

FLOOD EMERGENCY RESPONSE MANAGEMENT PLAN

ST MARYS FREIGHT TERMINAL

PACIFIC NATIONAL PTY LTD

5501257

Project Version:	Name	Signed	Date
Prepared by	Nicholas Fazzalari		15 May 2020
Reviewed by	Andrew Rowlands		26 May 2020
Approved by	Andrew Rowlands		26 May 2020



Approvals

Project Version:	Name	Signed	Date

Amendment Record Sheet

Document Revision History				
Revision Number	Date of Revision	Author	Section / Subject	Page
1	19/05/2020	Nicholas Fazzalari	Draft	General update
2	20/05/2020	Nicholas Fazzalari	Issue for review	General update
3	22/05/2020	Nicholas Fazzalari	Issue for review	Section 1.1 & Section 6.3
4	16/06/2020	Andrew Rowlands	Updated for DPIE and Penrith City Council comments	General update

This document was prepared for the sole use by McMahon Services Group and the regulatory agencies that are directly involved in this project, the only intended beneficiaries of our work. No other party should rely on the information contained herein without the prior written consent of McMahon Services Group 2017.

COMPLIANCE MATRICIES

Table 1: Conditions of Approval (CoC)

CoC	Requirement	Document Reference
A2	<p>The development may only be carried out:</p> <ul style="list-style-type: none"> (a) in compliance with the conditions of this consent; (b) in accordance with all written directions of the Planning Secretary; (c) generally in accordance with the EIS and Response to Submissions; (d) in accordance with the Development Layout in Appendix 1; and (e) in accordance with the revised management and mitigation measures in Appendix 3. 	This plan
A11	<p>Evidence of Consultation</p> <p>A11. Where conditions of this consent require consultation with an identified party, the Applicant must:</p> <ul style="list-style-type: none"> a) consult with the relevant party prior to submitting the subject document for information or approval; and b) provide details of the consultation undertaken including: <ul style="list-style-type: none"> (i) the outcome of that consultation, matters resolved and unresolved; and (ii) details of any disagreement remaining between the party consulted and the Applicant and how the Applicant has addressed the matters not resolved. 	This plan
B11(g)	<p>Prior to the commencement of construction, the Applicant must submit a Construction Environmental Management Plan (CEMP) to the Certifier and to the Planning Secretary for approval. The CEMP must include, but not be limited to, the following:</p> <p>(g) Flood Emergency Response Sub-Plan (see condition B18);</p>	This plan
B18	<p>The Flood Emergency Response Sub-Plan (FERSP) must address, but not be limited to, the following:</p> <ul style="list-style-type: none"> (a) be prepared by a suitably qualified and experienced person(s), in consultation with Council; (b) be consistent with the findings of the St Marys Freight Hub – Stormwater Management Report prepared by BG&E, dated 30 September 2019 (c) address the provisions of the <i>Floodplain Risk Management Guidelines</i> (EESG); (d) include details of: <ul style="list-style-type: none"> (i) the flood emergency responses for both construction and operation phases of the development; (ii) predicted flood levels; (iii) flood warning time and flood notification; (iv) assembly points and evacuation routes; (v) evacuation and refuge protocols; and (vi) awareness training for employees and contractors. 	This plan

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B25	<p>Prior to the commencement of construction, the Applicant must prepare and implement for the duration of construction:</p> <ul style="list-style-type: none"> (a) flood warning and notification procedures for construction workers on site; (b) evacuation and refuge protocols; and (c) the Flood Emergency Response Sub-Plan required under condition B18. 	This plan
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Table 2: Revised Management and Mitigation Measures (RMMM)

RMMM	Requirement		Document Reference
10	<p>A Flood Evacuation Plan is to be prepared prior to the commencement of operation and is to include:</p> <ul style="list-style-type: none"> ▪ procedures for managing flood risk during construction ▪ assembly and evacuation points for all buildings • evacuation routes and procedures in a flood event. 	Pre-operation	This plan

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1. Introduction

Pacific National (PN) received development approval for the construction of an intermodal (road and rail) freight terminal and container park in St Marys NSW on 7 May 2020 in SSD 7308.

This plan details a strategy that has been developed to demonstrate the contractor's approach to the emergency response during flooding.

This Flood Emergency Response Management Plan (FERMP) addresses the relevant requirements of the Project Approvals, including the EIS, Submissions Report and Minister's Conditions of Consent (CoC), and all applicable guidelines and standards specific to the management of flooding emergency response during construction of the Project

1.1. Background and Scope

The St Marys Freight Intermodal Project is located approximately 43 kilometers (km) north-west of the Sydney Central Business District (CBD) and approximately 48 km north-west of Port Botany.

The St Marys Freight Intermodal Project is a major infrastructure development for Pacific National (PN). The works entail approximately 9.9ha of intermodal (road and rail) terminal and container park with ultimate operation capacity of 301,000 TEU annually. The works will enable container rail shuttle to and from Port Botany and will reduce heavy vehicle truck movements on greater Western Sydney's road network.



Figure 1: General Site Plan

The project generally includes:

- Construction of hardstand areas for container storage and laydown, rail and vehicle loading and unloading areas;
- Construction of new internal access roads providing separate ingress and egress for light and heavy vehicles as follows:
 - to/from Lee Holm Road for heavy vehicles; and
 - to/from Forrester Road for light vehicles;
- Construction of:
 - Wash bay area;
 - Office building pad site;
 - Fuel storage area;
 - Container workshop (repair bay) pad site;
 - Transport workshop pad site;
 - Staff and visitor light vehicle parking bays (parallel to the internal light vehicle access road connecting to Forrester Road); and
 - Heavy vehicle parking bays;
- Ancillary works includes:
 - Signage and landscaping;
 - Utility services to support the proposed development including drainage, potable water, water (for firefighting purposes), power, data, security and sewerage;
 - Minor realignment of a section of the Sydney Trains high voltage overhead power line at the southern end of the subject site;
 - Minor clearing of areas of vegetation regrowth, remediation (if required) and minor earthworks; and
 - Electrical transformer.

South Creek flows from South to North and sits approximately 200m west of the site forming part of the Hawkesbury-Nepean catchment. Little Creek flows from East to West and is situated North of the site.

1.2. Environmental Planning Approval

The St Marys Intermodal Project has been assessed by the Department of Planning, Industry and Environment (DPIE) under Section 4.38 of the Environmental Planning and Assessment Act 1979 as State Significant Development (SSD). Development Consent was granted on 7 May 2020 and is subject to the Minister's Conditions of Consent (CoC, 7 May 2020 (ref SSD 7308)).

The St Marys Intermodal Project, its impacts, consultation and mitigation were documented in the following suite of documents:

- Development Application SSD 7308

- St Marys Freight Hub – Environmental Impact Statement (Urbanco Pty Ltd, May 2019)
- St Marys Freight Hub – Response to Submissions (Urbanco Pty Ltd, October 2019)

1.3. Purpose and Application

This management plan sets out procedures to manage the impact due to flooding both pre- and post-construction of the St Marys Intermodal Terminal. Specifically, the purpose of this FERMP is to provide key information and instructions to respond to flood hazards during the construction and operation phase of the freight hub.

Pacific National (PN) engaged BG&E to prepare the St Marys Freight Hub – Stormwater Management Report (BG&E, 30 September 2019) in order to support the Development Application. This Stormwater Management Report outlines the existing drainage conditions, as well as provides an overall philosophy for the collection, treatment and disposal of stormwater from the development site

BG&E were also engaged to prepare a Flood Impact Assessment Report (BG&E 2019) to further support the Development Application. The BG&E report was prepared to consider the NSW Government's Floodplain Development Manual and in turn the Floodplain Risk Management Guidelines (EESG) and is consistent with the BG&E Stormwater Management Report.

Under the State Emergency and Rescue Management Act 1989 and the State Emergency Service Act 1989, the SES has issued the SES Penrith City Local Flood Plan. This plan covers the preparedness measures, the conduct of response operations and the co-ordination of immediate recovery measures for all levels of flooding on the Nepean River within the boundaries of the Penrith City.

