Race Lagoon Culverts - Phase 2 PRISM Project #24-1117 (Proposed)

Climate Change Site Information

University of Washington Climate Impacts Group: INTERACTIVE SEA LEVEL RISE DATA VISUALIZATIONS

https://cig.uw.edu/projects/interactive-sea-level-rise-data-visualizations/

SUGGESTED CITATION: Lavin, P., Roop, H.A., Neff, P.D., Morgan, H., Cory, D., Correll, M., Kosara, R., and Norheim, R., 2019. Interactive Washington State Sea Level Rise Data Visualizations. Prepared by the Climate Impacts Group, University of Washington, Seattle. Updated 7/20.

ACKNOWLEDGEMENTS: The project was funded by an EarthLab Innovation Grant with support from Tableau and Seattle Public Utilities. Additional support was provided by the Climate Impacts Group's Science Communication Fund. Paige Lavin, a Program on Climate Change (PCC) capstone student, was instrumental in the development of these data visualizations.

Select a location to view localized relative sea level rise (RSLR) projections.

Select County (optional)
Island

Select WRIA (optional)
All

Select likelihood(s)
- [ ] 0.1%
- [ ] 1%
- [ ] 5%
- [x] 10%
- [ ] 17%
- [x] 50%
- [ ] 83%
- [x] 90%
- [ ] 95%
- [ ] 99%

Select greenhouse gas scenario(s)
- [x] High (RCP 8.5)
- [x] Low (RCP 4.5)

Click for full SLR report.

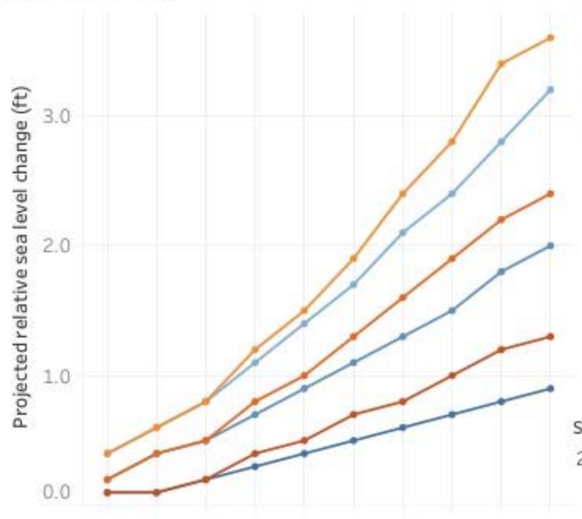
Data Estimated for 48.2°, -122.6°
County: Island
WRIA: 6, Island

Vertical land movement estimate and uncertainty (1 standard deviation) for this location **-0.2 ± 0.4 feet/century** (negative values represent land level fall, or subsidence). This number is factored into these RSLR projections.

If there is a **subduction zone earthquake** this area may be subject to an additional land level change of **0.0 feet to -0.2 feet** which is NOT factored into these RSLR projections. Coastal subsidence during a subduction zone earthquake would have the effect of RAISING local relative sea level.

RSLR for Selected Location

Projected changes relative to the average sea level over 1991-2009.
Hover for details.



Scenario, Likelihood
- High (RCP 8.5), 10%
- High (RCP 8.5), 50%
- High (RCP 8.5), 90%
- Low (RCP 4.5), 10%
- Low (RCP 4.5), 50%
- Low (RCP 4.5), 90%

Select projections end year
2110

RSLR Projections (in feet) Shown Above

	High (RCP 8.5)			Low (RCP 4.5)		
Year	10%	50%	90%	10%	50%	90%
2020	0.4	0.2	0.1	0.4	0.2	0.1
2030	0.6	0.4	0.1	0.6	0.4	0.1
2040	0.8	0.5	0.2	0.8	0.5	0.2
2050	1.2	0.8	0.4	1.1	0.7	0.3
2060	1.5	1.0	0.5	1.4	0.9	0.4
2070	1.9	1.3	0.7	1.7	1.1	0.5
2080	2.4	1.6	0.8	2.1	1.3	0.6
2090	2.8	1.9	1.0	2.4	1.5	0.7
2100	3.4	2.2	1.2	2.8	1.8	0.8
2110	3.6	2.4	1.3	3.2	2.0	0.9
2120	4.2	2.7	1.5	3.6	2.2	1.0
2130	4.7	3.0	1.7	4.0	2.4	1.0
2140	5.3	3.4	1.8	4.4	2.6	1.1
2150	6.0	3.7	2.0	4.8	2.8	1.1

Click here to download the full Excel data tables for this location or select "Crosstab" in the download menu below to export only the values shown here as a .csv.

Select a location to view localized relative sea lev

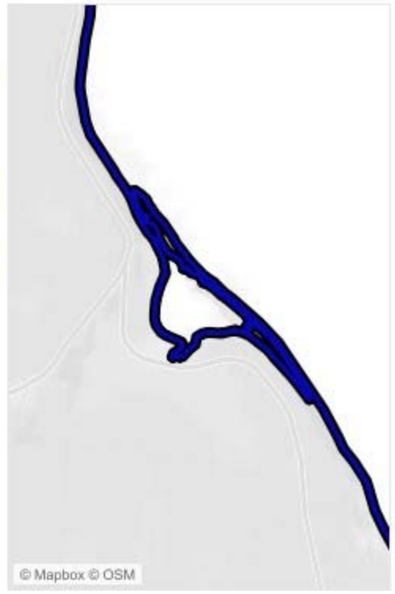
Select County (optional)
Island

Select WRIA (optional)
All

Select RSLR Magnitude(s)
- [ ] 0 ft
- [ ] 0.5 ft
- [x] 1 ft
- [ ] 1.5 ft
- [x] 2 ft
- [x] 2.5 ft
- [x] 3 ft
- [ ] 4 ft
- [ ] 5 ft
- [ ] 6 ft
- [ ] 7 ft
- [ ] 8 ft
- [ ] 9 ft
- [ ] 10 ft

Select greer se gas scenario(s)
- [x] High (RCP 8.5)
- [x] Low (RCP 4.5)

Click for full SLR report.



