

SEVERE WEATHER MANAGEMENT PLAN

Appendix K



PROJECT

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

**Site Location: Clump Point, Mission
Beach QLD**

**Project Commencement
Date: December 2018
Project Duration: 52 Weeks**

PRINCIPAL CONTRACTOR

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PREPARATION AND AUTHORISATION

DATE	NAME	POSITION	SIGNATURE
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REVISION STATUS

REVISION	DATE	DETAILS	PREPARED BY	APPROVED BY
A	11 Jan 2019	Original	Andrew Schweitzer	Guy Schweitzer
B	15 Jan 2019	Revision by TMR	Andrew Schweitzer	Guy Schweitzer
C	20 Feb 2019	Minor changes made after GBRMPA review.	Andrew Schweitzer	Guy Schweitzer

DISTRIBUTION LIST

COPY NO.	NAME OF RECIPIENT	ORGANISATION
1	Chris Voisey	TMR
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CPP issued to the following members of the Project Team:

NAME	SIGNATURE	DATE
Neville Foley		

TABLE OF CONTENTS

1.0 INTRODUCTION	4
2.0 SEVERE WEATHER IDENTIFICATION	4
3.0 ROLES AND RESPONSIBILITIES	4
4.0 SEVERE WEATHER RISK	5
5.0 CYCLONE AND TROPICAL LOW PROCEDURES	5
5.1 CYCLONE AND TROPICAL LOW RESPONSE TABLE	5
5.2 CYCLONE AND TROPICAL LOW RESPONSE PROCEDURE	6
5.2.1 RESPONSE – NONE	6
5.2.2 RESPONSE – CYCLONE OR TROPICAL LOW WATCH (YELLOW)	7
5.2.3 RESPONSE – CYCLONE OR TROPICAL LOW WARNING (ORANGE)	7
5.2.4 CYCLONE RESPONSE - CYCLONE EVENT (RED)	8
5.2.5 CYCLONE RESPONSE – ALL CLEAR AND RECOVERY (GREEN)	8
6.0 SEVERE THUDNDR STORM PROCEDURES	9
6.1 THUNDER STORM RESPONSE PROCEDURE	9
7.0 OTHER WEATHER EVENTS	10
8.0 REVIEW	10

APPENDIX

- A Work Health and Safety Management Plan**
- B Emergency Contacts**
- C Emergency Response Plan**
- D Risk Register – Severe Weather**

1.0 INTRODUCTION

This Severe Weather Management Plan has been developed to address the required action in the event of (Severe weather) conditions potentially affecting construction works at Clump Point. This management plan focuses on Tropical Cyclones as this is the only weather event that will cause project delays. However, tropical lows and intense thunderstorms can also have minor to moderate impacts.

In Queensland cyclone season from 1st November through to 30th April, this coincides with scheduled rock works, vegetation clearing, and other minor works that are not impacted by weather. All other scheduled works that require periods of dry stable weather such as excavations, concrete works and asphalt laying is schedule during the dry season.

MGN Civil recognises that other weather events can be classed as 'severe' such as bush fires, extreme heat, high wind days and prolonged periods of wet weather however, the likely hood of such events that can cause impact on the project are limited.

MGN Civil is committed to providing a safe and healthy working environment. In the event of an emergency, management's response shall be prompt, decisive and coordinated to minimise further risk to staff and other onsite personnel. In meeting this objective, emergency response procedures in the event of a cyclone has been developed.

MGN Civil has an obligation to ensure that all such plans and procedures are implemented as required and regularly reviewed with all personnel including its Contractors, Subcontractors and Visitors.

2.0 SEVERE WEATHER IDENTIFICATION

MGN considers severe weather at the Clump Point project site to be cyclones, tropical lows and thunderstorms that contain high winds and lightning.

MGN Civil does recognises that other weather events will occur (prolonged wet weather, high wind days) but considers their impact as negligible.

3.0 ROLES AND RESPONSIBILITIES

The specific responsibilities of personnel in relation to severe weather events are as follows:

Name	Position	Responsibility in Severe weather
Neville Foley	Construction Manager	Lead all processes

Andrew Schweitzer	Project Manager	Communication with Stakeholders and take direction from Construction Manager
TBC	Site Engineer	Ensure site and works are secure and follow direction from Construction Manager
All	Staff and Sub Contractors	Follow directions provided by MGN Management

4.0 SEVERE WEATHER RISK

Refer to Appendix D Risk Register Severe Weather.

