Appendix R1 Construction Management Plans (NISSLAB)

NISLLAB

CONSTRUCTION MANAGEMENT PLAN

PROJECT DETAILS			
TMR District	Hook Island		
Project / Facility Name	Hook Island Eco Lodge Project		
Project Address	Hook Island, C\- Whitsunday Island Group		
Facility Number		Lot on Plan	L: 4 HR: 1022 T: SLO5/50049, L: 428 NPW
E&H(S/H) / WBS / Internal Order No.	Hook Island Eco Lodge	Geographical Coordinates (WGS84)	20°09'36.2"S 148°56'54.7"E
Project Number	100145	Local Government Area	GBRMPA
DMS References		Template Version	1- 2024

VERSION HISTORY			
Version No.	**Date**	**Changed by**	**Nature of amendment**
1	30/09/24	Rebecca Gilding	Draft Issue 04.10.2024
2	12/11/24	Simon Vinnicombe	Update to reflect Sponsor requirements

1.0 Introduction

1.1 Purpose

The Hook Island Construction Management Plan (CMP) is a critical document that outlines the procedures and protocols for managing construction activities in a way that minimizes environmental impact, ensures safety, and complies with regulatory requirements.

For the Hook Island Eco Lodge project, the CMP serves several key purposes:

1. **Environmental and Cultural Heritage Protection**: The CMP outlines measures to safeguard Hook Island's sensitive ecosystems, including vegetation, wildlife habitats, and marine areas, throughout the construction phase. Additionally, in compliance with the Aboriginal Cultural Heritage Act 2003 and Torres Strait Islander Cultural Heritage Act 2003 (the Cultural Heritage Acts), the project team will exercise a strict duty of care to avoid harm to any Aboriginal or Torres Strait Islander cultural heritage. This duty requires that all reasonable and practicable steps are taken to prevent activities from impacting cultural heritage sites, in line with legislative requirements.

2. **Efficient Resource and Site Management**: The CMP details procedures for efficient use of resources, including materials, machinery, and workforce, through a phased approach. Staging construction activities minimizes the footprint of active work areas and limits environmental impact on the island.

3. **Safety and Emergency Preparedness**: The CMP includes safety protocols for workers, safe machinery operation, and comprehensive emergency management plans. These protocols cover responses to bushfires, cyclones, environmental incidents, and worker injuries, ensuring the health and safety of all personnel.

4. **Regulatory Compliance and Ongoing Monitoring**: The CMP ensures that all construction activities adhere to approved designs and align with relevant codes, permits, and guidelines, including those for cultural heritage and environmental protection. Regular monitoring and reporting are built into the CMP to verify ongoing compliance

The CMP will be actively used throughout the Hook Island Eco Lodge project to guide daily operations, manage resources, protect the environment, and ensure the health and safety of workers. It will be updated as necessary to incorporate new risks, approvals, and detailed construction plans.

1.2 CMP Introduction

This Construction Management Plan (CMP) outlines the strategies for managing civil and site preparation works for the Hook Island Eco Lodge project. The plan includes details on road construction, service installation, pier foundations for modular buildings, elevated boardwalks over sensitive areas and large rocks, potential on-site concrete batching, and the establishment of a worker camp. The plan emphasizes environmental protection, efficient resource management, and adherence to all relevant approvals, codes, and regulations.The final CMP will be refined based on regulatory approvals and detailed construction designs.

1.3 Project Overview

The Hook Island Eco Lodge project involves constructing eco-friendly accommodations and infrastructure while minimizing environmental impacts. Key activities include:

- Road construction and installation of services (water, electricity, and wastewater)
- Pier foundations for modular buildings
- Elevated boardwalks over sensitive vegetation, large rocks, and delicate landscapes
- On-site concrete batching for foundation work
- Worker camp setup for up to 30 people, with other workers commuting from the mainland

The construction workforce will range from 30 to 100 workers depending on the project phase, with the worker camp housing up to 30 workers and others commuting daily by boat from Shute Harbour or Airlie Beach.