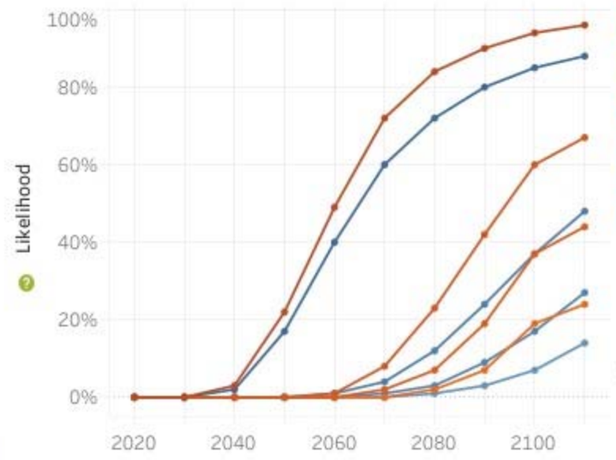
Data Estimated for 48.2°, -122.6°
County: Island
WRIA: 6, Island

Vertical land movement estimate and uncertainty (1 standard deviation) for this location is **-0.2 ± 0.4 ft/century** (negative when land level falls or subsides). This value is factored into these RSLR projections.

If there is a **subduction zone earthquake** this area may be subject to an additional land level change of **0.0 ft to -0.2 ft** which is NOT factored into these RSLR projections. Coastal subsidence during a subduction zone earthquake would have the effect of RAISING local relative sea level.

Likelihood of Selected RSLR(s) for This Location

Hover for details.



Scenario, RSLR
- High (RCP 8.5), 1 ft
- High (RCP 8.5), 2 ft
- High (RCP 8.5), 2.5 ft
- High (RCP 8.5), 3 ft
- Low (RCP 4.5), 1 ft
- Low (RCP 4.5), 2 ft
- Low (RCP 4.5), 2.5 ft
- Low (RCP 4.5), 3 ft

