Proposed Tourist and Commercial Development

Goodnight Island and Greenwell Point

Habitat and Vegetation Management Plan Framework

MP06_0034 - Preferred Project Report

Prepared for
Milad Investments No. 1 Pty Ltd
c/- studio internationale pty ltd

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Goodnight Island Tourism Development

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Contents

List of Figures

List of Tables

Abbreviations

ABBREVIATION	DESCRIPTION

Executive Summary

- Overview of site and approach
- Statement of environmental vision
- Identification of key aims for the site

1 Introduction

1.1 BACKGROUND

- Proposal context – development description, identification of study area
- Approach to HVMP, based largely on DWE VMP guidelines with additional habitat requirements
- Adaptive management framework, based on planning, actions, monitoring, assessment, planning cycle and integrating with natural processes
- Plan life – 5 year implementation period

1.2 SCOPE AND OBJECTIVES OF HVMP

This HVMP will guide the protection, restoration and enhancement of the ecological attributes of Goodnight Island and immediate surrounds.

This HVMP identifies a suite of aims and objectives that are realistic, measurable and achievable and will result in a significant improvement in the current ecological value of the study area. This HVMP promotes an adaptive management framework where the response of the environment to management actions are regularly monitored and assessed. This response is then used to determine the appropriate actions required for the next stages of plan implementation.

Table 1: Objectives

Objective	Approach
Protect existing environmental values	Construction EMP and site induction Fencing Water and sediment control
Improve health of existing habitat	Weed control and bush regeneration Feral animal control Rubbish removal
Reinstate habitat to areas of low resilience	Planting of local provenance native species Utilisation of logs and hollows from felled trees
Minimise impacts from ongoing operations	Signage and education

	Formalisation/restriction of access Operational plans (boating and helicopter approaches and flight paths if approved) Manage site runoff to minimise sediment loads No cats or dogs on site

2 Description of the environment

This section will provide a description of the study area and detail on the environmental values.

- Location
- Regional context
- Climate
- Environmental Values
  - Terrestrial habitat
    - Vegetation Communities (include detailed description of Bangalay Forest encompassing scientific committee determination, local and regional context, species composition and fauna habitat elements)
    - Flora
    - Fauna
  - Marine habitat
    - Oyster Leases
    - Water Quality
    - Mangroves and Saltmarsh
    - Seagrass and Seaweed
    - SEPP 14 Wetlands

Figure 1: Location Map

3 Management Issues

This section will provide a description of management issues, risks, impact and mitigation measures including, but not limited to:

- Clearing
- Loss of hollows (include nesting boxes)
- Weeds
- Feral animals
- Access
- Fire
- Boating
- Sedimentation
- Boating
- Helicopter flight paths (if approved)
- Litter

Management Issues will be tabulated in a format as per the example below

Table 1: Impact Summary – Potential Impacts on Water Quality

Issue	Risks	Potential Impacts	Mitigation Measures
Boating	Fuel Spills	Reduce water quality, loss of marine life, impact on aquaculture.	Prepare a Pollution and Waste Management Plan, correct containment and transportation of fuel, prohibit refuelling at the Island.
	Chemical Spills	Reduce water quality, loss of marine life, impact on aquaculture.	Prepare a Pollution and Waste Management Plan, correct containment and transportation of contaminants, prohibit vessel 'wash-down' or repairs at the Island.
	Erosion		Strict controls on boating approaches,

launch areas and speed

4 Management Areas

This chapter will divide the study area into individual management areas or units. These areas will be based on logical environmental boundaries, and grouped threats and management actions.

Each unit will be mapped separately and a profile for each unit will be prepared that identifies:

1. Environmental values
2. Threats/Management issues
3. Management objectives
4. Future character statement
5. Management actions
6. Cost of implementation
7. Performance criteria with specific annual qualitative and quantitative requirements.
    - Examples of quantitative criteria include:
        - Year 1: <70% exotic cover
        - Year 2: <60% exotic cover
        - Year 3: <50% exotic cover
        - Year 4: <40% exotic cover
        - Year 5: <30% exotic cover
        - 85% survival rate of all plantings
    - Examples of qualitative criteria include:
        - No new erosion points
        - Management actions implemented as per schedules
        - No informal paths established

Management areas will clearly identify issues including:

1. Restoration of Bangalay Forest
2. Retention of hollow bearing trees and installation of nesting boxes

3. Maintenance/rehabilitation of the frog pond
4. Seagrass
5. SEPP14 wetlands
6. Oyster Leases
7. Weed management
8. Water quality

Figure 2: Management Areas

5 Monitoring and Reporting

An annual monitoring program will be defined that includes:

1. Photo monitoring points
2. Random meander surveys of management issues
3. Fauna surveys
4. Transects to measure weed cover abundance
5. Transects to measures sea grass

The scope of the monitoring program will be designed to incorporate 2 days of field survey and 2 days of write-up for a cost of approximately $5000 per annum.

The monitoring program will be repeatable and transferable to other sites. It is recommended that DECC is consulted regarding the monitoring techniques used, and if possible techniques are to be consistent with other monitoring programs being undertaken in the region.

A reporting program will be designed to capture information on restoration work undertaken on site and identify management issues. The reporting program will include:

1. a summary of works carried out within the period
2. an approximation of the time spent on each task
3. mapping of areas worked presented in a GIS compatible format
4. a description of any problems encountered implementing the works identified in the HVMP and how they were overcome
5. any observations made including new species, particularly threatened entities, comments on survival rates and regeneration, weed control success and problems beyond the scope of the HVMP which impact on the study area
6. progress against performance criteria for each management unit

The reporting program will include quarterly reports for items 1 – 5 and an annual report that includes item 6 as well. The annual report will be submitted to the consent authority for approval.

References

Appendix A: Treatments

Detailed information of how to undertake individual treatments will be included within the appendices. Examples of this type of information are included below.

SEED COLLECTION

Seed collection will be undertaken in accordance with the Australian Florabank Guidelines (2000). Collected seed will be dried, sorted, packaged, labelled and stored in a controlled environment. Records of the original seed provenance, collection habitat, date collected, storage conditions and history will be kept in a database for all collected and purchased seeds. Germination testing will be conducted records kept.

The use of seed of local provenance will be strictly adhered to. Species that occur commonly on the site will be collected primarily from within the site. Species that are infrequent or not present on the site but may have originally occurred on site will be collected from nearby areas with ranges to be determined according to the Florabank guidelines. When collecting seed off site the habitat of the area to be planted will be matched as closely as possible by the collection habitat.

Seed will not be collected in any area burnt within the past two years.

PLANTING

Encouraging the site's natural resilience through bush regeneration techniques and direct seeding will be used in preference to planting. Planting will be restricted to areas where natural regeneration is unlikely or will be slow due to past disturbances. These areas include areas currently dominated by introduced pasture grasses, areas that are too far removed from remnant vegetation to receive input of propagules or areas that have been heavily degraded by past land use and will immediately benefit from increased vegetation cover. This includes riparian zones and headwater catchments.

Species selection and densities

Species that are suitable for planting are listed according to the type of management region (e.g. grassland). In deciding what species will be planted, consideration will also be given to the adjacent vegetation community, species present on site in the same mapped vegetation community and species known to occur in that community as described by ..... (most relevant publication or community profile)

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