

Port of Brisbane Management Plan: Dredge Material Placement

BMT WBM was commissioned by Port of Brisbane Corporation to develop a plan of management for dredging and dredged material placement operations. The report describes the procedures and protocols necessary to ensure such operations comply with statutory obligations and are undertaken in a manner, which minimises environmental risks.

An important component within this management plan was the ecological assessment of macrobenthic faunal assemblages to evaluate the potential effects of the Mud Island Material Placement Area and the Bribie Island (North) and Fairway Material Placement Areas. Two separate reports were produced with the objectives of these benthic surveys to :

- Characterise benthic communities at Material Placement Area; and
- Examine the differences in benthic communities across the material placement area at each of the locations.

The results of the Mud Island Material Placement Area study show the composition of macrobenthic fauna dominated by polychaete worms representing 25 families. The most numerically abundant taxa were molluscs (mainly represented by bivalves) and echinoderms (from the family Amphiruridae). It was apparent that as the sediment of the sites sampled became finer, the number of families and individuals decreased. Sites with finer sediment was generally dominated by bivalves.

The study of the benthic macrofauna from the Bribie Island (North) and Fairway Material Placement Areas identified the two sites as similar in species richness. Fairway placement area had slightly higher numbers of animals and was dominated by echinoderms. The seacucumber from the family Holothuriidae was numerically dominant at Fairway. The sediment types of Bribie Island (North) and Fairway were medium grained.

Client

Port of Brisbane Corporation

Date

1995

Services & Expertise Provided

Characterisation of macrobenthic infauna at Material Placement Areas and adjacent areas;

Macrobenthic fauna identification to family level with univariate analysis used to identify trends; and

Provision of data to ascertain potential impacts from dredging activities.



The Dredger