



SIMEC

MEMBER OF



ENVIRONMENTAL MANAGEMENT SYSTEM FRAMEWORK

Tahmoor Coal Pty Ltd



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Author: - Zina Ainsworth

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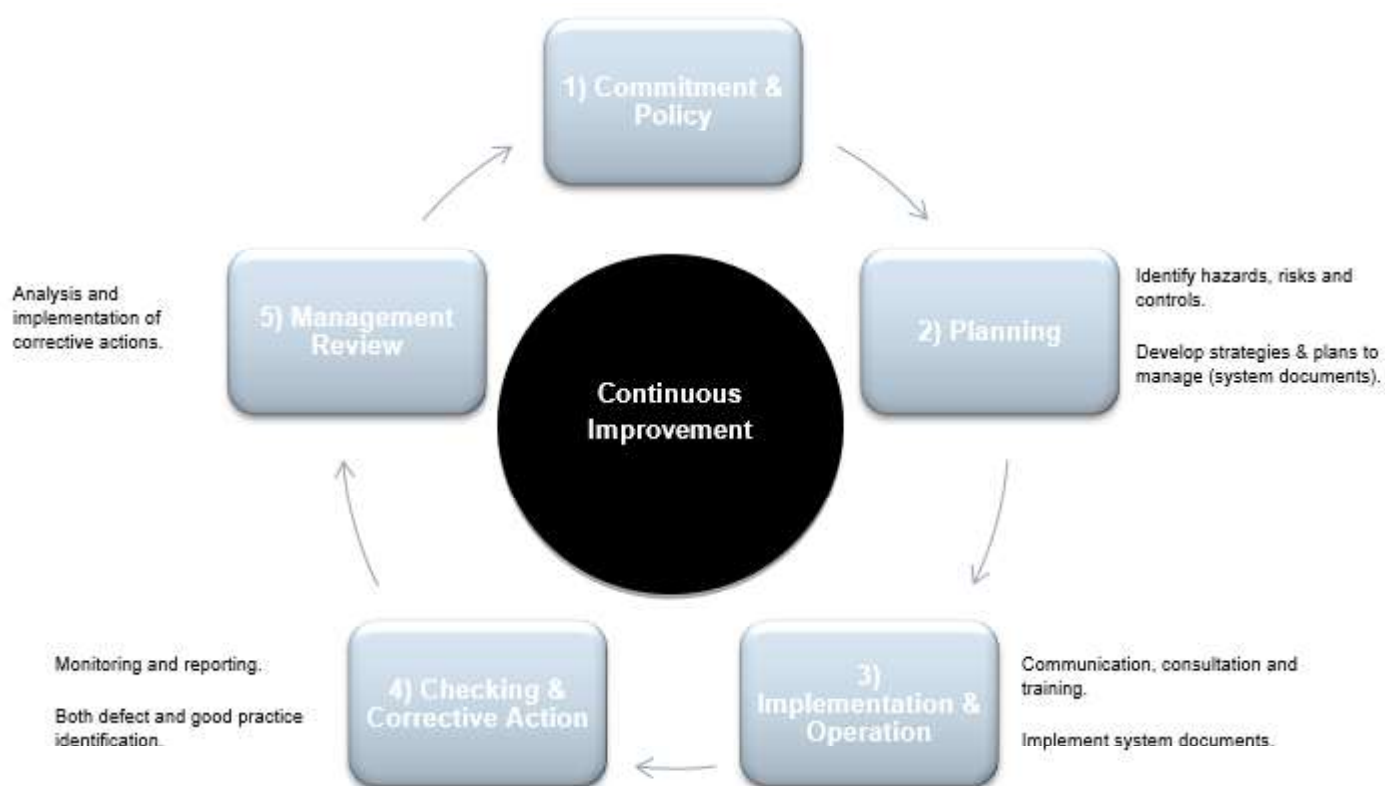
1 Commitment and Policy

1.1 Purpose

This Environmental Management System (EMS) Framework provides the strategic context for the environmental management of Tahmoor Coal and the framework from which the EMS is implemented. The EMS forms part of the broader Health, Safety, Environment and Community (HSEC) management systems at Tahmoor Coal. This Strategy outlines how Tahmoor Coal manages environment and community (E&C) aspects, impacts and performance. It provides a framework for the standards, plans and procedures implemented to ensure operations are managed in accordance with the ISO:14001 principles. In adopting the ISO:14001 principles, Tahmoor Coal has also adopted the “Plan-Do-Check-Act” model as shown in Figure 1. This model has been applied to the all aspects of the EMS, to embed the continuous improvement process in all system documents.

The objectives of the EMS are:

- a) To provide an overall framework for environmental management at Tahmoor utilising the principles of ISO:14001;
- b) To ensure compliance with all development consent, licences and approvals at Tahmoor Coal;
- c) To detail the relationship and interactions between various operational and environmental components at Tahmoor Coal;
- d) To provide effective mechanisms for external communications, maintaining a relationship with the local community; and
- e) To assist Tahmoor Coal employees and contractors in administering their responsibilities regarding environmental management.



