



FACET



**BLUE COAST
ENGINEERING**

KITSAP COUNTY

Sea Level Rise Vulnerability and Risk Assessment

Technical Advisory Meeting #3

formerly DCG/Watershed



Agenda

- Mapping Scope and Methodology
- Draft Maps and Preliminary Results
- Online Survey Results
- Discussion
- Next Steps

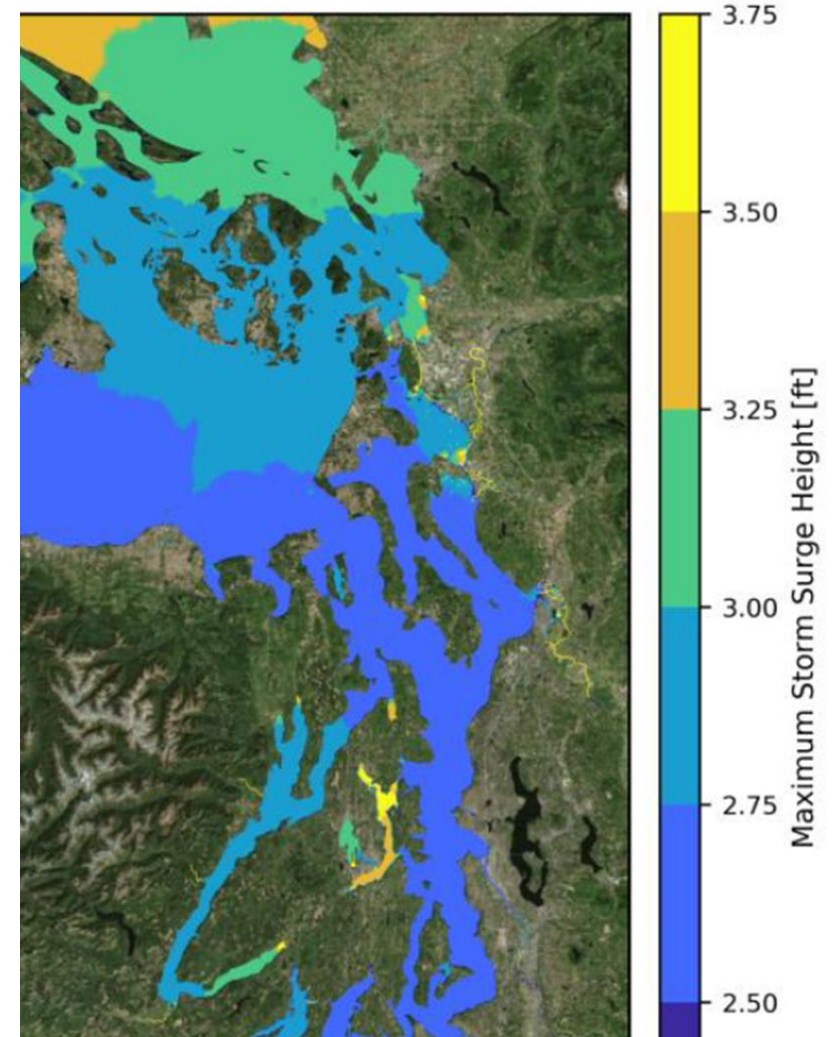


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Mapping Methodology

- 16 coastal reaches averaged
- Rounded to Half-foot increments
- Bay flooding adjustments
- Marine and disconnected areas



Source: *Extreme Coastal Water Level in Washington State: Guidelines to Support Sea Level Rise Planning* (Miller et al, 2019).

Mapping Projections – Decisions by TAC

Modeled Increases of tidal height, due to projected sea level rise and extreme flooding, for Kitsap County by 2050 and 2100 under different certainties.

	Certainty			50-yr Return Flood with 90% certainty		50-yr Return Flood with 50% Certainty		50-yr Return Flood with 1% certainty		
	90%	50%	1%	West-, East- and North-facing shorelines, Dyes	Sinclair, Agate Pass, Port Gamble, Liberty	West-, East- and North-facing shorelines, Dyes	Sinclair, Agate Pass, Port Gamble, Liberty	West-, East- and North-facing shorelines	Sinclair, Agate Pass, Port Gamble, Dyes	Liberty
2050	0.5 ft	1 ft	1.5 ft	3.5 ft	4 ft	4 ft	4.5 ft	4.5 ft	5 ft	5.5 ft
2100	1.5 ft	2.5 ft	5 ft	4.5 ft	5 ft	5.5 ft	6 ft	8 ft	8.5 ft	9 ft

