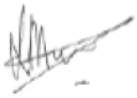
Health, Safety and Environment Management System

Environment Plan Summary

TBX.2373-PL-OM-0002

THUNDERBOX LATERAL OPERATIONS ENVIRONMENT PLAN SUMMARY

APA safeguard

Version Control and Authorisation					
Rev	**Date**	**Status**	**Originated/ Custodian**	**Checked**	**Approved**
2.1	16/04/2024	Five yearly renewal			
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Rev	Date	Status
2.0	02/03/2022	Issue for use Minor updates as per Notification of Change Letter TBX-0002 approved by DEMIRS on 7/02/2022
1.2	21/09/2018	DEMIRS comments incorporated
1.1	20/09/2018	DEMIRS comments incorporated
1.0	03/08/2018	5 yearly review, alignment with DEMIRS guidelines and APA pilot EPs.

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1. Introduction

This Operations Environment Management Plan (OEMP) Summary provides an overview of the environmental management requirements for the operation of PL65 Thunderbox Lateral (TBX) (herein referred to as The Pipeline).

1.1 Purpose and Scope

The purpose of this OEMP Summary is to provide information to the public regarding environmental considerations and management requirements.

The scope of this OEMP Summary is limited to operational works associated with The Pipeline.

1.2 Objectives

The overall environmental objectives of the OEMP are to:

- Minimise environmental impacts resulting from pipeline operations
- Mitigate all identified environmental risks to a level that is As Low As Reasonably Practicable (ALARP)
- Comply with all relevant legal and regulatory environmental requirements
- Minimise disturbance to surrounding landholders.

1.3 Environment and Heritage Policy

APA is committed to responsible environmental management and believes that all environmental aspects associated with the operation of the pipelines can be effectively managed. In addition, APA is committed to reducing all environmental risks subsequent to site based operational activities to ALARP.

All works will be conducted in accordance with the APA Environment and Heritage Policy.

All contractors and sub-contractors must comply with the OEMP. This requirement is specifically addressed within contractual arrangements. Regardless of this, APA takes full responsibility for the application and administration of the OEMP at all times.

1.4 Definitions

Table 1: Definitions

Acronym	Definition
ACH	Aboriginal Cultural Heritage
AHIS	Aboriginal Heritage Information System
ALARP	As Low as Reasonably Practicable
ASS	Acid Sulfate Soils
CS	Compressor Station
DBCA	Department of Biodiversity Conservation and Attractions
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DEMIRS	Department of Mines, Industry Regulations and Safety
DPIRD	Department of Primary Industries and Regional Development
DPLH	Department of Planning, Lands and Heritage
DWER	Department of Water and Environmental Regulation
EMP	Environment Management Plan
ERA	Environmental Risk Assessment
ERP	Emergency Response Plan
GGP	Goldfields Gas Pipeline
IBRA	Interim Biogeographic Regionalisation for Australia
KP	Kilometre Point
LCP	Landholder Contact Program
LMS	Learning Management System
LOS	Line of sight
MB	Maintenance Base
NORM	Naturally occurring radioactive material
OEMP	Operations Environment Management Plan
OSCP	Oil Spill Contingency Plan
PL	Pipeline Licence
PTW	Permit to Work
ROW	Right of Way
SDS	Safety Data Sheet
TBX	Thunderbox Pipeline
TDS	Total dissolved salts
TPA	Third-Party Awareness Program
TPC	Third Party Contractor
WEAF	Works Environmental Assessment Form
XIC	X-Info Connect

2. Location

The TBX commences at an off-take point at KP1051.1 on the Goldfields Gas Pipeline (GGP), approximately 19 km south of the Leonora-Leinster road crossing, which is approximately 12 km south of Leinster. The TBX then follows a miscellaneous services corridor of approximately 23 km to the Thunderbox mine site which is located approximately 45km south of Leinster. Refer to Figure 1 for TBX locality map.

