FLOODING AND BUSHFIRE EMERGENCY MANAGEMENT PLAN - STAGE A

Albury to Illabo | A2I

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Document Control

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Revision History

REVISION	REVISION DATE	AMENDMENT	DATE TO CLIENT
A	15 August 2024	First draft for client and ER review	15 August 2024
B	30 September 2024	Second draft for client and ER review and consultation with SES, Hume Zone and Riverina Zone Bush Fire Management Committees, DCCEEW and relevant councils	30 September 2024
0	13 December 2024	For ER endorsement	23 January 2025

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GLOSSARY

TERM	DEFINITION
AEP	Annual Exceedance Probability
APZ	Asset protection zone
ARTC	Australian Rail Track Corporation
BFMCMPs	Hume Zone Bush Fire Risk Management Plan (Hume Zone Bush Fire Management Committee, 2016) and the Riverina Bush Fire Risk Management Plan (Riverina Bush Fire Management Committee, 2015)
CCS	Community Communication Strategy
CEMF	Construction Environmental Management Framework
CEMP	Construction Environmental Management Plan – Stage A
CFBEMP	Construction Flood and Bushfire Emergency Management Plan – Stage A (this Plan)
CSWMP	Construction Soil and Water Management Plan – Stage A
CoA	Conditions of Approval
Construction	Includes work required to construct the CSSI as defined in the Project Description described in the documents listed in Condition A1 including commissioning trials of equipment and temporary use of any part of the CSSI but excluding Low Impact Work which is carried out or completed prior to approval of the CEMP
CSSI	Critical State Significant Infrastructure
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DPE	NSW Department of Planning and Environment
EAD	Environmental Assessment Documentation that includes: ▪ Inland Rail – Albury to Illabo Environmental Impact Statement (ARTC, August 2022); ▪ Albury to Illabo Response to Submissions (ARTC, November 2023); ▪ Albury to Illabo Preferred Infrastructure Report (ARTC, November 2023); ▪ Albury to Illabo Preferred Infrastructure Report Response to Submissions (ARTC, February 2024); ▪ Inland Rail – Albury to Illabo (SSI-10055) Response to request for additional information – Air Quality Assessment (letter dated 1 May 2024); ▪ Part 1 - Revised Technical Paper 8: Biodiversity Development Assessment Report (WSP, February 2024); ▪ Part 2 - Revised Technical Paper 8: Biodiversity Development Assessment Report (WSP, February 2024).
EIS	Environmental Impact Statement
EMP	Emergency Management Plan
Environmental Representative (ER)	The Environmental Representative(s) for the CSSI approved by the Planning Secretary
EMP	Emergency Management Plan
ERG	Emergency Response Guide
Fire Authority	A generic term to describe the government fire prevention and control agencies that exist in the various Australian States.
Fire Danger Period	A calendar period which may be declared by individual states during which restrictions on fires may be imposed. Typically between October/December and April/June. TFB days will typically occur during this period.
Fire Spotter/Watch	A person directed by the Nominated Site Representative to lookout for fire indications before, during, and after completion of the hot work. The person shall carry out no other tasks associated with performing the hot work.

TERM	DEFINITION
Hot Work	Work that has the potential to cause a fire. This includes structural welding, rail welding, oxy gas cutting or heating, rail grinding, cable joining, and any other heat or spark producing operation. (this definition of Hot Work is not to be confused with other uses of the term, such as "Work in High Temperatures" for which there are regulatory requirements regarding prolonged heat exposure etc.)
MR	Martinus Rail
MR ESM	Martinus Rail Environment, Approvals and Sustainability Manager
Nominated Site Representative	A person, normally an Martinus employee or a contractor to Martinus, who is nominated to control the hot work on the worksite. This person may nominate themselves or be nominated by others but shall be on site for the hot work.
NSW	New South Wales
PIR	Preferred Infrastructure Report
Planning Secretary	Secretary of the NSW Department of Infrastructure, Housing and Infrastructure, or delegate
PMF	Probable Maximum Flood
Primary CoA/UMM	CoA and/or UMMs that are specific to the development of this Plan
POEO Act	*NSW Protection of Environment Operations Act 1997*
RFS	NSW Rural Fire Service
SES	State Emergency Services
TOBAN	Total Fire Ban Day(s)
Total Fire Ban (TFB)	A ban on the lighting of fires or the conduct of fire-inducing activities which is imposed by a State Government in accordance with that state's legislation for a defined period (often a 24-hour day period)
UMM	Updated Environmental Management Measures
VMS	Variable messaging sign(s)

1 INTRODUCTION

1.1 Project Overview

Inland Rail is an approximate 1,600 kilometres (km) freight rail network that will connect Melbourne and Brisbane via regional Victoria, New South Wales (NSW) and Queensland. The Inland Rail route would involve using approximately 1,000 km of existing track (with enhancements and upgrades where necessary) and 600 km of new track, passing through 30 local government areas (LGAs). Inland Rail will accommodate double-stacked freight trains up to 1,800 metres (m) long and 6.5 m high.

The Australian Government has confirmed that Inland Rail is an important project to meet Australia's growing freight task, improve road safety and help decarbonise the economy. Inland Rail will enhance our national freight and supply chain capabilities, connecting existing freight routes through rail, roads and ports, and supporting Australian's growth. Inland Rail is being delivered by Australian Rail Track Corporation (ARTC).

Comprising 12 sections, a staged approach is being undertaken to deliver Inland Rail. Each of these projects can be delivered and operated independently with tie-in points to the existing railway. Work south of Parkes has been prioritised, which will enable Inland Rail to initially connect to existing rail networks between Melbourne, Sydney, Perth and Adelaide via Parkes and Narromine. The Parkes to Narromine (P2N) and Narrabri to North Star Phase 1 (N2NS P1) sections are complete.

The project will enable enhancement works to structures and sections of track along 185 km of the existing operational standard-gauge railway in the Albury to Illabo (A2I) section of the Inland Rail program. Enhancement works are required to provide the increased vertical and horizontal clearances required for double-stacked freight trains. Works would include track realignment, lowering and/or modification within the existing rail corridor, modification, removal or replacement of bridge structures (rail, road and/or pedestrian bridges), raising or replacing signal gantries, level-crossing modifications and other associated works.

A detailed project description is provided in Section 4 of the Construction Environmental Management Plan (CEMP).

1.2 Planning Context

The Inland Rail – Albury to Illabo project (the project) is declared State significant infrastructure (SSI) and critical State significant infrastructure (CSSI) under Division 5.2 of the *Environmental Planning and Assessment Act 1979* (NSW) (EP&A Act). The project is permissible without development consent and is subject to assessment and approval by the NSW Minister for Planning and Public Spaces.

An environmental impact statement (EIS) was prepared to support ARTC's application for approval of the proposal in accordance with the requirements of the EP&A Act and the environmental assessment requirements of the Secretary of the (then) NSW Department of Planning, Industry and Environment (the SEARs) (now the Department of Planning, Housing and Infrastructure (DPHI)).

The EIS was placed on public exhibition from 17 August 2022 to 28 September 2022. During the exhibition period, interested stakeholders and members of the community were able to review the EIS online, participate in consultation and engagement activities held by ARTC, and make a written submission to the DPE for consideration in its assessment of the proposal.

In accordance with section 5.17(6)(b) of the EP&A Act, on 13 April 2023 the Planning Secretary directed ARTC to submit a Preferred Infrastructure Report (PIR) that provides further assessment of traffic and transport, noise and vibration, and air quality impacts. The PIR was also prepared to consider changes to the exhibited proposal that have arisen as a consequence of these further assessments and related submissions.

1.3 Statutory Context and Approval

The project was assessed as part of the following documents:

- Inland Rail – Albury to Illabo Environmental Impact Statement (ARTC, August 2022);
- Albury to Illabo Response to Submissions (ARTC, November 2023);
- Albury to Illabo Preferred Infrastructure Report (ARTC, November 2023);
- Albury to Illabo Preferred Infrastructure Report Response to Submissions (ARTC, February 2024);
- Inland Rail – Albury to Illabo (SSI-10055) Response to request for additional information – Air Quality Assessment (letter dated 1 May 2024);
- Part 1 - Revised Technical Paper 8: Biodiversity Development Assessment Report (WSP, February 2024);

- Part 2 - Revised Technical Paper 8: Biodiversity Development Assessment Report (WSP, February 2024).

