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MARTINUS INLAND RAIL



CONSTRUCTION FLOOD AND BUSHFIRE EMERGENCY MANAGEMENT PLAN - STAGE C

A2I | Albury to Illabo

CONTRACT NUMBER: 0052

PROJECT DOCUMENT NUMBER:

6-0052-210-PMA-00-PL-0031

Document Control

DOCUMENT TITLE:	Construction Flood and Bushfire Emergency Management Plan – Stage C			
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Revision History

REVISION	REVISION DATE	AMENDMENT	DATE TO CLIENT
A	18/09/2025	To consider Stage C	18/09/2025
0	23/09/2025	For ER approval	23/09/2025
0.1	06/05/2026	Periodic update for review	06/05/2026
1	07/08/2026	For Use	07/08/2026

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GLOSSARY

TERM	DEFINITION
AEP	Annual Exceedance Probability
ANZECC	Australian and New Zealand Environment and Conservation Council
APZ	Asset protection zone
ARM	Area Regional Manager
ARTC	Australian Rail Track Corporation
AWS	Australian Warning System
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)
BFRMP	Bush Fire Risk Management Plans
BoM	Bureau of Meteorology
CBMP	Construction Biodiversity Management Plan
CCS	Community Communication Strategy
CEMF	Construction Environmental Management Framework
CEMP	Construction Environmental Management Plan
CFBEMP	Construction Flood and Bushfire Emergency Management Plan – Stage C (this Plan)
CIZ	Construction Impact Zone
CMP	Construction Monitoring Program
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
CSEM	Community and Stakeholder Engagement Manager
CSSI	Critical State Significant Infrastructure
CSWMP	Construction Soil and Water Management Plan
CTTAMP	Construction Traffic, Transport and Access Management Plan
CWCHMMP	Construction Waste, Contamination and Hazardous Materials Management Plan
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DIPNR	Department of Infrastructure, Planning and Natural Resources
DPE	NSW Department of Planning and Environment (former)
DPHI	NSW Department of Planning, Housing and Infrastructure
DS	Discipline Superintendent

TERM	DEFINITION
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); ▪ Albury to Illabo Kemp Street Bridge Enhancement Site Modification (June 2025); ▪ Albury to Illabo Kemp Street Bridge Enhancement Site Modification Clarification (July 2025); ▪ Albury to Illabo Kemp Street Bridge Modification Noise and Vibration Impact Assessment (August 2025).
EIS	Environmental Impact Statement
Environmental Representative (ER)	The Environmental Representative(s) for the CSSI approved by the Planning Secretary in accordance with CoA A18
EM	Environmental Manager
EMP	Emergency Management Plan
EP&A Act	Environmental Planning and Assessment Act 1979 (NSW)
ERG	Emergency Response Guide
FFDI	Forest Fire Danger Index - A relative number denoting the potential rates of spread or suppression difficulty for specific combinations of temperature, relative humidity, drought effects and wind speed.
FDR	Fire Danger Rating. A relative class denoting the potential rates of spread or suppression difficulty for specific combinations of temperature, relative humidity, drought effects and wind speed, indicating the relative evaluation of fire danger. Forecast in classes as LOW, MODERATE, HIGH, VERY HIGH, SEVERE, EXTREME and CATASTROPHIC.
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.
GS	General Superintendent
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.)
Km	Kilometre
LEMO/REMO	Local Emergency Management Officer/Regional Emergency Management Officer
LEP	Local Environmental Plan
LGA	Local Government Area
M	Metre
MR	Martinus Rail
MR ESM	Martinus Rail Environment, Approvals and Sustainability Manager

TERM	DEFINITION
Nominated Site Representative	A person, normally a 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
OEH	Office of Environment and Heritage
PD	Project Director
PIR	Preferred Infrastructure Report
Planning Secretary	Secretary of the NSW Department of Planning, 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*
PSR	Project Scope and Requirements
RFS	NSW Rural Fire Service
SEARs	Secretary's Environmental Assessment Requirements
SES	State Emergency Services
SM	Safety Manager
SMART	Specific, Measurable, Achievable, Realistic and Timely
SS	Site Supervisor
SSI	State Significant Infrastructure
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 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.

A modification report (Kemp Street Bridge Enhancement Site Modification, Inland Rail June 2025) was prepared to revise the replacement road and pedestrian bridge arrangement over the railway line at the Kemp Street bridge enhancement site in Junee to now provide a combined single structure.

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);
- Albury to Illabo Kemp Street Bridge Enhancement Site Modification (June 2025);
- Albury to Illabo Kemp Street Bridge Enhancement Site Modification Clarification (July 2025);
- Albury to Illabo Kemp Street Bridge Modification Noise and Vibration Impact Assessment (August 2025).

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

The original approval for the project under the EP&A Act was granted by the Minister for Planning on 8 October 2024. The Modification was approved by the delegate of the NSW Minister for Planning and Public Spaces on 13 August 2025.

1.4 Scope of this Stage C 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 C 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 Stage C 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, contractor, sub-contractors, vendors and visitors 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. Wherever national, state, or local regulations or MR corporate health, safety, and environmental requirements differ from those described in this plan, the more stringent requirements shall apply.

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 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, enabling the project to be 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. In accordance with the CEMF, this plan will be provided to the ER for endorsement prior to submission to the Planning Secretary for approval. This Plan has therefore been prepared to address how Martinus Rail will manage potential flood and bushfire emergency impacts during construction of the third stage of the project – Stage C.

Stage C, as described in Section 2.1.5 of the Staging Report, will include demolition of the existing Edmondson Street bridge and construction of the new Edmondson Street bridge. Construction in Stage C will also comprise a continuation of activities started in Stage A, Stage B and/or Stage B2 and therefore works will be occurring at all enhancement sites during Stage C:

- Murray River bridge;
- Albury Station pedestrian bridge;
- Albury Yard clearances;
- Riverina Highway bridge;
- Billy Hughes bridge;
- Table Top Yard clearances
- Culcairn pedestrian bridge;
- Culcairn Yard clearances;
- Henty Yard clearances
- Yerong Creek Yard clearances
- The Rock Yard clearances;
- Uranquinty Yard clearances;

- Pearson Street bridge;
- Cassidy Parade pedestrian bridge;
- Edmondson Street bridge;
- Wagga Wagga Station pedestrian bridge;
- Wagga Wagga Yard clearances;
- Bomen Yard clearances;
- Harefield Yard clearances;
- Kemp Street bridge;
- Junee pedestrian bridge;
- Junee Yard clearances; Olympic Highway underbridge;
- Junee to Illabo clearances.

This plan applies to the entirety of Stage C.

Construction work during Stage C will generally include:

- Pre-construction activities that have not commenced before the approval of the CEMP;
- Utility works and drainage works;
- Site establishment and operation;
- Traffic management and access, including material haulage;
- Clearing, grubbing and topsoil strip;
- Earthworks including preparation of pads and stockpiling;
- Track work including realignment and lowering;
- Rail bridge works;
- Road and pedestrian bridge works, including demolition;
- Level crossing works;
- Gantry and signalling work;
- Finishing works.

1.5 Interactions with other management 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 Construction Waste Contamination and Hazardous Materials Management Sub-plan (CWCHMMP) addresses the management of contaminated land, hazardous materials, and unexpected contaminated finds;
- The Construction Biodiversity Management Sub-plan (CBMP) addresses the management of flora and fauna;
- The Construction Traffic, Transport and Access Management Sub-plan (CTTAMP) addresses the management of access impacts during construction;
- The 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.
- The Emergency Management Plan (Document No. 5-0052-214-PMA-00-PL-0037) outlines the broader project-wide emergency response framework, including roles, communication protocols, and escalation pathways. This Flood and Bushfire Emergency Management Plan has been developed to align with the Emergency Management Plan and provides additional controls specific to flood and bushfire risk scenarios. Refer to Section 6.3.1 for further detail on the interface between these two documents.

1.6 Consultation

1.6.1 Consultation for this plan

In accordance with CoA C6(e), this Plan will be 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 Shire Council.

Consultation with stakeholders was undertaken during the development of the Stage A Plan. Feedback was provided during the Stage A consultation period from Junee Shire Council, the Hume Zone Bushfire Management Committee and the Riverina Zone Bushfire Management Committee. The key issues raised related to the onsite management of works, pre-emptive bushfire management measures, safety alert systems, the existing environment information presented in the EAD, and suggestions for bushfire management controls. The feedback was reviewed, the plan was updated, and responses were issued to stakeholders to close out the consultation process. It is noted that ongoing consultation will continue as outlined in Section 1.6.2.

Consultation was also undertaken during the development of the Stage B CFBEMP. The CFBEMP was provided to nominated stakeholders on 04 March 2025 and consultation closed on 24 March 2025. Feedback was received from BMC, DCCEEW, Albury City Council, Greater Hume Shire Council, Junee Shire Council and Lockhart Shire Council. If additional comments are received, they will be incorporated into subsequent revisions of the plan.

No further consultation was undertaken during the development of the Stage C CFBEMP as the demolition of the Edmondson Street bridge was original included in the scope of the Stage B CFBEMP when the plan was provided to stakeholders.

The consultation report prepared for the Stage B CFBEMP 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 B

Stakeholder	Dates	Feedback provided	How addressed
SES	N/A	Not yet received directly from SES, but one comment provided via DCCEEW.	N/A
Hume Zone Bushfire Management Committees Riverina Zone Bushfire Management Committees	04/03/2025 29/04/2025	▪ The bush fire danger period for the Riverina Bush Fire Management Committee is on a permanent variation from 1 Nov to 31 March each year. ▪ Appears that all relevant pain points have been met. ▪ If more official approval is required, the plan can be tabled as general business. ▪ The plan was scheduled to be tabled at the March meeting. However, later correspondence stated that it had been referred to in the correspondence register with a brief overview of the plan provided to members, which was not recorded in the meeting minutes. BFMC confirmed that they had no further feedback other than what had already been supplied.	▪ Table 5 updated with the nominated months. ▪ N/A
DCCEEW	19/03/2025	A summary of key comments provided: ▪ The plan is generic and lacks maps/plans ▪ No specific measures to satisfy CoA C14a). Recommend the inclusion of maps at each site showing the emergency evacuation routes to be used for bushfire and/or flood	A summary of responses to key comments: ▪ Additional information has been included throughout the plan, including figures in Section 4 and additional detail in Appendix B, Appendix C and Appendix D.

Stakeholder	Dates	Feedback provided	How addressed
		▪ Is the plan consistent with the local DISPLAN ▪ No bushfire relevant performance outcome ▪ Consideration should be given to creating a more site-specific approach for sites that are more at risk of flooding, are more likely to suffer greater impacts, or where works will occur over a longer time period. ▪ An example or typical flood emergency response plan should be provided as an appendix or for information. ▪ What measures are in place at a site level to clearly delineate responsibility? ▪ SES feedback: does not appear to have any specific emergency management details for the project, and for the response of the NSW SES.	▪ Additional information is now included in Section 6.1.1 and 6.2.1. Maps showing site access and egress are included in Appendix D. ▪ The CFBEMP has been written to provide a framework to reduce the risk of flood or bushfire impacts during construction. It is not intended to collate or supersede existing local documentation, including DISPLANs. Evacuation routes, where available, have been identified in Table 14. The project will follow the advice and guidance of the relevant emergency management authorities in the event of a flood or bushfire. ▪ The performance outcome in Section 2.4 has been updated to include 'bushfire events'. ▪ Section 6.2.4 has been updated to include relevant information. A site specific flood preparation plan (Appendix C) will be prepared for sites located on flood-prone land. ▪ Site-specific flood preparation plans will be prepared for all enhancement sites located on flood-prone land. The site-specific flood preparation plan template is included in Appendix C. ▪ Refer to Section 7.1. Specific responsibilities have been included within Section 6.1.8, Section 6.2.5 and Section 6.4. ▪ The plan was issued to SES via email. Various updates have been made to the plan to provide more specific details regarding emergency management, including Appendix B, Appendix C and Appendix D.

Stakeholder	Dates	Feedback provided	How addressed
Wagga Wagga City Council	N/A	Not yet received	N/A
Albury City Council	10/03/2025 20/05/2025	A summary of key comments provided: ▪ Albury City Local Flood Emergency Sub Plan was updated and endorsed by the NSW SES in 2023, I believe this document needs to be included as part of this plan. ▪ We would like to highlight Part 7.5 Development on river front areas, within our LEP 2010, specifically 7.5.2.b. It would be good to explicitly address this clause as part of these comments. How will the works adhere to the LEP? ▪ Ensure all works maintain predevelopment flows and have no impact on existing Council maintained infrastructure ▪ Land is historically subject to flooding due to proximity to river	A summary of key responses provided: ▪ This document has been added to the list of references in Section 3.2. ▪ As CSSI, environmental planning instruments (including local environmental plans) do not apply to or in respect of the project. The project will have regard to the following guidelines that have similar objectives to Part 7.5 of the Albury LEP: ▪ Guidelines for controlled activities on waterfront land (Department of Primary Industries (DPI), 2012b); ▪ Guidelines for developments adjoining land and water (OEH, 2013b); ▪ Permanent impacts on flooding are addressed in the Flood Design Reports which are presented to Council for review and comment. ▪ Section 6.2.2 identifies how the layout of construction sites and ancillary facilities would be carried out to minimise impacts on overland flow paths and flooding risks. ▪ Table 7 has been updated to include reference to Townsend Street / Abercorn Street being subject to flooding.
Greater Hume Shire Council	23/04/2025	Council confirmed they had no comments on the plan.	N/A
Junee Shire Council	20/05/2025	A summary of key comments provided: ▪ A clear timeline of works is needed so the impact of the works can be determined ▪ Consultation summary should include Local Emergency Management Committees and	A summary of key responses provided: ▪ High-level indicative program was provided via email. This is subject to regular updates and should not be relied on.

Stakeholder	Dates	Feedback provided	How addressed
		the REMO. No Local Emergency Management Plans have been added. ▪ Project staff are unable to use council evacuation centres in the event of an emergency ▪ Historic bushfires in Junee have been grass fires, outside bushfire prone land. No consideration of this is outlined. ▪ Hot works must not be undertaken in the Fire Danger Period unless written approval from RFS is provided. No work should be undertaken on Total Fire Ban Days. ▪ Temporary redistribution of overland flows and stormwater needs to be defined clearly. ▪ Clear guidance around how emergency declaration is not included. In the event of an emergency what will the actions be on-site?	▪ Stakeholders consulted are in accordance with CoA C6(e). The CFBFEMP can be sent to additional stakeholders for consultation once the contact details are provided by Junee Council. Section 6.3.2 outlines the project personnel emergency response and evacuation routes, which is based on the relevant LGA's Local Flood Plan. ▪ Section 6.3.2 and Table 10 have been updated to include information on the emergency response and evacuation plan. This includes a statement that council-managed evacuation centres are not available to project personnel. ▪ Table 8 has been added which outlines fire preparedness in relation to the FFDI, including requirements for low fire danger areas. ▪ Table 9 has been added which outlines total fire ban preparedness. Martinus Rail has received a standing TOBAN exemption, refer to Section 6.1.5.3. ▪ Table 10, Table 13 and Section 6.3.2 include information regarding the response during an emergency event which includes a statement that project personnel will follow the advice of relevant authorities. ▪ Construction planning (Section 6.2.2) will seek to minimise redistribution of overland flows and stormwater. ▪ Site-specific flood preparation plans will be prepared for enhancement sites located in flood-prone land will be prepared prior to commencement of construction at these sites. The example

Stakeholder	Dates	Feedback provided	How addressed
			template is included as Appendix C.
Lockhart Shire Council	04/04/25	General comment regarding provision of notifications to Lockhart Shire Council. No specific comments on the CFBEMP.	Updates/notifications to be shared with Council. No updates required for this CFBEMP.

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

This plan has been prepared to satisfy CoA C14 and includes information that has been provided by the Martinus Safety Team at the time of writing. In the event of an emergency, directions from local and state emergency services should be followed.

In accordance with CoA C4, CEMP(s) (and relevant CEMP sub-plans) requiring the Planning Secretary's approval will be endorsed by the ER and then submitted to the Planning Secretary for approval no later than one (1) month before the commencement of Stage C construction.

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 approved by the Planning Secretary, including any minor amendments approved by the ER, will be implemented for the duration of Stage C 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 C 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 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 C 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 bushfire events and 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. Implement the CTTAMP.

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

3.1 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.

3.2 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 C 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);
  - Albury City Local Flood Emergency Sub Plan (NSW SES, 2023);
  - 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);
  - 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;
- Draft Bushfire Policy for Land Use Planning (DPHI, 2024);
- Draft (updated) Local Planning Direction 4.3, Planning for Bushfire Protection (DPHI, 2024);
- Draft (updated) Bushfire Planning System Circular (DPHI, 2024)
- 10/50 Vegetation Clearing Code of Practice for New South Wales (NSW RFS, 2015);
- Local Government Areas FDI, (NSW RFS, 2017);
- Bushfire Environmental Assessment Code (NSW RFS, July 2021);
- Bushfire Environmental Assessment Code – Supporting Document: Burning Adjacent to Powerline
- Guidelines (NSW RFS, July 2021).
- Fire Trail Standards, v2.0 (NSW RFS, November 2023;
- Planning for Bushfire Protection Addendum (NSW RFS, November 2022).

3.3 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 design considerations and have therefore been managed 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>C7</td><td>The CEMP Sub-plans must state how:</td><td>-</td></tr>
</table>

No.	Requirement	Where addressed
	a) the environmental performance outcomes identified in the documents listed in Condition A1 will be achieved;	Section 2.4
	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 3.3 Section 3.4
	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 6.1.1 Section 6.2.1 Section 6.3
	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 6.2 Section 6.1 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 6.2.2
E42	The CSSI must be designed and constructed to limit impacts on flooding characteristics in areas outside the project boundary during any flood event up to and including the 1% AEP flood event, to the following: (a) a maximum increase in inundation time of one hour, or 10%, whichever is greater; (b) a maximum increase of 10 mm in above-floor inundation to habitable rooms where floor levels are currently exceeded; (c) no above-floor inundation of habitable rooms which are currently not inundated;	Section 6.2.2 (for construction) The permanent design will be assessed through the updated flood modelling (CoA E40) and flood

No.	Requirement	Where addressed
	(d) a maximum increase of 50 mm in inundation of land zoned as residential, industrial or commercial; (e) a maximum increase of 100 mm in inundation of land zoned as environment zone or public recreation; (f) a maximum increase of 200 mm in inundation of land zoned as rural or primary production, environment zone or public recreation; (g) no increase in the flood hazard category or risk to life; and (h) maximum relative increase in velocity of 10%, or to 0.5m/s, whichever is greater, unless adequate scour protection measures are implemented and/or the velocity increases do not exacerbate erosion as demonstrated through site-specific risk of scour or geomorphological assessments. Where the requirements set out in clauses (d) to (f) inclusive cannot be met, alternative flood levels or mitigation measures must be agreed to with the affected landowner.	design reports (CoA E43).

3.4 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.

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 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.	This Plan Section 6.2.2
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

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 C enhancement sites to bushfire-prone land (NSW Rural Fire Service, 2021). These areas are shown in the maps contained in Figure 1 to Figure 13. No figures have been included where bushfire-prone areas are greater than 800m from the enhancement sites.

These maps classify the vegetation into three categories based on vegetation types and potential risk as follows:

- Vegetation Category 1: Considered to be the highest risk for bush fire. This is represented as red on the maps and has a 100m buffer zone;
- Vegetation Category 2: Considered to be a lower bush fire risk than Category 1 and Category 3 but higher than the excluded areas. It is represented as light orange on the maps and has a 30m buffer zone;
- Vegetation Category 3: Considered to be a medium bush fire risk. It is represented as dark orange on the maps and has a 30m buffer zone;
- Vegetation Category 0: Adjoining area that is determined to act as a buffer to the relevant vegetation category.

Several 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

Precinct	Enhancement Site	Indicative Proximity to bushfire prone land	BFMCMPs	Bush Fire Danger Period (per BFMCMPs)
Albury	Murray River bridge	Within the proposal site	Riverina	November to March
	Albury Station pedestrian bridge	200 m	Riverina	November to March
	Albury Yard clearances	800 m	Riverina	November to March
	Riverina Highway bridge	600 m	Riverina	November to March
	Billy Hughes bridge	Within the proposal site	Riverina	November to March
	Table Top Yard clearances	Within the proposal site	Riverina	November to March
Greater-Hume Lockhart	Culcairn pedestrian bridge	260 m	Hume Zone	November to March
	Culcairn Yard clearance	400 m	Hume Zone	November to March
	Henty Yard clearances	20m	Hume Zone	November to March
	Yerong Creek Yard clearances	450 m	Riverina	November to March
	The Rock Yard clearances	Within the proposal site	Riverina	November to March
Wagga Wagga	Uranquinty Yard clearances	Within the proposal site	Riverina	November to March
	Pearson Street bridge	200 m	Riverina	November to March

Precinct	Enhancement Site	Indicative Proximity to bushfire prone land	BFMCMPs	Bush Fire Danger Period (per BFMCMPs)
	Cassidy Parade pedestrian bridge	1000 m	Riverina	November to March
	Edmondson Street bridge	600 m	Riverina	November to March
	Wagga Wagga Station pedestrian bridge	80 m	Riverina	November to March
	Wagga Wagga Yard clearance	250 m	Riverina	November to March
	Bomen Yard clearances	Within the proposal site	Riverina	November to March
Junee	Harefield Yard clearances	1.0 km	Riverina	November to March
	Kemp St bridge	900 m	Riverina	November to March
	Junee Station pedestrian bridge	800 m	Riverina	November to March
	Junee Yard clearances	1.0 km	Riverina	November to March
	Olympic Highway underbridge	1.5 km	Riverina	November to March
	Junee to Illabo clearances	2.8 km	Riverina	November to March