5.0 CYCLONE AND TROPICAL LOW PROCEDURES

5.1 Cyclone and Tropical Low Response Table

Cyclone Response:	Alert Status (Colour Code):	Readiness	MGN	TMR
1	None	Business as usual (Monitor)	<ul style="list-style-type: none"> Awareness training / Exercise programs / Evacuation drills Internal review of Cyclone Response procedure (this procedure) and Emergency Procedures 	<ul style="list-style-type: none"> Review MGN Severe Weather Management Plan and Emergency procedures
2	Cyclone Watch (Yellow)	Higher Readiness (Monitor and Awareness)	<ul style="list-style-type: none"> Review staff rosters and minimise staff exposure to impact Ensure Cyclone Response Procedure is in place and understood. Receive regular updates from TMR Operations 	
3	Cyclone Warning (Orange)	Heightened Readiness (Caution)	<ul style="list-style-type: none"> Immediately cease all works 	<ul style="list-style-type: none"> Provide any required updates as part

			<ul style="list-style-type: none"> Secure / stabilise all equipment / plant / exposed works as advised by Construction Manager 	of TMR procedures in such events.
4	Cyclone Event (Red)	Active Alert	<ul style="list-style-type: none"> Evacuate and take cover Follow Severe Weather Management Plan (this document) Co-operate with Harbour Master advice Co-operate with TMR operations team 	
5	All Clear and Recovery	Caution	<ul style="list-style-type: none"> Activate recovery of plant / equipment / operation when safe to do so 	<ul style="list-style-type: none"> Inspect site and work with MGN to reopen the site.

The Construction and Project Manager will monitor the cyclone status through the Bureau of Meteorology at <http://www.bom.gov.au/wa/warnings> and co-ordinate the issuing of any instructions. Cyclone Status shall be discussed at daily prestart meetings with MGN staff.

5.2 Cyclone and Tropical Low Response Procedure

5.2.1 Response – None

This stage involves MGN Civil monitoring the weather system on a regular basis. The MGN Construction Manager will ensure that all preliminary preparations are in place including:

- Chain of command is established between TMR, MGN Construction Manager and Staff;
- Awareness of the Cyclone Response Procedure (this procedure) and awareness of Appendix C Emergency Procedures in the Appendix A Work Health and Safety MP;
- All erosion and sediment installations as per the Erosion and Sediment Control Plan are installed and operating correctly;
- Ensure adequate rostering to continue works;
- All staff are aware of his/her responsibilities as directed by MGN Construction Manager.

5.2.2 Response – Cyclone or Tropical Low Watch (Yellow)

Cyclone or Tropical Low Status

- A cyclone or tropical low has developed off the coast and may affect the project;
- It is less than 72 hours, but greater than 48 hours from affecting the site;
- It is likely to pass over or near to the site.

This stage involves extensive communication and consultation between TMR Operations and MGN Civil after receiving the Cyclone Alert Status - Yellow. Operational plans, requirements and intentions will be discussed and evaluated against possible response scenarios.

Actions undertaken by the MGN Construction Manager:

- Monitor of the tropical low / cyclone path through the BOM website;
- Instructed Project Manager to liaise directly with TMR Operations, Harbour Master and commercial operators;
- Provide direction to Site Engineer to begin the process to cover all exposed rock work with additional armour.
 - Cover exposed excavations to minimise inundation.
 - Create secure bunding around stockpiles if required.
- Review staff rosters and minimise staff exposure to impact;
- Consider evacuation of non-essential site personnel from site;
- Release staff to undertake personal tasks to prepare for the onset of the cyclone;
- All equipment and materials not required within the next 24 hours will be secured above predicted storm surge heights and / or removed from site;
- All scrap materials and rubbish are removed from the work area and all rubbish skips and bins are emptied and removed from site;
- All materials, storage containers etc. that may be affected by high winds are tied down or removed from site;
- Cancel all non-essential deliveries to site;

5.2.3 Response – Cyclone or Tropical Low Warning (Orange)

Cyclone or Tropical Low Status

The event is likely to affect the safety of personnel and the security of the work areas.