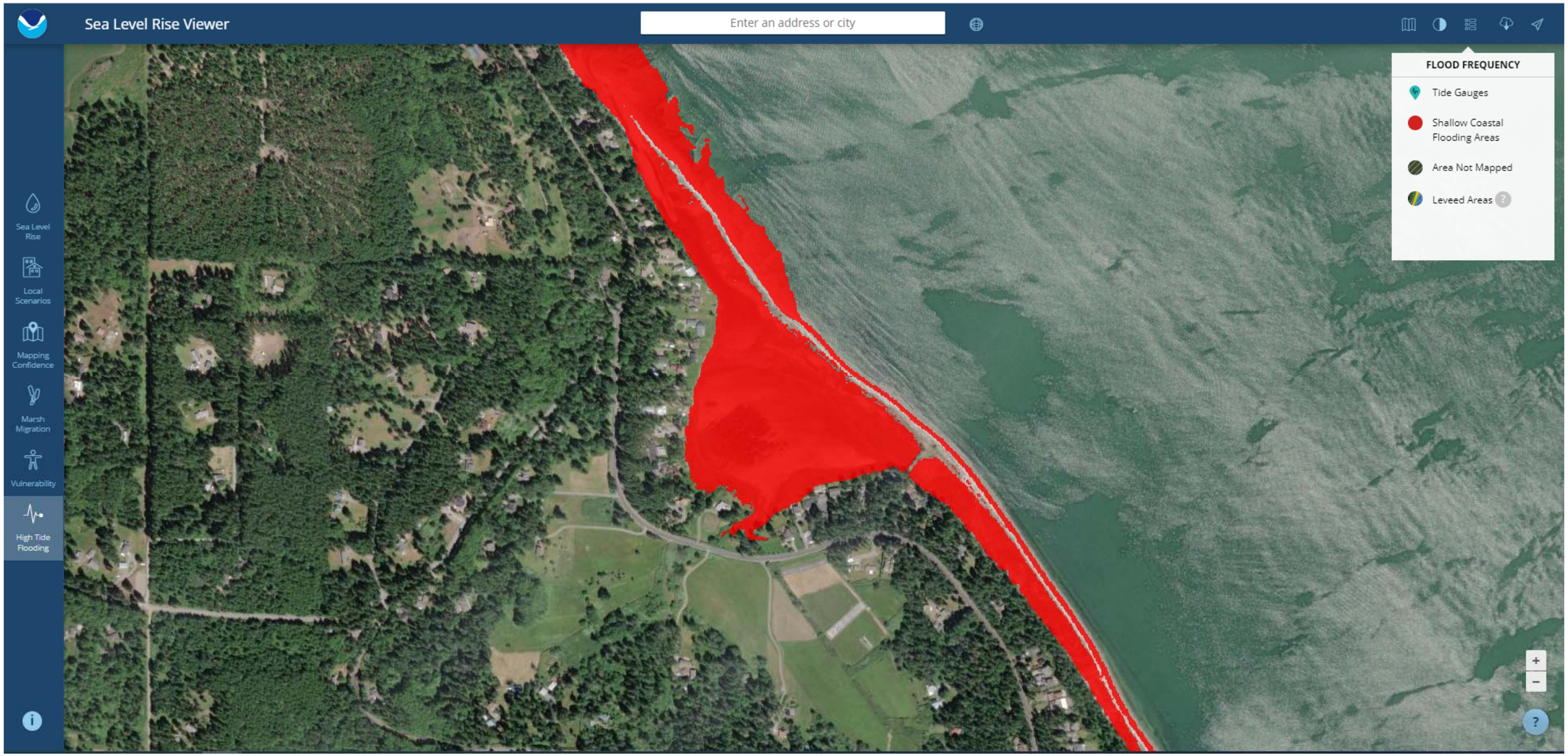
Select projections end year
2110

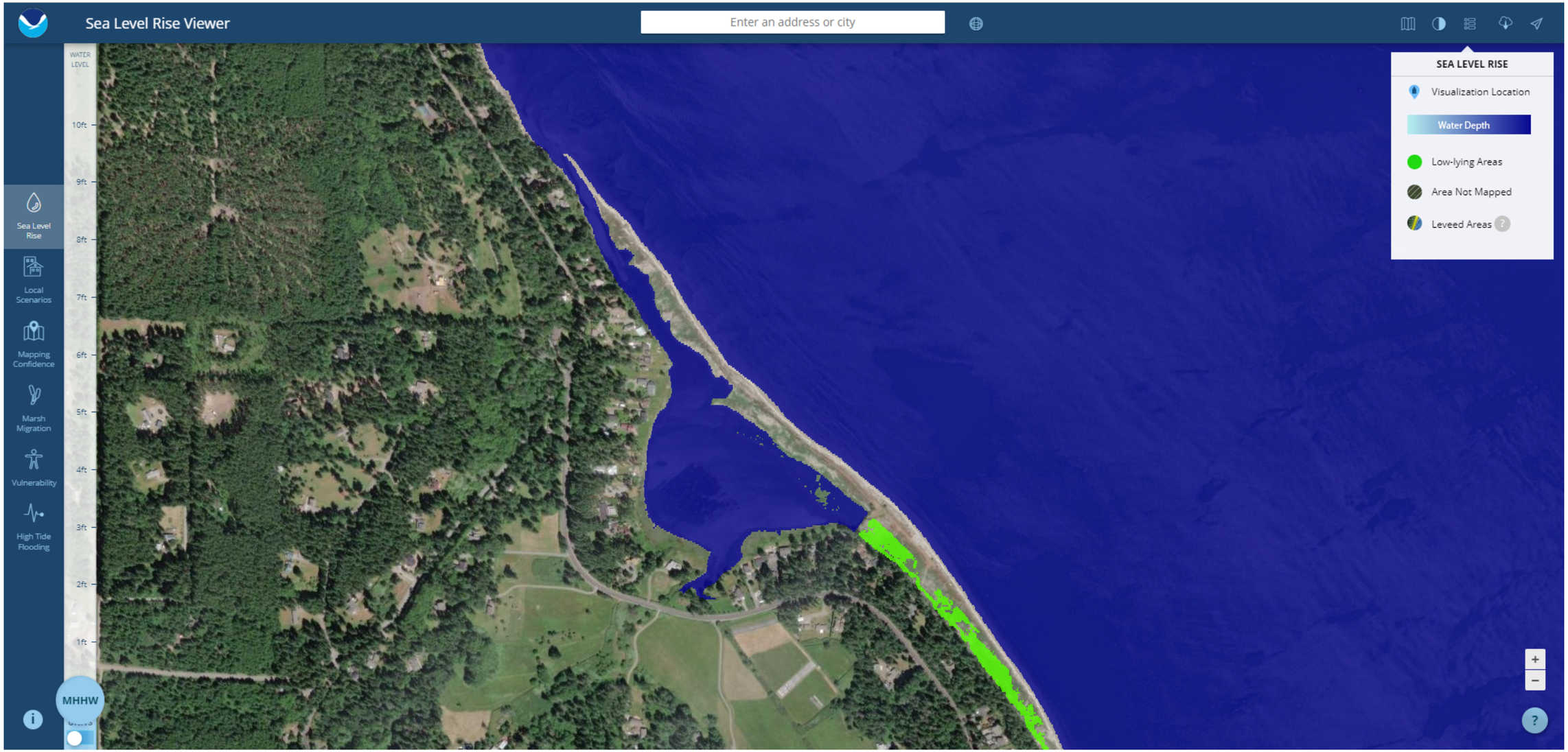
Likelihood Data Shown Above

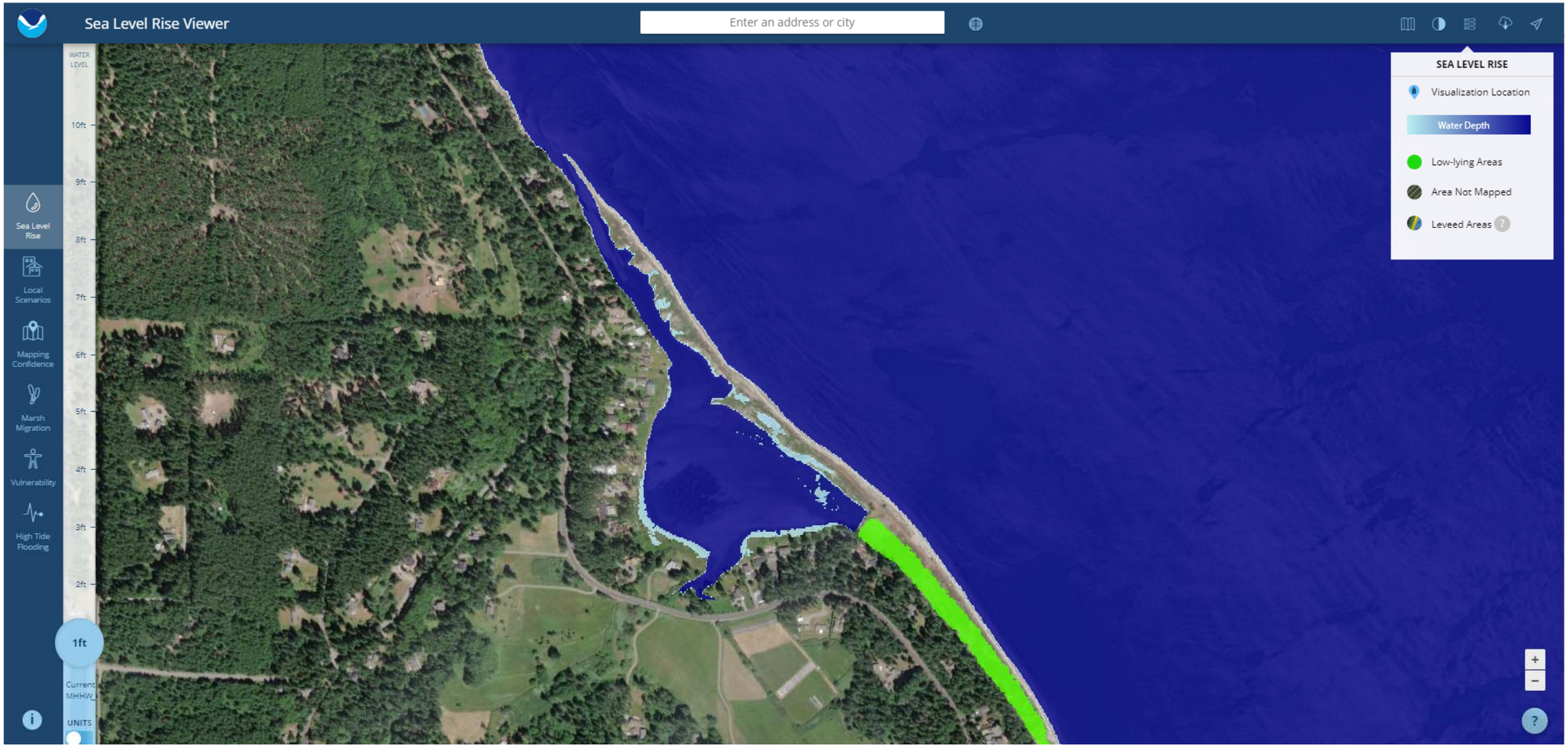
	High (RCP 8.5)				Low (RCP 4.5)			
Year	1 ft	2 ft	2.5 ft	3 ft	1 ft	2 ft	2.5 ft	3 ft
2020	0%	0%	0%	0%	0%	0%	0%	0%
2030	0%	0%	0%	0%	0%	0%	0%	0%
2040	3%	0%	0%	0%	2%	0%	0%	0%
2050	22%	0%	0%	0%	17%	0%	0%	0%
2060	49%	1%	0%	0%	40%	1%	0%	0%
2070	72%	8%	2%	0%	60%	4%	1%	0%
2080	84%	23%	7%	2%	72%	12%	3%	1%
2090	90%	42%	19%	7%	80%	24%	9%	3%
2100	94%	60%	37%	19%	85%	37%	17%	7%
2110	96%	67%	44%	24%	88%	48%	27%	14%
2120	97%	77%	59%	39%	90%	57%	36%	21%
2130	98%	83%	69%	51%	91%	63%	45%	29%
2140	98%	87%	76%	61%	91%	68%	52%	37%
2150	98%	90%	81%	69%	92%	72%	58%	43%