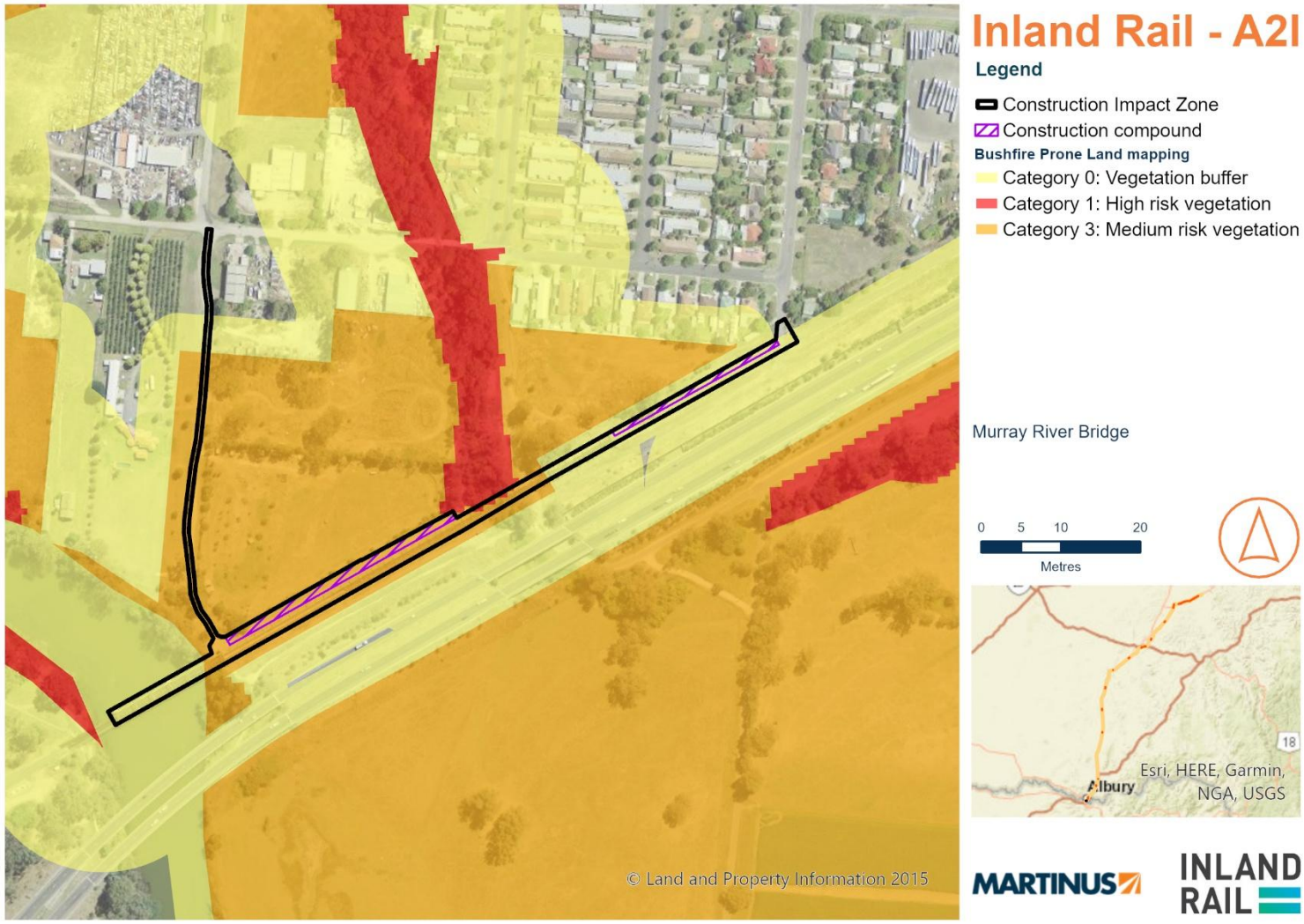


FIGURE 1 BUSHFIRE PRONE LAND - MURRAY RIVER BRIDGE

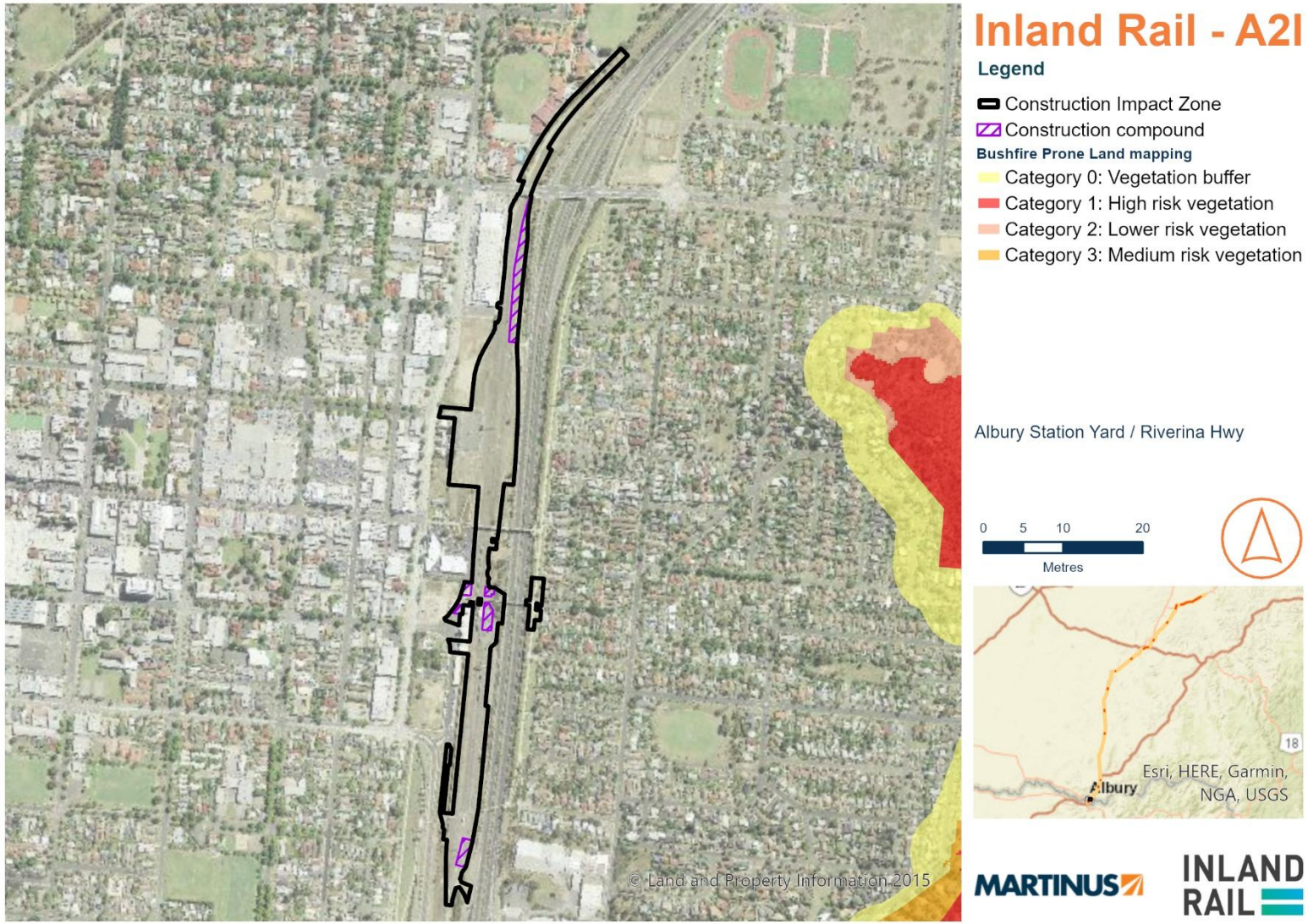


FIGURE 2 BUSHFIRE PRONE LAND - ALBURY STATION AND SURROUNDS

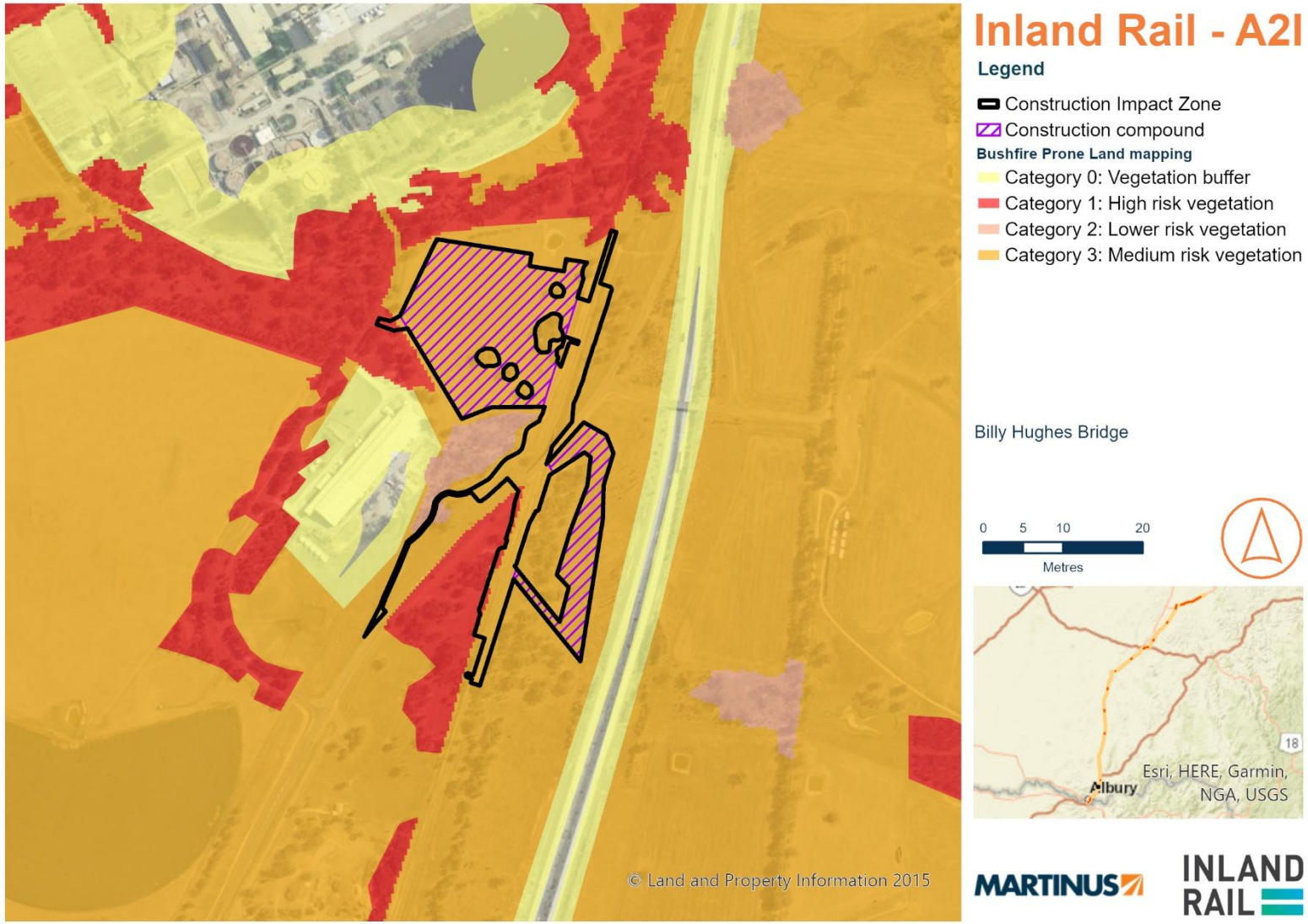


FIGURE 3 BUSHFIRE PRONE LAND - BILLY HUGHES BRIDGE

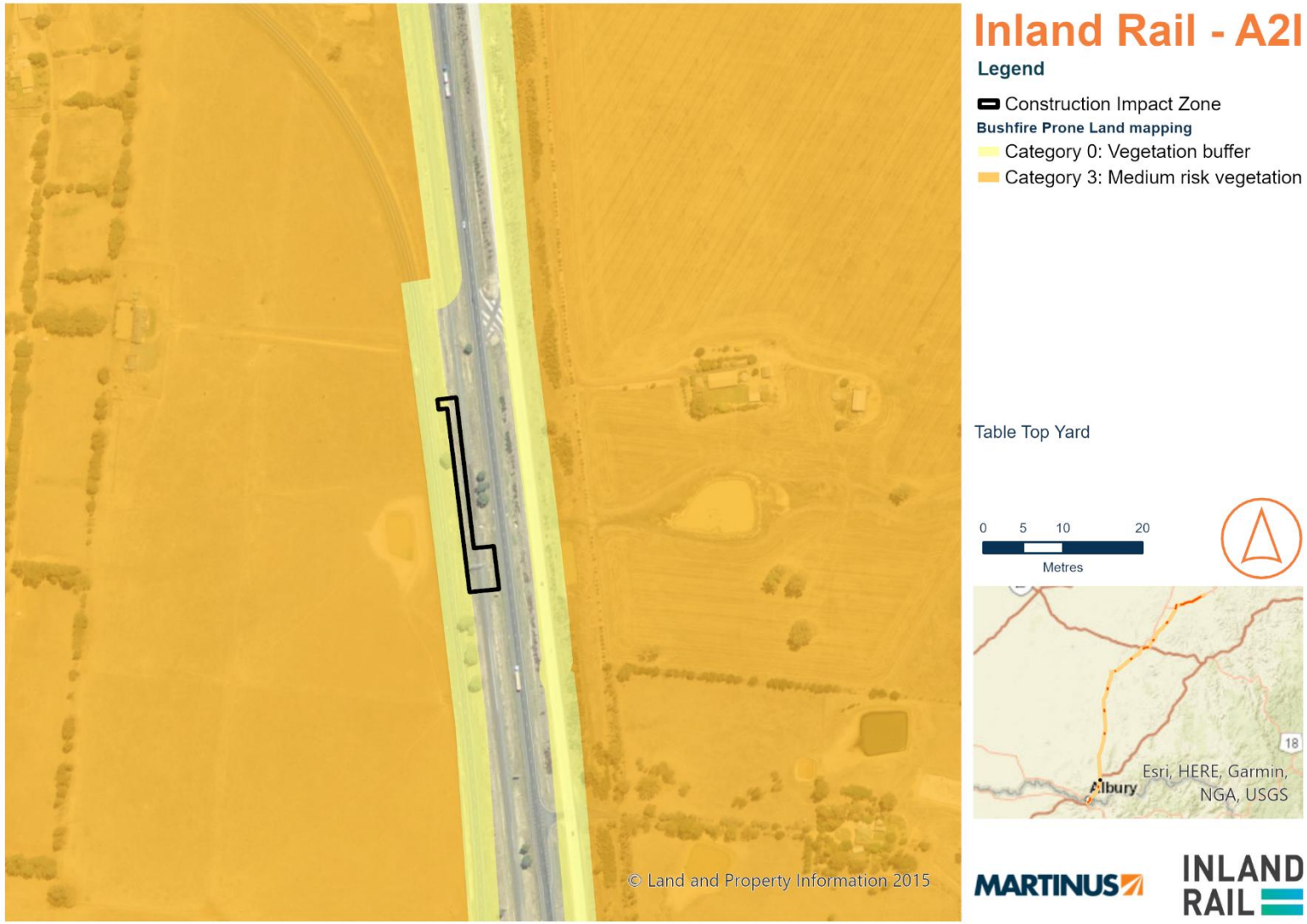


FIGURE 4 BUSHFIRE PRONE LAND - TABLE TOP YARD

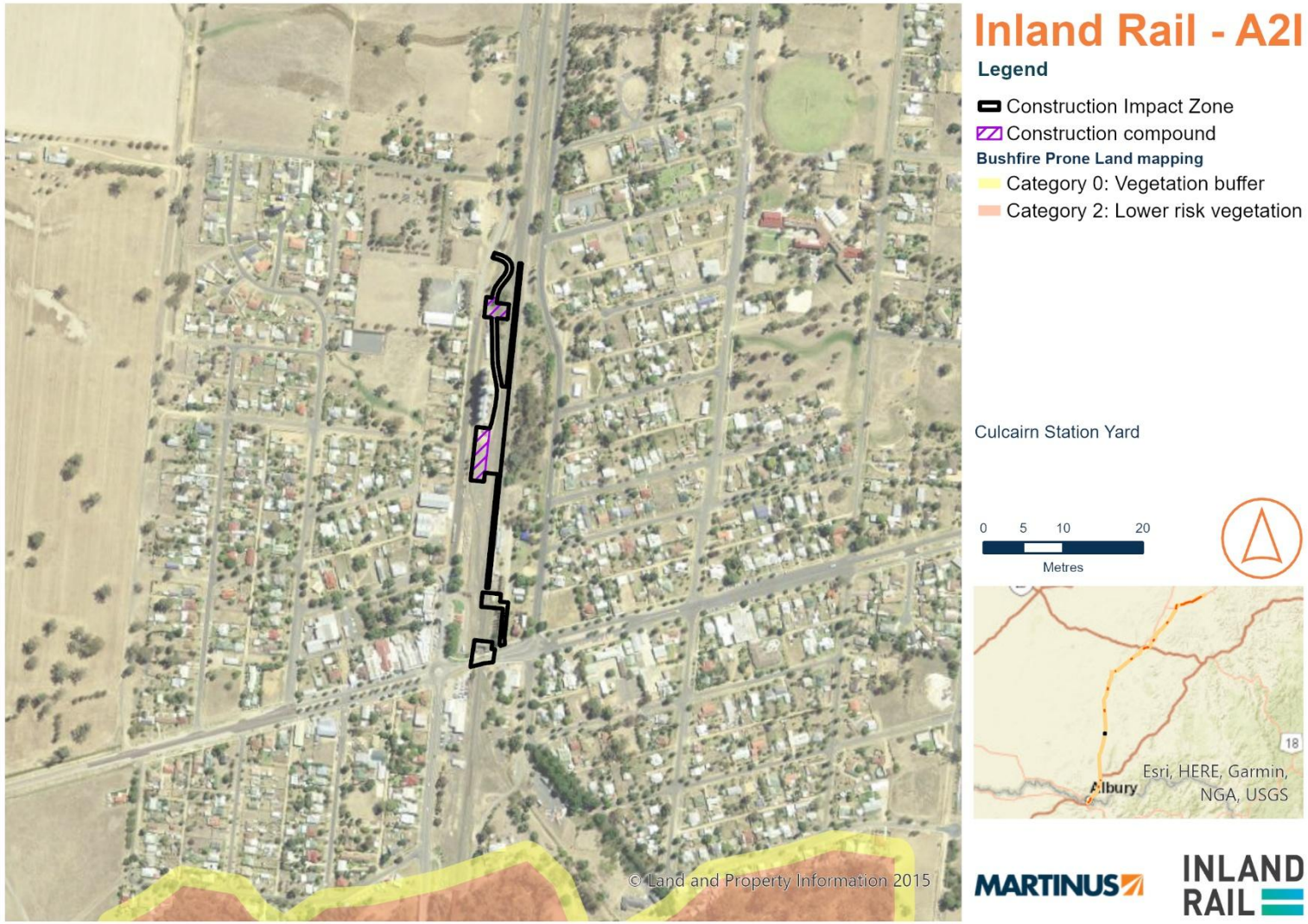


FIGURE 5 BUSHFIRE PRONE LAND - CULCAIRN

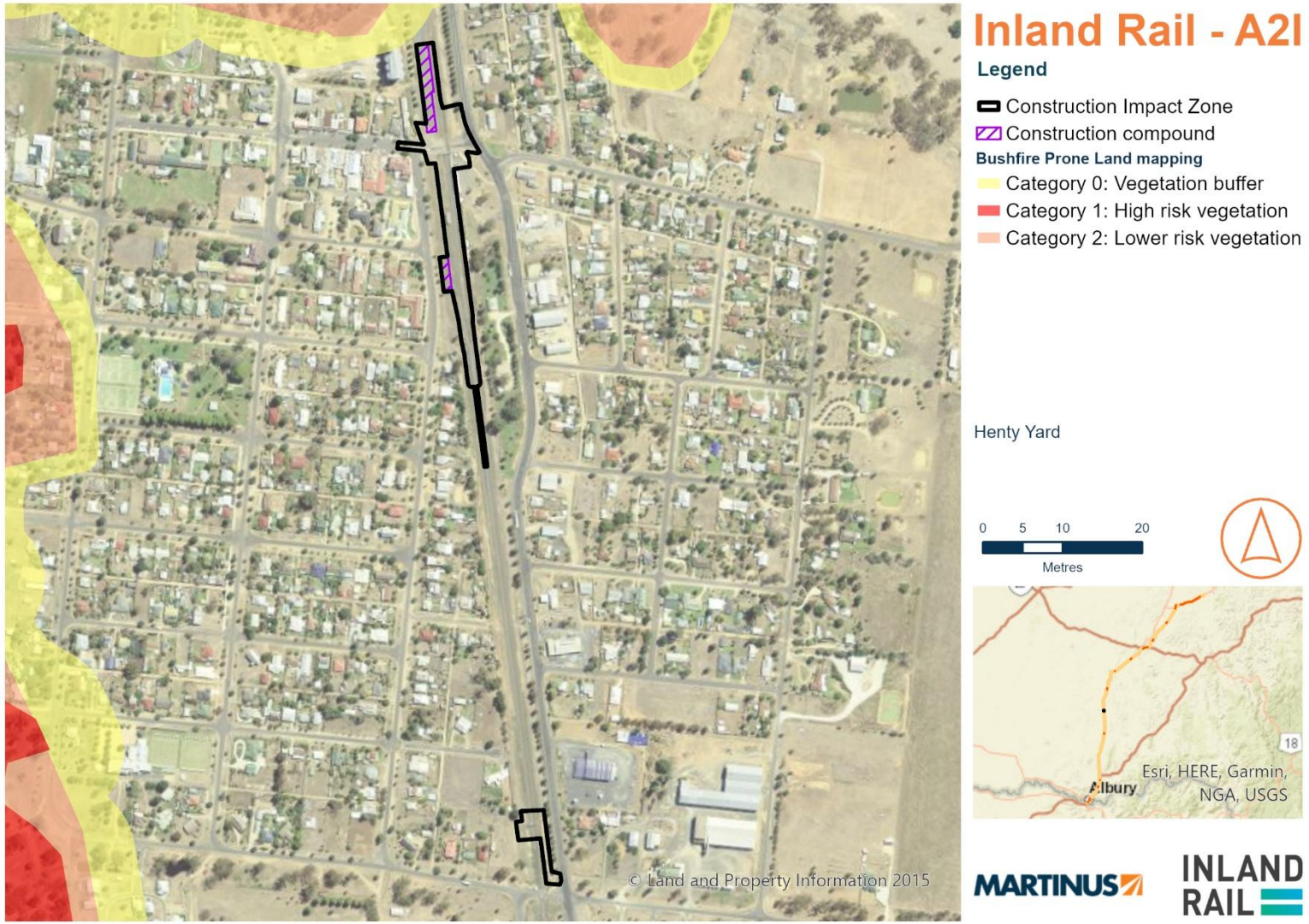


FIGURE 6 BUSHFIRE PRONE LAND - HENTY YARD

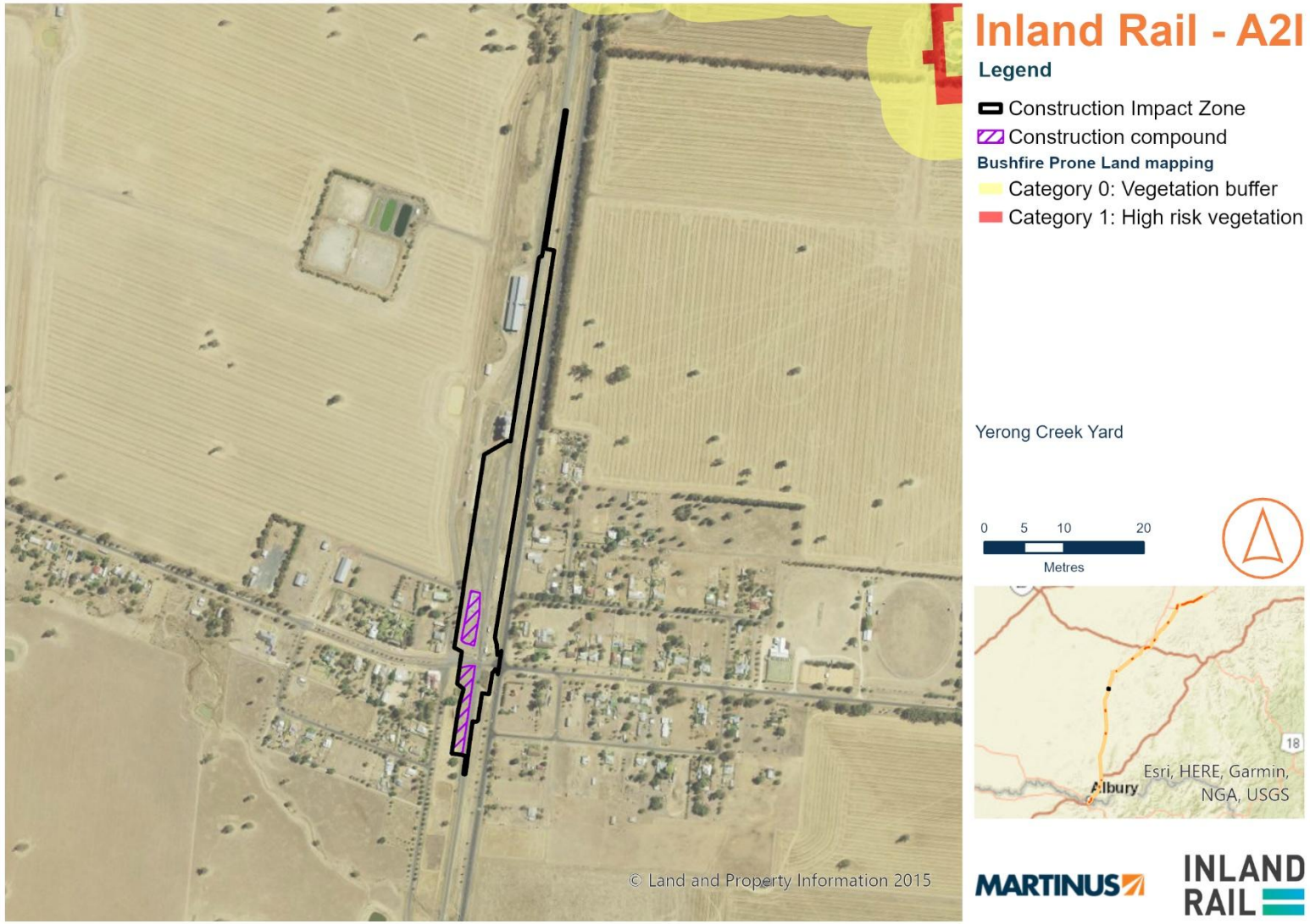


FIGURE 7 BUSHFIRE PRONE LAND – YERONG CREEK

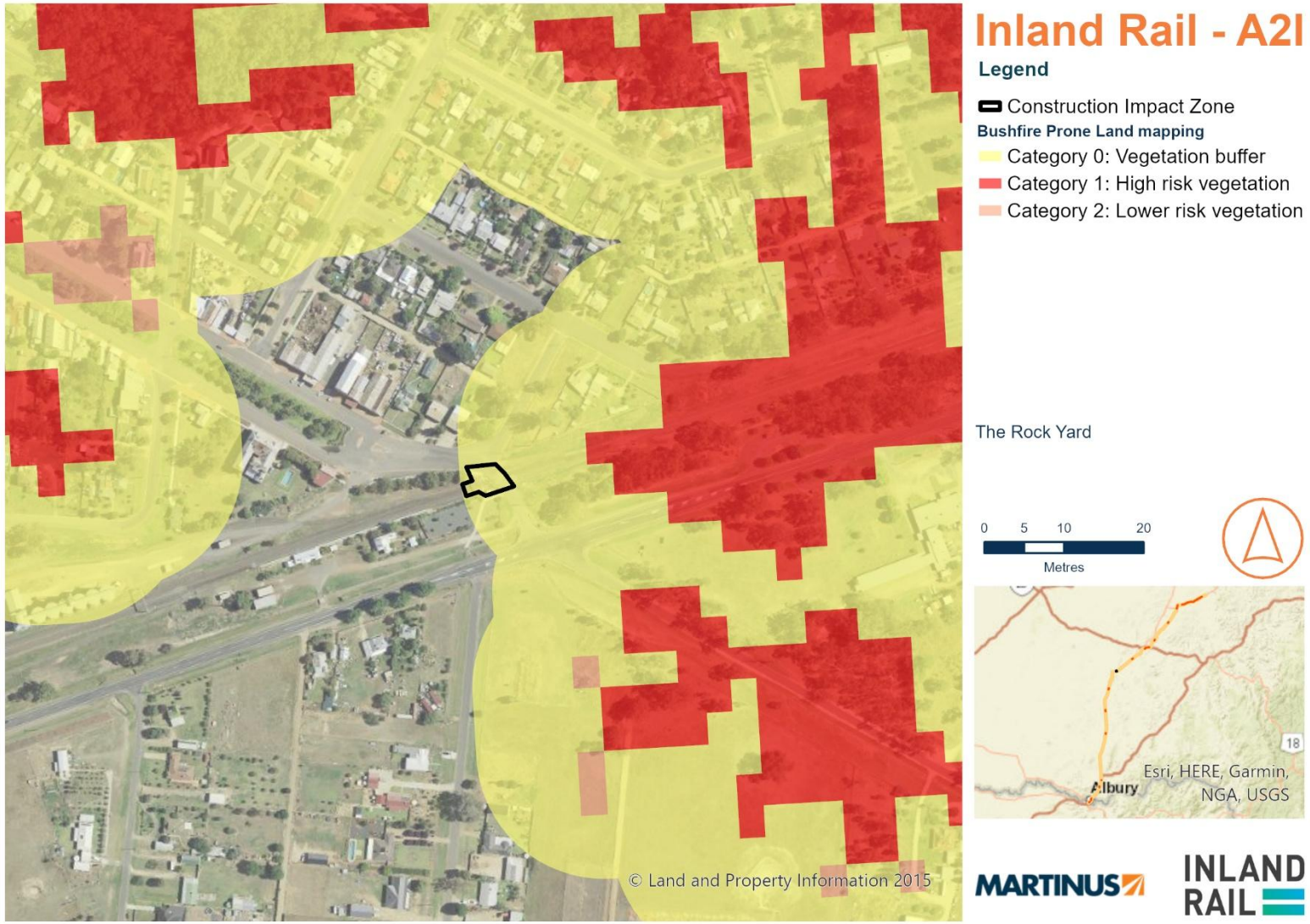


FIGURE 8 BUSHFIRE PRONE LAND - THE ROCK

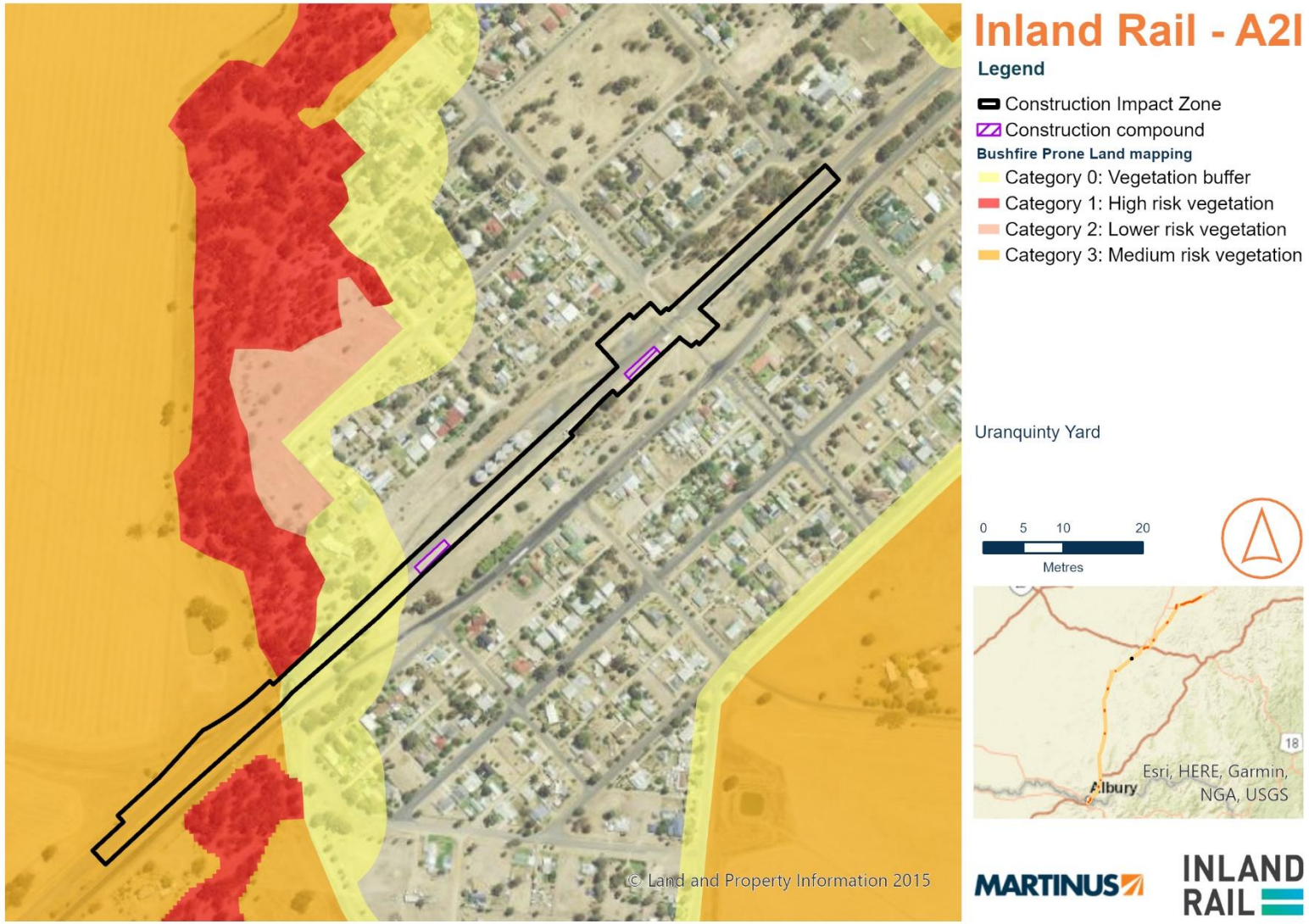


FIGURE 9 BUSHFIRE PRONE LAND - URANQUINTY

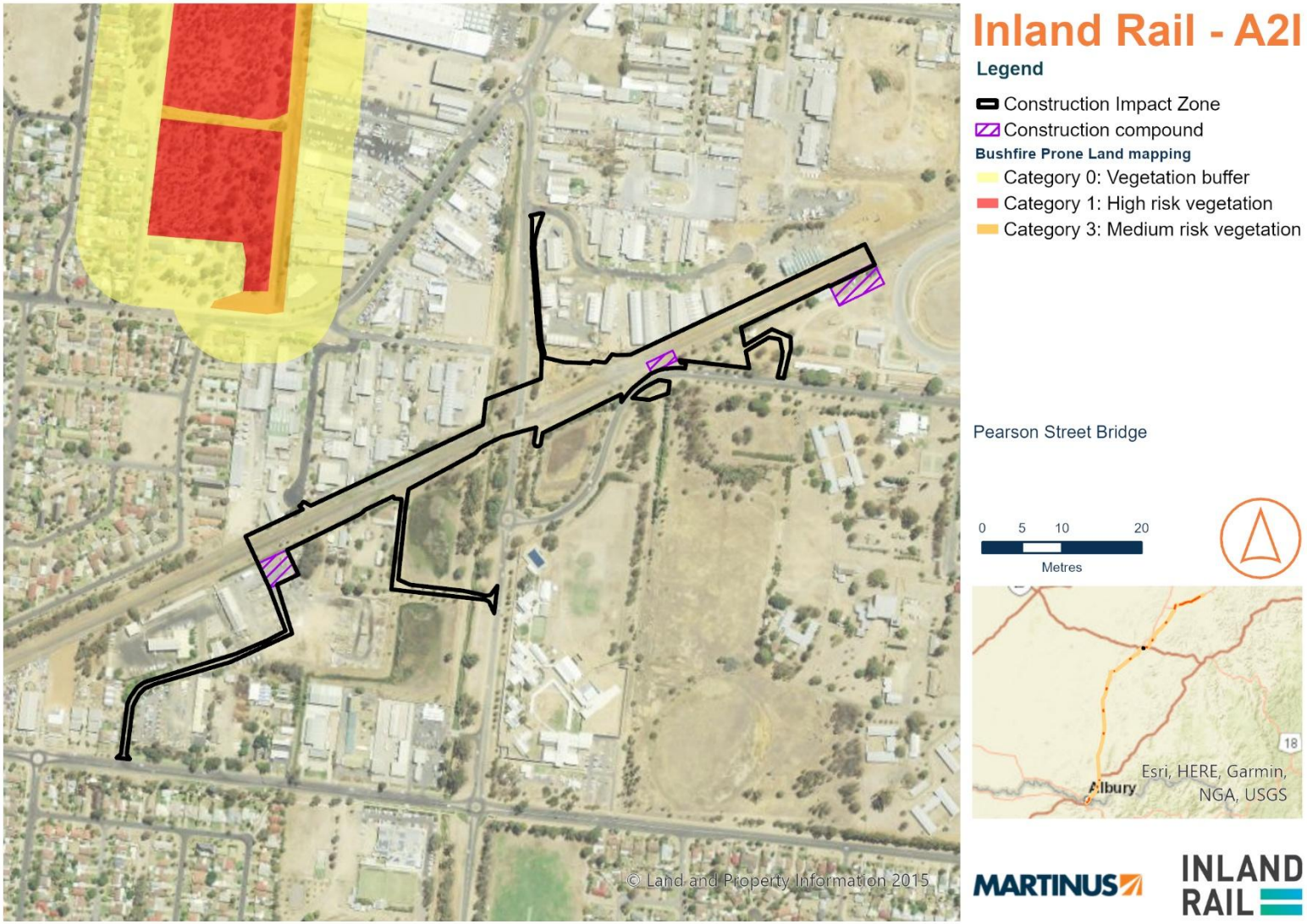


FIGURE 10 BUSHFIRE PRONE LAND - PEARSON ST BRIDGE

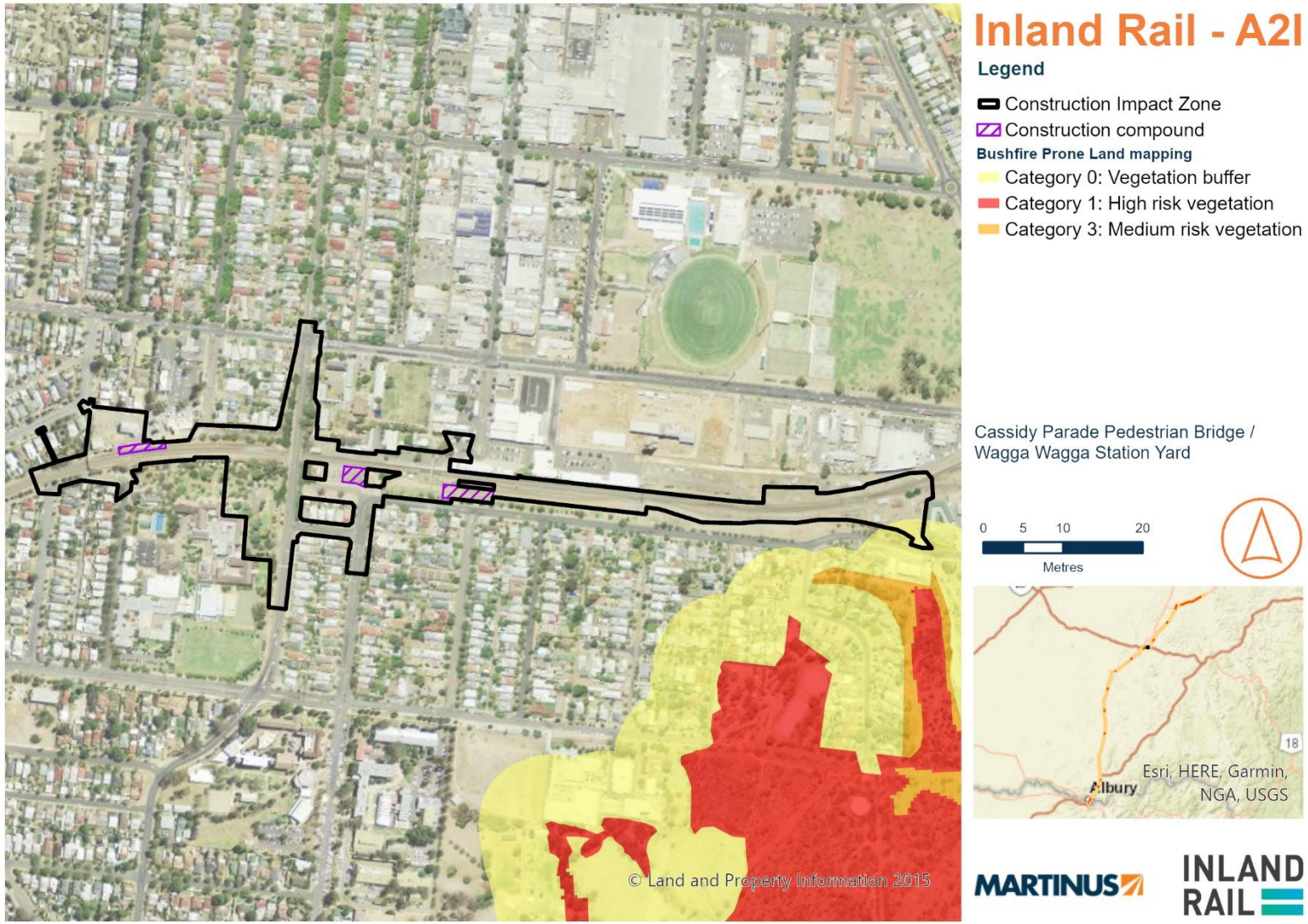


FIGURE 11 BUSHFIRE PRONE LAND - WAGGA WAGGA AND SURROUNDS

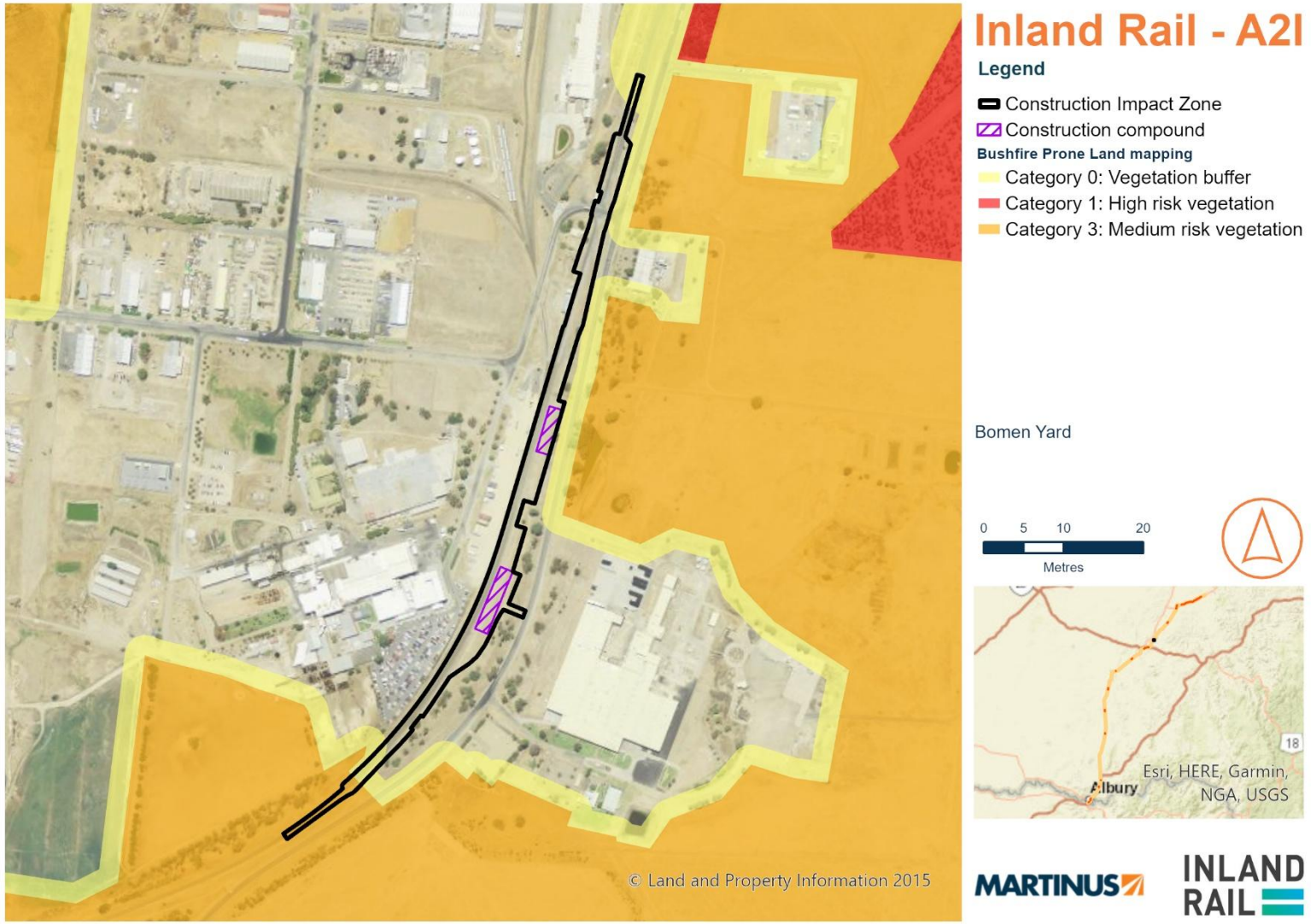


FIGURE 12 BUSHFIRE PRONE LAND - BOMEN YARD



FIGURE 13 BUSHFIRE PRONE LAND - HAREFIELD

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. Flood prone land is defined as land susceptible to flooding by the probable maximum flood (PMF). Flood prone land is shown in Figure 14 to Figure 25.

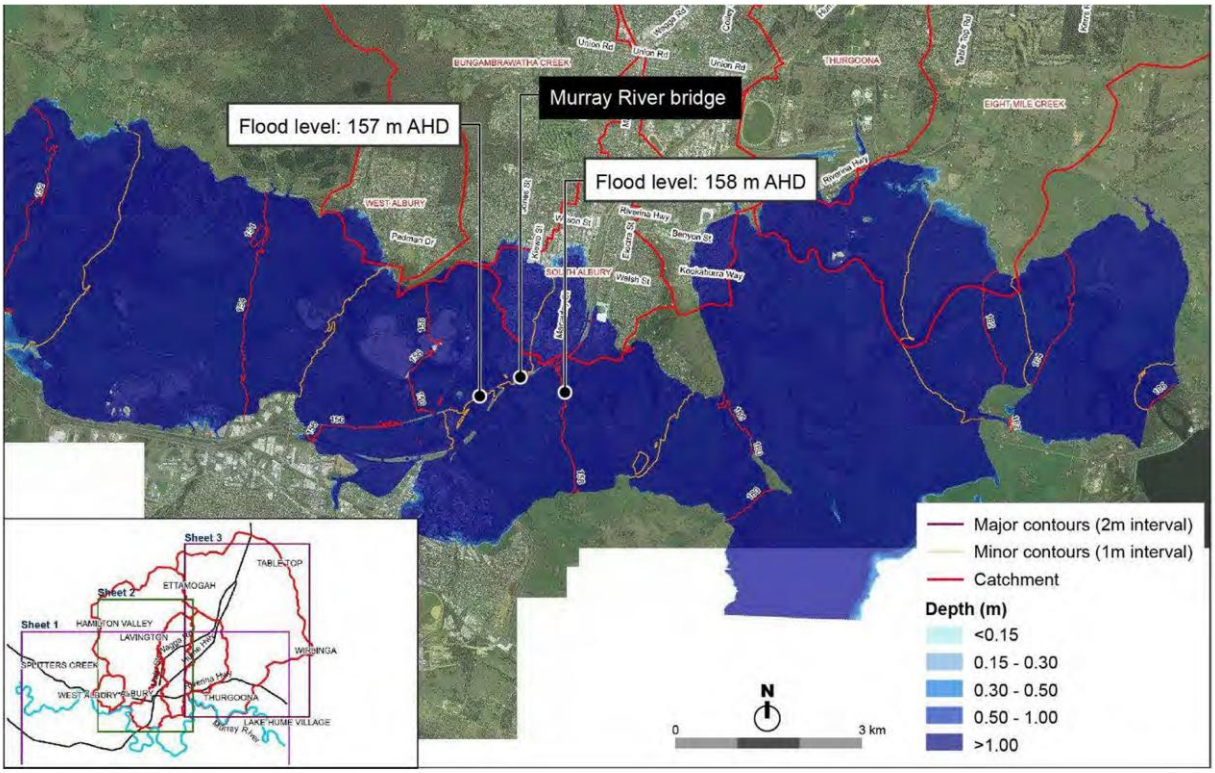
The existing flood conditions for each precinct relevant for Stage C are provided in Table 6. The information within Table 6 has and will continue to be reviewed and updated (where relevant) as modelling under CoA E40 is undertaken.

TABLE 6: EXISTING FLOODING CONDITIONS PER THE EAD

Enhancement site	Key features – Stage C	Existing flood conditions	Flood risk within and around the enhancement site for events up to the 1% AEP	PMF flood depth
Albury Precinct				
Murray River bridge	▪ Rail bridge alterations	▪ Located within the Murray River floodplain ▪ No flood impacts within the rail corridor ▪ Consultation with Albury City Council indicates that Townsend Street / Abercorn Street is historically subject to flooding due to its proximity to the river.	Not affected	Less than 0.5 m
Albury Station pedestrian bridge	▪ Pedestrian bridge replacement (of section over the rail corridor) and adjustments to the ramps on the eastern section of the bridge near Kenilworth Street	▪ Overland flooding within the rail corridor in the PMF. ▪ Peak flood depth of 1m within the rail corridor in the PMF.	Not affected	Greater than 1 m
Albury Yard clearances	▪ Track realignment			
Riverina Highway bridge	▪ Track lowering and realignment	▪ Overland flooding within the rail corridor from the 20% AEP. ▪ Flood depth of 0.2-0.3 m within the rail corridor in the 1% AEP. ▪ Overland flows from the culverts spill into the rail corridor and follow the terrain slope.	20% AEP and greater events	Greater than 1 m
Billy Hughes bridge	▪ Track lowering and realignment	▪ No flood impacts within the rail corridor	Not affected	Up to 1 m

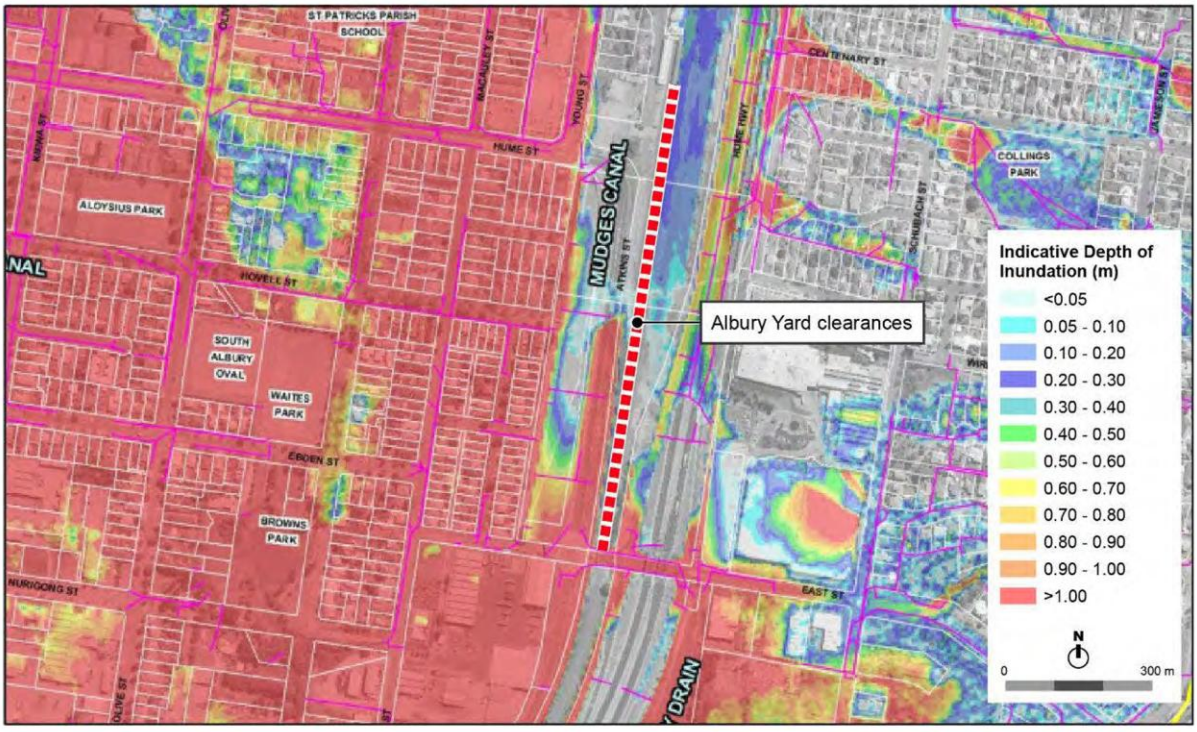
Enhancement site	Key features – Stage C	Existing flood conditions	Flood risk within and around the enhancement site for events up to the 1% AEP	PMF flood depth