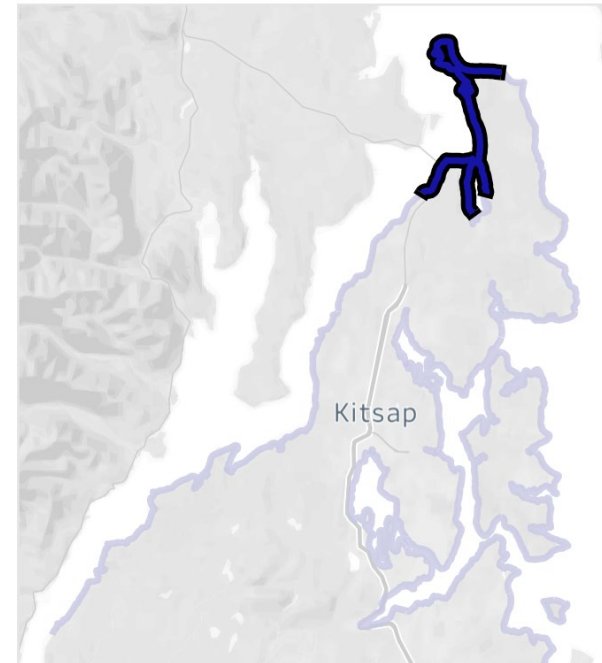
Using the RCP 8.5 projections. Sources: Projected Sea Level Rise for Washington State (Miller et al, 2018) ; Extreme Coastal Water Level in Washington State: Guidelines to Support Sea Level Rise Planning (Miller et al, 2019); NOAA Sea Level Rise Viewer Data Download (2024).



SLR Projections – North

RCP 8.5

	Assessed Probability of Exceedance:									
	99	95	90	83	50	17	10	5	1	0.1
2010	-0.1	0	0	0	0.1	0.2	0.2	0.2	0.3	0.3
2020	-0.1	0	0.1	0.1	0.2	0.3	0.4	0.4	0.5	0.6
2030	0	0.1	0.1	0.2	0.4	0.5	0.6	0.7	0.8	0.9
2040	0	0.1	0.2	0.3	0.5	0.8	0.9	1	1.1	1.4
2050	0	0.2	0.4	0.5	0.8	1.1	1.2	1.3	1.6	2.2
2060	0.1	0.4	0.5	0.6	1	1.4	1.5	1.7	2.1	3
2070	0.2	0.5	0.7	0.8	1.3	1.8	1.9	2.2	2.7	4.2
2080	0.3	0.6	0.8	1	1.6	2.2	2.4	2.7	3.4	5.5
2090	0.3	0.8	1	1.2	1.9	2.6	2.9	3.2	4.2	7
2100	0.4	0.9	1.2	1.4	2.2	3.1	3.4	3.9	5.1	8.6



Assets

- Roads, Transportation
- Hospitals, Police Stations, Fire Depts
- Schools, Libraries
- Residences
- Agricultural, Farmland
- On-site septic systems
- Electrical Substations
- Historic and Cultural Resources
- Group A Wells, WWTPs
- Beach Access, Parks
- Wetlands, Estuaries
- Marinas, Bays
- Brownfield Sites, Landfills























Draft Maps - Legend

SLR – Sea Level Rise. Areas that may be inundated at normal Mean High High Water (MHHW) tides.

50-yr Flood – Areas that may inundate during an extreme weather event that includes flooding seen once every 50 years (based on pre-2017 tide gauge data)

