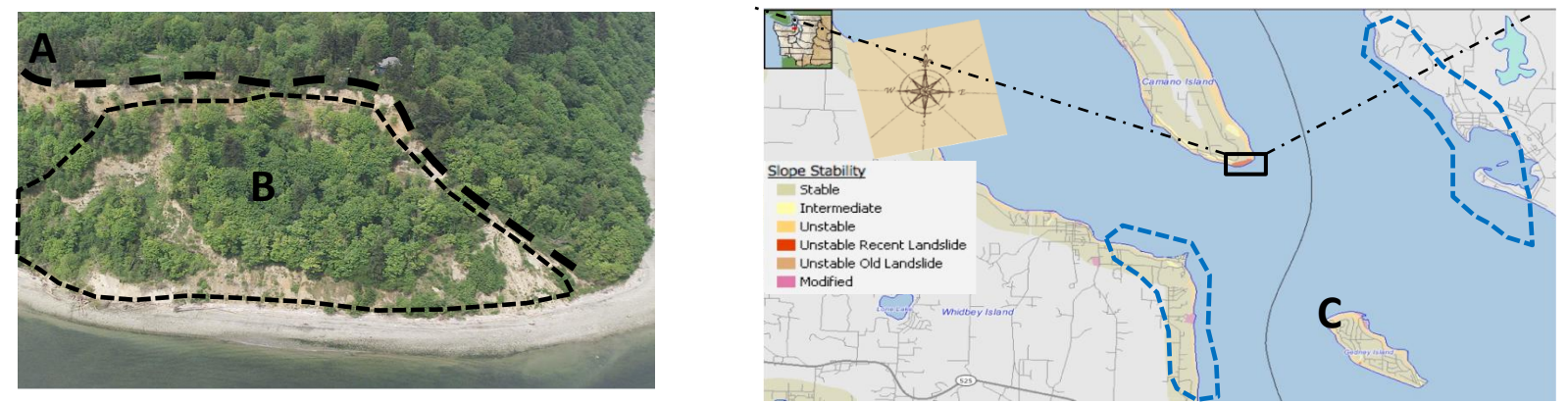**Round: 8A**

You are looking at an aerial photograph (Figure 1) and a map (Figure 2) of Puget Sound, Washington. Use the figures below to answer the questions on the following page.

1.   The letter "A" in the top image denotes what geomorphological feature? What are two (2) of its defining characteristics?

An escarpment (3 pts) - Also acceptable: bluff, coastal bluff, fault scarp OR headwall

A steep slope or cliff (1 pt) that is caused by erosion or faulting (1 pt).

2.   What is a common term for the sudden erosional event that generated the feature designated as "B" in Figure 1? Name two (2) potential causes for such an event.

A Landslide (3 pts) - Also acceptable: mass wasting, mudslide OR slump

Any of the following are acceptable causes (1 pt each, 2 pts total):

- seismic event,   *-   deforestation/devegetation,*

- groundwater pressure,   *-   saturation from snowmelt/icemelt.*

3.   In the 1800's, a sudden and significant erosion event at location "A" (Figure 1) affected location "C" (Figure 2). What is the name of the phenomenon that affected location "C", and how was this phenomenon generated?

Tsunami (tidal wave is NOT acceptable) (3 pts)

The sediments and rocks freed by the landslide (1 pt) displace their volume in the water of the sound (1 pt), resulting in the tsunami wave.

4.   On Figure 2, circle another section of coastline that would have been impacted in the same manner as location "C" in Question 3.

See figure –5 pts as long as their chosen coastline falls within the two areas circled in blue

Citations:

http://www.ecy.wa.gov/programs/sea/pugetsound/bluffs/bluff.html

Shipman, Hugh. 2001. The Fall of Camano Head: A Snohomish Account of a Large Landslide and Tsunami in Possession Sound During the Early 1800s. TsuInfo Alert, 3 (6) pp 13-14.
(http://www.dnr.wa.gov/researchscience/topics/geologypublicationslibrary/pages/tsuinfo.aspx)

On the Washington Coastal Atlas, "zoom to" Beach Name: Gedney Island, Snohomish
https://fortress.wa.gov/ecy/coastalatlas/viewer.htm