The pipeline traverses two miscellaneous licenses (L36/157 and L36/158) and a mining lease (36/452), all owned by Northern Star Resources. The pipeline is located on Crown Land and traverses two pastoral lots.

- Leinster Downs Pastoral Station (Lot 59 on Deposited Plan 220367); and
- Weebo Pastoral Station (Lot 50 on Deposited Plan 220395).

The pipeline operated under PL65 and is expected to operate for the full life of the pipeline licence.

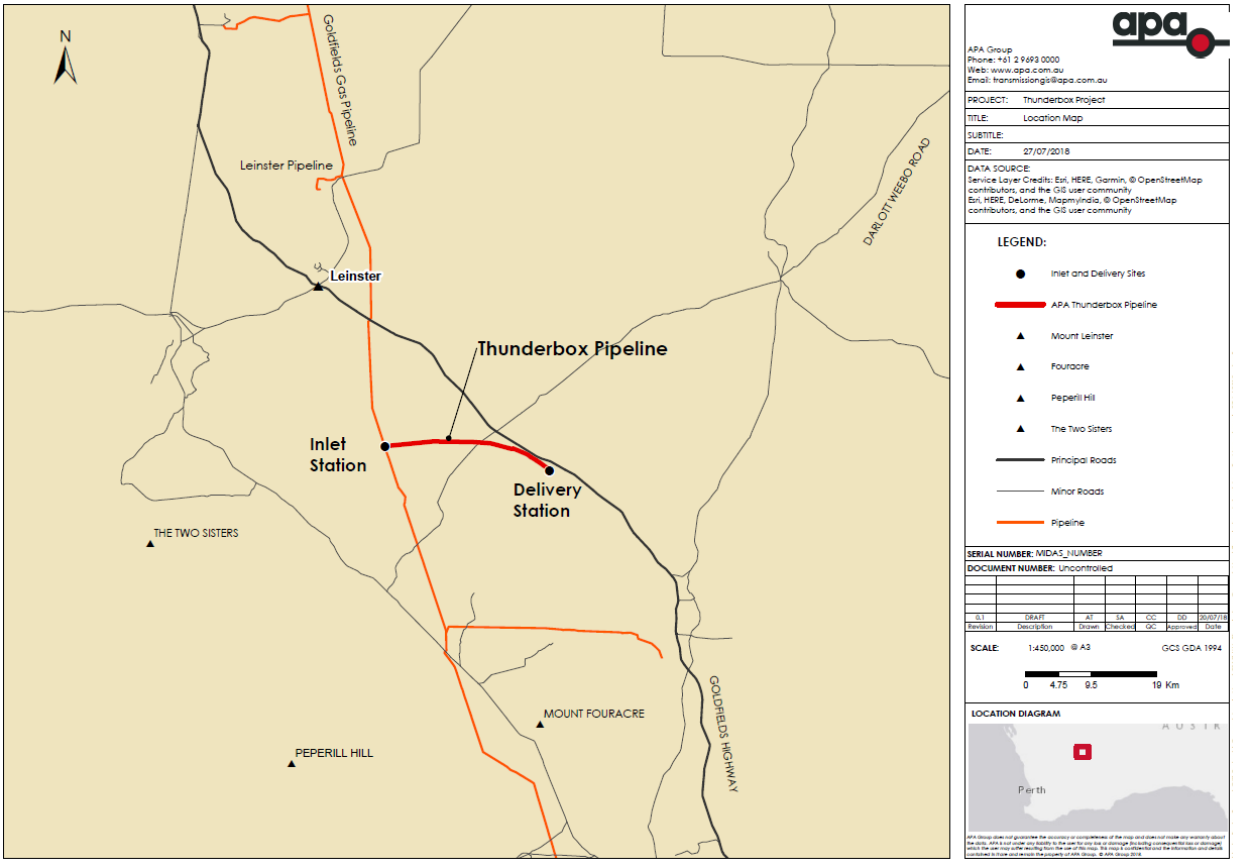

Figure 1 Thunderbox Gas Pipeline Locality Map

3. Activity Description

The TBX is managed as part of the Goldfields Field Services Region and the Maintenance Base is Leister with support from the Kalgoorlie Maintenance Base.

