



Great Keppel Island
REVITALISATION PLAN

8.

ENVIRONMENTAL
MANAGEMENT
PLAN







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8. ENVIRONMENTAL MANAGEMENT PLAN

8.1 Purpose of EMP

The Environmental Management Plan (EMP) (refer to **Appendix O**) has been prepared on behalf of the Proponent, GKI Resort Pty Ltd, to protect the environmental, cultural, world heritage and social values of the Island and surrounds which could potentially be affected by the GKI Revitalisation Plan, during both the construction and operation phases. The EMP elements and mitigation measures have been drawn from the EIS, including the recommendations of specialist reports provided as appendices to the EIS. This EMP is of a preliminary nature only and will be developed further prior to the commencement of any construction activities on the Island.

The proposed EMP is separate to and complements the Land Management Plan (LMP) prepared in October 2011 and submitted to DERM which applies to the current Lot 21 lease. Despite some shared objectives with the LMP the EMP contains management responses, relevant to all environmental risks and the entire Project area, including Lot 21

8.2 Objectives

The objectives of the EMP are to provide:

- assurance to the community and to the government that the Proponent will commit to minimise environmental, cultural, world heritage and social impacts during all phases of the GKI Revitalisation Plan from initial design, to construction and commissioning, and through to the operation of the Resort;
- a base for the development of detailed environmental management plans for inclusion in the construction and operational contracts (these could be run concurrently given the proposed staged construction approach);
- practical and achievable commitments to ensure that the Project will have minimal impacts on identified values, including World Heritage Values; and
- an integrated plan for monitoring, assessing and controlling potential impacts once the Project has been approved and all permits and conditions granted.

8.3 EMP Structure

The EMP has been prepared utilising the recommended structure outlined in the TOR for the Project as outlined below in **Table 8.1**.

TABLE 8.1 EMP STRUCTURE

Element / Issue	Aspect of construction or operation to be managed (as it affects environmental values).
Operational Policy	The operational policy or management objective that applies to the element.
Performance Criteria	Measurable performance criteria (outcomes) for each element of the operation.
Implementation Strategy	The strategies, tasks or action program (to nominated operational design standards) that would be implemented to achieve the performance criteria and also include the implementation agency for each element of the EMP.
Monitoring and Auditing	<p>The monitoring requirements to measure actual performance (i.e. specified limits to pre-selected indicators of change).</p> <p>The auditing requirements to demonstrate implementation of agreed construction and operation environmental management strategies and compliance with agreed performance criteria.</p>
Reporting and Corrective Action	<p>Format, timing and responsibility for reporting and auditing of monitoring results.</p> <p>The action (options) to be implemented in case a performance requirement is not reached and the person(s) responsible for action (including staff authority and responsibility management structure).</p>

8.4 EMP Elements / Issues

The EMP specifies management responses for the following issues and elements under both operational and construction phases of the Project:

- Climate change:
 - Greenhouse gas emissions
- Land Management:
 - Land use and human activities
 - Soil management
 - Contaminated land
 - Acid Sulfate Soil
- Nature Conservation:
 - Terrestrial Flora
 - Terrestrial Fauna
 - Marine Fauna
 - Aquatic Ecology
 - Weeds and Pests
 - Lighting
- Water Resources:
 - Groundwater
 - Surface water
 - Wastewater
- Coastal Management:
 - Hydrodynamics and sedimentation
 - Sediment quality and dredging
 - Water quality
- Air Quality
- Noise and Vibration
- Waste
- Transport:
 - Road
 - Vessel
- Non-Indigenous Cultural Heritage
- Indigenous Cultural Heritage
- Emergency Response Plan
- World Heritage Values and Scenic Amenity



8.5 Responsibilities

All the Proponent's employees, contractors and associated personnel involved in the Project are responsible for the environmental performance of their activities and for complying with the General Environmental Duty as set out in Section 319(1) of the EP Act, which states:

"A person must not carry out any activity that causes, or is likely to cause, environmental harm unless the person takes all reasonable and practicable measure to minimise the harm."

A number of parties will be involved in the construction and operation of the Project, with position titles and accountabilities to be finalised closer to commencement of construction and operations. The EMP will be updated accordingly to reflect the responsibilities of these roles which are described below:

GKI Resort Pty Ltd (the Proponent): Responsible for the overall management of the construction and operation of the Project, including environmental, social, heritage and cultural performance.

The Proponent will communicate any delegations of responsibilities under the EMP to sub-contractors, or others as relevant, via contractual agreements.

The Proponent will employ an Environmental Manager Contractor for both the construction and operational phases of the Project and work with local consultants and Traditional Owners to protect land and sea country. The responsibilities of this role are outlined below.