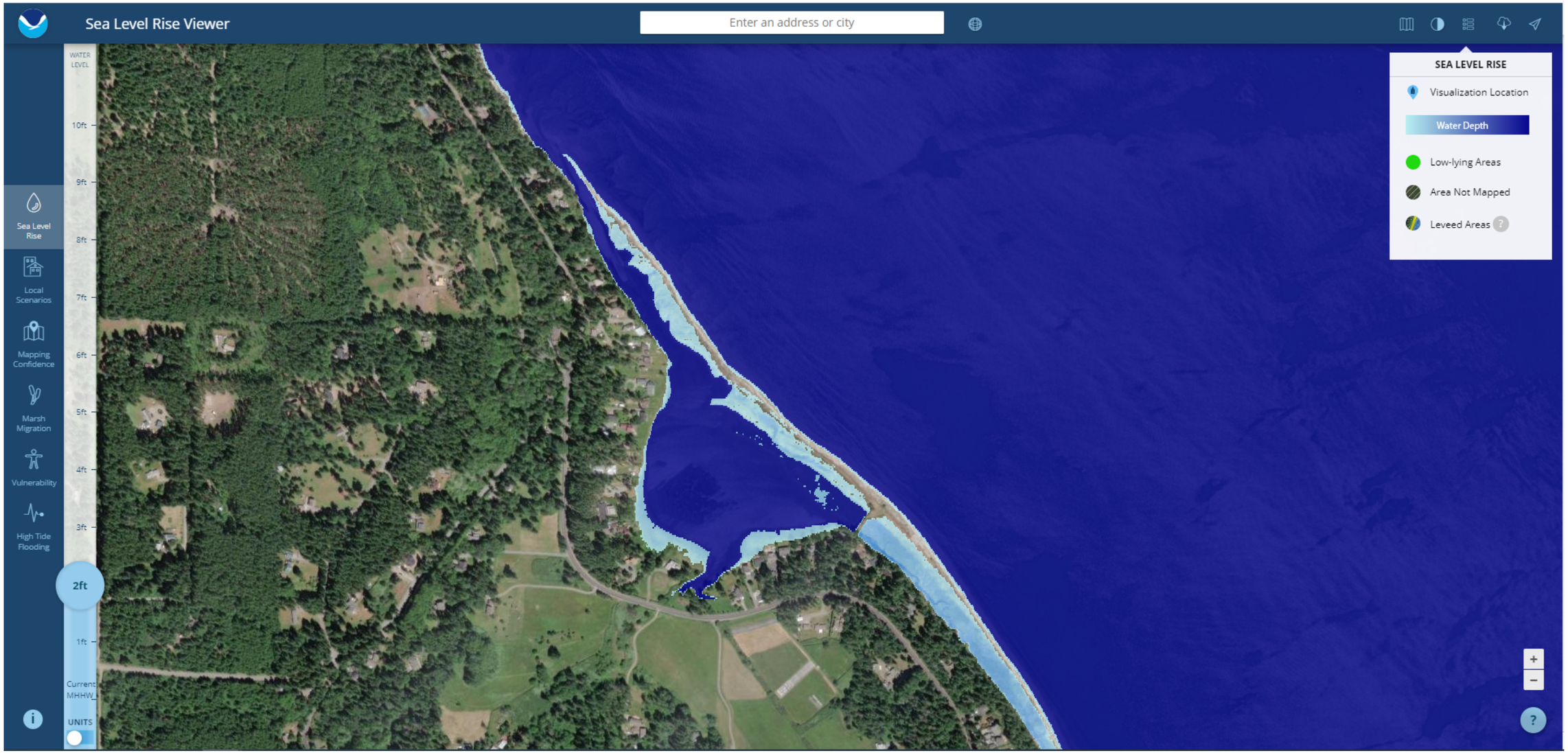
Click here to download the full Excel data tables for this location or select "Crosstab" in the download menu below to export only the values shown here as a..

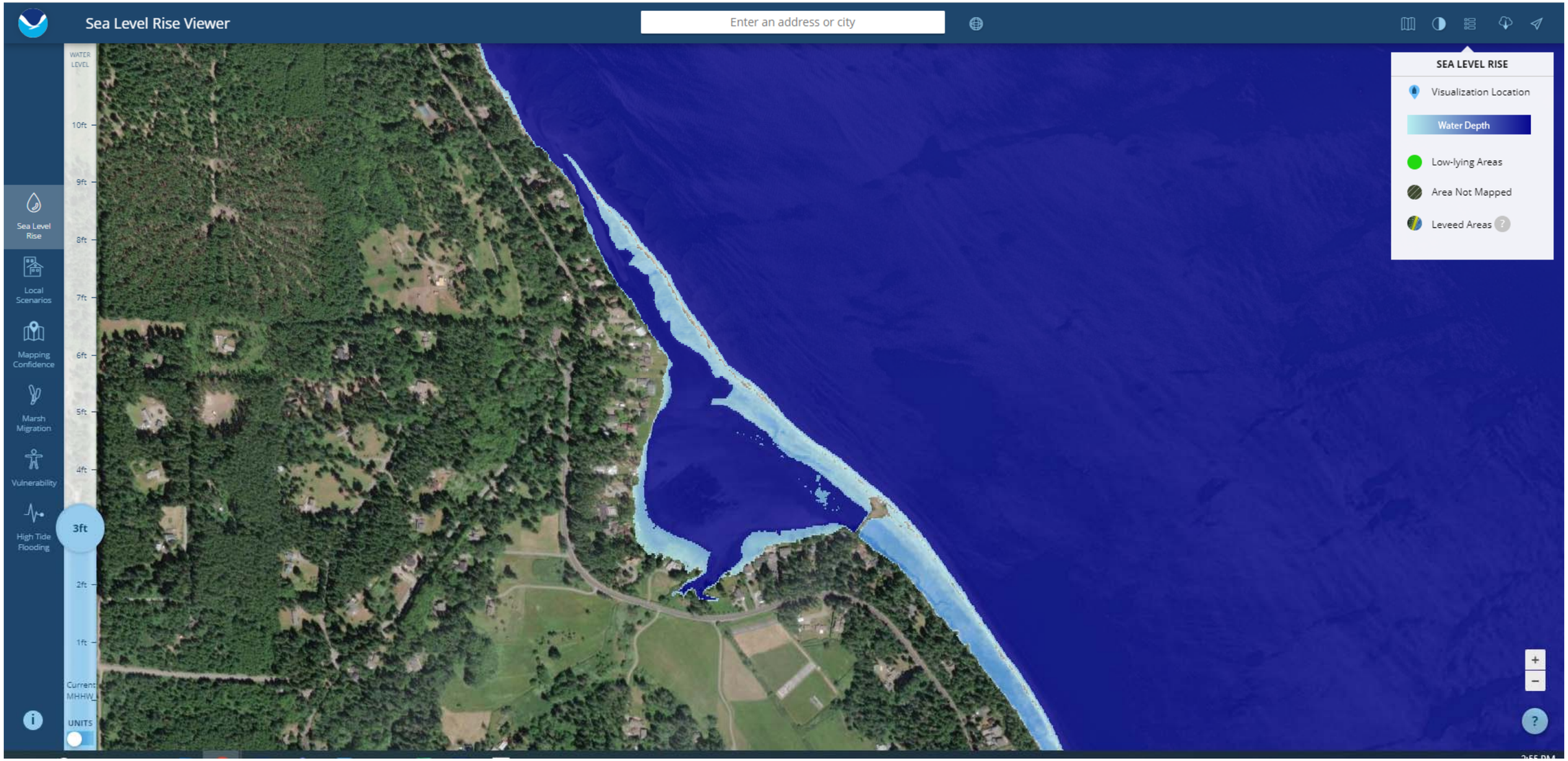
NOAA's Sea Level Rise map viewer: https://www.climate.gov/maps-data/dataset/sea-level-rise-map-viewer

