

COASTAL FLOOD EXPOSURE MAPPER

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NOAA Office for Coastal Management
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MORE THAN JUST DATA

Dive into the Digital Coast to Get the Data, Tools, and Training
Communities Need to Address Coastal Issues.



What is Digital Coast?

This NOAA-sponsored website is focused on helping communities address coastal issues and has become one of the most-used resources in the coastal management community. The dynamic Digital Coast Partnership, whose members represent the website's primary user groups, keeps the effort focused on customer needs.

Learn more in our About section, or just dive in. And please provide feedback as often as possible. Hearing from you is what makes the Digital Coast work.

Learn More about the Digital Coast

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1. Sea Level Rise Viewer
2. Data Access Viewer
3. Introduction to Lidar
4. Historical Hurricane Tracks
5. Flood Exposure Mapper





Coastal Flood Exposure Mapper

LAUNCH

GEOGRAPHY East Coast, West Coast, Gulf of Mexico, Pacific, and Caribbean	BASED ON Multiple authoritative data sets	TIME COMMITMENT Approx. 15 minutes
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NOAA Office for Coastal Management

Overview

This online visualization tool supports communities that are assessing their coastal hazard risks and vulnerabilities. The tool creates a collection of user-defined maps that show the people, places, and natural resources exposed to coastal flooding. The maps can be saved, downloaded, or shared to communicate flood exposure and potential impacts. In addition, the tool provides guidance for using these maps to engage community members and stakeholders. *The current geography includes the East Coast, West Coast, Gulf of Mexico, and islands in the Pacific and Caribbean.*

Features

- Visualize people, places, and natural resources exposed to coastal flood hazards
- Share online maps to communicate with and engage stakeholders

Additional Information

- + Support





STORIES FROM THE FIELD

Building Awareness Of Coastal Flood Risks In South Florida

Home | Stories From The Field | Building Awareness of ...



Issue

Communities in South Florida are exposed to numerous coastal flood hazards. Understanding these risks and potential impacts is complex and involves thinking not only about coastal flood hazards, such as storm surge flooding, high tides, and precipitation, but also how sea level rise will exacerbate impacts. Conveying these risks to residents in an understandable way can be challenging, but is critical in spurring action to reduce future impacts.

PRINT

Process

To help communicate the realities of coastal flooding and climate risks to residents throughout South Florida, Miami-Dade County's Office of Resilience uses NOAA's Coastal Flood Exposure Mapper to familiarize them with coastal flood hazards in specific communities. Maps generated by the tool are added to presentations given during public meetings that are offered to help residents understand their coastal flooding risks.

One instance of these maps being used was during an Anti-Poverty Summit, at which community members from low- to moderate-income households were brought together to discuss how their community may be at risk. Maps from the Coastal Flood Exposure Mapper were printed and placed on tables to generate conversation among residents from different neighborhoods.

Impact

Through these conversations, community members who are not typically part of the discussion were made more aware of the flooding risks that exist beyond just the shoreline and waterfront. Maps prompted discussions about these risks and how residents can increase resilience to impacts in their communities. (2018)



Community members discussing coastal flooding risks in Miami-Dade County, Florida, using maps from the Coastal Flood Exposure Mapper.





Coastal Flood Exposure Mapper

Help start your community discussions about hazard impacts with maps of your area that show people, places, and natural resources exposed to coastal flooding.

[GET STARTED](#)

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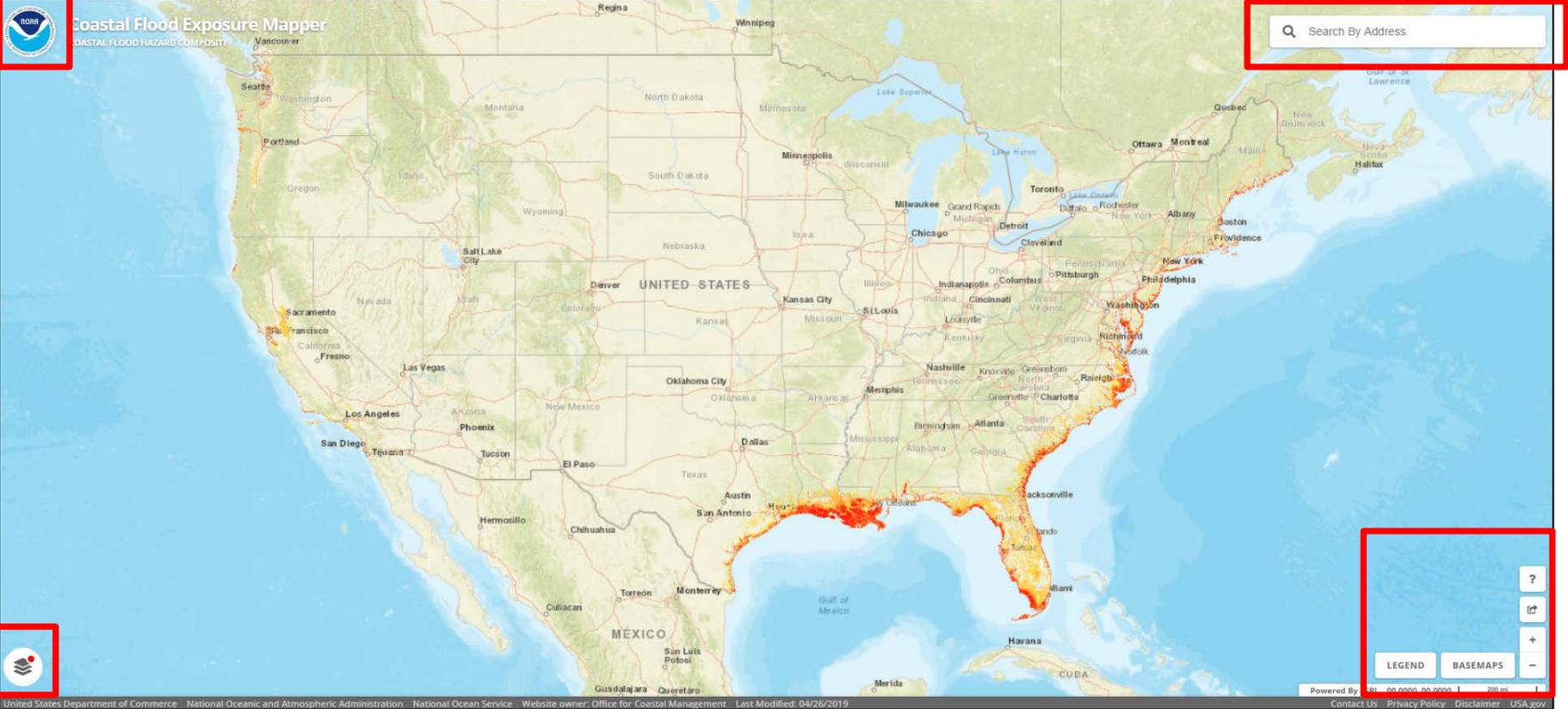
- Access maps that show people, places, and natural resources exposed to coastal flooding

- Provides a foundation for a community-based approach to assessing coastal hazard risks and vulnerabilities



