Environmental Management Plan (Maintenance)

Clump Point Boat Ramp Access Silt Clearing

PROJECT	Mission Beach Clump Point, Boating Infrastructure Project, Element 1: CN-10244

Project Commencement

Date: April 2018

Project Duration: 15 days

PREPARATION AND AUTHORISATION

DATE	NAME	POSITION	SIGNATURE
31 Dec 18	Andrew Schweitzer	Project Manager	

REVISION STATUS

REVISION	DATE	DETAILS	PREPARED BY	APPROVED BY
A	31 Dec 18	Original – adapted from TMR EMP	Andrew Schweitzer	Guy Schweitzer (RPEQ)
B	4 Jan 19	Comments and changes requested by TMR	Andrew Schweitzer	Guy Schweitzer (RPEQ)
C	20 Feb 19	Comments and changes requested by GBRMPA	Andrew Schweitzer	Guy Schweitzer (RPEQ)

DISTRIBUTION LIST

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CPP issued to the following members of the Project Team:

NAME	SIGNATURE	DATE
Neville Foley		

Table of Contents

1. BACKGROUND

The Department of Transport and Main Roads (TMR) is the facility owner of the Clump Point Boat Ramp and Breakwater (facility ID JS22 and JS23), located at Mission Beach. The Clump Point boat ramp was upgraded in 2000 to its existing configuration, and Cassowary Coast Regional Council (CCRC) is the facility manager. TMR aims to maintain all tide access to Clump Point Boat Ramp. The Clump Point boat ramp and breakwater are located within a Habitat Protection Zone of the Great Barrier Reef Marine Park (GBRMP).

To ensure continued access to the ramp, the ramp and breakwater toe requires minor maintenance excavation work. See Attachment 1 which indicates the area of the proposed works associated with access maintenance. TMR holds legislative approvals for these maintenance works which includes GBRMP permit G18/38869.1.

2. OBJECTIVES

To ensure ongoing access to the Clump Point boat ramp, the access to the ramp requires minor maintenance excavation work. This access basin was approved in 1999 as part of a boat ramp upgrade to ensure all tide access is maintained to the existing ramp and the basin is to be maintained to meet this existing need separate to the capital project at Clump Point.

The planned maintenance works include the use of a 50T excavator and 35T Dump Truck with a series of temporary access fingers into the boat ramp basin to remove the silt. It is proposed that the access finger(s) will be constructed from clean Class VIII core rock. The access fingers will only be placed within the dredge basin footprint being disturbed and will be completely removed at the completion of works. Pre and post dredge surveys will be undertaken to confirm the volume of material removed for contract payment purposes (and to meet permit conditions 11-13 in G18/38869.1). These surveys will confirm that all access finger material is removed from the basin area at completion of works.

MGN successfully adopted this technique within the Coffs Harbour Marina. Refer image below for an aerial shot of the Coffs Harbour project. TMR also adopted a similar approach when silt was cleared from the Clump Point Basin previously.

The silt will be removed to a design depth of -2.41m AHD (0.73m below LAT). It is proposed that the excavator will access the area down the ramp and then temporarily stockpile the material adjacent to the ramp. The temporary stockpile will be located above the high tide level (on hardstand carpark) and surrounded by an erosion sediment control fence/earth bund during the works period and will be completely removed at the completion of the works.

MGN Civil will treat extracted material with saw dust to increase the drying process to create a clean, dry waste that can be transported. MGN Civil will use locally sourced saw dust and mix with using our 50T excavator. Once sufficiently dry the 50T excavator will load our 10T Hardtail Truck or 22T Side Tipper trucks to transport to the Tully Refuse Facility.

It is estimated that approximately 500m3 of material will be removed from the ramp access. Due to the limited space the drying and carting as described above will be repeated several times.

Sediment Sampling completed in early 2014 in two separate campaigns showed that the material is sandy silt in nature, has sufficient natural buffering to not represent an ASS risk and has all contaminants below screen levels in accordance with the National Assessment Guidelines for Dredging (2009).(TMR is also undertaking updated sediment sampling in early 2019 to confirm previous results).The above material being

removed does not present an environmental risk, with turbidity being the primary element to be mitigated. It is anticipated that these works will take approximately 5 days to complete.