Figure 1. Resort Masterplan including 4 precincts

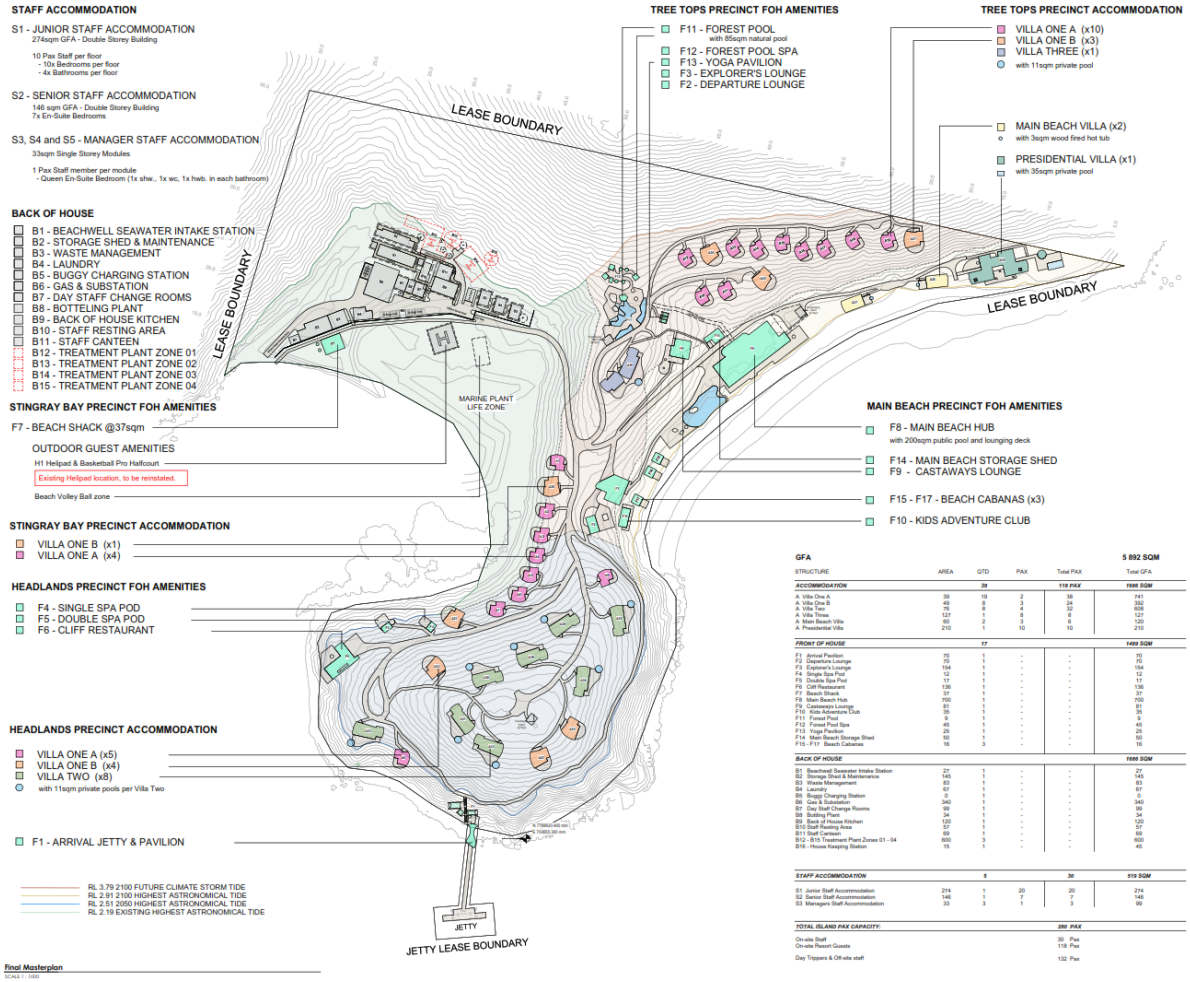

Figure 2. Final Masterplan

2.0 Legislative and Regulatory Framework

The CMP will ensure compliance with all relevant environmental, safety, and construction regulations, including:

- Environmental Protection Act 1994 (Qld)
- Aboriginal Cultural Heritage Act 2003 (Qld)
- Torres Strait Islander Cultural Heritage Act 2003 (Qld)
- Nature Conservation Act 1992 (Qld)
- Vegetation Management Act 1999 (Qld)
- Coastal Protection and Management Act 1995 (Qld)
- Marine Parks Act 2004 (Qld)
- EPBC Act 1999 (Commonwealth)

All works will be carried out in strict accordance with approved designs, permits, and regulatory codes. Any changes to project scope or activities will require further approvals as needed.

