

# Hexham TSF Environmental Management Plan

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8 August 2024



## Plan Approval Table

Position	Name	Signature	Date
Regional Maintenance Manager	Craig Tuffley	<i>Craig Tuffley</i>	09/08/2024

## Revision History

Rev	Date	Author	Comments
8	07/05/19	Harry Egan	Revision following IEA
9	19/05/20	Harry Egan	Update to include Turning Angle
10	01/10/21	Harry Egan	Annual update
11	01/02/23	Harry Egan	Depot Modification
12	08/08/24	Harry Egan	Annual Update

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## Glossary

Term	Definitions
Aurizon	Aurizon Operations Pty Ltd
the Approval	MP07_0171_MOD 1
the Assessment	QR National NSW Train Support Facility Environmental Assessment, Project No. 37417 (ADW Johnson Pty Ltd, 16 November 2012)
CWR	Coal Washery Reject
DAF	Dissolved Aeration Floatation
DPE	Department of Planning, Industry and Environment
DPI	Department of Primary Industries
DIL	Direct Into Locomotive
the EA	Section 5.25 Modification to SSI-6090 (formerly MP07_0171) Hexham Long Term Train Support Facility – Ancillary Depot and Wagon Storage (Ethos Urban, April 2022)
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPA	Environment Protection Authority
EPL	Environmental Protection Licence
ENV-PRI-001	Enterprise-wide Environmental Management Principle
ERA	Environmental Risk Assessment
ER	Environment Representative
SAE	Senior Adviser Environment
SERP	Site Emergency Response Management Plan
SoC	Statement of Commitments
the Site	Hexham Train Support Facility
SSI	State Significant Infrastructure
SHE	Safety, Health and Environmental Management System
NCC	Newcastle City Council
OEMP	Operational Environmental Management Plan
OEH	Office of Environment and Heritage
POL-08	Aurizon's Enterprise-wide Environmental Policy

Term	Definitions
PIRMP	NSW Operations Pollution Incident Response Management Plan
PPR	Preferred Project Report and Response to Submissions Project Application (MP07_0171), Ref 12599 (JBA Planning, June 2013)

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# 1.0 Introduction

## 1.1 Site Description

The Aurizon Operations Pty Ltd (Aurizon) Hexham Train Support Facility (the Site) has a total area of 255ha and is located at Hexham approximately 16km north-west of the Newcastle Central Business District.

The Site shares borders with the Main Northern Railway and Pacific Highway to the east and the New England Highway to the north. To the south and west rural properties and the Hexham Swamp Nature Reserve are adjacent. The Site is located within a predominantly industrial setting, with only a small number of residential dwellings within the local vicinity.

The Site's history as a coal handling facility has resulted in the southern portion of the site containing an abandoned rail loop corridor and coal washery reject (CWR). CWR is retained within vegetated stockpiles however it is also present extensively in sub surface deposits. Remediation completed during the construction of the Site infrastructure has resulted in excavated CWR and Potential Acid Sulphate Soil being stockpiled in the southern portion of the site

Brancourts Manufacturing and Processing Pty Ltd are currently licensed to use a portion of the site for a waste water treatment plant and effluent irrigation area under Environmental Protection Licence (EPL) 816. Effluent is irrigated over the above mentioned CWR stockpiles.

The Site cadastral boundaries are listed in Table 1 with the Site layout shown in Figure 1 below:

**Table 1 - Site Cadastral and Zoning**

Lot	DP	Site Zone ID and Description*
104	1189565	
1	155530	
105	1189565	
11	1236873	
106	1189565	
2	171105	
104	1084709	Zone E2 Environmental Conservation and Zone IN3 Heavy Industrial
2	73456	
10	735235	
102 (part lot)	1084709	
1 (part lot)	256618	
101 (part lot)	1189565	
1 (part lot)	171105	

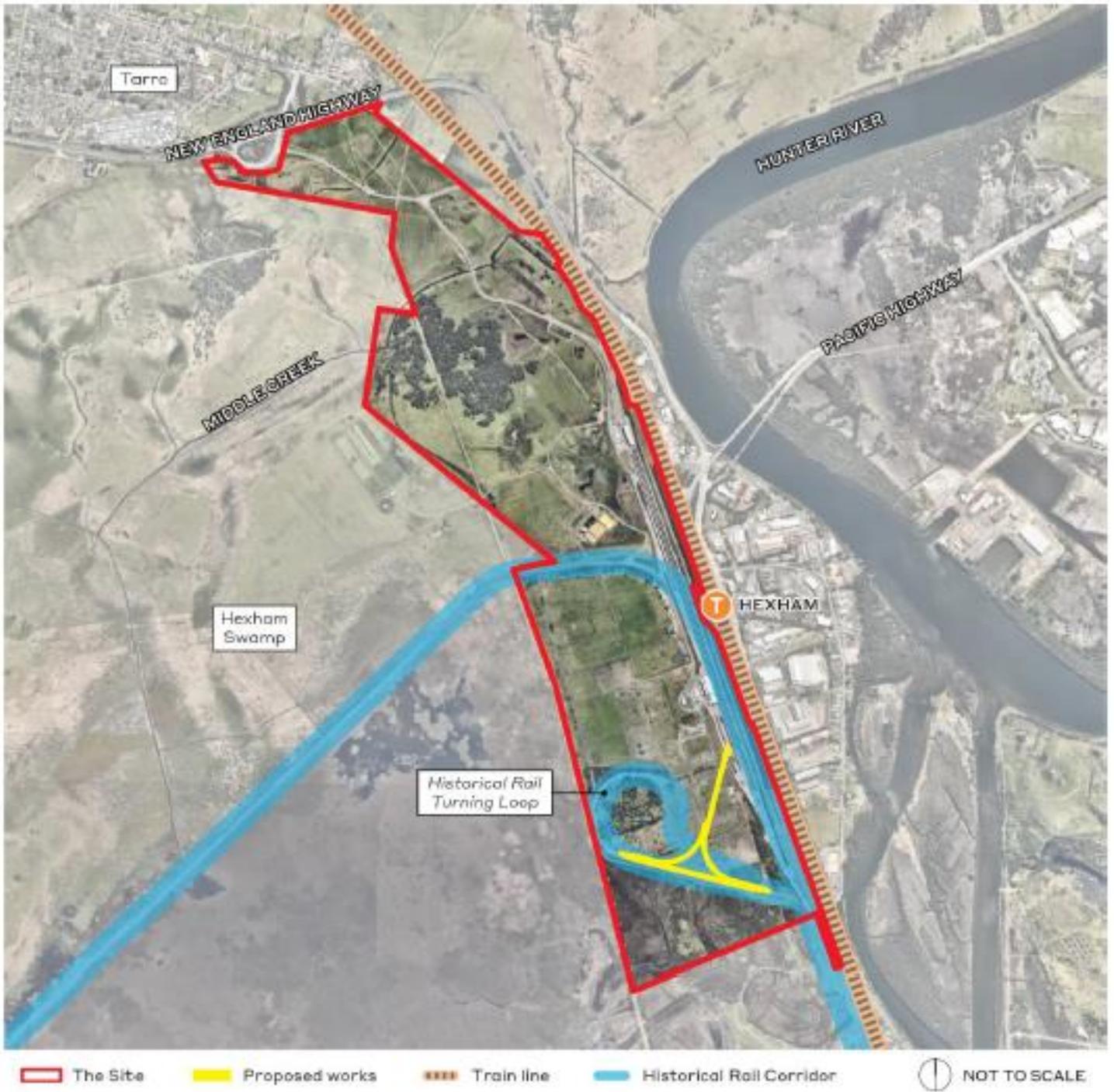


Figure 1 - Site Locality

## 1.2 Operational Activities

The Site provides routine and ad hoc provisioning and maintenance services to outbound locomotives and wagons. The treatment of generated septic and operational waste water is undertaken onsite through the utilisation of a septic treatment plant and dissolved aeration floatation (DAF) plant.

Infrastructure associated with the Site and the above-mentioned operational activities are restricted to approximately a 38 hectare portion of the Site and are detailed in Table 2.

**Table 2 - Site Activities**

TSF Infrastructure Area	Activity
Yard	<ul style="list-style-type: none"> <li>• Shunting</li> <li>• DIL refuelling and provisioning at designated locations</li> <li>• Inspections</li> <li>• Rail maintenance</li> </ul>
Provisioning Facility	<ul style="list-style-type: none"> <li>• Provisioning of locomotives</li> </ul>
Combined Maintenance Facility	<ul style="list-style-type: none"> <li>• Administration facility</li> <li>• Maintenance of locomotives and wagons</li> <li>• Recycling of waste water utilising DAF plant</li> <li>• Storage of waste oils prior to removal offsite</li> </ul>
Service Vehicle Garage	<ul style="list-style-type: none"> <li>• Storage</li> <li>• Maintenance as required</li> </ul>
Surface Water Management Infrastructure	<ul style="list-style-type: none"> <li>• Management and containment of surface water flows</li> </ul>
Bulk Fuel Storage Area	<ul style="list-style-type: none"> <li>• Above ground storage of bulk fuels, oils and sand</li> </ul>
Waste Water Treatment Plant	<ul style="list-style-type: none"> <li>• Treatment of waste water from administration area prior to irrigation</li> </ul>

## 1.3 Legislative Context

The project was assessed and approved as State Significant Infrastructure (SSI) under Part 5.1 of the *Environmental Planning and Assessment Act 1979 (EP&A Act)*.

The Site was approved by a delegate of the Minister for Planning and Infrastructure under MP07\_0171 (the Approval), dated 10 October 2013. The Hexham TSF Turning Angle (the Turning Angle) Modification MP 07\_0171 MOD 1 (SSI-6090) was approved on the 09 October 2019. The Hexham Depot Modification 07\_0171 MOD 2 (the Approval) was approved in September 2022.

This Operational Environmental Management Plan (OEMP) has been developed and implemented as required by Schedule F, Condition F1 & Condition F2 of the Approval.

The OEMP has been developed in compliance with the Guidelines for the Preparation of Environmental Management Plans (Department of Planning, 2004) and is based on the findings of the Statement of Commitments (SoC) and conditions from the following:

- QR National NSW Train Support Facility Environmental Assessment, Project No. 37417 (ADW Johnson Pty Ltd, 16 November 2012) (the Assessment);
- Preferred Project Report and Response to Submissions Project Application (MP07\_0171), Ref 12599 (JBA Planning, June 2013) (PPR);
- SSI-6090 Modification 1 - Environmental Assessment Report Revised (Ethos Urban, June 2019); and
- Section 5.25 Modification to SSI-6090 (formerly MP07\_0171) Hexham Long Term Train Support Facility – Ancillary Depot and Wagon Storage (Ethos Urban, April 2022) (the EA)

A matrix of the conditions of approval is included as Appendix B. This matrix also identifies where these conditions/commitments have been addressed in the OEMP and its relevant supporting documents.

## 1.4 Purpose and Objectives

The purpose of the OEMP is to detail the environmental management activities to be implemented at the Site to ensure compliance with relevant regulatory obligations and approvals is achieved.

The objective of the OEMP is to ensure activities at the Site are undertaken in compliance with all relevant documentation as per Condition B1 of the Approval.

## 1.5 OEMP Consultation and Updates

In accordance with Condition F2 of the Approval, and prior to submission to the Department of Planning (DPE), the OEMP and its associated plans are to be developed in consultation with the following key regulatory agencies:

- Office of Environment and Heritage (OEH);
- Environment Protection Authority (EPA);
- Department of Primary Industries (DPI); and
- Newcastle City Council (NCC).

A major update of this OEMP was undertaken in 2019 following completion of the 2018 Independent Environmental Audit (IEA) and in compliance with the required audit actions confirmed with the DPE (Appendix D).

Recent major updates to the OEMP and respective management plans are detailed in Table 3 below.

**Table 3 – 2024 OEMP (Rev 12) and Supporting Document Updates**

Document	Section	Update Details	Justification
OEMP	Various	Update following 2021 IEA and Mod 2	Requirement of Condition F2 of the Approval
Fauna and Flora Management Plan	Various	Update following 2021 IEA and Mod 2	Requirement of Condition F2 of the Approval

Document	Section	Update Details	Justification
Surface and Groundwater Management Plan	Various	Update following 2021 IEA and Mod 2	Requirement of Condition F2 of the Approval
Site Management Plan	Various	Update following 2021 IEA and Mod 2	Site Audit Statement and SMP requirement.
Stormwater Management Plan	Various	Update following 2021 IEA and Mod 2	Requirement of Condition F2 of the Approval
Waste Management Plan	Various	Update following 2021 IEA and Mod 2	Requirement of Condition F2 of the Approval

## 2.0 Environmental Management

### 2.1 Safety, Health and Environmental Management System

The Aurizon Enterprise-wide Safety, Health and Environmental (SHE) Management System sets the direction across the enterprise and ensures that activities, which have the potential to affect the safety and health of people and /or the receiving natural environment, are planned, organised, implemented and checked in accordance with legislative requirements.

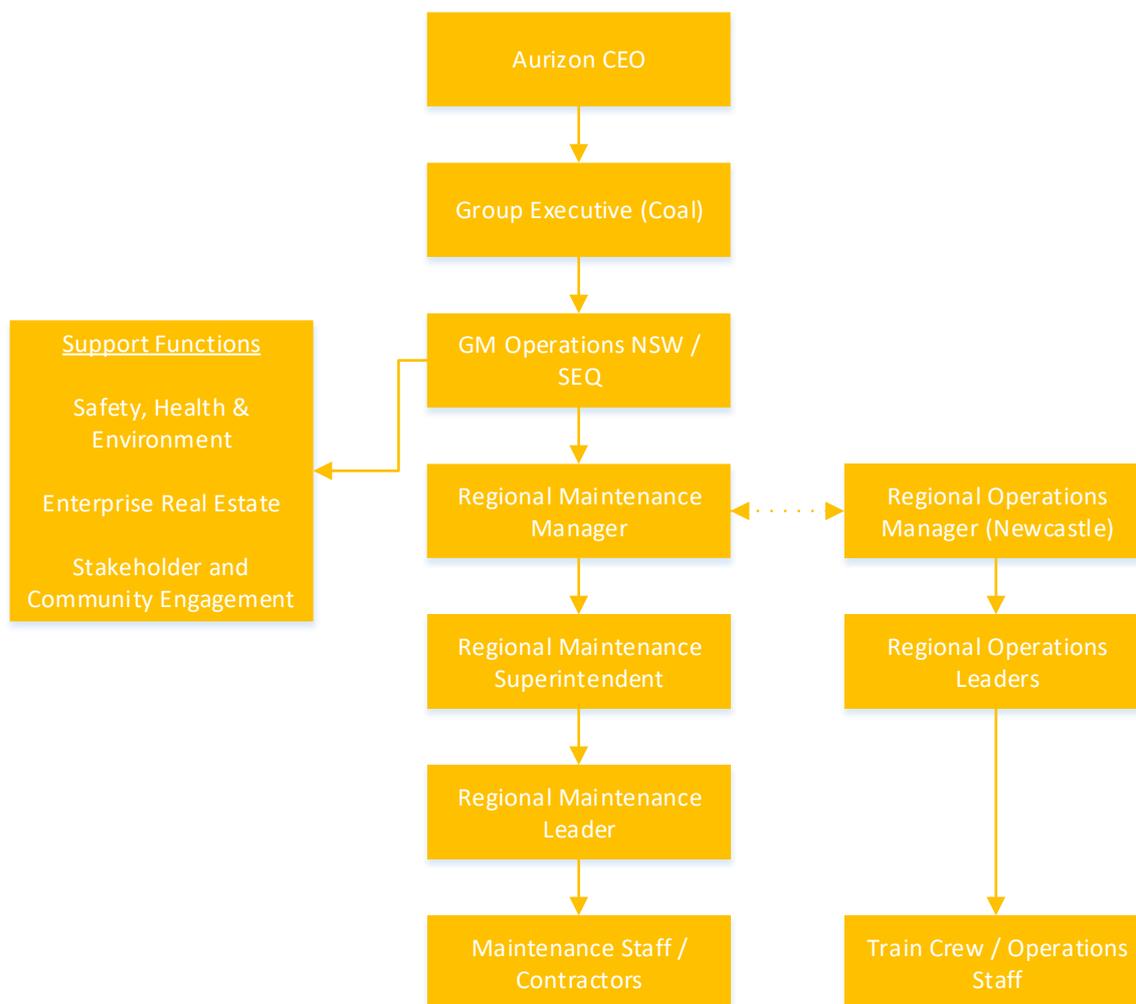
Aurizon's commitment to achieving best practice performance across all its operations as one of Australia's largest transport and logistics businesses is formalised in Aurizon's Enterprise-wide Environmental Policy (POL-08) and is given effect via Aurizon's Enterprise-wide Environmental Management Principle (ENV-PRI-001). A copy of these documents is included as Appendix A.

This Aurizon Environment Principle sets out requirements for the Organisation to:

- Ensure mechanisms are established to achieve compliance with environmental laws, regulations, Board policies and, corporate directives/principles, applicable industry standards and codes; and
- enable effective management of environmental risks; and
- achieve continual improvement in environmental performance; and
- Give effect to the Environmental Policy.

### 2.2 Environmental Management Structure and Responsibility

The Site organisational chart and relevant role responsibilities are detailed below in Figure 2 and Table 4 respectively.