McMahon Services (MSA) have developed this report based on the stormwater management report, flood impact assessment, and the SES Penrith City Local Flood Plan to address the final compilation of mitigation measures within the EIS and revised statement of commitments. This plan aims to demonstrate how flood emergency response will be managed during construction and operation of the Project.

The FERMP has been developed to support the Construction Emergency Response Plan (CERP) which will be developed by the Contractor prior to works commencement. It should be noted that the final approved CERP will prescribe all emergency response procedures, based on hazards and risk identified within the Risk Assessment (Contractor), and where any conflict or confusion arises with this FERMP, the CERP shall apply. This FERMP will be revised and updated immediately upon completion of the CERP to ensure compliance and conformance with overall emergency response management.

Implementing the FERMP effectively will ensure that the Project team meets regulatory policy, legislative requirements and MSA's Safety Health and Environment policy in a systematic manner and continually improves its performance.

This report has been prepared and approved by a degree qualified Civil Engineer with 18 years of experience managing civil construction projects using flood data compiled by BG&E Consultants. Objectives and Targets

The following objections and targets are set for the Project for the management of emergency flood response.

Objections	Performance Indicators
Minimise impacts or environmental consequences	No death or injury personnel during flood event

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Mitigate site surface flow contributing to localised flooding via installation of appropriate stormwater management devices	No avoidable release of a prescribed containment to the environment during flooding event
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1.4. Context of the Report

This Flood Emergency Response Management Plan is specific to the St Marys Intermodal Project and is based on the findings from the BG&E St Marys Freight Hub Flood Impact Assessment (September 2019, Revision E).

1.5. Interface with other Plans & Requirements

This FERMP is to be read in conjunction with the Construction Environmental Management Plan and the Work Health and Safety Management Plan.

1.6. Consultation with Penrith City Council

In accordance with Condition of Consent B18(a) the FERMP must be compiled in consultation with the Penrith City Council

Appendix 3 includes evidence of the FERMP being submitted to the Penrith City Council and Council's response. The following table summarises the Council's comments and MSA's response:

Table 8: Council Consultation

No.	Council	Response	Document Reference
1	The draft Plan is mainly addressing the flood emergency management for the construction phase and lacks responses for the operation phase. The condition of consent is to include for both construction and operation phases. So it is recommended to address the operation phase issues as well.	The FERMP has been updated to include responses during the operation phase	Section 6.5 Section 7.1
2	NSW State Emergency Services (SES) is responsible for emergency management particularly flood evacuation. SES has a Flood Plan for the area Penrith. The Flood Emergency Management Plan should make reference to SES' Flood Plan and any recommendations should be consistent with SES Flood Plan.	The FERMP has been updated to include the SES's Flood Plan	Section 1.3 Section 6
3	Flood Emergency Response Management Plan may include measures such as training to staff, signages, site induction to staff and visitors etc.	The FERMP has been updated to include training/induction to staff and visitors	Section 7.3

The Council comments have been considered within this plan and there are no disagreements between the parties.

1.7. Access

Light vehicle access to site is through Lee Holm Road north-east of the site while heavy vehicles are to access the site from Forrester Road South East of the Site. Internal haul roads will provide access to and from the main construction compound and laydown area. Detailed site access is described in the Construction Environmental Control Plan and Traffic Management Plan.

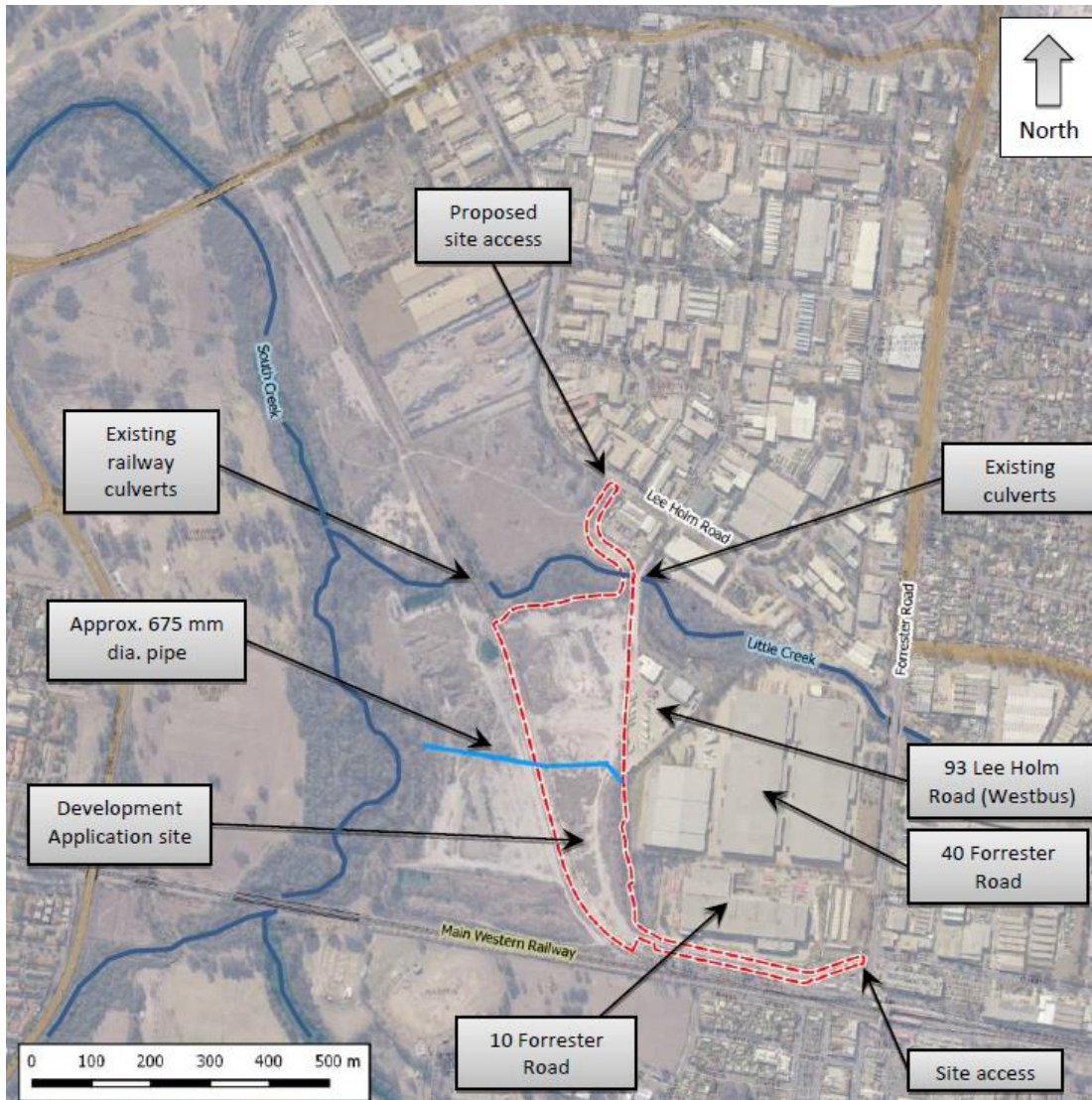


Figure 2: Site Access Plan

2. Environmental Obligations

2.1. Compliance Requirements

The Development Consent condition B18 required the Flood Emergency Response Management Plan to be prepared as follows:

The Flood Emergency Response Sub-Plan (FERSP) must address, but not be limited to, the following:

- a) be prepared by a suitably qualified and experienced person(s), in consultation with Council;
- b) be consistent with the findings of the St Marys Freight Hub – Stormwater Management Report prepared by BG&E, dated 30 September 2019
- c) address the provisions of the Floodplain Risk Management Guidelines (EESG);
- d) include details of:
 - a. the flood emergency responses for both construction and operation phases of the development;
 - b. predicted flood levels;
 - c. flood warning time and flood notification;
 - d. assembly points and evacuation routes;
 - e. evacuation and refuge protocols; and
 - f. awareness training for employees and contractors.