3.0 Hours of Operation

- Standard Work Hours: Construction will occur between 6:00 AM and 6:00 PM, Monday to Saturday. This ensures work is conducted during daylight hours, minimizing disruptions to local wildlife and ensuring worker safety.
- No Night Work: Night-time operations will be avoided to prevent light pollution and disturbance to nocturnal species. This will also reduce the risk of accidents during low-visibility conditions.

4.0 Mainland Logistics and Material Transport

4.1 Mainland Laydown Area at Shute Harbour A mainland laydown area at Shute Harbour will serve as the logistics hub for material transport to Hook Island.

- Material Handling and Storage: The laydown area will store construction materials, equipment, and modular components. Protective measures, including covered storage, will be implemented to shield materials from the elements.
- Barge Loading and Environmental Protections: Materials will be loaded onto barges at Shute Harbour following strict loading protocols to prevent spills or material losses. Environmental controls will ensure runoff or spills are contained within the mainland laydown area.

4.2 Barge Operations

- Barge Landing Sites: The barge will transport materials to Hook Island, landing at designated sites on Main Beach and Stingray Bay. These locations were chosen to avoid damage to sensitive marine ecosystems, such as coral reefs and seagrass beds.
- Material Offloading: After materials are delivered, they will be transported to the appropriate construction zones using trucks and forklifts, following planned routes to minimize impact on sensitive areas.

5.0 Laydown and Materials Management on Hook Island

5.1 Island Laydown Areas

- Designated Storage Zones: Laydown areas on Hook Island will be established in low-impact locations near construction zones. These will be strategically sited to avoid disrupting sensitive habitats, and materials will be stored safely using bunding and protective coverings.
- Material Protection: To prevent contamination, sensitive materials such as fuel and chemicals will be stored in bunded containers, and spill

containment kits will be available. Erosion control measures, including silt fencing and sediment traps, will prevent runoff into surrounding ecosystems.

5.2 Staging of Works

- Phased Approach: The project will be carried out in phases, allowing for efficient management of resources and minimizing environmental disturbance. For each phase, materials will be transported to the island only as needed, reducing the need for extensive on-site storage and lowering the construction footprint.
- Minimizing Worksite Footprint: Active construction zones will be limited in size, with disturbed areas quickly rehabilitated or revegetated once a phase is completed.

6.0 Road Construction and Services Installation

6.1 Road Construction

- Design and Routing: Roads will be designed to avoid ecologically sensitive areas, following natural contours to reduce grading and prevent excessive vegetation clearing. Compact gravel surfaces will provide durable access while minimizing erosion.
- Machinery Use: Bobcats, small excavators, and trucks will be used for road construction. Their movement will be restricted to designated zones to avoid unnecessary compaction or damage to surrounding vegetation.

6.2 Service Installation

- Utility Trenching: Trenches for water, electricity, and wastewater systems will be dug using small excavators. Service routes will be planned to avoid large root systems or sensitive ecological areas.
- Sustainable Infrastructure: The project will incorporate renewable energy solutions, such as solar power, and sustainable wastewater management systems. Utilities will be installed with minimal disruption and designed for long-term environmental sustainability.

7.0 Pier Installation for Modular Buildings

- Pier Foundations: Modular eco-lodge buildings will be installed on pier foundations to minimize ground disturbance. Excavators will be used to dig foundations, and concrete piers will be poured on-site to create stable, elevated bases.
- Concrete Batching Plant: A temporary concrete batching plant may be established to mix the necessary concrete on-site, reducing transport risks. The batching plant will follow strict environmental protocols, including dust control, wastewater containment, and noise management.

