

Biggera Creek Maintenance Dredging 2016



Gold Coast Waterways - Biggera Creek Seagrass & Benthic Habitat Assessment

The Gold Coast Waterways Authority (GCWA) manages the sustainable use of Gold Coast waterways for marine industry, tourism and recreation including the need to maintain safe navigational access. In order to maintain safe access to Biggera Creek, a dredging program was developed, including the beneficial reuse of dredged material through foreshore nourishment as a method of mitigating erosion at popular recreational sites.

To comply with the Sand Management Plans Environmental Management Framework (SMP-EMF) and gain approval for re-use of dredge material as part of beach nourishment works, the GCWA contracted the development of a Dredge Material Management and Placement Plan (DMMPP) (Cardno 2015). Australasian Marine Associates supplemented this plan with a seagrass habitat survey, in order to determine whether harm occurred to seagrass and benthic habitat as a result of dredging and nourishment activities.

Scope of Work:

This work formed part of a GCWA compliance report to be submitted to the Department of Environment and Heritage Protection (EHP), in relation to Dredging works undertaken at Biggera Creek and relates to the DMMPP and Yellow Zone Management Plan (YZMP) prepared for the works. The survey design used robust and replicable survey techniques to address the two primary questions:

- Has potential environmental harm occurred to the benthic habitat as a direct result of dredging activities in Biggera Creek?
- Has any seagrass regeneration and/or recolonisation occurred since dredging activities took place in Biggera Creek?

In order to address these questions, monitoring of environmental indicators, namely seagrass density, meadow extent and visual observations including smothering by dredge material was undertaken. A comparison between the post dredging survey and historical assessments of seagrass cover and benthic condition was undertaken to determine the overall impact of dredging works.

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