3. CONSTRUCTION MANAGEMENT MEASURES

This section of the EMP (Maintenance) outlines the requirements for environmental management during the maintenance works.

3.1 Environmental Roles and Responsibilities

As the project manager, MGN Civil is responsible for the planning and design of the maintenance works and will have overall responsibility for undertaking the works in accordance with all environmental approvals and this EMP.

Specifically, MGN Civil will be required to:

- Undertake all activities in accordance with the agreed plans of management and procedures; and
- Report any activity that has resulted in or has the potential to result in an environmental harm.

3.2 Key Personnel with Environmental Responsibility

Throughout the maintenance works, environmental responsibilities will be shared between TMR's nominated project manager and the Contractor. Generally, the responsibilities are as follows:

MGN CIVIL:

- Monitoring environmental performance during all works to ensure implementation of requirements.
- Report observed environmental incidents during construction to TMR's nominated project manager (superintendent)
- Issue Corrective Action Requests (CARs) following environmental compliance audits.
- Ensure Corrective Action Requests are addressed in a timely manner.
- Ensure that personnel are aware and advised of the environmental control measures that must be applied to particular activities or processes.

- Implementation of the EMP (Maintenance) on site.
- Reporting and remediation of environmental incidents under direction of the Site Supervisor or Environmental Officer.
- Implementing environmental mitigation measures where necessary.
- Undertake environmental monitoring as required.

TMR REPRESENTATIVE:

- Raise environmental incident WINs (Work Improvement Notice) to report occurrence of incidents.
- Assess impacts of changes to scope and design (as required).
- Provide environmental input to incident response (as required).
- Review and suggest improvement to environmental management procedures (as required).

3.3 Legislative requirements

MGN Civil is required at a minimum to comply with all legislative requirements including those under the *Environmental Protection Act 1994* (EP Act) and the specific conditions of the EP (Water) Policy 1997, EP (Air) Policy 1997, EP (Noise) Policy 1997 and EP (Waste Management) Policy 2000. Even though the small scale of this project means it is unlikely to trigger the need for an Environmental Authority an Authority has been gained and an Allocation of Quarry Material has also been gained to go with the existing tidal works approval which makes up the State approval requirements (See copies attachment 2). In addition, the works will be completed in accordance with the Joint Marine Parks Permit G18/38869.1. Along with these approvals this EMP (Maintenance) will ensure best practice environmental management.

Table 1 below identifies the legislative requirements relevant to the project and details those actions to be undertaken to fulfil those requirements (if applicable).

Table 1 Legislative Requirements for the project

APPROVAL/ REQUIREMENT	REGULATORY AUTHORITY	REQUIREMENTS
Approvals / Self Assessable Codes / Notifications		
Approval then Notification to GBRMPA and Department of Sciences (DES) for works in the Marine Park	GBRMPA/Department of Sciences	These maintenance works will be conducted under a separate maintenance works permit No. G18/38869.1. Then the constructing authority must notify GBRMPA/DES of the works timing and seek approval of the project specific EMP prior to the start of works.
ENAQ06648916 Allocation of Quarry Material – Coastal Protection and Management Act 1995	Department of Environment and Heritage Protection	A maximum of 1500cu.m to be removed within the designated tidal works area Clump Point Boat Ramp and Pontoon for maintenance and placement to a lawful placement site (See Permit ENAQ06648916 **Attachment 2**)
EPPR03740716 Environmental Authority – Environmental Protection Act 1994	Department of Environment and Heritage Protection	A maximum of 1500cu.m to be removed within the designated tidal works area Clump Point Boat Ramp and Pontoon for maintenance and placement to a lawful placement site (See Permit EPPR03740716 Attachment 3) No turbid plumes to occur outside the silt curtain

3.4 Environmental management during works

In general, the maintenance works are deemed to present a minimal risk of environmental impacts as works will be short-term and minor in nature. The following pages outline the specific risks and mitigation measures associated with individual

environmental protection elements. All strategies, monitoring & reporting and corrective actions are to be implemented by MGN Civil unless otherwise stated.

