted tides at the photo location may vary depending on distance from the nearest tide station and due to wind, rain, and other short-term meteorological events.

[\(Click here for full tide details from NOAA Tides\)](#)

## Weather Overview



Wind Speed: 7.1 MPH

Wind Direction: NW (320°)

Temperature: 48°F

Rainfall (Calendar Day): 0"

Rainfall (Past 24 Hours): 0"

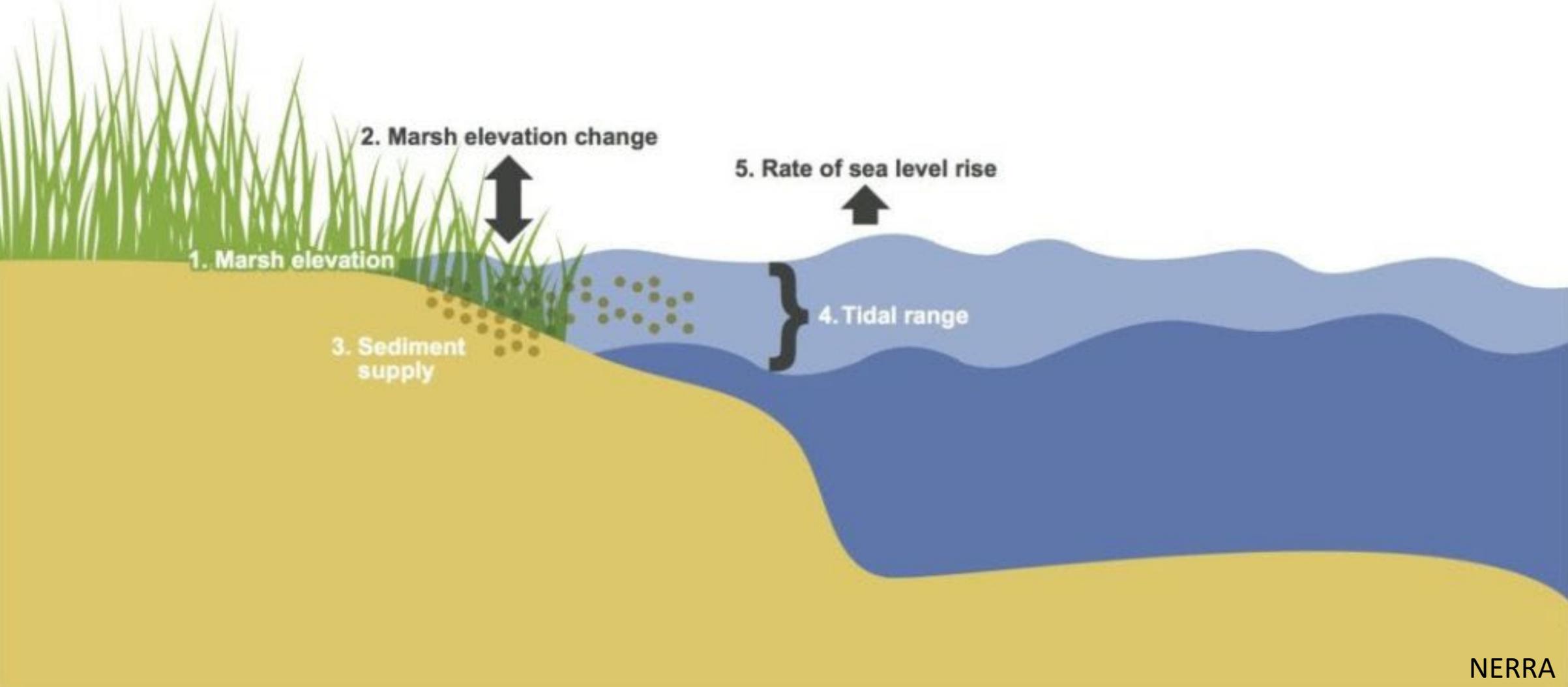
[\(Click here for full weather details\)](#)



# Places We Love



# What happens to natural features under these changing conditions?





- Six locations
  - Various coastlines
- Document climate/coastal changes
- Time-lapse of photos collected
- Installed for climate week launch September 2023