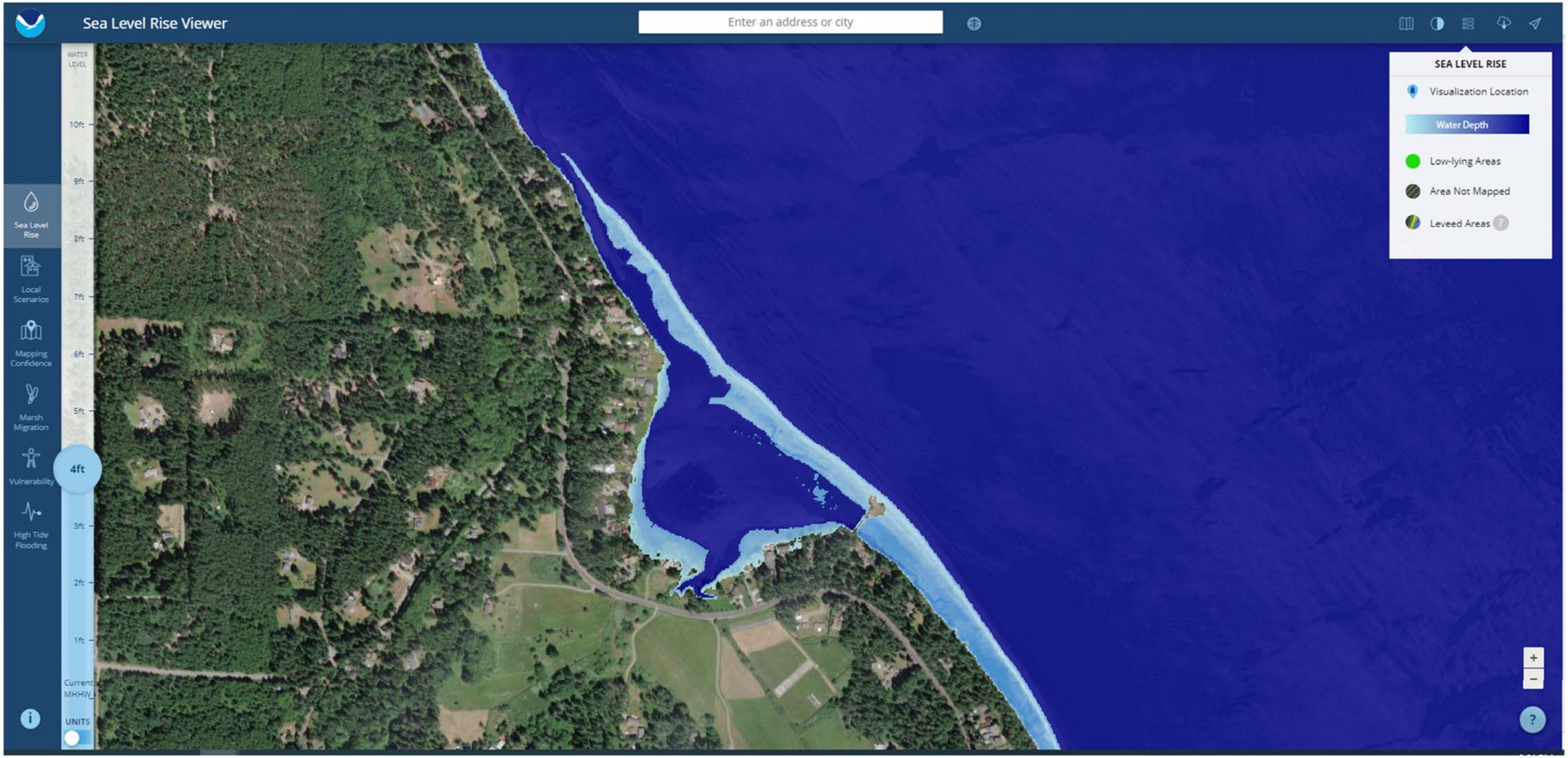



Sea Level Rise Viewer
Enter an address or city
WATER LEVEL
10ft
9ft
8ft
7ft
6ft
5ft
4ft
3ft
2ft
1ft
Sea Level Rise
Local Scenarios
Mapping Confidence
Marsh Migration
Vulnerability
High Tide Flooding
MHHW
SEA LEVEL RISE
Visualization Location
Water Depth
Low-lying Areas
Area Not Mapped
Leveed Areas


Sea Level Rise Viewer
Enter an address or city
WATER LEVEL
10ft
9ft
8ft
7ft
6ft
5ft
4ft
3ft
2ft
1ft
Current MHHW
UNITS
Sea Level Rise
Local Scenarios
Mapping Confidence
Marsh Migration
Vulnerability
High Tide Flooding
SEA LEVEL RISE
Visualization Location
Water Depth
Low-lying Areas
Area Not Mapped
Leveed Areas


Sea Level Rise Viewer
Enter an address or city
WATER LEVEL
10ft
9ft
8ft
7ft
6ft
5ft
4ft
3ft
2ft
1ft
Current MHHW
UNITS
Sea Level Rise
Local Scenarios
Mapping Confidence
Marsh Migration
Vulnerability
High Tide Flooding
SEA LEVEL RISE
Visualization Location
Water Depth
Low-lying Areas
Area Not Mapped
Leveed Areas