3.5 Water quality

Works will be undertaken within the waters of the GBRMPA. The maintenance works are likely to cause localised re-suspension of sediments, potentially temporarily increasing turbidity in the immediate area. An excavator will also operate near the water's edge, temporarily increasing the risk of hydrocarbon release into the waterway as a result of spills, mechanical failures such as brake-lines rupturing, and runoff from vehicle's surfaces.

Table 2 Actions to protect water quality

Issue	Strategies	Monitoring & Reporting	Performance Criteria	Corrective Action
Turbidity	Works will be completed 2-3 hours either side of low tide to minimise the formation or spread of plumes. This will also allow improved visibility for the operator with shallower water to operate in. A silt curtain will be installed around the entire works area that extends to the seabed during the working periods and fully encloses the works area	Frequent visual checks (hourly) during maintenance activities. If results indicate evidence of a turbid plume extending beyond the silt curtain, the silt curtain shall be inspected and repaired/ repositioned to cease any release.	No long-term or major short-term increase in turbidity as a result of the works. No visible turbidity plumes extending outside the silt curtain.	If turbid plumes are observed extending outside the silt curtain, or sediment is remaining suspended for more than one day, cease works and seek advice for appropriate treatment.

	to completely contain any plume that may form. During the removal works the material will be double handled onto the upper ramp from the works area which will allow the majority of the tail water to return to the works area before placement at the temporary stockpile. A sediment fence will be used around the temporarily stockpiled material and the drainage from the temporary stockpile will be directed back into the works area.			
Possible Acid Sulphate Soils	Sediment sampling data shows that the material being removed is self-neutralising and for this reason does not present an ASS risk. However, as an additional precautionary measure	Daily monitoring of seepage water pH will be undertaken for the duration of the works	Seepage water is maintained above pH 6.5	In the very unlikely event a pH drop is monitored below 6.5 the contractor will bund off the area (to contain seepage water) and apply a lime guard layer around the temporary stockpile to ensure release

	the pH of seepage water from the temporary stockpile will be tested.			water pH is maintained above 6.5. If this occurs 4 samples will be collected and tested at a NATA approved lab and the material will be lime treated and verified in accordance with the QLD ASS Lab Guidelines and Technical Manual before the soil is permanently removed from site.
Hydro Carbons	Store fuel and hazardous liquids away from the works area or in bunded areas in accordance with the Transport Operations (Marine Safety) Act 1994 and prevent discharge to the waterbody. Undertake appropriate maintenance of plant to prevent hose breakages and other risks of spills. Refuel vehicles and plant away from drainage lines and waterbody.	Daily visual check of water for visible films or grease. Daily pre-start checks of equipment prior to use. Results of visual checks noted in site diary/logs or on completed check-sheets and provided to TMR.	No visible film on water as a result of the works.	Dispose off-site of material which has been used from the spill kit and replace contents. If a spill occurs the contractor will immediately notify the Site Supervisor for referral to DES and ESS, and advise: • The cause and nature of the spill; • Mitigation actions taken • The volume and type of material which was spilt; and

	Refuel vessels within an appropriate area with mitigation measures such as spill kits readily available. Supply and maintain a spill control kit containing at a minimum – floating booms to a minimum length of 12 metres and absorbent pads and materials to handle a spill of up to 80 litres in the marine environment.			• The extent of the spill and effectiveness of the clean-up operations.

3.6 Marine fauna

The project area is within the GBRMP. Given that turtles are known to occur in the area of the Clump Point Boat Ramp extra caution should be given to the possible presence of marine fauna.
The area of disturbance will be contained to a small section of the previously impacted ramp access.
The operation of machinery removing the sediment may present a physical danger to fauna, however, the temporary noise associated with the works is likely to be sufficient to encourage marine fauna to relocate for the duration of the project.