**Figure 2 - Organisational Structure**

**Table 4 - Role responsibilities**

Position	Responsibility
General Manager Operations NSW/SEQ	<ul style="list-style-type: none"> <li>Ensure site / site operations comply with regulatory obligations; and</li> <li>Report compliance to Board.</li> </ul>
Regional Maintenance Manager	<ul style="list-style-type: none"> <li>Ensure that management representatives and supervisors comply with and fulfil their obligations in relation to the OEMP;</li> <li>implement Aurizon’s Environmental Policy (POL 08) and Environmental Management Principle (ENV/PRI/001);</li> <li>effective functioning / management of operations;</li> <li>communicate information concerning key environmental issues and responsibilities;</li> <li>ensure site personnel are appropriately trained;</li> <li>manage incidents, complaints and related investigations; and</li> <li>Address non-conformances identified through incidents.</li> </ul>

Position	Responsibility
Regional Maintenance Superintendent	<ul style="list-style-type: none"> <li>Supporting implementation of the OEMP;</li> </ul>
Construction Project Manager	<ul style="list-style-type: none"> <li>communication of the OEMP requirements to site personnel;</li> <li>complete routine site inspections;</li> </ul>
Facilities Coordinator	<ul style="list-style-type: none"> <li>manage incidents, complaints and related investigations;</li> <li>address non-conformances identified through incidents;</li> <li>adhere to site waste management and record keeping requirements; and</li> <li>Ensure all staff and sub-contractors are adequately inducted; and trained.</li> </ul>
Adviser Environment	<ul style="list-style-type: none"> <li>Review of the OEMP annually;</li> <li>supporting implementation of the OEMP;</li> <li>conduct environmental audits to ensure compliance with OEMP;</li> <li>facilitating technical studies and expert advice; and</li> <li>Review of monitoring data and reports to identify non compliances.</li> </ul>
Project and Site Personnel	<ul style="list-style-type: none"> <li>Adhere to the OEMP</li> </ul>

## 2.3 Approvals, Licencing and Agreements

The conditions of the Approval and where they are addressed in this OEMP are listed Appendix B. Relevant legislation, approvals and licences that apply to the Site and must be complied with are detailed in Table 5.

Aurizon also holds a number of legally binding agreements, contracts and licences with a range of other entities that have interests on land within or adjoining the Site. These are briefly summarised in Table 6.

**Table 5 - Relevant legislation, approvals and licences**

Relevant Legislation	Approval Body	Section
<i>Environmental Planning and Assessment Act 1979</i>	DPE	Part 5.1
<i>Water Act 1912</i>	DPI Water	Section 112
<i>Water Management Act 2000</i>	DPI Water	Section 256
<i>Local Government Act 1993</i>	NCC	Section 68
<i>Conveyancing Act 1919</i>	DFSI	Section 88B
<i>National Parks and Wildlife Act 1974</i>	OEH	N/A
<i>Occupational Health And Safety Ac, 2011</i>	Safe Work NSW	N/A
<i>Protection of the Environment Operations Act 1997</i>	EPA	N/A

Relevant Legislation	Approval Body	Section
<i>Contaminated Land Management Act 1997</i>	EPA	N/A
<i>Threatened Species Conservation Act 1995</i>	OEH	N/A
<i>Protection of the Environment and Operations (Waste) Regulation 2005</i>	EPA	N/A
<i>Waste Avoidance and Resource Recovery Act 2001</i>	EPA	N/A
<i>Native Vegetation Act 2003</i>	OEH	N/A
<i>Environmentally Hazardous Chemicals Act 1985</i>	EPA	N/A
<i>Pesticides Act 1999</i>	EPA	N/A
<i>Heritage Act 1977</i>	OEH	N/A
<i>Environment Protection and Biodiversity Conservation Act 1999</i>	DoE	N/A

**Table 6 - Other Agreements**

Party	Agreement
Jemena Gas	Protection works for the 500mm gas pipeline.
ARTC	Track possessions for rail connections.
HWC	Connection to HWC 200mm water main.
HWC	Water usage agreement.
HWC	Trunk water main protection
Brancourts and EPA	Lease deed permitting use of irrigation under EPL 816.
Brancourts and HWC	Brancourts effluent and water supply lines protection
Ausgrid	11kV connection, poles and 3 x kiosks.
Optus	Underground fibre-optic protection.
Telstra	Telecommunications connection
OEH	Bio Banking Certificate (Transaction #201607-TF-156)

## 3.0 Environmental Management

To achieve and maintain Site compliance with the conditions of Approval and relevant regulatory requirements, the development and implementation of the OEMP and supporting management plans was undertaken.

The OEMP and supporting plans were developed with reference to the findings of the project environmental assessment and residual risks identified through the completion of an environmental risk assessment conducted for the Site operational phase

### 3.1 Environmental Risk Assessment

The Environmental Risk Assessment (ERA) has been reviewed during through the development and implementation of this OEMP with reference to the enterprise Safety Risk Management Principle, Aurizon corporate environmental policies and standards and the Aurizon Enterprise Risk Management Framework.

In line with the Aurizon Change Management Standard, the risk assessment will be reviewed in the following circumstances:

- Upgrade, replacement or decommissioning of old plant or equipment;
- change to business as usual activities; and
- following major environmental incidents.

No change, replacement or alteration of any plant or equipment is permitted if this change, replacement or operation of the plant or equipment increases, or is likely to substantially increase, the risk of environmental harm.

The ERA has been included as Appendix C.

### 3.2 Management Plans

The requirement for environmental management plans is required by conditions of the Approval as detailed in Table 7 below.

Where management measures are required to be developed to maintain compliance with the Approval but the development of a specific management plan is not stipulated these management strategies have been included in the OEMP.

**Table 7 – Management Plans**

Plan	Section	Approval Condition	Version
Surface and Groundwater Monitoring Plan	Supporting management plan.	C19	12
Stormwater Management Plan	Supporting management plan.	C9	12
Flora and Fauna Management Plan	Supporting management plan.	C3	8
Flood Emergency Management Plan	Supporting management plan.	C15	11

Plan	Section	Approval Condition	Version
Waste Management Plan	Supporting management plan.	C25	7
Site Management Plan	Supporting management plan.	E33	3
Noise and Vibration Management Strategy	3.3	F2(f)	N/A
Air Quality Management Strategy	3.4	F2(o)	N/A
Traffic Management Strategy	3.5	SoC 5	N/A
Heritage Management Strategy	3.6	SoC 10	N/A
Dangerous Goods Management Strategy	3.7	C24	N/A

## 3.3 Noise and Vibration Management Strategy

### 3.3.1 Context

Condition F2(f) of the Approval requires the development of measures to monitor and manage noise impacts associated with operational activities of the Site.

### 3.3.2 Environmental Assessment Findings

The EA (Hexham LTTSF - Ancillary Depot and Wagon Storage Noise Impact Assessment (SLR, 04 March 2022) determined that due to the distance to the nearest residential and commercial premises vibration and noise levels the operations would comply with performance criteria prescribed in the Approval.

As operation of the depot and wagon storage area would not result in a material change to noise and vibration emissions from the Site the existing controls, determined as effective by the completed Aurizon Condition F4A - Turning Angle Noise and Vibration Compliance Assessment Hexham Train Support Facility (SLR, 21 January 2022), are deemed to be adequate.

### 3.3.3 Noise and Vibration Management Measures

The following management measures as detailed in Table 8 will be implemented to ensure performance criteria detailed in Section 3.3.4 are met.

**Table 8 - Noise and Vibration Management Measures**

MCoA/SoC	Aspect	Requirement
Condition C2	Traffic and access	<ul style="list-style-type: none"> <li>All deliveries and heavy vehicles will access the Site during daytime hours where practical.</li> <li>Vehicle movements restricted to 40 km/h.</li> <li>Access roads will maintained.</li> </ul>
Condition C2	Operation of plant	<ul style="list-style-type: none"> <li>Equipment is well maintained and operated per manufacturers requirements.</li> <li>Minimise number of plant operating at any one time.</li> <li>Machinery turned off when not in use.</li> <li>Equipment fit with noise control fittings where practical.</li> </ul>
Condition F2(f)	Monitoring	<ul style="list-style-type: none"> <li>Monitoring will be undertaken in response to noise and vibration complaints or as directed by the EPA in accordance with AS2659 – 1-1998, at the relevant receivers detailed in Table 8 and Figure 3. Performance will be assessed against criteria detailed in Table 8.</li> <li>Where an exceedance of adopted noise or vibration criteria is identified, additional management measures are to be investigated and implemented where required as follows and in compliance with Section 4. <ul style="list-style-type: none"> <li>Exceedances between 1 dBA and 5 dBA: <ul style="list-style-type: none"> <li>Refinement of on-site noise mitigation measures and operating procedures where practical;</li> <li>noise monitoring;</li> <li>consideration of acoustical mitigation at receivers; and</li> <li>Consideration of negotiated agreements with property holders.</li> </ul> </li> <li>Exceedances of more than 5dB A are predicted include:</li> </ul> </li> </ul>

MCoA/SoC	Aspect	Requirement
		<ul style="list-style-type: none"> <li>▪ Discussions with relevant property holders to assess concerns and provide solutions;</li> <li>▪ implementation of acoustical mitigation at receivers; and</li> <li>▪ Negotiated agreements with property holders, where required.</li> </ul> <ul style="list-style-type: none"> <li>• Corrective actions are to be handled in accordance with Section 4.4 of this OEMP.</li> <li>• Monitoring exceedances are to be reported in accordance with Section 5 of this OEMP (Incident).</li> <li>• All reporting is to be undertaken with reference to Section 4.</li> </ul>

### 3.3.4 Performance Criteria and Monitoring Locations

As required by Condition C2 of the Approval operation of the Site shall not exceed the noise performance criteria detailed in Table 9 at the locations shown in Figure 3 below.

**Table 9 - Operational Noise Limits**

Receiver	Daytime	Evening	Night	Night
	L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>Aeq</sub> (15 minute)	L <sub>A1</sub> (1 minute)
R1 Hain Property	46	46	45	56
R2 Lynch Property	60	50	45	62
R3 New England Highway	60	50	45	62
R4 Old Maitland Road (North)	45	45	44	54
R5 Old Maitland Road	45	45	44	54
R6 Old Maitland Road (South)	45	45	44	54
R7 (Maitland Road)	60	50	45	62
R8 Church Old Maitland Road	40 (internal-when in use)		N/A	
R9 Tarro Primary School	35 (internal- when in use)		N/A	
Hexham Swamp Nature Reserve	50 (when in use)		N/A	

- Daytime is defined as the period from 7am to 6pm, Monday to Saturdays and 8am to 6pm on Sundays and public holidays. Evening is defined as the period from 6pm to 10pm and night time is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and public holidays.

- The noise emission limits apply under all meteorological conditions except during wind speeds greater than 3m/s at 10m height; stability category F temperature inversion conditions and wind speeds greater than 2m/s at 10m height; or stability category G temperature inversion conditions as described in the NSW Industrial Noise Policy.
- The LAeq (15minute) noise level must be measured approximately on the property boundary, where any residence is situated 30m or from the property boundary closest to the premises; within 30m of a residence, but not closer than 3m, where any residence is located more than 30m from the boundary closest to the premises; and within 50m of the boundary of a National Park or Nature Reserve.
- LA1 (1minute) noise level must be measured within 1m of a residence.
- Noise measurement equipment must be located at the most affected point at a location.

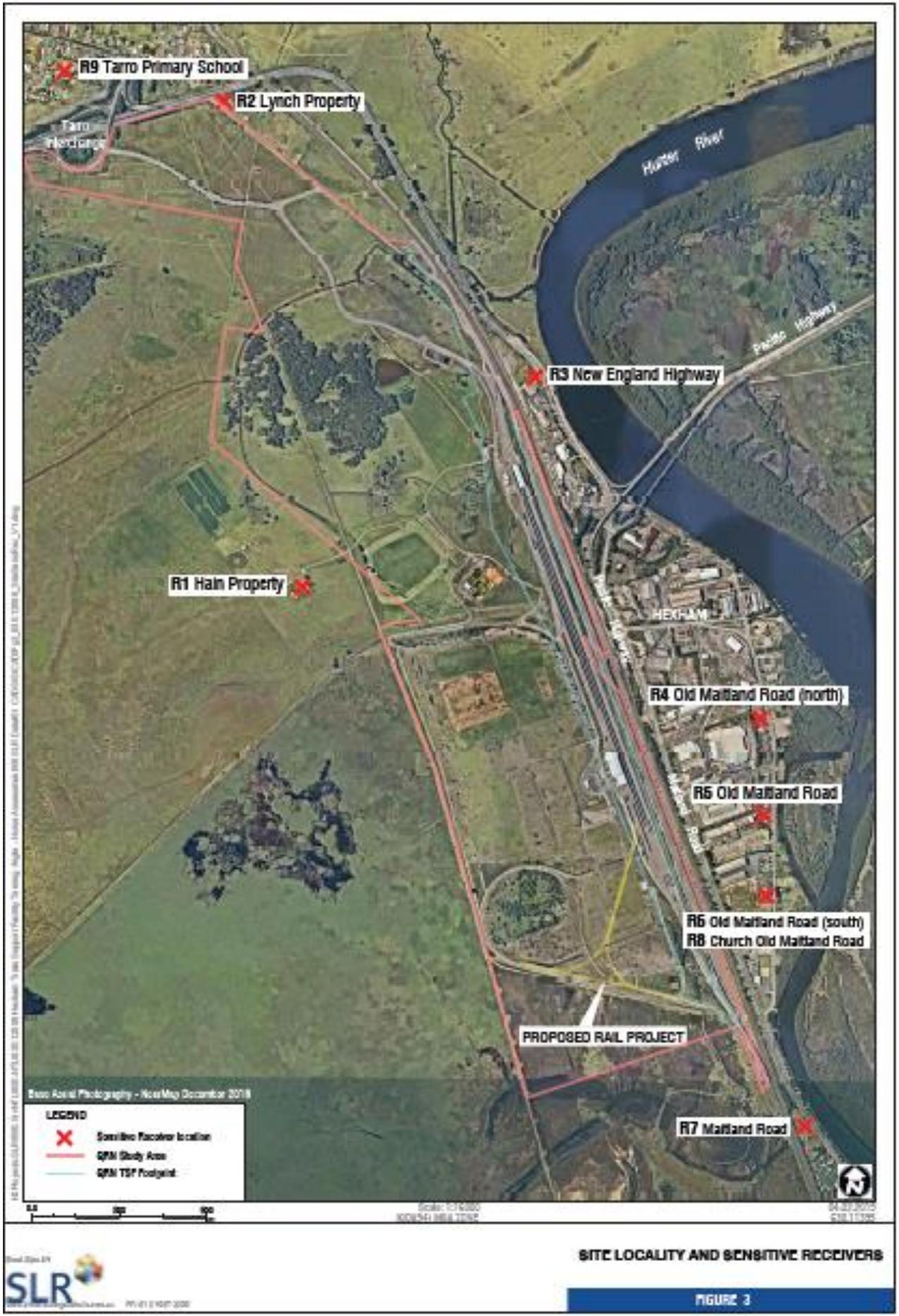


Figure 3 - Noise and Vibration Monitoring Location

## 3.4 Air Quality Management Strategy

### 3.4.1 Context

Condition F2(o) of the Approval requires the development of measures to minimise dust generational from internal access roads.

### 3.4.2 Environmental Assessment Findings

Cumulative results of dispersion modelling undertaken as part of the NSW TSF Environmental Assessment-Appendix Q – Air Quality Assessment (SLR, 2012) indicates that no exceedances of the NSW EPA criteria for 24 hour average or annual average ground level concentrations PM10 will occur at any of the sensitive receiver locations as a result of activities associated with the operation of the Site.

The study also concluded that the low volume of trains using the Site suggests that diesel exhaust and greenhouse gas emissions associated with on-site activities are unlikely to have a significant impact on air quality.

As the operation of the depot and wagon stowage area did not result in a material change to site activities and subsequently the Site's emission profile it was not required to be considered as part of the EA.

### 3.4.3 Air Quality Management Measures

The following management measures as detailed in Table 10 will be implemented to ensure air quality management objectives are met.

**Table 10 - Air Quality Management Measures**

MCoA/SoC	Aspect	Requirement
Condition F2(o)		<ul style="list-style-type: none"> <li>Equipment is well maintained and operated per manufacturers requirements.</li> </ul>
SoC (Air Quality and Greenhouse Gas)	Traffic and access	<ul style="list-style-type: none"> <li>Vehicle movements restricted to 40 km/h.</li> <li>Access roads will maintained, and unsealed roads watered as required.</li> <li>Dust emissions with potential to impact sensitive receivers or affect Aurizon operations are to be reported in SHEM.</li> </ul>
SoC (Air Quality and Greenhouse Gas)	Operation of plant	<ul style="list-style-type: none"> <li>Equipment is well maintained and operated per manufacturers requirements.</li> <li>Machinery turned off when not in use.</li> </ul>
SoC (Air Quality and Greenhouse Gas)	Monitoring	<ul style="list-style-type: none"> <li>National Pollutant Inventory (NPI): <ul style="list-style-type: none"> <li>Capture and report fugitive emissions associated with bulk fuel storage, spills and the operation of locomotives and machinery.</li> </ul> </li> <li>National Greenhouse and Energy Reporting: <ul style="list-style-type: none"> <li>Greenhouse gases produced as a result of provisioning activities at the TSF is to be captured and reported in Aurizon's aggregate annual NGER.</li> <li>Aurizon's SHEM EC system is utilised to capture and calculate annual Scope 1 and Scope 2 GHG emissions and energy consumption for reporting in accordance with the NGER Act.</li> </ul> </li> <li>All reporting is to be undertaken with reference to Section 4.</li> </ul>

## 3.5 Traffic Management Strategy

### 3.5.1 Context

Section 5 of the approved SoC requires the development and implementation of measures to monitor and manage traffic related activities associated with operation of the Site.