1.2 Scope

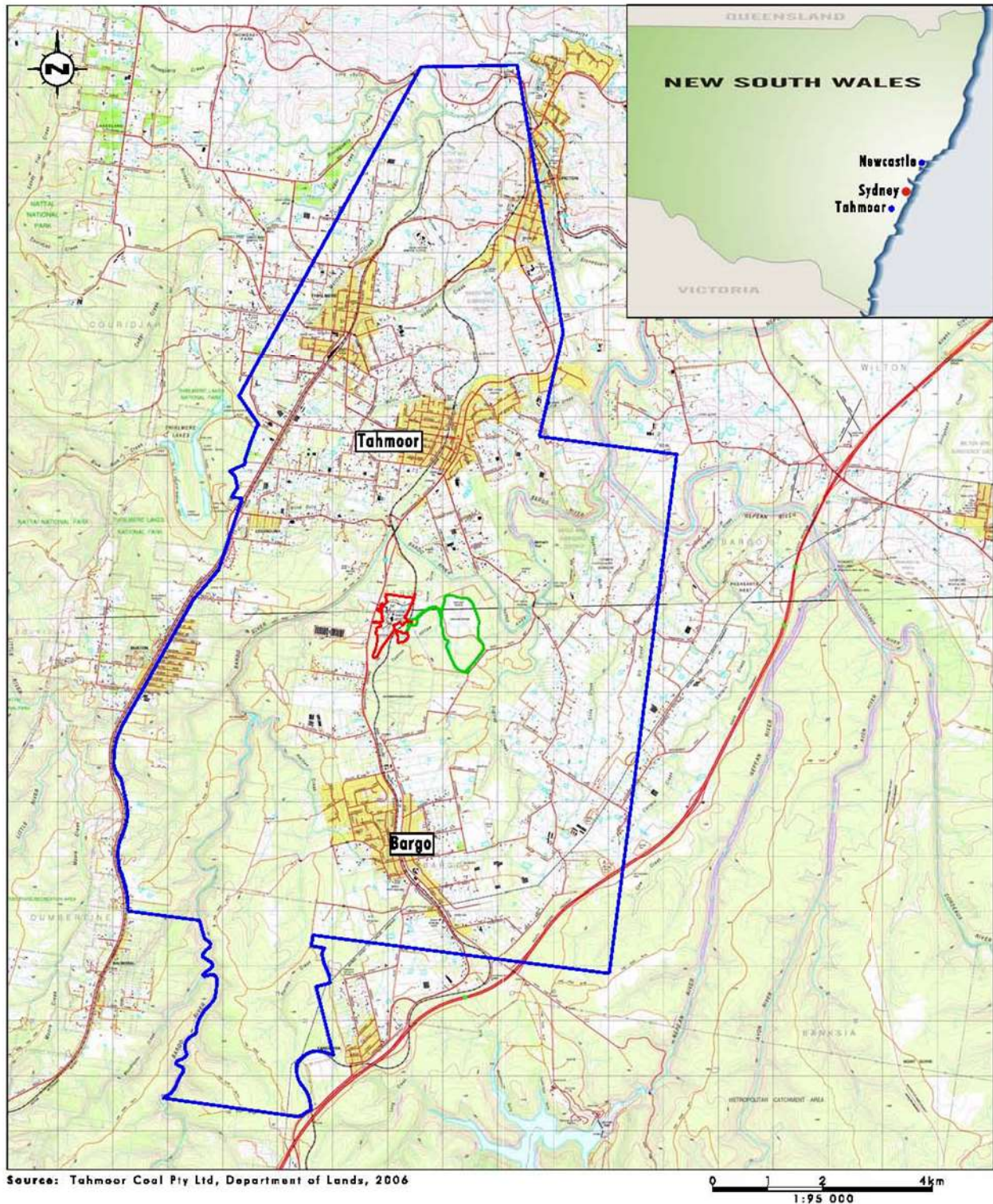
Tahmoor Coal is located on the foothills of the Southern Highlands of New South Wales. The mine surface operations are located south of the village of Tahmoor, which is within the greater Sydney Basin - approximately 80 km south west of Sydney. Tahmoor Coal is within the Wollondilly Shire Council (WSC) Local Government Area (LGA).

Development of the site commenced in 1975, with board and pillar coal extraction taking place from 1979. The Coal Handling & Preparation Plant (CHPP) and Reject Emplacement Area (REA) was established during 1980, and longwall mining activities being introduced in 1986. Longwall activities occur at depths of between 385 and 500 metres in the Bulli coal seam within three lease areas. Based on known reserves, the current Life of Mine (LOM) is approximately 2020 based on current production rates. Underground workings extend north under the town of Tahmoor with two ventilation shafts being located on the outskirts of town. The location of Tahmoor Coal in the regional context is shown in Figure 2.

Tahmoor Coal surface facilities are situated to the south of the Bargo River and adjacent to Remembrance Drive on land owned by Tahmoor Coal with mining conducted under both crown and freehold property (see Figure 3). Surface facilities at Tahmoor Coal include administration buildings and offices, a materials store, diesel tanks, electrical workshop, mechanical workshop, bathhouse, ventilation fan, CHPP, storage areas and run of mine and product stockpiles. A third party owned power station is also located on-site and utilises methane from the mine's gas drainage system to produce electricity. Extracted coal is processed on site prior to transportation via rail to the Port Kembla Coal Loader.

Approximately 350 people are employed at Tahmoor Coal. The mine plays a significant role as a leading employer in the Southern Coalfields, and endeavours to provide a safe work environment which incorporates best practice environmental management into a culture of continuous improvement and sustainable development.

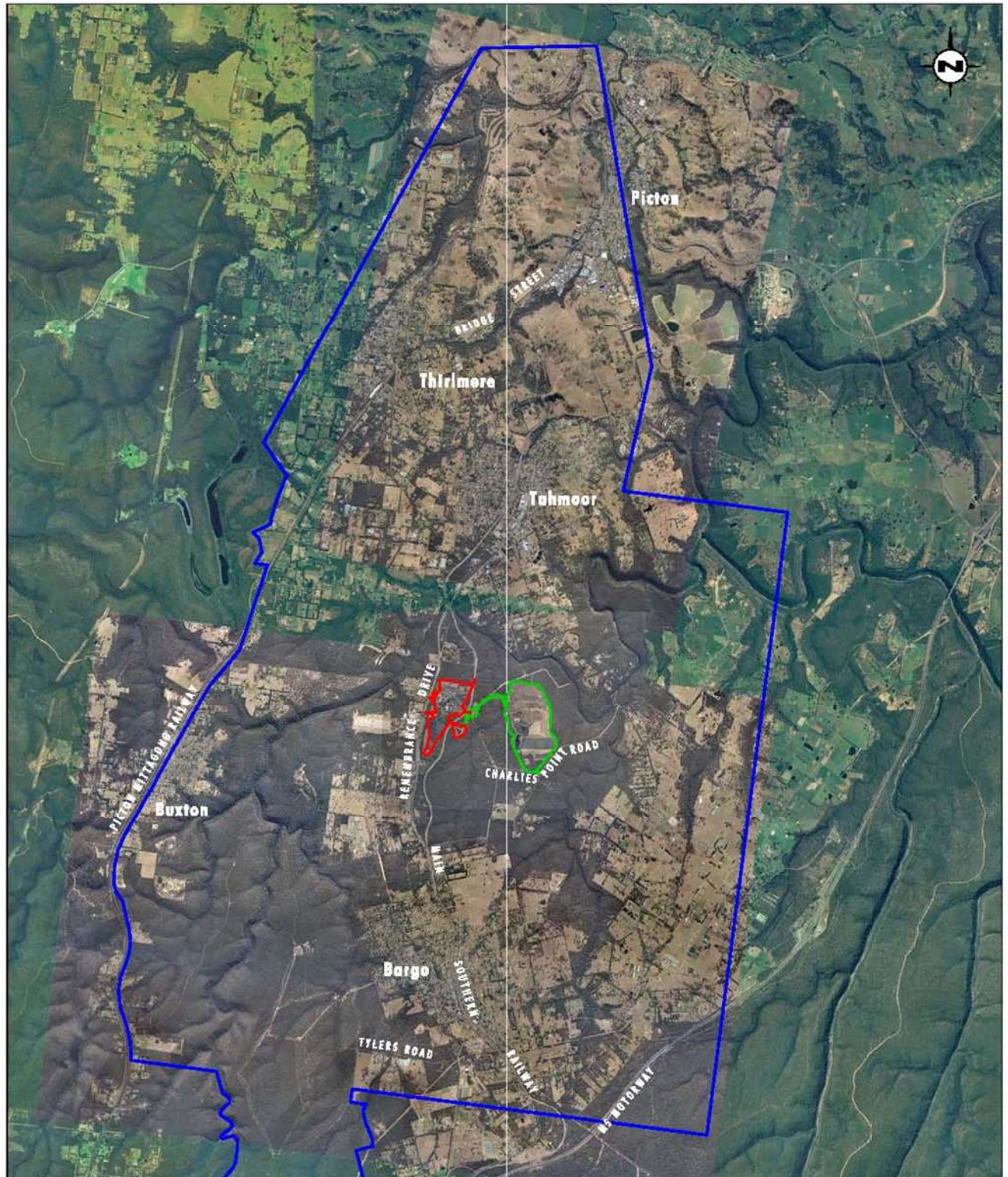
Tahmoor Coal's EMS and associated documents apply to all aspects of Tahmoor mining operations including Projects and Tahmoor Coal owned residential properties, with focus on the surface operations where environmental management principles contained within the site's system documents are most applicable.