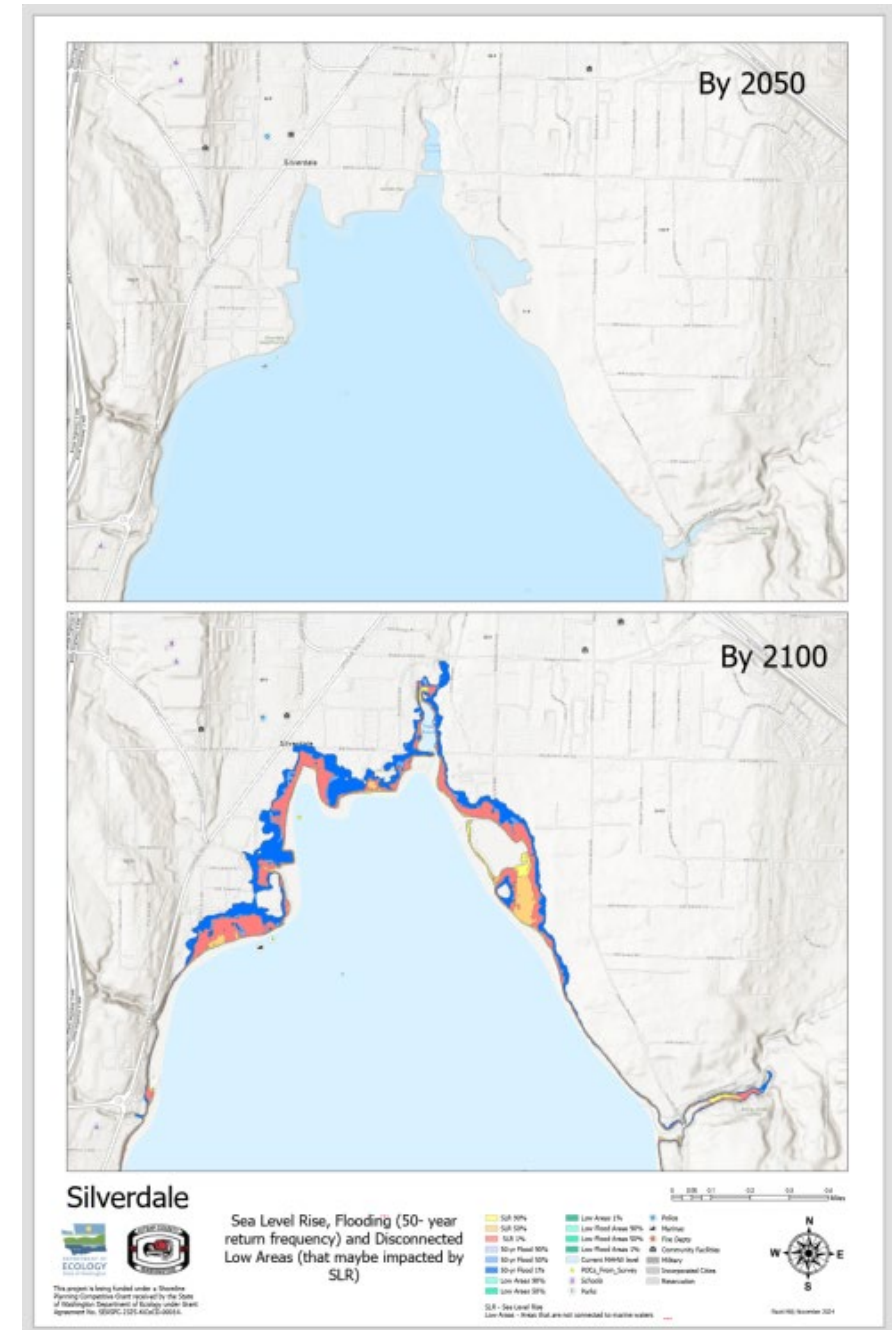
Low Areas – areas that are disconnected from the marine water but may become flooded because of increased daily high tide levels, due of their elevation

Low Flood Areas – areas that are disconnected from marine water but may become flooded during extreme weather flooding, due of their elevation.

-  Average Daily High Tide 90% Certainty
-  Average Daily High Tide 50% Certainty
-  Average Daily High Tide 1% Certainty
-  50-yr Storm Level 90% Certainty
-  50-yr Storm Level 50% Certainty
-  50-yr Storm Level 1% Certainty
-  Non-Tidal Areas that May Flood, 90% Certainty
-  Non-Tidal Areas that May Flood, 50% Certainty
-  Non-Tidal Areas that May Flood, 1% Certainty
-  Non-Tidal Areas that May Flood during a 50-yr Flood Event, 90% Certainty
-  Non-Tidal Areas that May Flood during a 50-yr Flood Event, 50% Certainty
-  Non-Tidal Areas that May Flood during a 50-yr Flood Event, 1% Certainty
-  POCs_From_Survey
-  Schools
-  Parks
-  Police
-  Marinas
-  Fire Depts
-  Community Facilities
-  Military
-  Incorporated Cities
-  Reservation