Table Top Yard clearances	▪ Gantry removal	▪ Not located on flood-prone land	Not affected	Not affected
Wagga Wagga Precinct				
Uranquinty Yard clearances	▪ Track realignment ▪ Rail bridge alterations ▪ Level crossing modifications	▪ Located within Sandy Creek floodplain ▪ Overland flooding depth of 0.5–1 m within the rail corridor in the 1% AEP	1% AEP	Greater than 1 m
Pearson Street bridge	▪ Track lowering and realignment	▪ Overland flooding depth of up to 1m within the rail corridor to the west of the rail line from Glenfield Drain in the 1% AEP	Not affected	Up to 0.7m in overland flooding events. Not affected by Murrumbidgee River flooding
Cassidy Parade pedestrian bridge	▪ Pedestrian bridge replacement	▪ Overland flooding within the rail corridor ▪ Peak flood depth of 0.150.3 m within the rail corridor in the 1% AEP ▪ Rail corridor within the study area categorised as 'flood storage' and 'floodway' in the 1% AEP.	5% AEP and greater events	Greater than 0.75 m in overland flooding events Not affected by Murrumbidgee River flooding
Edmondson Street bridge	▪ Road bridge replacement			
Wagga Station pedestrian bridge	▪ Pedestrian bridge replacement			
Wagga Yard clearances	▪ Track realignment			
Bomen Yard clearances	▪ Track realignment ▪ Level crossing modifications	▪ Overland flooding within the rail corridor in the vicinity of the level crossing at Bomen Road ▪ Peak flood depth of 0.15 m within the rail corridor in the 1% AEP.	20% AEP and greater events	Greater than 0.75 m
Greater Hume-Lockhart precinct				
Culcairn pedestrian bridge	▪ Pedestrian bridge removal	▪ Overland flooding adjacent to the rail corridor	Not affected	1 to 2 m

Enhancement site	Key features – Stage C	Existing flood conditions	Flood risk within and around the enhancement site for events up to the 1% AEP	PMF flood depth
Culcairn Yard clearances	▪ Track realignment	▪ No flood impacts within the rail corridor		
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 ▪ Rail bridge alterations	▪ No flood impacts within the rail corridor	Not affected	No information available
Kemp Street bridge	▪ Road bridge replacement	▪ Overland flooding within the rail corridor in the 1% and 5% AEP ▪ The bridge and adjacent connecting roads are not impacted by flooding.	Surface water runoff into council drainage system	2.0 metres to 2.1 metres
Junee Station pedestrian bridge	▪ Pedestrian bridge removal	▪ Not located on flood-prone land	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	▪ Overland flooding adjacent to the rail corridor in the 1% and 5% AEP. ▪ No flood impacts within the rail corridor.	5% AEP and greater events	No information available
Junee to Illabo clearances	▪ Track realignment ▪ Culvert replacement	▪ Not located on flood-prone land. Only local overland flow mechanisms are relevant for the enhancement site.	Not affected	No information available



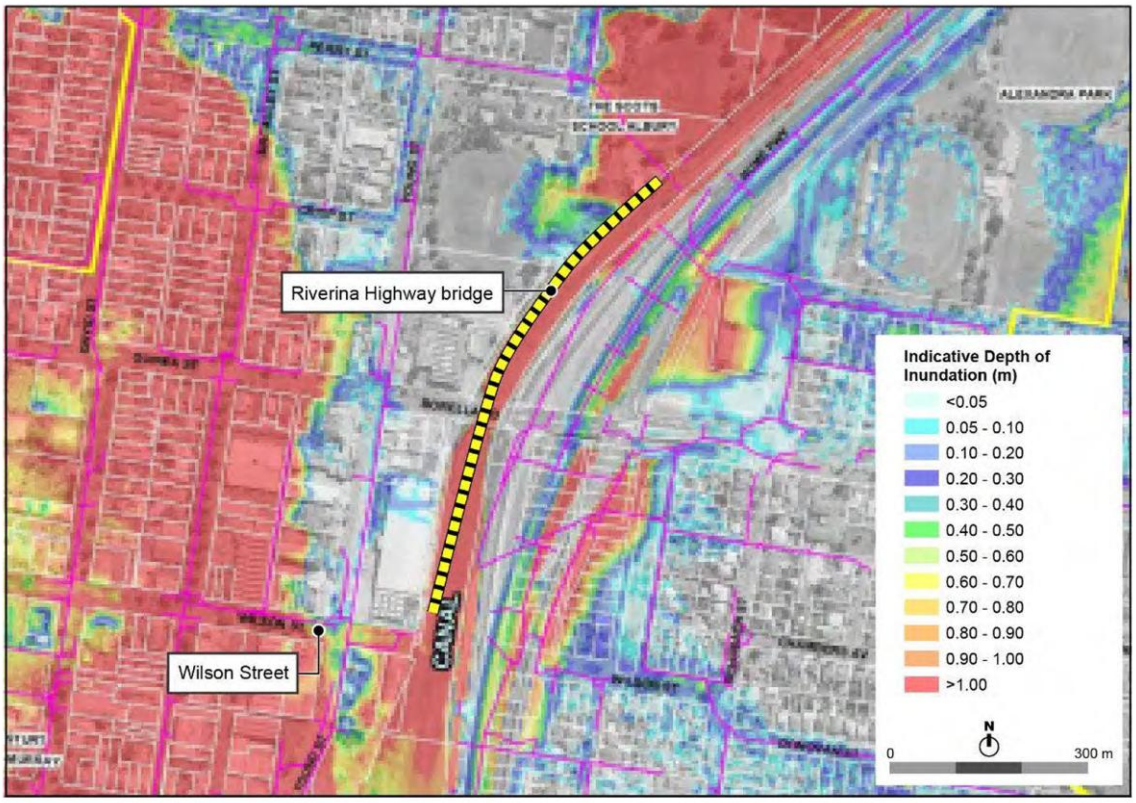
Source: Albury Floodplain Risk Management Study and Plan (WMA Water, 2016), Albury City Council

FIGURE 14: PMF FLOOD EXTENT AT MURRAY RIVER BRIDGE



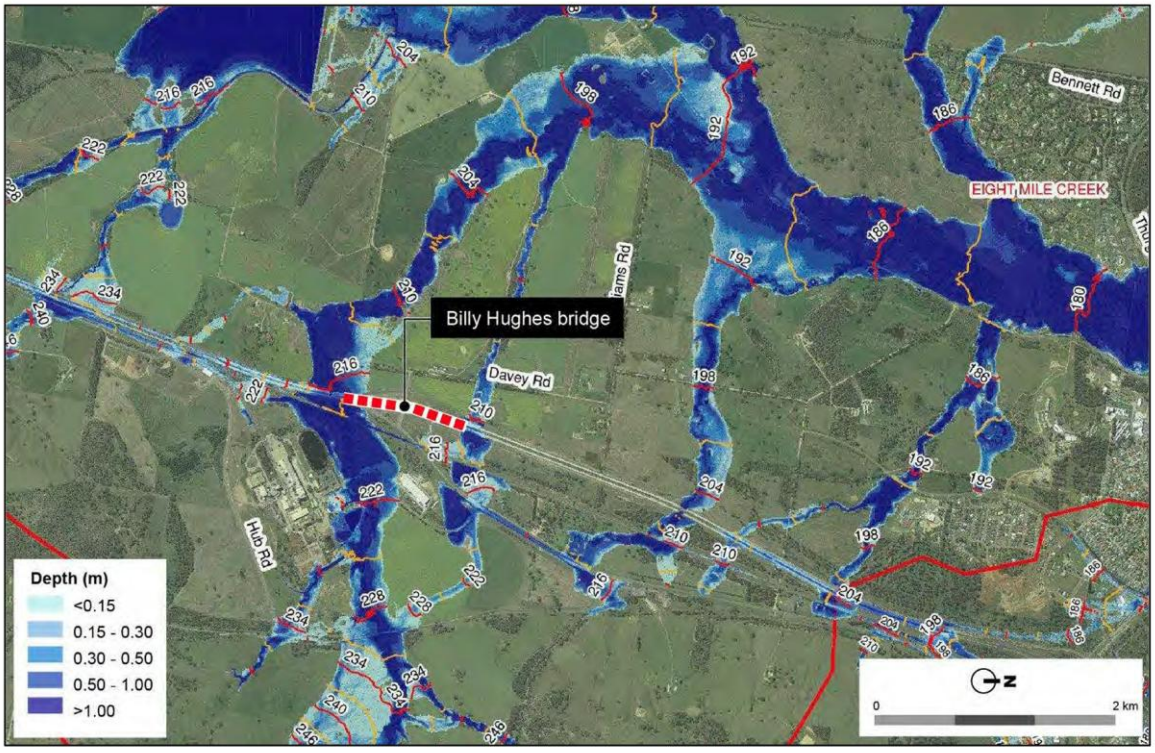
Source: Bungambrawatha Creek, Lavington, South Albury and West Albury flood study (Lyall & Associates, 2011), Albury City Council)

