



aquatic paradise case study

Aquatic Paradise Dredging: Sediment Sampling and Analysis and Permit Approvals

August 2007 – October 2008

Regular maintenance dredging of the Aquatic Paradise Canal Estate and entrance channel is required to maintain boat access. Redland City Council required specialist input from frc environmental to develop and undertake the sediment and marine plant Sampling and Analysis Program (SAP). Supported by our rigorous studies, frc environmental successfully obtained all necessary approvals to complete the dredging on Council's behalf.

Project requirements overview

Dredge spoil from the canal estate and entrance channel needed to be placed at the Mud Island Dredged Material Placement Area, located in the Moreton Bay Marine Park. Rigorous sampling and analysis of the proposed dredge spoil in accordance with the National Ocean Disposal Guidelines for Dredging 2002 (now the National Assessment Guidelines for Dredging 2009) was required in order to obtain the necessary permits. frc environmental designed the sampling program, collected the sediment samples, managed the laboratory analysis and reported on the results.

frc environmental also acted on Council's behalf to obtain all necessary permits and approvals to complete the dredging and spoil disposal. Importantly, Council's ability to gain a permit to dredge and dispose of the spoil was dependent on not only the extent of any contamination, but also on demonstrable rigour of the sampling and analysis program.



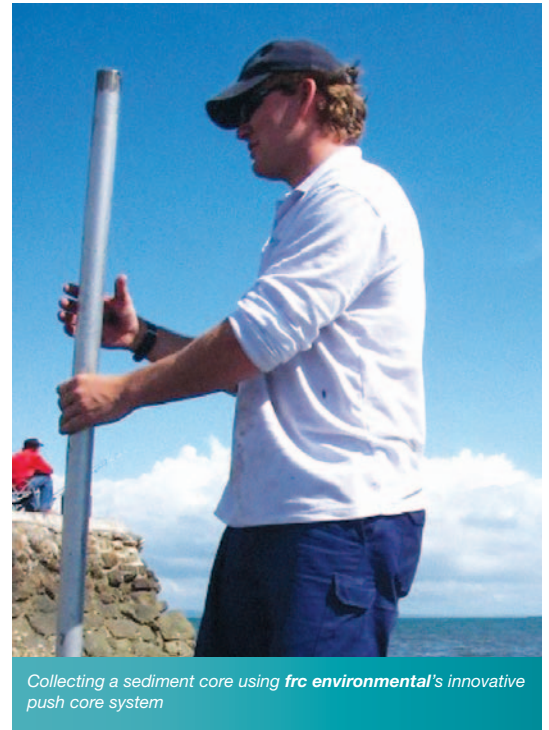
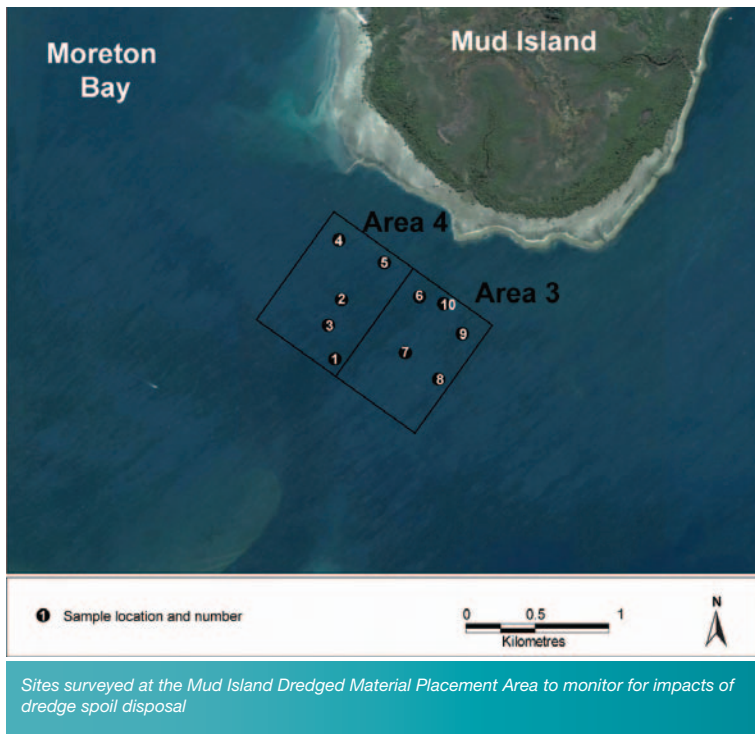
Retrieving frc environmental's piston core after successfully collecting a sediment sample

Project Performance

- Rapid development of a sampling and analysis strategy underpinned by a true understanding of the guidelines
- Minimisation of sample numbers (saving costs) without compromising scientific rigour
- Timely mobilisation for field sampling – using in-house vessel and sampling gear
- Effective project management including co-ordination with a suite of leading analytical laboratories and liaison with local, state and federal agencies
- Effective reporting and interpretation of results ensuring ready acceptance by the agencies
- Timely issue of permits and EPBC Act determination with minimal ongoing monitoring requirements



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Our tailored approach and methodology

Based on our substantial experience and expertise in designing and implementing SAPs to meet national and international guidelines, **frc environmental** rapidly developed and undertook the required sampling. Our detailed understanding of the guidelines enabled us to minimise sample numbers whilst retaining scientific rigour, leading to considerable cost savings for our client. Savings were also made through using our own vessel and specialised equipment (which **frc environmental** developed in-house), and by completion of acid sulfate soil field tests *in situ* by our QASSIT-trained staff.

Our deep understanding of seagrass ecology and fisheries habitat values enabled us to describe and discuss the value of adjacent seagrass beds, supporting the timely issue of the necessary permits from various agencies (including an Environmental Authority, Marine Park Permit and approval to disturb marine plants).

By demonstrating that the Project would not significantly impact Matters of National Environmental Significance (MNES), **frc environmental** gained formal acknowledgement from the Commonwealth Government that a referral under the Environmental Protection and Biodiversity Conservation Act 1999 would not be required for the Project. This led to a substantial reduction in the Project timeline.

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