### 3.5.2 Environmental Assessment Findings

All access to the Site is via the new link road connecting the Tarro grade intersection to the New England Highway. Vehicles accessing the site will generally consist of heavy vehicles such as B-double fuel tankers, 24 tonne delivery vehicles and light vehicles.

The Site presents a relatively low impact to existing traffic conditions and surrounds as outlined in the Hexham Depot Relocation and Wagon Storage New England Highway (Maitland Road), Hexham State Significant Infrastructure SSI-6090 Mod 2 (SLR, March 2022). The assessment identified an increase in traffic of approximately 59 light vehicle movements per day (morning and night each) under a worst-case scenario from baseline conditions following completion of construction.

The EA confirmed that the intersections on Anderson Drive at the New England Highway (Maitland Road) and the Tarro interchange will operate within acceptable performance levels under the 'With Development' traffic scenario at the 10-year design horizon (2032).

### 3.5.3 Traffic Management Measures

The following management measures detailed in Table 11 will be implemented to ensure traffic management objectives are met. Referenced access routes are shown in Figure 4.

**Table 11 - Traffic Management Measures**

MCoA/SoC	Aspect	Requirement
SoC (Traffic, Access and Car Parking) Condition C2	Traffic and access	<ul style="list-style-type: none"> <li>Site access will be limited to the constructed permanent access road off the Tarro Interchange.</li> <li>Peak traffic accessing to the facility is likely to occur during the hours 0730 to 1830.</li> <li>Operational staff on-site at any one time is approximately 51 during normal operating conditions.</li> <li>Heavy vehicles (HV) must stand down and give way to light vehicles (LV) at all times on shared access roads.</li> <li>Traffic is to be managed in a manner that meets the noise and vibration management objectives outlined in Section 3.3 (Noise and Vibration Management Strategy).</li> </ul>
		<ul style="list-style-type: none"> <li>All deliveries and heavy vehicles will access the Site during daytime hours where practical.</li> <li>Vehicle movements restricted to 40 km/h.</li> <li>Access roads will maintained.</li> <li>All operational staff and contractors will be required to complete an induction communicating key elements of this traffic management plan prior to accessing the site.</li> </ul>
Condition C32	3rd Party Access	<ul style="list-style-type: none"> <li>Aurizon employees and contractors will not be required to utilise third party access routes on a regular basis.</li> <li>All delivery / waste / material collection vehicles are to contact Aurizon's site superintendent or delegate prior to arrival.</li> </ul>

MCoA/SoC	Aspect	Requirement
		<ul style="list-style-type: none"> <li>• All deliveries (oil, fuel etc.) are to be unloaded in designated bunded areas.</li> <li>• Upon completion of delivery / collection, all vehicles are to proceed to the turning loop and exit site access gate at the entry point.</li> <li>• Aurizon employees and contractors utilising third party access routes are to give right-of way to surrounding landowners where practicable.</li> <li>• Third parties requiring access to provided routes are to obey Aurizon's traffic control mechanisms whilst on Aurizon property.</li> <li>• Changes to traffic management regimes and potential hazards shall be communicated to all relevant third parties as soon as practicable after they have been identified.</li> </ul>

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## 3.6 Heritage Management Plan

### 3.6.1 Context

The approved PPR, Section 5, SoC 10 requires the development and implementation of an Aboriginal Heritage Management Plan to manage potential impacts to aboriginal heritage at the Site.

### 3.6.2 Environmental Assessment Findings – Aboriginal Heritage

The Assessment (Appendix K – Aboriginal Heritage Impact Assessment (McCardle Cultural Heritage Pty. Ltd, 2012)) identified one potential cultural deposit and one artefact scatter (HS1) with an associated potential archaeological deposit in the northern portion of the study area. Additionally, cultural objects have been identified in the south.

The Assessment also identified that the Hexham Swamp area is of great significance to the Awabakal people. The area was well suited for hunting and gathering due to the Hexham swamp and Hunter River

As identified sites with the potential for being impacted by construction of Site infrastructure and operation were salvaged/cleared during construction it is highly unlikely that impacts to heritage items will occur. Retained heritage items as identified by an AHIMS (2022) search are shown in Figure 4.

Due diligence surveys undertaken as part of the Approval did not identify any further Aboriginal heritage considerations. As such existing controls were deemed to be adequate.

### 3.6.3 Environmental Assessment Findings – European Heritage

The Assessment (Appendix D – Statement of Heritage Impact) (EJE Heritage, 2012)) Statement of Heritage Impact (EJE, 2012) undertaken as part of the planning approval process identified heritage items with a level of heritage significance that would be removed as a result of the construction of the Site infrastructure.

Impacts were undertaken in compliance with the Construction Non-Indigenous Cultural Heritage Management Plan: Version 2 (Aurizon, 2014). Impacted heritage items include the Control Cabin; Bathhouse; footings of Brown's Crossing; and some remnant items of track work. The impacted items are identified in Table 12 and areas of retained value are shown in Figure 5 below.

Due diligence surveys undertaken as part of the Approval did not identify any further European heritage considerations. As such existing controls were deemed to be adequate.

Table 12 – European Heritage Sites

Item	Significance	Reference
Minmi to Hexham Railway	Local	<i>Newcastle Local Environmental Plan, 2012, Schedule 5, Item 322</i>
Bathhouse	Within the curtilage of Richmond Vale Railway	<i>Heritage Branch of Department of Planning and Infrastructure</i>
Control cabin	Within the curtilage of Richmond Vale Railway	<i>Heritage Branch Department of Planning and Infrastructure</i>
Dairy ruins	None	N/A
Remnant track work	Local	<i>Newcastle Local Environmental Plan, 2012, Schedule 5, Item 322</i>
Coal preparation plant footings	None	N/A

Item	Significance	Reference
Browns Crossing Settlement Foundations	Local	<i>Newcastle Local Environmental Plan, 2012, Schedule 5, Item 322</i>
Conveyor belt support footings	None	N/A



Figure 4 – Existing Aboriginal Cultural Heritage Sites



- Legend**
- Turning Angle Project
  - Main North Railway
  - Listed heritage items
  - Major road
  - Waterway
  - Item - General
  - Local road
  - Waterbody



1:20,000 at A4



**Data sources**  
 NSW Spatial Services 2019  
 © Department of Finance, Services and Innovation (Oct 2018)  
 © Department of Finance, Services & Innovation 2018  
 GDA84 MGA56

**Figure 4.6** Location of heritage items listed on the Newcastle LEP in the vicinity of the study area

Date: 26/02/2019 Path: F:\Data\GIS\Projects\_NG\_L\_DRIVE\VA208200 - Hexham Train Support Facility\22\_Spatial\GIS\Directory\Templates\Figures\VA208200\_GIS\_F085\_HeritageItems\_riv2.mxd

**Figure 5 – Existing European Cultural Heritage Sites**

### 3.6.4 Heritage Management Measures

The following management measures as detailed in Table 13 will be implemented to ensure heritage management objectives are met.

**Table 13 - Heritage Management Measures**

MCoA/SoC	Aspect	Requirement
SoC (Aboriginal Archaeology)	Protection of sites of significance	<ul style="list-style-type: none"> <li>The Hexham TSF site induction shall inform Aurizon personnel and contractors of their responsibility to advise site management should they discover items that may be of aboriginal heritage significance.</li> </ul>
	Heritage awareness Program	<ul style="list-style-type: none"> <li>The Site induction will detail the responsibilities of site personnel as they relate to heritage items.</li> </ul>
	Ongoing management of aboriginal heritage items	<ul style="list-style-type: none"> <li>Site Management is to inform Aurizon’s Senior Adviser Environment of any new cultural heritage finds, who will consult with an archaeologist and the Registered Aboriginal Stakeholders.</li> <li>Aurizon’s Aboriginal Cultural Heritage Toolbox Talk (Appendix E) shall be undertaken periodically for Aurizon personnel and contractors on-site.</li> <li>If potential archaeological material is identified Aurizon’s New Find Procedure (Appendix F) shall be implemented.</li> </ul>

## 3.7 Dangerous Goods Management

### 3.7.1 Context

Condition C24 of the Approval requires the storage and management of all dangerous and hazardous goods, as defined by the Australian Dangerous Goods Code, will be stored and handled strictly in accordance with:

- All relevant Australian Standards;
- for liquids, a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund; and
- the *Environment Protection Manual for Authorised Officers: Bunding and Spill Management*, technical bulletin (EPA, 1997).

### 3.7.2 Environmental Assessment Findings - Dangerous Goods

Key operational activities requiring management of dangerous goods and hazardous materials will be associated with the following:

- Provisioning facility bulk fuel and oil storages and handling systems;
- direct into locomotive (DIL) fuelling activities;
- various chemicals (paints, solvents, gases chlorine); and
- Gases (LPG).

### 3.7.3 Dangerous Goods Management Measures

The following management measures as detailed in Table 14 will be implemented to ensure dangerous and hazardous goods storage objectives are met.

**Table 14 - Dangerous Goods Management Measures**

MCoA/SoC	Aspect	Requirement
Condition C24 SoC (Hazardous Material)	Storage and handling	<ul style="list-style-type: none"> <li>• Any hazardous materials will be stored and disposed of in accordance with WorkCover Authority requirements and relevant Australian Standards.</li> <li>• For storage of liquids, a minimum bund volume requirement of 110% of the volume of the largest container.</li> <li>• Goods will be managed in accordance with the <i>Environment Protection Manual for Authorised Officers: Bunding and Spill Management</i>, technical bulletin (EPA, 1997).</li> <li>• Notification of Dangerous Goods on Premises will be lodged with WorkCover NSW due to the Work Cover NSW C1 storage threshold of 100 000L being exceeded.</li> <li>• Storage and transportation of dangerous goods is to be in accordance with the <i>Occupational Health and Safety (OHS) Act 2000</i> and <i>OHS Regulation 2001</i>. Licences will be obtained as required for storage and/or transport of prescribed quantities of dangerous goods.</li> <li>• Transportation of all dangerous goods must be undertaken in a safe manner when over prescribed quantities, including record keeping and signage requirements in accordance with the <i>Road and Rail Transport (Dangerous Goods) Act 1997</i>.</li> <li>• Relevant licences will be obtained for use or disposal of any environmentally hazardous chemicals in accordance with the <i>Environmentally Hazardous Chemicals Act 1985</i>.</li> <li>• All hazardous substances and dangerous goods stored on-site are to be included and risk assessed via Aurizon's ChemAlert register.</li> </ul>

## 4.0 Compliance and Reporting

### 4.1 Monitoring and External Reporting Requirements

Aurizon's external regulatory reporting requirements for the Site are detailed in Table 15 below. Where the reporting requirements are expanded on in supporting management plan documentation this has been referenced.

Table 15 - Reporting Requirements

Report	Frequency (Due)	Responsible person/s	Requirement	Authority	Reference or Management Plan
Flood Review Report	Following flood events at the TSF site – 1%, 2%, and 10% AEP flood events.	SAE	MP07_0171 MOD 1 CF5	OEH NCC	FEMP
Surface and Groundwater Monitoring Report	Monthly and quarterly surface and groundwater monitoring reported annually by the 30 March	SAE	MP07_0171 MOD 1 C19 (j)	DPE NCC	SGMP
Ecological Monitoring Report	N/A - Requirement expired	SAE	MP07_0171 MOD 1 C3  (now waived)	DPE OEH	DPE Correspondence Appendix D
Annual Compliance Report	Annual by the 30 March	SAE	MP07_0171 MOD 1 D5(B and C)	DPE NCC	DPE Correspondence Appendix D
NPI Reporting	Annual by the Sept 30	SAE	POEO (General) Regulation, 2009	OEH	OEMP Section 3.4.3
Energy and GHG emissions reporting.	Annual by the Oct 30	SAE	NGER Act, 2007	CER	OEMP Section 3.4.3
Septic System Reporting	Quarterly	SAE	Licence OS2015/0503	NCC	SWMP

### 4.2 Auditing and Inspections

As required by Condition D5(d) of the Approval compliance and conformity with the requirements of this OEMP, relevant legislation and licences shall be determined by completion of the following:

- Independent environmental audits completed in accordance with relevant requirements and guidelines; and
- Internal audits and inspections completed in accordance with internal audit processes:

- The audit and inspection programs derive their content from the risk assessment, OEMP, and organisational/external requirements.
- Internal audits shall be undertaken at a minimum every 12 months. Monthly inspections are undertaken as per the Site inspection checklists. Checklists may be modified as required to reflect operational activities.
- Outcomes are to be initially managed by local SHE and site management forums and reflected as such within the relevant risk register and escalated as required.
- All auditors must be appropriately experienced and qualified.
- Aurizon’s Safety, Health and Environment Management, Environmental Compliance tool (BEAKON) is the key mechanism for logging and tracking potential non-conformances.
- Aurizon’s audit tracking tool BEAKON is the key mechanism for tracking and closing out audit and inspection items.

Inspection and auditing requirements for the Site are detailed in Table 16 below:

**Table 16 - Inspection and Audit Requirements**

Audit/Inspection	Frequency	Responsible person/s	Requirement	Authority	Reference
Independent Environmental Audit	Every 3 years (next scheduled for November 2024).	SAE	MP07_0171 MOD 1 D5	DPE	OEMP Section 4.2 DPE Correspondence Appendix D
Internal Audit	Annual	SAE	MP07_0171 MOD 1 D5 <i>17-STD-003-COM SHE Auditing</i>	Aurizon	OEMP Section 4.2
Site and Surrounds	Monthly	Facilities Coordinator	OEMP	Aurizon	N/A
Combined Maintenance Facility and Provisioning Shed	Monthly	Regional Maintenance Manager	OEMP	Aurizon	N/A
Drainage and Stormwater	Monthly	Facilities Coordinator	SWMP	Aurizon	SWMP
Waste Water and DAF	Monthly	Subcontractor	OEMP NCC Application No. OS2015/0503	NCC	SWMP

## 4.3 Document Control and Record Management

Requirements for the identification, collection, indexing, access, filing, storage, maintenance and disposition of environmental documents and records are defined in Aurizon Document Control Arrangements and Information Management Principle. This principle provides direction for ensuring all information remains current, valid, endorsed and readily available to all employees and other stakeholders where applicable.

This principle requires as a minimum that documents / management systems:

- Provide clear accountability and ownership of all specific information;
- are capable of applying appropriate security, document retention, review scheduling and subsequent updating of all information as it relates to the EMS; and
- Are accessible and controlled by all relevant stakeholders.

Environmental documentation associated with the Site is summarised in Table 17. Environmental records must be kept for a minimum period of 5 years in an electronic format.

All environmental records must be available for presentation to the regulator upon request.

**Table 17 - Document Control and Record Management**

Record Type	Location
Environmental Awareness Training	LMS
Spill Management Training	LMS
Contaminated Site Notification	NSW EPA
Waste Tracking Certificates	Local Records
Site Inspection Checklists	Local Records
Emergency Drills	Local Records
Incidents and Investigation Correspondence	SHEM
Sewage System Maintenance Record	ERE
Environmental Audits	Intranet
Environmental Reports	Intranet
Environmental Risk Assessment	Intranet
OEMP	Intranet
Environmental / Safety Meeting Minutes / Communications	Local Records

## 4.4 Corrective Action

Identified non-conformances with this OEMP, legislative or other requirement will be managed in accordance with relevant Aurizon non-conformance and incident reporting procedures. This procedure requires that:

- The reporting of non-conformances is promoted as a desired behaviour;
- Aurizon's BEAKON is the key tool by which environmental hazards, incidents and non-conformances are reported;
- the reporting of non-conformances include the identification and documentation of all the factors and underlying causes that contributed to the incident, the controls that were intended to prevent it and analysis of any failures in the controls; and
- Information gathered from non-conformances is reported to improve performance and systems and manage risk.

Records of all non-conformances will be kept in accordance with document control procedures and communicated to relevant parties.

Corrective and preventative actions arising from non-conformances will be managed in accordance with relevant Aurizon corrective and preventative actions standards. This requires:

- All actions or activities identified to further mitigate or reduce an operation risk exposure have been given specific timeframes and accountabilities for their effective implementation;
- a systematic review of the effectiveness of such activities is undertaken at appropriate timeframes proportionate to the level of risk exposure;
- governance of the effective implementation of the preventative actions identified must be completed through systematic organisational hierarchy sign-off process;
- a systematic process to ensure unresolved activities identified to reduce risk exposure are escalated to appropriate organisational levels to ensure resolution; and
- Audit processes external from the business unit are also used to review the effectiveness of risk mitigation actions.

Records of all corrective and preventative actions will be kept in accordance with document control procedures and communicated to relevant parties.

## 5.0 Incidents

Aurizon is committed to effectively managing all environmental incidents via the Enterprise-wide framework Incident Management Framework. This guidance document sets out the minimum requirements for Aurizon's businesses for incident notification, injury management, incident investigations and reporting.

All environmental incidents will be managed via the BEAKON system. The BEAKON system provides an electronic system for recording, reporting, monitoring and close-out of all environmental incidents.

### 5.1 Notifiable Incidents

Where a *Pollution Incident* has been assessed as having potential or actual *Material Harm* to the environment as per *S147 POEO Act 1997* immediate notification of relevant authorities is required. The terms *Pollution Incident* and *Material Harm* are defined as follows:

- *Pollution Incident*

*"Pollution Incident means an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It does not include an incident or set of circumstances involving only the emission of any noise."*

- *Material Harm*

*“(i) it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or*

*(ii) it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations), and loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.*

*(2) It does not matter that harm to the environment is caused only in the premises where the pollution incident occurs.”*

## 5.2 Incident Notification

Where a notifiable environmental incident occurs the initial notification process will be undertaken with reference to the Aurizon NSW Operations: Pollution Incident Response Management Plan (PIRMP).

