Adapting to Rising Tides

Bay Area Flood Explorer

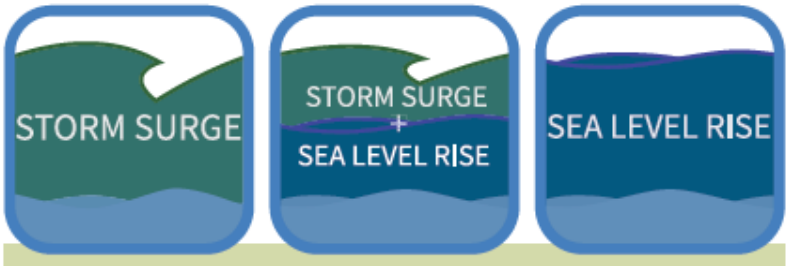
May 17, 2018

Why create the Flood Explorer?

Increase accessibility, interaction, and consistent use of maps:

MODERN VISUAL DISPLAY

- Convenient, interactive, and empowering user experience

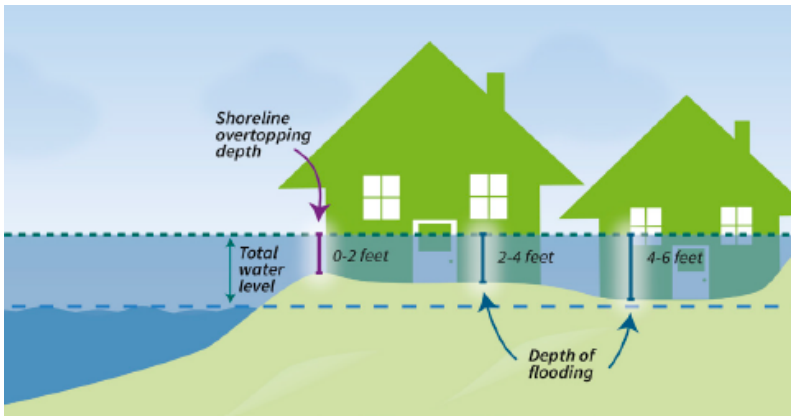


NEW AND UNIQUE DATA

#1. Stakeholder Review

#2. One Map, Many Futures

#3. Shoreline Overtopping



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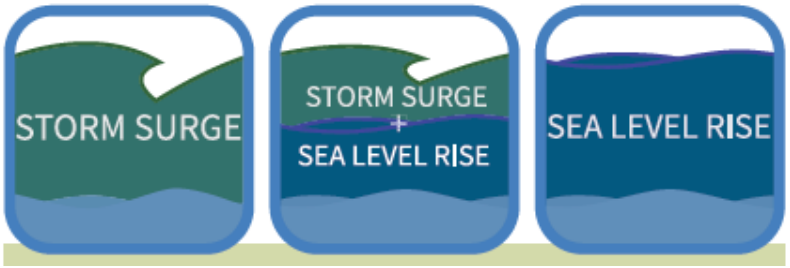

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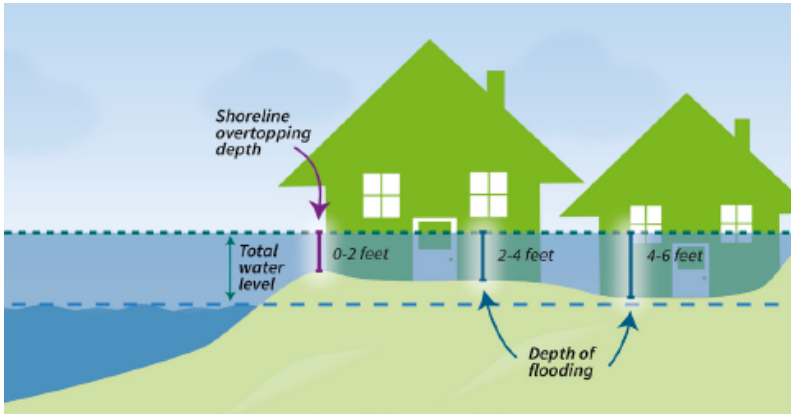

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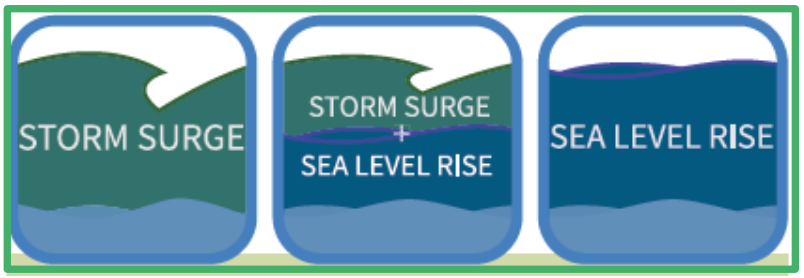

