IEM Committee

From: thorne abbott <thorneabbott@yahoo.com>
Sent: Sunday, August 13, 2017 3:11 PM
To: IEM Committee
Subject: Testimony for IEM-33 Monday 8/14, 1:30 PM
Attachments: 081117 Testimony to IEM.pdf

Aloha
Please accept the enclosed testimony for Monday's meeting at 1:30 pm.
Please advise me if the attached is not received in a timely manner for members review.
Thank you for your consideration.
Mahalo!
Thorne Abbott

For additional information visit http://www.CoastalZone.com

August 11th, 2017

Maui County Council
Infrastructure and Environmental Committee
Chair Elle Cochran and Members
lem.committee@mauicounty.us

Subject: Moratorium on Sand Extraction, IEM-33

Aloha Chair Cochran and esteemed Committee Members:

Thank you for taking up a difficult, but critically important matter. The results of your discussions will significantly effect the public and oceanfront landowners, among other stakeholders.

Sand is clearly a finite resource on the Island of Maui. As a member of the team that studied stand supplies in 2006, I recognize that sand is a finite resource with multiple uses. While further study would help to better inform future decisions, action should be taken now to regulate, not end, existing supplies in a precautionary manner.

Sand is an important cultural resource. Sand is an important economic resource. Maui Inland sands can be used to make superior concrete. Sand varies in its quality and has multiple uses dependent on its quality. Sand is used as fill in utility line trenches, bunkers on golf courses, aquarium media, and if clean, can be used for beach replenishment or coastal dune restoration. However, *only Beach Quality Sand* can be used for the latter two activities.

Beach Quality Sand lacks the dirt, sediment, over burden, or 'fines' that excavated inland dune sand often has. The sand also has to have the right color, weight and texture to use along our beautiful sandy shores. Imported granite or silica sand is unacceptable because it could suffocate benthic organisms such as grabs, starve sandpipers, or harm wading birds, among other unintended consequences. The Department of Land and Natural Resources Office of Conservation and Coastal Lands (DLNR OCCL) uses a stricter, cleaner, more specific guideline for beach quality sand than the County's grading ordinance definition of 'sand' at MCC 20.08.020.

The current bill provides an exception that would allow sand to be mined for dune restoration, consistent with Maui County Code (MCC) 20.08.035 (i) that encourages dune restoration to build natural capacity to buffer coastal storms. But the bill does not appear to allow sand to be mined for **beach nourishment** as permitted by 12-203-12(a)(8) of the Shoreline Rules for the Maui County Planning Commission. Beach nourishment is encouraged in the General and Community Plans (MCC 2.80B.020) and its definition is not related to the dune restoration referenced in the current bill's exceptions.

DLNR OCCL issues permits to conduct small scale beach nourishment (SSBN) projects state-wide and along Maui's shorelines. They have jurisdiction over SSBNs and dune restoration projects, including past successful projects at Stable's Road, Sugar Cove, Kanaha Beach Park, and some other parks and areas that are within the State Conservation District. It is unclear whether the bill would temporarily prohibit something the State explicitly allows or whether the bill would unintentionally pre-empt the State's public trust responsibilities.

Mined inland sand would also not appear to be available for use as fill in the County's shoreline setback area as required by HRS 205A-41 and MCC 20.08.075 (B)(2). Dune restoration, beach nourishment, and shoreline area fill are not the same, although each tends to improve natural assimilative capacity to coastal hazards, and it is important to have access to Beach Quality Sand for these activities.

Oceanfront landowners have few options to respond to erosion crisis. County planners have successfully promoted realignment of building's where feasible, but relocating high rises or homes on small lots can be impractical and sometimes is not possible. State and County agency's have advocated for 'soft' measures like sand wrapped in natural fiber bags (e.g. coir mat), small scale beach nourishment, and dune restoration augmented with native plants and inland dune sand. These methods provide the dual advantage of protecting inland development from harm and retaining our valued beaches and ocean access. In the absence of sand to make these soft responses a reality, numerous oceanfront owners, such as condominiums, resorts and residences will have more limited options.

If the bill is enacted in its present form, owner's facing coastal erosion could have an inherent basis to armor their shoreline with as seawalls, revetments and rock rubble mounds to protect their property. If no sand is available for soft approaches due to government intervention, then an owner could claim a hardship because there are no other reasonable alternatives except armoring to avoid harm.