Legend

- Tahmoor Landholdings
- Pit Top Facilities
- REA (Reject Emplacement Area)

FIGURE 1



Source: Department of Lands (Aerial Photo - 1998) & Tahmoor Coal Pty Ltd (2008)

0 1 2 4 km
1:80 000

Legend

- ▬ Tahmoor Landholdings
- ▬ Pit Top Facilities
- ▬ REA (Reject Employment Area)

FIGURE 2

2 Planning

2.1 Strategy and Planning

Legislation and Regulatory Requirements

The annual risk management planning and budgeting process implemented for Tahmoor Coal is summarised in Figure 6.

The Annual HSEC Plan objectives are incorporated into the site annual budget. Objectives and targets are specific, measurable and achievement of targets will generally demonstrate continuous improvement in E&C management. Targets and specific improvement projects are often linked to an individual's performance review process as part of the performance appraisal and development system.

The annual management review of E&C issues and performance provides the operation with a detailed understanding of key environmental aspects and impacts prior to participating in the Tahmoor Coal Annual E&C Risk Assessment. The annual management review meeting considers the following factors:

Outcomes from monitoring and review activities:

- a) Internal and external environmental inspections, assessments and audit reports addressing operational, specialist, functional, management system, legal compliance and stakeholder requirements; or other external commitments.
- b) HSEC incident reports and investigation findings.
- c) Performance data, trends and reports including the extent to which targets and objectives have been met.
- d) Inputs and views of external stakeholders, including complaints.
- e) Status of corrective and preventative actions.
- f) Outcomes from previous management reviews.
- g) Government policies and regulation, socio-economic or political developments and new scientific findings and technological developments.

Following the annual management review HSEC strategies, plans, process, objectives and targets are to be updated as part of the annual planning process. Actions and minutes from the meeting are recorded in Tahmoor Coal's compliance management database CMO and progress is reviewed throughout the year.

A more detailed review of each operation's objectives and targets and compliance status is undertaken on a weekly basis at HSEC meetings. These meetings provide a more comprehensive assessment of the status of projects, actions, objectives and targets listed for environment and community work schedule. The meeting is held with the Tahmoor Coal HSEC management team (or representatives).

2.2 Underground Statutory Approvals Management

Tahmoor Coal maintains awareness of changes to standards, codes or legislation in the following ways:

- a) Receipt of regular updates from legal advisers;
- b) Participation in industry groups;
- c) Notification from the Liberty GFG Group and support team; and
- d) Access to legislation via the internet.

The requirement to provide training to personnel and contractors is assessed on an as required basis, following the E&C Department becoming aware of a change as outlined in Section 4.13.

Tahmoor Coal follows a specific approvals and compliance process to ensure that all approvals required for the continuity of the operations are obtained within the required time frame and the compliance with these approvals is maintained. Tahmoor Coal has adopted the CMO Compliance Management database system to store and maintain compliance with development consents, leases, licences, and other approvals. CMO is updated regularly as triggered by actions or by the addition of new or modified approvals.

All development consents, leases, licences, and other relevant approvals are stored in the CMO Compliance Management database, which is administered by both site and Liberty GFG Corporate. A summary of the statutory approvals is provided in Tables 1 to 3.

Approval	Title / Description	Date Granted	Expiry Date
DA 1975	Tahmoor Underground Mine	26/03/1975	No expiry
DA 1979	Coal Preparation Plant Stockpiles and Refuse Emplacement Area.	23/08/1979	No expiry
DA 1979 (Mod 1)	Modification for road haulage of trial coal shipments	16/09/1985	No expiry
DA 190/85	Surface Works for Gas Extraction	16/12/1985	No expiry
DA 1979 (Mod2)	Modification for Upgrades for Longwall Mining	05/11/1986	No expiry
DA 1979 (Mod 3)	Modification for Road haulage in Wollondilly Shire and when rail unavailable.	1988	No expiry
DA 57/93	Tahmoor North Project.	07/09/1994	No expiry
DA 1979 (Mod 4)	Modification for Road haulage to Corrimal and Coal Cliff Coke Works.	13/12/1994	No expiry
DA 67/98	Tahmoor North Project	25/02/1999	16/06/2024
DA 67/98 (Mod 1)	Modification for additional areas to be subsided.	26/11/2006	16/06/2024
DA 57/93 (Mod1)	Modification for heritage approval condition.	07/06/2007	No expiry
DA 67/98 (Mod 2)	Modification for Redbank Tunnel Subsidence Management	08/04/2012	16/06/2024
DA 67/98 (Mod 3)	Modification for Redbank Tunnel Subsidence Management – Subdivision of Land	07/11/2014	16/06/2024
CCL 716	Original Tahmoor Leases	15/06/1990	13/03/2021
ML 1376	Tahmoor North Lease	28/08/1995	28/08/2016
ML 1308	Small Western lease to west of CCL716	02/03/1993	02/03/2035
ML 1539	Tahmoor North Extensions Lease	16/06/2003	16/06/2024

Approval Title / Description	Date Granted	Expiry Date
Environmental Protection Licence 1389	01/05/2012	No Expiry
WAL36442 and WAL25777	6/12/2013	No Expiry
Dangerous Goods Licence XSTR200005	18/01/2012	02/02/2017
LW27-30 Subsidence Management Plan Approval	31/10/2012	30/09/2019
LWW1 W2 Extraction Plan	8/11/2019	No Expiry

2.2.1 Primary Statutory Approvals

Development in the State of NSW is controlled by the Environmental Planning and Assessment Act 1979 (EP&A Act). Generally, significant private development is assessed under Part 4 of the EP&A Act and State government developments under Part 5 of the EP&A Act.