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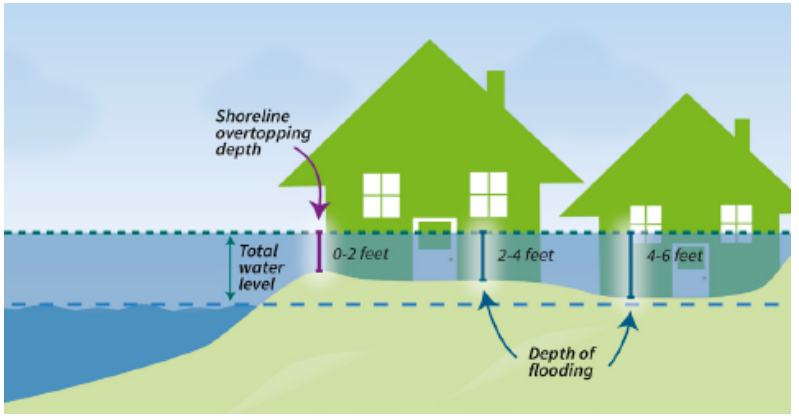

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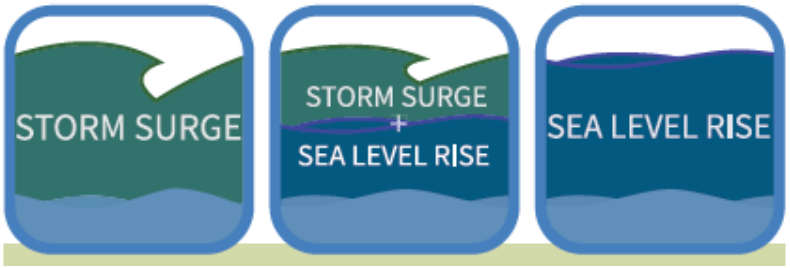

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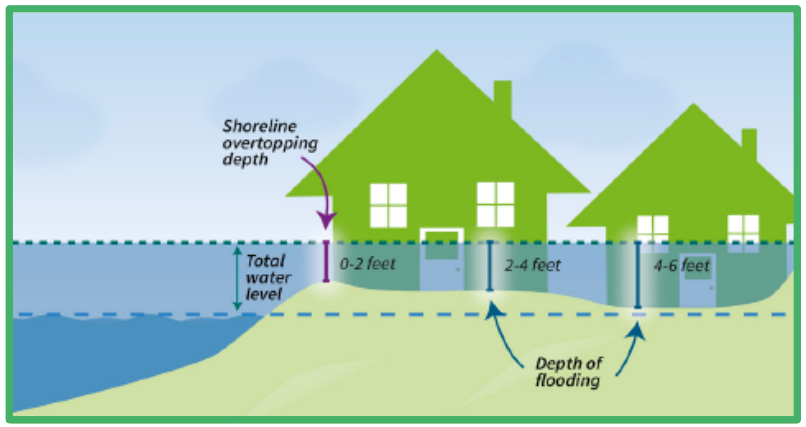


Audience and Goals

AUDIENCES:

Planning Partners

Public Agencies

Elected Officials and their staff

General Public

WHAT DOES THE FLOOD EXPLORER ACHIEVE?