The PIRMP details the requirements for undertaking immediate notification of regulatory authorities in NSW where a Pollution Incident which has caused or has the potential to cause Material Harm to the environment has been identified.

As the PIRMP is an NSW wide document, Hexham specific contacts have been reproduced below in Table 18 and should be referred to as required when implementing the PIRMP.

As required by Condition D6 of the Approval the DPE shall be notified of any Pollution Incident which has caused or has the potential to cause offsite Material Harm to the environment within 24 hours of being identified. A supplementary incident report will be issued to the DPE within 7 days.

**Table 18 – Emergency and Non-Compliance Contacts**

Organisation	Role	Name	Phone
Aurizon	Regional Maintenance Manager (RMM)	Craig Tuffley	0427 407 683
Aurizon	Regional Maintenance Superintendent (RMS)	David Price	0427 790 370
Aurizon	Regional Maintenance Leader	24 hour site supervisor	0417 791 344
Aurizon	Hexham Control	N/A	02 4014 2790
Aurizon	Principal Advisor Environment	Harry Egan	0439 805 317
Aurizon	Principal Safety Partner	David Keating	0400 979 434
Aurizon	Regional Facilities Maintenance Leader	Martin Hedges	0439 557 113
Private land holder	N/A	Helen Foster Lynch	(Aurizon CMS records)
Private land holder	N/A	Michael Hain	(Aurizon CMS records)
SES Hunter	N/A	N/A	132 500
RMS	N/A	N/A	1800 679 289
ARTC	ARTC Train Control Broadmeadow	N/A	02 4902 9410
Hunter Water	Emergency contact	N/A	1300 657 000
Jemena Gas	Emergency Contact	N/A	131 909
Telstra	N/A	N/A	132 203
Ausgrid	N/A	N/A	131 888
EPA	Regulator	N/A	131 555
DPE	Regulator	N/A	02 6575 3405
NCC	Regulator	N/A	02 4974 2000

## 5.3 Site Emergency Response Plan

Environmental incidents will be managed and responded in accordance with the Site Emergency Response Management Plan (SERP).

The SERP details the Site's key personnel, their responsibility and the actions required to address a variety of environmental incidents onsite. The SERP also identifies the location of key resources required to effectively respond to an onsite emergency.

## 5.4 Incident Investigation

For all notifiable incidents an Event Manager is to be nominated. The Event Manager will coordinate all phases of Incident Management. Any incident response phase actions must take priority over any initial investigative actions.

To mitigate against the loss of evidence, advance planning and coordination by the Event Manager with an Incident Commander or local management representatives shall be necessary.

Immediately following the notification of an incident, the nominated Event Manager is responsible for ensuring the appropriate and immediate response activity is enacted.

## 6.0 Communications and Training

### 6.1 Complaints

Complaints received by Aurizon in association with operations shall be managed in accordance with the Aurizon Complaints Management Protocol.

Complaints can be made via the dedicated contact points provided below:

Telephone: 13 23 32

Email: [community@aurizon.com.au](mailto:community@aurizon.com.au)

Web: [aurizon.com.au](http://aurizon.com.au) (Contact Us)

All complaints will be recorded using a combination of databases including the Aurizon Consultation Manager System (CMS). CMS is a community interactions database system that is used to record community contact including complaints. The databases as a minimum will record the following for each inquiry and complaint:

- A. Date and time of complaint/enquiry.
- B. Type of communication (telephone, letter, meeting etc.).
- C. Name address, contact telephone number of complainant / enquirer.
- D. Details of the complaint and enquiry.
- E. Actions taken in response including follow up contact with the complainant.

### 6.2 Communications

The contents and requirements of this OEMP will be routinely communicated to Site personnel and management to ensure all staff remain up-to-date with environmental issues. Communication will be delivered by:

- Incident and hazard reports, safety alerts and advices, public distribution lists;
- Senior Leadership Team meetings;
- SHEM database;
- Site Workplace Health Safety & Environment Committees;
- Live Run;
- Daily pre-start meetings, site safety meetings, toolbox talks, safety interactions; and
- Aurizon intranet sites, newsletters.

Communications as they relate to safety and environmental matters will be communicated verbally. Where immediate behavioural change is required, communication must be made within 24 hours. Important information must be delivered within 72 hours. Where an employee is absent the communication must be made at their next shift.

External environmental communication may be conducted via media releases, community meetings and newsletters. Evidence of communications having been delivered will be retained in an electronic format.

## 6.3 Training and Inductions

All Aurizon staff are required to complete the site induction including the following Learning Management System (LMS) Modules:

- Environmental Awareness
- Spill Management Train (supervisor level down); and
- Aurizon's Code of Conduct.

The site-specific induction details the key points of the OEMP, site specific hazards and mitigation requirements prior to the commencement of works.

Key environmental related training required to be completed by all Site personnel is listed in Table 19 and consists of:

**Table 19 - Training Requirements**

Training	Position	Frequency
Code of Conduct	All	Annual
Environmental Awareness Training	All	Every 3 years
Spill Management Training	Supervisor down	Every 3 years
Emergency Drills	All	Annual
High Consequence Activity	Random	Annual

## 7.0 Document Review

The OEMP and supporting management plans will be routinely reviewed to promote continual improvement as per Table 20. The review will be conducted annually and be completed by the SAE.

The review should as a minimum consider the following:

- Regulatory agency comments;
- completed consistency reviews;
- audit findings;
- environmental monitoring records;
- complaints received;
- incident and corrective actions;
- changes in organisational structure and operational procedures; and
- Changes in legislation and standards.

Major changes to the OEMP and supporting management plans will require the Director-General's approval however, minor amendments may be approved by the SAE. Minor amendments are changes that do not have a detrimental effect on the environment or do not increase the risk profile.

**Table 20 - Document Review Schedule**

Document	Review
OEMP	Annually during internal audit or after a major incident
Risk Register	Annually during internal audit or after a major incident
Inspection checklists	Annually during internal audit or after a major incident
Site Management Plan	Annually during internal audit, after a major incident or following review and approval of a new characterisation/validation report by a Site Auditor
Flood Emergency Response Management Plan	Annually during internal audit or after a major incident
Stormwater Management Plan	Annually during internal audit or after a major incident
Fauna and Flora Management Plan	Annually during internal audit or after a major incident
Surface and Groundwater Management Plan	Annually during internal audit or after a major incident
Waste Management Plan	Annually during internal audit or after a major incident

# APPENDICIES

## APPENDIX A Environmental Policy and Principle

## ENVIRONMENTAL MANAGEMENT

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### 1.0 Purpose and Scope

- 1.1 The purpose of this Enterprise-wide Principle is to:
- Ensure Aurizon establishes mechanisms to achieve compliance with environmental laws, regulations, Board policies and directives, corporate principles, applicable industry standards and codes; and
  - Enable effective management of environmental risks; and
  - Achieve continual improvement in environmental performance; and
  - Give effect to the Environmental Policy.
- 1.2 This Principle is mandatory and applies to Aurizon and its subsidiary companies.

### 2.0 Key Requirements

#### 2.1 Environment Policy

- 2.1.1 Aurizon Executive Managers shall provide adequate resources to ensure compliance with the Environmental Policy requirements.
- 2.1.2 The Environment Policy shall be made available to the public and communicated to all staff and other people working on behalf of Aurizon.

#### 2.2 Environmental Risk Management

- 2.2.1 Aurizon staff shall identify, assess, and manage the environmental risks associated with business activities in accordance with the Aurizon Environmental Risk Management, Compliance & Assurance Framework (RMT/DIR/0001).
- 2.2.2 Appropriate controls for environmental risks shall be documented in Environmental Management Programmes and/or Environmental Management Plans.

#### 2.3 Environmental Compliance Management

- 2.3.1 Aurizon shall identify and comply with relevant environmental laws, regulations and other requirements to which Aurizon subscribes.
- 2.3.2 All legal and other requirements shall be documented in registers maintained at corporate, functional and activity/facility/project levels.
- 2.3.3 Appropriate controls to ensure compliance with legal and other obligations shall be documented in Environmental Management Programmes and/or Environmental Management Plans.
- 2.3.4 Conformity with legal and other requirements shall be assessed by way of programs which are documented and implemented by the business groups.

## ENVIRONMENTAL MANAGEMENT

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### **2.4 Environmental Objectives, Targets and Planning**

- 2.4.1 Aurizon Central Safety Committee shall define enterprise environmental objectives and targets to drive continual performance improvement.
- 2.4.2 Environmental objectives and targets shall be consistent with the Aurizon environmental policy and consider legal requirements, significant environmental risks and relevant operational and stakeholder concerns.
- 2.4.3 Environmental programmes shall be prepared which define tasks, resource requirements, and performance measures to monitor progress in achieving objectives and targets and shall include provisions to support enterprise objectives and targets where relevant.
- 2.4.4 Environmental planning shall take into consideration any changes to processes, activities and services that could impact on the environment, and these changes shall be identified and communicated to appropriate stakeholders.

### **2.5 Roles, Responsibility and Authority**

- 2.5.1 Roles, responsibilities, competencies and authorities relevant to environmental management shall be documented in job descriptions.
- 2.5.2 All employees and people working on behalf of Aurizon must not carry out any activity that causes, or is likely to cause, unauthorised environmental harm unless all reasonable and practicable measures to prevent or minimise the harm are undertaken.
- 2.5.3 All employees and people working on behalf of Aurizon shall work in accordance with the relevant environmental requirements and bring environmental complaints, incidents, non-compliance, regulatory breaches and enforcement actions to the attention of management.

### **2.6 Training, Awareness and Competence**

- 2.6.1 All employees and people working on behalf of Aurizon undertaking activities with potential to cause significant environmental harm shall be competent to complete assigned tasks in a manner that minimises and/or prevents environmental harm.
- 2.6.2 Aurizon training needs analyses shall include competencies and training required to address environmental risks and consequences associated with particular roles or activities that have potential to cause significant environmental harm.
- 2.6.3 Training shall be conducted in accordance with the training needs analysis, and records of training completion and associated competency assessments shall be maintained.

## ENVIRONMENTAL MANAGEMENT

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### **2.7 Communication and Stakeholder Management**

- 2.7.1 Processes shall be established to manage communication of environmental information and stakeholder concerns regarding environmental matters.
- 2.7.2 The Manager Environment shall maintain an Environmental Communication and Stakeholder Management Plan that defines internal and external requirements and processes for communicating environmental information associated with Aurizon.
- 2.7.3 Aurizon shall not communicate with external parties regarding Aurizon's significant environmental aspects beyond that described in the Environmental Communications and Stakeholder Management Plan.

### **2.8 Documentation, Document Control and Records Management**

- 2.8.1 Aurizon shall implement effective environmental document control and record keeping processes.
- 2.8.2 All environmental documents and records must:
- Be accurate, complete and traceable,
  - Meet legislative and any other relevant requirements,
  - Be commensurate with the level of risks being managed,
  - Comply with relevant internal record keeping requirements,
  - Remain legible and readily identifiable,
  - Be reviewed and updated as necessary.
- 2.8.3 Systems shall be established and maintained to demonstrate compliance with this Principle.

### **2.9 Operational Control**

- 2.9.1 Operational controls to manage environmental risks and compliance obligations shall be implemented in all Aurizon operations, projects and facilities.
- 2.9.2 Operational control measures shall be implemented where:
- An environmental risk is identified as medium, high or intolerable and the control will reduce risk to a tolerable level.
  - The control is required to comply with environmental, legal or other requirements.
  - The absence of the control could lead to non-compliance with requirements.
  - An assessment identifies the need for an operational control.
- 2.9.3 Operational controls must be documented in a form appropriate to the user, such as specifications, procedures, business instructions, manuals, guidelines, codes of practice, signs, forms, etc. and may be integrated with other operational controls (e.g. work instructions, site management plans).

## SH&E ENTERPRISE-WIDE PRINCIPLE

Function: Safety, Health and Environment  
Contact: Manager Environment



# ENVIRONMENTAL MANAGEMENT

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- 2.9.4 Registers of operational control documentation shall be maintained.
- 2.9.5 Processes to allocate responsibilities and timeframes for operational controls shall be implemented and training for users of operational controls shall be provided where applicable.
- 2.9.6 Monitoring, auditing, corrective action and reporting processes shall be implemented by Aurizon to ensure the requirements of this Principle are being achieved.

## 2.10 Incident and Emergency Management

- 2.10.1 All environmental emergencies and incidents, including near misses, shall be managed in accordance with the Aurizon Incident Management Principle (PRI-0035-COR).
- 2.10.2 Potential environmental emergency situations shall be identified through the risk registers. Prevention and management of high-risk environmental emergencies is described in the Aurizon Emergency Management Principle (RMT/PRI/07). Operational controls shall be developed, implemented, tested and reviewed for preparedness, response and recovery from potentially high risk environmental incidents and emergencies.

## 2.11 Monitoring and Measurement

- 2.11.1 Environmental performance shall be monitored, evaluated, reported and reviewed to identify trends, assess compliance and measure progress against commitments and obligations as applicable to the related business operations.
- 2.11.2 Processes shall be implemented to conduct environmental monitoring to demonstrate environmental compliance and/or the effectiveness of operational controls. This shall include monitoring against, or as required by:
  - Aurizon environmental objectives, targets and performance measures;
  - Corporate monitoring requirements;
  - Licences, authorities, approvals and permits; and/or
  - Performance of treatments controlling moderate, high and intolerable risks environmental risks.
- 2.11.3 Details of monitoring requirements shall be recorded in a register which describes specific standards or performance criteria that must be measured, responsibilities, timeframes and reporting requirements.
- 2.11.4 All environmental monitoring equipment shall be calibrated in accordance with manufacturer's recommendations or relevant Australian standards. All environmental monitoring procedures shall be in accordance with relevant Australian standards or regulatory requirements.
- 2.11.5 Non-compliances identified through the monitoring process shall be reported along with corrective actions.

## ENVIRONMENTAL MANAGEMENT

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### **2.12 Reporting**

- 2.12.1 All internal and external environmental reporting requirements shall be defined and implemented in accordance with the Aurizon Environmental Communication and Stakeholder Management Plan.

### **2.13 Environmental Audit**

- 2.13.1 Specific risk-based audit schedules shall be developed for all Aurizon operations. Audits shall be conducted by appropriately qualified and competent persons to review implementation and effectiveness of environmental management systems and assess performance relevant to environmental objectives and targets, legal and other requirements and operational controls.
- 2.13.2 Environmental audit processes shall be applied to all Aurizon projects, activities, operations, facilities, products, equipment or assets and where appropriate shall cover; contractors, service providers and third party operators.
- 2.13.3 Environmental audit reports shall include details on any non-compliance or potential for non-compliance, recommended corrective and preventive actions, the nature and status of management actions on these recommendations and suggestions for improvement in the related environmental management system, its implementation, operational controls and environmental performance.
- 2.13.4 The recommendations or corrective/preventative actions identified in environmental audit reports shall be reviewed, agreed and implemented. Key actions, responsibilities and implementation timeframes to address recommendations shall be defined.
- 2.13.5 All non-compliances identified shall be managed in accordance with Section 2.14.

### **2.14 Corrective and Preventive Action**

- 2.14.1 Aurizon shall implement effective corrective and preventative actions in circumstances where:
- It is necessary to address non-compliances and breaches;
  - An actual or near-miss environmental incident has occurred;
  - Performance analysis against objectives, targets and performance measures indicate declining environmental performance ; and/or
  - Environmental assessment or review identifies opportunities for improvement in environmental performance.

## ENVIRONMENTAL MANAGEMENT

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### **2.15 Management Review**

- 2.15.1 The Manager Environment shall periodically review the effectiveness of the Environmental Policy and Environmental Management Principles. The review shall include consideration of the extent to which the Environmental Policy and Principles reflect current and new legal and other requirements, changes to the risk profile, and governmental and community expectations.
- 2.15.2 The review process shall also consider Aurizon's environmental performance and identify appropriate objectives and targets for future performance improvements.
- 2.15.3 Any required change or corrective/preventive actions identified via the review process shall be endorsed by the Executive Leadership Team and implemented.

### **3.0 Responsibilities and Accountabilities**

- 3.1 Executive Managers are responsible for discharging the applicable requirements of this Principle and related plans, procedures and operational controls within their area of responsibility, and where necessary implementing business instructions.
- 3.2 The VP Safety, Health and Environment is responsible for endorsing this Principle.
- 3.3 The Manager Environment is responsible for preparing and updating this Principle as required.
- 3.4 Further details on environmental responsibilities can be found in Appendix A.

### **4.0 Recording and Reporting**

- 4.1 Each Aurizon Group and Function shall be responsible for keeping records which demonstrate their compliance with this Enterprise-wide Principle.
- 4.2 Reporting is otherwise dealt with in 2.12 above.

### **5.0 Monitoring and Review**

- 5.1 The Manager Environment shall, periodically:
- Assess compliance with this Principle; and
  - Review and revise this Principle if necessary to ensure its ongoing relevance.