2.2. Relevant Legislation

The following table details the legislation, planning instruments and guidelines considered during development of this sub-plan.

Table 2: Relevant Legislation

Legislation	Description	Relevance to this plan
Environmental Planning and Assessment Act 1979	This Act establishes a system of environmental planning and assessment of development proposals for the State.	The DA conditions and obligations are incorporated into this FERMP.
Fisheries Management Act 1994	This Act is applicable to all waters within the state including private and public waters and all permanent and intermittent waters. The Act is most relevant in respect to maintaining water quality and ensuring no polluted water from site works enters streams, creeks and waterways.	Water discharging from the Project site must not pollute the adjacent streams or watercourses.

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2.3. Guidelines

Guidelines that have specific requirements relating to this plan include:

- Floodplain Risk Management Guidelines (EESG)
- BG&E's Flood Impact Assessment Report (BG&E 2019)
- BG&E's St Marys Freight Hub – Stormwater Management Report (BG&E, 30 September 2019)

2.4. Permits and Licenses

No additional permits and licenses are expected to be required for the management of flood emergencies.

3. Existing Flood Behaviour and during construction

BG&E modelled three rainfall event magnitudes 5% Annual Exceedance Probability (AEP), 1% AEP and the Probable Maximum Flood (PMF). The models indicate there was no significant increase in flood level between the 5% AEP (1 in 20-year event) or the 1% AEP (1 in 100-year event). Channel capacity is expected to be exceeded by the 5% AEP event flows, while localised flooding on Lee Holm Road North of site is also predicted. The proposed development is not expected to be significantly inundated until the PMF event occurs.

3.1. Flood Levels

3.1.1. 5% AEP

- Peak levels upstream of railway culvert 23.55m AHD and Little Creek channel upstream boundary of site 24.3m AHD
- This may cause sections of rail siding to be overtopped

3.1.2. 1% AEP

- Local runoff in the roadway area is expected to result in the maximum flood levels of 24.6m AHD at the site access of Lee Holm Road
- Levels in the creek at the railway culverts 23.6m AHD
- Downstream of the culverts at the Western boundary 24.3m AHD
- Overtopping of the access roads expected at 24.9m AHD

3.1.3. PMF

- South Creek PMF levels expected to be higher than Little Creek
- South Creek PMF level expected at 26.8m AHD
- Little Creek PMF level could range from 23.9-25.25m AHD

3.2. Flood Hazards

Significant flood velocities and flood depths south of the Little Creek channel result in high flood hazard. However, the flood hazard on the majority of the site footprint remains low due low flood velocity and depth. Flood depths on surrounding access roads are also low resulting in low flood hazards.

For the PMF event, flood hazards on the access road around the site can be significant on Lee Holm Road between Anne Street and Warrior Place. Forrester Road at Little Creek may be overtopped resulting in high hazard flows. Once again, the flood hazard within the site foot print is low due to shallow depths.

4. Post-Development Flood Behaviour

4.1. Flood Impact Assessment

As per Section 5.3 of the BG&E Flood Impact Assessment, flood levels surrounding the site will not be significantly affected by the development apart from minor increase due to PMF event at the Forrester Road site access point. The flood hazard at this point does not change and remains low.

At the bend in Lee Holm Road, the new development may increase flooding by more than 100mm in majority of the rainfall events examined, however no adjoining properties would be affected by greater than 100mm. The increase in flood level is due to the creation of a low point upstream, as the access road is slightly elevated above the existing ground levels. The site owned by Pacific National shows no change in flood hazard due to the development when compared to the conditions prior to the development.

The Little Creek floodway portion of the creek is unchanged pre- and post-development and the developments layout does not encroach in high hazard flows or floodways. Lee Holm Road at Little Creek culvert may experience high hazard flows as it would be overtopped. No feasible alternative exists and so Lee Holm Road would need to be closed and all access would be via Forrester Road.

4.2. Probable Maximum Flood

The development grades from the South (30.5m AHD) to the North (23.9m AHD). Site inundation is not expected for floods less than the Little Creek Probable Maximum Flood (PMF), where shallow inundation of less than 100mm could occur, which would not impact site facilities and operations significantly.

The PMF for South Creek is expected to reach 26.8m AHD, this results in the Northern end of the site to inundated by up to 2.9m (existing basin) and flood half of the site as shown below in Figure 3 (BG&E 2019)

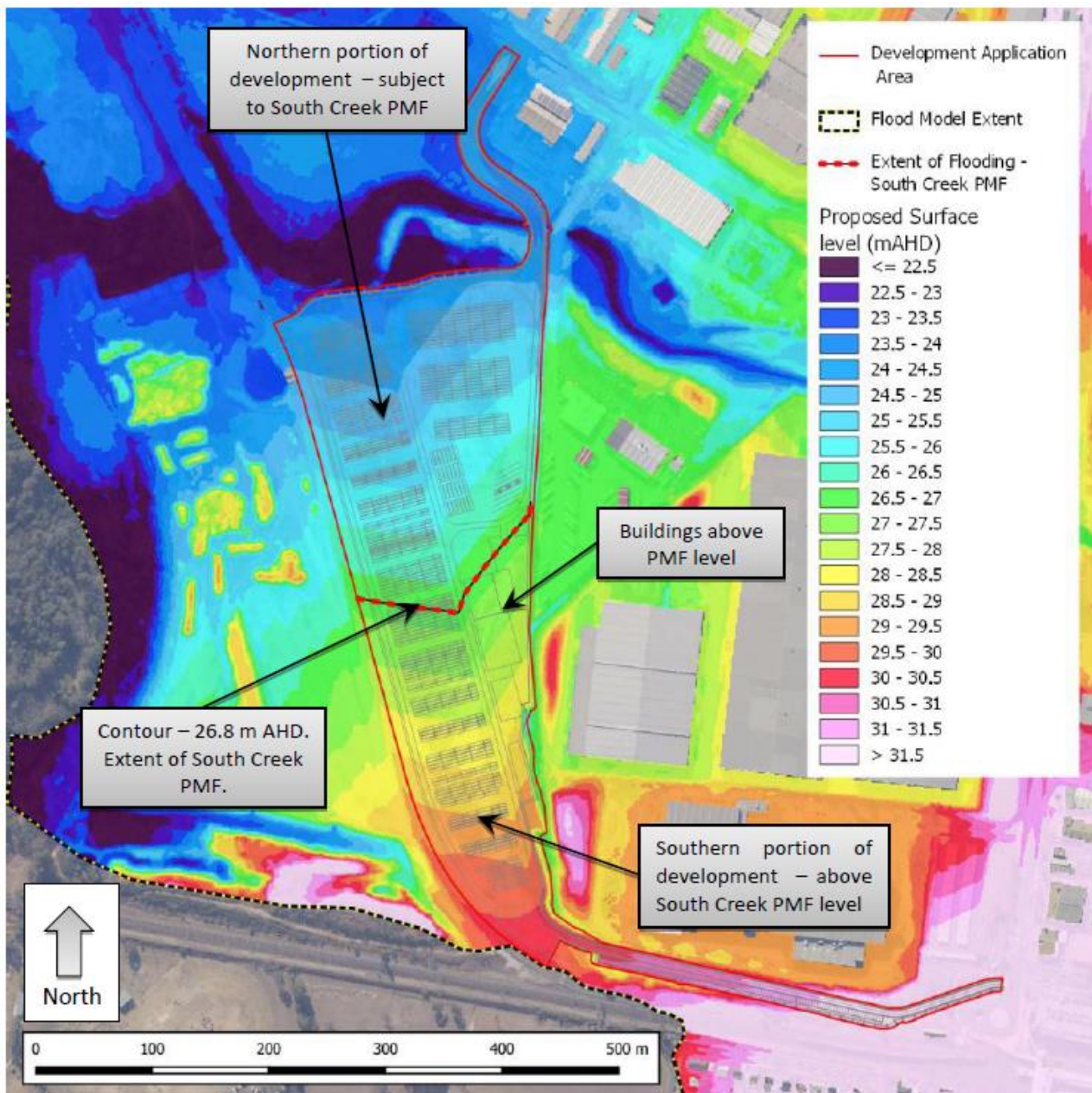


Figure 3: Proposed Site Surface Levels and South Creek PMF Contour, BG&E, 2019

Portable site facilities and laydowns areas will be located in areas that are not considered to be of high flood risk. Therefore, they will need to be placed South of contour 26.8m AHD.