Work activities carried out will be monitored and controlled as per the requirements of the Permit to Work (PTW) System.

Routine maintenance activities occur seven days per week. Works occur between 06:00 – 18:00, excluding any activity associated with emergency / critical situations.

3.1 General Equipment, Easement and Facility Maintenance

General equipment, easement and facility maintenance includes the following:

- Servicing and overhauls of machinery and equipment;
- Equipment inspections and testing;
- Monitoring;
- Erosion management and remediation (inclusive of import of fill);
- Modification of fencing, include minor concreting for footings;
- Maintenance of temporary site offices, ablutions, laydown, and parking areas;
- Filter inspections and replacement; and
- Small scale facility works.

The above activities involve various mechanical and electrical tasks which are undertaken by appropriately qualified technicians.

Filter inspections are undertaken at regular intervals and filters replaced as required. Filter replacement involves filter removal, wash down with water and transfer to a secure container for transfer to appropriate offsite disposal facilities.

Pipeline warning signs are in accordance with AS2885. Signs are placed so as to be inter-visible and may require replacement.

Erosion and subsidence management requiring the import of fill, ground/surface compaction and the mobilisation of earth-moving machinery, may be required intermittently to ensure ongoing pipeline integrity. Fill will be clean of weeds and disease and sourced locally, where possible.

Small scale upgrades are required intermittently to allow for increased services or changes in pipeline requirements. Works may include minor concreting for footings, maintenance of temporary site offices, ablutions, laydown and parking areas to facilitate the small-scale installations. Works will be restricted to the pipeline licence area.

During emergency/critical situations, night works and additional lighting may be required.

3.2 Pipeline Excavation

Pipeline excavations are undertaken periodically typically for pipeline repairs. The scales of excavations are generally single defect dig-ups (3m x 3m).

Dewatering is sometimes required where the water table is present at less than a few metres from the ground surface, however this is rare (once every 5-10 years).

Abrasive blasting and coating activities may be conducted on an ad-hoc basis (likely once every ten years, based on similar APA pipelines).

3.3 Venting

Venting of gas is undertaken to purge pipelines or facilities for maintenance or emergency response purposes. The Integrated Operations Centre Controller assists to monitor and respond to any unplanned/uncontrolled venting or gas release incidents via information provided on the on the operator interface.

3.4 Pigging

3.4.1 Cleaning Pigging

Pigs are run between pipeline scraper stations containing pig launching and receiving facilities. Particulate matter separated from the gas stream is a common by-product of pigging (removal of which is the goal in the case of a cleaning pig run), these are caught in the pig receiver trap along with the recovered pig and contained for appropriate offsite disposal.

3.4.2 Intelligent Pigging

Intelligent pigging is not achievable on the TBX due to pipe diameter. Pipeline integrity on the TBX is inspected via a Direct Current Voltage Gradient Survey which is a coating survey conducted by walking along the pipeline route with probes to detect electrical leakage from the pipeline (through coating defects).

3.5 Easement inspections

Pipeline easement inspections are conducted as aerial or vehicle patrols. Scope of these patrols aim to identify:

- Third party encroachments;
- Vegetation growth;
- Indicators of gas leaks;
- Line of sight;
- Presence of weed infestation greater than land immediately adjoining the corridor;
- Erosion;
- Exposed pipe; and
- Condition of signage and aerial markers.

Easement inspections are completed on a two monthly and 12 monthly frequency, or as per the Maximo Maintenance Regime.

The vehicle patrol is conducted from light vehicles and managed through MAXIMO with WOs being generated for completion. Any issues identified are documented and where necessary additional WO raised for corrective action to be completed.