Draft Maps

- Hansville
- Kingston
- Suquamish
- Silverdale
- Gorst
- Port Orchard
- Holly
- Seabeck
- Olalla
- Southworth
- Waterman Point
- Chico



SLR Community Survey Results

Date opened: Sept. 5, 2024

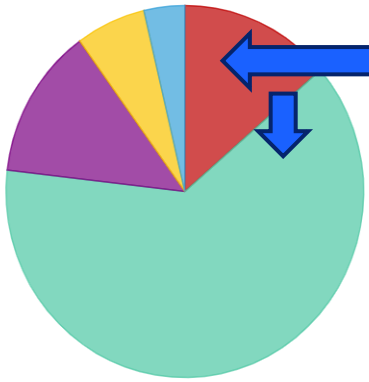


Date Closed: Nov. 10, 2024



Total responses: 200

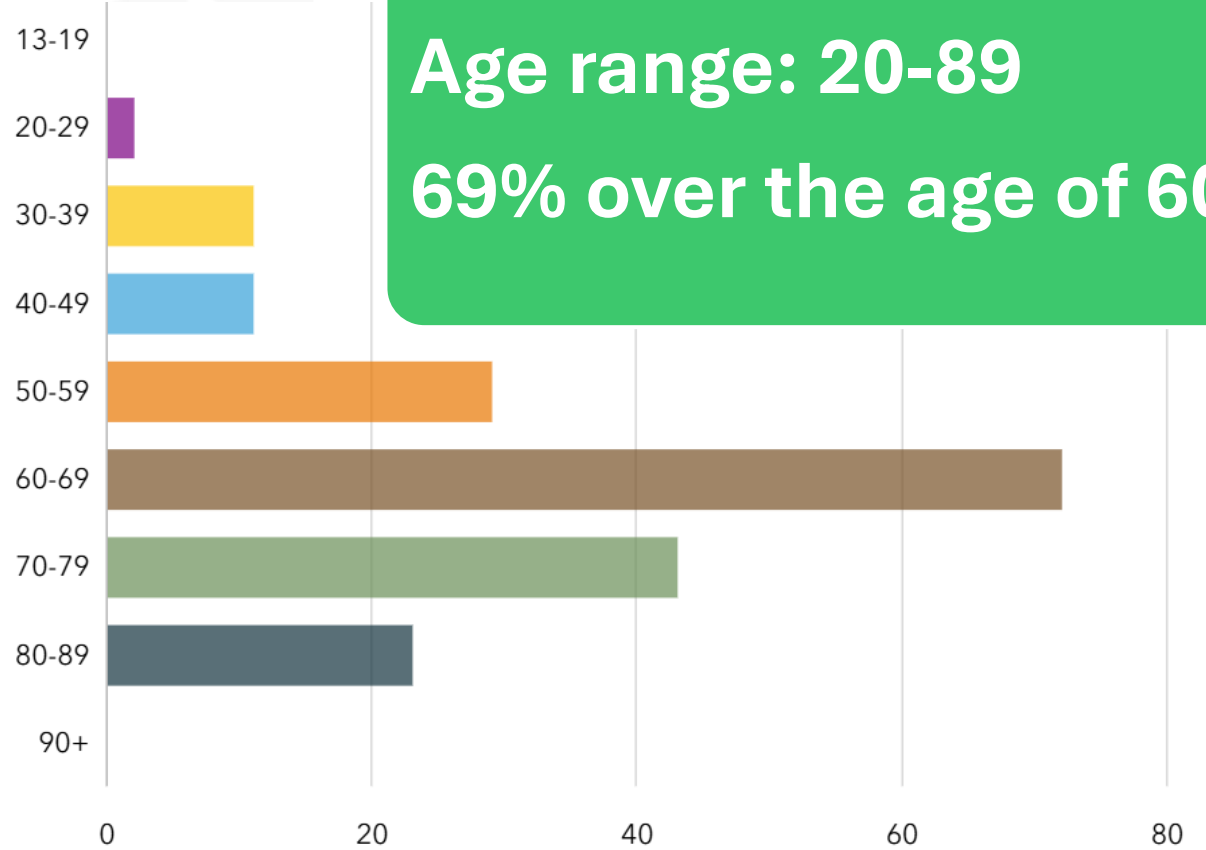
Respondent Demographic Data



73%
Households
with 1-2
people

76% White

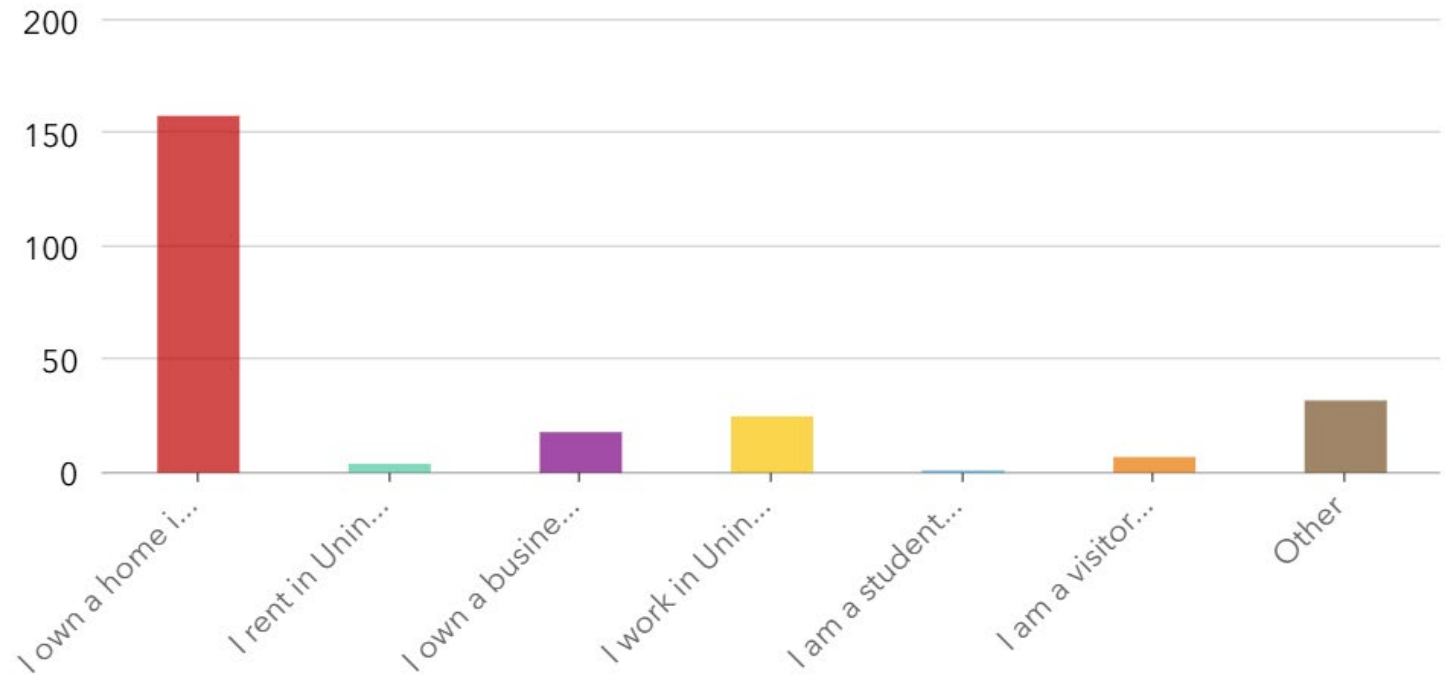
28% Other, prefer not



Age range: 20-89
69% over the age of 60



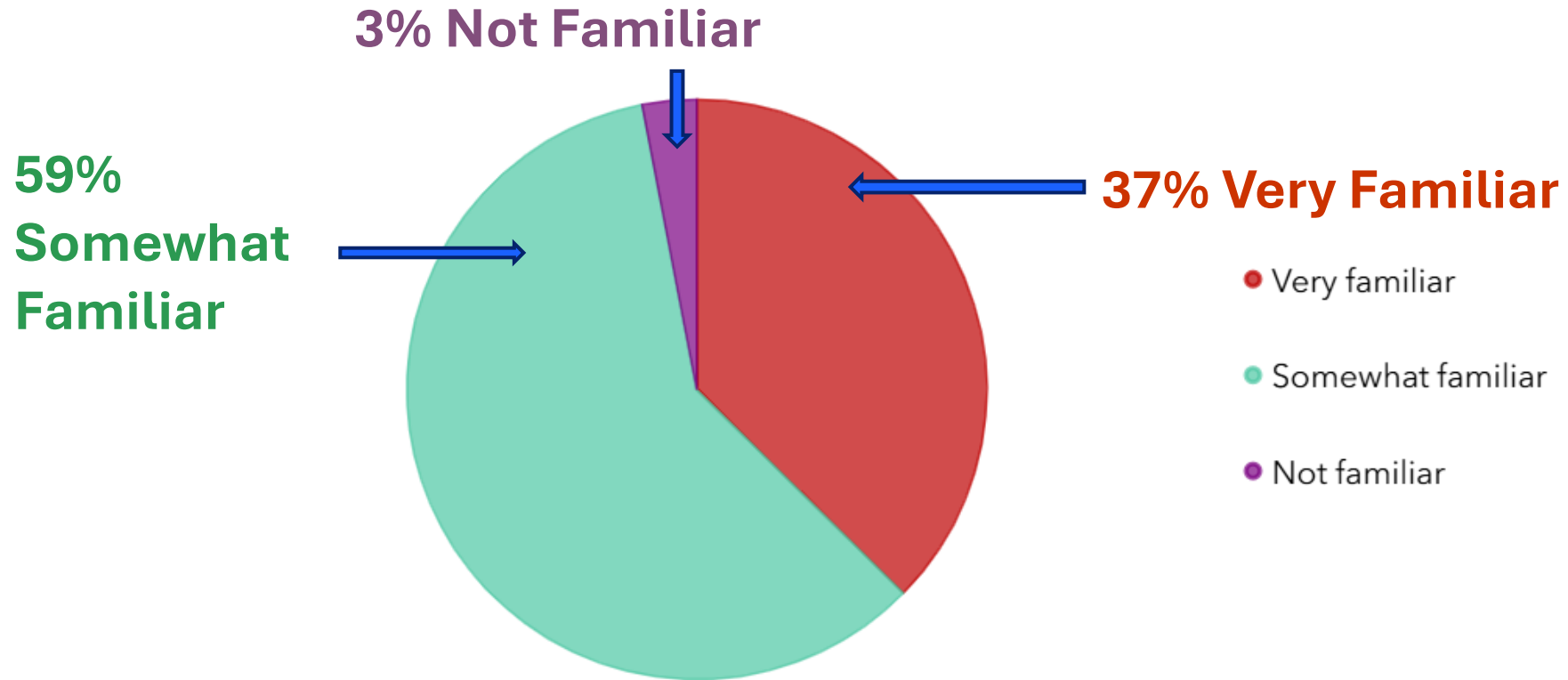