#1. Enable users to **explore and interac**t with maps

#2. **Educate** users about flooding from sea level rise and storms

#3. Describe **intended uses** for maps

#4. Data **download** for technical users

#5. **Connect** the public to existing adaptation efforts

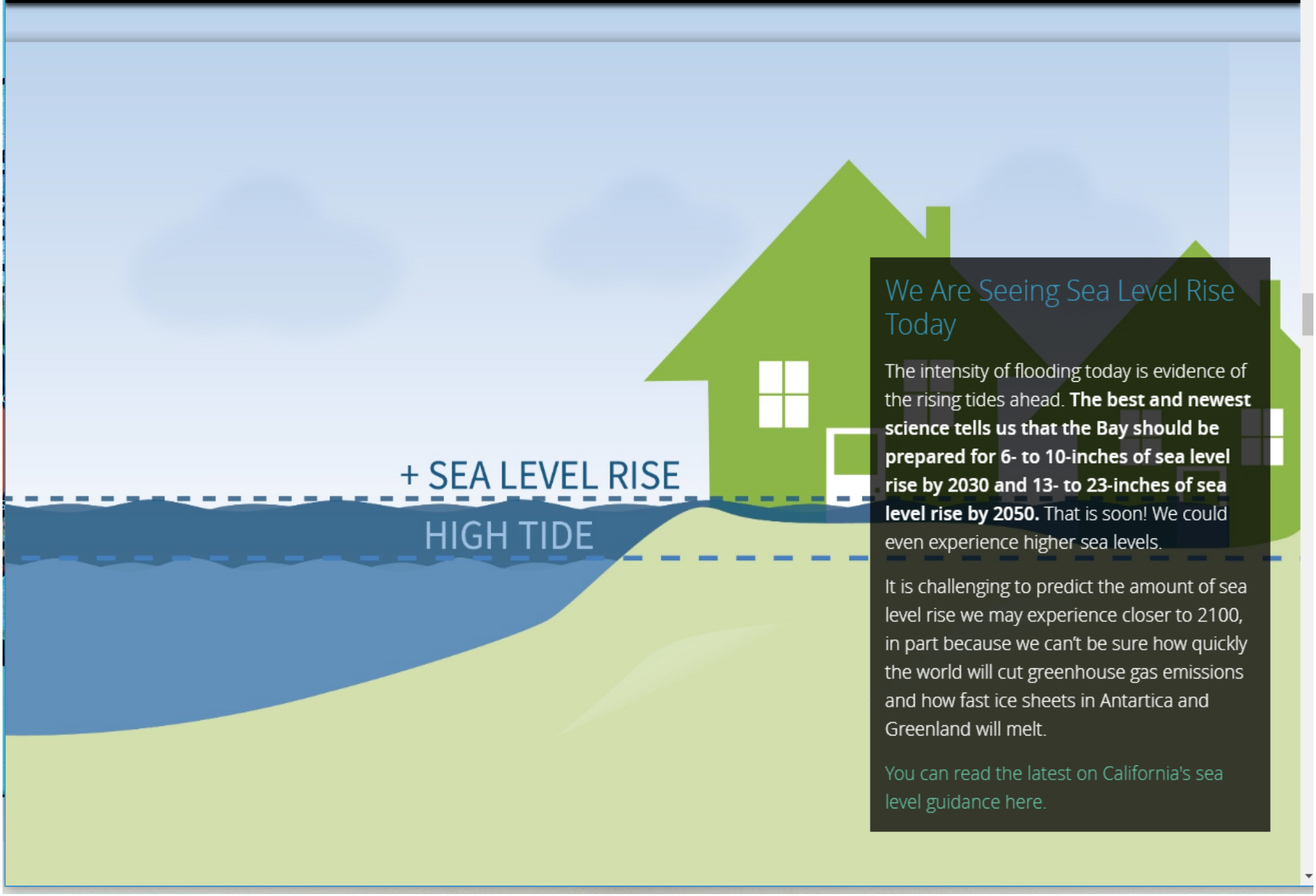
Adapting to Rising Tides

Bay Area Flood Explorer

The Adapting to Rising Tides program has developed this tool to help Bay Area communities learn about current flooding and future flooding due to sea level rise by exploring local flood maps, identifying areas of greatest risk, and downloading the data for further analysis. This data increases understanding of what could be at risk without future planning and adaptation, helping Bay communities, governments, and businesses to drive action.

LEARN | EXPLORE | DOWNLOAD | ABOUT

The Bay Area Flood Explorer is part of the San Francisco Bay Conservation and Development Commission's Adapting to Rising Tides Program. Thank you to our funders for your support of this initiative.