Armoring the shoreline is clearly detrimental to public access to, and along, the shoreline. Armoring deflects wave energy to neighboring properties resulting in a domino effect, where new armoring is required down drift. While armoring preserves land, it tends to lead to narrower sandy shores and inevitably destroys the beach in most cases. Shore armoring contributed to having virtually no sandy beach along nearly 3,500 linear feet or nearly 60% of Honokowai's coastline, except for at the beach park where the shore has naturally retreated inland and sufficient in ground sand reservoirs are present.

MCC 19.040 defines resource extraction to include the mining of sand.

> "Resource extraction" means activities engaged in the exploration, mining and processing of natural deposits of rock, gravel, sand, and topsoil.

Resource extraction is a permitted use in the M-3 Restricted Industrial District (19.25.020) and is not defined in Interim zoning districts. It is a Special Use in the M-2 Heavy Industrial district (19.26.040), Lanai in the Open Space district #2 (19.07.030

(C)(5.), and within the Agricultural district (19.30A.060). Disturbing sand dunes is regulated in Waihe'e Project District #4 through minimum standards of development (19.81.060). In all other districts, taking excavated sand offsite could be interpreted as resource extraction and therefore not allowed.

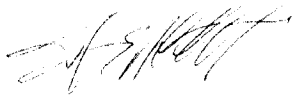
Resource extraction could include the clean sand encountered during excavation for an in-ground swimming pool on Halama Street for example, if the contractor used the sand for concrete or fill at another job site. Even if the sand was used to re-nourish the beach fronting the property, like the Altman's did at their adjoining residences, it would be considered resource extraction and not allowed – counter to best management practices – because the beach reserve is an adjacent property.

To conclude, rather than create a moratorium, I encourage the Committee to solve the problem by enacting prudent regulation that allows for the issuance of permits, but with strong enforceable conditions. Amending Chapter 20.08 is a good first step, as would enabling County Inspector's to be empowered to issue citations for non-compliance with SHPD-approved plans. Clarifying that *extracting clean sand for beneficial purposes* is not "resource extraction" would also be very helpful, since resource extraction is prohibited even on a small scale (like swimming pool excavation) in most of the County's districts with sandy soils.

Rather than prevent the excavation and removal of sand offsite altogether, it would be preferable for multiple stakeholders to be able to predictably know where, and for what purpose, Maui's limited, finite, unique and sensitive sand resources are being used or retained. Defining 'beneficial uses', adding criteria for administrative decision making, and providing empowerment of public agencies and staff to have permit oversight could result in a more effective, efficient means of regulating finite sand resources on Maui.

Thank you for the consideration of this testimony.

Mahalo nui loa!



Thorne Abbott

Some key provisions for reference

MCC Grading Ordinance
20.08.020 - Definitions.
"Sand" means particles of mineralogic or rock material ranging in diameter from 0.062 mm to 4 mm that shall be substantially clean of rubble and debris; shall contain no more than fifteen percent volume of silt and clay size material; and shall not consist of artificially crushed coral. Additional provisions on quality may be required by the SMA review process.

20.08.075 (B)

2. That the importation and placement of soil is prohibited within the shoreline area as defined by chapter 205A-41, Hawaii Revised Statutes, except for sand as defined in this chapter; and
3. That grading of the coastal dune is prohibited pursuant to section 20.08.035.

Shoreline Rules

§12-203-15 Criteria for approval of a variance.

(a) A shoreline area variance may be granted... [for]

(9) Private facilities or improvements that may artificially fix the shoreline; provided that, the commission also finds that shoreline erosion is likely to cause hardship to the applicant if the facilities or improvements are not allowed within the shoreline area

DLNR OCCL beach quality sand guidelines

Commercially available Maui inland sand dune deposits that may be compatible with beach projects are referred to as "Grade A screened dune sand". Beach sand shall be dominantly composed of naturally occurring carbonate beach or dune sand that is free of contaminants. Crushed limestone or other man-made or non-carbonate sands are unacceptable. All sand for beach projects should meet the following State of Hawaii DLNR OCCL sand quality standards. As determined by a standard laboratory wet sieve technique:

a) Sand shall not contain more than six (6) percent fines, defined as the #200 sieve (0.074 mm);
b) Sand shall not contain more than ten (10) percent coarse sediment, defined as the #4 sieve (4.76 mm) and shall be screened to remove any non- beach compatible material and rubble;
c) No more than 50 (fifty) percent of the sand shall have a grain diameter less than 0.125 mm as measured by #120 Standard Sieve Mesh;