 **Coastal Flood Exposure Mapper**
DISTAL FLOOD HAZARD COMPOSITE

Search By Address





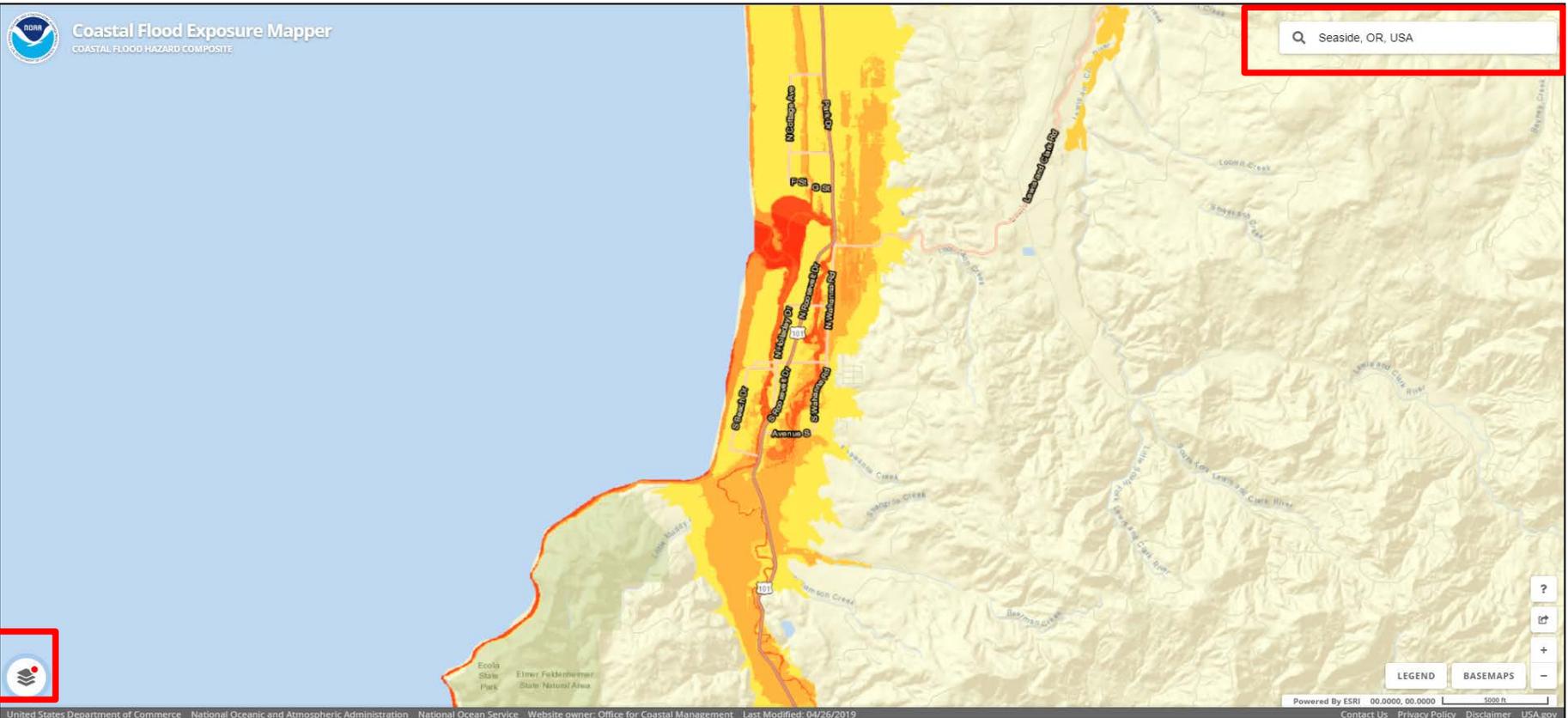
LEGEND BASEMAPS

Powered By  | 200 mi

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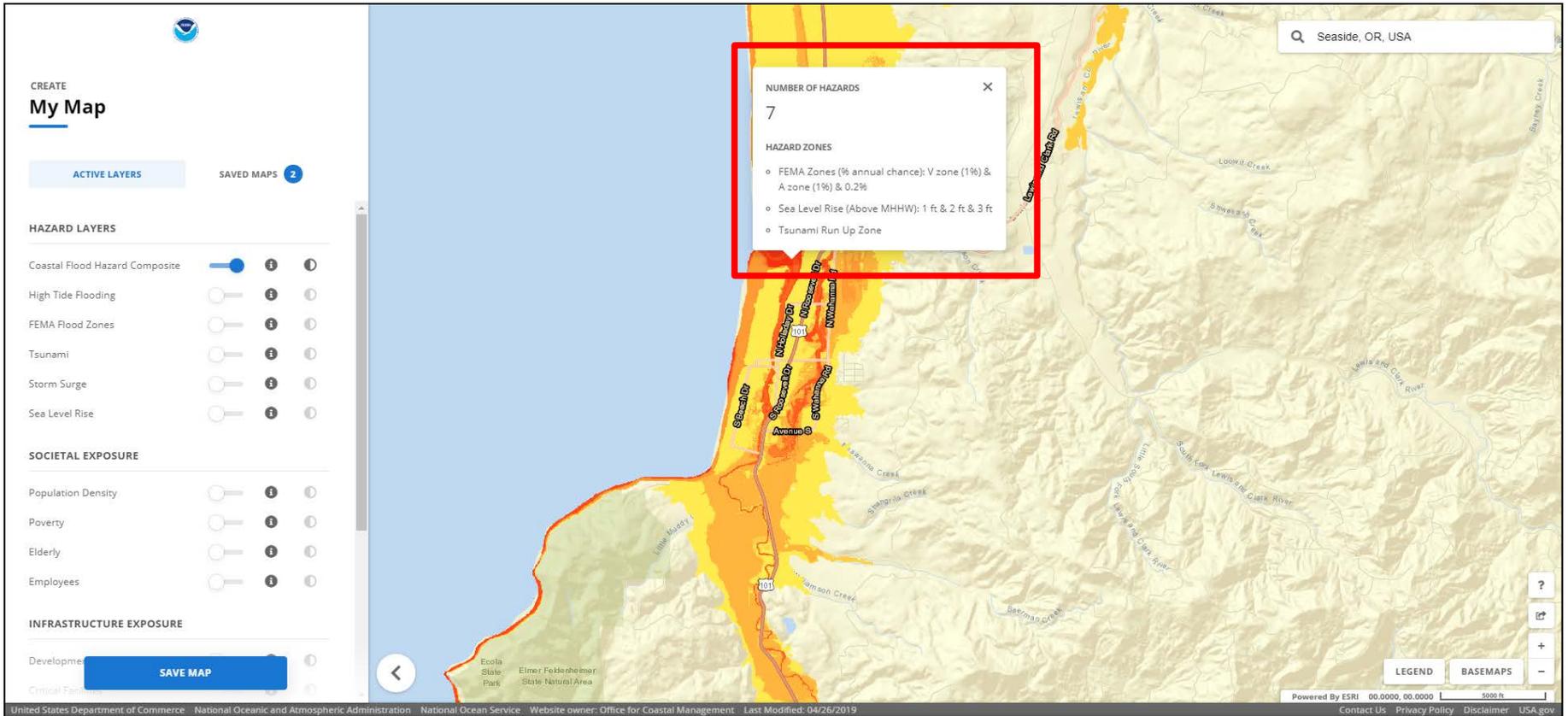


