

Port Angeles Landfill Bluff Erosion/Cell Stabilization

Pre-Application Meeting

Wednesday, October 10, 2012, 0930-1130

Agenda

Problem Description

Port Angeles Landfill setting and brief history

Bluff erosion east of wall (observations 2008 to present, June 2011 triggered emergency concern)

City response (*presentation addresses the urgency/importance of active response, timing, financial limitations, permitting process*)

First actions (2011-2012) -site safety, immediate repairs to drainage, remove garbage from edge

Long-term solution (2013-2018 construction)

Mechanism of failure and project risks

Conceptual approach

Design and Permitting process/schedule

Technical considerations, alternatives

wave energy data ,seawall beach morphology data, toe stabilization alternatives

Mitigation

Path forward: is an accelerated schedule possible?

Discussion



Port Angeles Landfill Summer 2011

Project Description:
City of Port Angeles Landfill

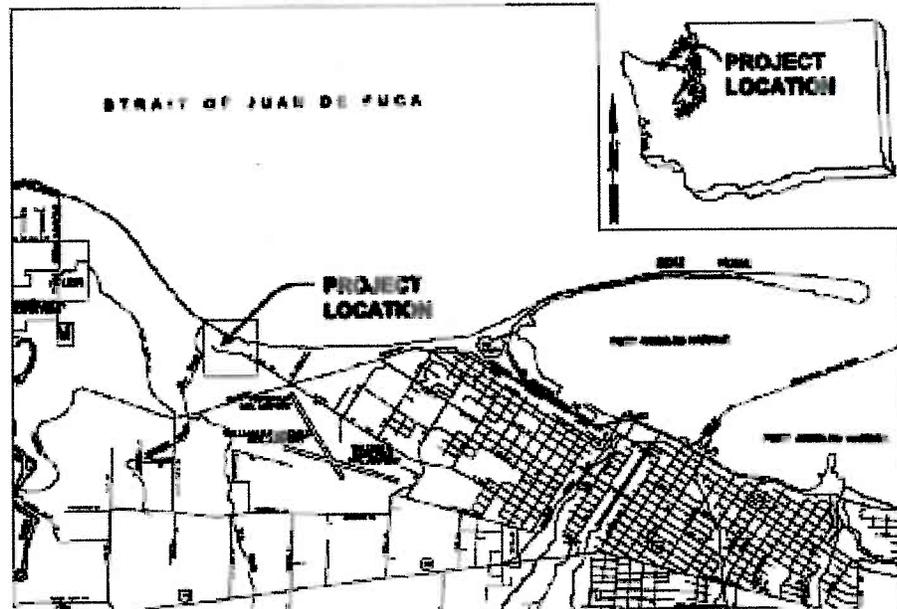
Marine bluff erosion along the northern edge of Port Angeles municipal landfill has exposed refuse at the top of the bluff. The likely long range strategy/project consists of Landfill protection integrating: 1) bluff stabilization strategy (toe stabilization (near-term), 2) bluff slope stability (long-term,) and 3) facility reconfiguration. A partial East Cell 304 landfill relocation might remove solid waste on the northern half and relocate it on-site. Structural coastal armoring units (tetrapods, dolos or similar) could be used for bluff toe stabilization (along bluff toe) to reduce bluff erosion and retreat rate into the facility. Data gaps exist for shore wave energy impacts, landfill extent, and geotechnical characteristics.

The City is working with a team of consulting engineers and scientists led by Herrera that includes BHC and Aspect. They have completed initial studies, and finished the design of repairs to the drainage system that was damaged by bluff retreat, and removal of exposed garbage that is visible at the top of the marine bluff. Further engineering work in 2012 includes a comprehensive analysis with shoreline monitoring program, geophysical investigation of the east cell 304, summary of data collection and concept design refinement, seawall evaluation including assessment of existing conditions and capacity to withstand relocated east cell 304 refuse south of wall, seawall E/W wing wall repair, bluff toe stabilization concept mitigation plan, and grant/funding support. Engineering work scheduled for 2013 includes bluff toe stabilization design development and permitting/mitigation approach, bluff/landfill geotechnical investigation based on initial landfill relocation options and bluff evaluation, geophysical investigation of 351-compliant cell to accept refuse, seawall corrective actions/repairs, preparation of detailed facility protection alternative analysis and design report, and continued grant/funding support. This work will refine project costs and corrective action estimates for later work. Future engineering work includes selected landfill facility alternative design, permit and landfill facility documents, shoreline/bluff toe stabilization construction, and mitigation design and construction.

Construction work is contemplated to be accomplished in stages, with the initial repair work to be completed in 2012. The City is seeking a pre-application meeting with the regulatory agencies and other stakeholders to describe the context, the emerging problem, and to discuss possible solutions and timelines.

Port Angeles Landfill Cell Stabilization

Port Angeles, Washington Project No. 145728



Vicinity Map

