

Group Assignment: Conduct a Vulnerability Assessment

For this assignment, you will work in small groups to conduct a high-level SLR vulnerability assessment using the Sketch Planning Tool map viewer and a simplified risk-based approach*. After completion, each group will share a map of their findings with the rest of the group.

Part A. Determine Study Parameters: Location and Planning Horizon

1. **Determine an asset/facility or general site location** to be the focus of this assessment. Examples include as construction or renovation of building, road, bridge, park, other infrastructure).
2. **Determine the planning horizon.** For this exercise, assume that construction or improvement on your asset will begin in 2030. Then, estimate the asset’s functional lifespan or how long the asset will be in operation.
 - For example: Resurfacing an arterial road – will begin in 2030 and surface is expected to be operational for 30 years. Planning horizon would be 2060 (2030 + 30 years).

Study Parameters	Your Answers
Team Name	
Location & Asset	
Functional lifespan of the asset (in years)	
Planning Horizon (year) = 2030 + functional lifespan	

Part B. Estimate Basic Risk Tolerance

3. **Complete the table below to estimate the risk tolerance for this asset.** Rank each of the three factors with a High, Medium, or Low. Then calculate the score for each factor and sum the total score. Use your best judgement to estimate!

Risk Tolerance Factors	Factor ranking	Rank: High, Medium, Low	Score: High = 5, Med = 3, Low = 1
What is the economic cost of construction for this asset?	Very costly = High Moderate cost = Medium Inexpensive = Low		
How critical is this asset or area to the public?	Very critical = High Moderate = Medium Not critical = Low		
If damaged by flooding, how hard or easy is this asset to repair?	Hard to repair = High In Between = Medium Easy to repair = Low		
		Total Score	

If your Total Score is: 3 - 6 = High Risk Tolerance

7 - 10 = Moderate Risk Tolerance

11 - 15 = Low Risk Tolerance

Please note: high scores indicate low risk tolerance

**Note: This is a very simplified version of a risk-based assessment. In real life, many additional factors would be taken into consideration.*

Part C. Choose SLR Scenarios

4. Choose 2 SLR Scenarios based on your answers to Part B. Complete the table below.

	NOAA 2017 SLR scenarios	Probability of exceeding
High Risk Tolerance (Scores 3-6) Choose <i>Intermediate-Low & Intermediate</i> . For: short-term or low-cost projects not critical to public or easy to modify.	Intermediate-low	96%
	Intermediate	17%
Moderate Risk Tolerance (Scores 7-10) Choose <i>Intermediate & Intermediate-high</i> . For: projects with moderate cost or importance to public.	Intermediate-high	1.3%
	High	0.3%

Exercise Steps	Your Answers
Part A. Planning Horizon. List decade closest to 2040, 2060, 2070, 2080, 2090, 2100 (what is available in map viewer).	
Part B. Estimated Risk Tolerance (High, Moderate, Low)	
Part C. NOAA SLR Scenario 1	
Part C. NOAA SLR Scenario 2	

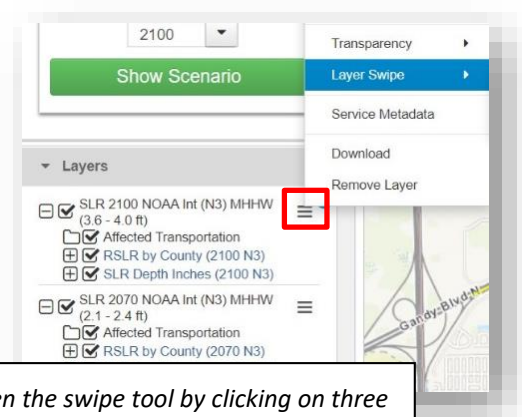
Part D. Use the Map Viewer to Evaluate Scenarios

For this step, you will want to have the *Map Viewer Exercises* on hand:

https://sls.geoplan.ufl.edu/pub/sls/training/Map_Viewer_Exercises.pdf

5. Display SLR scenarios for your Planning Horizon

- Link to viewer: <https://sls.geoplan.ufl.edu/viewer>
- Use the **Scenario Selector** to load the two SLR scenarios for your planning horizon.
Need help selecting a scenario? See *Map_Viewer_Exercises.pdf*, Page 7, Exercise 3: Add SLR Scenarios and Explore Scenario Data.
- Use the **Swipe Tool** to compare the two scenarios. See *Map_Viewer_Exercises.pdf*, Page 11, Exercise 4: Compare Two Scenarios Using the Swipe Tool.



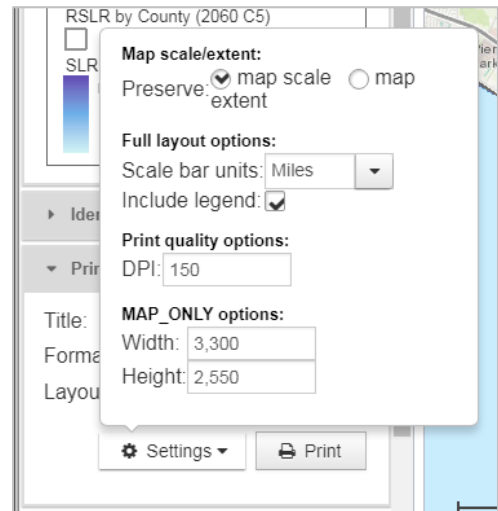
Tip: Open the swipe tool by clicking on three horizontal lines next to the higher scenario.

6. **Evaluate current flood risks on asset/ area.** Use the map viewer to evaluate potential impacts from 100-year and 500-year floodplains, and storm surge zones.
7. **Create a map (or a few) showing your area and the potential flood risk from 2 SLR scenarios and/or current flood risks.** Instructions for creating a map on next page.
8. **Choose a group member to share your map(s) and findings.** What area and asset did you choose? What was the risk tolerance? What SLR scenarios and planning horizons did you look at? What were impacts (if any)?

HOW TO: Create a Map

1. **Zoom into your area of interest** in the map viewer: <https://sls.geoplan.ufl.edu/viewer>
2. **Scroll down to the “Print: Create a Map” widget** and click once to open. Then:

- **Enter a Title for your map.** Suggestions: Include Place, Time, and/or Projection
- **Choose file format.** PDF, image file, etc.
- **Choose Layout/ paper size.** If you do not want a legend, title, or scale bar, then choose the MAP_ONLY as the Layout.



3. **Open the Settings Menu.**

- **Review the settings.** Most settings can left as their defaults. To print a high-resolution map, you can change the Print quality DPI.
- To include a title and scale bar, but no legend, then uncheck the “Include legend” option.
- If you are printing with the MAP_ONLY layout, then Width and Height options are pixel units.

4. **Click “Print”.** You may need to wait up 1-2 minutes for the map to create.
5. **Download map.** When the map is complete, it will display the Map Title in the widget under the Settings and Print buttons. Click on the Map Title to download.

6. **Open and review your map.**