Respondent relationship to Unincorporated Kitsap County



- **79% Own Home (158 respondents)**
- **2% Rent**
- **9% Own business**
- **12.5% Work in the County**

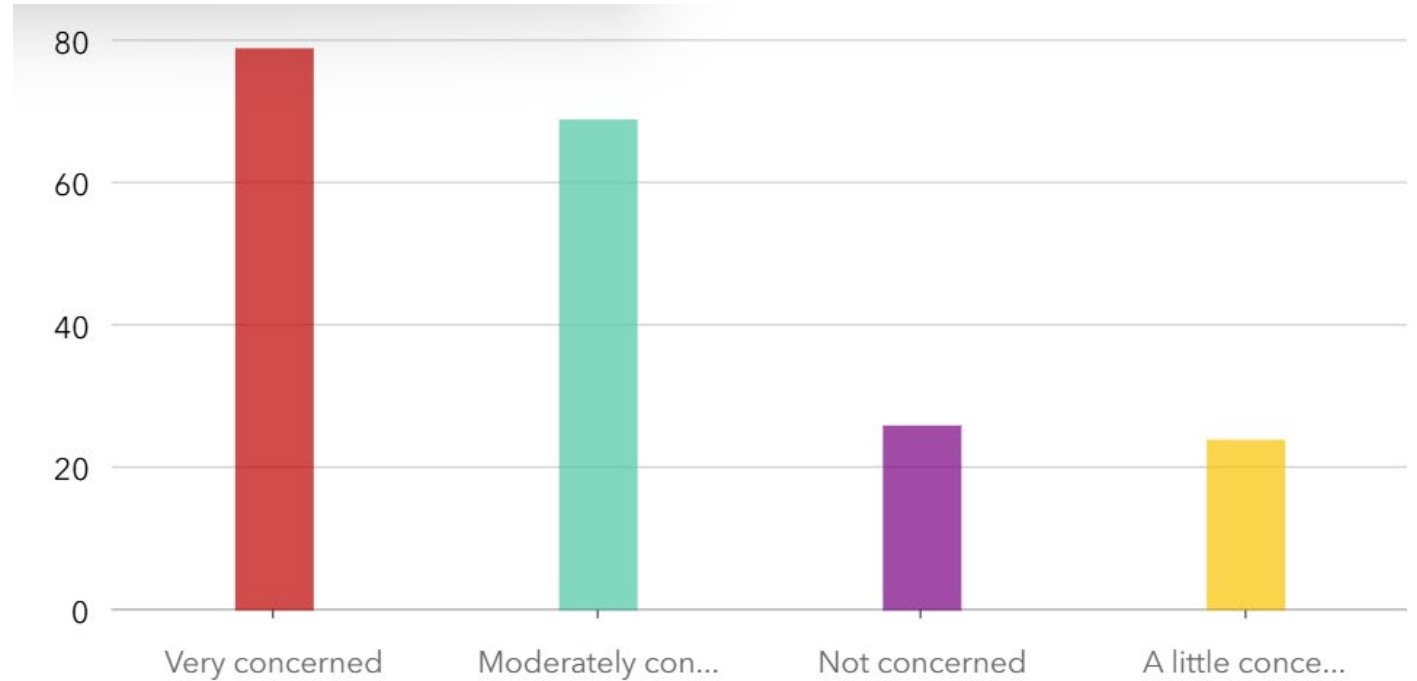
- **1 student!**
- **3.5% Visitors**
- **16% Other**