Together these documents are referred to as the Environmental Approvals Documentation (EAD).

Approval for the project under the EP&A Act was granted by the Minister for Planning on 8 October 2024.

1.4 Scope of this Stage A Plan

The scope of this Construction Flooding and Bushfire Emergency Management Plan (CFBEMP or this Plan) is to describe how the project will manage potential flood and bushfire emergency impacts during Stage A construction of the project (refer Section 1.4.1).

This Plan addresses the requirements of the EAD including incorporating the relevant updated management measures (UMMs), and CoAs. SMART (Specific, Measurable, Achievable, Realistic and Timely) principles have been considered and applied during the preparation of this Plan which will be implemented for the duration of construction.

This Plan is applicable to all activities during construction of the project, including all areas where physical works will occur or areas that may otherwise be impacted by the construction works, and under the control of Martinus Rail. All Martinus Rail staff and sub-contractors are required to comply with and operate fully under the requirements of this Plan and related environmental management plans, over the full duration of the construction program.

A copy of this Plan will be kept on the premises for the duration of construction.

1.4.1 Staging

The Staging Report describes how the construction and operation of the project will be staged in accordance with CoA A9, A10 and A11. A staged approach has been primarily adopted for the project to prioritise critical activities that are reliant upon infrequent and fixed rail possessions. It overall de-risks the construction program for the project, ensuring that the project is operational within the timeframe committed to by the NSW Government.

As required by CoA A14 and C16, a Construction Environmental Management Framework (CEMF) has been prepared to be consistent with the Staging Report. The CEMF has been prepared to facilitate the preparation and approval of CEMPs, Sub-plans, and construction monitoring plans (CMPs) during the construction phase of the project. It includes a guide to the general environmental, stakeholder and community management requirements which will be implemented during construction and provides a road map for environmental management documentation.

In accordance with CoA C16, the CEMF must be endorsed by the Environmental Representative (ER) and then submitted to the Planning Secretary (for approval) no later than one (1) month before the lodgement of any CEMP, CEMP Sub-plan, or Construction Monitoring Program.

This Plan has been prepared to be consistent with the Staging Report and the CEMF, as required by CoA A11 and A12, as well as C16. This Plan has therefore been prepared to address how Martinus Rail will manage potential flood and bushfire emergency impacts during construction of the first stage of the project – Stage A.

Stage A, as described in Section 2.1.2 of the Staging Report will comprise preparation activities for the March 2025 rail possession (Substage A1), the rail possession activities themselves (Substage A2), and post-possession activities (Substage A3). No construction works will occur at the follow enhancement sites as part of Stage A:

- Murray River Bridge;
- Albury Station pedestrian bridge;
- Albury Yard clearances;
- Riverina Highway bridge;
- Billy Hughes bridge;
- Culcairn pedestrian bridge;
- Culcairn Yard clearances;
- Uranquinty Yard clearances;
- Pearson Street bridge (with exception of short-term utility works);
- Cassidy Parade pedestrian bridge (with exception of short-term utility works);
- Edmondson Street bridge (with exception of short-term utility works);
- Wagga Wagga Station pedestrian bridge;
- Wagga Wagga Yard clearances;
- Bomen Yard clearances;
- Kemp Street bridge;

- Junee pedestrian bridge.

This plan applies to the entirety of Stage A.

Based on the approved CEMF approach, this Plan will be endorsed for use by the ER.

Construction work during Stage A will generally include:

- Utility works, including drainage;
- Site establishment and operation;
- Traffic management and access, including material haulage;
- Minor clearing, grubbing and topsoil strip;
- Earthworks including preparation of pads and stockpiling;
- Track work including realignment and lowering;
- Gantry and signalling work.

1.5 Interactions With Other Managements Plans and Strategies

This Plan has the following interrelationships with other management plans and documents:

- Community Communication Strategy (CCS) which details procedures and processes for community notification, consultation and complaints management;
- The Stage A Construction Contamination and Hazardous Materials Management Sub-plan addresses the management of contaminated land, hazardous materials, and unexpected contaminated finds;
- The Stage A Construction Biodiversity Management Sub-plan addresses the management of flora and fauna;
- The Stage A Construction Soil and Water Management Sub-plan (CSWMP) addresses the management of soil and water including erosion and sediment control and potential impacts on surface and groundwater.

1.6 Consultation

1.6.1 Consultation For This Plan

In accordance with CoA C6(e), this Plan has been prepared in consultation with:

- SES;
- Hume Zone and Riverina Zone Bushfire Management Committees;
- DCCEEW;
- Wagga Wagga City Council;
- Albury City Council;
- Greater Hume Council;
- Junee Shire Council;
- Lockhart Shite Council.

The consultation report prepared for this Plan in accordance with CoA A8 outlines what feedback was provided (if any), and how stakeholders' responses have been addressed. A summary of consultation has been provided in Table 1.

TABLE 1: CONSULTATION SUMMARY – STAGE A

Stakeholder	Dates	Feedback provided	How addressed
SES	06/11/2024 – response from SES	No feedback on the plan.	NA
Hume Zone Bushfire Management Committees Riverina Zone Bushfire Management Committees	24/10/2024 – response received from Hume Zone and Riverina Bush Fire Management Committee. 04/11/2024 – response received from Junee Council representative on the Riverina BFMC.	▪ Additional controls needed during hot works. ▪ The project should make use of the Hazards Near Me app. ▪ There are no APZs referenced in the plan. ▪ Grasslands are BFPL and need to be accounted for in the plan. ▪ The rail corridor requires a vegetation management program created in perpetuity. ▪ Suggestions provided for the management of hot works. ▪ The project should use the Harvest Safety Alerts to trigger a review of safety systems. ▪ A flood study referenced in the EIS was not included in Section 3.1 of the plan.	▪ Section 6.1.4 updated to include additional controls and reference the risk assessment/permitting process. ▪ The project will use the Hazards Near Me app. ▪ A section on APZs has been added to the plan. ▪ The BFPL areas are taken from the EIS and have been checked against the latest publicly available BFPL maps. ▪ A vegetation management program is outside the scope of the project. ▪ The section on hot works has been updated. ▪ The harvest safety alert system will be used to inform construction planning.

Stakeholder	Dates	Feedback provided	How addressed
		▪ Questions raised over the validity of existing environment information for bushfire and flooding. ▪ Query over the indicative construction timeframes presented in Table 7. ▪ Issues raised regarding hot works and Total Fire Ban days. ▪ The UMM H2 should be reworded.	▪ The flood study has been added into Section 3.1.2. ▪ The existing environment section is taken from the EIS/PIR/RTS and will continue to be reviewed for accuracy as flood modelling is finalised. ▪ The timeframes in Table 7 are consistent with the approved project. ▪ The section on hot works and TFB days has been updated. ▪ UMM H2 can not be reworded without modifying the planning approval.
DCCEEW	11/10/2024 – Plan provided to DCCEEW for comment. 04/11/2024 – follow up attempt made seeking feedback from DCCEEW	No feedback provided.	NA
Wagga Wagga City Council	04/11/2024 – response received from Wagga Wagga Council	Wagga council has no comments on the plan.	NA
Albury City Council	11/10/2024 – FBFEMP issued to Council. 14/10/2024 – briefing held with Albury Council. 22/10/2024 to 12/11/2024 – 9 follow up attempts made to Council to provide comment on the Plan.	No comments received on the plan.	NA
Greater Hume Shire Council	12/11/2024 response received from Greater Hume Shite Council	Council confirmed they had no comments on the plan.	NA
Junee Shire Council	12/11/2024 – response received from Junee Council	▪ When does Stage B start? ▪ The consultation summary section has not been completed. ▪ Add reference to the BFMCMPs and bushfire danger periods for Junee.	▪ Stage B is currently due to commence in mid-2025. ▪ The consultation section has now been updated following the completion of consultation.

Stakeholder	Dates	Feedback provided	How addressed
		▪ Please review flood studies for Junee. ▪ Consideration should be included for upstream damage to land or property that results from creek impact or creek diversion. ▪ A review of fire extinguishing controls is required. ▪ Consideration to be given to sandbagging, ERSED controls, diversion etc as pre-flood mitigations.	▪ References to these BFMCMPs and bushfire danger periods have been added into the plan. ▪ Impacts as result of the project will continue to be reviewed as flood modelling ▪ The fire extinguishing controls have been reviewed and updated based on feedback from the consultation period. ▪ Pre-flood mitigation measures are captured in Section 6.2.2.
Lockhart Shire Council	04/11/2024 – response received from Lockhart Shire Council	Council had no comments on the FBEMP.	NA

1.6.2 Ongoing Consultation During Construction

Ongoing consultation between Martinus Rail, Inland Rail, ARTC, other construction projects, stakeholders, the community and relevant agencies regarding the management of flood and bushfire emergency risks on the environment will be undertaken during the construction of the project as required. The process for consultation is described in the CCS.