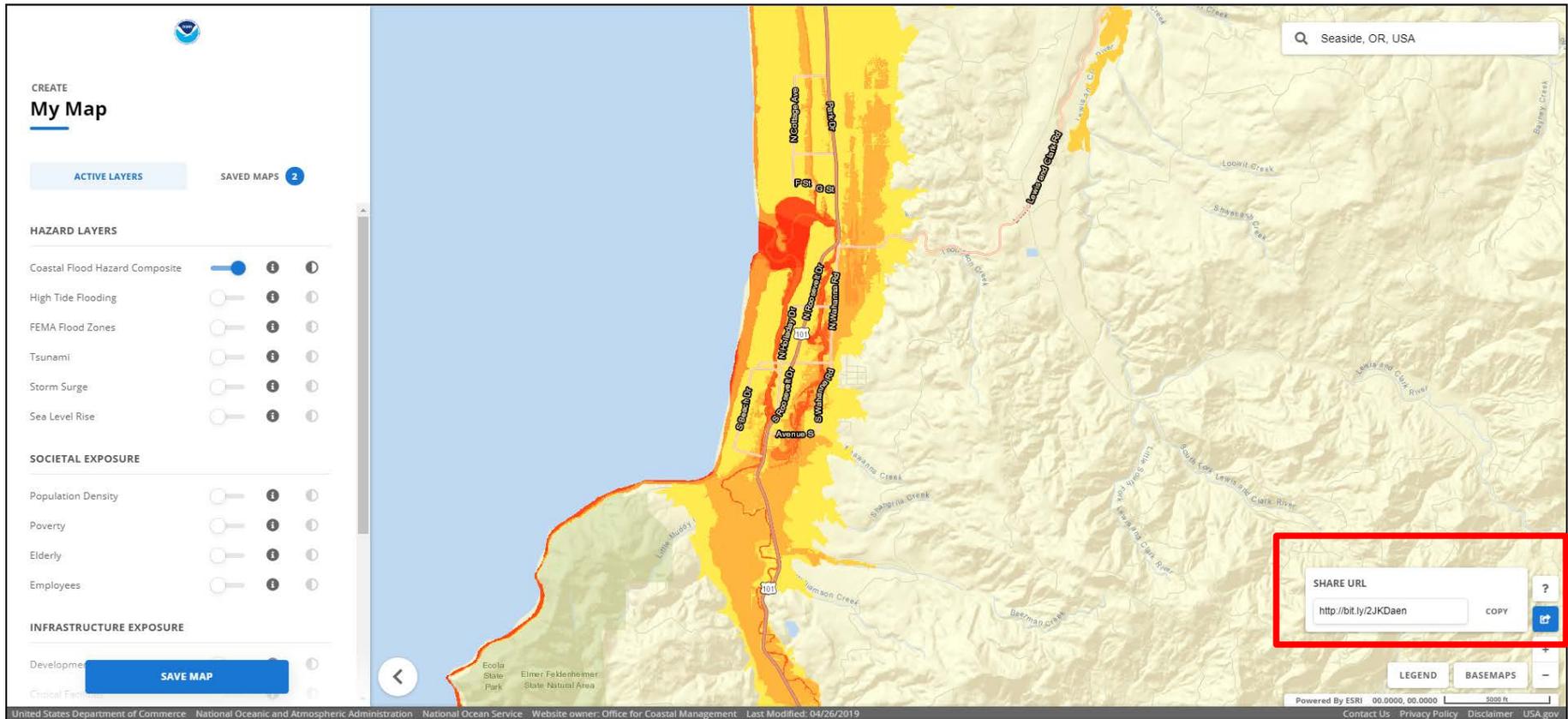


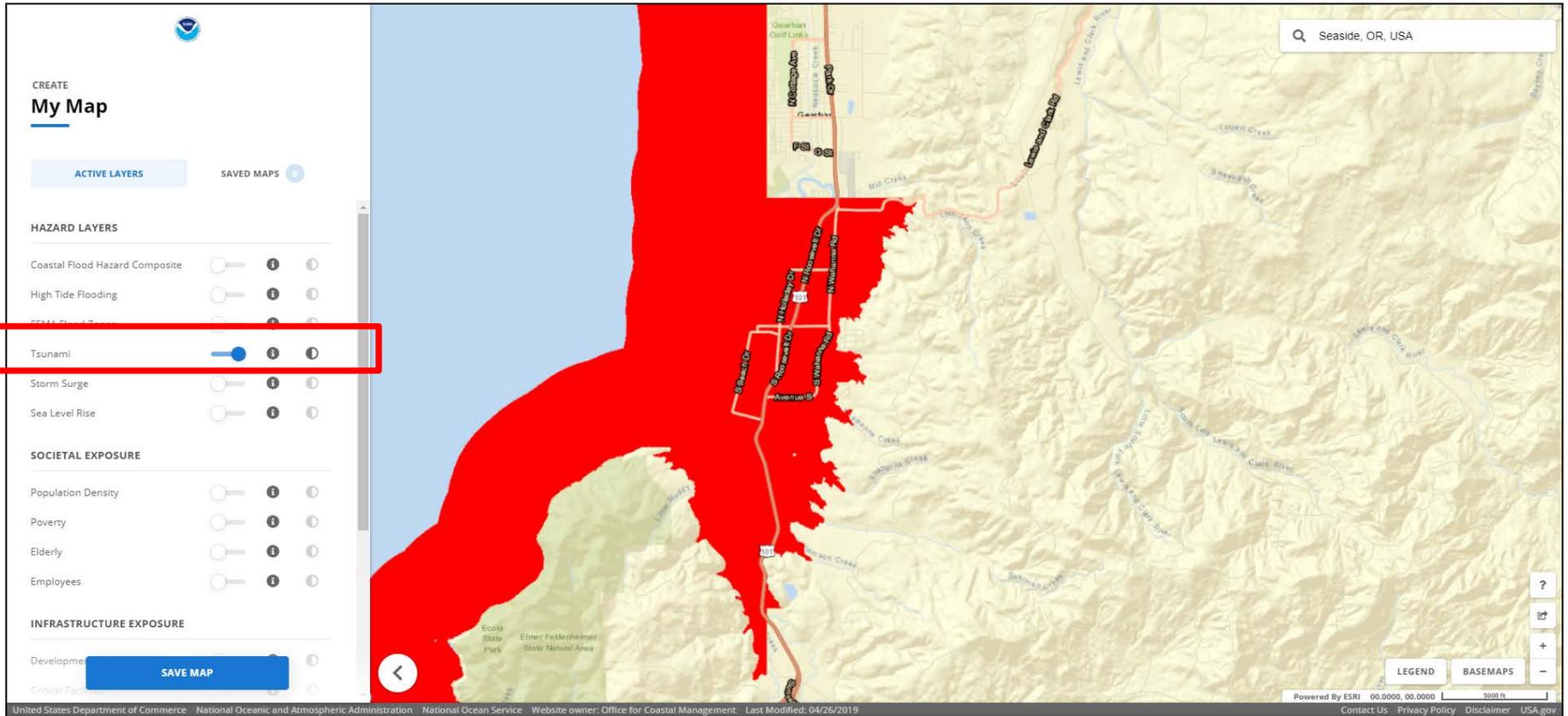
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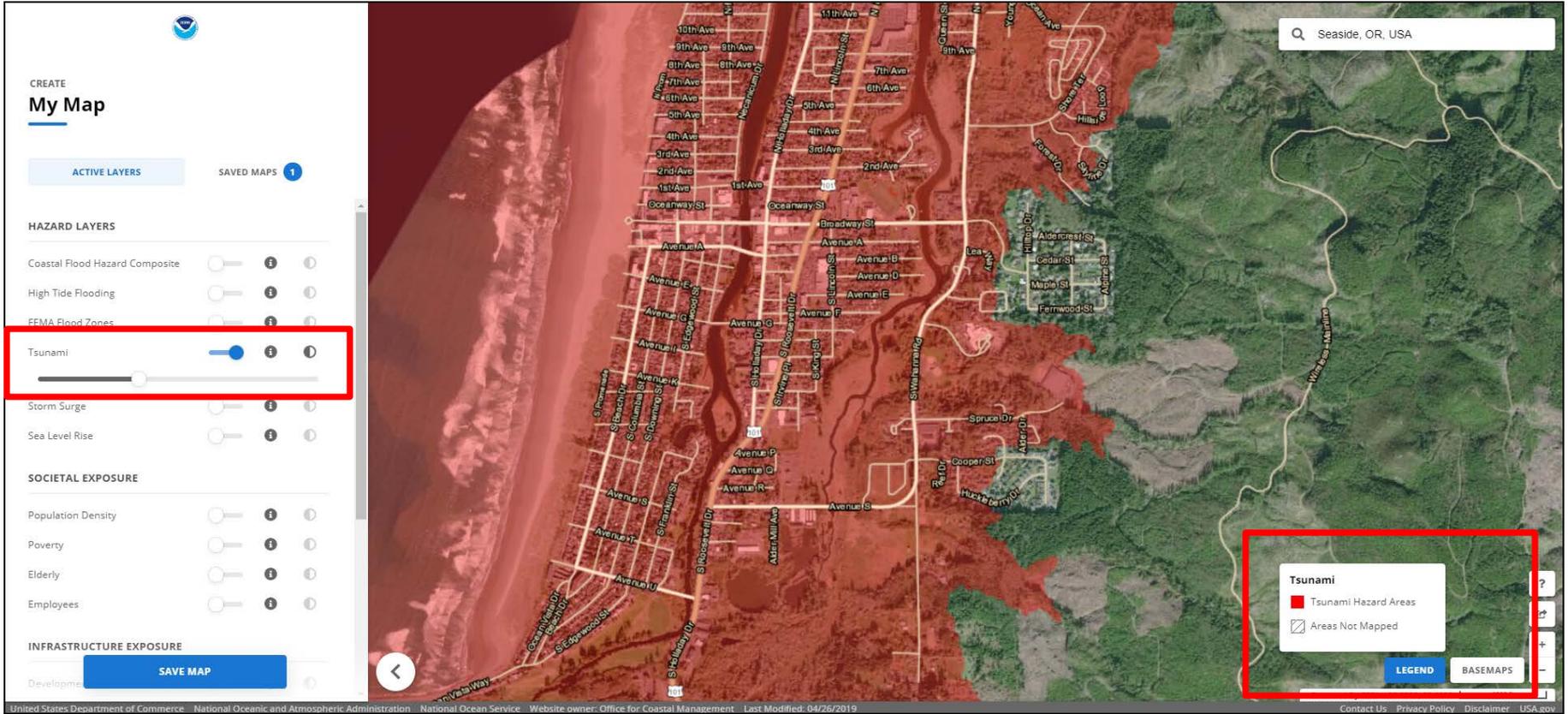