How familiar are you with the topic of sea level rise, coastal flooding and their impacts?



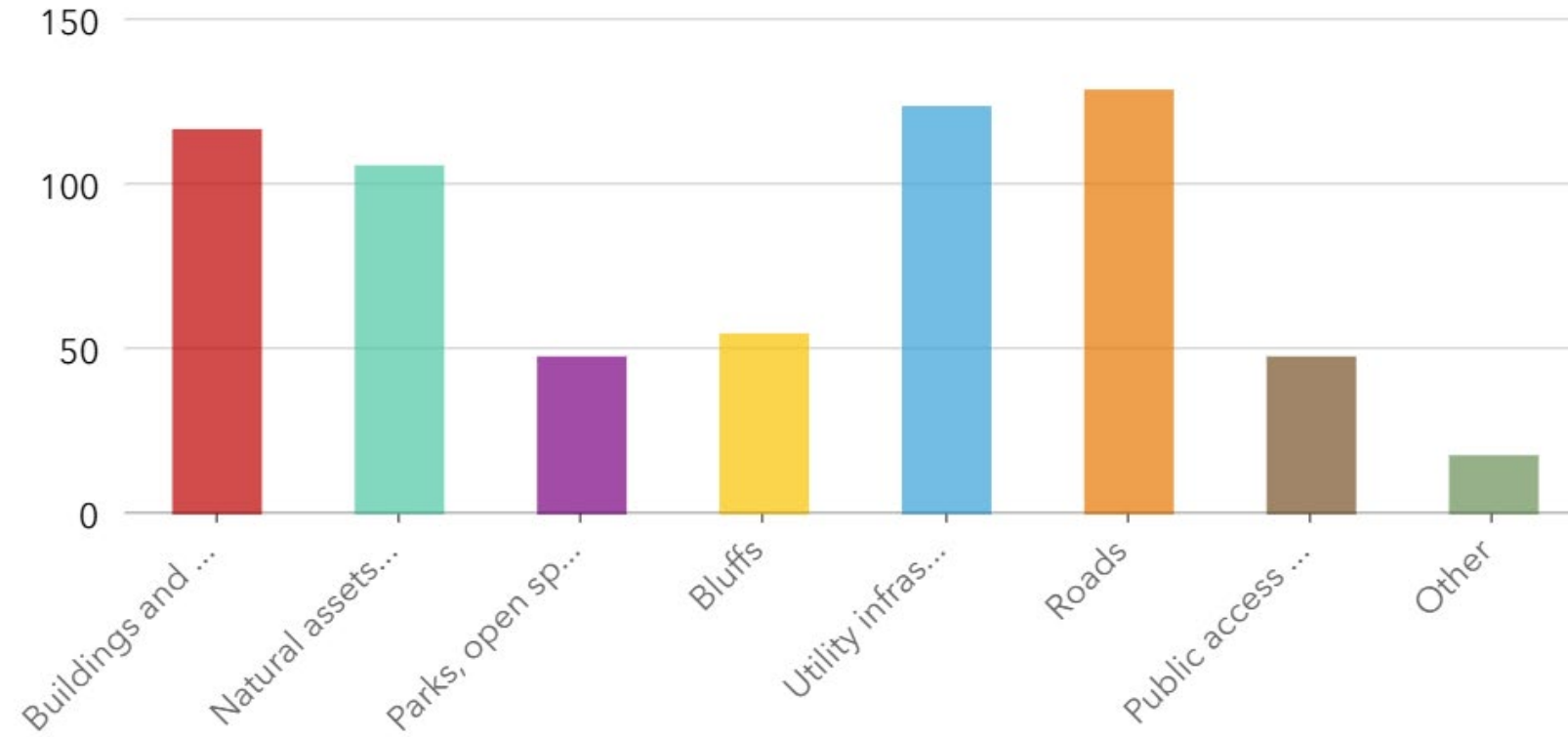
Majority of respondents (96%) are somewhat or very familiar with sea level rise