FIGURE 15: PMF FLOOD EXTENT AT ALBURY YARD CLEARANCES



Source: The Bungambrawatha Creek, Lavington, South Albury and West Albury flood study (Lyall & Associates, 2011), Albury City Council)

FIGURE 16: PMF FLOOD EXTENT AT RIVERINA HIGHWAY BRIDGE



Source: The Albury Floodplain Risk Management Study and Plan (WMAWater, 2016), Albury City Council)

FIGURE 17: PMF FLOOD EXTENT AT BILLY HUGHES BRIDGE



FIGURE 18: PMF FLOOD EXTENT AT CULCAIRN YARD

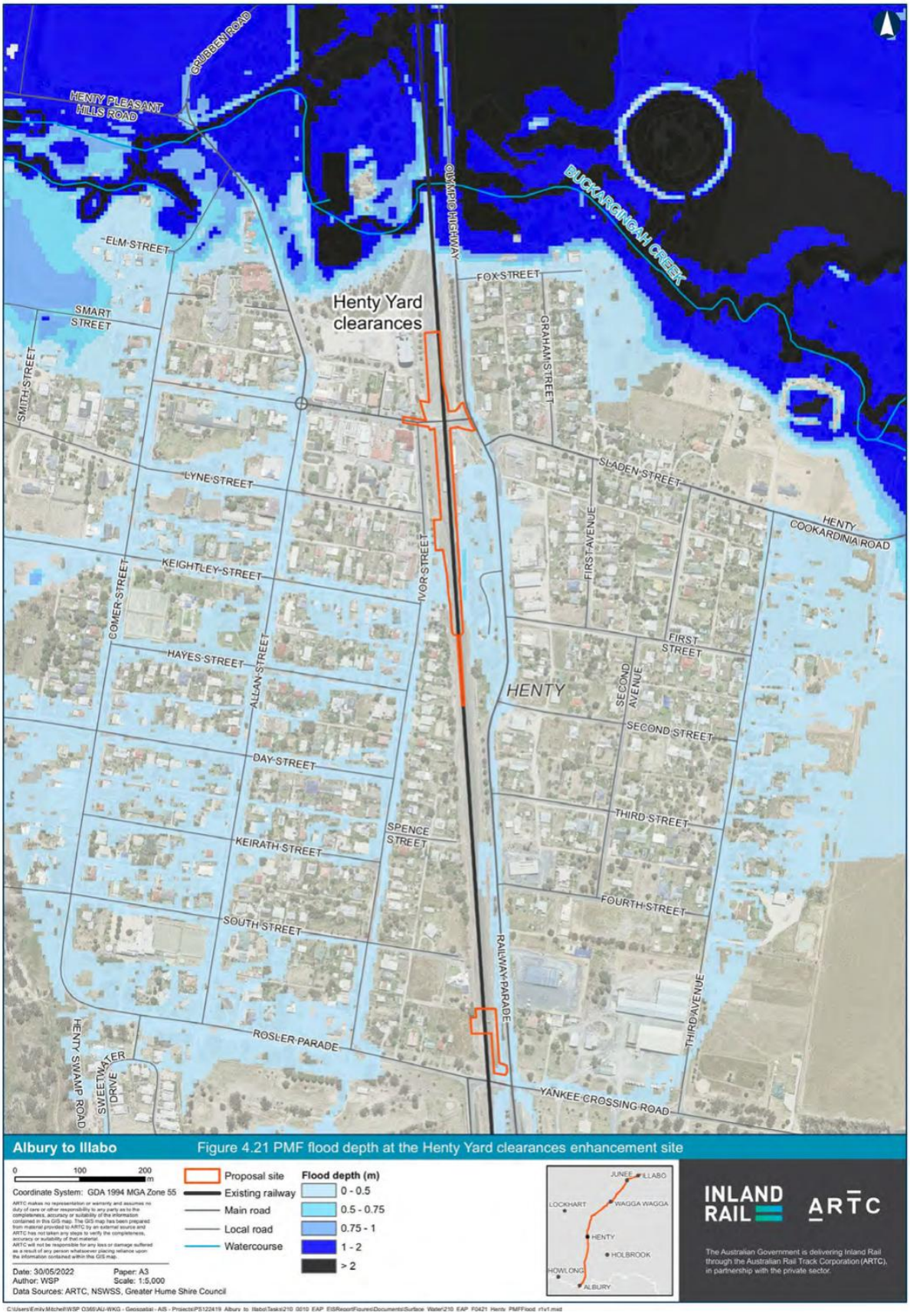
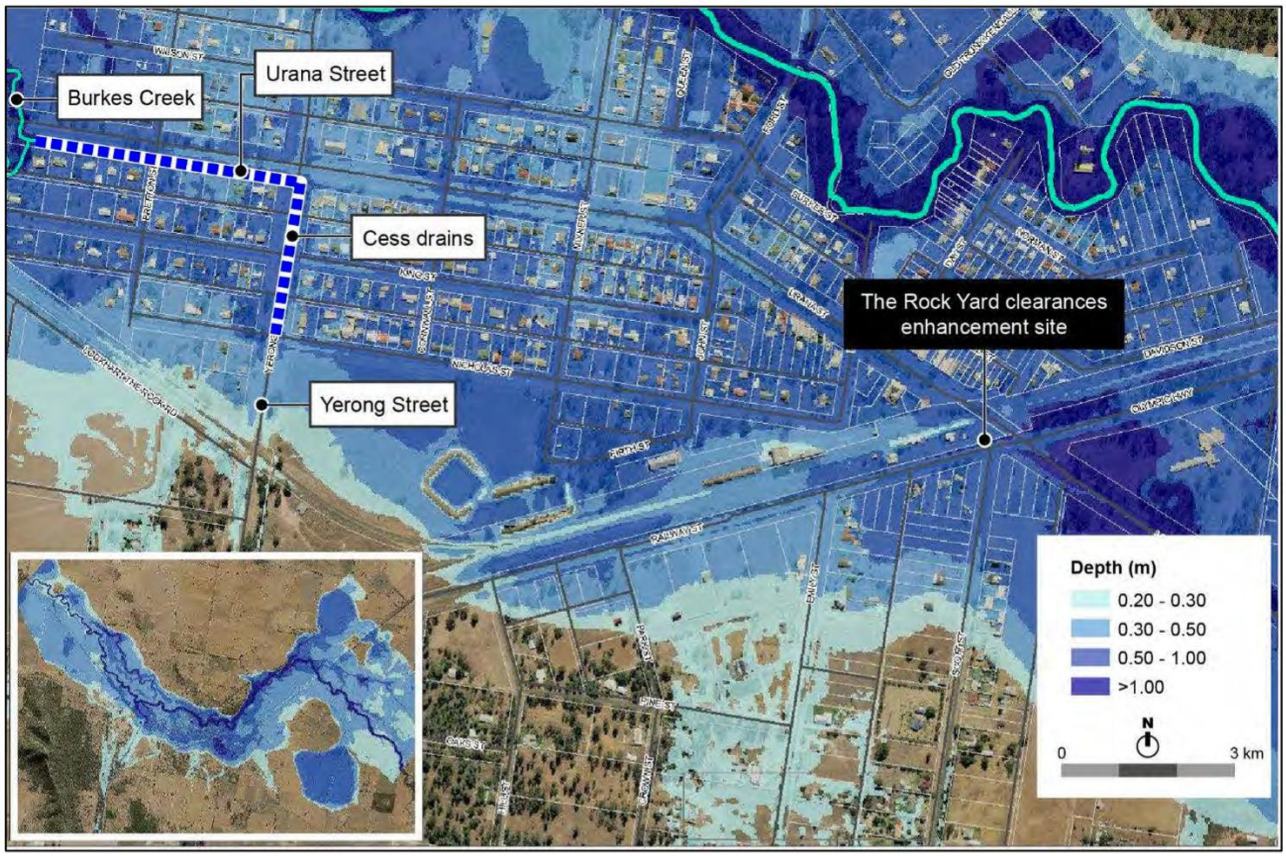


FIGURE 19: PMF FLOOD EXTENT AT HENTY YARD



Source: The Rock Flood Study (WMAWater, 2014), Lockhart Shire Council)

FIGURE 20: PMF FLOOD EXTENT AT THE ROCK



FIGURE 21: PMF FLOOD EXTENT AT URANQUINTY YARD

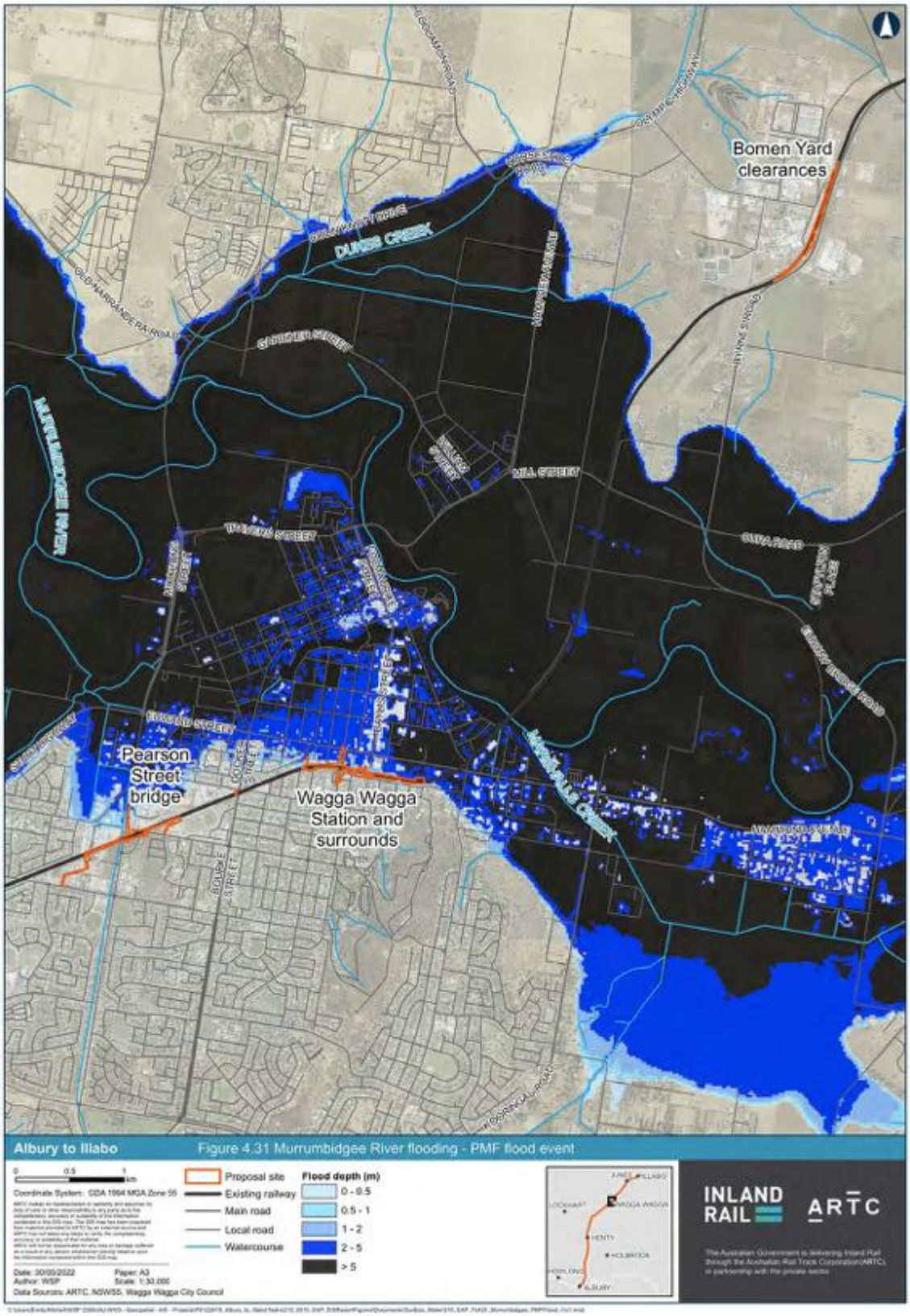


FIGURE 22: PMF FLOOD EXTENT AT WAGGA WAGGA AND SURROUNDS

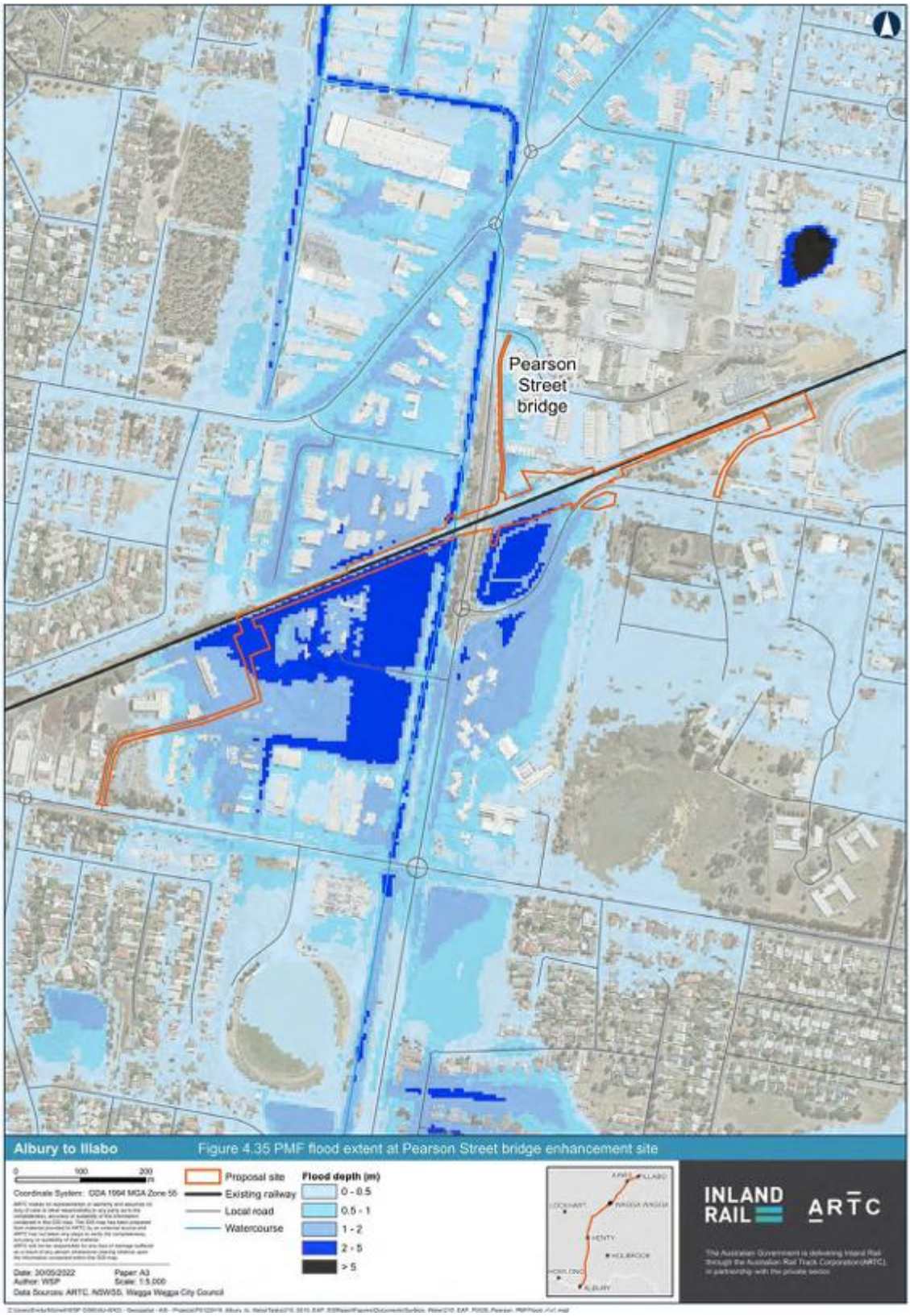


FIGURE 23: PMF FLOOD EXTENT AT PEARSON STREET BRIDGE

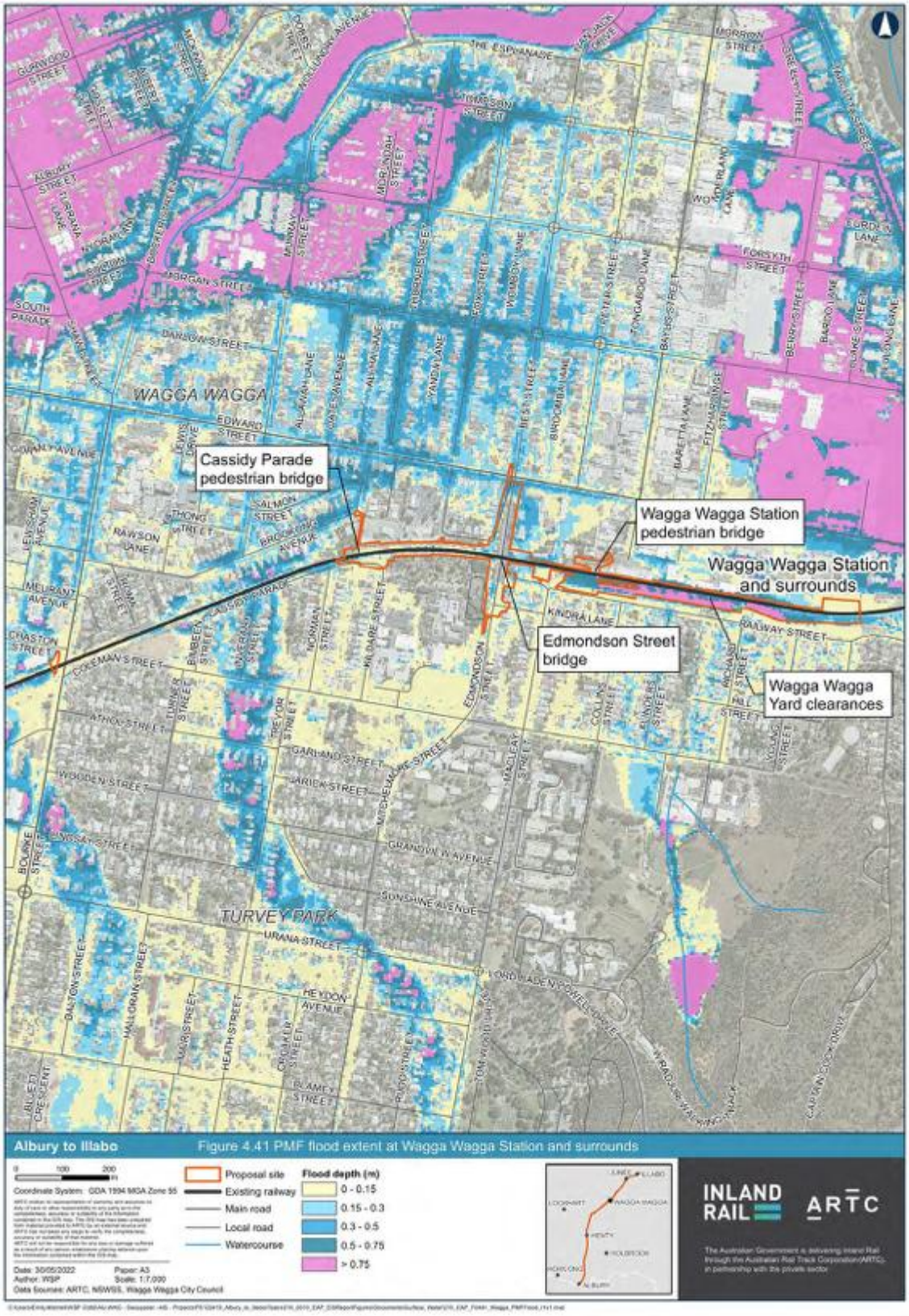


FIGURE 24: PMF FLOOD EXTENT AT WAGGA WAGGA STATION AND SURROUNDS

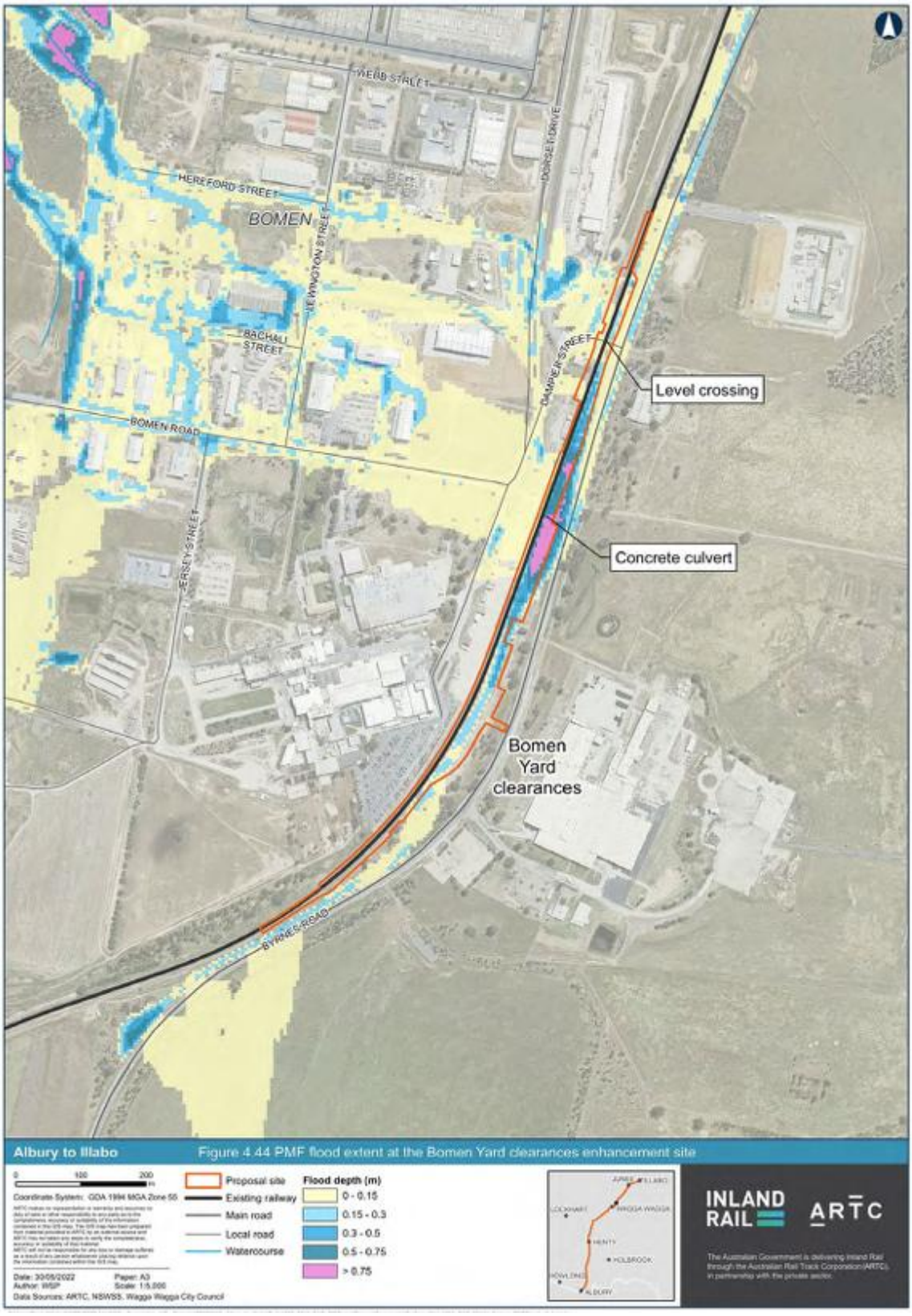


FIGURE 25: PMF FLOOD EXTENT AT BOMEN YARD

5 ASPECTS AND IMPACTS

5.1 Bushfires

5.1.1 Construction activities

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

- Electrical sparks and sparks from vehicles;
- Lightning strike;
- Road/rail accident;
- Operation of rolling stock;
- 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. Six (6) Stage C enhancement sites are partially located on bushfire-prone land and are in areas covered by Bush Fire Risk Management Plans:

- Bomen Yard clearance (Riverina BFRMP);
- Murray River bridge clearances (Riverina BFRMP)
- Billy Hughes bridge clearances (Riverina BFRMP);
- Henty Yard clearances (Hume Zone BFRMP);
- The Rock Yard clearances (Riverina BFRMP);
- Uranquinty Yard clearances (Riverina BFRMP).

The severity of bushfire impacts will depend on a number of factors. Primarily impacts will be dependent on the nature, extent and magnitude of construction activities and their interaction with the natural environment. Potential impacts both to the project and surrounding areas as a result of bushfires might include:

- Damage to surrounding land and third-party assets;
- Human health impacts, ranging from smoke inhalation to burns or potential fatalities;
- Damage to flora, fauna and local ecosystem;
- Damage to heritage items;
- Degradation of air quality resulting from fire and smoke; and
- Financial and reputational impacts.

5.2 Flooding

5.2.1 Construction activities

Construction activities on flood-prone land, including earthworks, concrete works, compounds and stockpiles have the potential to temporarily affect flooding behaviour. Key activities, where they occur in flood-prone areas, that may have an impact on flooding include:

- Earthworks for modified or new rail formations
- Earthworks and concrete works for installation of new/modified drainage structures
- Laydown and staging areas
- Temporary works;
- Stockpile locations; and
- Earthworks and structures for construction compounds, site offices and access tracks.

Construction activities at each enhancement site 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. For any of the construction activities listed in Section 5.2.1 located in a flood prone land, potential impacts due to flooding include:

- Temporary blockage of flow paths due to stockpiling, erosion and sediment controls, location of construction works or equipment and fencing, which may cause changes to flood level, duration or velocities upstream and downstream of the construction impacted areas;
- Inundation and damage to construction sites, machinery, plant and equipment;
- Impacts to access and egress for emergency services;
- Increased flow rates in receiving drainage lines, downstream of the construction footprint due to vegetation clearing and increased hardstand areas; and
- Changes to flow paths downstream of the construction footprint due construction of culverts, civil works required for rail embankments, permanent and temporary roads, which may cause damage due to changes in scour and bank erosion.

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 IDENTIFIED IN THE EAD DURING CONSTRUCTION

Enhancement site	Location on flood prone land	Potential impacts
Albury precinct		
Murray River bridge	Yes	▪ No impacts are expected, as the majority of the construction works would be limited to the existing bridge deck, with short-term storage within the rail corridor. Works within the floodplain and scaffolding around the bridge would not impact flood behaviour.
Albury Station pedestrian bridge	No	▪ No impacts, as the enhancement site is not affected by flooding.
Albury Yard clearances		
Riverina Highway bridge	Yes	▪ Construction planning will consider and seek to minimise temporary redistribution of overland flows and stormwater due to construction infrastructure ▪ Potential flooding impacts within the rail corridor at the low point under the existing Riverina Highway bridge.
Billy Hughes bridge	No	▪ Construction planning will consider and seek to minimise temporary redistribution of overland flows and stormwater due to construction infrastructure.
Table Top Yard clearances	No	▪ No impacts, as the enhancement site is not affected by flooding.