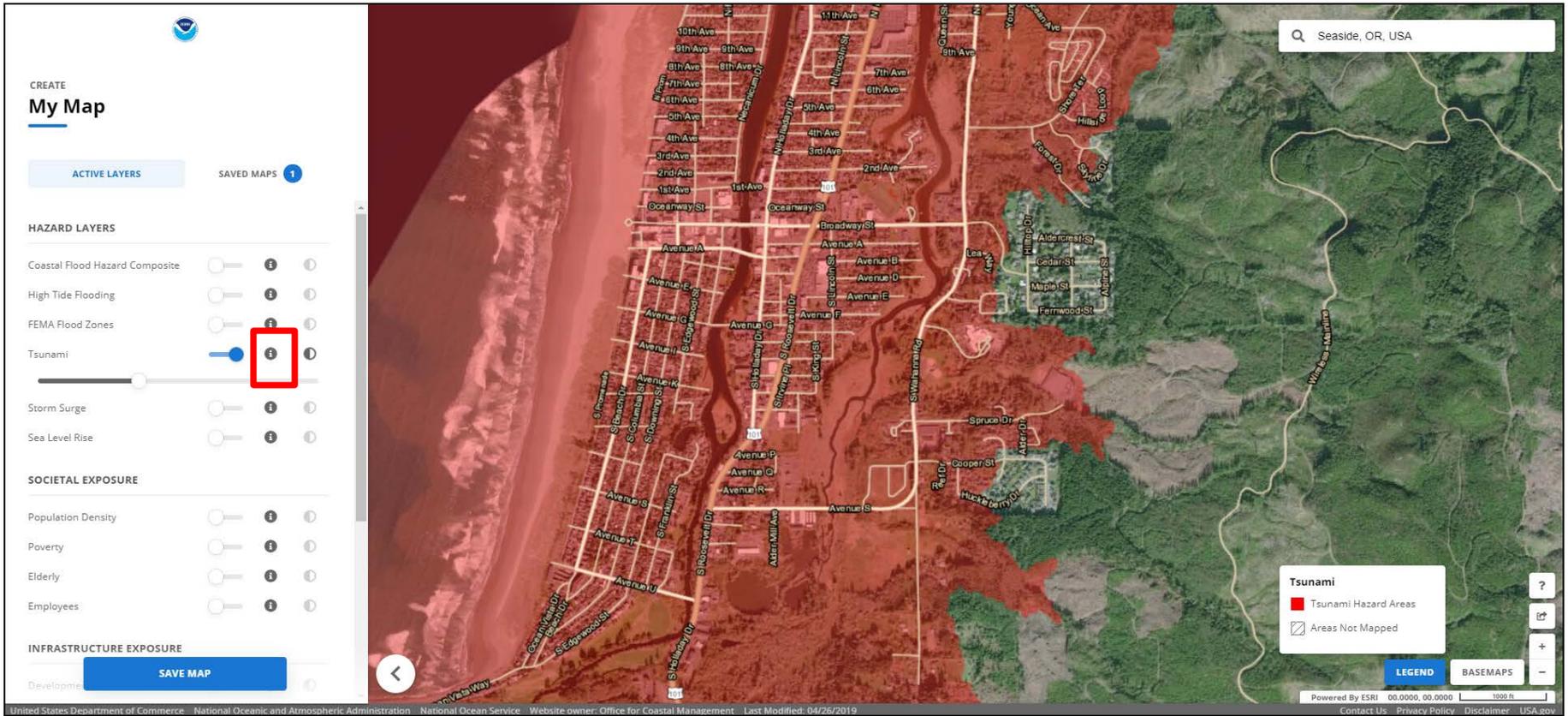




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← BACK



ABOUT

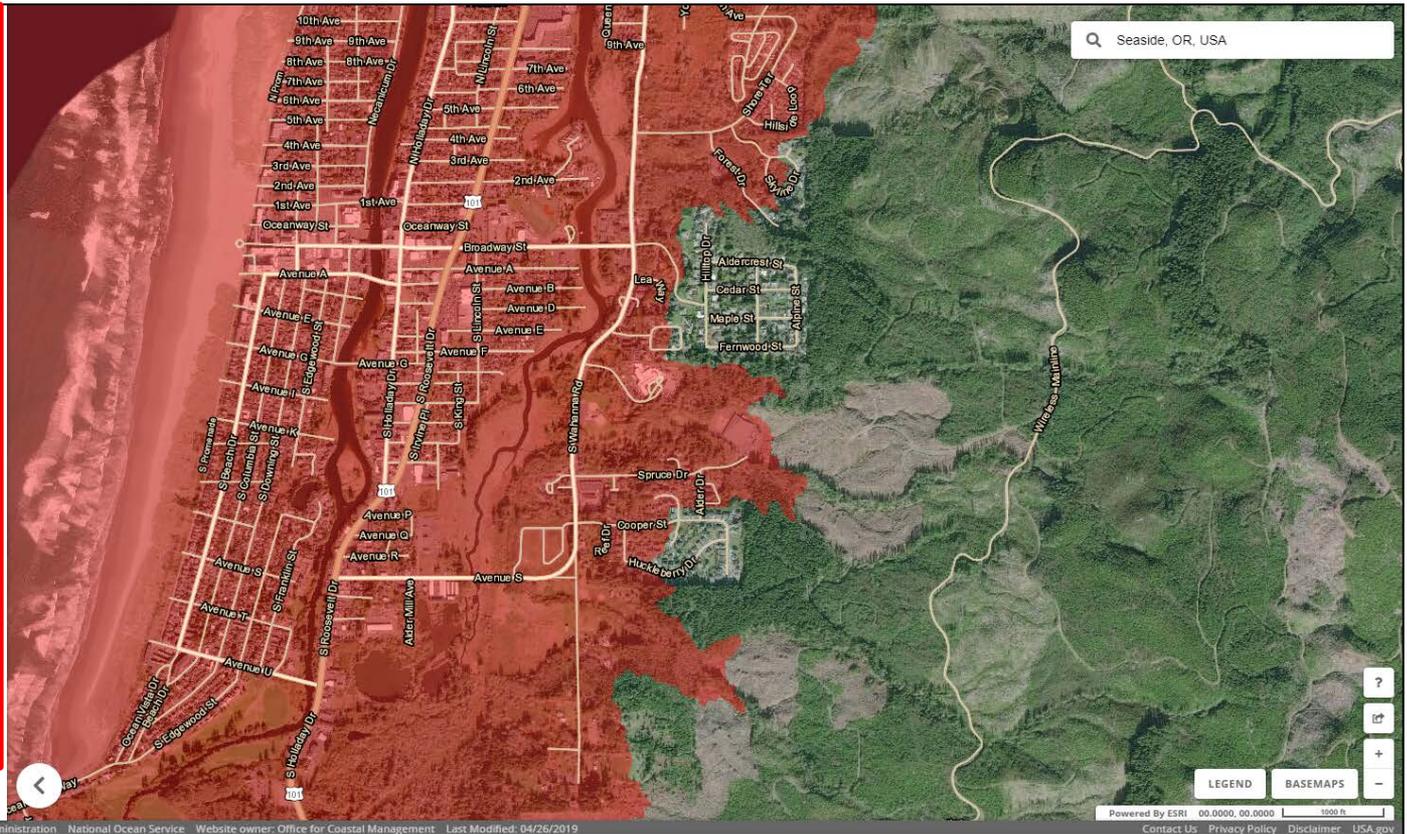
Tsunami

This map shows tsunami run-up zones (where available). A tsunami is a series of ocean waves generated by sudden displacements in the sea floor, landslides, or volcanic activity. The tsunami wave may come gently ashore or may increase in height to become a fast moving wall of turbulent water several meters high.

Although a tsunami cannot be prevented, the impact of a tsunami can be mitigated through community preparedness, timely warnings, and effective response.



PRESENTED BY:

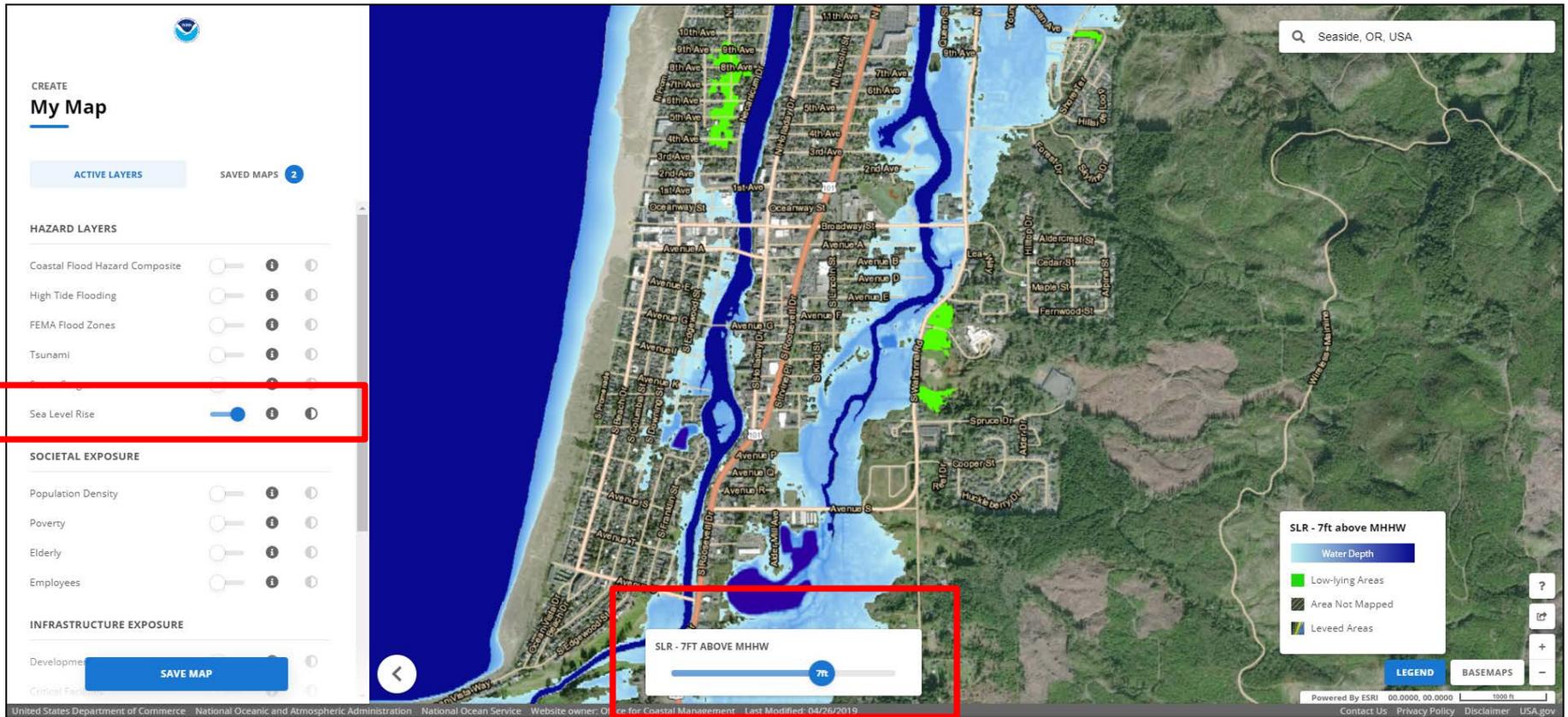


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CREATE My Map

ACTIVE LAYERS | SAVED MAPS 2

SOCIETAL EXPOSURE

- Population Density
- Poverty
- Elderly
- Employees

INFRASTRUCTURE EXPOSURE

- Critical Facilities
- Development Patterns

ECOSYSTEM EXPOSURE

- Natural Areas and Open Space
- Potential Pollution Sources
- Natural Protection
- Wetland Potential

SAVE MAP

Seaside, OR, USA

FACILITY TYPE
Law Enforcement

FACILITY NAME
Seaside Police Department

SLR - 7ft above MHHW

- Water Depth
- Low-lying Areas
- Area Not Mapped
- Leveed Areas

Critical Facilities

- Fire Station/EMS Station
- Hospital/Medical Center
- Law Enforcement
- School

SLR - 7FT ABOVE MHHW

7ft

LEGEND | BASEMAPS

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CREATE My Map