Table 3 Actions to mitigate risks associated with marine fauna impacts

Issue	Strategies	Monitoring & Reporting	Performance Criteria	Corrective Action
Marine fauna	Works will be restricted to clearing the access with minimal disturbance outside this area. The Contractor will undertake observations of the water surface within the channel for the presence of turtles, dolphins and other large marine fauna prior to commencement and recommencement of any in-water works. The silt curtain will provide a barrier to marina fauna entering the works area.	Records of fauna observations prior to commencement of in-water works	No fauna injuries or kills. No in-water works to commence while turtles, dolphins or other large marine mammals are observed within 300m of the works area (in accordance with permit G18/38869.1)	Cease works until marine fauna leave the area in accordance with permit G18/38869.1. Seek advice from TMR if presence of turtles, dolphins and other large marine fauna are impacting on work schedules. Report any fauna injuries or kill immediately to TMR for referral to GBRMPA/DES. Transport injured fauna to an appropriate veterinarian or carer as soon as possible subject to expert advice

3.7 Environmental Reporting

This EMP (Maintenance) has outlined environmental management measures for the works and performance criteria for each of the various components. The following outlines the obligations for reporting of non-conformance:

- The Contractor shall report any non-conformance to the TMR Site Supervisor.
- The TMR Site Supervisor shall report any non-conformance during the works to the Contractor and Environmental Officer.
- TMR shall report to the relevant regulatory agencies of any breaches of this EMP.

3.8 Records and Registers

The TMR Site Supervisor will be required to keep records of any incidents or any non-compliance with performance criteria. Any complaints received will also be recorded in a complaint register.

The TMR Site Supervisor will be required to submit records to the TMR Environmental Officer at the completion of works which include:

- Daily diary (including photos) including inspection of all environmental elements for the works period.

Copies of daily environmental checklist (refer to Appendix A).

- Monitoring results, analysis and corrective actions (if required).
- Minor Environmental Incident Log (TMR EMS form) (refer to Appendix B) (if required).
- Environmental nuisance and non-conformance via the Environmental Monthly Report (TMR EMS form CAF008M (refer to Appendix C) (if required).
- The TMR Environmental Officer will provide a short report with photos detailing works and any environmental issues to GBRMPA/NPRSR within 2 weeks of the completion of the works.

Appendix A – Environmental Checklist

Daily Site Inspection

Name of Inspector:

Vehicles/vessels/equipment visually inspected by operators prior to start-up?	Yes ☐	No ☐
Have routine maintenance issues been identified during pre-start inspection?	Yes ☐	No ☐
Have incidents related to operation occurred? (For example, broken oil-line)?	Yes ☐	No ☐
Have any fauna injuries/deaths occurred as a result of works activities?	Yes ☐	No ☐
Vehicles/vessels/equipment excessively noisy or emitting excessive exhaust?	Yes ☐	No ☐
Erosion & sediment controls in place and in good repair?	Yes ☐	No ☐
Visible air-borne dust as a result of works activities?	Yes ☐	No ☐
Turbidity increased within or immediately surrounding work site?	Yes ☐	No ☐
Turbidity plume extending more than 50m from work site	Yes ☐	No ☐
Visible films/oils/grease on water surface or floating litter?	Yes ☐	No ☐
Material stockpiles and waste storage clear of watercourses & drainage paths?	Yes ☐	No ☐
Materials stockpiled appropriately? (Neatly and within site compound)?	Yes ☐	No ☐
Rubbish/wastes/litter stored within site compound, covered where possible?	Yes ☐	No ☐
Rubbish/wastes/litter generated by works activities located outside work site?	Yes ☐	No ☐
Suitable (appropriate size, with lids) waste receptacles readily available?	Yes ☐	No ☐
Waste receptacles being used?	Yes ☐	No ☐

Spill kit readily available?	Yes ☐	No ☐

Comments

Inspector's Signature	
Date of Inspection	

Appendix B – Minor Environmental Incident Log

Template : Minor Environmental Incident Log	Revision Number: 1
	Effective Date:

Purpose: The Minor Environmental Incident Log forms part of the Environmental Management Plan. It is used to record those incidents that are minor and contained within the project/workshop/site boundaries. Although the Minor Environmental Incident Log can be used by all personnel, the Project Manager, and/or Facility Manager is accountable for ensuring the log is being used appropriately.