8.0 Elevated Boardwalks Over Sensitive Areas and Large Rocks

8.1 Boardwalk Design

- Purpose and Construction: Elevated boardwalks will be constructed over sensitive ecological areas, including wetlands, coastal habitats, large rock formations, and other sensitive landscapes. These structures will prevent soil compaction, erosion, and disturbance to flora and fauna while maintaining access for visitors and workers.
- Materials and Construction: Sustainable materials will be used for the walkways. Hand tools and small equipment will be employed where possible to minimize the need for heavy machinery. Piers for the walkways will be installed using augers to reduce ground disturbance.

8.2 Environmental Safeguards

- Risk Assessments: Before boardwalk construction begins, detailed risk assessments will be completed to identify potential hazards and environmental risks. These assessments will guide construction methodologies to protect the island's ecosystems.
- Compliance with Approvals and Codes: All elevated boardwalks and associated works will be designed and constructed in full compliance with local approvals, codes, and regulatory requirements. The project will also follow best practices for environmental protection.

9.0 Landscaping and Site Rehabilitation

9.1 Vegetation Management

- Initial Vegetation Clearing: Vegetation clearing will be limited to designated construction zones and will be conducted in accordance with local and state approvals. Buffer zones will be established around sensitive habitats, ensuring that the least amount of vegetation is impacted.
- Native Revegetation: After each construction phase, disturbed areas will be rehabilitated with native vegetation. This will help stabilize soils, reduce erosion, and restore natural ecosystems.

9.2 Landscaping

- Sustainable Landscaping: Landscaping around the eco-lodge will prioritize native plants that are well-suited to the local environment. These plants will require minimal irrigation and upkeep, helping to preserve the island's natural beauty and ecosystems.

10.0 Machinery Management and Safety

10.1 Machinery Inspections and Cleaning

- Cleaning and Inspections: All machinery and construction equipment will be thoroughly cleaned and inspected before being transported to Hook Island. This will prevent the introduction of seeds, pests, or other biological contaminants that could disrupt local ecosystems.
- Pre-Transport Protocols: Machinery will undergo detailed inspections to ensure they are free of soil, seeds, or any material that could carry invasive species. Inspections will be conducted at the mainland laydown area before barge transport.

10.2 Safe Machinery Operations

- Safety and Environmental Protections: All machinery will be operated in designated zones to avoid disturbing sensitive areas. Operators will be trained in environmental protection protocols, including spill response and noise management.
- Fuel and Chemical Storage: Fuel and chemicals will be stored in bunded areas to prevent spills. Regular maintenance will be performed on machinery to minimize the risk of leaks or equipment failure.

11.0 Worker Camp Setup and Operations

11.1 Worker Camp

- Camp Size and Facilities: A temporary worker camp will be established on Hook Island for up to 30 people, with additional workers commuting daily from Shute Harbour or Airlie Beach. The camp will be composed of modular structures for accommodations, food preparation, and basic amenities.
- Waste and Water Management: The worker camp will have its own water supply and wastewater treatment systems. Solid waste will be collected, sorted, and transported off the island for proper disposal or recycling.

11.2 Worker Safety and Access

- Daily Worker Transit: The majority of workers will transit to and from the island via boat, using the newly constructed jetty. This will reduce the need for on-island accommodations and minimize environmental disruption.

12.0 Environmental Monitoring and Reporting

12.1 Ongoing Monitoring

- Daily and Weekly Inspections: Environmental monitoring will be conducted to ensure compliance with sediment control, erosion management, and habitat protection measures. Sensitive areas, such as barge landing zones and utility trenches, will be closely monitored.

- Wildlife Surveys: Regular wildlife surveys will assess the impact of construction on local species. Any necessary adjustments will be made to construction activities to protect endangered or migratory wildlife.

12.2 Reporting and Incident Response

- Spill Response Plans: Spill kits will be available on-site to address fuel, chemical, or material spills. Any environmental incidents will be reported immediately, with corrective actions taken to mitigate impacts.
- Environmental Emergency Management: Protocols will be established to address environmental risks such as fuel spills, hazardous materials handling, and habitat damage. Workers will be trained to respond to these incidents quickly and effectively.

13.0 Emergency Management Plans

13.1 Bushfire Management

- Firebreaks and Equipment: Firebreaks will be maintained around the worker camp and construction zones to reduce fire risk. Firefighting equipment will be stationed across the site, and workers will receive fire safety training.
- Vegetation Management: Clearance of combustible vegetation will be done around the construction sites to mitigate bushfire risks, in accordance with local fire safety guidelines.