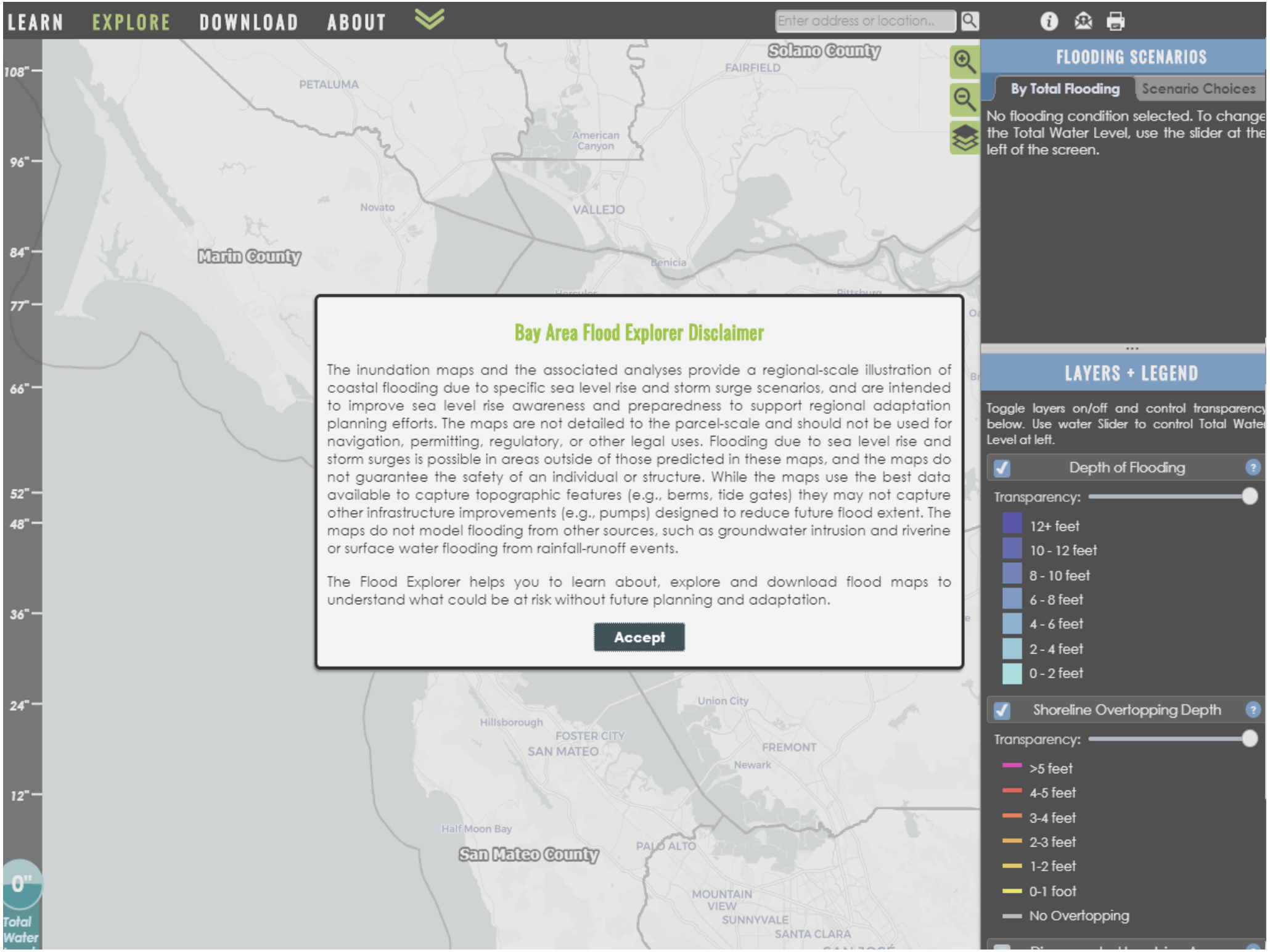


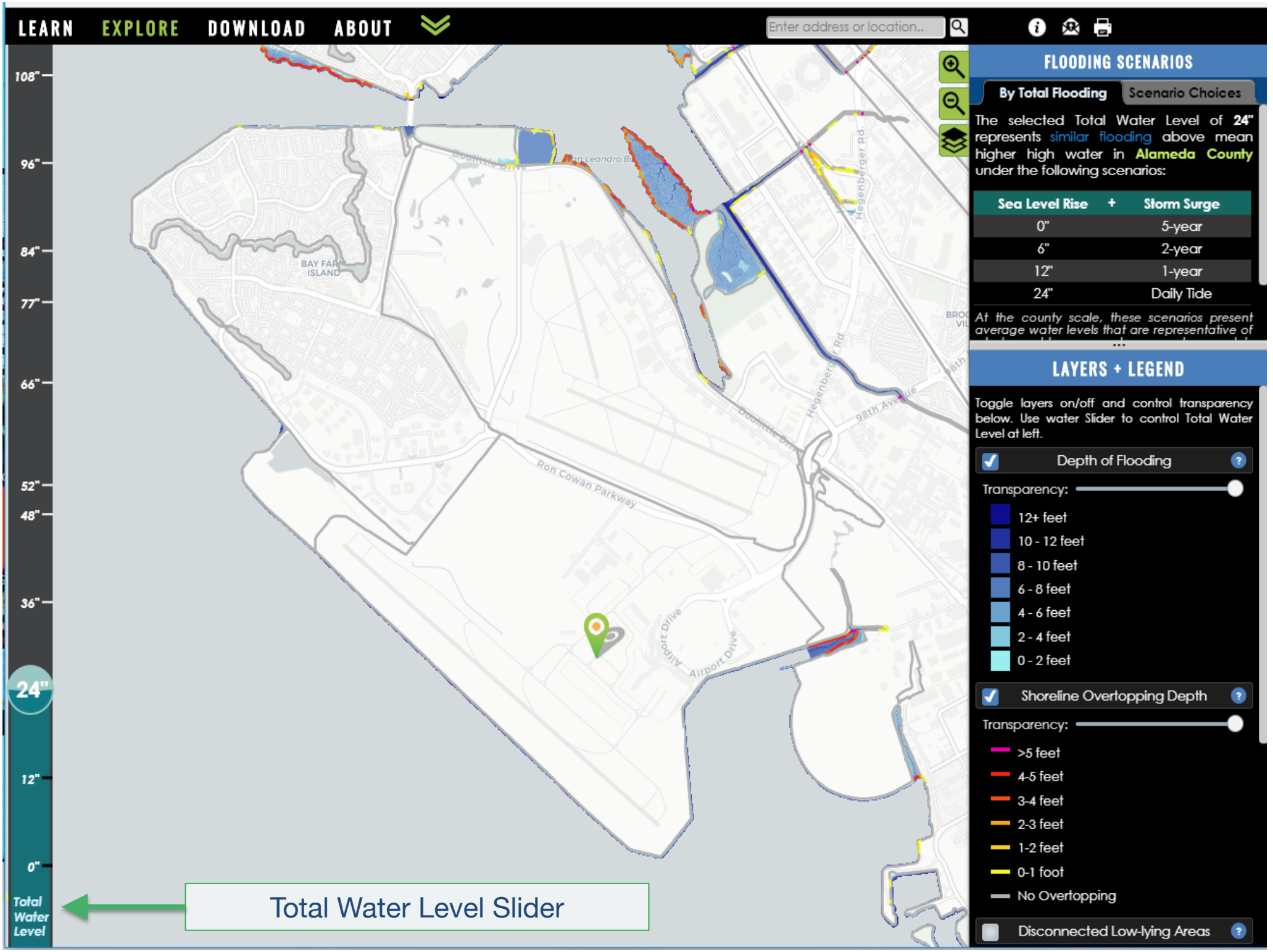
We Are Seeing Sea Level Rise Today

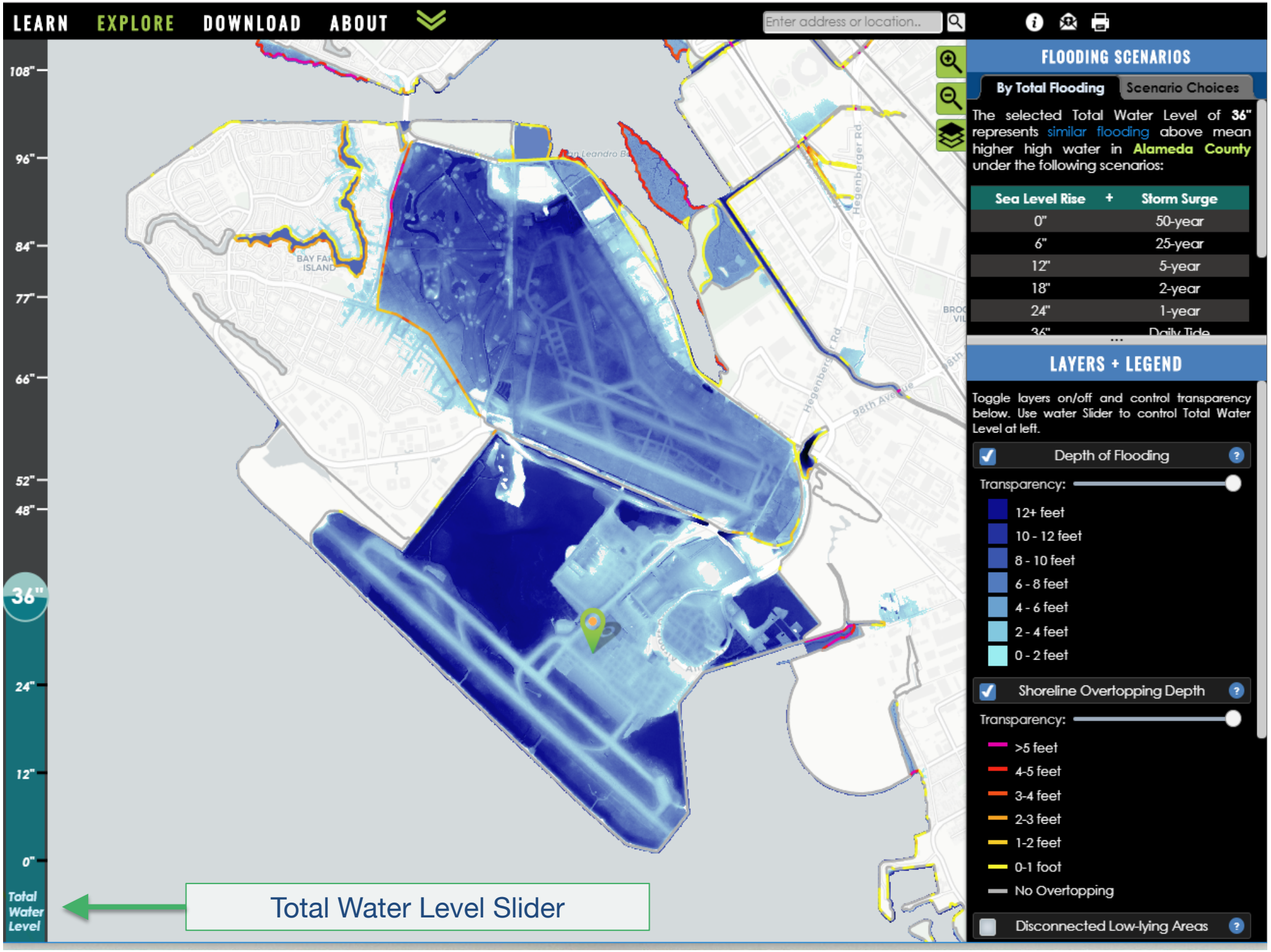
The intensity of flooding today is evidence of the rising tides ahead. **The best and newest science tells us that the Bay should be prepared for 6- to 10-inches of sea level rise by 2030 and 13- to 23-inches of sea level rise by 2050.** That is soon! We could even experience higher sea levels.

It is challenging to predict the amount of sea level rise we may experience closer to 2100, in part because we can't be sure how quickly the world will cut greenhouse gas emissions and how fast ice sheets in Antartica and Greenland will melt.

You can read the latest on California's sea level guidance here.


LEARN
EXPLORE
DOWNLOAD
ABOUT
Enter address or location..
Solano County
FAIRFIELD
PETALUMA
American Canyon
VALLEJO
Novato
Marin County
Benicia
108"
96"
84"
77"
66"
52"
48"
36"
24"
12"
0"
Total Water
Bay Area Flood Explorer Disclaimer
The inundation maps and the associated analyses provide a regional-scale illustration of coastal flooding due to specific sea level rise and storm surge scenarios, and are intended to improve sea level rise awareness and preparedness to support regional adaptation planning efforts. The maps are not detailed to the parcel-scale and should not be used for navigation, permitting, regulatory, or