



*The Hawaii Association for Marine Education and Research, Inc.*

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August 19, 2017

Infrastructure and Environmental Management Committee

**RE: Please Require Special Management Area Review and Permitting for the Moomuku Development**

Dear Infrastructure and Environmental Management Committee:

My name is Dr. Mark Deakos, I'm a marine biologist and I'm asking you to require a Special Management Area Review with respect to the impacts that the Moomuku Development will have on the Ahihi Kinau Natural Area Reserve System.

Ahihi Kinau is Maui's only NARS with a marine component and it is often used by scientists as a "control" reference for water quality and coral reef health that is unimpacted from coastal development.

The #1 threat to our coral reefs is land-based sediment, which suffocates and stresses our reefs and prevents next generation corals from developing. We've all seen the increasing brown water events flowing out onto our reefs. The coral reefs along the Makena shoreline where development has occurred has already been severely impacted. A 2005 to 2016 marine survey in front of three developed areas in Makena revealed decreases in coral cover of 44% to 30%, 87% to 29%, 50% to 9%. The extensive grading at the project site, without proper sediment controls in place, is exposing large amounts of soil that will be transported to the ocean during the next major rain event, smothering the coral reefs of the Preserve. In some areas, the exposed soils are only 40 feet from the ocean.

The #2 threat to our coral reefs is excessive nutrients contributing to the overgrowth of invasive algae. The source of these nutrients are not only from storm water runoff but

from injection wells, where injected freshwater eventually percolates into the nearshore marine environment. Water quality data in front of developed areas of Makena have shown nitrogen levels 142 times the legal limit set by the Department of Health. This suggests the Moomuku Development injection will likely have a major impact to corals within the Preserve, and therefore should require a proper environmental impact assessment to quantify these impacts.

Maui has already lost over 50% of its reefs in the past two decades alone and we are on track to have no reefs by 2050 if we continue with these same, negligent, irresponsible, coastal development practices. Coral reefs, which are responsible for our beautiful beaches and protecting our shorelines, are the main driver of our tourism-based economy and contribute in large part to our quality of life here on Maui.

Such a large project in such a sensitive area, that could have devastating impacts to Ahihi Kinau, should have proper SMA review, permitting, and environmental monitoring to ensure that the public's most valuable natural resources are properly protected. Please stop all further work until proper SMA review and consultation with resource managers is carried out.

Mahalo for your consideration,

A handwritten signature in dark ink, appearing to read 'Mark Deakos', with a large, stylized initial 'M'.

Mark Deakos, *PhD*  
Executive Director