Samuel J. Lemmo

Hawaii's Integrated Shoreline Policy

Biography

Samuel J. Lemmo is the Administrator for the office of Conservation and Coastal Lands for the State of Hawaii's, Department of Land and Natural Resources. Mr. Lemmo holds a Bachelor of Arts degree in Environmental Studies from the University of California, Santa Barbara and a Masters in Urban and Regional Planning from the University of Hawaii at Manoa. He completed a Peace Corps Philippines Tour in 1988 and in 1999 Mr. Lemmo was Co-Author of Hawaii's Emergent Coastal Erosion management Program, Shore and Beach. Mr. Lemmo has developed a Coastal Lands Program for the State of Hawaii over the past eight years, and sponsored publications related to coastal and beach conservation and restoration, including the Hawaii Coastal Erosion Management Plan and the Hawaii Coastal Hazard Mitigation Guidebook. Mr. Lemmo passed new legislation to create a special fund to restore beaches in Hawaii. Mr. Lemmo has established a new Office of Conservation and Coastal Lands in DLNR to protect and restore the State's beaches. Currently he is responsible for improving the beach at Waikiki and developing a comprehensive integrated shoreline policy to improve land use decisions at the interface of the land and the shore to reduce coastal hazards and protect beaches from encroachments.

Abstract

The State Department of Land and Natural Resources is pursuing a Comprehensive Integrated Shoreline Policy to improve shoreline management decisions and conserve and protect beaches and coastal communities from the ravages of erosion and other coastal hazards. These policies include commonly used erosion rate setbacks, better coordination of remedial erosion actions between state and county governments, and improved land use planning along the shore.

In Hawaii, beaches serve critically important environmental and economic functions such as: 1) Beaches and coastal areas are part of Hawaii's culture and heritage, 2) Beaches are the backbone of Hawaii's multi-billion dollar visitor industry, 3) Beaches and adjoining sand dunes are critical for flood and erosion prevention and may reduce property damage from storm waves and surge, tsunami, sea-level rise, and seasonal high surf, and 4) Beaches and dunes are important elements of our shoreline environment and are critical to the health of the coastal marine ecosystem.

Shoreline development in Hawaii is increasingly encroaching upon the shoreline. Problems associated with coastal development begin when planning and siting decisions are made without recognizing and acknowledging the potential for future shoreline change. The problem is compounded in Hawaii by the legal bifurcation of administrative responsibilities between state and county governments at the shoreline, even though the natural beach system forms one highly integrated coastal system straddling county and state jurisdictions. Long-range planning, or even short term siting decisions by County authorities may not adequately consider and evaluate factors that lie outside of (seaward) their legal jurisdiction, such as the effects of sea-level rise, waves and currents, and other factors in coastal

erosion including shoreline hardening. The result is that long-term erosion trends typically are not considered during the planning process. On shorelines undergoing chronic erosion, the inevitable outcome is property damage, seawall construction, beach loss and political and social conflict. Problems rise when the retreating shoreline encounters improperly sited structures based on the inadequate state setback of 40 feet or less. Meanwhile, the sandy beach, which is under the jurisdiction of the state, begins to sustain impacts in the form of narrowing and eventual demise. Faced with chronic erosion and land loss, abutting owners feel their only relief is to harden the shoreline. Unfortunately, this often results in yet another poor decision (this time by the landowner) to construct an illegal seawall or revetment.

The state becomes involved through enforcement actions further complicating the situation. This is the vicious cycle of coastal erosion: flawed planning producing poor siting, development threatened by erosion, construction of shoreline hardening leading to beach loss, and loss of public resources. Because there has been little to no planning for long-term shoreline change, the response is always time-critical and completely reactionary. Requests for permitted actions such as shoreline hardening, end up being decided on a case by case basis without the guidance of any overarching criteria, goal or in reference to the existing policies on coastal preservation and instead focus only on the immediate and urgent nature of the erosion. Ultimately, authorities experience reduced effectiveness in dealing with remedial erosion problems because the state and counties have no coordinated process to deal with this problem despite the fact that the counties share of federal CZM funds requires such coordination. An integrated Shoreline Policy seeks to address these deficiencies.