The development approval process and regulatory framework for proposed major mining projects in New South Wales is primarily provided under following legislation:

- a) Environmental Planning & Assessment Act 1979;
- b) Mining Act 1992; and
- c) Commonwealth EPBC Act 1999.

2.2.2 Secondary Statutory Approvals

The development approval process and regulatory framework for proposed mining projects in New South Wales is primarily provided under the EP&A Act 1979 as discussed in **Section 3.1.2**.

Additional secondary approvals may also be required under the following legislation:

- a) Protection of the Environmental Operations Act (POEO Act) 1997 – Environmental protection Licence (EPL).
- b) Mining Act 1992 – Subsidence Management Plan, Mining Operations Plan.

2.3 Native Title

2.3.1 Relevant Legislation

In terms of dealing with Native Title, the Commonwealth and the States both have established native title legislation, policy and procedures, which is the subject of this guide as they relate to mining development across both QLD and NSW. The relevant Native Title legislation for Tahmoor Coal is:

- a) Native Title Act, 1993 (Cth).
- b) NSW Native Title Act, 1994.

All dealings with Native Title are to be in accordance with relevant legislation.

2.4 Risk and Change Management

Aspects and impacts at Tahmoor Coal are considered for operational activities, legislative requirements and internal and external stakeholder views. Key aspects and impacts are identified during the annual review of the Tahmoor Coal E&C Broad Brush Risk Assessment (BBRA) and the operational Life of Mine (LOM) Risk Assessment and Site Wide Broad-Brush Risk Assessment (Mine BBRA).

The purpose of the E&C BBRA is to identify significant E&C aspects and impacts across the site, the risk they pose and the controls necessary to effectively manage them. Management of impacts is prioritised according to the level of risk each aspect is assigned. Once all identified aspects, impacts, risks and management controls have been identified within the Annual E&C Risk Assessment.

The purpose of the Mine BBRA is to identify significant aspects and impacts of operations at a site level. Existing or proposed management controls are identified to reduce the risk of impacts on the E&C. The need for any new (or modifications to existing) approvals is also identified during this process.

The LOM Risk Assessment considers aspects and impacts of business activities at a strategic level. These risk assessments cover the life of mine risks associated with each operation. The outcomes of the LOM Risk Assessment are used in conjunction with the Tahmoor Coal E&C BBRA and Mine BBRA to develop the annual capital and operational budget and the associated work schedule.

In accordance with Tahmoor Coal's Health & Safety Management System, project and activity specific risk assessments are completed as required and include assessment of E&C risks.

2.5 Annual HSEC Plan

Each year Tahmoor Coal develops an Annual HSEC Plan. The Annual SD Plan formalises Tahmoor Coal's objectives and targets for the forthcoming year, to ensure they are aligned with corporate strategies, business plans and risk management processes. The SD Plan identifies targets, KPIs, projects, accountabilities and resources required to achieve the annual SD outcomes. Objectives and targets are specific, measurable and achievement of targets will generally demonstrate continuous improvement in environment and community management. Targets and specific improvement projects are often linked to an individual's performance review process.

3 Implementation

3.1 Roles & Responsibilities

E&C management is regarded as part of the responsibilities of all employees and contractors at Tahmoor Coal. Specific information pertaining to the role, responsibility, authority and accountability of key personnel involved in environmental management at Tahmoor Coal is provided in **Section 7 - Accountabilities**.

3.2 EMS Documentation

Environmental impacts at Tahmoor Coal are managed through a combination of environmental procedures, forms and other documents. All environmental management plans have been developed generally in accordance with Liberty GFG Standards and to satisfy legislative and stakeholder requirements. They have been developed to identify, analyse, evaluate and manage all significant potential and actual risks and impacts of activities and operations on the environment and the community.

Document	Document ID	Owner
Level 1	EMS Framework	
Environmental Management System Directory	TAH-HSEC-00128	Environmental Specialist
Environmental Management Framework Document	TAH-HSEC-00173	Environmental Specialist
Level 2	Management Plans	
Cultural Heritage Management Plan	TAH-HSEC-00011	Approvals Specialist
Biodiversity & Land Management Plan	TAH-HSEC-00117	Environmental Specialist
Air Quality & GHG Management Plan	TAH-HSEC-00170	Environmental Specialist
Waste Management Plan	TAH-HSEC-00106	Environmental Specialist
Noise Management Plan	TAH-HSEC-00150	Environmental Specialist
Conceptual Mine Closure Plan	TAH-HSEC-00121	Environmental Specialist
Environmental Monitoring Plan	TAH-HSEC-00129	Environmental Specialist
Community Development Plan	TAH-HSEC-00031	Community Liaison Specialist
Pollution Incident Response Management Plan	TAH-HSEC-00155	Environmental Specialist
Soil & Water Management Plan	TAH-HSEC-00016	Environmental Specialist
Groundwater Management Plan	TAH-HSEC-00017	Environmental Specialist
Reject Emplacement Area Management Plan	TAH-HSEC-302	Environmental Specialist
Stakeholder Engagement Plan	TAH-HSEC-00039	Approvals Specialist
Level 3	Procedures	
Aspects & Impacts (E&C BBRA) Procedure	TAH-HSEC-00115	Environmental Specialist
Communication & Engagement Procedure	TAH-HSEC-00119	Community Liaison Specialist
Community Complaints & Enquiry Procedure	TAH-HSEC-00120	Community Liaison Specialist
Sustainability Database and Reporting Procedure	TAH-HSEC-00179	Environmental Specialist
Weed Management Procedure	TAH-HSEC-00107	Environmental Specialist
Notification of Environmental Pollution Incidents	TAH-HSEC-00224	Environmental Specialist
Rehabilitation Monitoring Procedure	TAH-HSEC-00012	Environmental Specialist
Website Management Procedure	TAH-HSEC-00221	Environmental Specialist
Noise Alarm Procedure	TAH-HSEC-00079	Environmental Specialist
Rehabilitation & Topsoil Management Procedure	TAH-HSEC-00053	Environmental Specialist
Media and Social Media Procedure	TAH-HSEC-00071	Community Liaison Specialist
Tahmoor Land & Property	TAH-HSEC-00076	Community Liaison Specialist
Level 3	Forms	
Surface Environmental Inspection Form	TAH-HSEC-00033	Environmental Specialist
Communication Log	TAH-HSEC-00032	Environmental Specialist
Level 3	Trigger Action Response Plans	
Surface Water TARP	TAH-HSEC-00033	Environmental Specialist