5. Aspects and Impacts

Table 3: Aspects and Impacts Related to Flooding: below shows the aspects and impacts for the construction of the Project.

Table 3: Aspects and Impacts Related to Flooding:

Aspects	Impacts and Opportunities
Altered surface water flow conditions due to earthworks	Localised flooding of site including excavations Diversion of water flows into sediment controls Restricted access to work areas Safety issues related to standing water
Extreme rainfall	Overland flows from topping of Little Creek/South Creek
Direct heavy rainfall on worksites	Soil erosion and sedimentation of waterways including Little Creek and South Creek

6. Emergency Response

The overall intent regarding response to flood emergency is the consideration of evacuation and refuge. As the BG&E Flood Impact Assessment report and Stormwater Management Report, the Little Creek PMF is the overriding flood mechanism and forms the basis for this Flood Emergency Response Management Plan.

The following sections below detail the flood emergency response including measures to be taken if there is an appropriate response time.

6.1. Site Preparation

Laydown areas, stockpiles and site facilities will not be placed in areas that are prone to flooding, in order to alleviate impacts of possible flooding. As per Section 3.1 of the BG&E Flood Impact Assessment, flooding from Little Creek is the overriding flood mechanism.

To reduce the probability of equipment and environmental damage as well as site personnel safety the below measures will be implemented:

- Monitor weather forecasts daily using the Bureau of Meteorology (BoM)
- Monitor the BoM warning website daily <http://www.bom.gov.au/nsw/warnings/index.shtml>
- Monitor the SES Flood bulletin at <https://www.ses.nsw.gov.au/majorwarning/floodbulletin?major=1&active=FloodBulletin>

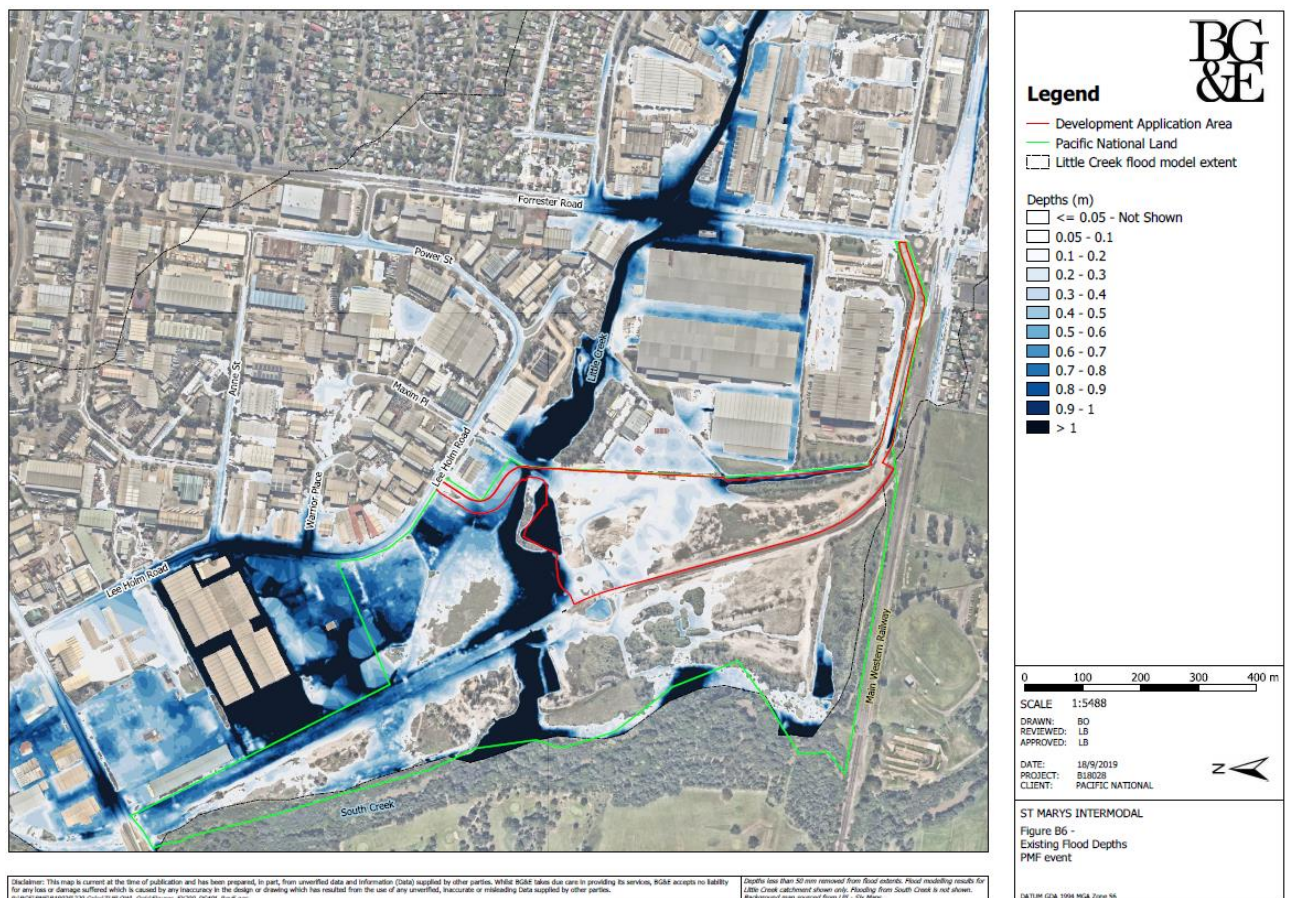


Figure 4: PMF Flood Depth Levels, BG&E, 2019

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6.2. Flood Response

Upon receipt of BoM or SES advice, or when evidence of a flooding event leads to an expectation of flooding, flood response operations will begin.

Table 4: Flood Emergency Response alert and activation levels

Response Item	Action	Procedures	Responsibility
Monitor	Daily weather (intense heavy rainfall)/precipitation forecast monitoring	Monitor BoM and SES on daily basis	Site Supervisor
Flood Alert	Increase Level of Alert	Notify all on-site personnel of flood alert, watch or advice. Monitor BoM and SES websites	Site Supervisor
Flood Watch	Increase level of alert, prepare for activation of FERMP	Notify all on-site personnel of flood alert, watch or advice.	Site Supervisor
Severe Weather Warning or Flash Flooding	Increase level of alert, prepare for activation of FERMP	Notify all on-site personnel of flood alert, watch or advice.	Site Supervisor
Severe Thunderstorm Warning for Flash Flooding	Increase level of alert, prepare for activation of FERMP	Notify all on-site personnel of flood alert, watch or advice. Monitor BoM and SES websites	Site Supervisor
Occurrence of Localised Intense Rainfall with Rising Water Levels on-site or adjacent waterways	Mobilise site personnel to muster point Close site to external visitors	Immediately notify all personnel of the activation of the FERMP	Site Supervisor

Within 24 hours before a predicted flood event impacts the site, the guidelines set out in the CEMP will be put into place as well as the following requirements:

- Advice of impending flood conditions is to be conveyed to all staff;
- Flood prone areas to be cleared of mobile plant, excess material, skips and hazardous substances;
- Power to be turned off until it is deemed safe to turn back on;
- Site toilets and septic tanks to be emptied;
- Install emergency erosion and sediment controls e.g. temporary bunds to divert water; and
- Evacuation of staff to muster point on higher ground;

Continuous monitoring of BoM and SES throughout this procedure to confirm up to date information is available.