- The cyclone or deep tropical low is less than 36 hours from affecting the site;
- It is likely to pass over or near to the site as indicated by potential track from the Bureau of Meteorology.

Cyclone Alert Status - Orange to MGN Civil and they will cease all site works immediately.

Actions Undertaken by MGN Construction Manager:

- Inform Project Manager to notify TMR Operations, Harbour Master and other key stakeholders that all onsite work has been ceased and all staff are on standby;
- All non-essential personnel evacuated;
- The site has been cleared of loose or light objects which may be easily lifted by high winds and turn into potential projectiles;
- Continue to cover core rock with armour.
- All excavations are now covered or have water diversions.
- All plant and equipment and onsite vehicles are parked in their agreed safe above predicted storm surge heights / secure designated areas;
- Ensure availability of essential staff for Post – Cyclone recovery;
- All communication equipment has been tested and issued. Back up communications such as suitable phones, radios etc. have been charged up and have fresh batteries;
- Conduct a special “Tool Box Meeting” with all staff detailing actions completed and course of action in anticipation of a moving to “Cyclone Status - Red” and the subsequent “All Clear” phases;
- Complete the Environmental checklist to ensure the site is free from waste material that could be washed into the marine environment by storm water runoff.

5.2.4 Cyclone Response - Cyclone Event (Red)

Cyclone Status

- The cyclone is imminent and is no longer considered a tropical low;
- The cyclone is less than 12 hours from affecting the Site;
- It is currently bearing down on the site as indicated by the projected track from the Bureau of Meteorology.

This stage involves continuous communication and consultation between TMR Operations and MGN Civil after receiving Cyclone Alert Status – Red.

Actions required by MGN Construction Manager:

- Complete armour coverage and secure excavator in safe location.
- One last inspection of the of the site and remedy any concerns.
- Follow the Emergency Response Plan and safely evacuate all staff off - site;
- Notify TMR Operations when all MGN staff have safely evacuated;
- Act according to TMR directions;
- Monitor and report all incidents / accidents to TMR Superintendent.

5.2.5 Cyclone Response – All Clear and Recovery (Green)

In this stage, MGN Civil will conduct site assessments and notification on Cyclone Alert Status – Green, when Clump Point has re-opened to recommence site works. MGN Civil acknowledges that re-opening of the point or part of the point does not

necessarily constitute that the conditions will be suitable for normal construction operations.

Actions required by MGN Construction Manager:

- Conduct debrief of the cyclone response;
- Confirm staff welfare and availability;
- All areas of the work site shall be inspected to determine the integrity and safety of the site before resuming works;
- Resume operational works and assess site to determine the suitability of prevailing conditions for safe operations;
- Notify TMR of any damage to plant, equipment, vehicles or infrastructure;
- If significant damage, discuss options with insurer.
- Project Manager to rectify this plan if required.
- Project Manager to amend Project Schedule if required.

6.0 SEVERE THUDNER STORM PROCEDURES

As part of MGN Civil project at Clump Point monitoring weather systems will be a daily occurrence carried out by the management team and staff. On days where thunder storms are forecast the following procedure is to be followed.

6.1 Thunder Storm Response Procedure

Should a thunder storm be imminent, the MGN Construction Manager will provide direction to staff based on BOM warnings to ensure that the following actions are taken.

- All loose items are secured or stowed;
- All bins are secured or stowed;
- All erosion and sediment installations as per the Erosion and Sediment Control Plan are installed and operating correctly;
- All non-essential works can cease if deemed necessary.
- Should the BOM issue a 15km radius lightning or hail warning all works are to cease.
- Staff to take shelter in the site huts, or if a prolonged storm is forecast Construction Manager may send all staff home.
- At the conclusion of the storm the Construction Manager will direct staff to inspect all aspects of the project site to gain an understanding of damage caused to plant and facilities and all works underway.

7.0 OTHER WEATHER EVENTS

In the event that out of season weather such as prolonged wet weather effects work items such as concreting, car park sealing, electrical installations, etc. all staff and contractors are to delay works until dry weather returns.

8.0 REVIEW

This plan will be reviewed after each severe weather event to continuously approve and rectify deficiencies in the plan. Should no such events occur this plan will be reviewed after 6 months of site possession.