other legal uses. Flooding due to sea level rise and storm surges is possible in areas outside of those predicted in these maps, and the maps do not guarantee the safety of an individual or structure. While the maps use the best data available to capture topographic features (e.g., berms, tide gates) they may not capture other infrastructure improvements (e.g., pumps) designed to reduce future flood extent. The maps do not model flooding from other sources, such as groundwater intrusion and riverine or surface water flooding from rainfall-runoff events.
The Flood Explorer helps you to learn about, explore and download flood maps to understand what could be at risk without future planning and adaptation.
Accept
Union City
Hillsborough
FOSTER CITY
SAN MATEO
FREMONT
Newark
Half Moon Bay
San Mateo County
PALO ALTO
MOUNTAIN VIEW
SUNNYVALE
SANTA CLARA
FLOODING SCENARIOS
By Total Flooding
Scenario Choices
No flooding condition selected. To change the Total Water Level, use the slider at the left of the screen.
LAYERS + LEGEND
Toggle layers on/off and control transparency below. Use water Slider to control Total Water Level at left.
Depth of Flooding
Transparency:
12+ feet
10 - 12 feet
8 - 10 feet
6 - 8 feet
4 - 6 feet
2 - 4 feet
0 - 2 feet
Shoreline Overtopping Depth
Transparency:
>5 feet
4-5 feet
3-4 feet
2-3 feet
1-2 feet
0-1 foot
No Overtopping