**ENVIRONMENTAL MANAGEMENT**

**6.0 Appendices**

**Appendix A: Roles and Responsibilities applicable to this Principle**

Who	What
Aurizon Board	<ul style="list-style-type: none"> <li>Review environmental performance via the Executive Leadership Team.</li> </ul>
Managing Director & Chief Executive Officer and the Executive Leadership Team	<ul style="list-style-type: none"> <li>Provide leadership and commitment regarding environmental management and performance.</li> <li>Allocate resources necessary for implementation of Aurizon's Environmental Management Principle.</li> <li>Ensure environmental responsibilities are included in the performance processes of appropriate.</li> <li>Ensure that organisational decision-making appropriately integrates environmental considerations.</li> </ul>
Executive Managers, VP, GM and Managers	<ul style="list-style-type: none"> <li>Provide leadership within their areas of responsibility to meet the commitments of the Aurizon Environment Policy and comply with Aurizon's Environmental Management Principle.</li> <li>Define, implement and continually improve operational controls such as systems, plans, processes, procedures etc. to meet the requirements of Aurizon's Environmental Management Principle.</li> <li>Ensure legislative and environmental risks are fully and accurately identified and included in relevant Risk Registers.</li> <li>Allocate adequate resources to the implementation of Aurizon's Environmental Management Principles and the associated operational controls.</li> <li>Communicate clear and consistent messages to staff that compliance with Aurizon's Environmental Management Principles is required and ensure personnel have the capacity and resources to comply.</li> <li>Ensure checking and auditing is conducted to demonstrate compliance with Aurizon's Environmental Management Principles and identify areas for improvement and corrective and preventive action.</li> <li>Define and document responsibilities and accountabilities of personnel, who manage, perform and verify work affecting the environment and ensure that these responsibilities are discharged.</li> <li>Ensure that personnel have the appropriate skills, knowledge and training to achieve the environmental outcomes commensurate with the legislative and other requirements of their position.</li> <li>Ensure environmental responsibilities are included in contractual arrangements with service providers, contractors, suppliers and third</li> </ul>

## SH&E ENTERPRISE-WIDE PRINCIPLE

Function: Safety, Health and Environment  
Contact: Manager Environment



## ENVIRONMENTAL MANAGEMENT

Who	What
	<p>party operators and that these responsibilities are discharged.</p> <ul style="list-style-type: none"> <li>• Ensuring that decision-making integrates with environmental considerations.</li> <li>• Report environmental performance, including compliance via SHE reporting processes.</li> </ul>
Chief Internal Auditor	<ul style="list-style-type: none"> <li>• Develop and conduct an environmental audit program of the environmental corporate principles within each area of Aurizon Holdings Ltd business operations and report findings to each and to the Board.</li> </ul>
Vice President Safety, Health and Environment	<ul style="list-style-type: none"> <li>• Endorse Aurizon's Environmental Management Principles.</li> <li>• Ensure that the environment annual audit program is produced.</li> <li>• Ensure the Manager Environment facilitates appropriate action in relation to new legislative and other requirements.</li> <li>• Annually evaluate the effectiveness of Aurizon's Environmental Management System.</li> <li>• Formally report environmental compliance to Aurizon's Board, Safety, Health and Environment Board subcommittee, the Central Safety Committee and the Managing Director &amp; Chief Executive Officer.</li> </ul>
Manager Environment	<ul style="list-style-type: none"> <li>• Establish and maintain Aurizon's Environmental Management Principles.</li> <li>• Ensure that Aurizon's Environmental Management Principles aligns with the Environment Policy</li> <li>• Facilitate the environmental risk management processes.</li> <li>• Facilitate appropriate action in relation to new regulatory and other requirements.</li> <li>• Prepare an annual (2<sup>nd</sup> party) environmental audit program in consultation with Functional Groups and ensure that appropriate checking and auditing processes are implemented throughout Aurizon.</li> <li>• Facilitate environmental performance.</li> <li>• Facilitate environmental stakeholder liaison, consultation and participation.</li> <li>• Establish and maintain the enterprise Environmental Communications and Stakeholder Management Plan.</li> <li>• Facilitate communication across all levels of Aurizon to share environmental management knowledge, opportunities to adopt best practice and improve environmental performance.</li> <li>• Facilitate environmental awareness across the organisation.</li> </ul>

## SH&E ENTERPRISE-WIDE PRINCIPLE

Function: Safety, Health and Environment  
Contact: Manager Environment



## ENVIRONMENTAL MANAGEMENT

Who	What
Aurizon Staff	<p>Have a general environmental responsibility, such that: <i>"A worker shall not carry out an allowed activity that causes, or is likely to cause, environmental harm unless the person takes all reasonable and practicable measures to prevent or minimise the harm"</i>.</p> <p>In addition, all staff must:</p> <ul style="list-style-type: none"><li>• Undertake work in accordance with Aurizon's Environmental Management Principles</li><li>• Immediately report environmental incidents, breaches and non-compliance to management.</li></ul>
Manager SHE Training	<p>Ensure the requirements of the Aurizon Environment Policy and Environmental Management Principle are included in annual Enterprise Required training.</p>

### Appendix B: Definitions

- *Environmental Objectives* are broad performance goals.
- *Environmental Targets* are measurable interpretations of objectives.
- *Environmental Aspects* are elements of the business's activities or products or services that can interact (positive or negative impact) *with the environment*.



## Environmental Policy

Endorsed: June 2018

### **Aurizon Holdings Limited (the "Company")**

ACN 146 335 622  
Level 8, 900 Ann Street  
Fortitude Valley QLD 4006  
Australia

### **Contacts**

Company Secretary/  
Head of Safety, Health and Environment

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# Environmental Policy

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Aurizon is committed to achieving world leading environmental performance across all its operations as one of Australia's largest transport and logistics businesses. Aurizon business activities will be managed in a manner that minimises adverse environmental impacts and delivers continual improvement in environmental performance.

This will be achieved by:

- Implementing environmental management systems which identify, control, and where possible, minimise adverse environmental impacts arising from our operations.
- Meeting or exceeding all relevant legal obligations and relevant codes of practice.
- Preventing pollution, minimising waste and improving resource use efficiency.
- Setting internal objectives and targets for environmental performance, reviewing progress, and reporting results.
- Progressively assessing our energy consumption to identify opportunities for improving the energy efficiency of our operations.
- Ensuring our employees, contractors and others working on our behalf understand and have skills and resources to comply with this policy.
- Communicating openly with the community, government and other stakeholders regarding our environmental performance.
- Periodically reviewing this policy and effectiveness of management system procedures in delivering our environmental objectives.
- Integrating environmental responsibilities and considerations into our operations and business decision making processes.
- Providing employee awareness and training where necessary on how working activities can impact on the environment.

All Aurizon employees are accountable for ensuring all business activities, facilities and equipment within their area of responsibility are managed in accordance with this policy.



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**Andrew Harding**

**Managing Director & Chief Executive Officer**

## APPENDIX B Minister Conditions of Approval MP07\_0171 and Statement of Commitments

## Relevant Minister Conditions of Approval

MCoA	Description	Section/Management Plan
C1	The SSI shall be designed and operated with the objective of not exceeding the vibration goals for human exposure for existing sensitive receivers, as presented in Assessing Vibration: a Technical Guideline (DECC, 2006).	Section 3.3
C2	<p>The Proponent shall ensure that the SSI is designed and operated so as not to exceed the operational noise limits presented in Table 1 at the nominated receivers.</p> <p>(REFER MP07_0171 MOD 1 TABLE 1 for performance criteria or Table 9 of the OEMP)</p>	Section 3.3
C19	<p>.....</p> <p>Monitoring shall be undertaken in accordance with the requirements of the approved Construction Soil and Water Management Plan required under Condition E 63(d) and Operation Environment Management Plan required by condition F2.</p> <p>.....</p>	SGMP and Section 4.1
C24	<p>Dangerous goods, as defined by the <i>Australian Dangerous Goods Code</i>, shall be stored and handled strictly in accordance with:</p> <ul style="list-style-type: none"> <li>A. all relevant Australian Standards;</li> <li>B. for liquids, a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund; and</li> <li>C. The <i>Environment Protection Manual for Authorised Officers: Bunding and Spill Management</i>, technical bulletin (EPA, 1997).</li> </ul> <p>In the event of an inconsistency between the requirements listed from (a) to (c) above, the most stringent requirement shall prevail to the extent of the inconsistency.</p>	Section 3.7

MCoA	Description	Section/Management Plan
D5	<p>The Proponent shall develop and implement a <b>Compliance Tracking Program</b> to track compliance with the requirements of this approval. The Program shall be submitted to the Director-General for approval at least one month prior to the commencement of construction. The Program shall operate throughout construction and for a minimum of three years following the commencement of operations, subject to the Director-General's review of the outcomes of the Operational Performance Audit <i>NSW Government 19 Department of Planning &amp; Infrastructure</i> Report referred to in condition F3. The Program shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> <li>A. provisions for the notification of the Director-General prior to the commencement of construction and prior to the commencement of operation of the SSI (including prior to each stage, where works are being staged);</li> <li>B. provisions for periodic review of compliance status of the SSI against the requirements of this approval;</li> <li>C. provisions for periodic reporting of compliance status against the requirements of this approval to the Director-General, including at least one month prior to both the commencement of construction and operation of the SSI and at other intervals during the construction and operation, as identified in the Program;</li> <li>D. a program for independent environmental auditing in accordance with <i>ISO 19011:2003 - Guidelines for Quality and/or Environmental Management Systems Auditing</i>;</li> <li>E. mechanisms for reporting and recording incidents and actions taken in response to those incidents;</li> <li>F. provisions for reporting environmental incidents to the Director-General and relevant public authorities during construction and operation;</li> <li>G. procedures for rectifying any non-compliance identified during environmental auditing, review of compliance or incident management; and</li> <li>H. Provisions for ensuring all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.</li> </ul>	Section 4.0
D6	<p>The Proponent shall notify the Director-General of any incident with significant off-site impacts on people or the biophysical environment, as identified by the Environmental Representative, within 24 hours of becoming aware of the incident. The Proponent shall provide full written details of the incident to the Director-General within seven days of the date on which the incident occurred.</p>	Section 5.2

MCoA	Description	Section/Management Plan
F1	Prior to commencement of operations, the Proponent shall incorporate the SSI into an existing environmental management system administered by the Proponent and prepared in accordance with the <i>AS/NZS ISO 14000 Environmental Management System</i> series or equivalent.	This document
	Prior to the commencement of operation, or as otherwise agreed by the Director- General, the Proponent shall prepare and implement an <b>Operational Environmental Management Plan</b> for the SSI. The Plan shall detail the environmental management framework, practices and procedures to be followed during operation of the SSI. The Plan shall be consistent with the document <i>Guideline for the Preparation of Environmental Management Plans</i> (DIPNR, 2004). The Plan shall be prepared in consultation with the relevant government authorities and include, but not necessarily be limited to:	This OEMP and supporting management plans
	(a) a description of all relevant activities to be undertaken during operation of the SSI;	Section 1.2
	(b) statutory and other obligations that the Proponent is required to fulfil during operation including all approvals, consultations and agreements required from authorities, and key legislation and policies;	Section 1.3 Section 2.3
F2	(c) details of how the SSI's environmental performance will be monitored and what actions will be taken to address identified adverse environmental impacts;	Section 4.0
	(d) where required, measures to monitor and maintain biodiversity offset measures implemented in accordance with condition C4 of this approval;	Not applicable refer FFMP and Bio-Banking credit transfer report (201607-TF-156).
	(e) measures to monitor and maintain the effectiveness of flora and fauna management measures, including revegetated areas, landscaped areas and the control of the spread of weeds;	FFMP
	(f) measures to monitor and manage noise impacts;	Section 3.3
	(g) measures to monitor and control soil erosion and the discharge of sediment and other pollutants to surrounding lands and waterways;	SWMP
	(h) procedures for periodic monitoring of groundwater depth and flow and groundwater quality in the vicinity of the SSI and groundwater seepage, including the location and frequency of monitoring;	Section 4.0 SGMP

MCoA	Description	Section/Management Plan
	(i) a contingency plan to address changes in groundwater depths and flows and/or groundwater quality and groundwater seepage into the drainage swales;	Section 4.0 SGMP
	(j) measures to monitor and manage hazards and risks;	Appendix C
	(k) management and maintenance measures for the floating wetlands, and for the entire stormwater system, including pits and pipes, cess drains, sediment basins, gross pollutant traps and detention basins; (l) management measures for maintaining the Purgatory Creek culvert;	SWMP
	(m) emergency management procedures;	Section 5.0 FEMP
	(n) measures for maintaining the stormwater management system including the drainage swales; and	Section 4.0 SWMP
	(o) measures to minimise dust generation from internal service roads.	Section 3.4
	<p>The Plan shall be submitted for the Director-General's approval no later than one month prior to the commencement of operation, or as otherwise agreed by the Director-General. Operation of the SSI shall not commence until written approval has been received from the Director-General.</p> <p>Nothing in this condition precludes the Proponent from updating an existing Operational Environment Management Plan, (environmental) management system, existing policies and/or procedures to meet this requirement, providing the Operational Environment Management Plan demonstrates, to the satisfaction of the Director- General, where the relevant conditions of this approval have been addressed.</p>	
F4(A)	The Proponent shall undertake a noise and vibration compliance assessment, consistent with the requirement of condition F4 to include the Turning Angle Works within 12 months of the commencement of operation of the Turning Angle Works.	Section 4.2

## Statement of Commitments

SoC	Commitment	OEMP Section/Management Plan
Item 2	All licences, permits and approvals required by law to construct and operate the TSF will be obtained and maintained as required.	Section 2.3
	Operation of the TSF will be undertaken in accordance with the Environmental Management Plan (EMP). The EMP will address all measures to be implemented to minimise and manage potential environmental impacts during the operation of the TSF. The EMP will include the following plans:	This OEMP
	A. Conservation Management Plan;	Not applicable. Bio-Banking credit transfer report 201607-TF-156).
	B. Waste Management Plan;	WMP
	C. Traffic Management Plan;	Section 3.5
Item 3	D. Stormwater Management Plan;	SWMP
	E. Erosion and Sediment Control Plan;	SWMP
	F. Flood Emergency Management Plan;	FEMP
	G. Water Quality Management Plan;	SGMP
	H. Acid Sulphate Soil Management Plan; and	SMP
	I. Aboriginal Cultural Heritage Management Plan	Section 3.6

SoC	Commitment	OEMP Section/Management Plan
Item 9	<p>During construction and operation of the TSF, the Conservation Management Plan will be followed. The Conservation Management Plan will include:</p> <ul style="list-style-type: none"> <li>A. strategies to avoid or minimise impacts to flora and fauna;</li> <li>B. procedures to monitor and control weeds (with special methods for eradicating alligator weed);</li> <li>C. strategies to minimise the access route through Proposed Offset Area 2;</li> <li>D. contingency procedures or corrective actions to be followed should monitoring indicate that the identified objectives and outcomes are not being achieved.</li> </ul>	Not applicable.
Item 10	<p>The management of the Southern Offset Area will include:</p> <ul style="list-style-type: none"> <li>A. the establishment and fencing of the conservation area;</li> <li>B. entering into an appropriate arrangement for the security of the offset area such as a Voluntary Conservation Agreement;</li> <li>C. Management of habitat for existing terrestrial and aquatic, flora and fauna species;</li> <li>D. an annual monitoring program for the first five years;</li> </ul>	Refer to Bio-Banking credit transfer report 201607-TF-156).
Item 11	<p>The management of the Northern Offset Area will include:</p> <ul style="list-style-type: none"> <li>A. improving the condition of the Swamp Oak Forest and the Coastal Floodplain Sedgelands</li> <li>B. entering into an appropriate arrangement for the security of the offset area such as, a Voluntary conservation Agreement; and</li> </ul>	
Item 13	<p>Areas of high sediment, oil &amp; grease and nutrient loads will be separated from the stormwater system (e.g. wash bays, provisioning sheds, servicing sheds). These areas will be treated separately and discharged to trade waste or for re-use in wash down.</p>	SWMP
Item 14	<p>Gross Pollutant Traps (GPTs) will be utilised to provide primary screening of stormwater. A secondary system of GPTs will be located at the outlet of each Water Quality Control Pond (WQCP) as a final barrier to remove suspended solids, remaining floating debris and hydrocarbons.</p>	

SoC	Commitment	OEMP Section/Management Plan
Item 16	<p>Surface water and groundwater monitoring will be regularly undertaken during the ongoing operation of the TSF to:</p> <ul style="list-style-type: none"> <li>A. Identify any change in water quality; and</li> <li>B. Determine the appropriate treatment strategies to be implemented to maintain or improve water quality.</li> </ul> <p>The water monitoring program for the TSF will include monitoring of changes in hydrological regime associate with discharges to catchment 2 (which contains the Swamp Oak Forest EEC) in the northwest and to Catchment 5 (which contains the Coastal Saltmarsh EEC) to the south. Further opportunities will be investigated to manage stormwater flows on the site to assist in creating favourable water flows and levels that support rehabilitated and offset areas of significant ecological value.</p>	SGMP
Item 23	<p>The persons responsible for the management of works on site will ensure that all staff, contractors and others involved in construction and maintenance related activities are made aware of the statutory legislation protecting sites and places of significance. Of particular importance is the National Parks and Wildlife Amendment (Aboriginal Objects and Aboriginal Places) Regulation 2010, under the National Parks and Wildlife Act 1974.</p>	Section 3.6
Item 25	A wastewater system for effluent disposal will be established.	SWMP
Item 26	A recycle system for wash down water will be established.	SWMP

SoC	Commitment	OEMP Section/Management Plan
Item 27	<p>An irrigation system with the following site improvements will be established:</p> <ul style="list-style-type: none"> <li>A. removal of the concrete hardstand and footings in the central portion of the site, or placement of 0.5m of suitable clay loam fill material over concrete;</li> <li>B. addition of lime to acidic soils to maintain plant growth;</li> <li>C. addition of gypsum to improve the soil structure and reduce dispersion / erosion;</li> <li>D. earthworks to re-contour and fill drainage channels and redirect surface water flow around the proposed irrigation area (meeting buffer distance requirements);</li> <li>E. where required, placement of suitable fill or earthworks to raise site levels to at least 1m above the permanent groundwater table and/or at least 0.6m between the highest seasonal water table and the base of the irrigation areas (whichever is the greater);</li> <li>F. importation and placement of a suitable clay loam fill to form the surface of the irrigation area to improve soil properties and minimise the potential for the groundwater pollution; and</li> <li>G. installation of catch drains / bunds upslope and downslope of the irrigation area to prevent rainfall run on and run-off.</li> <li>H. Dewatering licences will be obtained in respect of the sewer installations where required;</li> <li>I. Rainwater tanks will be installed to top up the recycled water system.</li> </ul>	SWMP