The aerial patrol is undertaken via a contractor and any issues / occurrences that are recorded during the flight are uploaded into Field Maps directly by the contractor for APA to action.

Any changes to the above frequencies will go through a Management of Change process via Maximo prior to the change being in effect.

3.6 Hot Tapping

Hot Tapping is the process of safely drilling a hole into an operating gas pipeline to allow a connection to be made. Excavations are within the previously disturbed boundaries.

3.7 Vegetation clearing

The PPA requires upstream and downstream pipeline warning markers to be visible (line of sight). In some areas, plant regrowth obscures line of sight between pipeline warning markers and inhibits vehicle access for maintenance purposes and emergency response. In these instances, vegetation mulching becomes necessary. The activity does not disturb soils and vegetative root stock and soil quality is maintained.

Vegetation disturbance may also be required to facilitate minor excavations/dig-ups.

Vegetation mulching on the TBX may be classified as prescribed clearing (s.51C) (clearing: low impact petroleum activities). This shall be assessed during the APA Works Environment Assessment Form (WEAF) due diligence process.

3.8 Pipeline Protection

Pipeline protection is required at crossings to ensure continued integrity of the pipeline is maintained. Pipeline protection by slabbing is a common practice. HDPE (high density polyethylene plastic) or concrete (either poured in situ or prefabricated) slabs can be laid over and/or under the pipeline underground at the crossing to protect the asset from external interference. Hydro-testing may also be required as part of this activity. Generally hydrotest water will be potable water.

3.9 Planning for closure

The TBX has been in operation since 2004. It is expected to continue operating for the foreseeable future. The Decommissioning and Rehabilitation Operator will develop a separate environment plan for the decommissioning and rehabilitation of the TBX which will be submitted to DEMIRS for review and approval prior to any work commencing for this activity.

Rehabilitation of the pipeline easement will be back to safe, stable and no polluting form consistent with existing land use.

4. Receiving Environment

4.1 Climate

The TBX is located within the Salinaland Plains Zone of the Murchison Province (Tille, 2006). The Murchison Region is considered to have a desert climate of hot summers and mild winters. Mean temperatures range between 6°C and 38°C. Annual rainfall is typically 200 mm to 250 mm and relatively evenly spread throughout the year (Dames and Moore, 1994).

Regional wind patterns consist of morning north-easterly, easterly and south-easterly winds of up to 40km/hr throughout the year. Afternoon wind patterns vary seasonally from east to south-easterly winds in the summer and autumn, and more varied northwest to south-easterly winds in the winter and spring (Dames and Moore, 1994).

4.2 Physical Environment

4.2.1 Topography, Geology and Soils

The topography of the Murchison Region largely consists of gently undulating Aeolian sandplains with areas of lateritic caprock and calcrete hardpan. Lateritic sand overlies salt flats, broad valleys and interfluves. Granite outcrops form sheets and tors. Outcrops or ridges of hills occur in the landscape where resistant, metamorphic belts are present (Dames and Moore, 1994).

The TBX is located within an area of gently undulating sandplains typical of the Salinaland Plains Zone of the Murchison Province (Tille, 2006).

The Murchison Province stretches across the northern third of the Yilgarn Craton. The Underlying rock predominantly consists of even-grained porphyritic granitic rocks of Archaean origin. This Archaean bedrock is extensively weathered and laterised and overlain by Tertiary and Quaternary alluvial, colluvial and aeolian deposits. Quartz veins and dolerite dykes are also present (Tille, 2006).

North-westerly trending belts of gneiss associated with Archaean greenstone belts are common in the east of the Murchison Province, where the TBX is located. These belts contain metamorphosed mafic to ultra-mafic and felsic volcanic rocks as well as metasedimentary rocks such as banded iron formations (Tille, 2006).

