Project targets coral dredging fallout

August 2 2013, by Chris Thomas

Credit: Ningaloo Reef, Platours

Western Australia's marine environment, researchers and the offshore oil and gas industry are set to benefit from new insights provided by a national sea simulator launched at the Australian Institute of Marine Science (AIMS) in Townsville on Thursday.

Known as SeaSim, the $35 million research aquarium can mimic the conditions of various waterways including the open ocean, flooding rivers and reef lagoons more closely than other similar facilities around the globe.

One of its first projects is a multi-billion dollar four-year West Australian Marine Science Institution (WAMSI) program exploring how dredging may affect marine life, such as corals and sponges, off WA's

coast.

AIMS is a core partner and Woodside Energy has contributed $3 million, with the CSIRO also involved.

Science and business leader at the WA node of AIMS, Steve Rogers says the project will provide the necessary science for dredging management plans developed by the Environmental Protection Authority and other regulatory authorities.

SeaSim allows researchers to modify different oceanographic parameters within a controlled system.

"When you're trying to study organisms in the sea it's difficult because you're very much dictated to by marine conditions," Dr Rogers says.

"SeaSim allows us to modify the temperature, amount of salt and chemistry, change the light cycling and increase the carbon dioxide concentration in the water.

"It shows – under very controlled conditions – what aspects of dredging sediment may potentially impact on coral growth and spawning."

Establishing a spawning population of WA corals in SeaSim is a major goal.

"WA corals spawn at different times of the year to the Great Barrier Reef and other east coast corals so we have actually been collecting corals and transporting them over there [to Townsville]," Dr Rogers says.

"One major area of work for AIMS in WA is the offshore oil and gas industry and we would certainly be looking at opportunities with them down the track.

"It would be looking at the impact of oil and gas developments and how we can manage them in such a way so we can exploit our natural resources in an environmentally sustainable manner."

But SeaSIM is not just for AIMS projects—Dr Rogers says there are plenty of opportunities for other WA research to be conducted in the facility.

"In terms of its capability and capacity, about 50 per cent of SeaSim is available for other researchers," he says.

"We'll strongly be encouraging our WAMSI partners, the CSIRO, University of WA and Curtin, Murdoch and Edith Cowan Universities to see if they have potential applications for it."

Provided by Science Network WA

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