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HB 810 RELATING TO THE REMOVAL OF SAND

Statement for
House Committee on
Ocean and Marine Resources
Public Hearing - 28 February 1981

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Hawaii Revised Statutes, Section 205-33(a) prohibits, with certain exceptions, the commercial removal of sand and related beach compositions within the shoreline area or within 1000 feet seaward of it, or in ocean water of 30 or less feet in depth. HB 810 would amend this section to permit the mining or taking of sand and other marine deposits for: (1) reasonable, personal, non-commercial use, or (2) for the replenishment of sand on public beaches by the State or a county. In the latter case there is the additional requirement that an Environmental Impact Statement be filed pursuant to Chapter 343.

Doak Cox, Director of the Environmental Center who has worked on the sand mining legislation for several years is out of the State on sabbatical, hence is unavailable to present our testimony on HB 810. In the preparation of this statement we have included pertinent comments from earlier statements prepared by Dr. Cox, comments from Paul Bartram, a former researcher with the University of Hawaii Environmental Center who has continued to work closely with Dr. Cox on this subject, and applicable testimony presented at the February 24, 1981 public hearing on the companion Senate Bill 561, relating to the removal of sand. The statement on this bill does not represent an institutional position of the University of Hawaii.

HB 810 permits the use of offshore sand deposits, to be used for replenishment of eroding beaches. Although "structural" measures, such as groins and seawalls, are occasionally effective in stemming beach erosion, construction of such shore protection structures often results in loss of sand from nearby beaches or even from the beach intended for protection. "Non-structural" solutions to beach erosion, such as sand replenishment, are needed.

Large-scale replenishment of eroding beaches requires a volume of sand which is prohibitively expensive if obtained from a commercial quarry source, and few quarries can supply sand of the quality needed for beach replenishment. An effective method of sand recovery from offshore deposits has been developed and tested in Hawaii. Sand obtained by this method, which is known as the Submarine Sand Recovery System, is about one-third the cost of sand obtained from quarry sources. If reasonable precautions are taken in locating mining operations, offshore sand recovery is the most environmentally sound method of replenishing beach sand. Previous experimental tests by the University of Hawaii Department of Ocean Engineering, as provided for in the existing statutes (HRS 205-33), have shown that this sand recovery method minimizes water turbidity and environmental impacts often associated with other mining techniques.

Although offshore sand deposits are extensive around several islands, sand sources known to be of suitable quality for beach replenishment are a limited resource. Beaches in need of replenishment should receive highest priority for use of sand mined from offshore, as is provided for by HB 810, and the limited high-quality deposits that have been identified should not be used for construction materials.

Beaches are not affected by offshore sand removal when such removal is beyond the depths from which waves can move sand onshore. HB 810 permits sand removal from shallow waters for purposes of beach replenishment but adequately protects beach systems through the requirement of an environmental impact statement. Such an EIS should include evidence that shallow-water sand deposits designated for mining are not part of any littoral cell or active beach system. Shallow-water sand deposits which do not contribute to beach systems, as well as deepwater deposits, can be put to use in rebuilding beaches at lower cost than other sand sources and without environmental degradation.

The importance of Hawaii's beaches to our local residents as well as tourist industry needs little acknowledgement here. Beach erosion is a recurring statewide problem. The experience at Kualoa Beach Park is only one such example. We recognize that some may consider sand mining an inappropriate strategy for combatting erosion at Kualoa beach. Some may even consider any man induced sand replenishment measures unnecessary for Kualoa Beach. However, many other beaches throughout the State require some form of erosion control. If the sand mining law is so restrictive that offshore sand is unavailable for beach replenishment, the only alternative in many situations, in order to protect existing structures and public recreational areas, will be the construction of additional artificial structures such as surgebreakers, seawalls and groins along the shoreline. Such structures will contribute to additional beach erosion downstream from their installation, as well as reduce and restrict beach access and replace a natural environment with an artificial environment. They do not solve the problem.

The proposed amendment to HRS 205-33(a) should be evaluated in the context of beach erosion problems and replenishment needs throughout the entire state. The use of offshore sand deposits for beach replenishment as provided by HB 810 would provide for an environmentally and economically sound natural resource recycling program.