1.7 Endorsement and Approval

In accordance with CoA C3, CEMP(s) (and relevant CEMP sub-plans) not requiring the Planning Secretary's approval, but requiring ER endorsement, must be submitted to the ER no later than one (1) month before the commencement of construction or where construction is staged no later than one (1) month before the commencement of that stage. The CEMPs (and relevant CEMP sub-plans) must be endorsed by the ER as being consistent with the conditions of this approval and all undertakings made in the documents listed in CoA A1.

Construction will not commence until the relevant CEMP(s) and Sub-plans have been endorsed by the ER (as applicable and as identified in the CEMF approved under CoA C16), in accordance with CoA C15, and approved by the Planning Secretary in accordance with CoA C3 and C4.

Additionally, the CEMP and CEMP Sub-plans, as endorsed by the ER or approved by the Planning Secretary, including any minor amendments approved by the ER, must be implemented for the duration of Stage A of construction.

2 PURPOSE

2.1 Purpose

The purpose of this Plan is to describe how potential flood and bushfire emergency impacts will be managed during Stage A construction of the project.

2.2 Objectives

The key objective of this Plan is to ensure that impacts to the local community and environment from flood and bushfire emergency risks associated with the project are minimised. To aid in achieving this objective, this Plan incorporates the relevant flood and bushfire management measures from the following sources:

- The project EAD;
- Inland Rail – Albury to Illabo Infrastructure Approval CoA (SSI-10055);
- All relevant legislation and other requirements described in Section 3.1.1 of this Plan.

2.3 Targets

Targets for the management of flood and bushfire emergency risks during the project include:

- Full compliance with the relevant legislative requirements including CoA and UMMs;
- Follow correct procedures for monitoring, preparation and evacuation of construction areas prior to a flood or bushfire event and post event;
- Ensure training is provided in the form of inductions and toolboxes to all construction personnel on flood and bushfire risks, protection measures and evacuation procedures before they begin work on site.

2.4 Performance Outcomes

Performance outcomes identified in Chapter 27 of the EIS (Approach to mitigation and management) that are relevant to the management of flood and bushfire emergency management during Stage A construction of the project are identified in Table 2.

TABLE 2: PERFORMANCE OUTCOMES (CONSTRUCTION FLOOD AND BUSHFIRE EMERGENCY)

Performance outcomes	How performance outcome will be achieved
Impacts on dedicated evacuation routes are minimised, as far as practicable, in flood events up to and including the probable maximum flood.	Implement this Plan, particularly the management measures in Section 6, which have been developed to consider the requirements in Section 3.

2.5 SMART Principles

This Plan has been developed with the consideration of SMART principles. This was achieved as follows:

- **Specific**: The measures listed this Plan are specific to bushfire and flood emergency management during construction. They include the development and implementation of procedures tailored to address bushfire and flood risks;
- **Measurable**: The document provides specific measures, requirements, and references that enable the evaluation and measurement of the effectiveness of each control measure;
- **Achievable**: The control measures outlined in the document are practical and achievable within the construction context. They involve the implementation of plans, investigations, and management strategies that can be feasibly executed during the construction phase;
- **Relevant**: The measures are directly relevant to flood and bushfire management during construction. They address potential impacts, such as those associated with works in flood or bushfire prone land. These measures are designed to mitigate or prevent bushfire or flood impacts;
- **Time-bound**: The document specifies when each measure should be implemented, such as prior to and during construction. It also assigns responsibilities to specific roles, indicating the timeline and accountability associated with each measure.

3 ENVIRONMENTAL REQUIREMENTS – STAGE A

3.1.1 Legislation

Legislation and regulations relevant to flood and bushfire emergency management includes:

- *Environmental Planning and Assessment Act 1979* (EP&A Act);
- *Protection of the Environment Operations Act 1997* (POEO Act);
- *Rural Fire Act 1997*;
- *Fire and Rescue NSW Act 1989*;
- *Work Health and Safety Act 2011*;
- *State Emergency Service Act 1989*;
- *Water Act 2007* (Cth);
- *Water Amendment Act 2008* (Cth);
- *Water Act 1912* (NSW);
- *Water Management Act 2000* (NSW).

A register of legal requirements for the project is contained in Appendix A1 of the CEMP.

3.1.2 Guidelines and Standards

The main guidelines, specifications, and policy documents relevant to this Plan include:

- Environmental Management Plan Guideline – Guideline for Infrastructure Projects (DPIE, April 2020);
- Department of Infrastructure, Planning and Natural Resources Guideline for the Preparation of Environmental Management Plans (DIPNR, 2004);
- Floodplain Development Manual: The Management of Flood Liable Land (Department of Infrastructure, Planning and Natural Resources (DIPNR), 2005);
- Australian Rainfall and Runoff: A Guide to Flood Estimation (ARR, 2019, prepared by Ball et al., 2019);
- Flood Risk Management Manual (DPE 2023);
- Floodplain Risk Management Guide—Incorporating 2016 ARR in studies (Office of Environment and Heritage (OEH), 2019a)
- Guidelines for controlled activities on waterfront land (Department of Primary Industries (DPI), 2012b);
- Guidelines for developments adjoining land and water (OEH, 2013b);
- Murray–Darling Basin Plan 2012 (including water resource plans and water quality management plans) (Murray–Darling Basin Authority, 2012) (the Basin Plan 2012);
- The flood-related planning controls contained in local planning instruments relevant to the Stage A area -
    - Albury Local Environmental Plan 2010;
    - Greater Hume Local Environmental Plan 2012;
    - Lockhart Local Environmental Plan 2012;
    - Wagga Wagga Local Environmental Plan 2010;
    - Junee Local Environmental Plan 2012.
- Relevant local flood studies and plans;
    - Albury Floodplain Risk Management Study and Plan (WMAWater, 2016);
    - Culcairn Floodplain Risk Management Study and Plan (WMAWater, 2017a);
    - Henty Floodplain Risk Management Study and Plan (WMAWater, 2017b);
    - Jeralgambeth Creek at Illabo – Floodplain Risk Management Study and Plan ((Lyall & Associates, 2012);
    - The Rock Flood Study (WMAWater, 2014);
    - NSW Murray and Lower Darling Water Quality Management Plan (NSW DPI, 2019a);
    - Murrumbidgee Water Quality Management Plan (NSW DPI, 2019b);
    - Tarcutta, Ladysmith and Uranquinty Floodplain Risk Management Studies and Plans (GRC Hydro, 2021);

- Draft Wagga Wagga Major Overland Flow Floodplain Risk Management Study and Plan (WMAWater, 2021);
- Wagga Wagga Major Overland Flow Flood Study (WMAWater, 2011);
- The Lower Butlers Gully Flood Study (Lyall & Associates, 2009);
- Bungambrawatha Creek, Lavington, South Albury and West Albury flood study (Lyall & Associates, 2011);
- Eight Mile Creek Flood Study (URS, 2012).

- Australian Disaster Resilience Handbook 7, Managing the Floodplain: A Guide to Best Practice in Flood Risk Management in Australia (Australian Institute for Disaster Resilience, 2017);
- National Water Quality Management Strategy (Australian and New Zealand Environment and Conservation Council (ANZECC), 2018);
- AS 1940-2017 The storage and handling of flammable and combustible liquids;
- AS 3959-2018 Construction of buildings in bushfire-prone areas Standards Australia, Sydney;
- Safe Work Australia, Managing risks of storing chemicals in the workplace: Guidance material;
- NSW Rural Fire Service, 2019, Planning for Bushfire Protection – A guide for councils, planners, fire authorities and developers;
- Riverina Zone Bush Fire Management Committee (BFMC), 2008, Bush Fire Risk Management Plan;
- Hume Zone Bush Fire Management Committee (BFMC), Bish Fire Risk Management Plan;
- AS/NZS 3100:2018 Risk Management—Principles and Guidelines.