Enhancement site	Location on flood prone land	Potential impacts
Wagga Wagga Precinct		
Uranquinty Yard clearances	Yes	▪ Construction stockpiles, materials and temporary creek crossing at this enhancement site may be impacted in a flood event ▪ Construction planning will consider and seek to minimise temporary redistribution of overland flows and stormwater due to construction infrastructure.
Pearson Street bridge	Yes	▪ Construction stockpiles, materials and temporary creek crossing at this enhancement site may be impacted in a flood event ▪ Construction planning will consider and seek to minimise temporary redistribution of overland flows and stormwater due to construction infrastructure.
Cassidy Parade pedestrian bridge	Yes	▪ Construction stockpiles, materials and temporary creek crossing at this enhancement site may be impacted in a flood event ▪ Construction planning will consider and seek to minimise temporary redistribution of overland flows and stormwater due to construction infrastructure.
Edmondson Street bridge	Yes	
Wagga Wagga Station pedestrian bridge	Yes	
Wagga Wagga Yard clearances	Yes	
Bomen Yard Clearances	Yes	▪ Construction stockpiles, materials and temporary creek crossing at this enhancement site may be impacted in a flood event. ▪ Construction planning will consider and seek to minimise temporary redistribution of overland flows and stormwater due to construction infrastructure.
Greater Hume-Lockhart precinct		
Culcairn pedestrian bridge	Yes	▪ No impacts, as the enhancement site is not affected by flooding.
Culcairn Yard clearances	Yes	▪ No impacts, as the enhancement site is not affected by flooding.
Henty Yard clearances	Yes	▪ Construction planning will consider and seek to minimise temporary redistribution of overland flows and stormwater due to construction infrastructure.
Yerong Creek Yard clearances	No	

Enhancement site	Location on flood prone land	Potential impacts
The Rock Yard clearances	Yes	
Junee precinct		
Harefield Yard clearances	No	▪ No impacts, as the enhancement site is not affected by flooding.
Kemp Street bridge	Yes	▪ Construction stockpiles, materials and temporary creek crossing at this enhancement site may be impacted in a flood event. ▪ Construction planning will consider and seek to minimise temporary redistribution of overland flows and stormwater due to construction infrastructure.
Junee Station pedestrian bridge	No	▪ No impacts, as the enhancement site is not affected by flooding.
Junee Yard clearances	No	▪ No impacts, as the enhancement site is not affected by flooding.
Olympic Highway underbridge	No	▪ No impacts, as the enhancement site is not affected by flooding.
Junee to Illabo clearances	Yes	▪ Construction stockpiles and materials at this enhancement site may be impacted in a flood event. ▪ Construction planning will consider and seek to minimise temporary redistribution of overland flows and stormwater due to construction infrastructure.

6 MANAGEMENT AND MITIGATION

6.1 Bushfire emergency management

The following sections address 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 and egress – emergency services and external agencies

Martinus will primarily utilise existing ARTC rail corridor access and egress points as the main means of accessing the project's Construction Impact Zone (CIZ). These established access points provide reliable and direct entry to critical areas of the sites. Indicative access/egress points are identified in the maps in Appendix D. All approved access points are identified in the Precinct Traffic Management Plans.

In addition to the ARTC network-approved access points, a number of internal site roads offer wide, unobstructed routes suitable for firefighting and emergency vehicles. These internal roads enhance accessibility across the site and facilitate rapid emergency response when required.

In a bushfire, flooding, or other emergency, the Site Supervisor will coordinate closely with the Rural Fire Service (RFS) or other relevant emergency response agencies to identify the most appropriate access point. If it is safe, a designated project worker will be dispatched to meet emergency responders at the agreed access location and guide them safely to the affected area.

6.1.2 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, where the existing access points/internal site roads are amended or new access points/roads created. Access arrangements will be captured within Traffic Management Plans as outlined in Section 6 of the CTTAMP.

6.1.3 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.

APZs (or other applicable measures) will be developed around enhancement site construction zones as identified by a suitably qualified bushfire specialist. The APZ will remain in place until demobilisation of each area. From the commencement of the works and throughout the project duration, the APZ must be established and maintained in the following manner:

- 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.

APZs (or other applicable measures) are currently in development. They will be included in subsequent revisions of this plan, once available.

6.1.4 Planning for works

Ongoing reviews of site conditions will guide the site team on when it is safe to conduct hot works and works more generally. These reviews will be used to plan works and will be completed using a combination of the resources and tools outlined below. Site supervisors are responsible for monitoring these resources daily and communicating any changes or heightened risks during prestart briefings.

6.1.4.1 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.

6.1.4.2 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.

6.1.5 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.

6.1.5.1 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, water trucks, 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.

6.1.5.2 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 26), 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 26: Fire danger ratings (***Source: NSW Rural Fire Service***)

6.1.5.3 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.

Martinus has received a standing TOBAN exemption (Ref: TOBEX0001259), which allows essential construction works in the relevant LGAs under strict conditions. These include fire authority notification, equipment readiness, and post-work inspections. This exemption is referenced in the plan and controls are aligned to the Government Gazette Schedule 06.

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.

6.1.5.4 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.

6.1.5.5 Fire-fighting supplies and equipment

Fire-fighting equipment, including fire extinguishers, water carts, and hoses, will be provided on-site and in vehicles to ensure the safety of the public and property in compliance with the *Rural Fires Act 1997* and the *Local Government Act 1993*. Firefighting water supplies will have a volume in compliance with AS 2304-2011 Water storage tanks for fire protection systems. 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.

6.1.5.6 Motor vehicle and machinery use

Operating vehicles and trucks in off-road environments is a potential fuel hazard due to the high operating temperatures, auto burn functions, or catalytic converters that ignite dry grass fuel.

Specific advice is given to field employees on the use of light patrol vehicles, medium and heavy trucks used for construction activities and the operation of earth-moving machinery in rock terrain.

Employees are instructed to conduct a formal hazard assessment, including relating to starting fires, before operating vehicles off formed roads.

6.1.5.7 Small engines and hot equipment

In areas where there is a high fire risk or there are work activities with the potential to start fires with equipment such as generators, chainsaws, brush cutters, metal cutting or welding, precautions must be taken to isolate fuel from the possible ignition source.

The potential for "hot work" and other activities to ignite fires, particularly during a Local Fire Ban or State of Fire Emergency periods is to be considered in risk assessments conducted as part of a formal risk assessment.

During State of Fire Emergency declarations certain activities such as hot work and other activities may be prohibited or restricted. These restrictions will be listed in the declaration.

6.1.6 Bushfire preparedness - relation to FFDI

Fire preparedness in relation to the Forest Fire Danger Index (FFDI) is described in Table 8 . Fire Danger Ratings and associated FFDI thresholds have been sourced from the NSW Rural Fire Service (RFS). Category 1 corresponds to **'Moderate' (Code Yellow)** and Category 2 corresponds to **'High' (Code Orange)**.
Source: https://www.rfs.nsw.gov.au/fire-information/fdr-and-tobans

TABLE 8: FIRE PREPARDNESS IN RELATION TO FFDI

FIRE DANGER LEVEL	WORKS FIRE PREPAREDNESS CODE	FIRE PREPAREDNESS REQUIREMENTS
FFDI 1-5 **(Low Fire Danger) and** **FFDI 6-11** **(Moderate Fire Danger)** ▪ **Fires can be easily controlled** ▪ **Minimal impact of fire**	**CODE YELLOW** **(FFDI 14 or less)**	The Site Supervisor must ensure: ▪ Site works must be in accordance with standard procedures, including compliance with Hot Works Permit conditions ▪ Induction and briefings include ignition prevention and fire response actions ▪ Fire Danger is assessed for the day. This assessment shall include, but not be limited to, considering the forecast FDR for the coming four days in programming work and in setting any work limitations. ▪ Personnel are notified of the outcome. ▪ Code Yellow work limitations are enforced, or higher code limitations are applied if deemed appropriate by the PIC or delegate, considering forecast FDR for the coming four days ▪ Category 1 preparedness requirements are implemented
FFDI 12-14		**Category 1** preparedness requirements:

FIRE DANGER LEVEL	WORKS FIRE PREPAREDNESS CODE	FIRE PREPAREDNESS REQUIREMENTS
(High Fire Danger)		▪ Each vehicle, workplace centre or mechanical plant must have available for immediate use: ○ One 15L knapsack or equivalent* filled with water ○ At least one rake hoe in serviceable condition ○ A 2kg fire extinguisher ▪ All vehicles and mechanical plant must: ○ Be fitted with firmly mounted fuel lines and tanks ○ Be clean of surplus oil and vegetation around surfaces heated by the exhaust or motor ○ Have electrical and exhaust systems in good order ○ Have fire blankets for each occupant where a risk assessment determines them necessary (e.g. a person working >30 minutes from a bushfire refuge or an area that does not provide secondary access/egress). ▪ Code Yellow work limitations: ○ None
* The term *'equivalent'* equates to either a stored pressure water-style fire extinguisher of 9L minimum capacity, certified and approved to AS/NZS 1841.2 (and providing high pressure air for refilling is readily available from a mechanical unit working at the site), or a dry chemical powder extinguisher of at least 1.25kg capacity, certified and approved to AS/NZS 1841.5		
FFDI 15-24 **(High Fire Danger)** ▪ **Fires can be controlled** ▪ **Embers may be blown ahead of the fire** ▪ **Spot fires can occur close to the main fire** ▪ **Potential for vigorous bushfire spread through surface and near-surface fuel layers in native vegetation areas if not promptly extinguished.**	**CODE ORANGE** **(FFDI 15-29)**	Site Supervisor must ensure: ▪ Code Yellow preparedness requirements are implemented ▪ The PIC or delegate is to maintain a 'listening watch' for fire warnings (e.g. RFS 'Fires Near Me') or changes to forecast weather ▪ Site supervisor to reassess the FFDI at 12:00 pm (or before if weather conditions worsen noticeably) ○ If the FFDI at 12:00 pm remains below 30, fire risk work* and hot works* in hazardous areas* may continue. Hourly monitoring of the FFDI will be undertaken during the works. If the FFDI goes above 30 then implement Code Red requirements ▪ Code Orange work limitations are enforced.
FFDI 25-29 **(Very High Fire Danger)** ▪ **Fires can be difficult to control – flames may burn into the treetops**		**Category 2** preparedness requirements: ▪ A two-way radio (or mobile phone where reception is adequate) is present at the worksite and in contact with a base with phone reception

FIRE DANGER LEVEL	WORKS FIRE PREPAREDNESS CODE	FIRE PREPAREDNESS REQUIREMENTS

▪ **Embers may be blown ahead of the fire**
▪ **Spot fires may occur up to 2km ahead of the fire**
▪ **Very High Fire Danger typically occurs on dry, windy days**
▪ **Fire behaviour can rapidly escalate**
▪ **Fires burning in Very High Fire Danger have been responsible for large-scale property loss and threats to human life**
		▪ A mobile water unit (min. 2000L capacity) is present at each work location with:
		  ○ Tanks kept full
		  ○ Pump fully fuelled
		  ○ Minimum pump unit 2.2kW/3HP
		  ○ Minimum 60m of hose
		  ○ Fill and outlet hoses with 65mm Storz fittings
		  ○ Nozzle capable of fog and jet stream
		  ○ Must be maintained in a fully serviceable condition
		▪ There should be two operators trained in the use of the mobile water unit equipment at each location (minimum Bushfire Awareness Training) and the procedure to put out fires
		▪ A fire watch person will monitor fire risk work* and hot works* activities in hazardous areas*. The number of fire watchers will be appropriate to ensure adequate oversight of all fire risk works being undertaken in hazardous areas. The fire watcher's primary task will be observing the fire risk works in their area of responsibility.
		▪ In the case of a towed mobile water unit, the towing vehicle must remain attached.
		▪ Code Orange work limitations:
		  ○ None

FFDI 30-49
(Very High Fire Danger)
▪ **Fires can be difficult to control – flames may burn into the treetops**
▪ **Embers may be blown ahead of the fire**
▪ **Spot fires may occur up to 2km ahead of the fire**
▪ **Very High Fire Danger typically occurs on dry, windy days**
▪ **Fire behaviour can rapidly escalate**
▪ **Fires burning in Very High Fire Danger have been responsible for large scale property loss and threats to human life**
	CODE RED
	(FFDI 30-49)
		Site Supervisor must ensure:
		▪ Code Orange preparedness requirements are implemented
		▪ Hourly monitoring of the FFDI to be undertaken by the site Supervisor or a delegate
		  ○ If monitoring shows escalation of the FFDI into the middle to upper part of the range, then the PIC or delegate shall consider the existing and forecast conditions in relation to the criteria for suspending works and leaving early in hazardous* and remote areas*. If works are suspended in a particular area, then recommencement of Night Shift works shall only be approved if:
		  ○ The FFDI has dropped below 30.
		  ○ There is no TOBAN in place, the Fire Risk Assessment and Control Measures Form has been completed by the General Superintendent or

FIRE DANGER LEVEL	WORKS FIRE PREPAREDNESS CODE	FIRE PREPAREDNESS REQUIREMENTS
		the Regional Area Manager; and ○ Relevant management measures will be implemented for the proposed shift activities. ▪ Fire risk works* in hazardous areas* are conducted in accordance with the Fire Risk Assessment and Control Measures Form (Annexure A) ▪ Haulage and other vehicle usage occur on formed tracks and access roads only ▪ **Code Red work limitations are enforced.**
		Code Red work limitations: ▪ Fire risk works* and hot works* in hazardous areas* are suspended by 12:00 ▪ All works (including fire risk work and hot works) may continue in non-combustible areas*, however, safe egress should be communicated to staff.
FFDI 50-74 **(Severe Fire Danger)** **FFDI 75-99** **(Extreme Fire Danger)** **FFDI 100+** **(Catastrophic Fire Danger)** ▪ **Fires occurring at these fire danger ratings have been responsible for most bushfire deaths and property losses** ▪ **Fires will be uncontrollable and move quickly** ▪ **Flames will be higher than the rooftops** ▪ **Thousands of embers will be blown around** ▪ **Spot fires will move quickly and come from many directions, up to 20km ahead of the fire.**	**CODE GREY** **(FFDI 50+)**	The Site Supervisor must ensure: ▪ Code Red preparedness requirements are implemented ▪ Consideration is given to leaving early ▪ Fire risk works* in non-combustible areas* are conducted in accordance with the Fire Risk Assessment and Control Measures. ▪ Code Grey work limitations are enforced **Code Grey** Work limitations: ▪ All works in hazardous areas* are suspended ▪ All outdoors* hot works* are prohibited (except in accordance with the Total Fire Ban exemption permit – if obtained) ▪ 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.

6.1.7 Total fire ban bushfire preparedness (Code Black)

When NSW RFS has declared a Total Fire Ban (TOBAN) in the Project's construction areas, the fire preparedness requirements detailed in Section 6.3 Management of Onsite Activities—Hot Works below (in Table 9) override those in the Table 8 above.

TABLE 9: FIRE DANGER PREPAREDNESS - TOBAN

DANGER LEVEL	WORKS FIRE PREPAREDNESS CODE	FIRE PREPAREDNESS REQUIREMENTS
▪ **TOTAL FIRE BAN (TOBAN)*** ▪ **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.**	**CODE BLACK**	In the event that NSW RFS declares a TOBAN, the following preparedness requirements override the provisions detailed in Table 7-1. The PIC must ensure: ▪ The Code preparedness requirements from the Fire preparedness in relation to FFDI will apply based on the site's forecast/current FFDI. ▪ Haulage and other vehicle usage can occur on formed tracks and access roads only Code Black work limitations override those prescribed in Table 7-1 Code Black work limitations: ▪ All Fire Risk Works* and hot works* are prohibited outdoors* (except in accordance with the Total Fire Ban exemption permit – if obtained) ▪ TOBAN rules will be added to prestart sheets and obtained off the NSW RFS Website: Fire Danger Ratings and Total Fire Bans - NSW Rural Fire Service

6.1.8 Bushfire emergency management roles and responsibilities

Table 10 outlines the responsibilities for the implementation of the controls outlined in Section 6.1.1 to Section 6.1.7, Section 6.3 and within Appendix B.

TABLE 10: BUSHFIRE MANAGEMENT RESPONSIBILITIES AND EMERGENCY MANAGEMENT

CFBEMP Section	STAGE	RESPONSIBILITY	ROLE
Section 7.2	**Preparation (Get Ready)**	**GS / DS / SS / SM – This plan will be:** ▪ Covered in toolbox talks to educate the construction team about the Bushfire Emergency Response Plan ▪ Included as required in emergency drills	• General Superintendent (GS) • Discipline (Rail, Earthworks, etc) Superintendent/Site Supervisor (DS/SS) • Safety Manager (SM)

CFBEMP Section	STAGE	RESPONSIBILITY	ROLE
Section 6.1.5.2 Section 6.1.6	Preparation (Get Ready)	**Weather Monitoring and Bushfire Warning Systems** ▪ GS / DS / SS – Sign up to the Bureau of Meteorology (BoM) Fire Weather Warning service for the respective Fire Weather District(s). ▪ GS/DS/SS – Set up bushfire alerts and fire danger ratings on the EMS mobile phone using the Fires Near Me App (or Hazards Near Me app for NSW). ▪ GS / DS / SS / SM / EM – Monitor daily weather conditions for construction planning purposes to identify risks associated with extreme heat, strong winds, and elevated fire danger ratings. ▪ CSEM – Obtain and maintain contact details of local rural landholders and fire wardens. ▪ Contact them when works are occurring in the area and when extreme or catastrophic fire danger is forecast, to coordinate preparedness measures. ▪ GS / DS / SS / SM – Use the Live Traffic NSW website and observe any road closures due to bushfires to determine safe and accessible evacuation routes for project personnel. ▪ ALL – In the event of: ▪ A self-evacuation or an evacuation order issued by authorities, personnel must follow directions from NSW RFS, SES, or Police regarding fire activity, road closures, and evacuation routes. ▪ Discuss evacuation plans with the relevant Supervisor, Manager, or a member of the Project's Safety Team. ▪ Complete a Journey Management Plan for any journeys exceeding 2 hours in duration.	• General Superintendent (GS) • Discipline (Rail, Earthworks, etc) Superintendent/Site Supervisor (DS/SS) • Safety Manager (SM) • Environmental Manager (EM) • Community and Stakeholder Engagement Manager (CSEM)
Section 6.1.5	Preparation (Get Ready)	**Bushfire Temporary Works Measures** ▪ GS / DS / SS – Site-specific temporary works: ▪ Creation or maintenance of asset protection zones (APZs) ▪ Installation of firebreaks or cleared buffer zones ▪ Removal or relocation of flammable vegetation or materials ▪ Use of fire-retardant barriers or temporary shielding for key infrastructure ▪ ARM / SPE / GS / DS / SS —The Martinus Temporary Works Team will determine the design and implementation of temporary bushfire protection measures on a site-by-site basis.	• Project Director (PD) or Delegate • Area Regional Manager (ARM) • General Superintendent (GS) • Discipline (Rail, Earthworks, etc) Superintendent/Site Supervisor (DS/SS) • Safety Manager (SM) • Environmental Manager (EM)

CFBEMP Section	STAGE	RESPONSIBILITY	ROLE
		▪ GS / DS / SS / SPE – All installed temporary bushfire works will be assessed to: ▪ Determine the bushfire risk associated with the works ▪ Identify whether any works require modification or removal to maintain safety ▪ PD – Communicate bushfire preparation efforts to IRPL	
Appendix B	**Response (During Bushfire)**	**Immediately Before a Bushfire Event** • *Any vehicle access that routes through bushfire-prone vegetation can sustain high-intensity fires.* • *Attempting to evacuate at the last moment through these areas during a bushfire may be extremely dangerous and potentially fatal.* • *Therefore, all evacuations must be managed in accordance with the instructions of the Person in Charge (PIC), Incident Controller (IC), fire warden, or their delegate.* • *Personnel may be directed to the worksite Muster Point to await further instructions.* ▪ PD – Identify and assign relevant Project Personnel responsible for preparing specific sections or stages of the Project site in anticipation of a bushfire. ▪ Responsibilities must be clearly communicated to avoid confusion. ▪ Ensure all areas of the site are considered, and personnel/resources are assigned based on bushfire risk. ▪ PD – Communicate bushfire preparedness efforts to IRPL. ▪ GS / DS / SS – Arrange for removal of waste materials, particularly flammable waste, from site amenities and work areas to reduce fire fuel load. ▪ GS / DS / SS – Remove or safely store all hazardous items and chemicals away from bushfire-prone zones and ignition sources. ▪ GS / DS / SS – Move mobile construction equipment and combustible materials away from vegetated areas and other fire risk zones. ▪ GS / DS / SS – Disconnect power to any at-risk areas and ensure emergency power sources are available and safe to operate if required. ▪ GS / DS / SS / SM – Implement all preparation measures outlined in the Site-Specific Bushfire Preparation Plan.	• Project Director (PD) or Delegate • Area Regional Manager (ARM) • General Superintendent (GS) • Discipline (Rail, Earthworks, etc) Superintendent/Site Supervisor (DS/SS) • Safety Manager (SM) • Environment Manager (EM)

CFBEMP Section	STAGE	RESPONSIBILITY	ROLE
		▪ Document completion using the Site Preparation Checklist. ▪ ALL – In the event of self-evacuation or an evacuation order: ▪ Follow instructions from the NSW RFS, SES or Police ▪ Discuss evacuation plans with the Supervisor, Manager, or Project Safety Team ▪ Complete a Journey Management Plan for any travel exceeding 2 hours ▪ PD / PT – Contact local Project personnel whose residences may be at risk from bushfire and offer accommodation, if required	
Appendix B	Response (During Bushfire)	**Monitoring During Bushfire Conditions** ▪ GS / EM / SM – Continuously monitor Bureau of Meteorology (BoM) fire weather warnings, Fire Danger Ratings, and incident updates via the Fires Near Me (or Hazards Near Me) app. ▪ PD – Ensure general on-site bushfire risk conditions and updates are communicated to all personnel promptly. ▪ NSW RFS – Issues Bushfire Bulletins and Alerts during fire events: ▪ Distributed via the app, website, and other emergency channels ▪ Contain critical, up-to-date information about nearby bushfires and fire behaviour ▪ PD / ALL – All Project personnel (including Martinus and Sub-Contractors) staying in the camp must attend a daily toolbox talk during bushfire events. The toolbox talk will: ▪ Keep the workforce updated on the unfolding bushfire situation ▪ Confirm the welfare and safety of project personnel ▪ Assign daily activities or responsibilities (e.g., Project works, standby mode, Community Support)	• Project Director (PD) or Delegate • Area Regional Manager (ARM) • General Superintendent (GS) • Discipline (Rail, Earthworks, etc) Superintendent/Site Supervisor (DS/SS) • Safety Manager (SM) • Environment Manager (EM) • NSW State Emergency Services (SES, RFS, Other) • ALL (All Project personnel)
Appendix B Section 6.3.1	Response (During Bushfire)	**Evacuation** ▪ ALL – In the event of a bushfire, personnel are to gather at designated muster points located outside of the fire-prone areas. ▪ Muster points and evacuation routes will be detailed in Martinus Emergency Management Plan. ▪ NSW RFS/SES/Other Agency / PD – Evacuation arrangements will be carefully considered in collaboration with NSW Agencies.	• Project Director (PD) or Delegate • NSW State Emergency Services (SES, RFS, Other) • ALL (All Project personnel)

CFBEMP Section	STAGE	RESPONSIBILITY	ROLE
		▪ Agreed evacuation plans will be included in local response plans. ▪ Site Officers will be trained to manage additional sites/areas during evacuations. ▪ The Incident Response Plan will be available at the site office, and awareness will be raised amongst construction workers. ▪ ALL – All Project personnel will follow NSW RFS evacuation advice. ▪ Any remaining personnel (those who did not self-evacuate) will follow site-specific evacuation arrangements that have been established: ○ Primary Muster Point: Northern compound muster zone (identified on site emergency map) ○ Evacuation Lead: Site Supervisor, supported by the nominated Emergency Controller ○ Transport Arrangement: Evacuation will be conducted using project light vehicles in convoy, following the pre-established evacuation route ○ Alternative Shelter: If offsite evacuation is required, personnel will be relocated to prearranged accommodation facilities or designated muster shelters such as crib huts ▪ Communication Protocol: UHF Channel 7 will be the primary communication method, supported by SMS alerts activated via the site's Emergency Contact Tree ▪ Trigger for Activation: Declaration by the Site Supervisor or Project Manager based on real-time flood or bushfire threat level, aligned with LGA flood warnings and NSW RFS alerts ▪ ▪ The NSW RFS will be consulted regarding this during the construction phase. ▪ ALL – In the event of a bushfire, NSW RFS (Ph. 132 500) should be contacted for emergency assistance. ▪	
Section 6.3.3 Appendix B	**Response (After Bushfire)**	**Recovery** ▪ CM / GS / DS / SM / SPE / EM – Following a bushfire event, a safety walk will be conducted to identify unstable or dangerous areas. ▪ The recovery team will: ▪ Inspect any fire damage to access roads	• Project Director (PD) or Delegate • Area Regional Manager (ARM) • General Superintendent (GS) • Discipline (Rail, Earthworks, etc)

CFBEMP Section	STAGE	RESPONSIBILITY	ROLE
		▪ Check for any relocated equipment, stock, or debris moved by the bushfire. ▪ SPE – The structural integrity of temporary bushfire mitigation measures (e.g., firebreaks, barriers, platforms) will be assessed. ▪ Necessary maintenance and repair actions will be identified. ▪ SPE / SM / EM – Partially constructed structures in bushfire-prone areas will be checked for: ▪ Safety hazards ▪ Fire damage and erosion ▪ Necessary maintenance and repair actions will be identified. ▪ SPE / SM / EM – Culverts under railway and roadways surrounding the site will be inspected for: ▪ Blockages ▪ Potential fire damage ▪ SM – Fire markings on buildings or infrastructure will be recorded for future reference and insurance purposes. ▪ GS / DS / SS / EM – Any water captured in areas of the site will be dewatered in accordance with the Project Soil and Water Management Plan (SWMP). ▪ EM – Water Quality Monitoring will be carried out in accordance with the SWMP, particularly after any fire-related runoff or rainfall. ▪ ARM / GS / DS / SS / SM / SPE / EM – A lesson's learned workshop will be conducted with all key Project personnel after the bushfire event. ▪ Findings and recommendations will be incorporated into the aligned management Plan. ▪ EM – Following a major flood or severe weather event, the Post Severe Weather / Flood Survey will be distributed to key Project personnel. ▪ Personnel will be requested to complete the survey. ▪ Findings and recommendations will be considered for potential incorporation into aligned management plans or process.	Superintendent/Site Supervisor (DS/SS) • Safety Manager (SM) • Environment Manager (EM)

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 Access and egress – emergency services and external agencies

Martinus will primarily utilise existing ARTC rail corridor access and egress points as the main means of accessing the project's Construction Impact Zone (CIZ). These established access points provide reliable and direct entry to critical areas

of the sites. Indicative access/egress points are identified in the maps in Appendix D. All approved access points are identified in the Precinct Traffic Management Plans.

In addition to the ARTC network-approved access points, a number of internal site roads offer wide, unobstructed routes suitable for firefighting and emergency vehicles. These internal roads enhance accessibility across the site and facilitate rapid emergency response when required.

In a bushfire, flooding, or other emergency, the Site Supervisor will coordinate closely with the Rural Fire Service (RFS) or other relevant emergency response agencies to identify the most appropriate access point. If it is safe, a designated project worker will be dispatched to meet emergency responders at the agreed access location and guide them safely to the affected area.