Soils of the Salinaland Plains Zone of Tille (2006) include Red sandy earths, Red deep sands, Red shallow loams, and Red loamy earths with some Red-brown hardpan shallow loams, Salt lake soils and Red shallow sandy duplexes. On the valley floors there are salt lake soils with some red deep sands (Tille, 2006).

4.2.2 Acid Sulfate Soils

Acid Sulfate Soils (ASS) are not expected to be an issue along the TBX route as soils do not contain sufficient sulphide minerals and route selection avoided major drainage lines. Desktop assessment (July 2018) showed that the TBX is located in an area of Extremely Low Probability (1 - 5%) of ASS based on the Atlas of Australian Acid Sulfate Soil database.

4.2.3 Hydrology

The surficial hydrology of the east Murchison Region consists of internally draining, intermittent rivers. Infrequent surface runoff (resulting from low, unreliable rainfall rates) forms ephemeral drainage lines which feed into salt lake systems experiencing high evaporation rates. Dry river and creek beds predominate, which flood in heavy rain events (Dames and Moore, 1994).

Hydrogeology of the Murchison region consists of three main aquifer types containing groundwater of ranging salinities. The internal drainage system is dominated by calcrete

aquifers located in ancient river channels which feed salt lakes with groundwater containing between 1,000 mg/L and 10,000 mg/L total dissolved salts (TDS). In addition, colluvial aquifers located at the base of outcrop hills hold groundwater of around 500 parts per thousand (ppt) TDS and alluvial aquifers are present in ephemeral drainage lines (Dames and Moore, 1994).

There are no major rivers crossing the TBX route. The pipeline route crosses a small number of locally draining ephemeral creeks.

4.3 Biological environment

4.3.1 Flora and Vegetation

The TBX is located within the Laverton Subregion of the Austin Botanical District of Beard (1976) (roughly corresponding with the Murchison Region). The vegetation of the Laverton Subregion consists of low mulga woodland on loamy plains and Acacia scrub on rocky hills. Acacia communities comprise of *A. aneura* and *A. quadrimarginea*, *Eremophila leucophylla* and *Ptilotus obovatus* with an understorey of *Eremophila, Cassia*, various ephemeral species and Stipa sp (Dames and Moore, 1994).

The sandplains of the Laverton Subregion consist of *Triodia basedowii*, *Eucalyptus gongylocarpa*, *E. youngiana* and *E. oleosa*. In addition to this *Acacia aneura* and *A. ramulosa* can be found on linear sand ridges (Dames and Moore, 1994).

A desktop assessment conducted in October 2023, confirmed the pipeline does not intersect any Environmentally Sensitive Areas declared by the Minister for Environment under section 51B of the *Environmental Protection Act 1986* or Threatened Ecological Communities .

Refer to Table 2 for Interim Biogeographic Regionalisation for Australia (IBRA) details.

Table 2 Vegetation Communities of the TBX

IBRA Region	Vegetation Communities Present
Murchison	• Low Mulga woodlands often rich in ephemerals on the northern part of the Yilgarn Craton; • Hummock grasslands on Quaternary sandplains; • Saltbush shrublands on calcareous soils; • *Halosarcia* low shrublands on saline alluvia; and • Areas of red sandplains with Mallee Mulga parkland over hummock grasslands occur in the east.

4.3.2 Fauna

Prominent fauna known to occur in the wider region include *Macropus rufus* (Red Kangaroo), *Macropus robustus erubescens* (Common Wallaroo or Euro), *Canis lupus* (Dingo) *Dromaius novaehollandiae* (Emu) and flocks of *Cacatua sanguinea* (Corella) and *Cacatua roseicapilla* (Galah). Numerous species of snakes and lizards are also likely to be present. Wetlands of subregional significance in the broader districts also support a wide diversity of both resident and migratory birds (McKenzie et al, 2002). Avifauna include EPBC threaten species such as the Albatross (*Domedea sps.*) and Giant Petrel (*Macronectes sps.*).

A desktop search of applicable databases identified no fauna species of state conservation significance in the search area (0.1 km buffer) (Naturemap, 2018).