3.1.3 Minister's Conditions of Approval

The requirements of the CoA relevant to the development of this Plan are shown in Table 3. A cross reference is also included to indicate where the CoA is addressed in this Plan or other project management document. CoAs E39 to E46 relating to flooding are dealt with outside this plan.

TABLE 3: COA RELEVANT TO THIS PLAN

<table>
<tr><th>No.</th><th>Requirement</th><th>Where addressed</th></tr>
<tr><td>C5</td><td>CEMP(s) (and relevant CEMP sub-plans) not requiring the Planning Secretary's approval, but requiring ER endorsement, must be submitted to the ER no later than one (1) month before the commencement of construction or where construction is staged no later than one (1) month before the commencement of that stage. The CEMPs (and relevant CEMP sub-plans) must be endorsed by the ER as being consistent with the conditions of this approval and all undertakings made in the documents listed in Condition A1.</td><td>Section 1.7</td></tr>
<tr><td>C6</td><td>Except as provided by Condition C16 the following CEMP Sub-plans must be prepared in consultation with the relevant government agencies identified for each CEMP Sub-plan. Details of all information requested by an agency during consultation must be provided to the Planning Secretary as part of any submission of the relevant CEMP Sub-plan, including copies of all correspondence from those agencies as required by Condition A8.
<table>
<tr><th></th><th>Required CEMP Sub-plan</th><th>Relevant government agencies to be consulted for each CEMP Sub-plan</th></tr>
<tr><td>(g)</td><td>Flood and bush fire emergency management</td><td>SES, Hume Zone and Riverina Zone Bush Fire Management Committees, DCCEEW and relevant councils</td></tr>
</table></td><td>This Plan
Section 1.6.1</td></tr>
<tr><td rowspan="2">C7</td><td>The CEMP Sub-plans must state how:</td><td>-</td></tr>
<tr><td>a) the environmental performance outcomes identified in the documents listed in Condition A1 will be achieved;</td><td>Section 2.4</td></tr>
</table>

No.	Requirement	Where addressed
	b) the mitigation measures identified in the documents listed in Condition A1 will be implemented;	Section 6.4
	c) the relevant terms of this approval will be complied with; and	Section 3.1.3 Section 3.1.4
	d) issues requiring management during construction (including cumulative impacts), as identified through ongoing environmental risk analysis, will be managed through SMART principles	Section 2.5 Section 5 Section 6 Section 7 Section 8
C14	The Flood and Bush Fire Emergency Management Sub-plan must include:	-
	a) Measures for managing flood and bush fire risks including access and egress for emergency vehicles and subsequent recovery;	Section 6
	b) consideration of flood and bush fire risks associated with construction works;	Section 5
	c) details of the management and maintenance of flood and bush fire mitigation measures including first-response capabilities, any temporary and permanent fencing and drainage structures.	Section 6.4
C15	Construction must not commence until the relevant CEMP(s) and CEMP Sub-plans have been approved by the Planning Secretary or endorsed by the ER, (as applicable and as identified in the CEMF approved under Condition C16). The CEMP and CEMP Sub-plans, as approved by the Planning Secretary, including any minor amendments approved by the ER, must be implemented for the duration of construction. Where the CSSI is being staged, construction of that stage is not to commence until the relevant CEMP and sub-plans have been endorsed by the ER and approved by the Planning Secretary or ER.	Section 1.7
E38	All practicable measures must be implemented to ensure the design, construction and operation of the CSSI will not adversely affect flood behaviour, or adversely affect the environment or cause avoidable erosion, siltation, destruction of riparian vegetation or a reduction in the stability of river banks or watercourses.	Section 5.2.2

3.1.4 Updated Management Measures

The primary UMM presented in the EAD relevant to the development of this Plan are shown in Table 4. There are no secondary UMMs relevant to this plan. A cross reference is also included to indicate where the UMM is addressed in this Plan for other project management documents.

TABLE 4: PRIMARY UMMS RELEVANT TO THIS PLAN

No.	Requirement	Where addressed
HFWQ6	Construction planning and the layout of construction work sites and compounds will be carried out with consideration of overland flow paths and flood risk, avoiding flood-liable land and flood events, where practicable. For the sites located in flood-prone land, and where temporary obstruction of overland flows or drainage systems cannot be avoided, further consideration of flood risk will be carried out to develop the staging of works to minimise impacts of the proposal and	This Plan Section 6.2.1

No.	Requirement	Where addressed
	ensure proper management of a flood event at all stages of construction. A flood and emergency response plan will be prepared for the sites located within a flood-prone area.	
H2	Adequate access and egress for fire-fighting vehicles and staff will be provided at all enhancement sites during construction. Protocols for the management of bushfire risk will be implemented during construction. Requirements for first-response capabilities, including fire extinguishers, water carts and hoses, will be assessed and provided at enhancement sites during construction, where needed.	Section 6.1

4 EXISTING ENVIRONMENT – STAGE A

4.1 Bushfire Prone Land

Bushfire-prone lands are identified areas that can support a bushfire or are likely to be subject to a bushfire. Bushfire-prone land maps have been prepared by Rural Fire Services NSW. Table 5 shows the proximity of the Stage A enhancement sites to bushfire-prone land (NSW Rural Fire Service, 2021).

Two (2) areas associated with the project are identified in the *Hume Zone Bush Fire Risk Management Plan* (Hume Zone Bush Fire Management Committee, 2016) and the *Riverina Bush Fire Risk Management Plan* (Riverina Bush Fire Management Committee, 2015) as being subject to bushfire planning measures. Together these two management plans are referred to as BFMCMPs.

TABLE 5: PROXIMITY OF ENHANCEMENT SITES TO BUSHFIRE PRONE LAND - STAGE A

Precinct	Enhancement Site	Indicative Proximity to bushfire prone land	BFMCMPs	Bush Fire Danger Period (per BFMCMPs)
Wagga Wagga	Pearson Street bridge	1.5 km	Riverina	October to March
	Cassidy Parade pedestrian bridge	800 m	Riverina	October to March
	Edmondson Street bridge	600 m	Riverina	October to March
Albury	Table Top Yard clearances	1.0 km	Riverina	October to March
Greater-Hume Lockhart	Henty Yard clearances	Within the proposal site	Hume Zone	November to March
	Yerong Creek Yard clearances	450 m	Riverina	October to March
	The Rock Yard clearances	Within the proposal site	Riverina	October to March
Junee	Harefield Yard clearances	1.0 km	Riverina	October to March
	Junee Yard clearances	1.0 km	Riverina	October to March
	Olympic Highway underbridge	1.5 km	Riverina	October to March
	Junee to Illabo clearances	2.8 km	Riverina	October to March

4.2 Flood-prone Land

Chapter 18 of the EIS (Hydrology flooding and water quality) presented a summary of the project areas which are situated on flood-prone land. The existing flood conditions for each precinct relevant for Stage A is provided in Table 6. The information within Table 6 will be reviewed and updated (where relevant) as modelling under CoA E40 is undertaken.

TABLE 6: EXISTING FLOODING CONDITIONS PER THE EAD - STAGE A

Enhancement site	Key features – Stage A	Existing flood conditions	Flood risk within and around the enhancement site for events up to the 1% AEP	PMF flood depth
Albury Precinct				
Table Top Yard clearances	Gantry removal	Not located on flood-prone land	Not affected	Not affected
Wagga Wagga Precinct				
Pearson Street bridge	N/A – not relevant to utilities scope	Overland flooding within the rail corridor. Peak flood depth of 0.15-0.3 m within the rail corridor in the 1% AEP. Rail corridor within the study area categorise as 'flood storage' and 'floodway' in the 1% AEP.	Not affected	Up to 0.7m in overland flooding events. Not affected by Murrumbigdee River flooding
Cassidy Parade pedestrian bridge	N/A – not relevant to utilities scope		5% AEP and greater events	Greater than 0.75 m in overland flooding events
Edmondson Street bridge	N/A – not relevant to utilities scope			
Greater Hume-Lockhart precinct				
Henty Yard clearances	Track realignment	No flood impacts within the rail corridor	Not affected	Up to 0.75 metres
Yerong Creek Yard clearances	Track realignment	No information available	No information available	No information available
The Rock Yard clearances	Gantry modification	No flood impacts within the rail corridor	Not affected	0.5 metres to 1 metre
Junee precinct				
Harefield Yard clearances	Track realignment	No flood impacts within the rail corridor	Not affected	No information available
Junee Yard clearances	Track realignment	Not located on flood-prone land	Not affected	No information available
Olympic Highway underbridge	Track realignment	Not located on flood-prone land	Not affected	No information available

Enhancement site	Key features – Stage A	Existing flood conditions	Flood risk within and around the enhancement site for events up to the 1% AEP	PMF flood depth
Junee to Illabo clearances	Track realignment	Not located on flood-prone land	Not affected	No information available

5 ASPECTS AND IMPACTS – STAGE A

5.1 Bushfires

5.1.1 Construction Activities

During Stage A of the project, there is a risk of fire ignition. Ignition of bushfires may result from:

- Electrical sparks and sparks from vehicles;
- Hot parts of vehicles coming into contact with dry/combustible vegetation;
- Electrical faults during testing;
- Chemical fires;
- Use of diesel powered equipment;
- Sparks from activities such as hot works, vegetation slashing and use of grinders;
- Inappropriate storage of fuels and chemicals;
- Inappropriate discarding of lit cigarettes;
- Use of open flames;
- Arson.