LEARN
EXPLORE
DOWNLOAD
ABOUT
Enter address or location...
108"
96"
84"
77"
66"
52"
48"
36"
24"
12"
0"
Total Water Level
BAY FARM ISLAND
Ron Cowan Parkway
Airport Drive
Hegenberger Rd
98th Avenue
Total Water Level Slider
FLOODING SCENARIOS
By Total Flooding
Scenario Choices
The selected Total Water Level of 24" represents similar flooding above mean higher high water in Alameda County under the following scenarios:
Sea Level Rise + Storm Surge
0" 5-year
6" 2-year
12" 1-year
24" Daily Tide
At the county scale, these scenarios present average water levels that are representative of
LAYERS + LEGEND
Toggle layers on/off and control transparency below. Use water Slider to control Total Water Level at left.
Depth of Flooding
Transparency:
12+ feet
10 - 12 feet
8 - 10 feet
6 - 8 feet
4 - 6 feet
2 - 4 feet
0 - 2 feet
Shoreline Overtopping Depth
Transparency:
>5 feet
4-5 feet
3-4 feet
2-3 feet
1-2 feet
0-1 foot
No Overtopping
Disconnected Low-lying Areas


LEARN
EXPLORE
DOWNLOAD
ABOUT
Enter address or location...
108"
96"
84"
77"
66"
52"
48"
36"
24"
12"
0"
Total Water Level
Total Water Level Slider
FLOODING SCENARIOS
By Total Flooding
Scenario Choices
The selected Total Water Level of 36" represents similar flooding above mean higher high water in Alameda County under the following scenarios:
Sea Level Rise + Storm Surge
0" 50-year
6" 25-year
12" 5-year
18" 2-year
24" 1-year
36" Daily Tide
LAYERS + LEGEND
Toggle layers on/off and control transparency below. Use water Slider to control Total Water Level at left.
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3-4 feet
2-3 feet
1-2 feet
0-1 foot
No Overtopping
Disconnected Low-lying Areas