13.2 Cyclone Impact Management

- Cyclone Preparedness: Detailed cyclone management plans will include site evacuation protocols, securing materials, and protecting infrastructure from cyclone impacts. Workers will be evacuated off the island during cyclone warnings.
- Post-Cyclone Assessment: After cyclone events, damage assessments will be conducted, particularly for environmental and safety concerns. Construction will resume only once it is safe and repairs have been made.

13.3 Worker Injury and Environmental Incident Response

- Medical Response Plans: First-aid stations, emergency kits, and trained personnel will be available to respond to worker injuries. Evacuation plans will be in place for serious injuries requiring transport to nearby medical facilities.
- Environmental Incident Response: Emergency plans will cover environmental risks, including fuel spills, chemical leaks, and accidental damage to habitats. Incident response teams will be trained to manage these risks in compliance with environmental authorities.

14.0 Staging of Works and Resource Management

14.1 Phased Work Plan

- Phased Construction: Work will be conducted in phases to allow for effective resource management and minimize environmental impact. Each phase will

focus on a specific area (e.g., road building, utility installation), reducing the overall footprint of active construction zones.

- Efficient Resource Use: The project's phased approach will ensure that only necessary materials are brought to the island, reducing storage needs and minimizing the potential for environmental damage.

15.0 Training and Communication

15.1 Worker Training

- Environmental Awareness Training: Workers will receive training in environmental best practices, including spill response, wildlife protection, and handling of sensitive materials. Workers will also be trained in cyclone evacuation and fire safety procedures.
- Machinery Safety Training: Machinery operators will be trained in safe operation and maintenance procedures to reduce environmental and safety risks.

15.2 Communication Protocols

- Stakeholder Engagement: Regular updates will be provided to environmental authorities, the client, and other stakeholders to maintain transparency and ensure compliance with regulations.

16.0 Cultural Heritage

To fulfill the duty of care under the Aboriginal Cultural Heritage Act 2003 and the Torres Strait Islander Cultural Heritage Act 2003, the following steps will be implemented to ensure construction activities do not harm cultural heritage sites:

Training and Awareness for Project Personnel

- Provide cultural heritage training for all personnel involved in the project to ensure they understand the importance of cultural heritage protection, the duty of care requirements, and the protocols for identifying and reporting any potential heritage findings.
- Emphasize respectful practices and establish reporting protocols for any unexpected cultural heritage discoveries during construction.

Site Surveys and Monitoring During Construction

- Conduct site surveys and regular monitoring by cultural heritage specialists during land-clearing and excavation phases to ensure that no heritage items are disturbed.
- Where feasible, Indigenous community representatives will be invited to participate in monitoring activities to provide cultural insights and ensure heritage protection.

Protocol for Unexpected Discoveries

- Establish a clear "stop work" protocol in the event that previously unknown cultural heritage items are discovered. This protocol will ensure that all activities cease immediately in the vicinity of the find.
- Report the discovery to the relevant cultural heritage bodies and Indigenous representatives and conduct an assessment to determine appropriate preservation or avoidance measures.

Documentation and Reporting

- Maintain detailed records of all cultural heritage-related activities.

- Provide regular reports to the relevant authorities to demonstrate compliance with duty of care requirements.

Adaptive Management and Continuous Consultation

- Continue consultation with Indigenous representatives throughout the project to address any concerns and adapt heritage management practices as needed.
- Ensure any changes in construction plans that could impact cultural heritage areas are reviewed with cultural heritage specialists and Indigenous stakeholders.

By following these steps, the project team will take all reasonable and practicable measures to prevent impacts on cultural heritage sites, fulfilling its duty of care in compliance with legislative requirements.

17.0 Conclusion

This CMP provides a comprehensive framework for managing the construction activities of the Hook Island Eco Lodge project while prioritizing environmental conservation and compliance with local, state, and federal regulations. By employing a phased approach, minimizing worksite footprint, and implementing robust emergency management and safety protocols, this plan ensures that the project can be completed sustainably. Further risk assessments and updates will be incorporated as approvals are issued and detailed designs are finalized.