6.3. Evacuation

As shown below in diagram from Section 5.6 of the BG&E Flood Impact Assessment, many of the surrounding access roads would be inundated by up to 500mm during Little Creek's PMF. Therefore, the BG&E report recommends a shelter-in-place evacuation method be adopted until flooding of adjacent roads subsides. Should a significant flooding event occur site personnel will utilise facilities on-site such as lunch rooms until the flood waters have subsided and there is safe egress from the property via Forrester Road and Glossop Street.

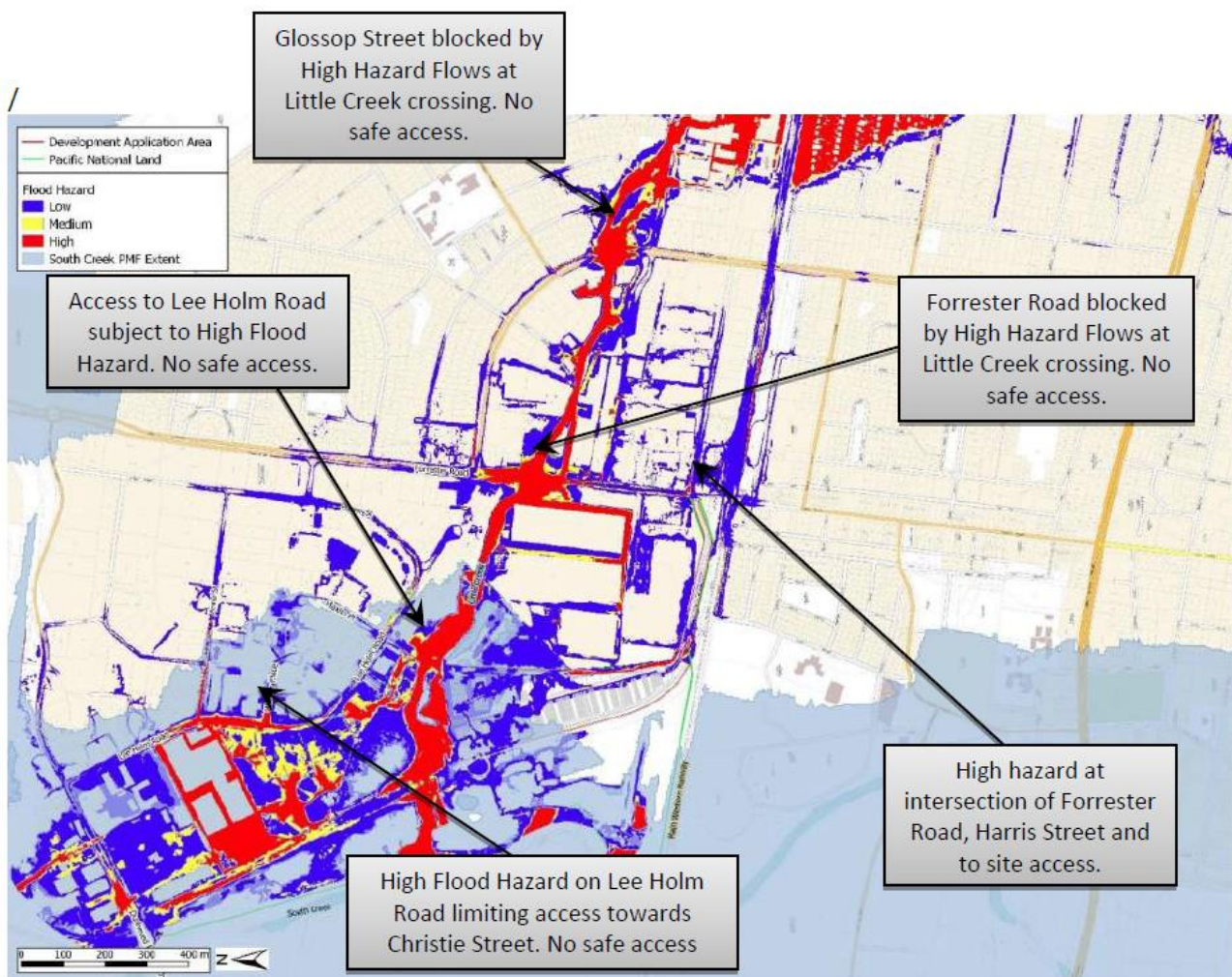


Figure 5: Little Creek PMF Flood Hazard and South Creek PMF Event, BG&E, 2019

6.4. During Construction

The site compound will be placed at the location of the future transport workshop, this area is highlighted below in Figure 6. Offices and lunch rooms in this position are above the PMF flood level and will allow site personnel to shelter-in-place with full access to all site amenities for the duration of the event.