6.2.2 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. Construction planning will include:

- Activities that may affect existing drainage systems during construction will be planned and carried out so that the 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 (wherever practical) and managed in accordance with the CSWMP.
- Consideration of temporary and permanent fencing locations.
- Prior to establishing any plant or equipment on site, an assessment of it's ability to be relocated before 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).
- 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.
- 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.
- 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.

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

6.2.3 Pre-flood inspections

Pre-flooding rain inspections will be completed in the following instances:

- When a flood watch or flood warning is issued by the BoM.
- When a ‘Watch and Act’ warning has been issued by the NSW SES.
- As directed by the Regional Area Manager/General Superintendent or delegate.

The pre-flooding rain inspection will include the following tasks:

- Minimise obstructions within flood prone areas, including stockpiles.
- Relocate waste containers, portable toilets, 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.

6.2.4 Flood monitoring

Daily monitoring of weather forecasts and flood alerts will be undertaken using the Bureau of Meteorology (BoM) (http://www.bom.gov.au/australia/warnings/), the SES (via the Hazards Near Me app), and other sources. Further details about these warning systems is contained in the sections below.

6.2.4.1 BoM flood warnings

The warning products available via the BoM are contained in Table 11.

TABLE 11: WARNING PRODUCTS ISSUED BY THE BOM

BOM PRODUCT	DESCRIPTION	WARNING LEAD-TIME	WHERE THE PRODUCT CAN BE ASSESSED	WHAT TO MONITOR FOR
Severe Weather Warnings	Issued for potentially hazardous or dangerous weather that is not solely related to severe thunderstorms, tropical cyclones or bushfires. The warnings describe the area under threat and the expected weather hazards. Warnings are issued with varying lead-times, depending on the weather situation. Occasionally, severe weather may occur without the relevant warning having been issued by the BoM.	1 – 24 hours	▪ Issued directly to the media when there is a high probability of flash flooding ▪ Can be found at: ▪ http://www.bom.gov.au/nsw/warnings/ ▪ BOM Weather app	Severe Weather Warnings with reference to intense rainfall or flooding
Severe Thunderstorm Warning	Issued for events that may produce heavy rainfall with the potential to result in flash flooding. As severe thunderstorms can develop quickly, these warnings may not provide much warning time.	As little as minutes, but generally a few hours.	▪ Issued directly to the media when there is a high probability of flash flooding ▪ Can be found at: ▪ http://www.bom.gov.au/nsw/warnings/ ▪ BOM Weather app	Severe Thunderstorm Warnings
Rainfall Maps	Coarse forecast rainfall maps which can be used to estimate the amount of rain expected to fall over the next 4 days, as well as the next 24 hours.	1 – 4 days	▪ Can be found at: http://www.bom.gov.au/jsp/watl/rainfall/pme.jsp	Intense or prolonged rainfall in the catchment areas surrounding the enhancement site.
Rainfall Forecasts	Rainfall forecasts which can be used to estimate the amount of rain expected to fall within 3-hour windows over the next 3 days.	Up to 3 days	▪ BOM weather app	Intense or prolonged rainfall in the catchment areas surrounding the enhancement sites
Radar Services	Shows current rainfall locations and intensities. The radar station to be used for the site would be the 128km Wagga Wagga Radar Loop.	90 minutes (BoM Weather App only)	▪ Can be found at: http://www.bom.gov.au/products/IDR553.loop.shtml#skip ▪ BOM Weather App	Intense or prolonged rainfall in the catchment areas surrounding the enhancement sites

BOM PRODUCT	DESCRIPTION	WARNING LEAD-TIME	WHERE THE PRODUCT CAN BE ASSESSED	WHAT TO MONITOR FOR
Flood Watch	Provide early advice regarding the potential for flooding in a particular area.	24 – 96 hours	▪ Issued directly to the media when there is a potential of flooding ▪ Can be found at: http://www.bom.gov.au/nsw/warnings/ ▪ BOM Weather App	Flood watches
Flood Warning	Issued when there is greater certainty that flooding is expected. Issued for waterways that take more than 6 hours to respond to rainfall	6 hours	▪ Issued directly to the media when there is a potential of flooding ▪ Can be found at: http://www.bom.gov.au/nsw/warnings/ BOM Weather App	A General Flood Warning OR Minor, Moderate or Major Flood Warning

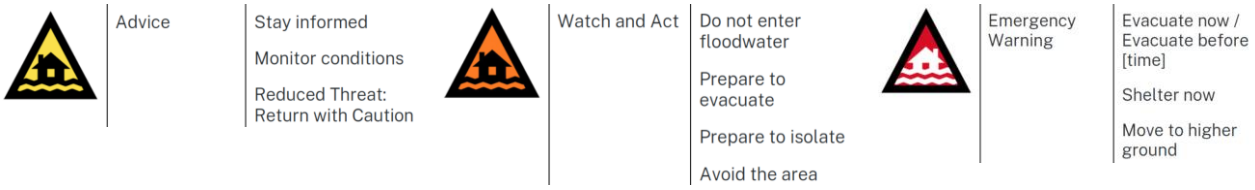
The BOM Weather app can be set to show only the relevant warnings that apply to the area set by the user, as well as hourly rainfall forecasts. The use of this app is particularly recommended because it provides most of the available BoM data that can be used to inform the emergency plan on mobile devices, and the BoM warnings can be prioritised as push notifications.

Importantly, the BoM Flood Watches and Flood Warnings may occasionally be issued without necessarily being followed by the event that they are predicting or may not be issued at all ahead of an actual flood. As such, these warnings are to be considered as an indication - not a certainty - that a flood affecting the site might occur. Similarly, the lack of such warnings does not mean that a flood event affecting the site within the following hours or days is impossible.

6.2.4.2 NSW State Emergency Service

The NSW State Emergency Service (SES) is also likely to issue warnings using the Australian Warning System (AWS) which is a nationally consistent, 3-tiered approach designed to provide clear warnings and lead people to take action ahead of severe weather events. The warning system comprises warning levels, action statements, hazard icons, colours and shapes.

FIGURE 27 THE AUSTRALIAN WARNING SYSTEM FOR FLOOD (AIDR, 2023)



NSW SES warnings can be monitored through the Hazards Near Me app and it is possible to set it to receive notifications for a particular location. Martinus shall promote and recommend that all staff and contractors download the Hazards Near Me application and establish a 'Watch Zone' account onto their personal device during the induction program.

6.2.4.3 Other information sources

In the lead up to, and during a flood event, agencies and organisations provide broadcast information and are available for contact if required. This includes warnings issued by the Bureau of Meteorology and the NSW SES as well as other information relevant to evacuation routes. These have been summarised in Table 12.

TABLE 12: EMERGENCY SERVICES CONTACTS AND FLOOD UPDATES

Agency/Service	Details
Local ABC Radio Station	ABC 720 AM ABC 738 AM Radio 97 (formerly 2MW) 972 AM
Australian Broadcasting Corporation (ABC) also announces emergency coverage via television and X (Twitter) feeds. Information can also be accessed via its website	ABC Emergency - https://www.abc.net.au/emergency
Bureau of Meteorology	1900 955 360 Main Directory 1300 659 219 Flood Warnings
State Emergency Service	132 500
Emergency Response	000
National Relay Services	1300 555 727 Speak and Listen Phone 0423 677 767 SMS Relay Phone
Live Traffic and Road Closure	Live Traffic NSW - https://www.livetraffic.com/
Hazard Near Me App	https://www.nsw.gov.au/emergency/hazards-near-me-app
Water Live WaterNSW	https://water-live-waternsw.en.aptoide.com/app
Early Warning Alerts – Provide via phone application (including receiving push notifications)	Weatherzone App

6.2.5 Flooding emergency management roles and responsibilities

Table 13 outlines the responsibilities for the implementation of the controls outlined in Section 6.2.1 to Section 6.2.4, Section 6.3 within Appendix B and within Appendix C.

TABLE 13: FLOODING EMERGENCY MANAGEMENT ROLES AND RESPONSIBILITIES

CFBEMP Section	STAGE	RESPONSIBILITY	ROLE
Section 7.2 **Appendix C**	**Preparation** **(Get Ready)**	**GS / DS / EM / SM – The site-specific flood preparation plan will be:** ▪ Covered in toolbox talks to educate the construction team about the Site-Specific Flood Preparation Plan ▪ Included as required in emergency drills	▪ General Superintendent (GS) ▪ Discipline (Rail, Earthworks, etc) Superintendent/Site Supervisor (DS/SS) ▪ Safety Manager (SM)

CFBEMP Section	STAGE	RESPONSIBILITY	ROLE
			▪ Environment Manager (EM)

Section 6.2.4	**Preparation (Get Ready)**	**Weather Monitoring and Flood Warning Systems**
		▪ GS / DS / SS – Sign up to the Bureau of Meteorology (BoM) Flood Warning Product for the respective Flood Watch Area(s).
		▪ GS / DS / SS – Set up flood watch/warning notifications and water level trigger alerts on *WaterLive App*.
		▪ GS / DS / SM / EM / SM – Monitor weather daily for construction planning purposes to identify risks of high rainfall and potential flooding events.
		▪ CSEM – Obtain and maintain contact details of local upstream landholders.
		  ▪ Contact them when works are occurring nearby and when flood/severe weather is predicted to assess what preparedness actions are required.
		▪ GS / DS / SS / SM – Use the Live Traffic NSW website and observe physical road closures to determine suitable and available evacuation routes for project personnel.
		▪ ALL – In the event of:
		  ▪ Self-evacuation or an evacuation order issued by authorities, personnel must follow the advice of NSW SES, or Police regarding road closures and evacuation routes.
		  ▪ Discuss personal evacuation plans with the relevant Supervisor, Manager, or a member of the Project's Safety Team.
		  ▪ Complete a Journey Management Plan for any travel exceeding 2 hours in duration.
			▪ General Superintendent (GS)
			▪ Discipline (Rail, Earthworks, etc) Superintendent/Site Supervisor (DS/SS)
			▪ Safety Manager (SM)
			▪ Environmental Manager (EM)
			▪ Community and Stakeholder Engagement Manager (CSEM)

Section 6.2.2
Appendix C
	Preparation (Get Ready)	**Temporary Works Measures**
		▪ GS / SS – Site-specific temporary works may include:
		  ▪ Minor drainage realignments and diversions
		  ▪ Bunding
		  ▪ Raising or lowering of site platforms
		  ▪ These are implemented to protect temporary and/or permanent works and to reduce potential flood impact.
		▪ ARM / SPE / GS / SS – Design and implementation of temporary works or flood mitigation measures will be determined on a site-by-site basis by the Martinus Temporary Works Team.
		▪ GS / SS / SPE / EM / SM – Assess all installed temporary works to:
		  ▪ Determine associated flood risks
			▪ Project Director (PD) or Delegate
			▪ Area Regional Manager (ARM)
			▪ General Superintendent (GS)
			▪ Discipline (Rail, Earthworks, etc) Superintendent/Site Supervisor (DS/SS)
			▪ Safety Manager (SM)
			▪ Environmental Manager (EM)

CFBEMP Section	STAGE	RESPONSIBILITY	ROLE
		▪ Identify whether removal of those works is required ▪ PD – Communicate flood preparation efforts to Inland Rail	
Section 6.2.3 **Appendix B** **Appendix C**	**Response (During Flood)**	**Immediately Prior to a Flood Event** ▪ PD – Identify and assign relevant Project Personnel responsible for preparing specific sections or stages of the Project site. ▪ Responsibilities must be clearly communicated to avoid confusion. ▪ Ensure all areas of the site are covered, and personnel/resources are assigned based on risk. ▪ PD – Communicate flood preparation efforts to IRPL. ▪ GS / DS / SS – Remove wastewater from site amenities via an authorised transporter for offsite disposal at a licensed facility. ▪ GS / DS / SS – Relocate all hazardous items and chemicals outside of flood-prone areas. ▪ GS / DS / SS – Remove mobile construction equipment and excess materials from waterways and flood-prone zones. ▪ GS / DS / SS – Shut off power to any flood-affected sites and equipment. ▪ Arrange alternate power sources for continued safe operations. ▪ GS / DS / SS / EM / SM – Implement all preparation measures as detailed in the Site-Specific Flood Preparation Plan. ▪ Document completion using the Site Preparation Checklist. ▪ ALL – In the event of self-evacuation or an evacuation order: ▪ Follow the advice of relevant authorities (e.g. NSW SES, Police) ▪ Discuss evacuation plans with your Supervisor, Manager, or a Project Safety Team member ▪ Complete a Journey Management Plan for any travel over 2 hours PD / PT – Contact local Project personnel whose residences may be affected by flooding and offer accommodation.	▪ Project Director (PD) or Delegate ▪ Area Regional Manager (ARM) ▪ General Superintendent (GS) ▪ Discipline (Rail, Earthworks, etc) Superintendent/Site Supervisor (DS/SS) ▪ Safety Manager (SM) ▪ Environmental Manager (EM)
Section 6.2.4	**Response (During Flood)**	**Monitoring During Flooding** ▪ GS / DS / SS / EM / SM – Continuously monitor Bureau of Meteorology (BoM) flood warning products for updated forecasts and expected flood levels.	▪ Project Director (PD) or Delegate ▪ Area Regional Manager (ARM)

CFBEMP Section	STAGE	RESPONSIBILITY	ROLE
		▪ PD – Ensure general on-site flood condition updates are communicated to all personnel in real time. ▪ NSW SES – Issues Flood Bulletins during flood events: ○ These are distributed via email to key stakeholders and the community ○ Bulletins contain important and current information about the flood situation ▪ PD / ALL – All Project personnel (including Martinus and Sub-Contractors) staying in the camp must attend a daily toolbox talk during flood events. The toolbox talk will: ○ Keep the workforce informed of the unfolding flood event ○ Confirm the welfare and safety of project personnel Assign daily tasks or responsibilities (e.g., Project works, Community Volunteering)	▪ General Superintendent (GS) ▪ Discipline (Rail, Earthworks, etc) Superintendent/Site Supervisor (DS/SS) ▪ Safety Manager (SM) ▪ Environment Manager (EM) ▪ NSW State Emergency Services (SES, RFS, Other) ▪ ALL (All Project personnel)
Appendix B	**Response (During Flood)**	**Evacuation** ▪ ALL – In the event of a flood, personnel are to gather at designated muster points located outside of flood-prone areas. » Muster points and evacuation routes will be detailed in Martinus Emergency Management Plan. ▪ NSW SES / PD – Evacuation arrangements will be carefully considered in collaboration with NSW SES. » Agreed evacuation plans will be included in local response plans. » Site Officers will be trained to manage additional sites/areas during evacuations. » The Incident Response Plan will be available at the site office, and awareness will be raised amongst construction workers. ▪ ALL – All Project personnel will follow NSW SES evacuation advice. **As advised by surrounding Councils, local council-managed evacuation centres are not available for use by project personnel during an emergency. Accordingly, the following site-specific evacuation arrangements have been established:** ▪ Primary Muster Point: Northern compound muster zone (identified on site emergency map) ▪ Evacuation Lead: Site Supervisor, supported by the nominated Emergency Controller ▪ Transport Arrangement: Evacuation will be conducted using project light vehicles in convoy, following the pre-established evacuation route	▪ Project Director (PD) or Delegate ▪ NSW State Emergency Services (SES, RFS, Other) ▪ ALL (All Project personnel)

CFBEMP Section	STAGE	RESPONSIBILITY	ROLE
		▪ Alternative Shelter: If offsite evacuation is required, personnel will be relocated to prearranged accommodation facilities or designated muster shelters such as crib huts ▪ Communication Protocol: UHF Channel 7 will be the primary communication method, supported by SMS alerts activated via the site's Emergency Contact Tree ▪ Trigger for Activation: Declaration by the Site Supervisor or Project Manager based on real-time flood or bushfire threat level, aligned with LGA flood warnings and NSW RFS alerts » . ▪ ALL – In the event of a flood, NSW SES (Ph. 132 500) should be contacted for emergency assistance. »	
Section 6.3.3 Appendix B	**Response (After Flood)**	**Recovery** ▪ ARM / GS / DS / SS / SM / SPE / EM – Following a flood event, a safety walk will be conducted to identify unstable or dangerous areas. ▪ The recovery team will: ▪ Inspect any flood damage to access roads ▪ Check for any relocated equipment, stock, or debris moved by floodwaters. ▪ SPE – The structural integrity of temporary flood mitigation measures (e.g., bunds, diversions, platforms, levees) will be assessed. ▪ Necessary maintenance and repair actions will be identified. ▪ SPE / SM / EM – Partially constructed structures within waterways will be checked for: ▪ Safety hazards ▪ Water damage and erosion ▪ Necessary maintenance and repair actions will be identified. ▪ SPE / SM / EM – Culverts under railway and roadways surrounding the site will be inspected for: ▪ Blockages ▪ Potential damage ▪ EM – Flood markings on buildings or infrastructure will be recorded for future reference and insurance purposes. ▪ GS / DS / SS / EM – Any water captured in areas of the site will be dewatered in accordance with the Project Soil and Water Management Plan.	▪ Project Director (PD) or Delegate ▪ Area Regional Manager (ARM) ▪ General Superintendent (GS) ▪ Discipline (Rail, Earthworks, etc) Superintendent/Site Supervisor (DS/SS) ▪ Safety Manager (SM) ▪ Environment Manager (EM)

CFBEMP Section	STAGE	RESPONSIBILITY	ROLE

		▪ EM – Water Quality Monitoring will be conducted in accordance with the Project Soil and Water Management Plan, especially after rainfall events.
		▪ ARM / GS / DS / SS / SM / SPE / EM / SM – A lesson's learned workshop will be held with all key Project personnel after the flood event.
		  ▪ Findings and recommendations will be incorporated into the aligned management Plan.
		▪ EM – Following a major flood or severe weather event, the Post Severe Weather / Flood Survey will be distributed to key Project personnel.
		  ▪ Personnel will be requested to complete the survey.
		  ▪ Findings and recommendations will be considered for potential incorporation into aligned management plans or process.	

6.3 Emergency management

6.3.1 Emergency Management Plan and Response Guides

The project has developed an Emergency Management Plan (5-0052-214-PMA-00-PL-0037) which outlines the emergency preparedness and response framework to be applied across the construction period. This includes defined roles, communication protocols, evacuation procedures, and training requirements. The EMP addresses a range of emergency scenarios, including bushfire and flood events.

This Flood and Bushfire Emergency Management Plan (CFBFEMP) supports and aligns with the Emergency Management Plan (5-0052-214-PMA-00-PL-0037) by providing specific risk-based controls, response triggers, and evacuation procedures relevant to bushfire and flood hazards along the alignment.

The objectives of the Emergency Management Plan (5-0052-214-PMA-00-PL-0037) include:

- Outlining procedures for managing site-based and office-based emergencies.
- Identifying emergency types requiring planned responses.
- Assigning responsibilities to emergency response personnel.
- Defining communication protocols and key contact numbers.
- Documenting evacuation and traffic management processes.
- Establishing requirements for training and response drills.

To support this process, hazard-specific Emergency Response Guides (ERGs) have been developed for events such as bushfire and flood. These guides are provided in Appendix B of this Plan and are to be followed in the event of a relevant emergency scenario. They are based on MR-A2P-WI-002 – Emergency Management Response Guides.

In addition, for any site located within a designated flood-prone area, a site-specific flood preparation plan must be developed prior to commencement of construction works. A template is provided in Appendix C.

6.3.2 Project Personnel Emergency Response and Evacuation

Albury City, Greater Hume, Junee Shire, Lockhart Shire and Wagga Wagga City Local Government Areas (LGAs) each have structured Local Flood Plans for the region. These plans identify flood risks in the Shire and present preparedness, response, coordination and operations for all levels of flooding throughout the relevant region. The plans identify

evacuation routes based on available flood information. These plans have been utilised to inform the CFBFEMP, to develop response measures and evacuation routes for project personnel. Should a regional flood event occur, project personnel are to follow the directions of the local or State emergency services. The local evacuation routes as outlined in these Plans are summarised in Table 14.

TABLE 14: REGIONAL FLOOD EVACUATION ROUTES BASED ON LOCAL FLOOD PLANS

LOCATION	INDICATIVE EVACUATION ROUTE
Albury Precinct	Sector A: Doctors Point and Surrounds – evacuation north along Schubach Street then left onto Borella Road and right onto the Hume Highway Sector B: South Albury – north along David Street/Waugh Road and right onto Fallon Street. Sector C: The Smollet Street Area – evacuees are to proceed north along Keiwa Street
Greater Hume Precinct	Sector A: Doctors Point and Surrounds – evacuation north along Schubach Street then left onto Borella Road and right onto the Hume Highway Sector B: South Albury – north along David Street/Waugh Road and right onto Fallon Street. Sector C: The Smollet Street Area – evacuees are to proceed north along Keiwa Street
Junee Precinct	No evacuation route specified. In the event of a flood, evacuation warning messages will be issued which will specify location of and route to evacuation centre*.
Lockhart Precinct	No evacuation route specified. In the event of a flood, the NSW SES Commissioner (or delegate) will order any necessary evacuations and provide information to the community about when and how to evacuate.
Wagga Wagga Precinct	No evacuation route specified. In the event of a flood, evacuees will move under local traffic arrangements from the relevant Sectors/Community via managed evacuation routes and continue along the suburban/regional/rural road network to allocated Evacuation Centres.

* Consultation with Junee Shire Council indicates that local emergency evacuation centre would not have capacity to accommodate project staff in the event of an emergency.

Evacuation routes from the above-mentioned Precincts are dependent (and likely to change) on the flood event and the movement of floodwaters across the floodplain. Project personnel will adhere to the evacuation advice provided and road closures issued by the NSW SES, LEMO or Police. Live Traffic NSW website and physical road closures will inform suitable and available routes for personnel.

As advised by local councils, council-managed evacuation centres are not available for use by project personnel during an emergency. Accordingly, the following site-specific evacuation arrangements have been established:

- Primary Muster Point: Northern compound muster zone (identified on site emergency map)
- Evacuation Lead: Site Supervisor, supported by the nominated Emergency Controller
- Transport Arrangement: Evacuation will be conducted using project light vehicles in convoy, following the pre-established evacuation route
- Alternative Shelter: If offsite evacuation is required, personnel will be relocated to prearranged accommodation facilities or designated muster shelters such as crib huts
- Communication Protocol: UHF Channel 7 will be the primary communication method, supported by SMS alerts activated via the site's Emergency Contact Tree
- Trigger for Activation: Declaration by the Site Supervisor or Project Manager based on real-time flood or bushfire threat level, aligned with LGA flood warnings and NSW RFS alerts

6.3.3 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 and notifying regulators (where required);
- 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 15. The following mitigation measures have been developed with consideration of SMART (specific, measurable, achievable, relevant and time-based) principles.

TABLE 15: 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 personal 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

ID	Management measure	When to implement	Responsibility for implementation	Reference or source	Evidence of implementation
CBF-4	Protocols for the management of bushfire risk will be implemented during construction in accordance with Planning for Bushfire Protection (RFS, 2019). The measures will be identified within this Plan and be consulted on with the RFS.	Construction	MR Environment and Sustainability Manager MR Health and Safety/Site Manager MR Regional Area Manager MR General Superintendent MR Senior Project Engineer	UMM H2	Audit reports Consultation records
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	Construction	MR Environment and Sustainability Manager	UMM H3	Inspection records Audit reports

ID	Management measure	When to implement	Responsibility for implementation	Reference or source	Evidence of implementation
	tanks, chemical storage cabinets/containers or impervious bunds.		MR Health and Safety/Site Manager MR Regional Area Manager MR General Superintendent 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	Best practice	Audit reports

ID	Management measure	When to implement	Responsibility for implementation	Reference or source	Evidence of implementation
			MR Environment and Sustainability Manager MR Health and Safety/Site Manager MR Site Supervisor		
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 MR Environment and Sustainability Manager MR Health and Safety/Site Manager	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	Pre-construction Construction	MR Delivery Manager MR Regional Area Manager MR General Superintendent MR Environment and Sustainability Manager MR Health and Safety/Site Manager	UMM HFWQ6	Construction planning documents

ID	Management measure	When to implement	Responsibility for implementation	Reference or source	Evidence of implementation
	proper management of a flood event at all stages of construction.		MR Site Supervisor		
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 MR Health and Safety/Site Manager MR Site Supervisor	UMM HFWQ6	This Plan Site-specific Flood Preparation Plans
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
CFE-5	Martinus shall promote and recommend that all staff and contractors download the Hazards Near Me	Induction stage	MR Head of Competency	MR Induction Program	Induction records

ID	Management measure	When to implement	Responsibility for implementation	Reference or source	Evidence of implementation
	application and establish a 'Watch Zone' account onto their personal device during the induction program.				

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. Although this CFBEMP sits within the Construction Environmental Management Plan (CEMP), flood and bushfire emergency management are not the direct responsibility of the Environment, Approvals and Sustainability Manager.

The Area Regional Manager and General Superintendent are responsible for the field implementation of flooding and bushfire emergency control measures on site, ensuring that site-based actions are carried out effectively in accordance with the Flood and Bushfire Emergency Response Management Plan structure and response.

Section 6.1.8 outlines the responsibilities for the implementation of the bushfire emergency management controls. The responsibilities for the implementation of the flooding emergency management controls are outlined in Section 6.2.5.

The ERG (Appendix B) outlines the detailed procedures for potential flood or bushfire events. This includes the responsibilities at each stage of the emergency.

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 subcontractors, will undergo site induction training on 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 Regional Area Manager/General Superintendent, Site Supervisor (or delegate) will inform the site workforce of any environmental issues relevant to bushfire 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.

7.2.3 Toolbox talks

During the dry and wet seasons, the Local Fire Authority/Emergency Services (District) will be invited to participate in regular Toolbox Talks actively conducted on-site. Their involvement will enhance bushfire preparedness by providing expert insights, updates on local fire/flooding conditions, and practical advice tailored to the specific risks associated with the region and time of year.

These sessions will serve as a platform for reinforcing key bushfire/flood safety protocols, discussing recent incidents or near misses, and addressing any questions or concerns raised by site personnel. The presence of these authorities also helps foster stronger collaboration between emergency services and the project team, ensuring a coordinated response in the event of a bushfire/flood.

In addition to these Toolbox Talks, dedicated "refresher" presentations will occur throughout the construction phase. These presentations reinforce earlier training, emphasise fire/flood safety, and provide updates on any changes to this Management Plan, site conditions, or regulatory requirements.

7.2.4 Bushfire awareness training

Applicable supervisory personnel working in bushfire-prone areas on the project shall complete Bushfire Awareness Training. All other ground personnel will be briefed on bushfire prevention measures and response procedures through toolbox talks and site induction requirements.

7.3 Inspections and monitoring

The General Superintendent (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.

The monthly environmental report must include exception reporting and statements actively addressing the demonstration of emergency response resourcing.

8 REVIEW AND IMPROVEMENT

8.1 Continuous improvement

This plan will be continuously improved by the ongoing evaluation of environmental management performance against environmental policies, objectives, and targets to identify 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 Section 10 of 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 Section 10.4 of the CEMP and reviewed and approved as described in Section 3.3.1 of 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.

APPENDIX A

PSR and CEMF requirements

PSR and CEMF requirements are internal requirements beyond the Infrastructure Approval. These have been included for internal quality control purposes and do not form part of management plan.