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Surface Noise TARP	TAH-HSEC-00201	Environmental Specialist
Surface Dust TARP	TAH-HSEC-00078	Environmental Specialist

3.3 Work Permit System

Tahmoor Coal implements a work permit system in accordance with Work Authorisation and Permit Management. This system requires that all tasks undertaken by contractors are only permitted following the completion of a Work Authorisation

A Work Authorisation Permit incorporates a checklist of environmental hazards to be checked and controlled and a checklist of potentially hazardous work which prompts the contractor to complete any specific work permits associated with the potentially hazardous work. It is a Tahmoor Coal requirement that any employee undertaking or overseeing potentially hazardous work also complete the relevant work permit.

If ground disturbance (potentially hazardous work) is identified during the Work Authorisation process a Ground Disturbance Permit is required to be completed in accordance with Ground Disturbance Permit Procedure. The Ground Disturbance Permit is a risk management tool designed to ensure the proposed works have the required environmental approval and that the person(s) undertaking the works have appropriately managed risks to minimise impacts on the environment and community. The Ground Disturbance Permit provides a checklist of environmental aspects that must be completed and approved by the E&C Department prior to the commencement of any work.

3.4 Internal Stakeholder Communication

Internal stakeholders include employees, contractors and visitors of Tahmoor Coal. TAH-HSEC-00119-Communication and Engagement Procedure has been developed to includes the following:

- Methods of communication between internal stakeholders;
- Types of information that is communicated between internal stakeholders;
- Responsibilities for communication of information to internal stakeholders; and
- Review of communication methods, including the consideration of feedback to / from internal stakeholders.

3.5 External Stakeholder Communication

External stakeholders include neighbours and the local / regional community, local council, state and federal government agencies and regulators, and press / media. External stakeholders are identified in accordance with TAH-HSEC-00031- Community Development Plan and TAH-HSEC-00039- Stakeholder Engagement Plan. External stakeholder communication is undertaken in accordance with TAH-HSEC-00039- Stakeholder Engagement Plan. This guideline has been used as a basis for developing a communication procedure TAH-HSEC-00119- Communication and Engagement.

Tahmoor Coal's procedure includes information on the following topics:

- Methods of communication to external stakeholders.
- Types of information that is communicated between external stakeholders.
- Responsibilities for communication of information to external stakeholders.
- Review of communication methods, including the consideration of feedback to / from external stakeholders.

A key objective of TAH-HSEC-00119 - Communication and Engagement Procedure is to maintain positive relationships established with the local community and other external stakeholders.

3.6 Media

A Tahmoor Coal website has been developed to ensure Tahmoor is compliant and provides public access to information. The website has also provided an equitable and culturally appropriate way to engage external stakeholders in respect of their E&C concerns and expectations regarding Tahmoor operations, activities and products.

Tahmoor is required to report information online as outlined in TAH-HSEC-00221- Tahmoor Website Procedure.

3.7 Website

A Tahmoor Coal website has been developed to ensure Tahmoor Coal is within compliance for public access to information. The website has also provided an equitable and culturally appropriate way to engage external stakeholders in respect of their E&C concerns and expectations regarding Tahmoor Coal operations, activities and products.

Tahmoor Coal is required to report information online as outlined in TAH-HSEC-00221- Tahmoor Website Procedure.

3.8 General Environmental Performance

Information pertaining to Tahmoor Coal's general environmental performance against internal targets and external approvals criteria is reported to the community via the mine's website and Tahmoor Coal's Community Consultative Committee. Examples of reports to government agencies include:

- a) Environmental Protection Licence Annual Return (submitted to Environment Protection Authority);
- b) Annual Environmental Management Report (submitted to NSW Department of Trade & Investment Division of Resources & Energy, NSW Department of Planning & Infrastructure, NSW Office of Water, NSW Parks & Wildlife Service, Sydney Catchment Authority, Wollondilly Shire Council and the Community Consultative Committee);
- c) Annual Review (incorporated into AEMR - submitted to Department of Planning & Infrastructure); and
- d) Independent Environmental Audit (submitted to Department of Planning & Infrastructure).

These reports are prepared in accordance with relevant guidelines and TAH-HSEC-00119- Communication and Engagement and are published on Tahmoor Coal's website in accordance with TAH-HSEC-00221- Website Management Procedure.

3.9 Community Complaints

Community Complaints at Tahmoor Coal are managed in accordance with TAH-HSEC-00119- Communication and Engagement and TAH-HSEC-00120- Community Complaints & Enquiry Procedure. Tahmoor Coal operates a 24-hour complaints line (1800 154 415) for receiving community complaints and other stakeholder communications. The general process detailed in TAH-HSEC-00120- Community Complaints & Enquiry Procedure for responding to complaints is:

- a) Acknowledging all complaints and responding to the complainant within 24 hours where practicable;
- b) Registering all complaint details in CMO;
- c) Investigating complaints impartially considering the facts and the circumstances prevailing at the time;
- d) Implementing corrective actions if required; and
- e) Reporting to relevant stakeholders of investigation outcomes and corrective actions taken.

Community complaints are reported to the community via the mine's website and Tahmoor Coal's Community Consultative Committee. Complaint statistics are also provided to in selected reports to government agencies included the Environmental Protection Licence Annual Return and the Annual Environmental Management Report.

3.10 Dispute Resolution

In the event of a dispute or conflict between Tahmoor Coal personnel and a member of the community, the Tahmoor Coal E&C Manager will facilitate communication between both parties to reach a resolution, which may include a meeting with the complainant to discuss the issue. Where relevant, negotiations will be initiated in accordance with any relevant development consent conditions. This general process is documented in TAH-HSEC-00119- Communication and Engagement.

If a dispute cannot be resolved, the matter will be escalated to involve the site Operations Manager or General Manager as required and may involve consultation with the relevant government agency to assist in reaching a determination on the matter.

3.11 Exploration and Drilling

All exploration and drilling activities must be managed in accordance with the requirements outlined by the Department of Planning and Environment.

3.12 Hydrocarbon Management

All Hydrocarbons must be managed in accordance with AS1940.