How concerned are you about the future impacts of sea level rise and coastal flooding in Kitsap County?

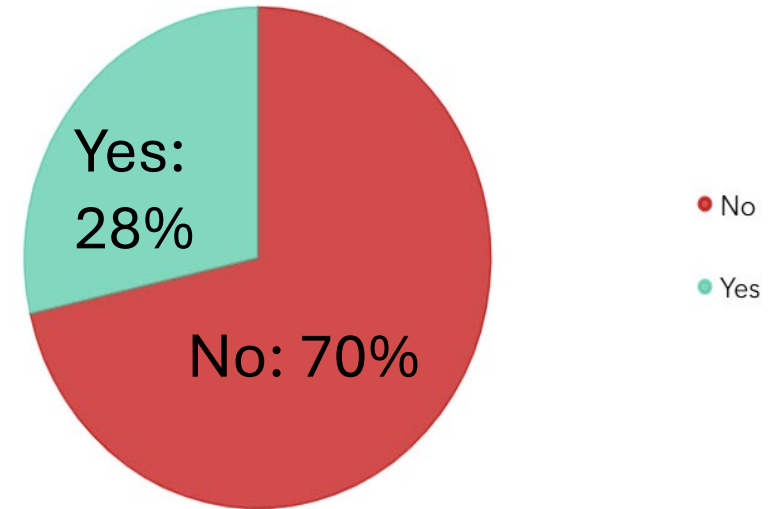


- **39.5% Very concerned**
- **34.5% Moderately concerned**
- **12% A little concerned**
- **13% Not concerned**

Which Assets do you consider the most important for this assessment?



Has coastal flooding impacted your property or someone you know?





Flooding Images from respondents



Timeline

Project Kick-off	June 2024	Public Announcement, Website Materials
TAC Meeting #1	June 2024	Kick off meeting with TAC, Review project and roles
TAC Meeting #2	July 2024	Determine SLR projection to be used in Assessment
Planning Commission / Board of Commissioners Brief	August 2024	Project Overview and Outreach Approach
Community Advisory Council Briefs	September 2024	Project Overview
Public Meeting #1	September 2024	Project Overview
Public Survey	September 2024	Public and Agency Surveys on Concerns and Priorities
TAC Meeting #3	December 4, 2024	Review of Preliminary Maps
Public Meeting #2	December 12, 2024	Review Draft Maps, Survey Results and Preliminary Findings
Draft Documents	January 2024	Draft Maps Published
TAC Meeting #4	February 2025	Review and Discussion of Draft Audit Summary Memorandum and Report
Planning Commission Meeting /Public Meeting #3	March 2025	Review and Discussion of Draft Audit Summary Memorandum and Report
Board of Commissioners/Public Meeting #4	May 2025	Review and Discussion of Final Documents and draft amendments contained within the Audit Summary Memorandum.
Final Report	June 2025	Final Documents Published

A photograph of a marina at sunset. The sky is a mix of orange, yellow, and blue, with a dark forested hill in the background. Several boats are docked at wooden piers. In the foreground, a small, white, two-story building with a dark roof sits on a pier, its lights glowing. The water is calm, reflecting the sky and the buildings. The word "Discussion" is written in large white letters in the lower-left quadrant.

Discussion