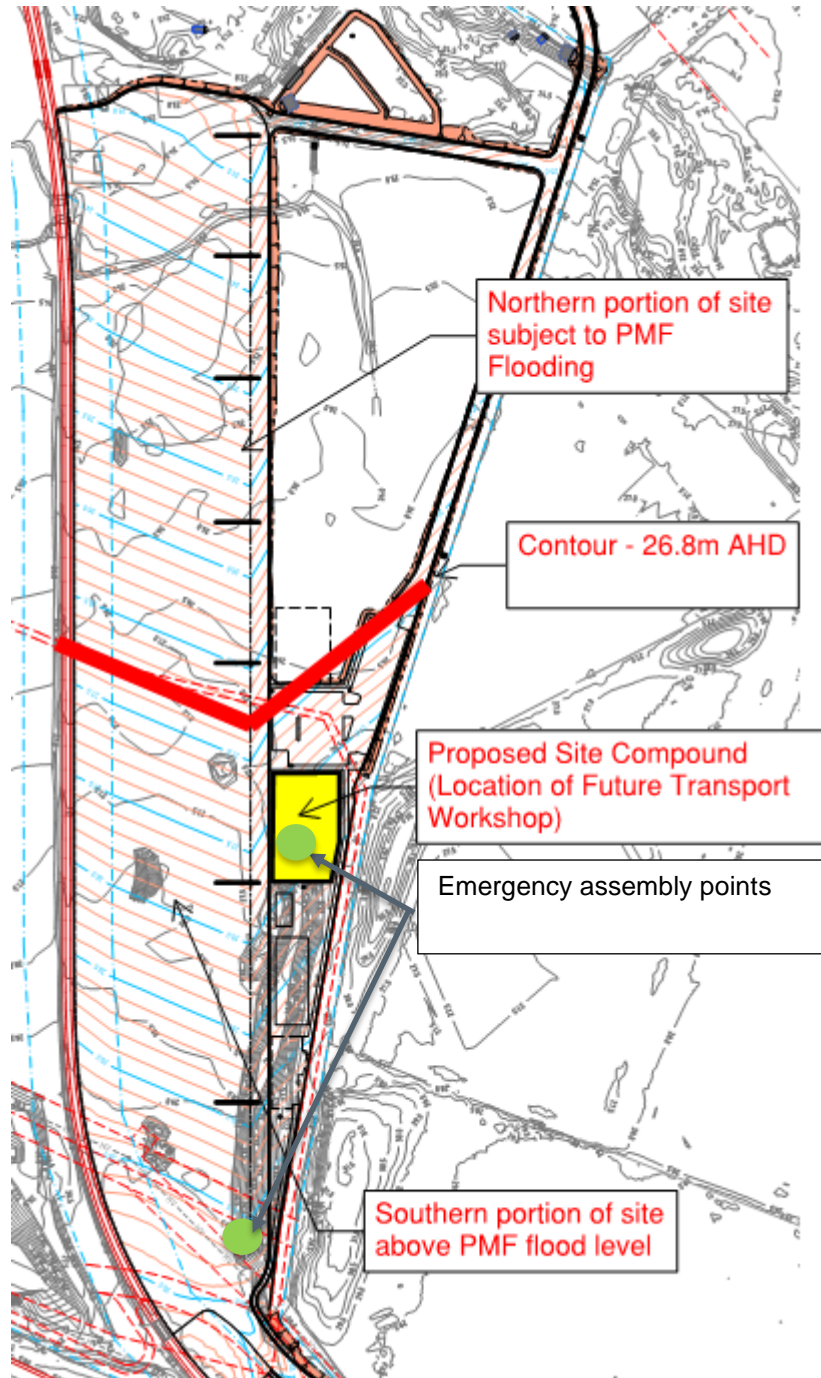
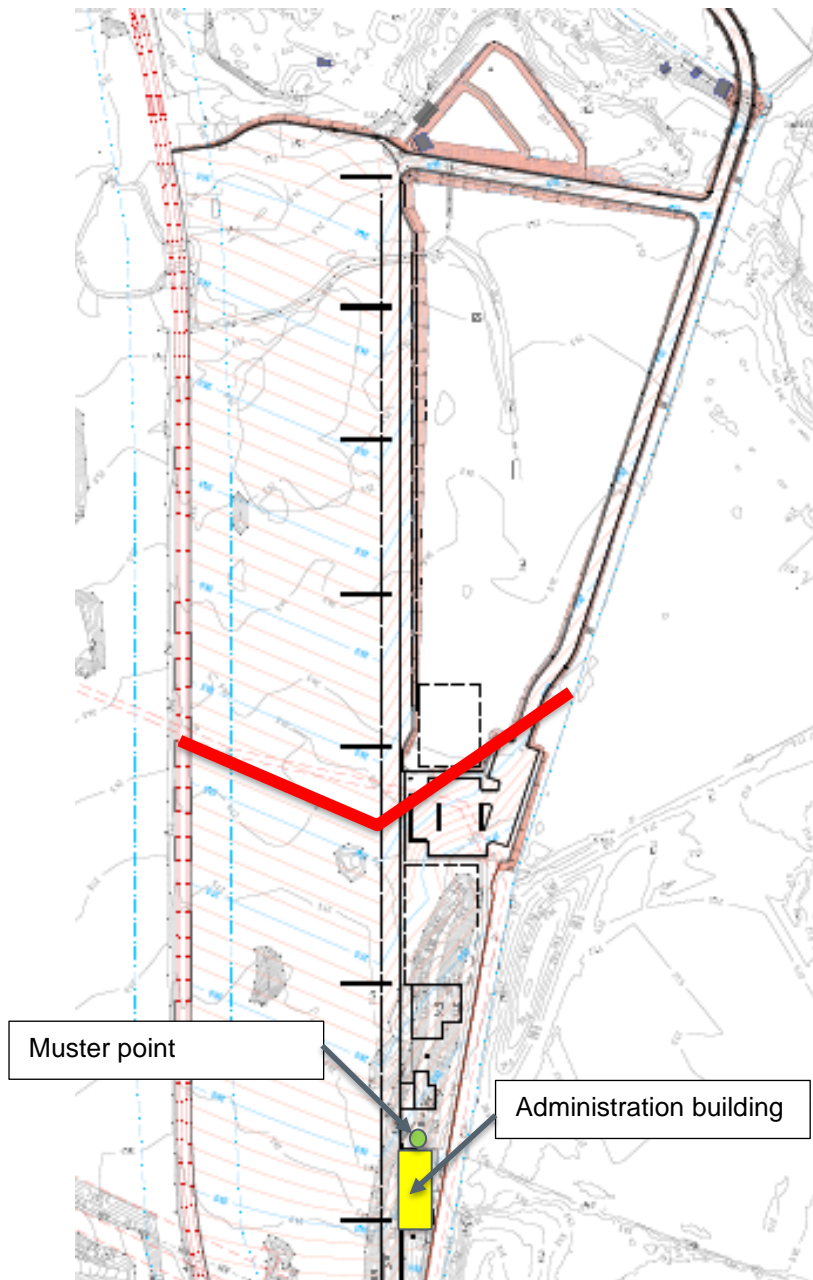


Figure 6: Proposed Location for Site Facilities

6.5. During Construction

The administration office is located in the area highlighted below in Figure 7. The building is positioned above the PMF flood level and will allow site personnel to shelter-in-place with full access to all site amenities for the duration of the event.



6.6. Site Management of Containers During Inundation

The probability of stored containers becoming buoyant is low, the Little Creek PMF is the dominant flooding event which is expected. For this event, minimal flood depths up to 100mm would be expected with low flood velocities.

6.7. Post-Storm Response

Once a flooding event has occurred, the first priority will be to determine if it is safe to re-commence works. A safety walk-through will be used to do this with senior management involved such as the Project Supervisor and Project Manager. A qualified electrician will also accompany the management team, to identify danger areas. The team will review the below:

- Flood damage to surrounding roads
- Determine if flood waters have subsided
- Inundated or water affected power boxes and electrical equipment to be checked by the electrician. The power is to remain off until reviewed.

Once it is deemed safe to re-commence works, the following will be undertaken:

- Site materials, equipment or debris that was moved by flood waters should be returned to the correct location or disposed if necessary
- Check stockpiles for erosion channels in the stockpile face or sediment deposits at base or piles. Restore erosion and sediment control devices if applicable Soil and Water Management Plan
- Temporary site structures to be checked for erosion and water damage prior to use
- Review portable waste water systems onsite
- Check excavations that may be holding water and determine if withheld water can be discharged to sediment basins. Undertake water testing and sampling as per Soil and Water Management Plan

6.8. Notification

The contractor/operator will inform the client and relevant statutory and regulatory authorities such as the EPA if an incident has occurred. It is the responsibility of the contractor to handle environmental emergencies according to the Work Health and Safety Management Plan and Construction Environmental Management Plan as follows:

- All incidents are to be reported to the Manager/Safety Advisor who will assess the situation and manage the following steps:
 - Immediately take all reasonable steps to contain further damage or danger to personnel or the environment
 - Inform the relevant authorities in accordance with the regulatory requirements
 - Contact emergency services as required (fire department, spill clean-up services, etc.)
 - If the incident has the potential to impact the community, any response or notification will be undertaken with the relevant authorities' involvement
 - Inform the Client's representative as required
 - Complete an Incident Report
 - Liaise with the Client in regards to corrective and preventative action as required with timeframes that they must occur within
 - Corrective and preventative actions to be undertaken by designated personnel

Information on the handling of hazardous materials will be contained in the SDS register.

Emergency contact numbers for the project are shown below.

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Table 5: Emergency Contact Details

Contact Name	Telephone Number	Address
OEH Pollution Hotline	131 555 or (02) 9995 5555 (if calling outside NSW)	N/A
Ministry of Health	(02) 9391 9000	N/A
WorkCover	13 10 50	N/A
Fire and Rescue NSW	000	N/A
Penrith City Council	Customer Contact Centre for NSW residents: (02) 4732 7777 Translation Service: 131 450 Email: council@penrith.city	<u>Penrith Civic Centre</u> 8:30am – 4pm weekdays (exc. public holidays) 601 High St, Penrith NSW 2750 <u>St Marys Business Office</u> 9am – 12:30pm & 1:30pm – 4pm weekdays (exc. public holidays) 207-209 Queen St, St Marys NSW 2760
Pacific National Representative	David Djulbic Ph 0424 161 641	Level 16/15 Blue St, North Sydney 2060
McMahon Services Project Manager	Andrew Rowlands Ph 0481 843 369	24-hour contact
McMahon Services Health & Safety Manager	TBC	Backup 24-hour contact
State Emergency Service	www.ses.nsw.gov.au	
NSW Police	000	
Emergency Services General	000	

7. Compliance Management

7.1. Roles and Responsibilities

Table 6: Roles and Responsibilities in Relation to Flood Emergency Responses shows the Roles and Responsibilities in regard to Flood Emergency Response.