Project/Facility Name:		**Project/Facility Manager**:	

Date of Incident	Brief Description of Incident	Close Out of Actions	Date and Initial by EO &/or PM

Appendix C – TMR Environmental Incident Report Form

Environment and Heritage Incident Report Form	Form Number: 1 /2011 effective from 1 December 2012
	Purpose: Use when no access to TMR WIN system

SECTION 1 – Incident Details	
Submitter's Name:	
Submitter's Position:	
Submitter's Phone Number:	
Incident Location (road name, number and chainage or GPS or property description or address)	
Date/Time Occurred:	
Date/Time Identified:	
Project/Site Name and Number	
Project/Site Managers Name	
Contractor (if relevant)	
Contract/Approval Type	

Does this incident need to be reported to regulatory authorities? ☐ YES ☐ NO ☐ UNSURE

Has an infringement notice or warning been received from a regulatory agency (e.g. DES or DAFF)?

☐ YES from [insert administering authority] Reference No. [insert reference number] ☐ NO

SECTION 2 – Incident Description (Attach photos or reports or evidence where possible)	
What occurred? (e.g. 300m^2 was cleared by the contractor which was outside of the limits specified in the contract) **What was impacted or potentially could have been impacted?** (e.g. the vegetation wrongly cleared was regional ecosystem	

11.4.5 and was considered to be in good condition with minimal disturbance. The vegetation was listed under the EPBC Act.) **What are potential on-going impacts from the incident?** (e.g. the soils are dispersive and have high erosion potential and this was the habitat for the endangered Bull Tree Butterfly). **What was the scale of the incident?** (e.g. 300m^2 cleared over 500m of road reserve. This represents 30% of the RE in the immediate area >10km radius). **Temporary controls implemented?** **Other Comments?**	

SECTION 4 – Immediate Corrective Action and Remediation		
Recommended Controls or Treatments	**Responsible Officer**	**Action Date**
The actions should reduce or eliminate the direct and indirect impacts of the incident.		

SECTION 5 – Approved Course of Action		
APPROVED for implementation APPROVED WITH FOLLOWING CHANGES to recommendations NOT APPROVED for following reasons		
Name and Position:	**Signature**:	**Date**:

Appendix D – Guideline: Environmental Incident Levels, Reporting and Timeframes

Purpose

The purpose of this document is to outline the reporting requirements for actual and/or potential environmental incidents.

Environmental Harm Incidents – These are incidents that have or have the immediate potential to cause environmental harm. These incidents may be in breach of legislation and may attract penalties

Environmental Administrative Incidents – These are breaches of legislation, our policies, systems, plans and processes that have not actually caused harm. These incidents may be in breach of legislation and could still attract penalties.

Who Determines the Incident Level - To ensure consistency of reporting the level of harm is determined centrally by the Director, Environmental Sustainability and within RoadTek, the Manager, Environment and Sustainability except for level 3 and 4 Environmental Harm incidents these will be determined by agreement between the EO and PM and the agreed level noted in the WIN for entry into the system.

Why Report – There are three very important reasons to report all actual and potential environmental incidents, these are:

1 There is a legislative requirement to report environmental harm to the Environmental Protection Agency and if harm is reported you will not be prosecuted for any further harm that occurs. (so long as you take all practical measures to prevent further harm)

2 It allows us to learn by our mistakes. By investigating why an incident occurred actions can be put in place to prevent it happening again, (continuous improvement) that is why we use the WIN system to report Environmental Incidents.

3 Government and TMR governance requirements are that we report non-compliance; there is also ever increasing community expectation that environmental performance is openly reported.

Minor Incident Log – This is a register that is generally a part of the Environmental Management Plan that is used to record those incidents that are minor and contained within the project/workshop/site boundaries. The main purpose is to identify improvement opportunities e.g. Manager reviews log and identifies multiple minor fuel spills and implements fuel handling training in response.