SoC	Commitment	OEMP Section/Management Plan
Item 33	<p>Measures to minimise the impact of dust generated in association with the proposed development will be implemented including:</p> <ul style="list-style-type: none"> <li>A. Watering of roads and sealing of roads if required; b) Stabilisation of disturbed areas as soon as possible;</li> <li>C. trucks entering and leaving the site will be well maintained in accordance with the manufacturer's specification to comply with all relevant regulations;</li> <li>E. truck movement will be controlled on site and restricted to designated roadways</li> <li>H. procedures to control dust and other emissions from construction operations and on-site equipment will be implemented;</li> <li>I. stockpiles and handling areas will be maintained in a condition which minimises windblown or traffic generated dust;</li> <li>J. transport vehicles will be properly maintained to ensure exhaust emissions comply with relevant regulatory requirements, and to minimise emissions;</li> <li>M. non-essential idling of locomotives will be minimised, and locomotives with excessive smoke will be expeditiously repaired; and</li> <li>N. Low sulphur diesel fuel will be used where available.</li> </ul>	Section 3.4 & 3.5
Item 34	<p>The following information will be available for community enquiries and complaints prior to and during the construction and operation of the TSF:</p> <ul style="list-style-type: none"> <li>A. A contact number on which complaints and enquiries about construction and operational activities may be registered;</li> <li>B. A postal address to which written complaints and enquiries may be sent; and</li> <li>C. An email address to which electronic complaints and enquiries may be sent.</li> </ul>	Section 6.0

SoC	Commitment	OEMP Section/Management Plan
Item 35	<p>A Community Consultation Strategy will be implemented for ongoing proactive engagement and communication with surrounding and adjoining residents. This strategy will include:</p> <ul style="list-style-type: none"> <li>A. Policies which aim to increase knowledge and develop community-staff relations; and</li> <li>B. Processes to inform neighbours about access arrangements to the development site and changes to property access that may affect them.</li> </ul>	Noted
Item 36	Open and direct communications will be maintained with Australian Rail Track Corporation and the Hunter Valley Coal Chain Coordinator, to ensure that potential benefits of the TSF are maximised and negative impacts minimised	Noted
Item 37	<p>An Operational Waste Management Plan will be prepared to address the ongoing handling, storage and disposal of waste. The Operational Waste Management Plan will provide:</p> <ul style="list-style-type: none"> <li>A. Identification of the types of waste likely to be generated during construction;</li> <li>B. Appropriate storage of waste on site;</li> <li>C. Measures to minimise the amount of waste produced;</li> <li>D. Measures to increase the potential for waste to be re-used and recycled;</li> <li>E. Appropriate methods to assess if waste can be reused, recycled or disposed to landfill; and</li> <li>F. Maintaining records of waste re-use, recycling and/or disposal.</li> </ul>	WMP
Item 38	Licensed waste contractors will be made responsible for collection and appropriate disposal of waste.	
Item 41	Any hazardous materials will be stored and disposed of in accordance with WorkCover Authority requirements.	

## APPENDIX C Environmental Risk Assessment

**3. SHE RISK ASSESSMENT (CONDUCTED IN ACCORDANCE WITH 04-PRI-014 – SHE RISK MANAGEMENT)**

- When conducting the SHE Risk Assessment, consideration should be given to the related business area Hazard and Risk Inventory to identify any Hazards/Safety Risks that have been previously approved by the relevant Level of Authority required by 04-PRI-014.
- Refer to 04-PRI-014 SHE Risk Management for determining the level of risk and authorisation. **See section 6.3 and 6.4 below.**
- The effectiveness of the implementation of all Control Measures shall be categorised in accordance with the criteria in **section 6.1 below.**
- Control selection and justification shall be evaluated using the guidelines in **section 6.2 below.**

ENVIRONMENTAL RISK ASSESSMENT											
CEO Enterprise/ EVP Function:		Operations		<b><u>Risk Assessment Context: (Detailed)</u></b>  This Risk Assessment relates to operational activities conducted by Aurizon personnel based at the Whyte Island depot. The risk assessment will be read in conjunction with the environmental Site Based Management Plan. The depot will meet the requirements of the <i>Environmental Protection Act 1994</i>							
VP Portfolio:		Coal NSW/SEQ									
Assessment Owner:		RMM Hexham TSF									
Developed By:		Senior Adviser Environment									
Authorisation and Date:		XXXXXX									
1. IDENTIFY AND DESCRIBE			2. ASSESS AND EVALUATE				3. CONTROL AND MONITOR				
Risk No.	List Activity or Aspect and Hazard – e.g. What is it that has potential to cause harm?	Risk What is the risk associated with the hazard?  (The Risk Of)+(Due To)+(Resulting In)	Existing Controls What existing precautionary controls do I currently have in place and how effective are they?  Confirm the Hierarchy of Control (HOC) and justify  Consider the following in order: 1. Regulations 2. Codes of Practice 3. International / Australian or Industry Standard	Justifications Explain why this arrangement of controls was chosen.  (also see <u>Section 6.2 below</u> )	Risk Evaluation		Proposed Controls Are there additional precautionary controls options I can apply to minimise the risk?  (Apply the proposed Hierarchy of Control and justify)	Justifications Explain why this arrangement of controls was chosen.  (also see <u>Section 6.2 below</u> )	Accountable Officer Who will implement the proposed controls?	Due Date When are the proposed controls due?	Date for next review To monitor control effectiveness.
					C	L	Level of Risk				
							Extreme				
							High				
							Moderate				
							Low				

1	Traffic and Access	<p>A) Noise and vibration emissions from light and heavy vehicle access impacting sensitive receivers.</p> <p>B) Improper use of access by 3<sup>rd</sup> parties and or impacts to private landholders.</p>	<p><b>Elimination</b></p> <p>A) Site access will be limited to the constructed permanent access road off the Tarro Interchange.</p> <p>B) Aurizon employees and contractors will not be required to utilise third party access routes on a regular basis.</p> <p><b>Substitution</b></p> <p>Not applied</p> <p><b>Isolation</b></p> <p>Not applied</p> <p><b>Engineering</b></p> <p>A) Access roads will be maintained as required.</p> <p>B) All deliveries (oil, fuel etc.) are to access the site using designated access and be unloaded in designated bunded areas.</p> <p><b>Administration</b></p> <p>A) Operational staff on-site at any one time is approximately 30 during normal operating conditions.</p> <p>A) Heavy vehicles must stand down and give way to light vehicles at all times on shared access roads.</p> <p>A) Traffic is to be managed in a manner that meets the noise and vibration management performance criteria as detailed in the OEMP.</p> <p>A) All deliveries and heavy vehicles will access the Site during daytime hours (0730 to 1830) where practical.</p> <p>A) Vehicle movements restricted to 40 km/h.</p> <p>A) All operational staff and contractors will be required to complete an induction communicating key elements of this traffic management plan prior to accessing the site.</p> <p>B) All delivery / waste / material collection vehicles are to contact Aurizon's site superintendent or delegate prior to arrival.</p> <p>B) Upon completion of delivery / collection, all vehicles are to proceed to</p>	<p><b>Guidance:</b> The selected HOC is justified on the basis that the controls form part of the accepted safe system of work for the known operating environment and have valid potential to minimise the identified risk.</p> <p>All credible control options were considered within the hierarchy of control (HOC) as applicable to the accountable sphere of control.</p> <p>Controls considered but rejected: NIL</p>	2	3	M	<p><b>Elimination</b></p> <p>Not applied</p> <p><b>Substitution</b></p> <p>Not applied</p> <p><b>Isolation</b></p> <p>Not applied</p> <p><b>Engineering</b></p> <p>Not applied</p> <p><b>Administration</b></p> <p>Not applied</p> <p><b>PPE</b></p> <p>Not applied</p> <p><b>Control Effectiveness:</b></p> <p>SE</p>	<p><b>Guidance:</b> Risk Controls are subject to ongoing due diligence in accordance with the authorised implementation and review timeframes.</p>	RMM/RML/ Facilities Coordinator	28/02/22
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			<p>the turning loop and exit site access gate at the entry point.</p> <p>B) Aurizon employees and contractors utilising third party access routes are to give right-of way to surrounding landowners where practicable.</p> <p>B) Third parties requiring access to provided routes are to obey Aurizon's traffic control mechanisms whilst on Aurizon property.</p> <p>B) Changes to traffic management regimes and potential hazards shall be communicated to all relevant third parties as soon as practicable after they have been identified.</p> <p>A/B) Operational Environmental Management Plan</p> <p><b>PPE</b></p> <p>Not applied.</p> <p><b>Control Effectiveness:</b></p> <p>SE</p>								
2	Train Movements	A) Vibration and noise impacts originating from train movements exceeding performance criteria.	<p><b>Elimination</b></p> <p>Not applied</p> <p><b>Substitution</b></p> <p>Not applied</p> <p><b>Isolation</b></p> <p>Not applied</p> <p><b>Engineering</b></p> <p>A) Equipment is well maintained and operated per manufacturers requirements.</p> <p>A) Equipment fit with noise control fittings where practical.</p> <p><b>Administration</b></p> <p>A) Minimise number of plant operating at any one time.</p> <p>A) Machinery turned off when not in use.</p> <p>A) Monitoring will be undertaken in</p>	<p><b>Guidance:</b> The selected HOC is justified on the basis that the controls form part of the accepted safe system of work for the known operating environment and have valid potential to minimise the identified risk.</p> <p>All credible control options were considered within the hierarchy of control (HOC) as applicable to the accountable sphere of control.</p> <p>Controls considered but rejected:</p> <p>NIL</p>	2	2	L	<p><b>Elimination</b></p> <p>Not applied</p> <p><b>Substitution</b></p> <p>Not applied</p> <p><b>Isolation</b></p> <p>Not applied</p> <p><b>Engineering</b></p> <p>Not applied</p> <p><b>Administration</b></p> <p>Not applied</p> <p><b>PPE</b></p> <p>Not applied</p> <p><b>Control Effectiveness:</b></p> <p>SE</p>	<p><b>Guidance:</b> Risk Controls are subject to ongoing due diligence in accordance with the authorised implementation and review timeframes.</p>	RMM/RML/ Senior Adviser Environment	28/02/22

			<p>response to noise and vibration complaints or as directed by the EPA in accordance with AS2659 – 1-1998, at the relevant receivers.</p> <p>A) Where an exceedance of adopted noise or vibration criteria is identified, additional management measures are to be investigated and implemented.</p> <p>A) Corrective actions are to be handled in accordance the OEMP.</p> <p><b>PPE</b></p> <p>Not applied.</p> <p><b>Control Effectiveness:</b></p> <p>SE</p>								
3	Provisioning of locomotives	A) Spill of hazardous material to environment during provisioning of locomotive within Provisioning Shed, DP provisioning point or DIL causing environmental harm.	<p><b>Elimination</b></p> <p>Not applied</p> <p><b>Substitution</b></p> <p>Not applied</p> <p><b>Isolation</b></p> <p>A) Locomotives are secured in accordance with relevant isolation, lock-out principles and procedures including: PRI-0030/COR/RD/ 03 Aurizon SHE Enterprise-Wide Document – Isolation and Lockout; OP-INS-21 Train Crew Isolation and Lockout of Locomotives; and Phoenix Train Control System Isolation Instructions.</p> <p>A) Emergency stops are provided within the Provisioning Facility, DP Provisioning Point and DIL trucks to provide a means of isolation and shutdown of plant, if an issue is observed.</p> <p><b>Engineering</b></p> <p>A) Locomotives provisioning within the fully bunded Provisioning Shed with spills reporting to trade waste. DP fuel point spill captured by track matting.</p> <p>A) All fuel storage, handling and delivery system/vehicles are complaint</p>	<p><b>Guidance:</b> The selected HOC is justified on the basis that the controls form part of the accepted safe system of work for the known operating environment and have valid potential to minimise the identified risk.</p> <p>All credible control options were considered within the hierarchy of control (HOC) as applicable to the accountable sphere of control.</p> <p>Controls considered but rejected:</p> <p>NIL</p>	4	2	M	<p><b>Elimination</b></p> <p>Not applied</p> <p><b>Substitution</b></p> <p>Not applied</p> <p><b>Isolation</b></p> <p>Not applied</p> <p><b>Engineering</b></p> <p>Not applied</p> <p><b>Administration</b></p> <p>Not applied</p> <p><b>PPE</b></p> <p>Not applied</p> <p><b>Control Effectiveness:</b></p> <p>SE</p>	<p><b>Guidance:</b> Risk Controls are subject to ongoing due diligence in accordance with the authorised implementation and review timeframes.</p>	RMM/RML	28/02/22

		<p>with AS1940 Storage and handling of flammable and combustible liquids where applicable.</p> <p>A) CCTV installed within Provisioning Shed.</p> <p>A) All DIL sites have track matting installed.</p> <p>A) All surface water runoff from the TSF infrastructure area reports to the surface water management system (Basin 1 -3).</p> <p>A) Hoses, connections and dry-break Banlaw fittings are to be maintained in good working order.</p> <p><b>Administration</b></p> <p>A) All personnel undertaking provisioning activities are to be suitably qualified and trained.</p> <p>A) Locomotive provisioning is undertaken in accordance with relevant operational instructions and procedures – 14-WI-007-SDCNSW DIL and relevant DIL/DP refuelling procedures.</p> <p>A) Liquid spills are to be cleaned using dry methods.</p> <p>A) All site personnel are to complete Aurizon's Spill Response Training Module prior to undertaking works on-site.</p> <p>A) Site Emergency Response Plan (SERP) 16-PLA-0001-HEX.</p> <p>A) DIL/DP fuel location risk assessment, preference hierarchy, demarcation, spill containment and exclusion zones are to be established for each location.</p> <p>A) DIL/DP operator collects liquid from containment tubs for disposal off-site at a licensed facility.</p> <p>A) API dry break fittings to be utilised.</p> <p>A) Spill containment tubs placed to capture minor leakage from</p>								
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			<p>connections and locomotive breathers.</p> <p>A) DIL fuelling procedure including pre-activity site and cam lock inspection.</p> <p>A) Max fill of locomotive to be utilised based on max fill and agreed with DIL/DP operator prior to commencement of refuel, rate to be reduced on nearing target max fill.</p> <p>A) Operational Environmental Management Plan and Stormwater Management Plan.</p> <p><b>PPE</b></p> <p>A) Hydrocarbon spill kits are to be maintained on-site and within DIL vehicles, fully stocked, in readily accessible locations.</p> <p><b>Control Effectiveness:</b></p> <p>SE</p>								
4	<b>Provisioning of site storages</b>	<p>A) Spill of hazardous materials to the environment during provisioning of site storages causing environmental harm.</p> <p>B) Failure of bulk storage due to collision of heavy vehicle resulting in impact to the environment.</p>	<p><b>Elimination</b></p> <p>Not applied</p> <p><b>Substitution</b></p> <p>Not applied</p> <p><b>Isolation</b></p> <p>Not applied</p> <p><b>Engineering</b></p> <p>A) All fuel supply contractor vehicles and equipment are to be compliant with relevant AS/NZS standards including AS1940.</p> <p>A) Unloading point utilises an API dry-break coupler to minimise the potential for spills from hoses and tanker manifolds during connection and disconnection to each tanker compartment.</p> <p>A) An 'Emergency Stop' is provided in the delivery bay.</p> <p>A) The unloading pump shall stop</p>	<p><b>Guidance:</b> The selected HOC is justified on the basis that the controls form part of the accepted safe system of work for the known operating environment and have valid potential to minimise the identified risk.</p> <p>All credible control options were considered within the hierarchy of control (HOC) as applicable to the accountable sphere of control.</p> <p>Controls considered but rejected:</p> <p>NIL</p>	3	2	M	<p><b>Elimination</b></p> <p>Not applied</p> <p><b>Substitution</b></p> <p>Not applied</p> <p><b>Isolation</b></p> <p>Not applied</p> <p><b>Engineering</b></p> <p>Not applied</p> <p><b>Administration</b></p> <p>Not applied</p> <p><b>PPE</b></p> <p>Not applied</p> <p><b>Control Effectiveness:</b></p> <p>SE</p>	<p><b>Guidance:</b> Risk Controls are subject to ongoing due diligence in accordance with the authorised implementation and review timeframes.</p>	RMM/RML	28/02/22