ACTIVE LAYERS SAVED MAPS 2

SOCIETAL EXPOSURE

Population Density ⓘ ⓪

Poverty ⓘ ⓪

Elderly ⓘ ⓪

Employees ⓘ ⓪

INFRASTRUCTURE EXPOSURE

Development ⓘ ⓪

Critical Facilities ⓘ ⓪

Development Patterns ⓘ ⓪

ECOSYSTEM EXPOSURE

Natural Areas and Open Space ⓘ ⓪

Potential Pollution Sources ⓘ ⓪

Natural Protection ⓘ ⓪

Wetland Protection ⓘ ⓪

SAVE MAP

FACILITY TYPE
Superfund Site

FACILITY NAME
ASTORIA MARINE CONSTRUCTION COMPANY

FACILITY URL
http://oaspub.epa.gov/enviro/fac_gateway.main?p_regid=110043437769

Tsunami

- Tsunami Hazard Areas
- Areas Not Mapped

Potential Pollution Sources

- Brownfield Property
- Hazardous Waste
- Superfund Site
- Toxic Chemicals

Natural Areas and Open Space

- Wetlands
- Other Natural Areas and Open Space
- Beaches and Dunes

LEGEND

BASEMAPS

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Related Topics: [Envirofacts](#) | [FRS](#)

FRS Facility Detail Report

ASTORIA MARINE CONSTRUCTION COMPANY

EPA Registry Id: 110043437769
92134 FRONT ROAD
ASTORIA, OR 97103



- Legend**
- ★ Selected Facility
 - EPA Facility of Interest
 - State/Tribe Facility of Interest

The facility locations displayed come from the FRS Spatial Coordinates tables. They are the best representative locations for the displayed facilities based on the accuracy of the collection method and quality assurance checks performed against each location. The North American Datum of 1983 is used to display all coordinates.