5.1.2 Potential Impacts

A majority of the enhancement sites are located at least 250 m from the nearest bushfire-prone land, including the associated buffer zones. Only two (2) Stage A enhancement sites are partially located on bushfire-prone land and are in areas covered by Bush Fire Risk Management Plans:

- Henty Yard clearances (Hume Zone BFRMP);
- The Rock Yard clearances (Riverina BFRMP).

These sites would have an increased risk of being impacted by bushfire during construction. Bushfires can cause property damage, injury to people and animals, and loss of life.

5.2 Flooding

5.2.1 Construction Activities

Construction activities on flood-prone land, including earthworks, concrete works, compounds, stockpiles, have the potential to temporarily affect flooding behaviour. Without the implementation of appropriate management measures, potential impacts include:

- Cause damage to construction sites, machinery, plant and equipment;
- Detrimentally impact downstream watercourses through increased flow rates in drainage lines, changes in scour, bank erosion and transport of sediments;
- Obstruct the passage of floodwater and overland flow, which could exacerbate existing flooding conditions and pose a safety risk to the public.

Construction activities at each enhancement site for Stage A would be short term and be prepared with consideration of flooding behaviour. For enhancement sites located in flood prone land and where temporary obstruction of overland flows or drainage systems cannot be avoided, further consideration of flood risk would be undertaken to develop the staging of works to ensure proper management of a flood event at all stages of construction.

5.2.2 Potential Impacts

Flood emergencies can cause property damage, injury to people and animals, and loss of life.

Overall, the Stage A enhancement sites represent a small area of the total catchments in which they are located, and any impacts of the project on drainage and flooding would be minor to negligible. Stage A works comprise of preparation activities for the March 2025 rail possession and involve negligible permanent design works that may influence on flood behaviour. There would be limited stockpiling of materials and laydown associated with Stage A, however, the small scale nature of these activities is unlikely to influence flood behaviour. Furthermore, there are no temporary creek crossings included as part of the Stage A scope. A summary of the key results of the flood modelling undertaken in the EAD is provided for context when considering overall risks to flood emergencies in Table 7 below.

TABLE 7: POTENTIAL FLOODING IMPACTS DURING CONSTRUCTION – STAGE A

Enhancement site	Location on flood prone land	Indicative duration of construction works – Stage A	Potential impacts
Albury precinct			
Table Top Yard clearances	No	2 months	No impacts, as the enhancement site is not affected by flooding.
Wagga Wagga Precinct			
Pearson Street bridge	Yes	2 months	Construction stockpiles and materials for utility works at this enhancement site may be impacted in a flood event. Flood emergencies can cause property damage, injury to people and animals, and loss of life if not managed.
Cassidy Parade pedestrian bridge			
Edmondson Street bridge			
Greater Hume-Lockhart precinct			
Henty Yard clearances	Yes	3 months	Temporary redistribution of overland flows and stormwater due to construction infrastructure. Flood emergencies can cause property damage, injury to people and animals, and loss of life if not managed.
Yerong Creek Yard clearances	No	3 months	
The Rock Yard clearances	Yes	2 months	
Junee precinct			
Harefield Yard clearances	No	3 months	No impacts, as the enhancement site is not affected by flooding.
Junee Yard clearances	No	4 months	No impacts, as the enhancement site is not affected by flooding.
Olympic Highway underbridge	No	5 months	No impacts, as the enhancement site is not affected by flooding.
Junee to Illabo clearances	Yes	5 months	Construction stockpiles and materials at this enhancement site may be impacted in a flood event. Temporary redistribution of overland flows and stormwater due to construction infrastructure. Flood emergencies can cause property damage, injury to people and animals, and loss of life if not managed.

6 MANAGEMENT AND MITIGATION

6.1 Bushfire Emergency Management

The following sections addresses the relevant CoAs and UMMs and have been developed in accordance with the SW RFS *Planning for Bushfire Protection – A guide for councils, planners, fire authorities and developers* (PBP).

6.1.1 Access Arrangements

In bushfire prone areas it is an essential to provide appropriate access for emergency services in the event of an emergency as well as appropriate exit routes in the event that an evacuation is necessary. Appendix 3 of the NSW RFS 2019 *Planning for Bushfire Protection – A guide for councils, planners, fire authorities and developers* provides design principles and specifications for emergency service vehicle access. These principles and specifications will be applied during the detailed design phase and would include the following:

- Turning requirements such as minimum curve radius and sweep path width;
- Turning requirements for dead end roads to avoid multipoint turns;
- Passing bays and parking spots to avoid pinch points that impede access;
- Width of property access roads.

The above principles will be incorporated into the planning and design of any ancillary facilities situated on bush fire prone land.

6.1.2 Asset Protection Zone

An asset protection zone (APZ) provides a low fuel hazard buffer between buildings or other assets and a bushfire hazard (e.g. patches of native vegetation). APZs create a defendable space to manage the flame, radiant heat and ember exposure of the asset and emergency service personnel.

An APZ will be developed during the establishment of areas which accommodate workers, near laydown areas, and in location where frequent hot works are occurring. The APZ will remain in place until demobilisation of each area. From the commencement of the works and for every bushfire season throughout the project duration, the APZ must be established and maintained in the following manner:

- An APZ around fixed construction equipment and occupied buildings such as the site office unless an alternative fire protection approach that achieves the same level of bushfire risk management is identified by a suitably qualified bushfire specialist;
- The APZs will be regularly maintained to a maximum grass height of up to 100mm; and
- Vegetation inside the main construction compounds and accommodation camp sites will be regularly maintained to a maximum height of 75mm, where environmental approvals allow.

The respective site supervisor is responsible for the management and maintenance of the APZ for their area. This will also be supported through visual inspections undertaken by the Environment Manager or delegate.

6.1.3 Planning for works

Ongoing reviews of site conditions will guide the site team on when it is safe to conduct hot works. These reviews will be used to plan works and will be completed using a combination of the resources and tools outlined below.

Hazards Near Me

Martinus shall promote and recommend that all staff and contractors download the ‘Hazards Near Me’ app and establish a 'Watch Zone' account onto their mobile device during the induction program. The Hazards Near Me app will then push notifications to project personnel alerting them to fires within the area and other safety messaging such as Total Fire Ban declarations.

Harvest Safety Alerts and Grain Harvesting Guide

The NSW Rural Fire Service Harvest Safety Alert and Grain Harvesting Guide will be incorporated into work planning process. Harvest Safety Alerts provide a signal to farmers that they should be taking extra precautions during harvesting operations to prevent the ignition and spread of fire due to the prevailing weather conditions. On days when the NSW Rural Fire Service (RFS) issue a Harvest Safety Alert, farmers are encouraged to review the harvest safety guide and determine whether it is safe to continue harvesting operations, due to the elevated fire weather conditions. The issuing of Harvest Safety Alerts by the NSW RFS will be used as a trigger for the review of construction activities and safety systems.

6.1.4 Management Of Onsite Activities Including Hot Works

Martinus Rail has a number of internal management plans and procedures that govern how hot work is managed. These include the Martinus Rail Hot Work Procedure, the Martinus Rail Emergency Management Plan, and the Martinus Rail Safety Management Plan.

Hot Works

Hot works is defined as any action that involves high temperatures, which includes but is not limited to the following activities:

- Grinding;
- Welding;
- Thermal or oxygen cutting or heating.