			<p>automatically upon the downstream pressure exceeding the set system pressure or detection of low flow.</p> <p>A) 'Safe Fill Level' (High level alarm – LAH) has been installed.</p> <p>A) CCTV installed within Provisioning Shed.</p> <p>A) Designated provisioning areas are bunded to capture potential spills and maintain separation of potential spills from the stormwater system.</p> <p>A) The fuel storage and handling systems have been designed to AS 1940 Storage and handling of flammable and combustible liquids.</p> <p>A &amp; B) All surface water runoff from the TSF infrastructure area reports to the surface water management system (Basin 1 -3).</p> <p>B) Barrier in place to separate bulk fuel area from roadway.</p> <p><b>Administration</b></p> <p>A) All fuel supply contractors are to provide Aurizon with a fuelling risk assessment for approval prior to operating on-site.</p> <p>A) Fuel supply contractors maintain compliance with (ADGC).</p> <p>A) All contractors undertaking works on-site or delivering materials will be required to undertake Aurizon's site specific induction; provide evidence of relevant licences / permits and provide a SWMS to Aurizon for review prior to entry.</p> <p>A) Provisioning to be completed in accordance with ADGC and AS1940.</p> <p>A) Aurizon Incident Management Framework RD SAF 0012 Guide 001.</p> <p>A) Operational Environmental Management Plan, Stormwater Management Plan and Surface and Groundwater Monitoring Plan.</p>								
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			<p><b>PPE</b></p> <p>A) Hydrocarbon Spill Kits will be available and ready for mobilisation at key locations across the site including the bulk fuel unloading area.</p> <p>A) All site personnel are to be trained in spill response procedures prior to operating on-site.</p> <p><b>Control Effectiveness:</b></p> <p>SE</p>								
5	Management of site storages	A) Failure of site bulk fuel and oil storages at the CMF and Provisioning Shed from improper management resulting in environmental impacts.	<p><b>Elimination</b></p> <p>Not applied</p> <p><b>Substitution</b></p> <p>Not applied</p> <p><b>Isolation</b></p> <p>A) Dangerous goods (fuels, oils, lubricants etc.) stored in designated storage areas).</p> <p><b>Engineering</b></p> <p>A) The fuel storage and handling systems have been designed to AS 1940.</p> <p>A) The bulk fuel / oil storage containers are linked to a 'Compac' fuel monitoring system.</p> <p>A) All surface water runoff from the TSF infrastructure area reports to the surface water management system (Basin 1 -3).</p> <p>A) All site storages to be 110% the volume of the largest container.</p> <p><b>Administration</b></p> <p>A) All systems are to be regularly inspected as per OEMP requirements.</p> <p>A) Storage and handling systems will undergo engineering inspections at intervals in accordance with AS1940 and product manufacturer</p>	<p><b>Guidance:</b> The selected HOC is justified on the basis that the controls form part of the accepted safe system of work for the known operating environment and have valid potential to minimise the identified risk.</p> <p>All credible control options were considered within the hierarchy of control (HOC) as applicable to the accountable sphere of control.</p> <p>Controls considered but rejected: NIL</p>	3	2	M	<p><b>Elimination</b></p> <p>Not applied</p> <p><b>Substitution</b></p> <p>Not applied</p> <p><b>Isolation</b></p> <p>Not applied</p> <p><b>Engineering</b></p> <p>Not applied</p> <p><b>Administration</b></p> <p>Not applied</p> <p><b>PPE</b></p> <p>Not applied</p> <p><b>Control Effectiveness:</b></p> <p>SE</p>	<p><b>Guidance:</b> Risk Controls are subject to ongoing due diligence in accordance with the authorised implementation and review timeframes.</p>	RMM/RML	28/02/22

			specifications.  A) Operational Environmental Management Plan, Stormwater Management Plan and Surface and Groundwater Monitoring Plan.  <b>PPE</b>  Not applied.  <b>Control Effectiveness:</b>  SE								
6	Maintenance of wagons and locomotives	A) Spill of hazardous materials during maintenance of locomotives and wagons resulting in environmental impacts	<b>Elimination</b> Not applied  <b>Substitution</b> Not applied  <b>Isolation</b>  A) Major servicing, mechanical repairs and detailing conducted within the confines of the CMF bunded area.  A) Dangerous goods stored in designated areas or bunded trays.  <b>Engineering</b>  A) All work areas are graded into collection sumps and directed to the DAF.  <b>Administration</b>  A) All site personnel are to complete Aurizon's 'Spill Response Training Module' prior to undertaking works on-site.  A) Liquid spills are to be cleaned using dry methods.  A) All hazardous materials used on-site are logged in Aurizon's ChemAlert register system and individually risk assessed.  A) MSDSs for all chemicals in-use are to be on-display and reviewed regularly.	<b>Guidance:</b> The selected HOC is justified on the basis that the controls form part of the accepted safe system of work for the known operating environment and have valid potential to minimise the identified risk.  All credible control options were considered within the hierarchy of control (HOC) as applicable to the accountable sphere of control.  Controls considered but rejected: NIL	3	2	M	<b>Elimination</b> Not applied  <b>Substitution</b> Not applied  <b>Isolation</b> Not applied  <b>Engineering</b> Not applied  <b>Administration</b> Not applied  <b>PPE</b> Not applied  <b>Control Effectiveness:</b>  SE	<b>Guidance:</b> Risk Controls are subject to ongoing due diligence in accordance with the authorised implementation and review timeframes.	RMM/RML	28/02/22

			<p>A) Operational Environmental Management Plan, Stormwater Management Plan and Surface and Groundwater Monitoring Plan.</p> <p><b>PPE</b></p> <p>A) Hydrocarbon spill kits are to be maintained on-site, fully stocked, in readily accessible locations.</p> <p><b>Control Effectiveness:</b></p> <p>SE</p>								
7	Storage of spare and damaged parts	<p>A) Inappropriate storage of spare and damaged parts resulting in impact to the environment.</p> <p>B) Failure of parts resulting in environmental impacts.</p>	<p><b>Elimination</b></p> <p>Not applied</p> <p><b>Substitution</b></p> <p>Not applied</p> <p><b>Isolation</b></p> <p>A) Mechanical parts in contact with any automotive fluid shall be stored in designated areas of the CMF.</p> <p><b>Engineering</b></p> <p>A) All work areas are graded into collection sumps and directed to the DAF.</p> <p><b>Administration</b></p> <p>A &amp; B) All hazardous materials used on-site are logged in Aurizon's ChemAlert register system and individually risk assessed.</p> <p>A &amp; B) MSDSs for all chemicals in-use are to be on-display and reviewed regularly.</p> <p>A &amp; B) Environmental Management Plan.</p> <p><b>PPE</b></p> <p>A &amp; B) Hydrocarbon spill kits are to be maintained on-site, fully stocked, in readily accessible locations.</p> <p>A &amp; B) Liquid spills are to be cleaned</p>	<p><b>Guidance:</b> The selected HOC is justified on the basis that the controls form part of the accepted safe system of work for the known operating environment and have valid potential to minimise the identified risk.</p> <p>All credible control options were considered within the hierarchy of control (HOC) as applicable to the accountable sphere of control.</p> <p>Controls considered but rejected:</p> <p>NIL</p>	3	2	M	<p><b>Elimination</b></p> <p>Not applied</p> <p><b>Substitution</b></p> <p>Not applied</p> <p><b>Isolation</b></p> <p>Not applied</p> <p><b>Engineering</b></p> <p>Not applied</p> <p><b>Administration</b></p> <p>Not applied</p> <p><b>PPE</b></p> <p>Not applied</p> <p><b>Control Effectiveness:</b></p> <p>SE</p>	<p><b>Guidance:</b> Risk Controls are subject to ongoing due diligence in accordance with the authorised implementation and review timeframes.</p>	RMM/RML	28/02/22

			using dry methods. <b>Control Effectiveness:</b> SE								
8	Management of surface and groundwater quality	<p>A) Spills from provisioning activities or hazardous material storage reporting to soil, surface and or groundwater resulting in environmental impact.</p> <p>B) Failure of septic treatment plant resulting in untreated effluent being irrigated to surface.</p> <p>C) Failure of DAF plant resulting in untreated trade waste being used for wash-down.</p> <p>D) Poor management of floating wetlands resulting in basin water not being adequately treated.</p>	<p><b>Elimination</b> Not applied</p> <p><b>Substitution</b> Not applied</p> <p><b>Isolation</b> C) DAF plant wash-down restricted to fully bunded CMF area.</p> <p><b>Engineering</b> B/C) Maintenance and operation of plant as per manufacturer's requirements and recommendations.</p> <p><b>Administration</b> A/B/C/D) Surface and groundwater quality performance criteria included in the Surface and Groundwater Management Plan. A/B/C/D) Routine inspections and maintenance of site and surface water infrastructure undertaken as OEMP requirements. A/B/C/D) Surface and groundwater monitoring program and reporting requirements as per OEMP. B/C) Routine monitoring of water quality within the septic and DAF plant undertaken to monitor operational processes.</p> <p><b>PPE</b> Not applied.</p> <p><b>Control Effectiveness:</b> SE</p>	<p><b>Guidance:</b> The selected HOC is justified on the basis that the controls form part of the accepted safe system of work for the known operating environment and have valid potential to minimise the identified risk.</p> <p>All credible control options were considered within the hierarchy of control (HOC) as applicable to the accountable sphere of control.</p> <p>Controls considered but rejected: NIL</p>	2	2	L	<p><b>Elimination</b> Not applied</p> <p><b>Substitution</b> Not applied</p> <p><b>Isolation</b> Not applied</p> <p><b>Engineering</b> Not applied</p> <p><b>Administration</b> Not applied</p> <p><b>PPE</b> Not applied</p> <p><b>Control Effectiveness:</b> SE</p>	<p><b>Guidance:</b> Risk Controls are subject to ongoing due diligence in accordance with the authorised implementation and review timeframes.</p>	RMM/RML/ Senior Adviser Environment	28/02/22
9	Flooding	A) Inadequate response to flood emergency resulting in damage to equipment or harm to the environment.	<p><b>Elimination</b> Not applied</p> <p><b>Substitution</b></p>	<p><b>Guidance:</b> The selected HOC is justified on the basis that the controls</p>	3	2	M	<p><b>Elimination</b> Not applied</p> <p><b>Substitution</b></p>	<p><b>Guidance:</b> Risk Controls are subject to ongoing due</p>	RMM/RML	28/02/21

			<p>Not applied</p> <p><b>Isolation</b></p> <p>Not applied</p> <p><b>Engineering</b></p> <p>A) The facility has been designed to house all water sensitive equipment above the 1 in 50 year event flood level.</p> <p>A) All bulk storage tanks have been installed at a height and anchored to foundations, such that they will withstand buoyant forces potentially generated during inundation by a 1 in 100 year event flood level.</p> <p><b>Administration</b></p> <p>A) Flood Emergency Management Plan.</p> <p><b>PPE</b></p> <p>Not applied.</p> <p><b>Control Effectiveness:</b></p> <p>SE</p>	<p>form part of the accepted safe system of work for the known operating environment and have valid potential to minimise the identified risk.</p> <p>All credible control options were considered within the hierarchy of control (HOC) as applicable to the accountable sphere of control.</p> <p>Controls considered but rejected:</p> <p>NIL</p>				<p>Not applied</p> <p><b>Isolation</b></p> <p>Not applied</p> <p><b>Engineering</b></p> <p>Not applied</p> <p><b>Administration</b></p> <p>Not applied</p> <p><b>PPE</b></p> <p>Not applied</p> <p><b>Control Effectiveness:</b></p> <p>SE</p>	<p>diligence in accordance with the authorised implementation and review timeframes.</p>		
10	Waste management	<p>A) Improper waste management and disposal resulting in regulatory non-compliances or harm to the environment.</p>	<p><b>Elimination</b></p> <p>Not applied</p> <p><b>Substitution</b></p> <p>Not applied</p> <p><b>Isolation</b></p> <p>Not applied</p> <p><b>Engineering</b></p> <p>A) All waste water, sludge and hazardous material tanks are to be routinely inspected and serviced as per manufacturer's requirements.</p> <p>A) All tanks are to be pumped out in identified bunded areas.</p> <p><b>Administration</b></p> <p>A) All waste is to be removed by a licenced waste contractor and disposed</p>	<p><b>Guidance:</b> The selected HOC is justified on the basis that the controls form part of the accepted safe system of work for the known operating environment and have valid potential to minimise the identified risk.</p> <p>All credible control options were considered within the hierarchy of control (HOC) as applicable to the accountable sphere of control.</p> <p>Controls considered but rejected:</p>	3	2	M	<p><b>Elimination</b></p> <p>Not applied</p> <p><b>Substitution</b></p> <p>Not applied</p> <p><b>Isolation</b></p> <p>Not applied</p> <p><b>Engineering</b></p> <p>Not applied</p> <p><b>Administration</b></p> <p>Not applied</p> <p><b>PPE</b></p> <p>Not applied</p> <p><b>Control Effectiveness:</b></p> <p>SE</p>	<p><b>Guidance:</b> Risk Controls are subject to ongoing due diligence in accordance with the authorised implementation and review timeframes.</p>	RMM/RML/ Facilities Coordinator	28/02/22

			of at a licenced facility. A) A copy of all Pink waste certificates are to be retained onsite. A) Cardboard, paper and commingled waste recycling receptacles available in key work areas. A) Hydrocarbon receptacles (for oily rags and oil filters) available in the CMF work area. A) Secure HAZMAT receptacles available on-site. A) Metals / steel / aluminium components recycled where feasible. A) Waste oil filters collected in dedicated hydrocarbon receptacles for off-site reprocessing and re-use. <b>PPE</b> Not applied. <b>Control Effectiveness:</b> SE	NIL							
11	Community	A) Onsite operational activities resulting in impacts to community members.	<b>Elimination</b> Not applied <b>Substitution</b> Not applied <b>Isolation</b> Not applied <b>Engineering</b> Not applied <b>Administration</b> A) Community complaints management system in place. <b>PPE</b> Not applied. <b>Control Effectiveness:</b> SE	<b>Guidance:</b> The selected HOC is justified on the basis that the controls form part of the accepted safe system of work for the known operating environment and have valid potential to minimise the identified risk.  All credible control options were considered within the hierarchy of control (HOC) as applicable to the accountable sphere of control.  Controls considered but rejected:	2	2		<b>Elimination</b> Not applied <b>Substitution</b> Not applied <b>Isolation</b> Not applied <b>Engineering</b> Not applied <b>Administration</b> Not applied <b>PPE</b> Not applied <b>Control Effectiveness:</b> SE	<b>Guidance:</b> Risk Controls are subject to ongoing due diligence in accordance with the authorised implementation and review timeframes.	RMM/Senior Adviser Environment	28/02/22

				NIL								
12	Heritage	A) Operational activities resulting in impacts to unidentified Aboriginal heritage items.	<p><b>Elimination</b></p> <p>A) Excavation works are unlikely to be required outside of the Site infrastructure area footprint.</p> <p>A) Survey of the Site undertaken as part of the TSF EA did not identify any artefacts within the vicinity of the TSF infrastructure that remain.</p> <p><b>Substitution</b></p> <p>Not applied</p> <p><b>Isolation</b></p> <p>Not applied</p> <p><b>Engineering</b></p> <p>Not applied</p> <p><b>Administration</b></p> <p>A) Aurizon Cultural Heritage Tool Box Talk and unexpected finds protocol.</p> <p><b>PPE</b></p> <p>Not applied.</p> <p><b>Control Effectiveness:</b></p> <p>SE</p>	<p><b>Guidance:</b> The selected HOC is justified on the basis that the controls form part of the accepted safe system of work for the known operating environment and have valid potential to minimise the identified risk.</p> <p>All credible control options were considered within the hierarchy of control (HOC) as applicable to the accountable sphere of control.</p> <p>Controls considered but rejected: NIL</p>	1	1		<p><b>Elimination</b></p> <p>Not applied</p> <p><b>Substitution</b></p> <p>Not applied</p> <p><b>Isolation</b></p> <p>Not applied</p> <p><b>Engineering</b></p> <p>Not applied</p> <p><b>Administration</b></p> <p>Not applied</p> <p><b>PPE</b></p> <p>Not applied</p> <p><b>Control Effectiveness:</b></p> <p>SE</p>	<p><b>Guidance:</b> Risk Controls are subject to ongoing due diligence in accordance with the authorised implementation and review timeframes.</p>	RMM/RML/ Facilities Coordinator /Senior Adviser Environment		28/02/22
13	Historical site contamination	A) Disturbance of historical site contamination from ground disturbance works resulting in impacts to the environment.	<p><b>Elimination</b></p> <p>Not applied</p> <p><b>Substitution</b></p> <p>Not applied</p> <p><b>Isolation</b></p> <p>Not applied</p> <p><b>Engineering</b></p> <p>Not applied</p> <p><b>Administration</b></p>	<p><b>Guidance:</b> The selected HOC is justified on the basis that the controls form part of the accepted safe system of work for the known operating environment and have valid potential to minimise the identified risk.</p> <p>All credible control options were considered within</p>	3	3	M	<p><b>Elimination</b></p> <p>Not applied</p> <p><b>Substitution</b></p> <p>Not applied</p> <p><b>Isolation</b></p> <p>Not applied</p> <p><b>Engineering</b></p> <p>Not applied</p> <p><b>Administration</b></p> <p>Not applied</p> <p><b>PPE</b></p>	<p><b>Guidance:</b> Risk Controls are subject to ongoing due diligence in accordance with the authorised implementation and review timeframes.</p>	RMM/RML/ Facilities Coordinator /Senior Adviser Environment		28/02/22