Facility Registry Service Links:

- [Facility Registry Service \(FRS\) Overview](#)
- [FRS Facility Query](#)
- [FRS Organization Query](#)
- [EZ Query](#)
- [FRS Physical Data Model](#)
- [FRS Geospatial Model](#)

[Report an Error](#)





SAVE MAP

CUSTOMIZE My Map

ACTIVE LAYERS **SAVED MAPS** 6

HAZARD LAYERS

- Coastal Flood Hazard Composite
- High Tide Flooding
- FEMA Flood Zones
- Tsunami
- Storm Surge**
- Sea Level Rise

ADDITIONAL LAYERS

- Societal Exposure
 - Population Density
 - Poverty
 - Elderly
 - Employees
 - Infrastructure Exposure
- Development

STORM SURGE - CATEGORY 2 HURRICANE

Storm Surge - Category 2 Hurricane

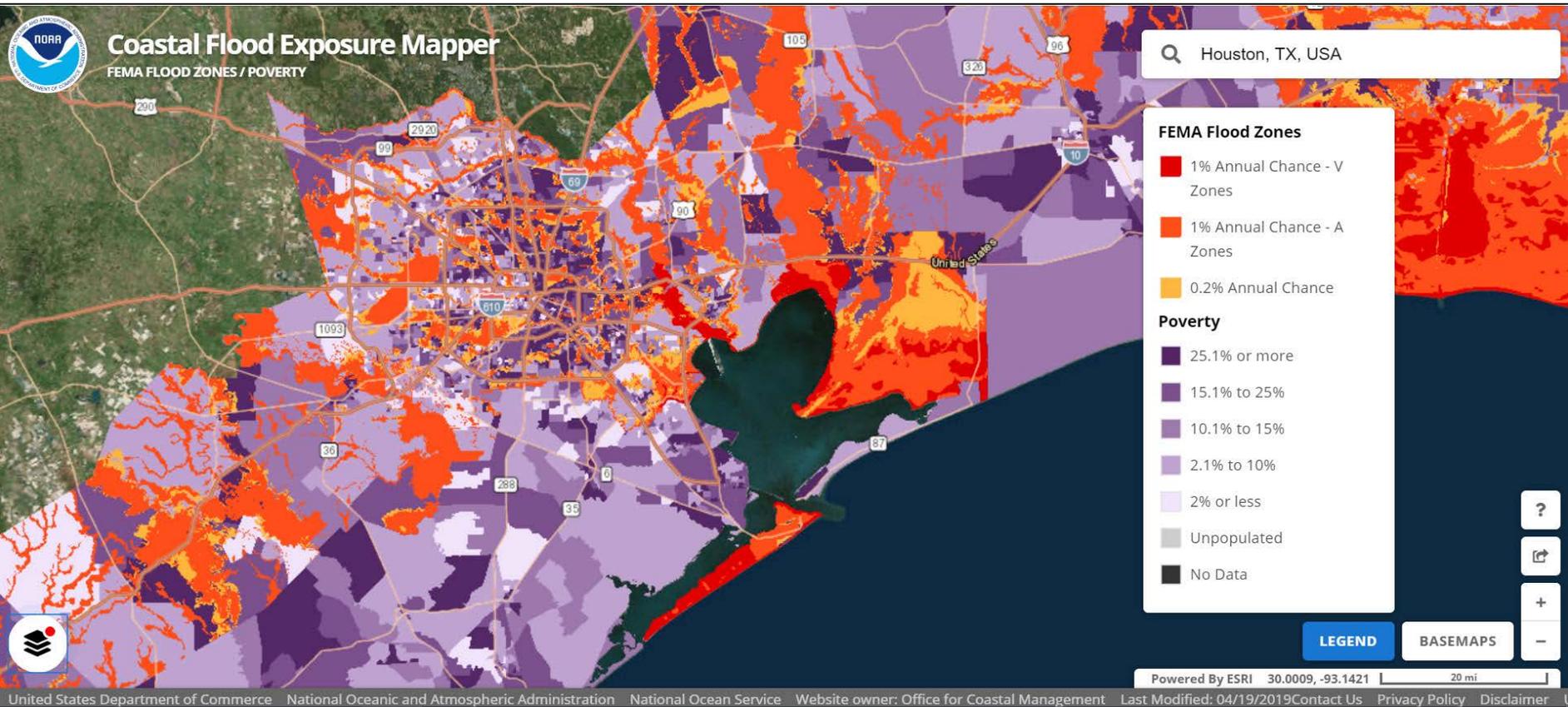
- Up to 3 feet above ground
- Greater than 3 feet above ground
- Greater than 6 feet above ground
- Greater than 9 feet above ground
- Levee Areas - Consult Local Officials for flood risk.
- Areas Not Mapped

Development

- High Intensity Developed
- Medium Intensity Developed
- Low Intensity Developed
- Developed Open Space

Search By Address

Powered By ESRI 00,0000,00,0000 50 mi



The screenshot displays the NOAA Coastal Management website interface. On the left, a sidebar titled 'MANAGE Saved Maps' shows a list of saved maps. The 'ACTIVE LAYERS' section is highlighted with a red box, containing a 'SAVED MAPS 3' button. Below this, a map thumbnail is shown, followed by a map entry for '5/16/2019 Tsunami Seaside Oregon', which is also highlighted with a red box. This entry includes icons for download, print, and delete. At the bottom of the sidebar, there is a 'SHARE COLLECTION' button and a trash icon.

The main map area shows a satellite view of Seaside, Oregon, with a red overlay indicating tsunami inundation. The map includes a search bar at the top right with the text 'Search By Address'. Navigation controls (back, forward, zoom in, zoom out) are located at the bottom right. A legend and basemap options are also visible at the bottom right. The footer of the page contains the following text: 'United States Department of Commerce National Oceanic and Atmospheric Administration National Ocean Service Website owner: Office for Coastal Management Last Modified: 07/01/2019' and 'Powered By ESRI 00.00000, 00.00000 1000 ft'.

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MANAGE
Saved Maps

ACTIVE LAYERS **SAVED MAPS** 3

SHARE URL
<http://bit.ly/2JKBPnR> COPY

5/16/2019
SLR - 7 **SHARE COLLECTION**

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The screenshot displays the NOAA 'Saved Maps' interface. On the left, a sidebar titled 'MANAGE Saved Maps' shows a list of saved maps. The first map, titled 'Tsunami Seaside Oregon' (dated 5/16/2019), is selected. A red box highlights the 'EXPORT MAP' button, along with the 'EXPORT MAP W/ TITLE' and 'EXPORT LEGEND' options, and a share icon. Below this, there is a 'SHARE COLLECTION' button and a trash icon. The main map area shows a satellite view of Seaside, Oregon, with a red overlay indicating a tsunami inundation area. The map includes a search bar at the top right, a legend and basemap controls at the bottom right, and a scale bar. The footer contains the text: 'United States Department of Commerce. National Oceanic and Atmospheric Administration. National Ocean Service. Website owner: Office for Coastal Management. Last Modified: 07/01/2019. Contact Us. Privacy Policy. Disclaimer. USA.gov'.