# Photo Stations

# Photo Station locations

5 Locations | 6 Photo Stations





*Fisherman's Walkway -  
Amanda Archer, 2/27/23*



*Margate City Pier- NJ Anonymous,  
11/28/23 2:44pm*



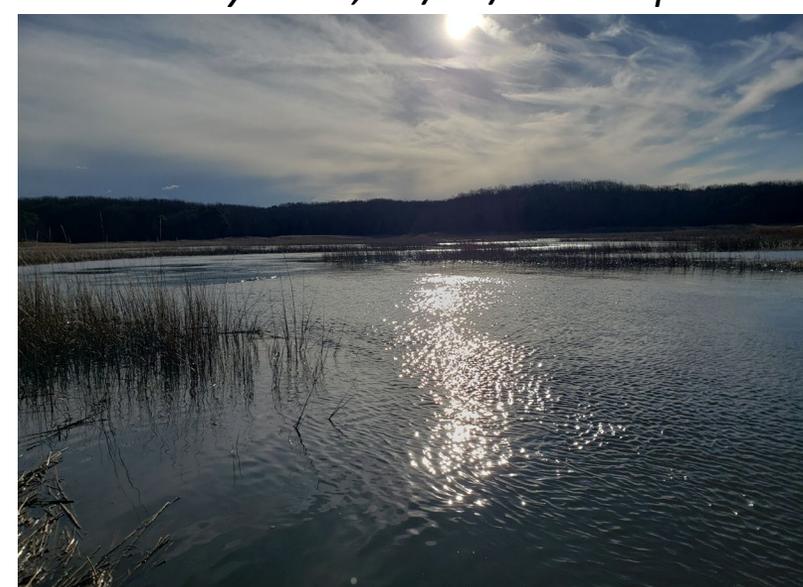
*Cheesecake State Park-  
NJ Anonymous, 12/27/23 2:15pm*



*Fisherman's Walkway -  
NJ Anonymous, 9/16/23 3:57pm*



*Margate City Pier- Steven Jasiiecki,  
1/10/24 7:36pm*



*Cheesecake State Park-  
NJ Anonymous, 1/10/24 9:32am*

Follow one or more of these accounts on Facebook, Instagram, or X to stay up to date on MyCoast happenings!



Jacques Cousteau NERR  
New Jersey Department of Environmental  
Protection



@jacquescousteaunerr  
@njcoastalmanagment  
@nj.dep



@JCNERR  
@NewJerseyDEP



# MyCoast: New Jersey PHOTO STATION CHALLENGE

**AUGUST 30 – OCTOBER 31**

**Calling all community scientists and coastline travelers!**

Shorelines are constantly changing due to higher tides, more intense storms, and frequent erosion. Join the MyCoast Photo Station Challenge this summer to help document important impacts to our New Jersey shorelines!

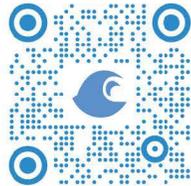
**TO PARTICIPATE:**

- 1 Download the MyCoast app
- 2 Submit a report at each location by taking a photo of the shoreline
- 3 Visit all six MyCoast Photo Stations during the challenge period

Once you complete the challenge, visit the MyCoast NJ website to claim your prize!

**CONTEST DETAILS:**

[www.mycoast.org/nj](http://www.mycoast.org/nj)  
amanda.archer@marine.rutgers.edu





