



## Outcomes of the marine studies

Boat and shore-based surveys were undertaken of the seabed and beach/mud flats in order to describe the marine animals and plants that are currently living in proposed development area of the Townsville Marine Precinct Project. This work was undertaken in October 2008 by a team of marine ecologists from GHD on behalf of the Port of Townsville Limited.

The following information was gathered:

### The seabed

A sled and camera system was used to sample animals and plants living on the seabed in the subtidal areas within the immediate area of the Marine Precinct development and from upstream, downstream and opposite areas as well.

During the survey a large number of animals and plants were found with over 1500 individuals observed. Most of these were marine snails; however, marine worms and clams were also very common.

Seagrasses were found outside the mouth of the Ross River away from the proposed development and also in intertidal areas within the mangroves opposite the proposed development.

Outside the mouth of the Ross River the three seagrass species found were: *Zostera capricorni*, *Cymodocea serrulata* and *Halodule uninervis*.

On the eastern bank of the Ross River, across from the proposed Marine Precinct development site, a small seagrass meadow was found among the mangroves with only patches of the seagrasses *Zostera capricorni* and *Halodule uninervis*.

### Beach and mud flats

During low tide, beach transects were walked to sample animals and plants living on the beach and mud flats in the immediate area of the Marine Precinct development and from the mud and sand banks opposite.

Small gastropods (snails) belonging to the family *Littorinidae* and crabs belonging to the families *Ocypodidae* and *Grapsidae* were the most common animals observed from the intertidal areas of the development section and the eastern mud banks.

*Sipunculids*, small soft-bodied worm like animals that burrow in mud and sand, were also very common on the site but not on the eastern mud bank area.

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ABOVE and BELOW: Animals that were caught for the study in the proposed precinct area were safely returned to the water.





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## Rocky Shores

Walks along the rocky breakwaters, adjacent to where the Marine Precinct development area is, were undertaken to see what animals and plants may be effected by any development.

Marine snails and oysters were common in the lower intertidal areas. Barnacles were spread across the mid and upper intertidal region.

## Crabs, fish and prawns

Crab pots were deployed within the Marine Precinct area and elsewhere in the Ross River to see what crabs are living in the area.

Mud crabs were caught, all of which were undersized and returned to the water.

Cast netting was conducted along both banks of the Ross River near the Marine Precinct area; in the upper reaches and within side tributaries.

These nets returned a healthy catch of banana prawns (*Peneus indicus*), which were also returned to the water.

A large number of small fish, including juveniles of some species, were also netted. These included glass fish, mullet, queenfish, pony fish, longtoms, mullet and whiting (among others).

All fish were also returned to the water alive after being photographed for record-keeping.

## Turtles, dugongs and other megafauna

Boat-based surveys and aerial surveys are being done to look for turtle, dugong and other megafauna that may be using the proposed development area or adjacent waters.

These surveys are being conducted over a six-month time frame to get the best information on any changes in usage patterns of the area.

These surveys have not yet finished, but so far have recorded turtles, dugongs, dolphins, rays and sharks all using habitats outside of the Port in Cleveland Bay.

No snub-finned dolphins have been seen so far, only the bottlenose dolphin and the Indo-Pacific humpback dolphin, and none within the development area.

A small group of rays was seen during the October boat survey using the mud flats across from the proposed development area at high tide.



ABOVE: Surveys were undertaken from the shore and from the water itself. BELOW: Cast netting was conducted in Ross River to examine prawn and fish occurrences.



## What is happening now?

Port of Townsville Limited (POTL) has employed independent local company Environment and Behaviour Consultants (EBC) to provide general information on the Townsville Commercial Marine Precinct project and seek information for consideration in the Environmental Impact Study (EIS).

The public consultation period closed on February 13, 2009.

When the draft EIS is complete, the public will again have a chance to comment on its findings. EBC consultants will be assisting any parties who are unsure of how to do this.

There will be a public display when the draft EIS is complete where those with an interest in the project can personally raise any points or issues with representatives from POTL. Dates of the display will be advised in the local media and by mail.

Feel free to contact the consultants on the number opposite if you require past project factsheets.

## More information and feedback

For more information or to provide input into the Environmental Impact Study please contact the project team on:

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