Sea Level Rise Viewer
Enter an address or city
WATER LEVEL
10ft
9ft
8ft
7ft
6ft
5ft
4ft
3ft
2ft
1ft
Current MHHW
UNITS
Sea Level Rise
Local Scenarios
Mapping Confidence
Marsh Migration
Vulnerability
High Tide Flooding
SEA LEVEL RISE
Visualization Location
Water Depth
Low-lying Areas
Area Not Mapped
Leveed Areas


Sea Level Rise Viewer
Enter an address or city
SEA LEVEL RISE
Visualization Location
Water Depth
Low-lying Areas
Area Not Mapped
Leveed Areas
WATER LEVEL
10ft
9ft
8ft
7ft
6ft
5ft
4ft
3ft
2ft
1ft
Current MHHW
UNITS
Sea Level Rise
Local Scenarios
Mapping Confidence
Marsh Migration
Vulnerability
High Tide Flooding

WDFW Culverts and Climate Change App: https://geodataservices.wdfw.wa.gov/hp/culvert-app/

Culvert 1893

Fish passage: Unknown

SiteID: 609593
Stream name: unnamed
Tributary to: Race Lagoon
Barrier reason: Insufficient Data
Barrier status: Unknown
Fish use: Yes
Fish use criteria: Physical
Percent fish passable: Unknown
Owner type: County
Survey date: 03/05/2020

Grid cell ID	48.21875_-122.59375
Ecoregion	Pacific Maritime Mountains
MI	I
%change in Bankfull width	6.89
%change in Bankfull flow	14.67
%change in 100-year flood	17.68

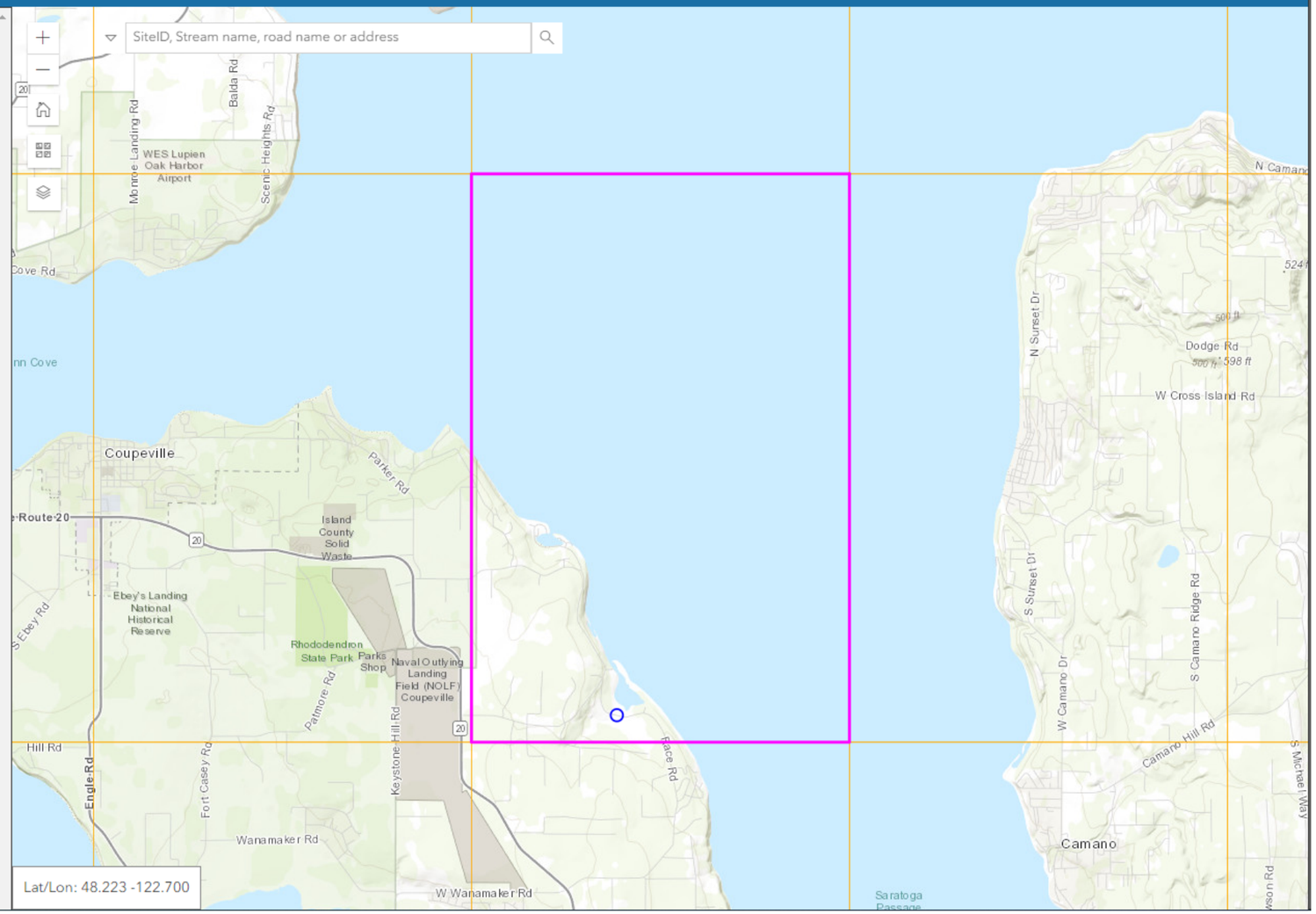
Culverts And Climate Change

About Help

Home Results

Culvert coordinates	48.1905, -122.6009	
Grid cell ID	48.21875_-122.59375	
Ecoregion	Pacific Maritime Mountains	
	Projections for 2080s	
	Mean % Difference from Historical	Model Agreement (max=10)
%change in Bankfull width	6.89	7
%change in Bankfull flow	14.67	7
%change in 100-year flood	17.68	8

