

Name: \_\_\_\_\_

## Investigating Future Worlds with Google Earth (Part 2) Investigation Sheet

Answer the questions below using complete sentences.

In the data table below, record the furthest map distance inland that the shoreline would move if there were a 2 meter rise in sea level. Report your measurement in kilometers (km). Record the type of land cover that this water would cover. This may include farmland areas, residential areas (houses), or marsh areas (low-lying vegetated areas that are found in coastal areas). More than one land cover type can be recorded in the chart below. You may need to zoom in to observe the land cover type.

**Helpful Hint:** To measure the furthest distance inland to the shoreline, locate the first location in the elevation profile that has a 2 meter elevation.

City	Distance Inland (km)	Landscape Cover (Farmland, Residential, or Marsh)
Wildwood, NJ		
Folly Beach, SC		
New Orleans, LA		
Homestead, FL		
The Maldives Islands		

1. Using the **Elevation Profile** data above, which of the 5 areas has the **greatest** amount of land that will be affected by a 2 meter rise in sea level? Which of the 5 areas has the **least** amount of land that will be affected by a 2 meter rise in sea level?

**Greatest:**

**Least:**

2. Which of the 5 areas has the largest residential area that would be affected by a 2 meter rise in sea level?

Place an "x" in the table if a location would be under water if sea level were to rise 1 meter and 2 meters. Be sure to examine the 1 Meter Rise layer in Google Earth before examining the 2 Meter Rise layer.

<b>City</b>	<b>1 Meter Rise</b>	<b>2 Meter Rise</b>
<b>Delmont, NJ</b>		
<b>Salem, NJ</b>		
<b>Pennsville, NJ</b>		
<b>Kelly Island, DE</b>		
<b>Rehoboth Beach, DE</b>		
<b>Ocean City, MD</b>		
<b>Assateague Island, MD</b>		
<b>Somerset, MD</b>		
<b>Fishing Creek, MD</b>		
<b>Toddville, MD</b>		
<b>Cobb Island, MD</b>		
<b>Pooles Island, MD</b>		
<b>Shell Island, VA</b>		

- How many of the above cities would be underwater if there is a 1 meter rise in sea level? How many of these cities would be underwater if there is a 2 meter rise in sea level?
- What do you notice about the locations used in this activity that are projected to go underwater in the next 100 years?
- If CO<sub>2</sub> concentrations continue to increase, why do you think sea level may continue to rise? Provide a reason for your answer.
- The Chesapeake Bay region currently has a population of 16.6 million people. It is projected to grow to over 20 million people by the year 2030. If a 2 meter rise in sea level rise did occur, what would happen to a large number of people that live in the region?