Table 6: Roles and Responsibilities in Relation to Flood Emergency Response

Role	Responsibility
McMahon Services' Project Manager	Manage the delivery of the Project including overseeing implementation of the FERMP Oversee the implementation of all flood management initiatives Monitor weather forecasts and conditions for potential flooding and notify relevant site personnel
McMahon Services' Environmental Manager	Monitor compliance and conformance with this Plan Manage, review and continual improvement of this Plan Induct personnel in the requirements of this plan Inspecting and reporting on compliance Monitor weather forecasts and conditions for potential flooding
Supervisors	Assist the Manager to implement this Plan Monitor weather forecasts and conditions for potential flooding
McMahon Services' Health and Safety Manager	Assist the Project Manager to implement this Plan Responsible for day to day implementation of health and safety procedures Induct personnel in the requirements of this plan Monitor weather forecasts and conditions for potential flooding Assist the Project Manager in the implementation of flood management initiatives
McMahon Services' Community Liaison Manager	Communicate and liaise with neighbours if any risk of impact from the project flooding
Operations Manager	During operations the Operations Manager will be responsible for all of the above.

7.2. Monitoring

The monitoring of controls will be undertaken within the Soil and Water Management Plan; daily by the site supervisor and prior to predicted heavy rainfall.

7.3. Communication

This plan and the flood emergency response will be communicated to all site personnel (employees, contractors and visitors) during the project site induction (awareness training) prior to commencing works.

Signage of the muster points will be erected in the nominated locations.

All updates to this plan will be communicated to site personnel in prestart and/or toolbox meetings.

7.4. Non-compliances, Non-conformance and Actions

The responsibility for reporting non-compliances and non-conformances to the site supervisor belongs to all site personnel.

Non-compliances, non-conformances and corrective and preventative actions will be managed in accordance with the requirement of the CEMP.

7.5. Review and Improvement

This plan will be reviewed annually or after a flood emergency has taken place. Any updates required will be communicated to site personnel via a toolbox or pre-start meeting.

Systematic review of current earthworks and relative ground levels and their impact on surface flow will be undertaken. The risk assessment will then be updated to reflect the new conditions.

In the event of any of the following occurs which have reference to the plan:

- a) the submission of a compliance report under CoC B42;
- b) the submission of an incident report under CoC A25;
- c) the submission of an Independent Audit under CoC C37;
- d) the approval of any modification of the conditions of the consent; or
- e) the issue of a direction of the Planning Secretary under CoC A3 which requires a review,

This plan will be reviewed, and the Planning Secretary and the Certifier will be notified in writing that a review is being carried out.

Appendix 1 – Company Policies

Policy	Work Health and Safety	POL-WHS
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V4, JAN 2017 ©

Work Health & Safety Policy

McMahon Services shall ensure, as reasonably practicable, that health and safety for management, and workers (which includes employees, contractors and volunteers) does not place them at risk or injury through daily operations.

As part of our continual commitment to providing a safe working environment, we shall:

- Ensure Senior Management provide strong leadership that is highly visible.
- Comply with all relevant legislation and statutory requirements, codes of practice and industry standards.
- Make adequate provisions for resources to meet legislative requirements and ensure systems are consistent, effective and represent best practice.
- Provide lead and lag performance indicators with regular benchmarking to ensure continuous improvement, aimed at eliminating work-related injury and illness.
- Work with government agencies and other stakeholders to develop a transparent relationship.
- Maintain safe management systems, provide training and conduct our daily operations in a manner that safeguards our workers and property.
- Ensure risk management practices are embedded in all our processes and procedures.
- Commit to safe work practices through positive behaviours and recognition that drives a safety culture.
- Promote the health and wellbeing of our workers.
- Provide thorough and timely investigation of incidents with corrective actions implemented to prevent recurrence.
- Encourage the rehabilitation of injured workers.
- Periodically review the policy to ensure it remains relevant and effective to the organization.

No task is so important as to compromise health and safety. Safety starts with YOU.



David McMahon
MANAGING DIRECTOR



Policy
Workplace Behaviour
POL-WB

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Workplace Behaviour Policy

Our people are central to what we do.

McMahon Services Australia Pty Ltd is committed to creating a positive workplace, which in turn generates a productive and harmonious environment. McMahon Services aim to operate a safe workplace that is injury-free and fatality-free and enhances the wellbeing of employees, contractors and communities.

We are committed to achieving leading industry practice in work, health and safety, and in all cases, we will aim to meet or exceed applicable legal and other requirements.

To ensure McMahon Services high standards are achieved throughout our operations:

- We expect all personnel to be responsible for their own safety and the safety and wellbeing of others around them in the workplace and the community.
- We have a zero tolerance to any inappropriate behaviour which could cause harm to yourself or others.
- We have a zero tolerance to any abusive, violent or threatening behaviour.
- Our Code of Conduct acts to provide guidance on acceptable workplace behaviour.
- We have a dedicated Human Resources Department to provide support and guidance as needed.
- We commit to provide all necessary training required for staff to perform their duties in a safe manner.
- We encourage open and honest communication with our staff, clients and other stakeholders.
- Our employees will follow our Core Safety Expectations;
 - Always follow High Risk procedures when working with scaffolding, rigging, and mobile plant.
 - Always follow Fall Protection standards when working at elevated heights.
 - Always follow Written Permit procedures regarding confined space, hot work, excavation or subsurface work, gas testing.
 - Always follow Lock Out/Tag Out (LOTO) procedures.
 - Never talk or text on a hand-held mobile phone when operating a vehicle or mobile plant.
 - Always follow the written PPE requirements for the work being performed.

This Policy applies to all work-related situations including, but not limited to, when you are:

- In the workplace, whether during or outside normal working hours.
- During work activities, including but not limited to dealings with colleagues, clients and customers whether on or off-site, whether face to face or using information systems or media forms.
- At work-related events, including but not limited to conference, social functions and living away from home (i.e. camp sites).



David McMahon
MANAGING DIRECTOR

Policy
Injury Management & Rehabilitation
POL-INJ

V3 JAN 2017 ©

Injury Management & Rehabilitation Policy

McMahon Services Group shall ensure, as reasonably practicable, that the health and safety for management, and workers (which includes employees, contractors and volunteers) does not place them at risk or injury through daily operations.

McMahon Services Group is committed to assisting injured workers to return to work as soon as medically appropriate and will adhere to the requirements of the relevant State based Workers' Compensation Legislation in the event of a work related injury or illness.

Management supports the injury management process and recognises that success relies on the active participation of the injured worker. Wherever possible, suitable duties will be arranged internally having regard to the injured worker's medical restrictions.

As part of our continual commitment to providing a safe and durable return to work of an injured worker, we shall:

- Take all necessary action to provide the injured worker with immediate first aid and access to appropriate medical assistance.
- Provide the best possible response to the management of workplace injuries, so injured workers can remain at work or return to work at the earliest appropriate time.
- Inform appropriate parties as soon as practical.
- Inform the worker of the need to gain a Prescribed Medical Certificate.
- Supply the worker with a workers' compensation claim form.
- Lodge the Prescribed Medical Certificate and claim form with the insurer within five working days.
- Maintain close contact with the injured worker to check on progress and make arrangements for the worker to remain at work or return to work as soon as medically appropriate.
- Prepare a Return to Work Program in consultation with the treating medical practitioner and in the injured worker, and Supervisor, when required.
- If required refer the worker to a workplace rehabilitation provider.
- Monitor progress towards the return to work goal.
- Communicate regularly with the insurer in relation to the injured worker's claim.
- Periodically review the policy to ensure it remains relevant and effective to the organization.

No task is so important as to compromise health and safety. Safety starts with YOU.



David McMahon
MANAGING DIRECTOR

Policy
Chain of Responsibility
POL-COR

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Chain of Responsibility

McMahon Services Australia Pty Ltd shall maintain systems of work so that our daily operations do not place any person at risk of injury or ill health. Our Chain of Responsibility obligations will be strictly adhered to by all participants within the company transport chain.

Our transport chain includes, but is not limited to, schedulers, loaders, company and subcontract drivers and transport companies. McMahon Services Australia Pty Ltd will confirm that all loads comply with all relevant State and Territory laws.