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MANAGE

Saved Maps

ACTIVE LAYERS

SAVED MAPS 3



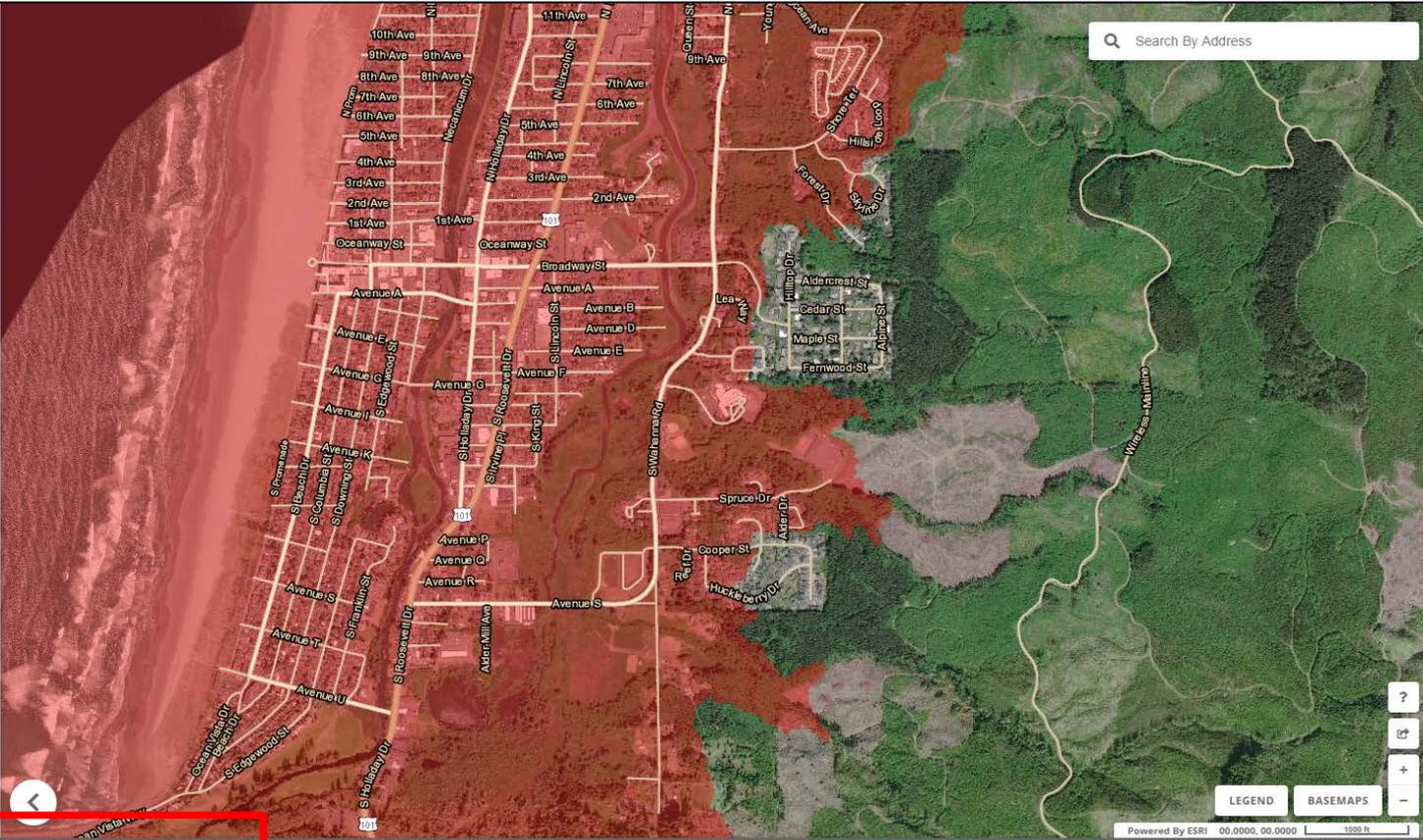
5/16/2019
Tsunami
Seaside Oregon

Download Share Edit Delete



5/16/2019

SHARE COLLECTION



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CFEM_Legend (4).jpeg

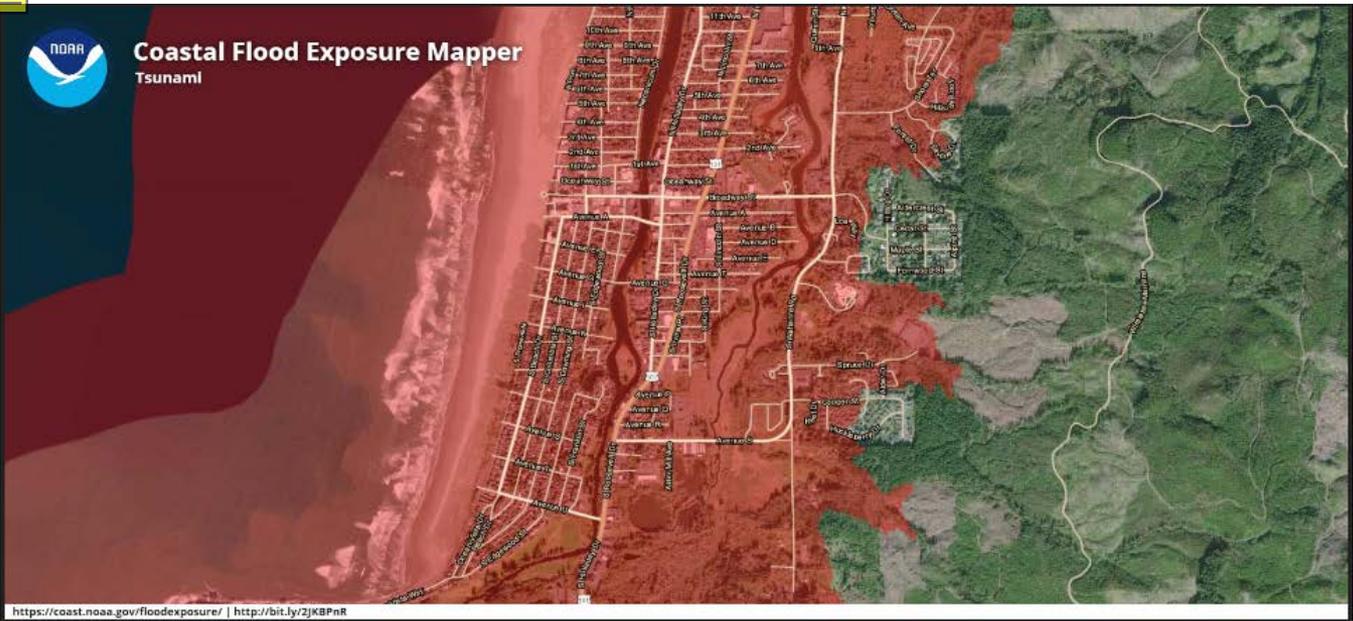
CFEM_Map (8).jpeg

CFEM_Map (7).jpeg





Coastal Flood Exposure Mapper Tsunami

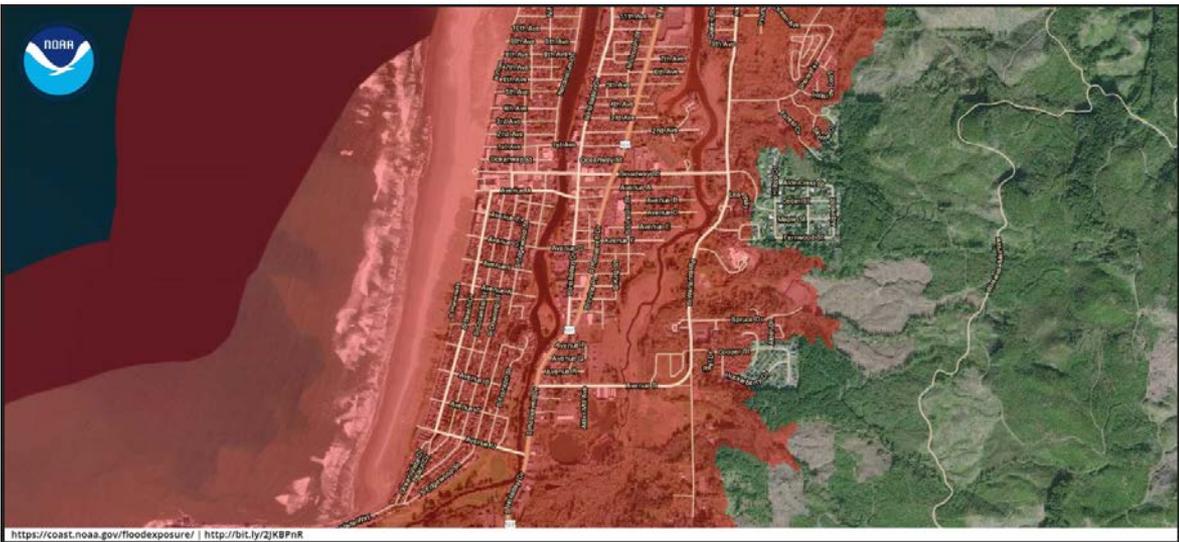


<https://coast.noaa.gov/floodexposure/> | <http://bit.ly/2JKBPnR>

Tsunami

 Tsunami Hazard Areas

 Areas Not Mapped

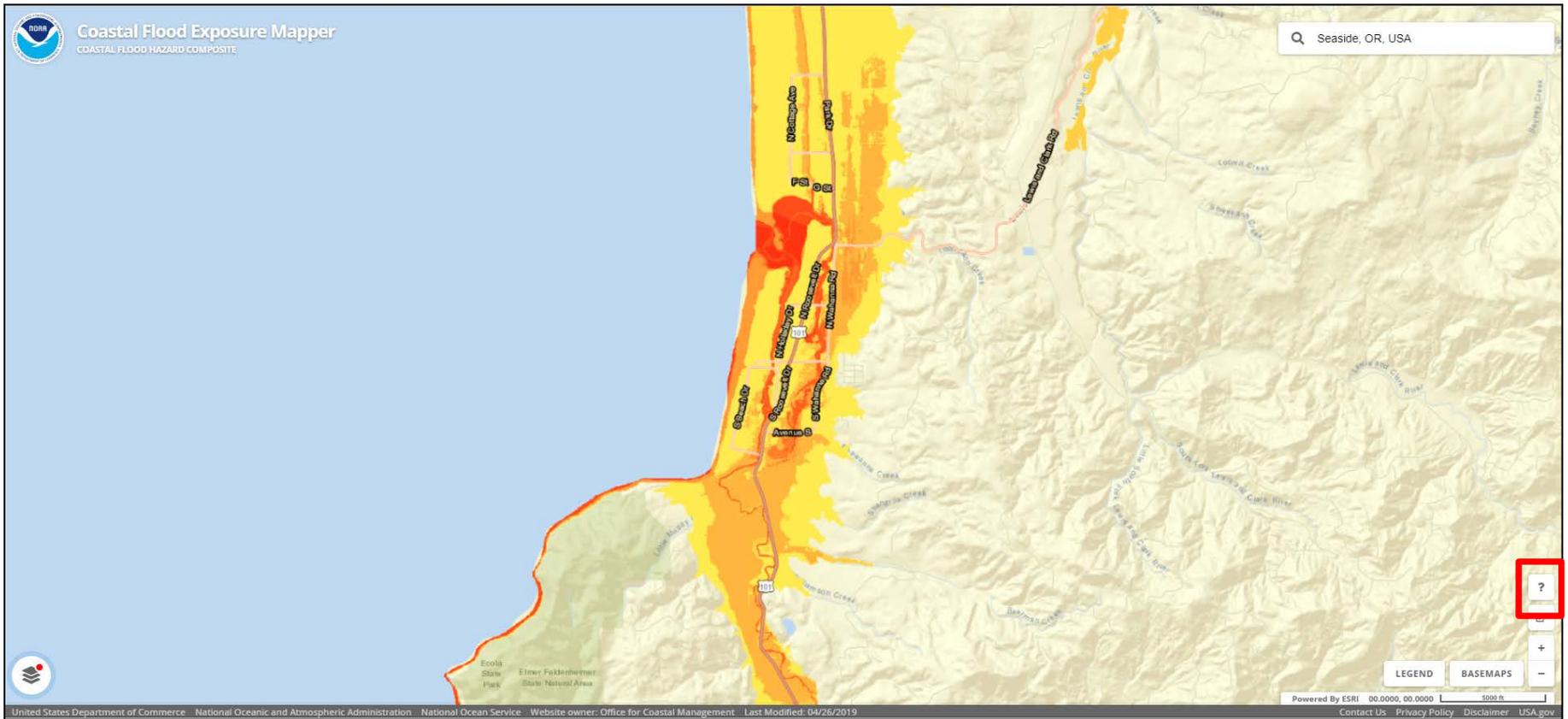


<https://coast.noaa.gov/floodexposure/> | <http://bit.ly/2JKBPnR>





The screenshot displays the NOAA Coastal Services Center's map application. On the left, a sidebar titled "MANAGE Saved Maps" shows a list of saved maps. The top map is titled "Tsunami" (dated 5/16/2019) for "Seaside Oregon". Below it is a map titled "SLR - 7" (dated 5/16/2019). A red box highlights the "SHARE COLLECTION" button on the "SLR - 7" map. A central dialog box titled "Share your map collection" is open, listing three items: "Tsunami | Seaside Oregon" (http://bit.ly/2JKBpNR), "SLR - 7ft above MHHW" (http://bit.ly/2JMGZz), and "Storm Surge - Category 5 Hurricane / Population Density" (http://bit.ly/2WQXWM8). A red box highlights the "DOWNLOAD AS .TXT" and "COPY ALL" buttons at the bottom of the dialog. The background is a satellite map of Seaside, Oregon, with a search bar at the top right and a legend at the bottom right.



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About Coastal Flood Exposure Mapper