(PM – Project Manager, EO- Environmental Officer, RD- Regional or Executive Director, GM- General Manager DES – Dept of Environment & Sciences)

Environmental Harm Incidents			
Level	**Reporting**	**Description**	**Example**
Nil	Record in Minor Incident Log	**Minor Incident** • *Must be within project/worksite/depot boundaries, minor and easily cleaned up or rehabilitated*	• Burst hydraulic hose within project boundaries that is immediately cleaned up • Small oil spill while undertaking plant maintenance that is immediately cleaned up • Paint spill that is contained and cleaned up
1	Report to PM and via WIN within 48 hrs.	**Level 1 Environmental Incident** • *Short term impact (actual or potential) on an environmental value*	• Complaint regarding noise, dust etc; • Small amounts of sediment escaping from a project site that can be cleaned up; • Small spill e.g. 20 litres outside of project boundaries that is immediately cleaned up; • Insufficient erosion and sediment controls; • Incorrect storage of large amounts (1,000 L) of chemicals, bitumen fuels and oils; • Transportation of plant or equipment likely to contain weed seed.
2	Report to PM and EO within 4 hrs and via WIN within 24 hrs.	**Level 2 Environmental Incident** • *Recurring or more intense impact (actual or potential) of an environmental value.*	(Limited environmental effect) • Over clearing or death of native fauna; • Continued complaints regarding dust, noise etc; • Minor sedimentation/pollution of waterbody; • Unauthorised dumping of construction waste; • No wash down of plant/vehicle coming from an area with class 1 or 2 declared weeds; • Undertake works without appropriate cultural heritage assessment.

Environmental Harm Incidents			
Level	**Reporting**	**Description**	**Example**
3	Report to PM and EO immediately and then PM reports to RD within 4 hrs and by WIN within 24 hrs. **(EO to report to DES under RD direction)**	**Level 3 Environmental Incident** • *Not trivial or negligible in nature* • *Causes or potential loss or damage to property of an amount totalling$5,000 but less than $50,000; or* • *Results in costs of more than $5,000 but less than $50,000 to prevent and/or minimise the harm and rehabilitate or restore the environment to its condition before the harm*	(Significant environmental medium-term effect) • High levels of sediment entering a waterbody; • Excessive over clearing or clearing of a sensitive area; • Chemical/fuel/oil/bitumen spill to water; • Incorrect disposal or regulated waste; • No erosion or sedimentation controls in a sensitive area (potential); • Interferes with or causes damage to a culturally sensitive site
4	Report to PM and EO immediately and then PM report to RD immediately, RD report to GM immediately and by WIN within 24 hrs. **(EO to report to DES under RD direction)**	**Level 4 Environmental Incident** • *Causes actual or potential harm to the environment that is irreversible, of a high impact or widespread; or* • *Causes actual or potential loss or damage to property of an*	(Major issues with potentially serious environment consequences and long-term impacts) • Unauthorised clearing in protected or sensitive area; • Large scale unauthorised clearing; • Major spill contaminating land or water; • Exposure of acid sulfate soils resulting in fish kill

Environmental Harm Incidents			
Level	**Reporting**	**Description**	**Example**
		amount or amounts totalling $50,000 damage or rehabilitation costs.	

Environmental Administrative Incidents			
Level	**Reporting**	**Description**	**Example**
1	Report to PM and via WIN (inc equivalent positions)	**Minor Administrative Breach** *No legislative breach*	• EMP not current; • Insufficient environmental training; • Scheduled inspections not undertaken
2	Report to PM and via WIN	**Administrative Breach** *Possible legislative breach*	• Failure to obtain permit/licence; • Breach of licence/permit/guideline not causing nuisance or harm; • No EMP; • Incorrect storage of chemicals, bitumen, fuels and oils; • Erosion and Sediment controls not maintained.
3	Report to PM and RD and via WIN	**Multiple Administrative Breaches**	• Several of the above on the one site

4	Report to PM and RD and via WIN	**Repetitive Administrative Breaches**	• Recurring issue above at the one site or under control of the same manager