A Hot Work Permit will be required prior to commencing hot works in accordance with the Martinus Rail Hot Works Procedure. The permit will include:

- Details of the proposed work, including date, location and work type
- Firefighting equipment to be identified based on a risk assessment which takes into account:
  - The activities to be undertaken at the site
  - The vegetation, geography and topography of the site and surrounding area,
  - The prevailing and forecast weather conditions
- Any other conditions that apply to undertaking the works.

Example controls that would be implemented during or prior to Hot Works include the following:

- Firefighting equipment (fire hose, watertrucks, fire extinguisher) or similar must be present at the location of the hot works.
  - Water trucks will be fitted with hoses and rural fire grade service nozzles.
  - Water trucks will be positioned or equipped to enable access to both sides of the rail line.
  - Water trucks will have a capacity suitable for the type of works. This is generally approximately 2000 litres and will be determined via the risk assessment mentioned above.
- The work area must be cleared of combustible materials prior to commencing the hot works activity and any non-removable combustible materials covered or controlled to prevent ignition.
- Any personnel undertaking hot works will be provided with the appropriate level of training on how to operate fire extinguishing equipment in a safe and effective manner to provide a rapid response to extinguish minor fires that may occur.

Fire Watch Observer

Fire watching is a continuous inspection/observation of the work site and its vicinity by nominated personnel. The decision to appoint a fire watch observer is made based on the risks on the particular day. The fire watch observer will be trained in their roles and responsibilities prior to undertaking the works.

The fire watch observer should:

- Be alert for any fire outbreak or hazards. On days above the moderate Fire Danger Rating (refer Figure 1), monitoring for fire outbreaks should occur up to one (1) hour after the cessation of hot works activities;
- Take immediate action to combat any outbreak of fire that may occur;
- Not allow hot work to proceed outside the specified area; and
- Immediately review the work if a hazardous condition is observed.

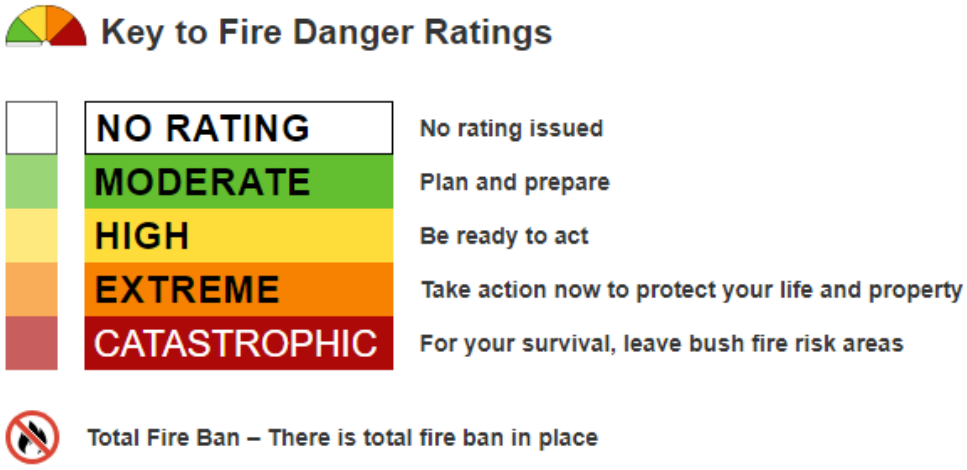


Figure 1: Fire danger ratings (Source: NSW Rural Fire Service)

6.1.5 Total Fire Ban Days

For high fire risk activities (e.g. welding, grinding or any activity likely to cause sparks) ARTC procedure ***ETM-13-01 - Total Fire Bans*** outlines a comprehensive process detailing restrictions to activities during the Fire Danger Period and on Total Fire Ban days, including, but not limited to, required liaison with the local Fire Authority.

This procedure describes the actions required by Australian Rail Track Corporation (ARTC) employees, and contractors, to facilitate hot works during Total Fire Bans (TFB).

The arrangements within this procedure facilitate the capability for IRPL/Martinus to perform hot work in a TFB and include:

- State specific legislation for the issuing of exemptions and work permits for hot works in a TFB which is managed by the relevant state fire authorities in each state jurisdiction.
- ARTC acquisition of general exemptions or permits covering TFB hot work activities through the annual fire danger period (as declared by each state) or date and work specific permits to cover hot work activities on declared TFB days.
- A standard ARTC form *ETM1301F-01 Total Fire Ban Hot Works Checklist* for the recording of exemption or permit details, compliance to fire prevention and control requirements, and satisfactory completion of work.

In NSW each time a TFB is declared under Section 99 of the Rural Fires Act 1997 it must be published in the Government Gazette. Each notification in the Gazette includes a number of standing exemptions in the form of schedules.

Schedule 6 is the exemption for Construction and Essential Repairs or Maintenance of Services and Utilities.

In addition, Martinus shall also deploy its own procedures to support construction activities using MR-WP-023 - Hot work and MR-WF-030 – Hot Work Permit for all other project related scopes that may occur outside the rail corridor envelope or project boundary.

6.1.6 Management Of Flammable Chemicals

The inappropriate storage of incompatible or flammable chemicals has the potential to cause a chemical fire or explosion. Storage and maintenance of flammable material will be in accordance with the safety data sheet given by the manufacturers or importers and generally in accordance with AS 1940-2017. Hazards and risk will be identified through a risk assessment form and where hazards are identified, the risk shall be reduced as far as practicable by through the preferred order of control methods (hierarchy of controls).

All chemicals, fuels or other hazardous substances will be stored in accordance with the supplier's instructions, any relevant legislations or Australian Standards or the applicable guidelines.

6.1.7 Fire-Fighting Supplies and Equipment

The fire-fighting equipment, including fire extinguishers, water carts and hoses, will be provided on site and in vehicles to ensure the safety of public and property in compliance with the *Rural Fires Act 1997* and the *Local Government Act 1993*. Plant and equipment used regularly on site will be checked. The relevant site supervisory personnel will have the appropriate level of training on how to operate fire extinguishing equipment in a safe and effective manner.

6.2 Flood Emergency Management

The design of the proposal has been developed in accordance with existing hydrological conditions in order to avoid flooding, drainage and water quality impacts. Mitigation measures discussed in the sections below will be implemented to mitigate the potential residual flood impacts of the enhancement works.

6.2.1 Construction Planning

Construction planning and the layout of construction work sites and ancillary facilities will be carried out with consideration of overland flow paths and flood risk, avoiding flood-liable land and flood events, where practicable.

For the sites located in flood-prone land, and where temporary obstruction of overland flows or drainage systems cannot be avoided, further consideration of flood risk will be carried out to develop the staging of works to minimise impacts of the proposal and ensure proper management of a flood event at all stages of construction.

6.2.2 Pre-Flood Actions

The following actions will be undertaken as preventative measures to prepare for flooding on site:

- Daily monitoring of weather forecasts and flood alerts, using the BoM (http://www.bom.gov.au/australia/warnings/). A “Flood Watch” is typically issued several days before rainfall events which may cause flooding at the site (Flooding Rain);
- Training in flood preventative measures and emergency response will be provided to key personnel including the Martinus Rail Construction Manager and Foreman / Site Supervisor(s);
- Activities that may affect existing drainage systems during construction will be planned and carried out so that existing hydraulic capacity of these systems is maintained where practicable. These activities will include:
    - Temporary waterway crossings and instream work platforms;
    - Bridge Construction;
    - Culvert construction;
    - Earthworks within flood prone land.
- Temporary stockpiles will be limited in size (where ever practical) and managed in accordance with the CSWMP;
- Prior to establishing any plant or equipment on site an assessment of it's ability to be relocated prior to a flood event is to be considered and where relocation is not feasible prepare appropriate mitigations (e.g. secure to prevent floating and creating a hazard, remove fuel to prevent contamination of waterways, etc);
- Ancillary facilities will be designed to include evacuation routes for flood events;
- Ancillary facility layouts will include nominated storage areas outside the 5 per cent AEP and include a nominated evacuation area;
- Ensure that sufficient area is provided outside the 5 per cent AEP for the temporary storage of mobile plant and equipment, waste containers, chemicals and dangerous goods;
- Pre-flooding Rain inspections which include the following tasks:
    - Minimise obstructions within flood prone areas, including stockpiles;
    - Relocate waste containers, chemicals and dangerous goods above flood prone areas;
    - Relocate mobile plant and equipment to an area outside the expected flood extent;
    - Inspect/repair erosion and sediment controls in accordance with the CSWMP.