TABLE A1-A: INTERNAL PSRS AND CEMF REQUIREMENTS APPLICABLE TO THIS PLAN

No.	Requirement	Where addressed
PSR Appendix C Section 6.1.3 i)	The Contractor has prepared a Flood and Bushfire Emergency Management Plan as a sub-plan of the CEMP, which will be implemented for the duration of Stage A works.	This Plan
PSR Appendix C Section 8.9.1	The Contractor shall comply with the requirements of the relevant State fire and emergency services Laws.	Section 3
PSR Appendix C Section 8.9.2	The Contractor shall not light fires in the open within or adjacent to the Site.	Section 6.1.4 Section 6.1.5
PSR Appendix C Section 8.9.3	The Contractor shall not undertake cutting, welding, grinding or other activities, which could cause fires, on total fire ban days unless the activity is conducted in a controlled environment, in a controlled manner and approved by the fire warden and the relevant Emergency Services Organisations.	Section 6.1.4 Section 6.1.5
PSR Appendix C Section 11.1.4	The Contractor shall provide mitigation for flood impacts due to the Temporary Works in accordance with the environmental management requirements in PSR Annexure F, section 6.1.1.	Section 6.2
CEMF Table 3	Regular (timeframe to be agreed with ARTC and, failing agreement, as determined by the ARTC Representative) demonstration of sufficient resources to effectively respond in a timely manner to an emergency event on Site.	Section 6.1.7 Section 6.2.4 MM CBF-05 MM CFE-2
CEMF Table 3	Emergency response plan including suitable environmental mitigations and to incorporate immediate remedial actions to mitigate environmental harm or further impacts from Environmental Events.	Section 6.3
CEMF Section 6.13	The Contractor shall undertake immediate remedial actions to mitigate environmental harm or further impacts from Environmental Events in accordance with the Contractor Emergency Response Plan; immediate response actions shall not be delayed by the need to notify ARTC.	Section 6.3.2
CEMF Section 6.17.1	The monthly environmental report must include exception reporting and statements actively addressing, but not limited to, the following: Demonstration of emergency response resourcing	Section 7.3.2

APPENDIX B

Emergency Response Guide – Flood and Bushfire

Fire – Bushfire/Flood	
Immediate Actions	***Note: In periods where the Fire Danger Rating Index is 'Severe' or 'Extreme', Martinus shall adhere to the Fire Danger Rating Index at the base of this section*** The following priorities shall guide the response to a bushfire emergency: ✓ Safety of Persons. ✓ Safety of Property. ✓ First Response. ✓ Emergency Services. **WHERE FIRE IS DETECTED WITHIN 20 KM OF OPERATIONAL SITES** ✓ MR shall affect an evacuation/suspension of operations– Weather dependent. ○ No operations permitted away from direct access to vehicles. ○ Notify Fire & Emergency Service ○ Activate Martinus: - Incident Management Team (IMT) - Crisis Management Team (CMT) ○ IMT/CMT to monitor fire development and movement. **IN EVENT A BUSHFIRE ORIGINATES ONSITE** ✓ Attempt to extinguish or contain a fire at the local level, where this cannot be safely executed, escalate response as per below. ***Note:*** *Workers engaged in fighting fires shall only continue to fight the fire to the extent that their safety and/or the safety of others is preserved. Where danger exists because of attempting to fight the fire, personnel are to withdraw to a place of safety.* **UNCONTROLLED BUSHFIRE / FLOOD THREAT** ✓ Immediate Notifications. ○ Triple Zero '000' request Fire & Emergency Services ○ HSE Team ⇨Project Director ○ Chief Warden will liaise and coordinate communication and notifications with adjoining property owners and occupiers. ✓ Activate Martinus: ○ Incident Management Team (IMT) ○ Crisis Management Team (CMT) ✓ Requirement for full or partial Site Evacuation? ○ Assess the suitability and potential safety of normal evacuation routes. ○ Evaluate the safety of standing evacuation muster points and change if necessary. *(Consider wind, water flow direction, speed of travel, proximity to work groups)* ○ Coordinate evacuation of personnel to the determined refuge. ○ Record names/accounts for missing persons - Details of missing persons to be communicated to IMT. ✓ Cordon and control scene/site. ○ Traffic Management / Sentries / Security ✓ Nominate a suitable emergency services liaison officer to meet/brief the Fire Service Guides / Escorts are designated to meet external emergency services at designated pick-up points. See *'Site Emergency Services Pick-up Points'.*
Maintaining the Response	✓ Additional Notifications: Martinus/Client to facilitate notification/communication lines with adjoining property owners and occupiers. ✓ Casualty Management – *see Medical – 'Single Casualty / Multiple Casualty'.* ✓ Continue to maintain situational awareness and provide regular updates to IMT. ✓ Provide ongoing support to the site and State/Territory emergency response (Fire / Ambulance / Police / Other): ○ Ensure ready access to: - Site plans - Water Fill Points

Fire – Bushfire/Flood	
	Fire Suppression Equipment: Water Trucks, Firefighting Trailers, relevant Earthmoving Equipment and Operators, i.e., Dozer, Grader, etc.
Make-Up	**Following a Bushfire/Flood Emergency:** ✓ The Project Director and Health and Safety Manager shall determine when it is safe to return to the site/facilities following advice from the Fire Service. ✓ Request names and contact details of witnesses. ✓ Obtain photographs of the scene, preserve evidence, cordon & control. ✓ Investigation requirements: ○ Martinus HS / Environmental Team ○ Fire and Emergency Service / Rural Fire Brigade ○ Police Service – where arson or deliberate intent may be presumed? ○ SafeWork NSW ✓ Casualty identification and management: ○ Employee/contractor management & support, ○ Activate the employee assistance program – *see 'Martinus & Client Contact List'.* ✓ Recovery of damaged assets. ✓ Upon returning to the site after Bushfire incidents, all workers shall remain vigilant for flare-ups and report immediately.

Fire Danger Rating Index

Serial	Fire Danger Rating	Fire Danger Index	Effect on Operations
1	Fire danger rating: low-moderate	FDI 0-11	✓ Operations continue as planned.
2	Fire danger rating: high	FDI 12-31	✓ Operations continue as planned.
3	Fire danger rating: very high	FDI 32-49	✓ Operations continue as planned.
4	Fire danger rating: severe	FDI 50-74	✓ Operations to continue as planned at the site. ✓ A heightened state of alert on-site. ✓ Constant monitoring of conditions at the site. ✓ Identification of the nearest refuge. ✓ *MR will effect an evacuation/suspension of operations in the event that a fire is detected within 20km of operational sites – Weather-dependent.* ✓ **No operations permitted away from direct access to vehicles.**
5	Fire danger rating: extreme	FDI 75-99	✓ Operations suspended until Risk Assessment is conducted and authorisation is given from the MR PD or his delegate.
6	Fire danger rating: catastrophic	FDI 100+	✓ No operations permitted

APPENDIX C

Site-Specific Flood Preparation Plan template

HEALTH SAFETY

MARTINUS

SITE-SPECIFIC FLOOD PREPARATION PLAN

SITE INFORMATION

Project:		**Location (Site)**	
Chainage:			
Area Supervisor			
Approved by (Area Engineer)			
Completed by (Full Name):		**Role (Title):**	
Instructions: *Page 1 of the Site-Specific Flood Preparation Plan is to be prepared by Site Supervisor/delegate before mobilisation to the site. Completion of the inspection checklist (page 2 and 3) is triggered following a Flood Warning or Flood Watch alert issued by BOM or as directed by the Martinus Rail Project Director*		**Date:**	
		Signature:	
Completed first page to be consulted with and/or issued to NSW SES		**Date sent:**	

Site Layout Diagram (Insert) **NOTE:** **This Site Layout Diagram must include key site features, temporary works, access routes, onsite flood refuge (elevated) ground, drainage features, etc**		
Flood Evacuation Route (Insert)		
Key Personnel / Response Crew (Insert)	**Name**	**Phone Numbers**

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Note: Completed Inspection to be entered into Procore

C = Complies NI = Needs Improvement NA = Not Assessed / Applicable

	Site Preparation - Inspection Criteria	C	NI	N/A	Comments
1.1	Undertake actions in consultation with the Project Manager – environmental, safety, risk assessment / WMS?	☐	☐	☐	
1.2	Check the perimeter of all building structures for any loose items that need to be secured.	☐	☐	☐	
1.3	Isolate dams/water catchments where possible – battering/windrowing.	☐	☐	☐	
1.4	Secure/remove the pumping station where possible – high ground designated area.	☐	☐	☐	
1.5	Empty and secure effluent tanks to ensure no leakages.	☐	☐	☐	
1.6	Move plant/machinery or other equipment to designated 'high ground' areas and secure photographs for records.	☐	☐	☐	
1.7	Store fire extinguishers inside buildings.	☐	☐	☐	
1.8	Empty rubbish/skip bins and store them inside storage/shipping containers.	☐	☐	☐	
1.9	Secure all windows on the huts on the sites.	☐	☐	☐	
1.10	Close all air conditioner vents and tie down condensers.	☐	☐	☐	
1.11	Empty fridges of all perishable goods.	☐	☐	☐	
1.12	Close all internal doors.	☐	☐	☐	
1.13	Cover all records, drawings, documents, etc., in plastic (watertight).	☐	☐	☐	
1.14	Turn off and cover (or remove from the site) all computers and hardware.	☐	☐	☐	
1.15	Monitor phone, radios and emails until site evacuation.	☐	☐	☐	
1.16	Close and lock all external doors.	☐	☐	☐	
1.17	Turn off all electrical equipment.	☐	☐	☐	
1.18	Secure or store all loose items in office areas and laydown areas.	☐	☐	☐	
1.19	Secure gas cylinders, oil and fuel drums.	☐	☐	☐	
1.20	Raise materials and equipment that are vulnerable to water damage from the floor.	☐	☐	☐	



SITE-SPECIFIC FLOOD PREPARATION PLAN

1.21	Isolate, secure and store all fuel dispensing equipment.	☐	☐	☐	
1.22	Bundle and secure all loose debris.	☐	☐	☐	
1.23	Secure or remove signs and star pickets.	☐	☐	☐	
1.24	Check all ties on buildings and objects.	☐	☐	☐	
1.25	Check of high ground that is considered appropriate for holding machinery/material/hazardous substances/chemicals & other equipment in the event of flooding on the worksite – identified on site before commencement of works (environmental risk assessment).	☐	☐	☐	
1.26	Remove temporary traffic control devices where possible, e.g. traffic cones.	☐	☐	☐	
1.27	Ensure clear drainage paths on sites to accommodate heavy rainfall.	☐	☐	☐	
1.28	Monitor and maintain ESC devices.	☐	☐	☐	
1.29	Establish stable access/egress points – gravel/rock.	☐	☐	☐	
1.30	Separation of dirty and clean water catchments, where possible.	☐	☐	☐	
1.31	Cover road areas with gravel & seal wherever possible.	☐	☐	☐	
1.32	Tasking – team inspections to designated areas for inspection of ESC devices/batters/verges - includes photographs of the same, as well as recorded data.	☐	☐	☐	
Site Specific Actions / Measures (Insert) – Incl. Temporary Works Response Measures		**Yes**	**NI**	**N/A**	**Comments**
2.1		☐	☐	☐	
2.2		☐	☐	☐	
2.3		☐	☐	☐	
2.4		☐	☐	☐	
2.5		☐	☐	☐	

Additional Comments

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APPENDIX D

Indicative site access/egress points



Inland Rail - A2I

Legend

Construction Impact Zone

Site access / egress point

Murray River Bridge

0 5 10 20

Metres



Inland Rail - A2I

Legend

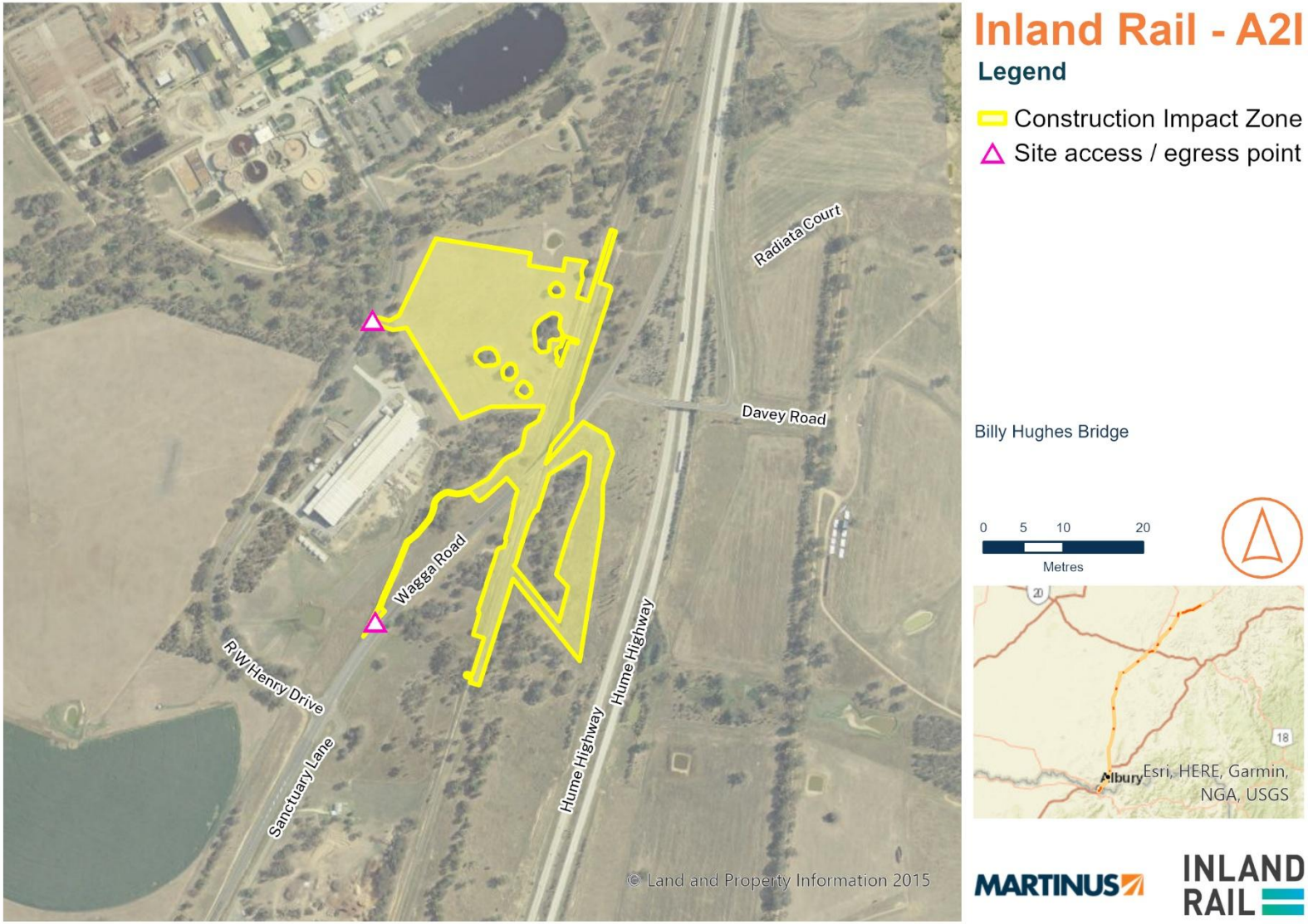
Construction Impact Zone

Site access / egress point

Albury Station Yard / Riverina Hwy

0 5 10 20

Metres



Inland Rail - A2I

Legend

Construction Impact Zone

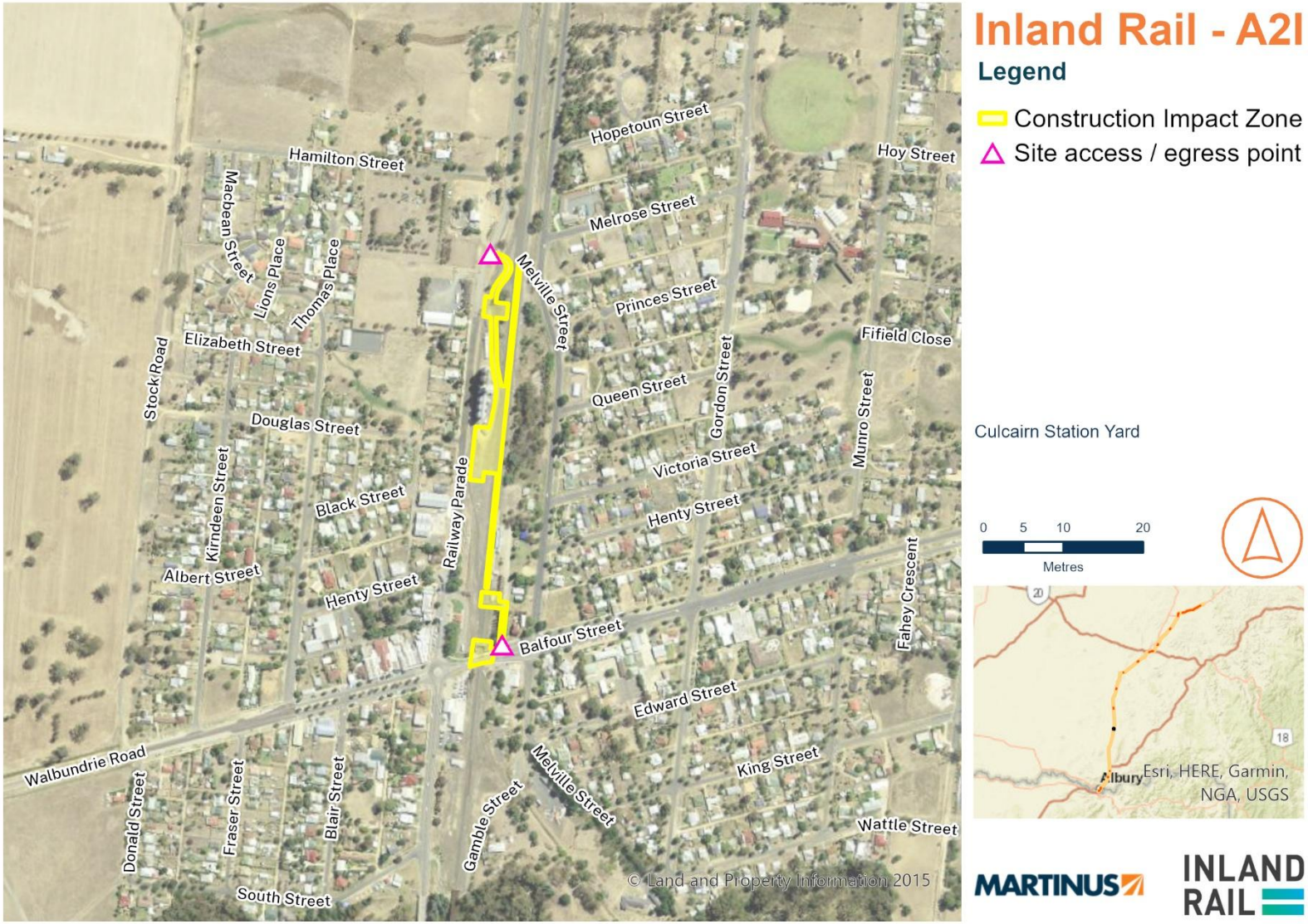
Site access / egress point

Billy Hughes Bridge

0 5 10 20

Metres


Perryman Lane
Hume Highway
Hume Highway
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Inland Rail - A2I
Legend
Construction Impact Zone
Site access / egress point
Table Top Yard
0 5 10 20
Metres
20
18
Albury
Esri, HERE, Garmin, NGA, USGS



Inland Rail - A2I

Legend

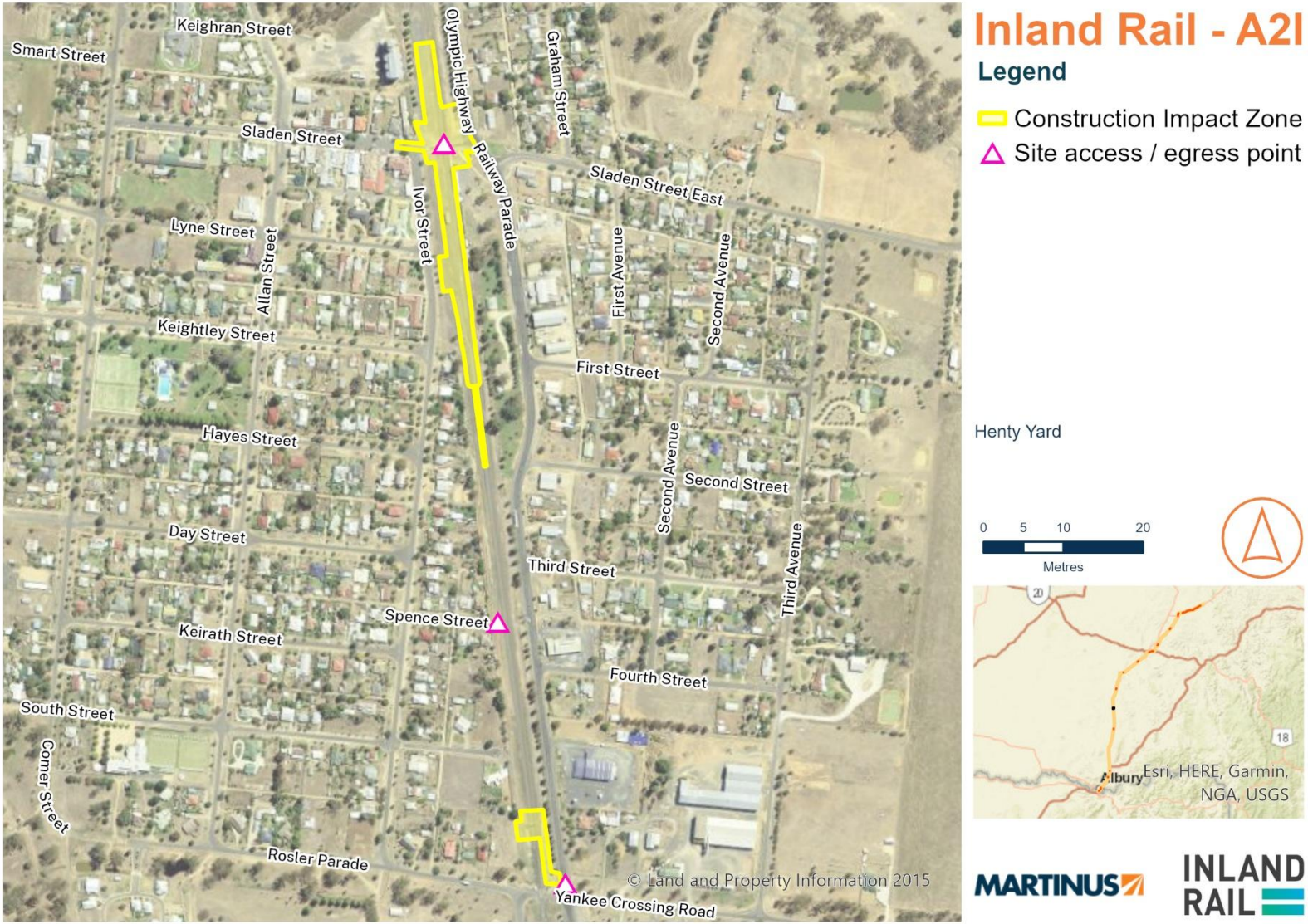
Construction Impact Zone

Site access / egress point

Culcairn Station Yard

0 5 10 20

Metres



Inland Rail - A2I

Legend

Construction Impact Zone

Site access / egress point

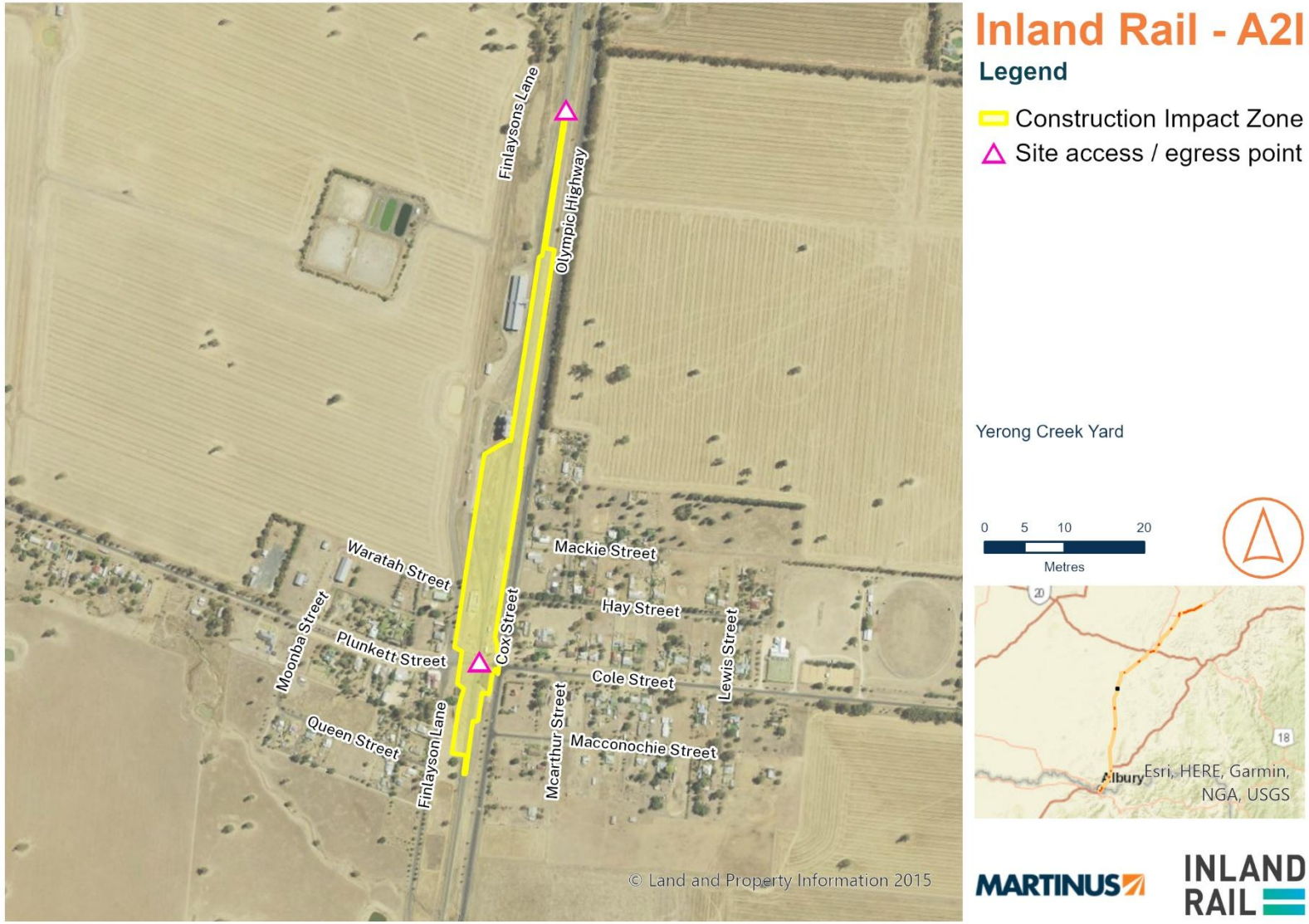
Henty Yard

0 5 10 20

Metres

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Legend

Construction Impact Zone

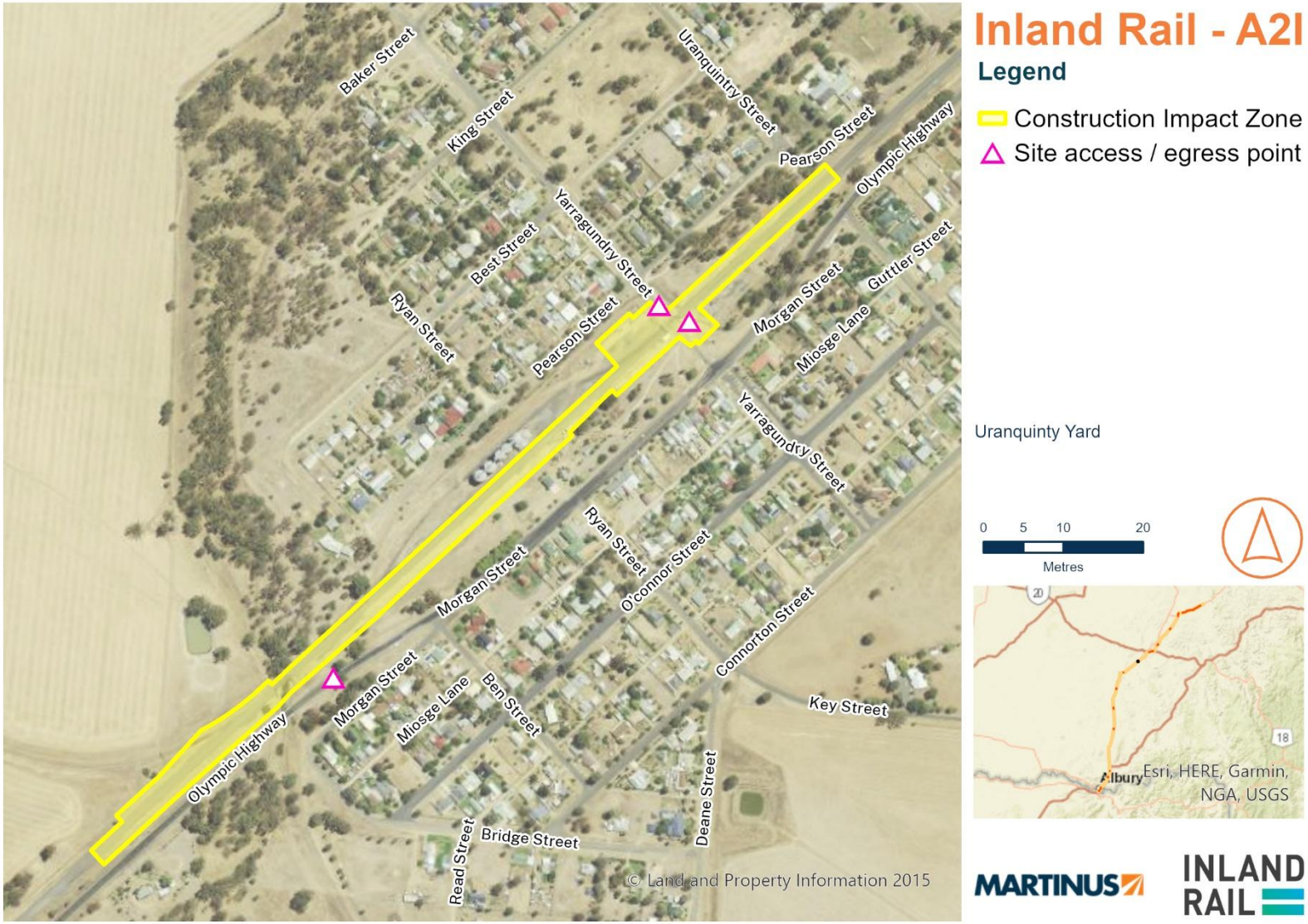
Site access / egress point

Yerong Creek Yard

0 5 10 20

Metres


Burkes Street
Day Street
Norman Street
Urana Street
Davidson Street
Mitchell Street
Railway Street
Draper Smissen Street
Emily Street
Urana Street
Olympic Highway
Nicholas Street
Railway Street
Mangoplah Road
Scott Street
Emily Street
© Land and Property Information 2015
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Legend
Construction Impact Zone
Site access / egress point
The Rock Yard
0 5 10 20
Metres
Albury
Esri, HERE, Garmin, NGA, USGS