			<p>A) Site Management Plan is in place and details process on how to identify and managed contamination.</p> <p>A) Completed field investigations undertaken as part of the TSF environmental approval indicate no gross pollution present.</p> <p><b>PPE</b></p> <p>Not applied.</p> <p><b>Control Effectiveness:</b></p> <p>SE</p>	<p>the hierarchy of control (HOC) as applicable to the accountable sphere of control.</p> <p>Controls considered but rejected:</p> <p>NIL</p>				<p>Not applied</p> <p><b>Control Effectiveness:</b></p> <p>SE</p>			
14	Air Quality	<p>A) Operational activities resulting in the emissions of dust which impact sensitive receivers.</p> <p>B) Operational activities resulting in diesel emissions impacting sensitive receivers and the environment.</p> <p>C) Operation of the septic treatment plant resulting in generation of odour impacting sensitive receivers.</p>	<p><b>Elimination</b></p> <p>Not applied</p> <p><b>Substitution</b></p> <p>Not applied</p> <p><b>Isolation</b></p> <p>Not applied</p> <p><b>Engineering</b></p> <p>B/C) Equipment is well maintained and operated as per manufactures requirements.</p> <p>B) Machinery is turned off when not in use.</p> <p><b>Administration</b></p> <p>B) NPI and GHG reporting is undertaken as required.</p> <p>A) Access roads are well maintained with unsealed roads watered as required.</p> <p>A) Vehicle movements are restricted to 40 km/h onsite.</p> <p>A/B/C) Aurizon CMS is in place to record and respond to complaints. Incidents will be managed through SHEM.</p> <p><b>PPE</b></p>	<p><b>Guidance:</b> The selected HOC is justified on the basis that the controls form part of the accepted safe system of work for the known operating environment and have valid potential to minimise the identified risk.</p> <p>All credible control options were considered within the hierarchy of control (HOC) as applicable to the accountable sphere of control.</p> <p>Controls considered but rejected:</p> <p>NIL</p>	2	2	L	<p><b>Elimination</b></p> <p>Not applied</p> <p><b>Substitution</b></p> <p>Not applied</p> <p><b>Isolation</b></p> <p>Not applied</p> <p><b>Engineering</b></p> <p>Not applied</p> <p><b>Administration</b></p> <p>Not applied</p> <p><b>PPE</b></p> <p>Not applied</p> <p><b>Control Effectiveness:</b></p> <p>SE</p>	<p><b>Guidance:</b> Risk Controls are subject to ongoing due diligence in accordance with the authorised implementation and review timeframes.</p>	RMM/RML/ Facilities Coordinator /Senior Adviser Environment	28/02/22

			Not applied. <b>Control Effectiveness:</b> SE									
15	Biodiversity	A) Operational activities resulting in impacts to site biodiversity.	<p><b>Elimination</b></p> <p>A) No offsets retained onsite due to the retirement of offsite Bio Banking Credits.</p> <p>A) Where fauna species are located and require removal from Site, Hunter Wildlife Rescue (Native Animal Trust Fund) are to be contacted as required.</p> <p><b>Substitution</b></p> <p>Not applied</p> <p><b>Isolation</b></p> <p>A) Identified significant vegetation (e.g. SEPP 14 wetland and EEC) adjacent to work areas inclusive of permanent structures or access routes</p> <p><b>Engineering</b></p> <p>A) Rehabilitation of native vegetation areas impacted by approved site activities are to be undertaken immediately following the completion of works, where practicable.</p> <p>A) Areas subject to rehabilitation due to clearing during the construction phase (EECs) of the project are to be maintained throughout the operational lifetime of the facility using prescribed species.</p> <p>A) Ongoing management of all rehabilitation areas are to include management of weeds, fencing, stock management and placement of coarse woody debris to create habitat for fauna.</p> <p><b>Administration</b></p> <p>A) Operational staff and contractors are to be made aware of areas of significant vegetation areas during Site inductions, where relevant.</p> <p>A) Weed identification and removal undertaken by a suitably qualified</p>	<p><b>Guidance:</b> The selected HOC is justified on the basis that the controls form part of the accepted safe system of work for the known operating environment and have valid potential to minimise the identified risk.</p> <p>All credible control options were considered within the hierarchy of control (HOC) as applicable to the accountable sphere of control.</p> <p>Controls considered but rejected: NIL</p>	2	2	L	<p><b>Elimination</b></p> <p>Not applied</p> <p><b>Substitution</b></p> <p>Not applied</p> <p><b>Isolation</b></p> <p>Not applied</p> <p><b>Engineering</b></p> <p>Not applied</p> <p><b>Administration</b></p> <p>Not applied</p> <p><b>PPE</b></p> <p>Not applied</p> <p><b>Control Effectiveness:</b></p> <p>SE</p>	<p><b>Guidance:</b> Risk Controls are subject to ongoing due diligence in accordance with the authorised implementation and review timeframes.</p>	RMM/RML/ Facilities Coordinator /Senior Adviser Environment		

			individual as per approved Weed Management Plan.  A) Fauna and Flora Management Plan  <b>PPE</b>  Not applied.  <u><b>Control Effectiveness:</b></u>  SE								
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## APPENDIX D Regulatory Consultation



Harry Egan  
Senior Adviser Environment  
Aurizon  
GPO Box 437  
Mayfield NSW 2304

Contact: Heidi Watters  
Phone: 02 6575 3401  
Email: [compliance@planning.nsw.gov.au](mailto:compliance@planning.nsw.gov.au)  
Our Ref: SSI 07\_0171

Email: [Harry.Egan@aurizon.com.au](mailto:Harry.Egan@aurizon.com.au)

Dear Mr Egan

**Hexham Train Support Facility (SSI 07\_0171)  
2018 Independent Environmental Audit – Response to Auditor Recommendations**

Reference is made to the revised Response to Auditor Recommendations (RAR) for the 2018 Hexham Train Support Facility Independent Environmental Audit (IEA), as required by condition D5(d) of SSI 07\_0171 (the approval) and submitted to the Department of Planning and Environment (the Department) on 26 February 2019.

The Department has reviewed the revised RAR and is satisfied with the actions and timeframes to complete actions. Please note that acceptance of the RAR is not an endorsement of the compliance status of the project.

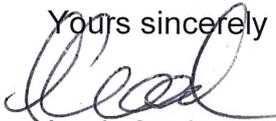
The Department notes that five out of the six proposed actions in the RAR are related to the revision of the Operational Environmental Management Plan (OEMP).

Further, as per previous Department correspondence and discussion following the site inspection on 14 March 2019, the revised OEMP may incorporate a revised Compliance Tracking Program (as per condition D5 of the approval), which shall include provisions for an annual compliance report (as per condition D5(b) and D5(c) of the approval) and a 3-yearly IEA schedule (as per condition D5(d) of the approval).

Please liaise with the Department's Infrastructure Post Approvals team during the revision of the OEMP via [infrastructure.notifications@planning.nsw.gov.au](mailto:infrastructure.notifications@planning.nsw.gov.au)

If you wish to discuss any of the above, please contact Heidi Watters on the details above or email [compliance@planning.nsw.gov.au](mailto:compliance@planning.nsw.gov.au)

Yours sincerely



16/3/19.

Leah Cook  
**Team Leader - Compliance**  
*As nominee of the Secretary*

## APPENDIX E Cultural Heritage Toolbox Talk

# AURIZON Aboriginal Cultural Heritage Induction Toolbox Talk

## Aboriginal Cultural Heritage (NSW)

The purpose of this Induction is to provide people in a position to make a cultural heritage find with the knowledge of how to identify cultural heritage, what steps to take to protect it, and who to inform when such an item has been identified. By being vigilant, you will be able to play your part in the identification and protection of this country's cultural heritage.

### What is Aboriginal Cultural Heritage?

Aboriginal cultural heritage is a legacy of cultural things (artwork, objects, artefacts, practices, skills, ideas, places and more) created by Australia's Indigenous population. Cultural heritage is not the same as native title. Cultural heritage exists on or under land regardless of whether it is owned by Aurizon, leased for pastoral purposes or held in freehold title.

### Protection of Aboriginal Cultural Heritage

Aboriginal cultural heritage is protected by both state and federal legislation. The main items of state legislation that offer protection to cultural heritage are:

#### ***New South Wales – National Parks and Wildlife Act 1974***

This Act protects Aboriginal cultural heritage by imposing a duty of care on all persons with regard to cultural heritage objects, items or places.

**The legislation requires that any person who carries out an activity must take all reasonable and practicable measures to ensure the activity does not harm Aboriginal cultural heritage.**

While working for Aurizon you are required and expected to protect and avoid harm to all known and any unidentified Aboriginal cultural heritage. Failure to comply with the provisions of the relevant legislation and/or damaging Aboriginal cultural heritage is enforced by financial and legal penalties:

For a corporation (Aurizon) – a maximum of **\$1,100,000**

For an individual (You) – **NSW:** a maximum of **\$550,000**

If you harm something you know or ought to know to be Aboriginal cultural heritage, you face up to **two years imprisonment**.

### What do you have to do?

There are a number of things that you have to do to protect Aboriginal cultural heritage:

- Keep a look out for evidence of cultural heritage items;
- If in doubt, contact the Aurizon Cultural Heritage & Native Title Coordinator for advice;
- Know what to look for when you are working within the vicinity of Aboriginal cultural heritage places or where there is the potential for uncovering Aboriginal cultural heritage;
- Follow Aurizon's New Find Procedure if a cultural heritage find is identified.

## What to do if a Cultural Heritage Find is identified

A Cultural Heritage Find means an Aboriginal object. Aboriginal objects include physical objects (such as stone tools, Aboriginal built fences and stockyards and scarred trees), material deposited on the land (such as middens) and the ancestral remains of Aboriginal people.

The Cultural Heritage New Find Procedure applies where any ground breaking activities are to occur. The Aurizon Cultural Heritage & Native Title Coordinator will make you aware of any specific obligations that have been imposed by the Office of Environment and Heritage (OEH) in respect of a Cultural Heritage Find.

Below is a summary of the New Find Procedure:

<b>Find</b>	The suspected cultural heritage find
<b>Stop and Identify</b>	Stop work in the immediate area, establish an appropriate buffer zone and record the item/s
<b>Notify</b>	Your supervisor and Aurizon's Cultural Heritage & Native Title Coordinator
<b>Protect and Manage</b>	The item/s until they are correctly dealt with by persons who possess the knowledge to do so

### BE AWARE OF YOUR CULTURAL HERITAGE OBLIGATIONS & ACT RESPONSIBLY

If you require any further information please contact Aurizon's Cultural Heritage & Native Title Coordinator on (07) 3019 9142 or at [culturalheritage@aurizon.com.au](mailto:culturalheritage@aurizon.com.au).

## What you must look for

You may find Aboriginal cultural heritage when working on Aurizon projects. The following cultural heritage items may be encountered while you are working on an Aurizon site:

### Rock Shelters

- › Rocky overhangs used for shelter from the weather, interment of the deceased or as galleries for rock art.

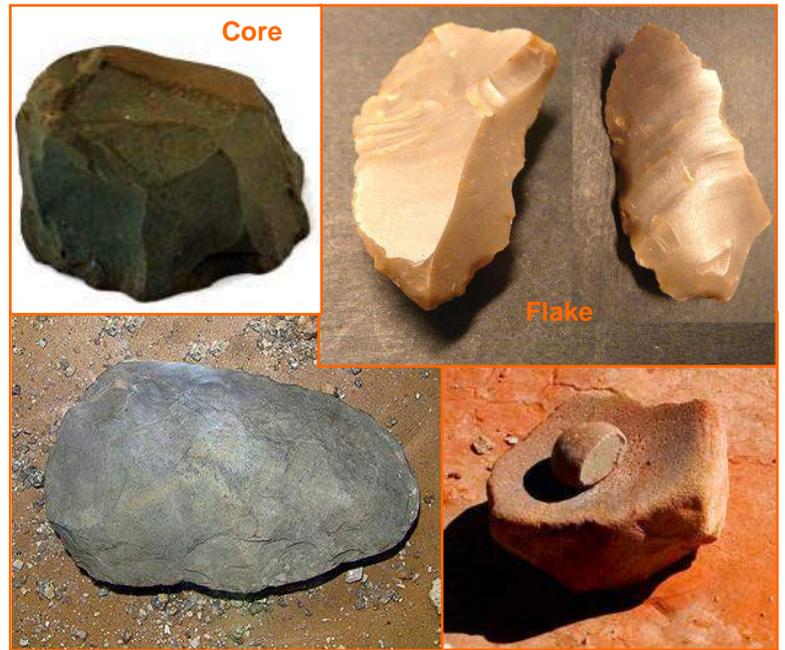


### Scarred or carved trees

- › A scar is usually roughly oval in shape and above the surface of the ground by approximately 1m.
- › Scars were created when Indigenous people removed bark to construct canoes, shields, bark shelters and containers.
- › Scarred trees are generally old native species with thick bark that can be peeled

## Stone artefacts

- ▶ Grindstones were used to grind and crush different materials and are usually made from abrasive rocks such as sandstone or coarse-grained basalt or quartzite. The surface of a grindstone has many scratches caused by abrasion but feels smooth.
- ▶ Axes are roughly hand sized with a cutting edge formed by grinding. Axes are usually rounded or oval in shape and are typically 'lens shaped' when viewed from the side.
- ▶ Cores are often fist sized or smaller and exhibit multiple inverse scars where flakes have been removed.
- ▶ Flakes are a fragment of stone removed from a core and are often triangular in shape and less than 50mm long. A 'bulb of percussion' is often present on the face of a flake. Flakes can often be different to the natural rock in the area.



Hand Axe

Grindstone



## Rock Art Sites

- ▶ Often located in rock shelters and frequently accompanied by stone tools, animal and human remains and charcoal.

## Native Wells

- ▶ Depressions in the landscape enlarged through the use of rock chipping or fire heating.



## Shell Middens

- ▶ The remains of a campsite where fresh and/or saltwater shellfish were cooked and eaten.
- ▶ Usually found along river banks, flood plains, near swamps and lakes and along the coast
- ▶ Typically seen as a mound with many layers of shells



## APPENDIX F New Find Procedure

# AURIZON Aboriginal Cultural Heritage New Find Procedure

## Discovery of Aboriginal Cultural Heritage (NSW)

### When to use this procedure

This procedure applies where any Aurizon ground breaking activities (including vegetation removal, geotechnical works and construction) are to occur.

This procedure is to be followed by all Aurizon employees and contractors and assists in ensuring Aurizon complies with its duty of care under the *National Parks and Wildlife Act 1974 (NSW)*.

### Discovery of a Cultural Heritage Find

If a cultural heritage find is identified during the course of project activities, it is mandatory that project activities are conducted in accordance with Aurizon's Cultural Heritage New Find Procedure as outlined below.

### What is a Cultural Heritage Find?

- An Aboriginal object; or
- Aboriginal human remains; or
- Evidence of archaeological or historic significance of Aboriginal occupation.

### Aboriginal cultural heritage new find procedure

1. Do not move or relocate any possible cultural heritage finds.
2. Immediately inform the Site Manager of the find and cease project activities in the general vicinity of the cultural heritage find.
3. Erect a physical boundary around the location ensuring the cultural heritage find is protected from harm. All site workers will be advised of the exclusion zone and instructed to stay out of the marked area.
4. The Site Manager must immediately inform the Project Manager of the cultural heritage find so the incident can be entered in the project incident register.
5. The Project Manager informs the Aurizon CH & NT Coordinator who will arrange an inspection by an appropriately qualified archaeologist to determine the significance of the find and relevant mitigation measures in consultation with the registered Aboriginal stakeholders.
6. The Aurizon CH & NT Coordinator will report any confirmed Aboriginal artefacts to the Office of Environment and Heritage (OEH).



### Responsibility matrix

Action No.	Responsible Party	Action
1	Site Manager	Inform Project Manager (PM). Set up exclusion zone and advise site workers.
2	Project Manager	Inform Aurizon CH & NT Coordinator. Record on project incident register.
3	Aurizon CH & NT Coordinator	Arrange inspection by archaeologist. Invite registered Aboriginal Stakeholders to attend. Report any confirmed Aboriginal artefacts to OEH. Inform PM of further cultural heritage actions or conditions, if any.
4	Project Manager	Inform Site Manager and/or Principal Contractor of further cultural heritage actions or conditions, if any.
5	Site Manager	Implement any further cultural heritage actions or conditions, if any.

# AURIZON Human Remains Procedure

## Discovery of Human Remains (NSW)



### When to use this procedure

#### **ALWAYS CONTACT YOUR LOCAL POLICE STATION IN THE FIRST INSTANCE**

This procedure applies where human remains are uncovered during the course of project activities. All burials in New South Wales are regulated under state specific legislation, including the *National Parks and Wildlife Act 1974 (NSW)* and local government by-laws.

### Discovery of human remains

#### **IT IS AN OFFENCE TO INTERFERE WITH HUMAN REMAINS, WHETHER BURIED OR NOT.**

If human remains are discovered during the course of project activities, Aurizon employees and contractors must comply with the requirements of applicable state legislation, including the *National Parks and Wildlife Act 1974 (NSW)*.

The Cultural Heritage & Native Title Coordinator is to be informed of any discovery of human remains however no cultural heritage action will be taken unless the Police are satisfied the human remains are not part of a crime scene.

### Aboriginal human remains procedure

1. Immediately contact the local Police
2. Do not move or relocate any items in or around the human remains.
3. Cease project activities within a 50m exclusion zone of the human remains.
4. Erect a physical boundary around the human remains to ensure they are protected from harm.
5. Inform the Aurizon Cultural Heritage & Native Title Coordinator of the outcome of the Police investigation.
6. If the remains are determined to be of Aboriginal origin, the Aurizon Cultural Heritage & Native Title Coordinator will liaise with the Office of Environment and Heritage (NSW) and the registered Aboriginal Stakeholders to ensure the human remains are managed appropriately and in accordance with the attached Human Remains Guidelines.
7. Project activities may not continue in the exclusion zone until the human remains have been removed from the Project Area.

### Responsibility matrix

Action No.	Responsible Party	Action
1	Site Manager	Report the find to the NSW Police. Inform the Project Manager. Set up buffer zone to ensure remains are not disturbed.
2	Project Manager	Inform Aurizon CH & NT Coordinator if the Police have confirmed the remains are not the product of a crime scene.
3	Aurizon CH & NT Coordinator	Liaise with OEH and the registered Aboriginal Stakeholders over timeframes for handling and management of human remains.

