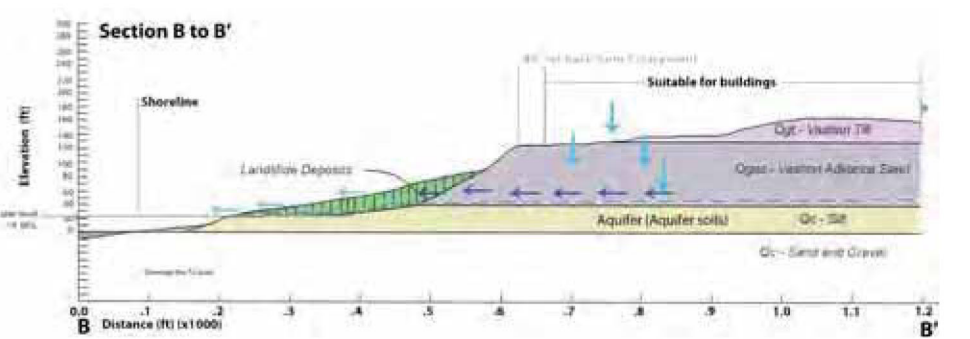
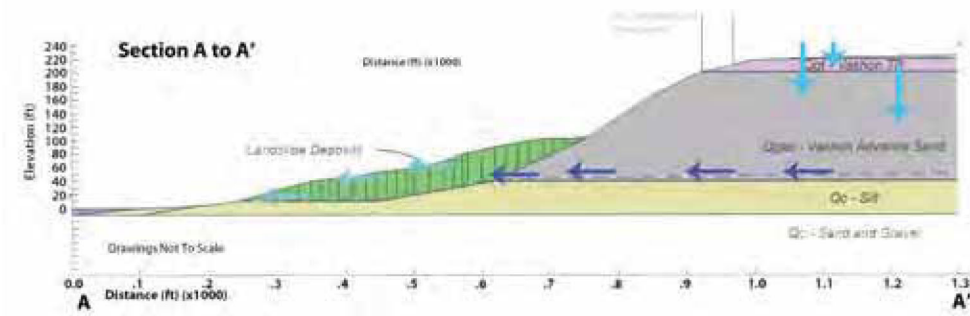
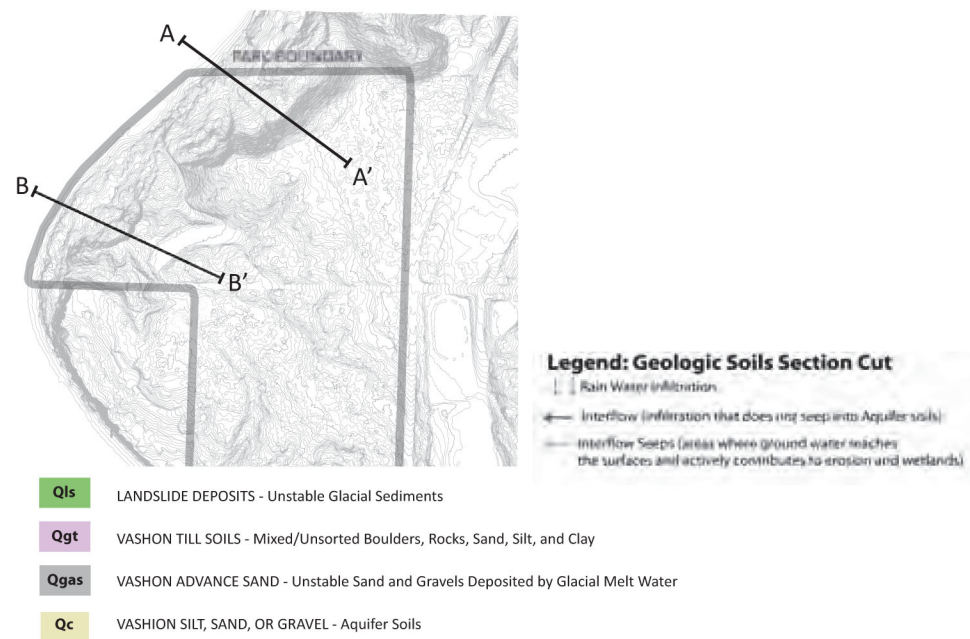


deposited on the beach from above, and in turn indicated that the beach is accreting. The AES study's findings indicate that the site is undergoing a steady, incremental retreat caused by beach erosion and toe cutting. Furthermore, removal of material from the toe of the site with consequent reduction in lateral soil resistance is resulting in down-slope soil creep moving upward through the landslide mass to the head scarp. However, the landslide complex appears to have maintained its near current configuration for some time.

The natural wave erosion of the bank along the beach appears to be the primary factor behind the soil creep and small scale sloughing and land sliding which then move upslope from the beach. The beach erosion appears to occur predominantly as a result of extreme tide and storm events. The AES study indicates that soil creep from the bank upward to the main head scarp may take a period of decades followed by long periods of relative inactivity as vegetation reestablishes. This study states that there is a moderate likelihood of localized small to moderate-scale landslide activity. Annual erosion and sloughing is also likely along steep slope areas, primarily resulting from freeze-thaw action, direct runoff erosion, and natural weathering processes.

A minimum of a 40' building setback from the top of the head scarp is recommended by AES in order to provide a suitable buffer to protect future structures and associated improvements. AES recommended that mitigation for soil creep around any structures near the beach should include structurally rigid mat foundation to reduce soil creep and differential sediment within the structures. All utility connections should be flexible in order to allow a measure of play within the lines. Cuts and fills no greater than 1' should occur within 15' of the top of the head scarp or shoreline bank. All storm water from impervious services should not discharge directly onto the steep slopes. Surface water drainage should be directed away from the slopes or tightlined to the bottom of the slope. All vegetation should remain in place to provide root support for the soil.

Predicted sea level rise should be considered in the location and design of major structures and facilities.



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