

START

THE GAME OF FLOODS™

Marin Island

- Sea levels are rising world-wide as warming oceans expand and melt glaciers and ice sheets. Stronger storms coupled with rising seas can significantly damage — even destroy — property, infrastructure, public facilities, natural habitats, and other resources we depend on. In the face of these threats, you are tasked with collaboratively developing a Sea Level Rise Adaptation Plan using the strategies (game pieces).


1. To begin, one player reads the sea level rise scenario aloud.
2. Role the di to determine who goes first. The highest roll goes first. If a tie occurs, the tied players must re-roll. Players take turns in clockwise order.

3. In turn, each player selects an asset to accommodate, defend, or retreat from. No need to duplicate assets. Use the worksheet provided to record your choice, costs, and pros and cons.
4. Next, in turn, each player places and states aloud their preferred adaptation strategies on or around the island. Conflicting strategies are allowed.
5. Use the remaining time to finalize the group's proposal by resolving conflicts. Consider the following factors to inform the proposal: (1) Costs/funding, (2) Private property impacts, (3) Environmental impacts, (4) Equity/social justice concerns, (5) Others. Use your worksheet to take notes.


RED AREA = Permanent Sea Level Rise Flooding
ORANGE AREA = Temporary Annual Storm Flooding
YELLOW AREA = Temporary 100-Year Storm Flooding

Sea Level Rise 2050 Scenario Key


GAME
PIECES




Retreat
\$\$\$|



Post-storm prohibitions
\$|



Move here
\$\$\$|



Stricter land use zoning
\$|

Managed Retreat



Elevate Buildings
\$\$\$|




Floodable Buildings
\$\$\$\$\$|




Elevate/New Road
\$\$\$\$\$|

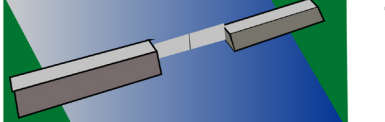
Accommodate Water



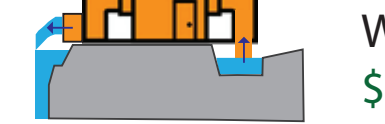
Revetment/Seawall
\$\$\$|



Traditional Levee
\$\$\$\$\$|




Tide Gate
\$\$\$\$\$|

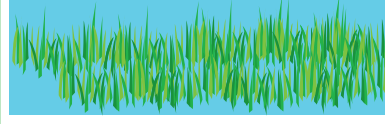


Wall & Pump Station
\$\$\$|


Hard Engineering




Horizontal Levee
\$\$\$\$|



Wetland/shoreline vegetation
\$\$\$|




Offshore Structure
\$\$|




Beach Maintenance
\$\$\$|

Soft Engineering







Evacuation Route




Marina




Mammal Habitat




Ranch




Grocery




School Site




Parking




Hospital




Fire Station




Post Office




Storm Shelter




Gas Station




Seabird Colony




Agriculture




Public Well




Restaurant




Library




Historic Church




Electrical Sub-Station




Sewage Lift Station




Aquaculture




Sheriff



Home



Boat Launch



Beach