Inland Rail - A2I

Legend

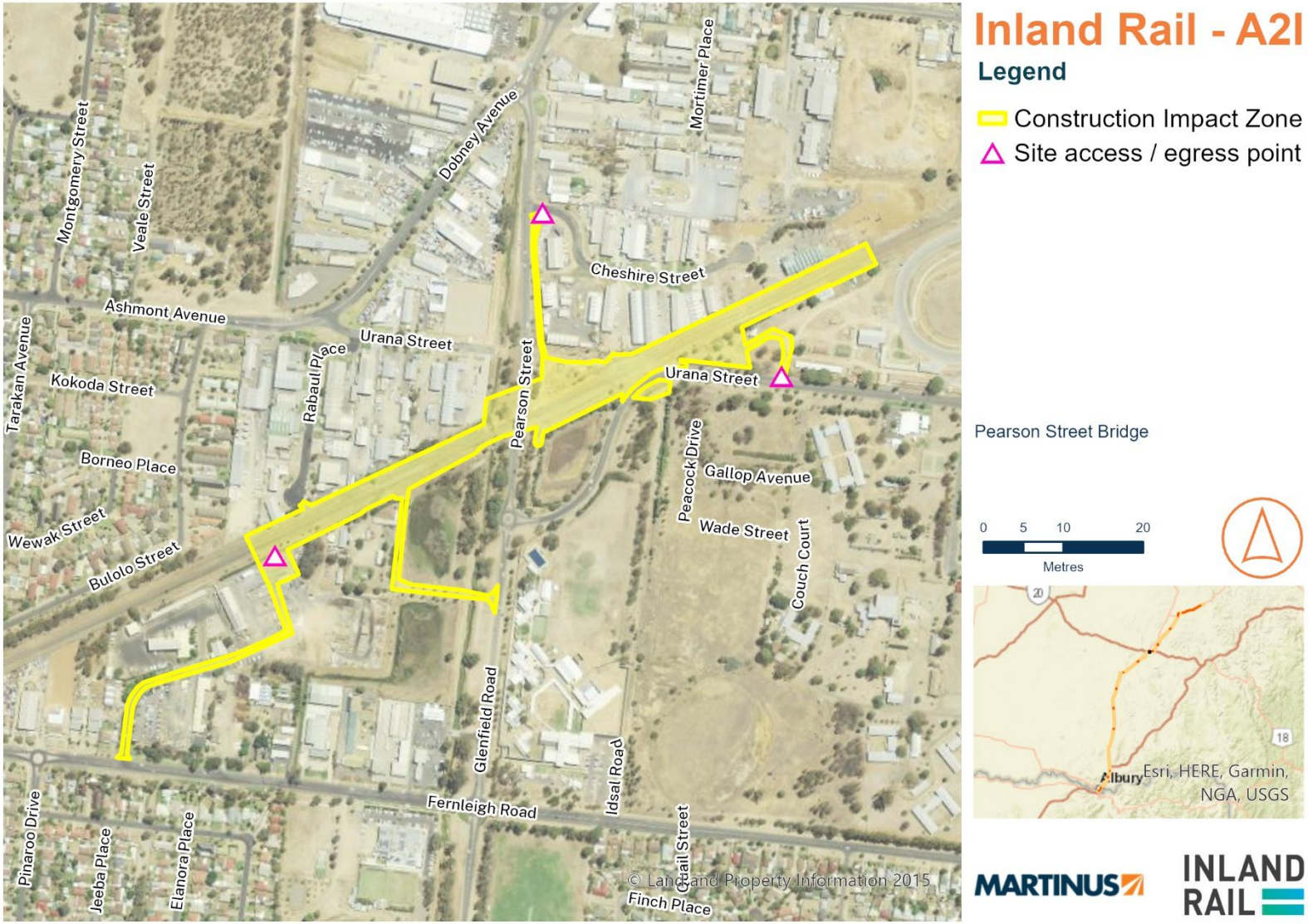
Construction Impact Zone

Site access / egress point

Uranquinty Yard

0 5 10 20

Metres



Inland Rail - A2I

Legend

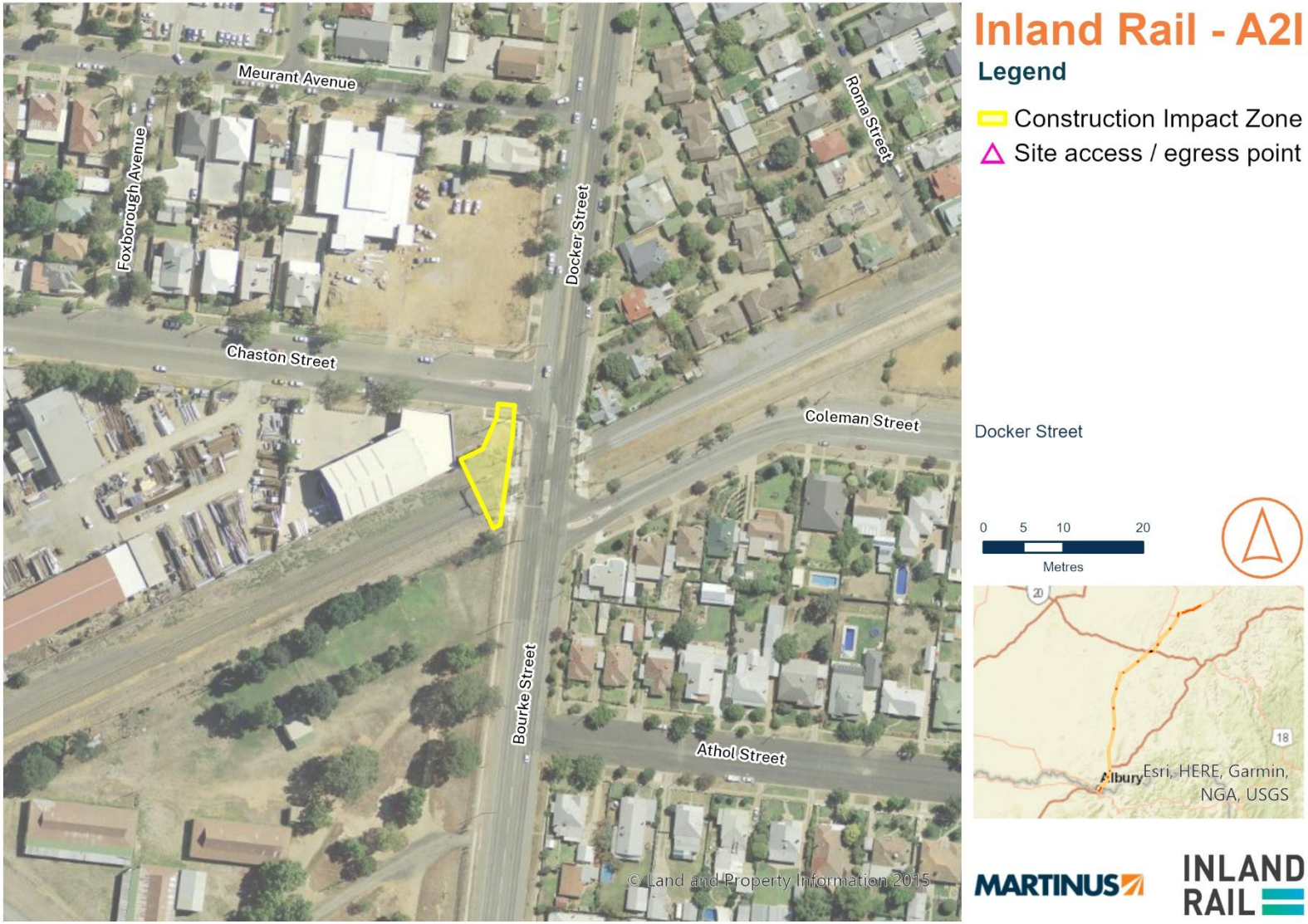
Construction Impact Zone

Site access / egress point

Pearson Street Bridge

0 5 10 20

Metres



Inland Rail - A2I

Legend

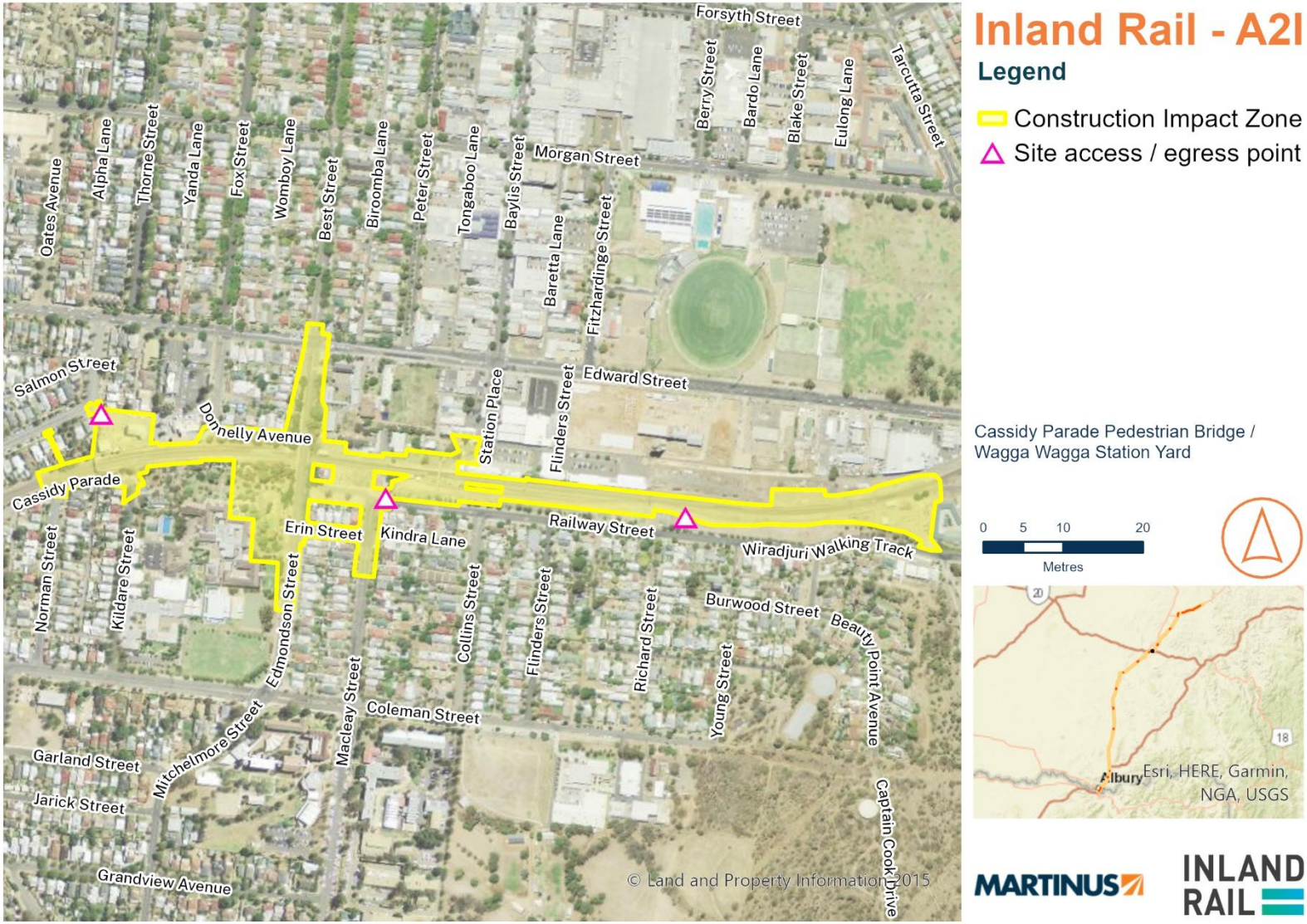
Construction Impact Zone

Site access / egress point

Docker Street

0 5 10 20

Metres



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Legend

Construction Impact Zone

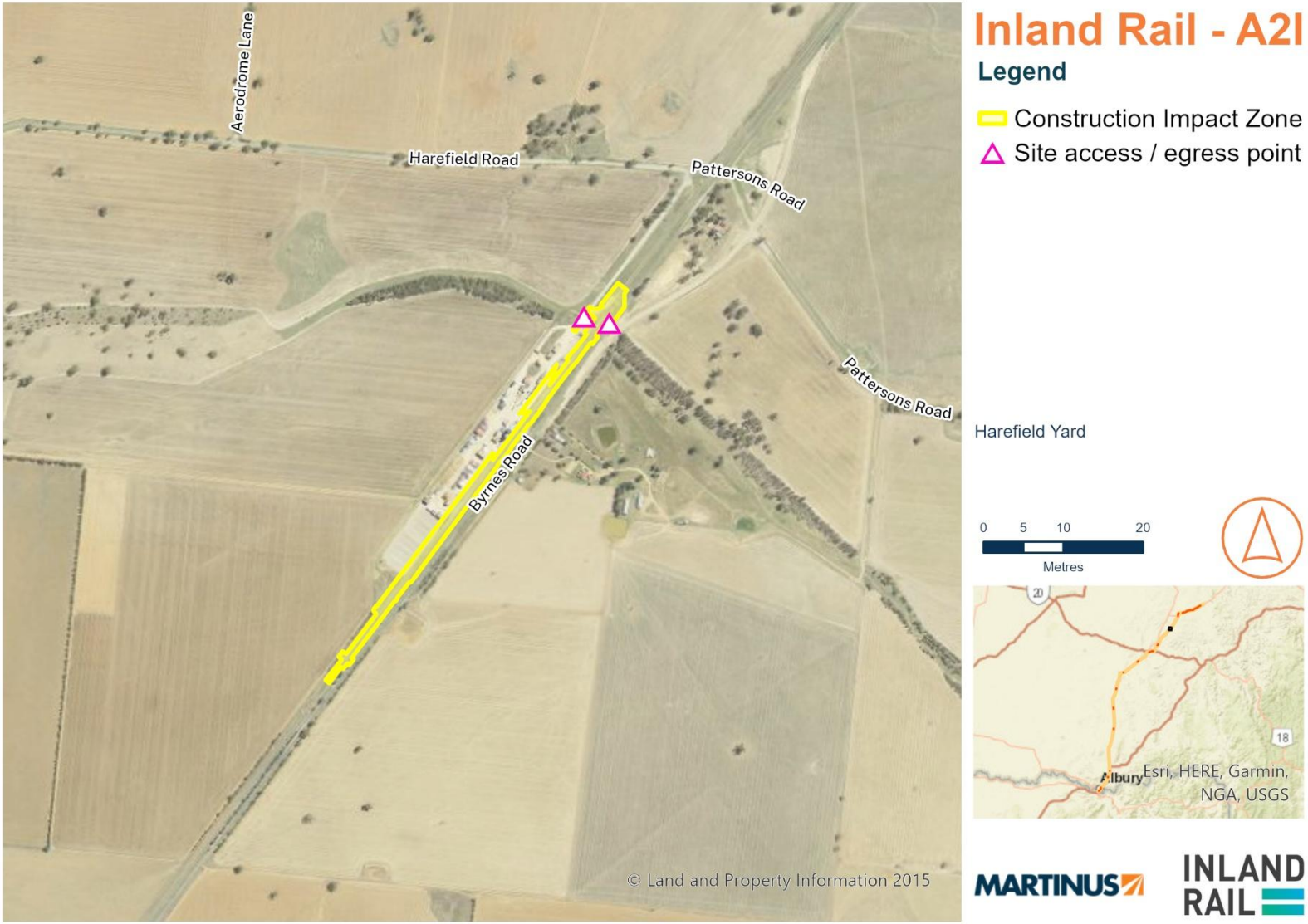
Site access / egress point

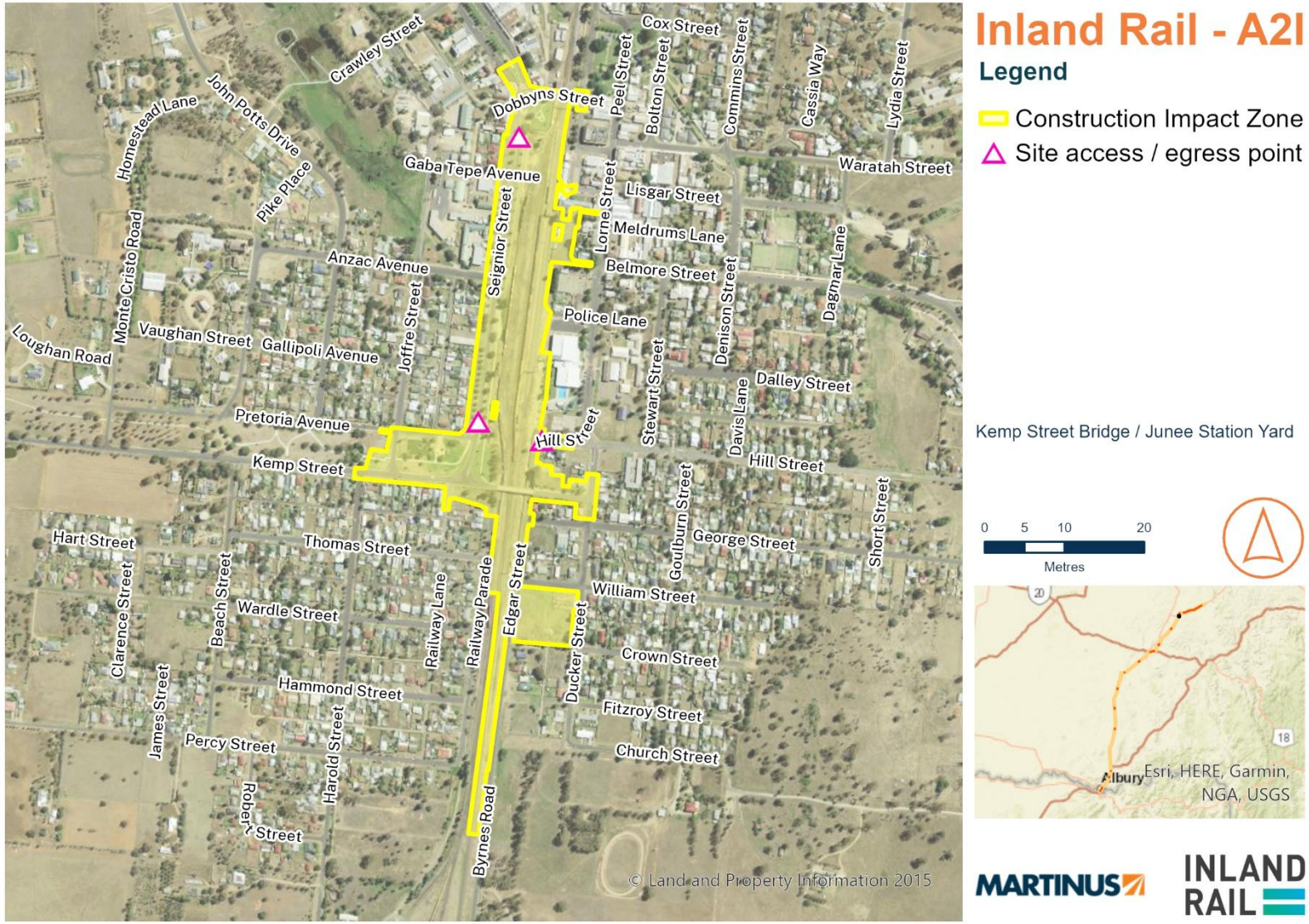
Cassidy Parade Pedestrian Bridge / Wagga Wagga Station Yard

0 5 10 20

Metres


Hereford Street
Lewington Street
Dorset Drive
Bachali Street
Dampier Street
Bomen Road
Jersey Street
Byrnes Road
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Legend
Construction Impact Zone
Site access / egress point
Bomen Yard
0 5 10 20
Metres
Albury
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Aerodrome Lane
Harefield Road
Pattersons Road
Pattersons Road
Byrnes Road
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Legend
Construction Impact Zone
Site access / egress point
Harefield Yard
0 5 10 20
Metres
Albury
Esri, HERE, Garmin, NGA, USGS



Inland Rail - A2I

Legend

Construction Impact Zone

Site access / egress point

Kemp Street Bridge / Junee Station Yard

0 5 10 20

Metres



Inland Rail - A2I

Legend

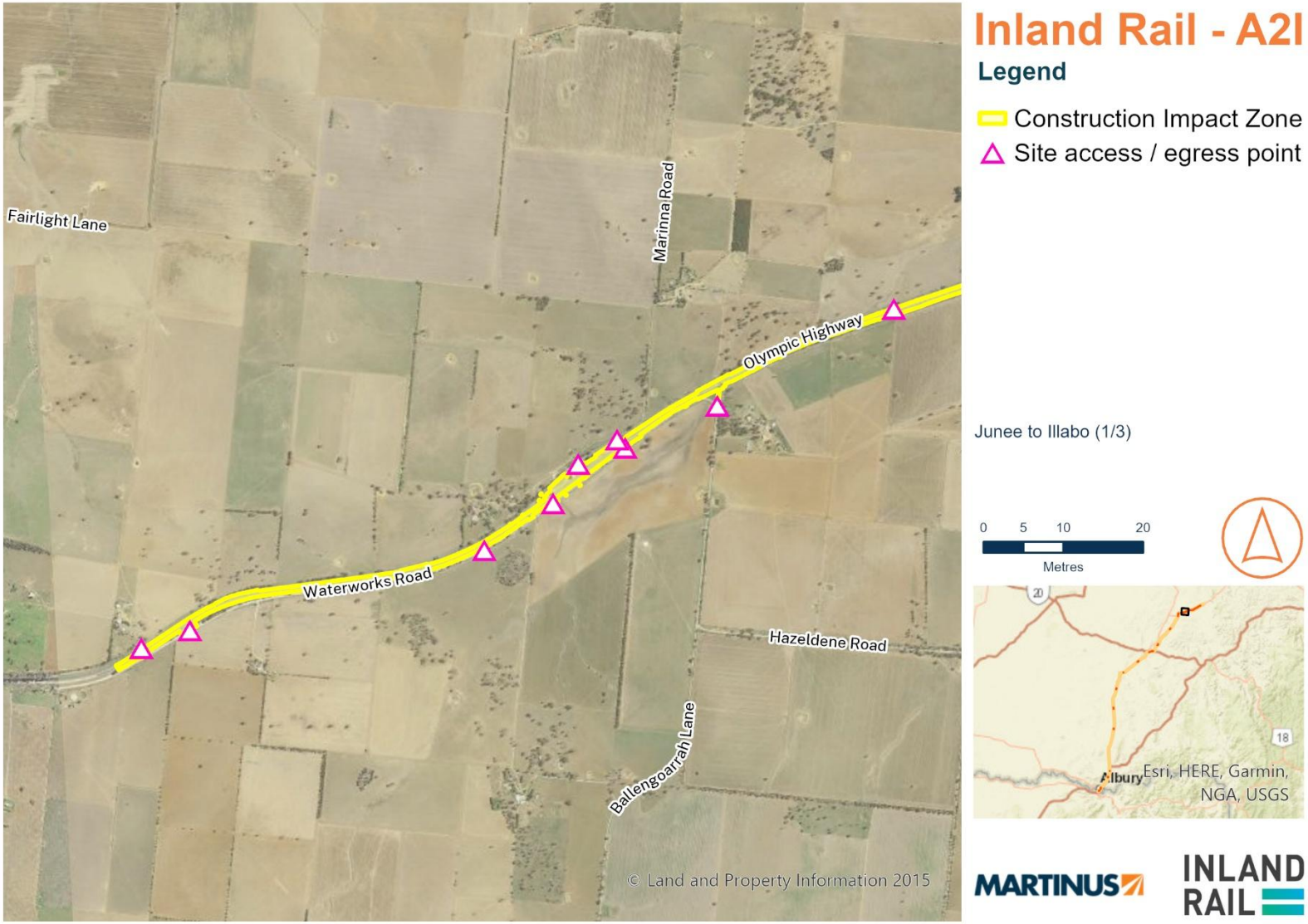
Construction Impact Zone

Site access / egress point

Olympic Highway

0 5 10 20

Metres



Inland Rail - A2I

Legend

Construction Impact Zone

Site access / egress point

Junee to Illabo (1/3)

0 5 10 20

Metres



Inland Rail - A2I

Legend

Construction Impact Zone

Site access / egress point

Junee to Illabo (2/3)

0 5 10 20

Metres



Inland Rail - A2I

Legend

Construction Impact Zone

Site access / egress point

Junee to Illabo (3/3)

0 5 10 20

Metres



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