McMahon Services incorporate the following practices into its daily activity:

- Our schedulers and drivers are trained in basic driver fatigue management.
- Local and long distance drivers assess their fitness for work prior to starting their daily activities.
- Vehicles and drivers possess current licenses and permits to operate.
- Vehicle prestart checks are performed daily prior to start up.
- Maintenance and service records are kept on company owned vehicles.
- Vehicles and drivers are audited every quarter in relation to maintenance and basic fatigue management.
- Vehicles are maintained to comply with Original Equipment Manufacturer and Australian Design Rules specifications.
- Vehicles are weighed prior to transportation to confirm correct mass and axle group weights in accordance with relevant State and Territory laws.
- Vehicles are audited to confirm loads are safe and roadworthy.
- All vehicles over 12 tonne GVM are required to have Basic Fatigue Management training.
- Long distance transport or over mass consignments has a Safe Route Plan in place, prior to departure.
- Vehicles travel within marked speed limits.
- Load restraint equipment is inspected and maintained in a fit for purpose condition.



David McMahon
MANAGING DIRECTOR



Policy

Asbestos

POL-ASB

VCA JAN 2017 ©

Asbestos Policy

McMahon Services is committed to continuous improvement in quality performance, delivering a high level of service to our clients. McMahon Services' procedures for asbestos removal, ensures the safety of our employees and others that are involved in these activities. Every member of staff is involved in managing how we can improve today, tomorrow and long into the future. From the smallest procedure to the largest contract, quality is our passport to customer satisfaction and to our future business.

The aim of our asbestos management system is to:

- Ensure Senior Management provides strong leadership that is highly visible.
- Comply with all applicable laws and regulations and apply best practice where laws and regulations do not exist.
- Provide performance indicators to ensure continuous improvement is met in our asbestos management systems.
- To ensure safe handling, removal and transport of materials containing asbestos.
- To promote community awareness of the dangers of asbestos and the safe and correct methods for removal, transport and disposal.
- To ensure the transport of asbestos waste material will comply with the Australian Code for the Transport of Dangerous Goods and the Dangerous Substances Act for all States.
- To ensure the disposal of asbestos waste material will be carried out in accordance with the requirements of the Environmental Protection Authority Act for each state.
- To work with government agencies and other stakeholders to develop a transparent relationship to ensure our work is in accordance to the asbestos licence in each state.
- Our staff are fully trained and involved in quality improvement.
- We have the skills and resources to fulfill our customer requirements.
- To provide a health monitoring program for all employees involved with the removal of asbestos.
- To ensure adequate personal protective equipment is available on request.
- Engage a consultative process between management, employees and contractors with the view to maintain management systems and that promote and continually improve performance.
- All work is carried out consistently to a defined standard.
- Conduct reviews and evaluations of our operations to measure compliance by completing audits and inspections.
- Customer satisfaction remains inherent to our business.
- Our customer's requirements have been fully understood and met.
- A professional approach to customer interface is maintained at all times.
- Any complaints are dealt with efficiently and within an acceptable time period.



David McMahon
MANAGING DIRECTOR

Policy
Traffic Management
POL-TRA

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Traffic Management

McMahon Services, recognises its obligation to eliminate so far as is reasonably practicable or, where that is not reasonably practicable, to minimise so far as is reasonably practicable, risks to workers who must work on or adjacent to roadways and the health and safety of the public who may be affected by such activities.

As part of our continual commitment to providing a safe working environment, we shall ensure:

- Senior Management provides strong leadership that is highly visible.
- All approvals, approval agencies, types of approvals for roadway access, railway reserve access, authority to install signs on roads, variation to standards are identified.
- Hazards are identified prior to work commencing and during the setting up, operating, changing and dismantling of Traffic Guidance Schemes (TGS).
- Risk Assessments for all identified hazards are conducted.
- Safe work method statements are prepared for work that is deemed high risk construction work.
- End of day risk assessments are conducted when the worksite is left unattended overnight.
- Appropriate controls for all identified hazards are implemented.
- Workers responsible for TGS carry on their person a current Workzone Traffic Management (WZTM) card and will have undertaken the required training.
- Workers carrying out work on a roadway or pathway must have completed general construction induction training (White Card).
- Records are retained of all risk assessments and TGS.
- Respond quickly, effectively and with care to emergencies or accidents resulting from our activities in cooperation with industry organisations and government agencies.
- Any complaints are dealt with efficiently and within an acceptable time period.



David McMahon
MANAGING DIRECTOR

Appendix 2 - Key Definitions

ALARP	As Low As Reasonably Practicable
Contractor	The Company – refers to McMahon Services Australia P/L;
JSEA = SWMS	Job Safety & Environmental Analysis = Safe Work Method Statement
KPI	Key Performance Indicator
OPI	Opportunity for Improvement
PPE	Personal Protective Equipment
PRAR	Project Risk Assessment Register
The Principal	Pacific National
SDS	Safety Data Sheet
Superintendent	Mr David Djulbic
VOC	Verification of Competency
WHSEQ	Work Health Safety Environment and Quality
WUC	Works Under Contract
Worker	Any person engaged to undertake work on site

Appendix 3 – Council Consultation

Submission of plan

Andrew Rowlands

From: Guy Evans <guy.evans@urbanco.com.au>
Sent: Monday, 25 May 2020 12:40 PM
To: Gavin Cherry
Cc: David Djulbic; Andrew Rowlands
Subject: St Marys Intermodal SSD 7308 - Post Approval engagement for Condition B18 Flood Emergency Response Sub-Plan
Attachments: 5501257 - Flood Emergency Response Plan - DRAFT - Rev 3.pdf

Hi Gavin

I refer to St Marys Intermodal SSD 7308 and engagement requirements for Condition B18 as listed below.

We submit the draft Flood Emergency Response Sub-Plan for review and comment.

B18. The Flood Emergency Response Sub-Plan (FERSP) must address, but not be limited to, the following:

- (a) be prepared by a suitably qualified and experienced person(s), in consultation with Council;
- (b) be consistent with the findings of the St Marys Freight Hub – Stormwater Management Report prepared by BG&E, dated 30 September 2019
- (c) address the provisions of the Floodplain Risk Management Guidelines (EESG);
- (d) include details of:
 - (i) the flood emergency responses for both construction and operation phases of the development;
 - (ii) predicted flood levels;
 - (iii) flood warning time and flood notification;
 - (iv) assembly points and evacuation routes;
 - (v) evacuation and refuge protocols; and
 - (vi) awareness training for employees and contractors.

The St Marys Freight Hub – Stormwater Management Report prepared by BG&E, dated 30 September 2019 can be found at <https://majorprojects.planningportal.nsw.gov.au/oweb/PRBestService/mp/01/extContent?AttachRef=EXH-1156%21201910041075014.894%20GMT>

We respectfully request council's response on or before the 8 June 2020 (14 days).

Feel free to call if there are any questions or you would like to discuss.

Regards
Guy Evans



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Council response

From: Mylvaganam Senthilvasan <myl.senthilvasan@penrith.city>
Sent: Tuesday, 23 June 2020 9:00 PM
To: Guy Evans <guy.evans@urbanco.com.au>
Cc: 'David Djulbic' <david.djulbic@dmdprojects.com.au>
Subject: RE: ECM Referral to be Sent - St Marys Intermodal SSD 7308 - Post Approval engagement for Condition B18 Flood Emergency Response Sub-Plan

Dear Guy

I refer to the draft Flood Emergency Response Management Plan, dated 20 May 202 prepared by McMahon Services. My comment on the draft plan is as follows:

1. The draft Plan is mainly addressing the flood emergency management for the construction phase and lacks responses for the operation phase. The condition of consent is to include for both construction and operation phases. So it is recommended to address the operation phase issues as well.
2. NSW State Emergency Services (SES) is responsible for emergency management particularly flood evacuation. SES has a Flood Plan for the area Penrith. The Flood Emergency Management Plan should make reference to SES' Flood Plan and any recommendations should be consistent with SES Flood Plan.
3. Flood Emergency Response Management Plan may include measures such as training to staff, signages, site induction to staff and visitors etc.

Hope this would assist you. Happy to clarify the above points.

Regards

Myl Senthilvasan
Floodplain Engineering Coordinator