LEARN
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ABOUT
Enter address or location...
Flood scenarios communicate temporary and permanent flooding
108"
96"
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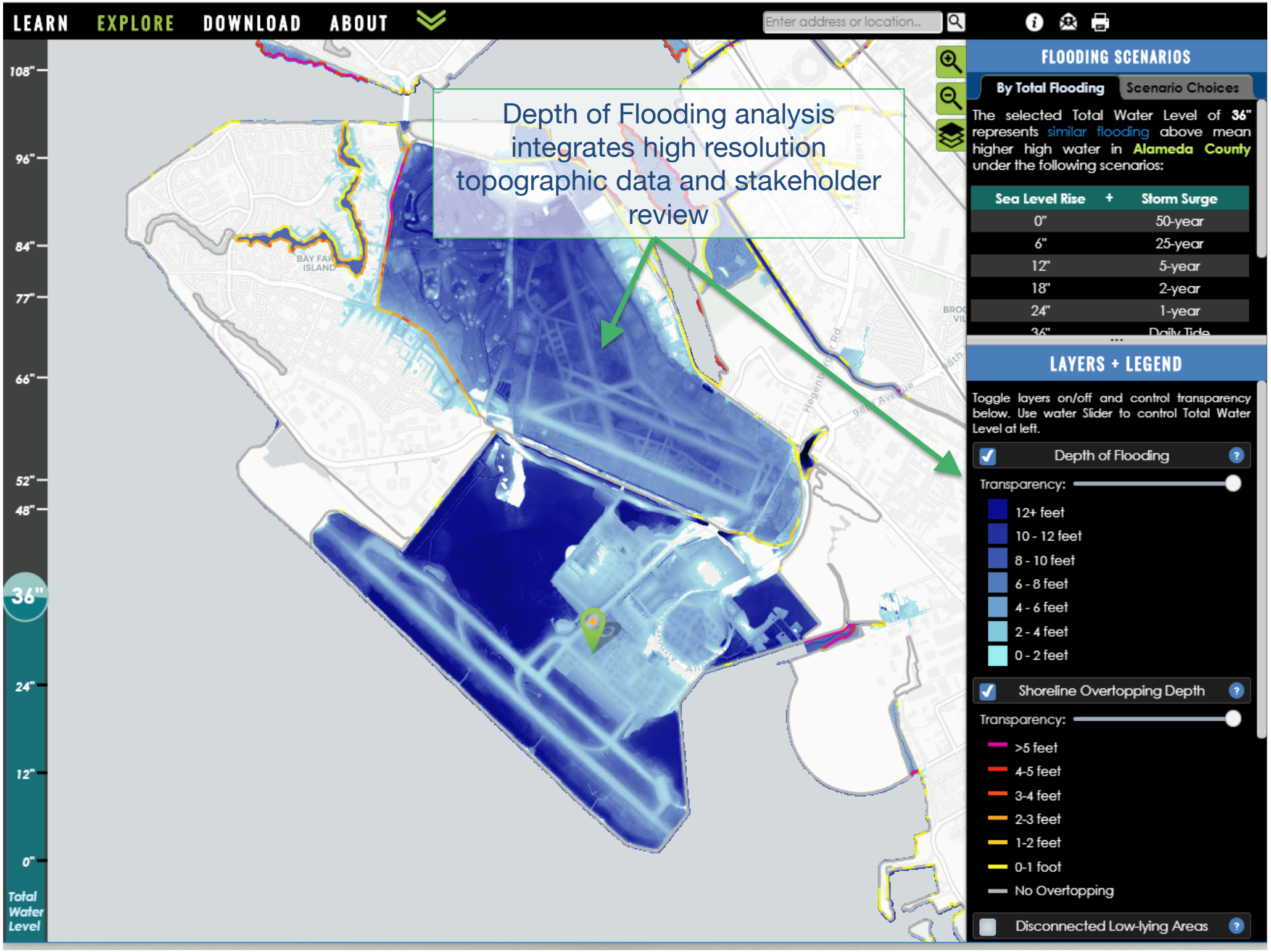
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Depth of Flooding analysis integrates high resolution topographic data and stakeholder review
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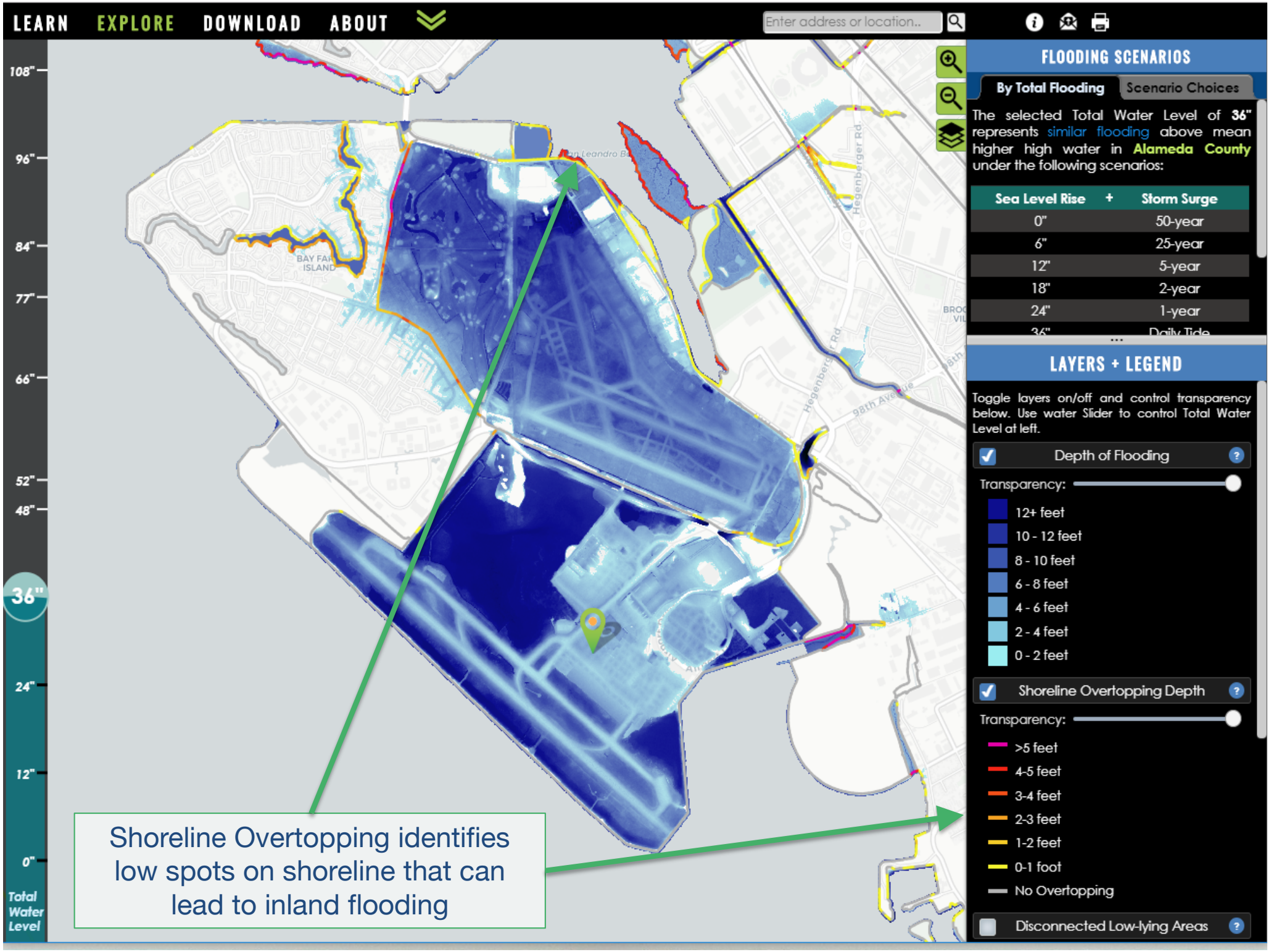
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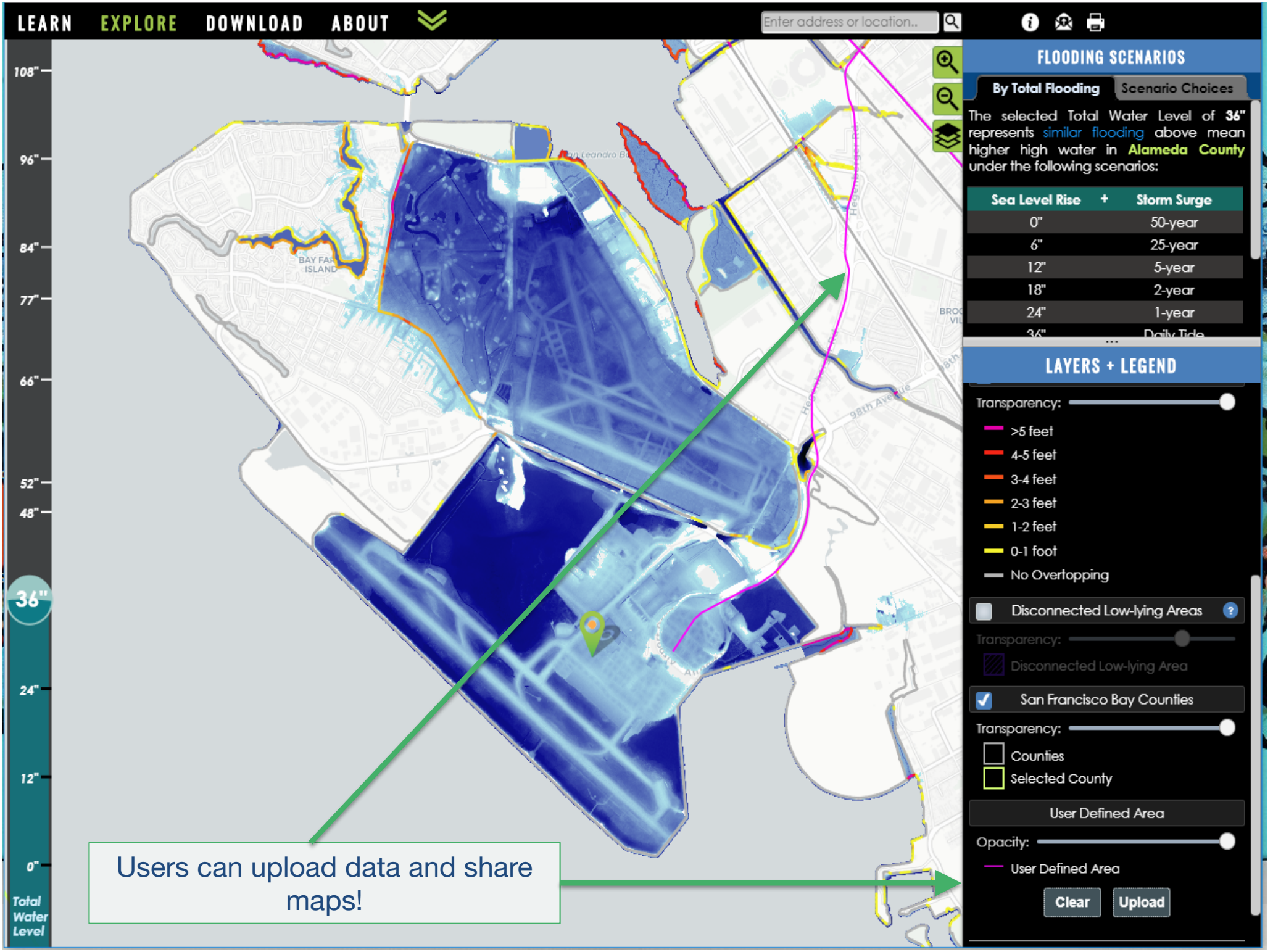
Shoreline Overtopping identifies low spots on shoreline that can lead to inland flooding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No Overtopping
Disconnected Low-lying Areas
Transparency:
Disconnected Low-lying Area
San Francisco Bay Counties
Transparency:
Counties
Selected County
User Defined Area
Opacity:
User Defined Area
Clear
Upload
Users can upload data and share maps!

Timeline and Roll out

December 2017 - January 2018

Collect feedback from external partners:

- **BCDC Staff**
- **NOAA, AECOM**
- **Caltrain, BART, Capital Cooridor, County of San Mateo, RCI, BATA, MTC, BARC**
- **BIA, BAC, BPC, SVLG**

January - May 2018

Beta development of:

- Flood explorer website
- Story map of flooding concepts

May - July 2018

Review of beta website and collect feedback

July 2018

Final Release of the Bay Area Flood Explorer!

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- **Beta review and testing**
- **Review Beta with BCDC Commission, BARC partners, and community groups**
- **Discuss plan for public launch**

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Bay Area Flood Explorer website

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Feedback from BCDC Commissioners

QUESTIONS FOR COMMISSIONERS:

#1. Are you or your colleagues interested in **reviewing the Beta site** and providing feedback?

#2. Do you know additional **people we should reach out to** for further Beta site review?

#3. Any additional thoughts or questions on flood explorer?