Education & Outreach

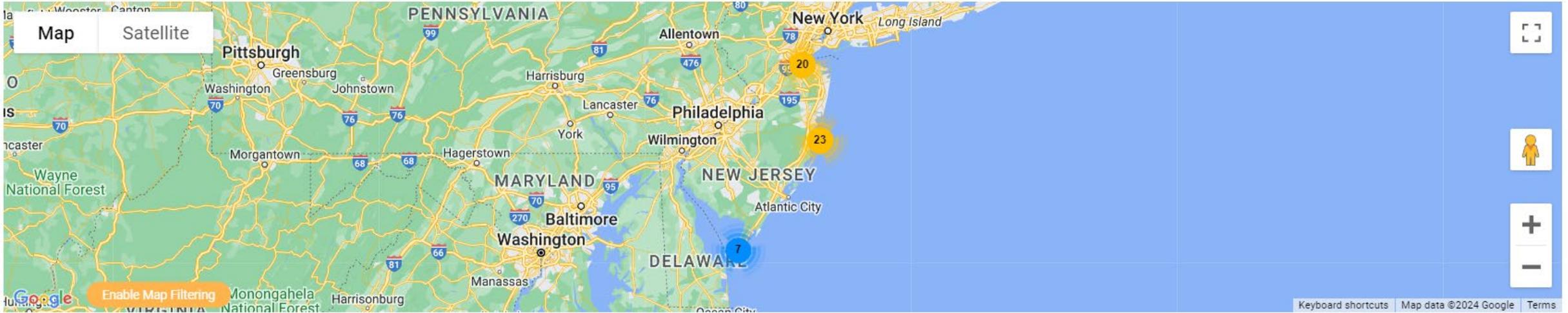
 MyCoast: New Jersey

Informed Management Decisions



Visual Science & Storytelling





Filter Reports

1-50 of 4064

All Report Types

All Counties

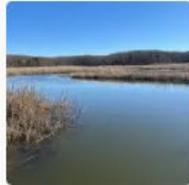
All Communities

Start Date



Matawan, NJ

Photo Station | February 5, 2024 at 2:01 pm



# Ways practitioners are using MyCoast data and photos!

Real – time  
awareness

Planning

Project  
siting/design

Permit review

Grant proposals

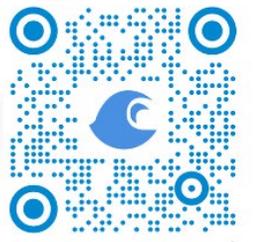
Model  
calibration/ground-  
truthing



Funded by the US Coastal Research Program and NJ Sea Grant Consortium

**MyCoast: New Jersey**

**CALLING ALL LITTLE EGG HARBOR  
INLET BOATERS, FISHERMEN,  
SURFERS, BAYFRONT HOMEOWNERS,  
AND MORE!**



[www.mycoast.org/nj](http://www.mycoast.org/nj)

Participate in community science monitoring using MyCoast NJ to help inform a sediment transport project led by the Stockton University Coastal Research Center.

- ✓ Download the MyCoast app
- ✓ Snap a photo of changes to LEH inlet, whether it's shoaling, erosion or shoreline snapshots
- ✓ Submit a "Places We Love" report with your photo, location, and tag "USCRP"

**Questions?**

Contact Tom Herrington, [therring@monmouth.edu](mailto:therring@monmouth.edu)



**Resilient LBI**

Regional Planning for a Stronger New Jersey



<https://resilient-nj-long-beach-island-rambolglobal.hub.arcgis.com/>

# What are we working on now?

Continued use of this platform to go **beyond** coastal flooding



Work with partners to install more photo stations to document shoreline changes



Use community reports to document changes to habitat restoration sites



Engage educators to use MyCoast: New Jersey in classrooms as a local, on-the-ground climate change education tool

**Nominate a Site!**



# You want to take part... but what can YOU do?



Download the app and  
sign up for high water  
alerts



Post your photos and  
stories to MyCoast NJ



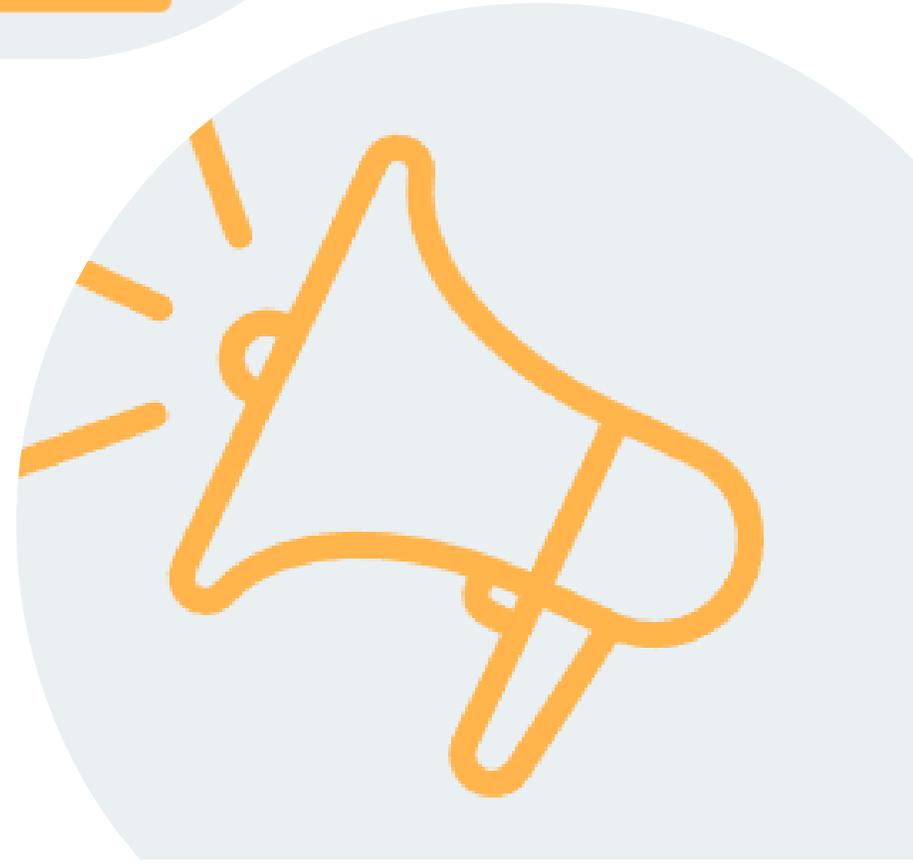
Share on social media



Attend community  
events and become an  
amplifier



Keep using MyCoast  
NJ



## We can't do it without you!

# Questions?



## Contact

**Amanda Archer** | [amanda.archer@marine.rutgers.edu](mailto:amanda.archer@marine.rutgers.edu)

<https://jcnerr.org/>

