Abstract

The Waikiki Natatorium and World War I Veterans Memorial were built in 1927. After only a few years of use, the structure fell into disrepair and in 1979, the pool was closed to the public for safety reasons and has remained closed to this day. A recent collapse of the pool deck caused the City and County of Honolulu to close off the recently restored restrooms in fear that the whole structure could collapse.

As a student project, the Capstone Course of the Ocean and Resources Engineering Department at the University of Hawaii Manoa considered replacement solutions for the Natatorium. The problem posed was to stabilize Sans Souci beach and to improve the area. Several shore hardening solutions were considered along with various degrees of beach nourishment. Wave and current analysis were performed along with economic, environmental and social considerations. This presentation will describe the analysis used, the alternatives considered along with the final design.