3.13 Lighting

There is generally minimal need for lighting to be installed at Tahmoor Coal, however Tahmoor Coal will implement all reasonable and feasible methods to ensure minimal impact from changes to lighting. Prior to the installation of any lighting onsite, the potential for impact to the nearby residents will be assessed and impact minimised. The Environment & Community Department will be consulted, where practicable, regarding the proposed location and orientation of mobile lighting plant, prior to installation in visually sensitive areas.

3.14 Mining Tenement Management

All mining tenements must be managed in accordance with requirements outlined by the Department of Planning and Environment including:

- a) Approval to Apply for a mining tenement;
- b) Execution of a mining tenement;
- c) Approval for relinquishment of a mining tenement; and
- d) Management of a mining tenement.

An audit is to be conducted each quarter to compare the mining tenement deed documentation in SharePoint, the mining tenements entered into CMO and the tenement database maintained by the Tahmoor Coal Technical Services Manager. Aspects to be audited include tenement names and numbers, expiry dates and status.

3.14.1 Emergency Response

All personnel receive emergency preparedness and response training during their site familiarisation and induction. Tahmoor Coal maintains a dedicated emergency response team who undergo regular training and operational drills. Tahmoor Coal manages and responds to emergencies in accordance with - Emergency and Incident Management Plan which includes reference to environmental and pollution events.

A specific pollution management plan TAH-HSEC-00155 Pollution Incident Response Management Plan and procedure TAH-HSEC-00224- Notification of Environmental Pollution Incidents have been developed to manage preparation, emergency response and reporting requirements under the Protection of the Environment Operations Act 1997 (NSW).

Both management plans document the roles and accountabilities of key personnel at Tahmoor Coal in the event of an emergency and the contact details for appropriate emergency services. The plans also provide designated evacuation points and procedures in the event of an emergency. Any changes to emergency procedures are documented and communicated to all personnel.

3.15 Employee & Contractor Training

EMS training for Tahmoor Coal employees and contractors is conducted in accordance with the Environment & Community Training Needs Analysis, which Tahmoor Coal manages through the Scenario Training Database. General environmental awareness training is provided to all employees and contractors annually through the SafeCoal training session scheduled by the Tahmoor Coal Health, Safety & Training Department.

4 Measurement & Evaluation

4.1 Monitoring Data

The purpose of the monitoring programs is to provide a measure of the performance of the operation, which can be compared against objectives, targets and performance criteria specified in various Tahmoor Coal approval and licence conditions.

The key environmental monitoring programs for the operation include:

- a) Air quality;
- b) Noise monitoring;
- c) Surface water monitoring;
- d) Ground water monitoring; and
- e) Ecological monitoring including rehabilitation.

Monitoring data is stored in the site's Monitor Pro Database or other appropriate files and reviewed as soon as practicable after it is received, to ensure any issues or non-compliances can be immediately addressed as outlined in Section 5.6.

Monitor Pro is a web-based database that provides automatic email notification to E&C personnel when a monitoring point is approaching or has exceeded a nominated trigger for non-compliance.

In accordance with Condition 43(f) of DA67/98 (2018), a clear plan depicting all monitoring required to be carried out under the conditions of consent for Tahmoor Coal is provided in Appendix B, and copies of the strategies plans and programs approved under the conditions of consent for Tahmoor Coal are also provided in Appendices C – E:

- a) Appendix B – Monitoring Plan;
- b) Appendix C – REA Management, Rehabilitation and Water Monitoring Plan (DA57/93);
- c) Appendix D – Noise Management Plan (DA67/98 Condition 33); and
- d) Appendix E – Air Quality & Greenhouse Gas Management Plan (DA67/98 Condition 39).

4.2 Internal Audits & Reviews

In accordance with internal company requirements, Tahmoor Coal has implemented a system for the monitoring and review of E&C performance at the site. Tahmoor Coal is to provide ongoing monitoring and regular management review of E&C performance to:

- a) Confirm the adequacy and effectiveness of management plans, procedures and standards;
- b) Address any identified weaknesses;
- c) Share good performance and lessons learnt with other sites; and
- d) Ensure ongoing compliance with all leases, licences and approvals.

4.2.1 Surface Environmental Inspections

Inspections of Tahmoor Coal surface facilities are arranged and conducted monthly by E&C personnel, in accordance with TAH-HSEC-00020- Tahmoor Monthly Environmental Inspection form. Visual inspections include:

- a) Hazardous substance management;
- b) Waste management;
- c) Air quality - dust control systems;
- d) Water discharge management;
- e) Land management;
- f) Noise mitigation;
- g) Monitoring; and
- h) General water storage / drainage condition.

Inspection results and corrective actions are recorded in CMO and assigned to responsible personnel for completion within appropriate timeframes.

4.2.2 Critical Control Monitoring (Fatal Hazard Specification Sheets)

In accordance with internal requirements routine review of critical controls related to fatal hazards (also known as core hazards) must be conducted to provide assurance. Core hazards relevant to E&C performance are provided in Table 6, and each sheet is assigned to a member of the E&C department to complete. Inspection results and corrective actions are recorded in Cority and assigned to responsible personnel for completion within appropriate timeframes.

Core Hazard	Specification Sheet ID	Frequency
13 Dam Safety	13.1 Effective Management Plans and Geotechnical Assessment and Engineering Design	Annual
	13.2 Inspection and Monitoring	Quarterly
	18.1 Effective Management	Annual
	18.2 Register of Licenses and Approvals	Annual
18. Environmental Breaches	18.3 Procedures for Preventing and Managing Breaches	Six Monthly
	18.4 Physical Environment Inspections	Six Monthly
	18.5 Evaluating Environmental, and/or Community Performance	Six Monthly
	18.6 Training and Competency	Annual

4.3 Other Internal Audits

Process or area specific internal audits are also conducted periodically, generally administered by the General Manager E&C, focussing on the following areas:

- a) Air quality;
- b) Water management;
- c) Erosion and sediment control; and
- d) Statutory approvals.

These audits may be conducted by consultants on behalf of Tahmoor Coal, by Liberty GFG employees or may be self-assessments conducted by Tahmoor Coal personnel. Audit results and corrective actions are recorded in CMO and assigned to responsible personnel for completion within appropriate timeframes.

4.4 Document Review

As triggered by Interlex (Intranet) database, reviews will be conducted on all EMS documents as they fall due.

In accordance with triggers described in **Condition 46 of DA67/98** (2018), the site shall review the strategies, plans and programs required under the conditions of **DA67/98**.

