

WORKSHEET 1

CITY OF SPARTINA BEACH

DESCRIPTION:

210 single-family homes

15% (53 homes) are prone to frequent flooding.

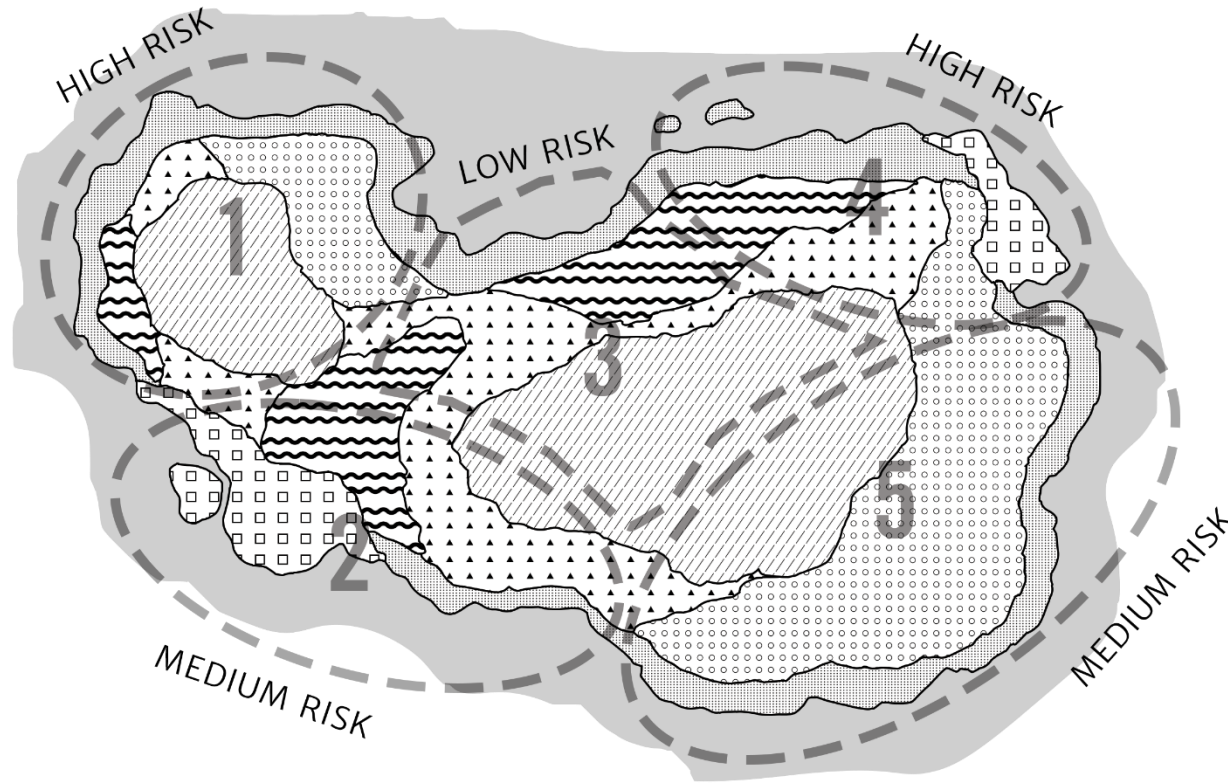
Several condominium and townhome complexes, and several hotels.

A 2-lane causeway connects the island to the mainland and is the only road in and out of town. This road floods at least 4 times per year.

The town has 25 miles of beach/marsh shoreline; 65% of the shoreline is developed with homes, businesses and parking lots.

The town has 4 schools: 2 elementary, 1 middle and 1 high school.

MAP OF SPARTINA BEACH



LAND USE TYPE

- | | |
|-------------------------------------------------------------------------------------|-------------|
|  | SHORELINE |
|  | WETLANDS |
|  | FOREST |
|  | HIGHLANDS |
|  | RESIDENTIAL |
|  | BUSINESSES |

WORKSHEET 2

Stakeholder group:

Class period: _____

Fill in column A and calculate columns C and E:

- Column A – Units used (*“Unit” refers to # of each solution used*)
- Column C – Calculate Total \$ spent = (A x B)
- Column E – Calculate Environmental Quality = A x D

SOLUTION	A Units used	B Cost per unit	C Total \$ spent = (A x B)	D Water Droplets per unit	E Environmental Quality = (A x D)
Relocate citizens away from risk		\$50,000		2	
Sea wall or hardened shorelines		\$40,000		1	
Living or soft shorelines		\$20,000		5	
Elevated homes		\$40,000		3	
Education and outreach campaigns		\$10,000		3	
Update to “green” infrastructure		\$30,000		4	
TOTAL					

Total \$ spent: _____

Environmental Quality: _____