



**Port of Hay Point
Beneficial Reuse of Maintenance Dredged Material –
Habitat Restoration Feasibility Assessment**

FEASIBILITY – CREATING HABITAT USING DREDGED MATERIAL



HABITAT RESTORATION OR CREATION FEASIBILITY PLAN

Recently North Queensland Bulk Ports Corporation (NQBP) has undertaken a Comprehensive Beneficial Reuse analysis, to see if there are productive ways to use the marine sediments that accumulate in the port's navigational areas and which have to be removed by undertaking maintenance dredging.

The restoration or establishment of marine habitat was identified as a potential beneficial reuse option, which needs further investigation to properly assess its feasibility.

NQBP has brought together a group of scientific experts to determine if it is feasible to beneficially reuse dredged maintenance material to restore or create marine habitat, around the Port of Hay Point.

Feasibility Plan Approach

Six key phases of work have been identified by the scientific advisory group, which form both the feasibility assessment phase of the project and the subsequent implementation.

- Phase 1 – Viability of Restoration
- Phase 2 – Viability of Creation
- Phase 3 – Study
- Phase 4 – Design and Planning
- Phase 5 – Implementation
- Phase 6 – Monitoring

The role of the scientific advisory group will be to ensure the scope for each work phase is clearly defined, review and evaluate all technical reports, assist with engagement and ensure best practice standards are maintained.



SCIENTIFIC ADVISORY GROUP



Ass. Professor William Glamore



Dr Judith Wake



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Mr Kevin Kane



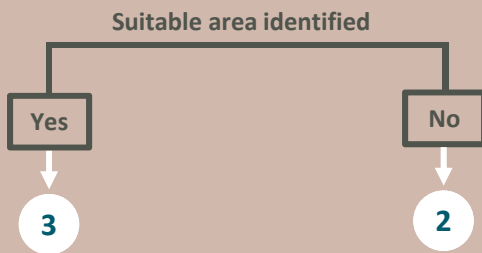
Mr Tom Kaveney



1

Assess opportunities for Habitat Restoration in the Hay Point region

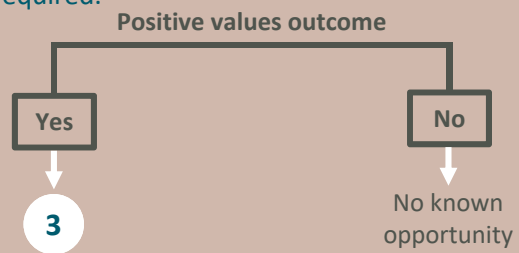
- a) Regional assessment of changes to the near-shore environment (mangroves and saltmarsh) using change detection of Landsat satellite imagery.
- b) Analyse historical aerial photographs to document change in near-shore environments at a finer scale at NQBP Dudgeon Point landholding.



2

Assess opportunities for Habitat Creation in the Hay Point region

- a) Review existing methods for evaluating habitat value.
- b) Review and assess suitability of marine habitat offset calculators or informing 'value'.
- c) Develop a method suitable for Hay Point region to assess if creating a new habitat is of more 'value' than the existing habitat.
- d) Undertake site specific values assessments as required.



3

Study Phase

- a) International review and appraisal of case studies describing previous habitat restoration or creation initiatives.
- b) Define benefits and pitfalls in context to local Hay Point area
- c) Provide recommendations for Hay Point pilot program, including high level design considerations.

4

Design and Project Planning

- a) Draft design concepts for pilot project.
- b) Consult widely with stakeholders, gathering comments and feedback.
- c) Finalise design plans.
- d) Seek necessary approvals and permits to allow implementation.



5

Implementation

- a) Installation of supporting structures, containment areas, and water quality controls.
- b) Establish saltwater nursery or seed collection protocols, as determined in study phase.
- c) Maintenance dredging and material placement.
- d) Planting or recruitment controls implemented.

6

Monitoring

- a) Develop success criteria in planning phase.
- b) Monitor implemented pilot project against established success criteria.
- c) Develop reporting methods
- d) Provide transparent public access to monitoring results
- e) Evaluate monitoring data against success criteria.



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