Generate report Export data Clear



Culvert 1894

Fish passage: Unknown

SiteID: 609594
Stream name: unnamed
Tributary to: Race Lagoon
Barrier reason: Level B Required
Barrier status: Unknown
Fish use: Unknown
Fish use criteria:
Percent fish passable: Unknown
Owner type: County
Survey date: 02/27/2020

Grid cell ID	48.21875_-122.59375
Ecoregion	Pacific Maritime Mountains
MI	I
%change in Bankfull width	6.89
%change in Bankfull flow	14.67
%change in 100-year flood	17.68

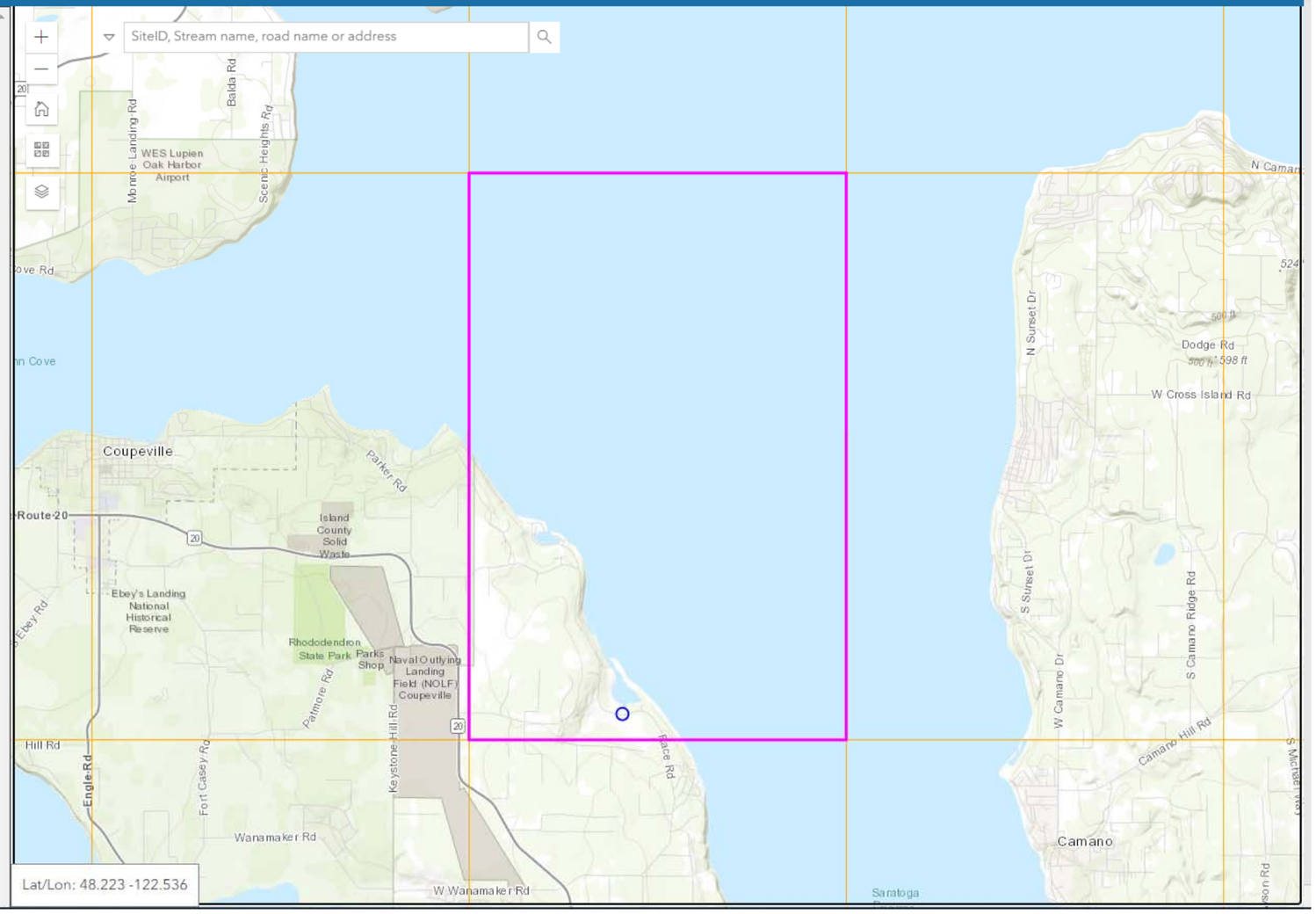
Culverts And Climate Change

About Help

Home Results

Culvert coordinates	48.1903, -122.5995	
Grid cell ID	48.21875_-122.59375	
Ecoregion	Pacific Maritime Mountains	
	Projections for 2080s	
	Mean % Difference from Historical	Model Agreement (max=10)
%change in Bankfull width	6.89	7
%change in Bankfull flow	14.67	7
%change in 100-year flood	17.68	8

Generate report Export data Clear



Culverts And Climate Change

About Help

Home Results

Culvert coordinates	48.185, -122.5832	
Grid cell ID	48.15625_-122.59375	
Ecoregion	Pacific Maritime Mountains	
	Projections for 2080s	
	Mean % Difference from Historical	**Model Agreement (max=10)**
%change in Bankfull width	6.94	8
%change in Bankfull flow	14.79	8
%change in 100-year flood	18.36	7

Generate report Export data Clear