The information in this product is based on the Roadmap for Adapting to Coastal Risk approach to assessing coastal hazard risks and vulnerabilities. The Roadmap for Adapting to Coastal Risk was developed by NOAA as an approach to help communities assess coastal hazard risks and vulnerabilities. With this approach, communities looked at how hazards were impacting their people, places, and natural resources and identified planning, policies, and actions to help reduce these impacts. We developed the Coastal Flood Exposure Mapper to help communities kick-start conversations about coastal risks. The mapper enables users to explore maps that show people, places, and natural resources exposed to coastal flood hazards and create a collection of maps to share and communicate about flood exposure.

Disclaimer

The purpose of this mapping application is to provide a preliminary look at exposure to common types of coastal flooding. The viewer is a screening-level tool that uses nationally consistent data sets and analyses and should be used as such. Data and maps provided can be used at several scales to help gauge impacts and prioritize actions, but should be verified with a site visit. The data and maps in this tool illustrate the scale of potential flooding, not the exact location, and do not account for all physical or anthropogenic processes. The data and maps in this tool are provided "as is," without warranty to their performance, merchantable state, or fitness for any particular purpose. The entire risk associated with the results and performance of these data is assumed by the user. This tool should be used strictly as a planning reference tool and not for navigation, permitting, or other legal purposes.

Additional Resources

[Tools Home Page](#)

[Frequently Asked Questions](#)

[Data Sources](#)

[Map Services](#)

[ArcGIS Online Tutorial](#)

[Tips for Using these Maps](#)

[Additional Data Considerations](#)

[Digital Coast Topic Pages](#)

[Digital Coast Academy Case Studies](#)

For More Information

Please Visit:

<https://coast.noaa.gov/floodexposure/>

Or Contact:

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