

Port Curtis Reef Assessment

In order to gain an understanding of potential environmental impacts of dredging activities, there is a need to first map and characterise potential environmental receptors within the zone of influence of dredging activities. Although Seagrasses had been identified as key sensitive environmental receptors within the port area, the extent of coral cover was largely unknown. While many marine plant and animal species may be directly and indirectly impacted by turbid plumes, it is generally acknowledged that in tropical environments, hard corals represent key sensitive environmental receptors given their sensitivity to light deprivation and increased rates of sedimentation.

BMT WBM conducted video transects of reefs at a range of sites within Port Curtis to describe the most significant inter- and sub-tidal reefal habitats. Reefs with the greatest coral cover were found to the east of Port Curtis, around North Passage and Facing Island with cover approaching 50% in places. Hard corals were less prevalent surrounding turbid nearshore reefs. Macroalgae and bivalves dominated cover at many sites and extensive soft coral communities were identified. Deepwater rubble assemblages were also found throughout the Port including areas adjacent to dredged navigation channels.

The sensitivities of these habitats to environmental perturbations such as dredging are unclear given high ambient levels of turbidity within the port.

Client

Queensland Gas Company

Date

2009

Services & Expertise Provided

First evaluation of the biological characteristics of nearshore reef assemblages in Port Curtis;

Identification of key sensitive environmental receptors;

Percent cover and composition determined by dive transects; and

Recommendations for further studies to improve the understanding of potential impacts.