6.2.3 Flood Emergency Response

Flood response operations will begin on receipt of BoM advice, or when other evidence leads to an expectation of flooding. The key principles of emergency flood response, according to the NSW State Flood Plan (December 2021) include the following:

- Protection and preservation of human life (including the lives of responders and the community) is the highest priority;

- Evacuation is the primary response strategy for people impacted by flooding.

In the event a flood warning is issued, it will be communicated to the workforce to stop what they are doing and follow the Emergency Management Plan and Emergency Response Guide (see Section 6.3.1).

The BoM will issue Flood Warnings for the relevant catchment areas through their website. BoM also issue Severe Thunderstorm Warnings and Severe Weather Warnings for weather which may cause flooding in the catchment.

The State Emergency Services (SES) is the designated Agency for floods and is responsible for coordinating the evacuation and welfare of affected communities (SES Act 1989; EMPLAN, 2018). In response to a flood event, SES will operate 24 hours a day, seven (7) days a week an "Operations Centre" to manage the Emergency Assistance telephone number (132 500) and co-ordinate their activities. The SES provides public information management strategies and provides information to the community relating to the potential impacts of flooding and what actions need to be undertaken. The SES issue Local Flood Bulletins, Evacuation Warnings, Evacuation Orders and All Clears for areas impacted by floods in the catchment and share these on the SES website. This website will also be monitored by the project following flood warnings.

Local radio stations and other media outlets also provide information updates and advice.

The Martinus Rail Environment, Approvals and Sustainability Manager (MR ESM) in conjunction with the Martinus Rail Safety Manager, Construction Manager and Inland Rail/ARTC will regularly consult these resources to maintain awareness of any flood threats that may arise.

During a flood event, the following will be undertaken:

- Continue to monitor the BoM website / app for warnings, ABC radio broadcasts, local emergency services social media pages, and local news outlets;
- Follow all advice and instructions given by emergency services and maintain open communication with the SES;
- Ensure all occupants on-site are informed of the incident response procedures (i.e. evacuation routes, assembly areas);
- Where practical, existing Variable Messaging Signs (VMS) on the project will be made available to Inland Rail/ARTC, as well as the Emergency services, and updated to notify of temporary traffic arrangements to minimise impact on flood evacuation routes and traffic capacity;
- Implementation of the project Emergency Management Plan and Emergency Response Guide (see Section 6.3.1).

6.2.4 Post-Flood Emergency Response

Following a flood emergency that has impacted on the project, the initial response will be to determine whether or not it is safe to return to work. A safety walk through of the construction work areas will be conducted by the Martinus Rail Construction Manager and Supervisors (or delegates), in conjunction with the MR ESM and Martinus Rail Safety Manger. These parties will assess whether it is safe to return to work.

6.3 Emergency Management

6.3.1 Emergency Management Plan and Response Guides

The project has prepared an Emergency Management Plan (EMP) which defines the emergency preparedness principles, processes, procedures, systems, tools, and templates implemented for use throughout the duration of the project. This plan covers bushfire and flood emergency preparedness and management. The objectives of the EMP are to:

- Outline processes and procedures for personnel to follow in the event of an emergency, including site, and/or home office emergencies;
- Identify types of emergencies that may require assistance;
- Outline roles and responsibilities of key personnel in the event of an emergency;
- Identify emergency communication protocols and phone numbers;
- Identify evacuation processes;
- Outline traffic management requirements in the event of an emergency;
- Outline training and evacuation response exercises.

As part of the EMP process, Martinus Rail will be responsible for conducting a comprehensive risk assessment to identify potential hazards that may lead to emergencies requiring evacuation or rescue. Detailed procedures for each of these potential emergencies will be outlined in aspect specific Emergency Response Guides (ERG), including bushfire and

flood. The development and implementation of these ERGs will reduce the effect of bushfires and floods on personnel, property, and the environment.

6.3.2 Remediation And Recovery

Recovery encompasses those activities that are intended to restore normality as soon as possible, following the impact of a bushfire or flood emergency.

Recovery issues following a major emergency can be complex and the recovery process usually of long duration. These may include:

- The return of facilities to a safe condition;
- The removal of unfit damaged facilities or equipment;
- Providing for the physical and psychological effects on people involved in the emergency;
- Addressing the impacts of the emergency on the environment;
- Investigating the reasons for the occurrence of the emergency to prevent a recurrence;
- Safe resumption of normal operations;
- Evaluation of costs relating to emergency response resources; and
- Assessing and responding to the long-term effects on the community and industry.

6.4 Mitigation Measures

A range of environmental requirements and management measures are identified in the EAD and CoA. Specific measures and requirements to address impacts to bushfire and flooding are outlined in Table 8. The following mitigation measures have been developed with consideration of SMART (specific, measurable, achievable, relevant and time-based) principles.

TABLE 8: MITIGATION MEASURES

ID	Management measure	When to implement	Responsibility for implementation	Reference or source	Evidence of implementation
Bushfire emergency					
CBF-1	Training will be provided to all project personnel, including relevant sub-contractors on bushfire prevention and management measures and the requirements from this plan through inductions, toolboxes and targeted training.	Pre-construction Construction	MR Environment and Sustainability Manager MR Health and Safety/Site Manager MR Head of Competency MR Regional Area Manager MR General Superintendent	Best practice	Induction records Toolbox talk records
CBF-2	Martinus shall promote and recommend that all staff and contractors download the Hazards Near Me application and establish a 'Watch Zone' account onto their personnel device during the induction program.	Induction stage	MR Head of Competency	MR Induction Program	Induction records
CBF-3	Adequate access and egress for fire-fighting vehicles and staff will be provided at all enhancement sites during construction.	Pre-construction	MR Snr Project Manager MR Delivery Manager MR Regional Area Manager MR General Superintendent	UMM H2	Vehicle Movement Plan
CBF-4	Protocols for the management of bushfire risk will be implemented during construction in accordance with Planning for Bushfire Protection (RFS, 2019)	Construction	MR Environment and Sustainability Manager MR Health and Safety/Site Manager MR Regional Area Manager	UMM H2	Audit reports

ID	Management measure	When to implement	Responsibility for implementation	Reference or source	Evidence of implementation
			MR General Superintendent MR Senior Project Engineer		
CBF-5	Requirements for first-response capabilities, including fire extinguishers, water carts and hoses will be assessed and provided at enhancement sites during construction, where needed.	Pre-construction	MR Environment and Sustainability Manager MR Health and Safety Manager MR Snr Project Manager MR Delivery Manager MR Regional Area Manager MR General Superintendent MR Senior Project Engineer MR Site Supervisor	UMM H2	Inspection records Audit reports
CBF-6	Dangerous goods and hazardous materials will be stored in accordance with supplier's instructions and relevant legislation, Australian Standards, and applicable guidelines; and may include bulk storage tanks, chemical storage cabinets/containers or impervious bunds.	Construction	MR Environment and Sustainability Manager MR Health and Safety/Site Manager MR Regional Area Manager MR General Superintendent	UMM H3	Inspection records Audit reports

ID	Management measure	When to implement	Responsibility for implementation	Reference or source	Evidence of implementation
			MR Senior Project Engineer MR Site Supervisor		
CBF-7	Prior to hot work commencing, a Hot Work Permit will be prepared and implemented. Emergency provisions shall be determined in order to minimise the effect of potential incidents.	Pre-construction Construction	MR Environment and Sustainability Manager MR Health and Safety/Site Manager MR Regional Area Manager MR General Superintendent MR Senior Project Engineer MR Site Supervisor	Best practice	Hot Work Permits
CBF-8	Emergency response and management will be undertaken in accordance with the project Emergency Management Plan.	Pre-construction Construction	MR Snr Project Manager MR Delivery Manager MR Regional Area Manager MR General Superintendent MR Environment and Sustainability Manager MR Health and Safety/Site Manager MR Site Supervisor	Best practice	Audit reports