Environmental Manager: Responsible for ensuring the Proponent, its contractors and employees are aware of their responsibilities under the EMP and any approval/permit conditions. The Environmental Manager will:

- develop the Environmental Management System (EMS) under the umbrella of the ISO 14000 EMS series of standards;
- prepare relevant plans, procedures and policies to assist the Proponent to comply with its obligations;
- manage rangers and environmental officers who will oversee the eradication of feral goats, implementation of the weed management plans, maintenance of the Environmental Protection Precinct, stormwater and wastewater infrastructure, and implementation of the waste management programs for the Project;
- work with the Traditional Owners to implement the Cultural Heritage Management Plan (CHMP);
- develop and run awareness training sessions and visitor inductions; and
- conduct regular audits, oversee the monitoring programs, prepare internal and external compliance reports.

The Environmental Manager will have appropriate environmental qualifications and experience and be supported by external professionals where necessary.

Construction Manager: This role will be provided by the Principal Contractor. It is the responsibility of the Construction Manager to ensure that the construction teams are adequately resourced to enable all personnel to carry out their duties in an environmentally responsible manner. The Construction Manager may assign supervisors or team leaders to comply with the requirements of this EMP as his/her representative.

The Construction Manager will report to the Proponent's Environmental Manager on environmental, social and heritage performance and incidents, throughout the construction phase.

Construction Contractor/s: Is responsible for developing detailed construction plans, including the Construction EMP sub-plans, in compliance with the overarching Construction EMP developed by the Proponent, development approvals and contract conditions. The construction contractor is primarily responsible for implementing and complying with the Construction EMP commitments and development approval conditions, as specified in the construction contract.

A contractor's environment management representative will be appointed to ensure implementation of the Construction EMP including any day-to-day monitoring and reporting requirements.

Resort Manager: Is the principal operational manager to be supplied via an experienced resort management contractor. It is the responsibility of the Resort Manager to ensure that the various work teams are adequately resourced to enable all personnel to carry out their duties in an environmentally responsible manner and comply with the Operations EMP.

The Resort Manager may assign supervisors or facilities managers (eg manager of marina, golf course or hotel) to implement various components of the Operations EMP as his/her representative. The Resort Manager will report to the Proponent's Environmental Manager on environmental, social and heritage performance and incidents, throughout the operations.

8.6 Competence, Training and Awareness

All project staff and contractors will complete a comprehensive project induction relevant to each of the stages of the Project. The induction will include a review of the Project's environment management procedures and requirements. Project supervisors and managers will be provided with further detailed training regarding the implementation of the EMP where appropriate.

This training will be updated frequently and targeted to items of relevance for the specific phase of the Project. Daily pre-start meetings will be conducted by the contracting teams and regular team (tool box) meetings will be held to highlight and discuss environment management issues relevant to each area of work during the construction and operation phases of the Project.

8.7 Incident Management

Management of near-misses and incidents is important to reduce the likelihood of an event occurring that could cause harm to the environmental, cultural heritage or social values on the Island. All near-misses and incidents will be reported to the Environmental Manager who will follow up with the relevant manager to ensure adequate response is undertaken to avoid a recurrence.

A near miss is a potential incident that did not actually occur due to chance and an incident is any event that harms, or has the potential to harm environmental, cultural or social values on the Island or surrounds.

In the event that a near-miss or an incident occurs, the following steps will be followed immediately:

- prevention of further environmental / cultural heritage / social value harm;
- clean-up and /or control of polluting substance(s);
- implementation of mitigation measures to prevent recurrence of similar incident / potential incident;
- documentation and investigation as appropriate; and
- reporting to the Environmental Manager..

Incidents likely to cause off-site impacts or significant environment harm will be reported by the appropriate manager to DEHP, SEWPaC, or other appropriate authority in accordance with statutory requirements.

8.8 Incidents and Complaints Register

The Environmental Manager will maintain a record of all near misses, incidents and complaints received. The Environmental Manager in consultation with the Construction and/or Resort Manager shall review all incidents and complaints, report to the Proponent and assess or direct a response as appropriate. Corrective action and other recommendations shall be made and documented.

8.9 Auditing

Auditing for the EMP is to be carried out by the Environmental Manager or nominated representative weekly to ensure that activities are undertaken in accordance with the objectives of the EMP and to ensure that required outcomes are being achieved. All auditing will be undertaken by a competent person and documented to communicate the results of the audit to the Construction Manager and/or the Resort Manager and the Proponent.

8.10 Review

The EMP is a dynamic document that will be reviewed regularly and revised to reflect changes, new developments associated with the Project and improved management strategies. Revisions will include, but not be limited to:

- inclusion of recommendations from environmental specialists, government officers, contractors, Island residents and conservation groups as part of the EIS, or other formal processes;
- inclusion of improvement measures determined as implementing the EMP, in line with the continual improvement philosophy;
- updating of organisational structures as the Project moves through the construction and operational stages, with associated allocation of roles and responsibilities in line with the organisational structure;
- inclusion of relevant approval conditions arising from the approval and subsequent permits, authorities and/or licences;
- review of EMP at the end of the construction phase; and
- inclusion of any site-specific elements relevant to new developments as they occur during the life of the Project.

Additional revisions will occur on an as-needs basis, including revisions to address items identified during incident investigations, inspections or audits.