4.5 External Audits

4.5.1 Independent Environmental Audit

In accordance with **Conditions 50 & 51 of DA67/98** (2018), Tahmoor Coal will complete an Independent Environmental Audit of the Tahmoor Coal development every three (3) years. The audit will assess:

- a) Environmental performance of the Mine;
- b) Compliance with the requirements of all relevant:
 - i. Development consents;
 - ii. Mining leases;
 - iii. Exploration Authorisations; and
 - iv. Site environmental protection licence

The Audit will also assess

- c) Environmental assessments; and
- d) Plans and programs required by above approvals.

The audit will review the adequacy of the following requirements under the abovementioned approvals:

- e) Strategies;
- f) Plans; and
- g) Programs

The audit will recommend appropriate measures and corrective actions to improve environmental performance at Tahmoor Coal. Audit results and corrective actions are recorded in CMO and assigned to responsible personnel for completion within appropriate timeframes.

The next Independent Environmental Audit is due by **30 September 2020**.

4.6 Managing & Reporting Non-compliances

Non-compliances or system defects detected during monitoring, inspections and audits must be recorded, with corrective action plans developed and implemented to rectify any issues. Site database systems such as EMD should be used for data storage, while other systems such as CMO should be utilised to track actions and monitor progress to ensure corrective actions are completed, and an auditable trail of history is preserved for future reference. When required by conditions of approvals, non-compliances will be reported as required to the relevant government agencies and other stakeholders.

If a non-compliance is detected, the following broad steps should be followed:

- a) Identify and confirm the non-compliance (i.e. review against approval criteria or condition and confirm that a non-compliance has occurred);
- b) Complete internal environmental incident reporting documentation including an investigation to capture all relevant information;
- c) In accordance with the relevant approval, determine what action (i.e. external reporting) is required. Specifically, determine if immediate reporting is required and to which stakeholders, or ensure that the event is captured for future reporting;
- d) Following the incident investigation, develop a corrective action plan aimed at preventing future re-occurrence; and
- e) Complete all required reporting and consult with relevant agencies on the corrective action plan to be implemented.

Note



hat some management plans may contain specific Trigger Action Response Plans (TARPs) to manage the identification and treatment of non-compliances. The broad steps outlined above should still be followed in the event they are not contained within a TARP. Follow up monitoring is required if an exceedance is identified to ensure sustained exceedance does not occur. Follow up monitoring and TARP's act as contingency plans to manage any unpredicted impacts and their consequences to ensure that ongoing impacts reduce to levels below the relevant impact assessment criteria as quickly as possible.

5 Accountabilities

Role	Accountabilities for this document
Operations Manager	Provide adequate environmental personnel/resources for implementation of this plan and associated plans.
Environment & Community Manager	<p>Facilitate a process of managing overall compliance with regulatory requirements and undertake external reporting for legislative non-compliances as required.</p> <p>Determine adequate resources and funds are available to ensure the effectiveness of this procedure; and certify compliance and adherence to the EMS.</p> <p>Develop, implement and maintain the EMS.</p> <p>Liaise with relevant government authorities in relation to regulatory conditions and compliance issue.</p> <p>Liaise with the community as required and as per the Stakeholder Engagement Strategy, including facilitation of Community Consultative Committee meetings.</p>
All Managers	<p>Activities under their control are to be undertaken in accordance with this EMS and associated management plans and site procedures.</p> <p>Manage environmental controls within their jurisdiction are operated and maintained in a proper and efficient manner.</p> <p>Report all environmental incidents and complaints in a timely manner.</p>
Environmental Specialist	<p>Responsible for coordinating environmental compliance on-site including timely completion of monitoring and reporting in accordance with internal and external requirements. Sign off on the accuracy of reports and the suitability of recommendations.</p> <p>Develop, implement, review and maintain the EMS and system documents.</p> <p>Implement process for self-assessment audits. Assign persons responsible for completion of audit actions and set a due by date. Monitor that planned actions arising out of audits are implemented.</p> <p>Ensure all community complaints are addressed, investigated and appropriately managed as per site procedures, and reported internally as per internal requirements.</p>
All Coordinators	<p>Activities under their control are to be undertaken in accordance with this EMS and associated management plans and site procedures.</p> <p>Manage environmental controls within their jurisdiction are operated and maintained in a proper and efficient manner.</p> <p>Report all environmental incidents and complaints in a timely manner.</p>
All Persons	<p>Activities under their control are to be undertaken in accordance with this EMS and associated management plans and site procedures.</p> <p>Manage environmental controls within their jurisdiction are operated and maintained in a proper and efficient manner.</p> <p>Report all environmental incidents and complaints in a timely manner.</p>

6 Review and Improvement

6.1 Audit

Audits of the **Environmental Management System Framework Management Plan** shall be conducted in consultation with the Plan owner and nominated individuals and shall focus on the content and implementation.

Audits on the content shall consist of a determination of understanding of the **Environmental Management System Framework Management Plan** by the individual's allocated responsibility under this plan.

Audits on the implementation shall consist of reviews of the safe working procedures and risk assessments developed to ensure safe operation of the **Environmental Management System Framework Management Plan**, they may also involve discussions with personnel involved in the management plan to determine understanding and compliance.

Should an audit of the Environmental Management System Framework Management Plan determine that a deficiency is evident in the content or implementation; a corrective action must be developed and implemented. Actions will be assigned to a nominated individual and tracked in CMO.

The **Environmental Specialist** is responsible to verify that the nominated corrective action has been implemented by way of a follow up audit.

Any changes **Environmental Management System Framework Management Plan** are to be managed and communicated to all personnel in line with the Change Management Process.

6.2 Review

This **Environmental Management System Framework Management Plan** will be reviewed:

- Event based:** a review will be triggered following any event or finding that identifies an inadequacy in the **Environmental Management System Framework Management Plan**, risk assessment or associated documents to continue to effectively manage the identified hazard; a change to the workplace itself or any aspect of the work environment, a change to a system of work, a process or a procedure; or
- Time based:** in the absence of regular event-based reviews, a 1 **yearly** review will be conducted to determine that there are not changes to the hazards and issued being managed in the **Environmental Management System Framework Management Plan** and that they system and procedures detailed in the **Environmental Management System Framework Management Plan** are being complied with.

If deemed appropriate, external service providers may be included in the review process. All reviews are to be documented.

7 Document Information

7.1 Reference Information

Related documents, listed in the below table, are internal documents directly related to or referenced from this document.