ID	Management measure	When to implement	Responsibility for implementation	Reference or source	Evidence of implementation
Flood emergency					
CFE-1	Training will be provided to all project personnel, including relevant sub-contractors on flood prevention and management measures and the requirements from this plan through inductions, toolboxes and targeted training.	Pre-construction	MR Head of Competency MR Regional Area Manager MR General Superintendent MR Site Supervisor	Best practice	Induction records Toolbox talk records
CFE-2	Construction planning and the layout of construction work sites and compounds will be carried out with consideration of overland flow paths and flood risk, avoiding flood-liable land and flood events, where practicable. For the sites located in flood-prone land, and where temporary obstruction of overland flows or drainage systems cannot be avoided, further consideration of flood risk will be carried out to develop the staging of works to minimise impacts of the proposal and ensure proper management of a flood event at all stages of construction.	Pre-construction Construction	MR Delivery Manager MR Regional Area Manager MR General Superintendent MR Environment and Sustainability Manager MR Health and Safety/Site Manager MR Site Supervisor	UMM HFWQ6	Construction planning documents
CFE-3	A flood and emergency response plan will be prepared for the sites located within a flood-prone area.	Pre-construction	MR Delivery Manager MR Regional Area Manager MR General Superintendent MR Environment and Sustainability Manager	UMM HFWQ6	This Plan

ID	Management measure	When to implement	Responsibility for implementation	Reference or source	Evidence of implementation
			MR Health and Safety/Site Manager MR Site Supervisor		
CFE-4	Emergency response and management will be undertaken in accordance with the project Emergency Management Plan.	Pre-construction Construction	MR Snr Project Manager MR Delivery Manager MR Regional Area Manager MR General Superintendent MR Environment and Sustainability Manager MR Health and Safety/Site Manager MR Site Supervisor	CoA C14	Audit reports

7 TRAINING

7.1 Roles and Responsibilities

The project's organisational structure and overall roles and environmental responsibilities are outlined in Section 6.1 of the CEMP. Specific responsibilities for the implementation of emergency response and management requirements are detailed in Section 7 of the project EMP.

7.2 Training

7.2.1 Inductions

All personnel who carry out works in areas identified in this Plan as bushfire or flood prone land, including employees and sub-contractors, will undergo site induction training relating to bushfire and flooding emergency management issues.

The induction training will address site and/or construction activity specific impacts relating to bushfire and flooding emergency management including:

- The requirements of this Plan;
- Relevant legislation and guidelines;
- The relevant management and mitigation measures;
- Emergency response and evacuation (bushfire and flooding).

Further details regarding staff induction and training are outlined in Section 6.2 of the CEMP.

7.2.2 Daily Pre-Start Meetings

Daily pre-start meetings conducted by the Martinus Rail Area Manager, Site Supervisor (or other delegate) will inform the site workforce of any environmental issues relevant to bush fire or flooding risks that may be impacted by, or impact on, the day's activities.

Further details regarding staff induction and training are outlined in Section 6.2 of the CEMP.

7.3 Inspections and Monitoring

The Safety Manager (or delegate) will conduct regular inspections of activities and controls with the potential to impact flood and bushfire management for the duration of the project works.

Requirements and responsibilities in relation to monitoring and inspections are documented in Section 7.1 and 7.2 of the CEMP.

7.3.1 Auditing

Audits (both internal and external) will be undertaken to assess the effectiveness of bushfire and flood emergency management measures, compliance with this Plan, CoA and other relevant approvals, licenses, and guidelines. Audit requirements are detailed in Section 9.1 and 9.2 of the CEMP.

7.3.2 Reporting and Identified Records

General reporting requirements and responsibilities for the project's works are documented in Section 10.2 of the CEMP.

8 REVIEW AND IMPROVEMENT

8.1 Continuous Improvement

Continuous improvement of this Plan will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement.

Issues requiring management during construction (including cumulative impacts), as identified through ongoing environmental risk analysis, will be managed through SMART principles.

The continuous improvement process will be designed to:

- Identify areas of opportunity for improvement of environmental management and performance;
- Identify environmental risks not already included in the risk register;
- Determine the cause or causes of non-conformances and deficiencies;
- Develop and implement a plan of corrective and preventative action to address any non-conformances and deficiencies;
- Verify the effectiveness of the corrective and preventative actions;
- Document any changes in procedures resulting from process improvement;
- Make comparisons with objectives and targets.

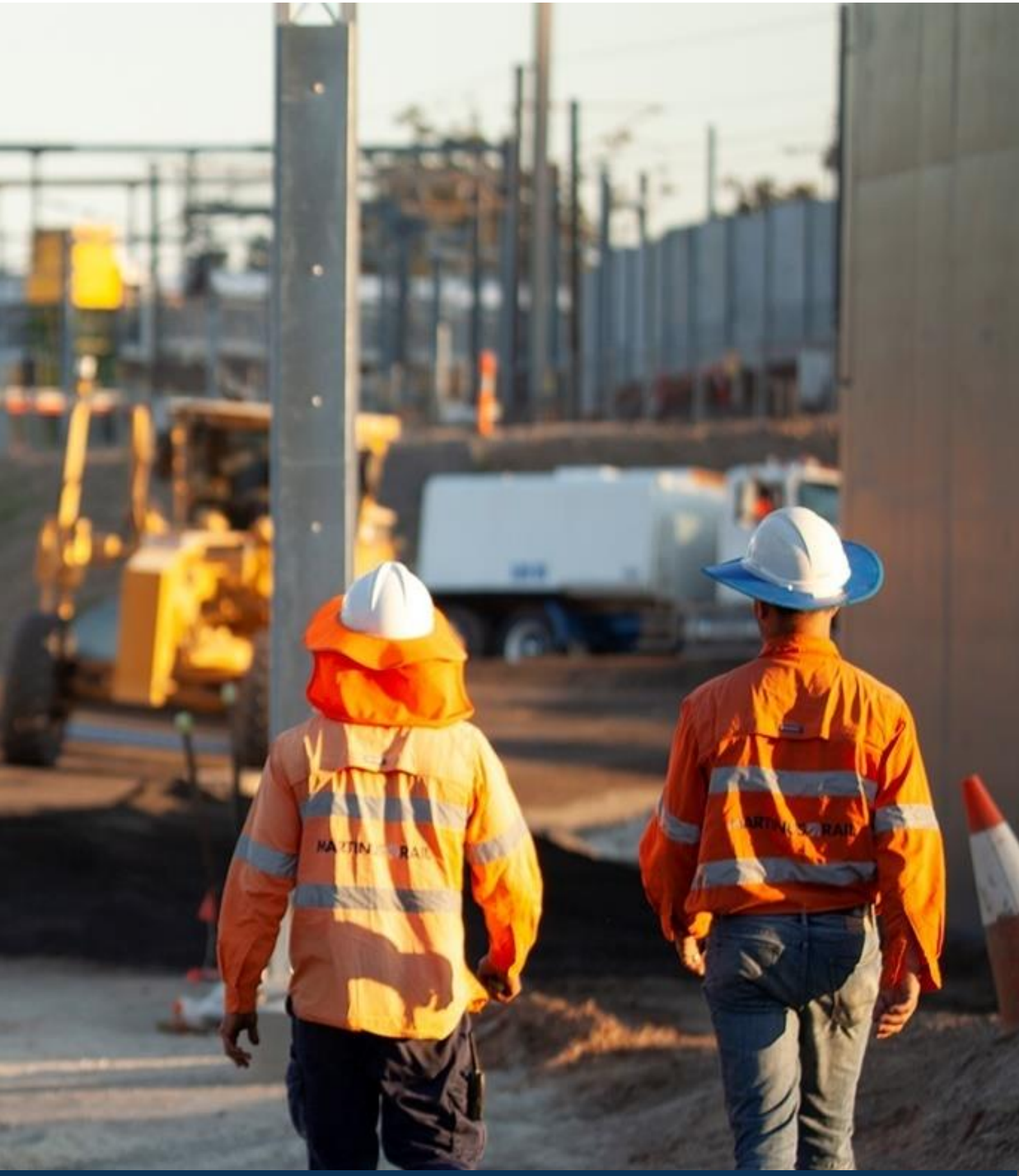
The MR ESM will be responsible for ensuring project environmental risks are identified and included in the risk register and appropriate mitigation measures implemented throughout the construction of the project as part of the continuous improvement process. The process for ongoing risk identification and management during construction is outlined in the CEMP.

8.2 Update and Amendment

The processes described in the CEMP may result in the need to update or revise this Plan.

Any revisions to this Plan will be in accordance with the process outlined in the CEMP.

A copy of the updated Plan and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure.



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