



PRESS RELEASE

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Scientific Journal Report Published in Regional Studies in Marine Science Examines the Monterey Bay Submarine Deep Water Canyon in Moss Landing

Moss Landing, Calif. – April 25, 2018 – An article titled *Influence of Internal Bores on Larval Fish Abundance and Community Composition* was published on March 31, 2018 in the Regional Studies in Marine Science Journal. The article provides information on a study of the Monterey Bay Submarine Canyon in Moss Landing, the proposed location for DeepWater Desal's (DWD) Monterey Bay Regional Water Project.

The Monterey Submarine Canyon is one of the largest submarine canyons on the US Pacific coast, comparable in scale to the Grand Canyon, and extends to within a few hundred meters of the shore at Moss Landing. Because of the dramatic valleys on the seafloor, an oceanographic phenomenon known as an internal tide forces deep water from the canyon up into shallow depths close to the shore at Moss Landing. Just like a surface tide, the internal tide rises and falls, driving cold deep water up and down the walls of the canyon twice per day. The deep water is cold, and when it wells up from the canyon a dramatic drop in temperature occurs.

The report is the findings of a study that examines the influence of the internal tidal on the larval fish community using over a full year of larval fish sample collected coincidentally with physical measurements. Samples were categorized into two water mass periods, a "warm period" representing the shallow coastal shelf waters and a "cold period" characteristics of colder water present during internal bore forcing.

Highlights from the study:

- When the two highs and the two lows are about the same height, the pattern is called a semi-diurnal tide. A persistent, semi-diurnal internal tide occurs at the head of a submarine canyon.
- The internal tide drives cold water masses (subthermocline waters) onto the adjacent shelf (i.e., internal bores).
- Along with seasonality the local internal bore feature is an important control on the composition of the larval fish community at the deep water canyon site.

The article was written by scientists at Tenera Environmental Inc. and an Assistant Professor of Environmental Engineering at Cal Poly San Luis Obispo. It confirms the positive attributes of the deep canyon for DWD's project and the quality of the source water to be desalinated into potable drinking water. To read the complete article, visit our website: <https://www.deepwaterdesal.com/reports-and-publications.htm>.

DWD's MBRWP will consist of a desalination facility, capable of producing up to 25,000 acre-feet of high quality potable water annually, and a co-located seawater cooled data center. The facility will supply potable water to agencies in both Santa Cruz and Monterey Counties. For more information about DWD visit www.deepwaterdesal.com.