Number	Title
	Environmental Planning & Assessment Act 1979 (NSW)
	Environmental Planning & Assessment Regulation 2000 (NSW)
	Protection of the Environment Operations Act 1997 (NSW)
	National Parks & Wildlife Act 1974 (NSW)
	Environment Protection & Biodiversity Conservation Act 1999 (Commonwealth)
ISO:14001:2004	Environmental Management Systems
AS/NZS ISO 14004:2004	Environmental Management Systems – General guidelines on principles, systems and support
AS HB206:2004	Australian Handbook – Initial Environment Review (IER)

8 Change Information

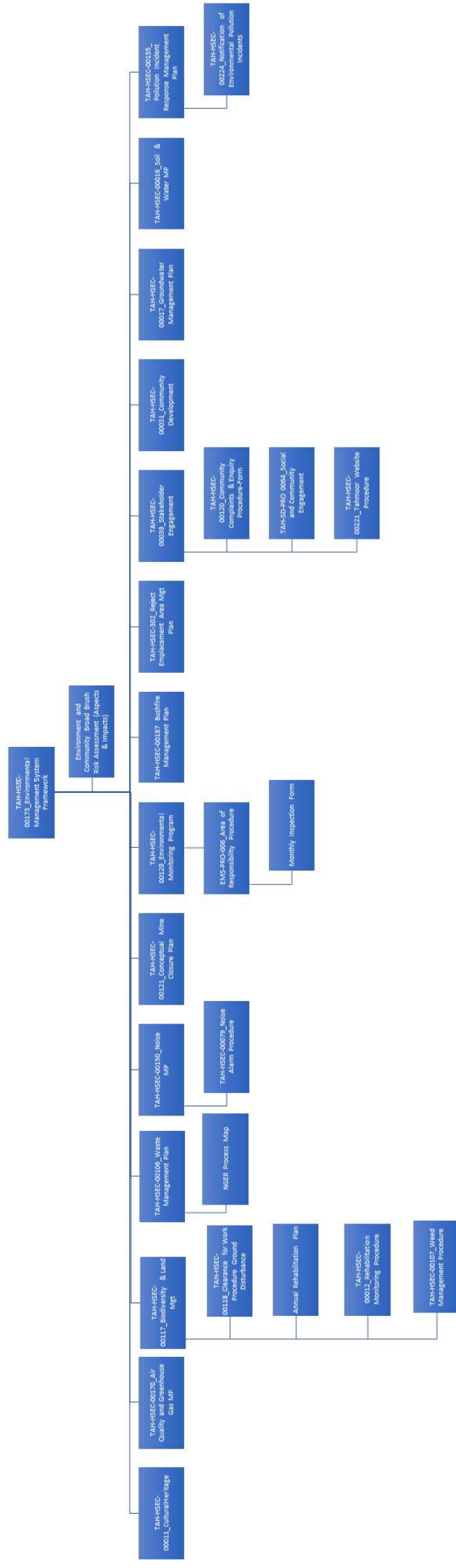
8.1 Change Information

Full details of the document history are recorded in the document control register, by version

Version	Date Reviewed	Review team (Consultation)	Change Summary
1.0	11 th June 2008	Paul Amidy	Draft document developed (by Umwelt Consulting).
2.0	6 th November 2008	Ben De Somer	Document reformatted for document control.
3.0	5 th November 2009	Den De Somer	Document reviewed – no material changes.
4.0	31 st October 2012	Nicholas Wandke	Document reviewed against the principles of ISO 14001 to confirm general compliance, and also reviewed against the GCAA Standard 10 Guideline to confirm compliance with Xplc and GCAA requirements. Minor additions (including renaming the document from 'EMS Framework' to 'EMS Strategy & Framework') made in accordance with the requirements of DA67/98 (2012) Condition 43.
5.0	6 th December 2012	Nicholas Wandke, Jessie Giblett (DP&I)	Updated document with minor changes following review and comments from Jessie Giblett (Planning Officer, DP&I).
6.0	6 th May 2013	Nicholas Wandke	Reviewed in accordance with Condition 46 of DA67-98 (2012) following submission of the 2012 Annual Review to DP&I. No changes made to document.
7.0	24 th June 2014	Christopher Standing	Reviewed in accordance with Condition 46 of DA67-98 (2012) following submission of the 2013 Annual Review to DP&I. Document changed into new Glencore template.

Version	Date Reviewed	Review team (Consultation)	Change Summary
8.0	5 th June 2015	Fiona Robinson, Belinda Treverrow	Reviewed in accordance with Condition 46 of DA67-98 (2012) following submission of the 2014 Annual Review to DP&I. Updated document in accordance with Glencore Standards.
9.0	18 th May 2016	Fiona Robinson, Belinda Treverrow, Ian Sheppard	Updated document in accordance with Glencore Standards. Remove Appendix E – Redbank Tunnel Construction Noise Management Plan (Project Complete).
10.0	1 st August 2017	Fiona Robinson, Ian Sheppard	Updated in annual review Lighting added to potential hazards
11.0	30 th June 2017	Fiona Robinson, Dakota Brown, Ian Sheppard	Reviewed in accordance with Condition 46 of DA67-98 (2012) following submission of the 2016 Annual Review to DP&E.
12.0	28 June 2018	Fiona Robinson	Reviewed in accordance with Condition 46 of DA67-98 (2012) following submission of the 2017 Annual Review to DP&E.
13.0	28 June 2019	Fiona Robinson	Reviewed in accordance with Condition 46 of DA67-98 (2018) following submission of the 2018 Annual Review to DP&E.
14.0	21 st February 2020	Abby Uljanic	Document updated to new template. No change to document content.
14.1	10 June 2020	Fiona Robinson	Reviewed in accordance with Condition 46 of DA67-98 (2018) following submission of the 2018 Annual Review to DP&E and Incident report for LDP1
14.2	11 th August 2020	Alex Parro, April Hudson	Updated Document ID table, deleted duplicate “Review and Improvement” section.
15.0	22 nd January 2021	April Hudson, Natalie Brumby	Reviewed in accordance with Condition 46 of DA67-98 (2020) following approval of Modification 5 of DA67/98 and submission of the 2020 Independent Environmental Audit to DPIE. Updated Appendix A and Appendix B.

Appendix A – Environmental Management System Document Diagram



Number:	TAH-HSEC-00173	Status:	Released	Effective:	Friday, 22 January 2021
Owner:	Zina Ainsworth	Version:	15	Review:	Saturday, 22 January 2022

Uncontrolled when printed

Appendix B – Monitoring Required Under Conditions of Consent



Monitoring Required Under Conditions of Consent

Date: 22/01/2021

Data Source:
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Appendix C – REA Management, Rehabilitation and Water Monitoring Plan

Development Consent DA57/93

Conditions 41, 46 & 47

Appendix D – Noise Management Plan

Development Consent DA57/93
Conditions 41, 46 & 47

Appendix E – Air Quality and Greenhouse Gas Management Plan

Development Consent DA67/98 (2012)

Condition 39