A desktop search of *Environment Protection and Biodiversity Conservation Act 1999* Protected Matters database identified 16 fauna species of federal conservation significance which “may” occur in the search area (0.1 km buffer) and three species of conservation significance which are “likely” to occur in the search area (DoE, 2018). No species of federal conservation significance were “known to occur”. The three species “likely” to occur in the search area are listed below:

- Malleefowl (*Leipoa ocellata*; Vulnerable; Listed Threatened Species);
- Great Egret (*Ardea alba*; Listed Marine Species); and
- Black-eared Cuckoo (*Chrysococcyx osculans*; Listed Marine Species).

These species may only visit the area for short periods as infrequent vagrants. No Malleefowl mounds have been identified on the ROW to date.

Feral animals such as goats, foxes, cats and rabbits which are widespread and responsible for significant declines in native fauna presence in the region as a result of habitat destruction, competitive influences and hunting tendencies (Gascoyne Regional Development Commission, 2012).

4.3.3 5.3.3 Weeds

In 2023, APA engaged Biodiversity Australia to conduct targeted weed survey of the GGP. The survey was conducted in April and May 2023. Flannel bush (*Solanum lasiophyllum*) was the only weed identified on the GGP within 10 km of the TBX.

In 2021, APA engaged a third-party Botanist to conduct a desktop review of weeds likely to occur within the APA assets in the Central Goldfields region. This review informed the development of 'Weed Identification: WA Central Goldfields Region APA HSE GDE ENV 010'. Saffron Thistle (*Carthamus lanatus*) was the only declared weed assessed as having a high likelihood of occurring in the Central Goldfields Region.

4.3.4 Disease

Phytophthora Dieback is found in areas receiving more than 400 mm annual rainfall between Jurien and east of Esperance*. Phytophthora* Dieback is not an issue in the Pilbara or Goldfields regions, this is due to the mean annual rainfall ranging between only 250 mm and 320 mm per annum. There is also a lack of susceptible vegetation required by *Phytophthora cinnamomi* along the pipeline route.

4.4 Social Environment

4.4.1 Heritage

Ethnographic and Aboriginal heritage surveys were undertaken prior to pipeline construction. The pipeline route was located to avoid areas of heritage significance.

A search of the Aboriginal Cultural Heritage Inquiry System search was undertaken in September 2023. Four Aboriginal Cultural Heritage (ACH) sites (publicly available boundary/buffer) intersects the TBX pipeline (6m width, 3m each side of centerline).

All ground-disturbing activities are within previously disturbed boundaries. Knowledge holders and NSR shall be contacted prior to any ground disturbing activities within ACH sites.

4.4.2 Socio-economic

The predominant land use in the Eastern Murchison is grazing sheep, cattle, and goats on native pastures (Cowan 2001). Numerous operating, suspended or abandoned gold and nickel mines, are also present in the region surrounding the TBX, although their combined footprint is relatively small.

Land use in the TBX is consistent with the dominant land uses of the surrounding region, and comprises pastoralism and mining. Specifically, the TBX lies within the Leinster Downs and Weebo Pastoral Stations and mining leases (held by the Saracen).

The TBX is within the Shire of Leonora; the nearest town is Leinster, located approximately 30 km north-northwest of the pipeline. Leinster has a population of approximately 700 people and was established by Agnew Mining in 1976, to support nickel and gold mining in the region.

5. Implementation Strategy

All works will be conducted in accordance with the APA Corporate Environment and Heritage Policy. It is the responsibility of the APA WA Manager Operations and Maintenance to ensure that APA Environment and Heritage policies and commitments are observed throughout all operational activities.

The APA Health, Safety, Environment and Heritage (HSEH) Management System is called 'Safeguard' (SG). SG provides a framework by which the processes relating to APA's HSEH activities are defined, implemented and controlled. Local business unit processes and procedures operating under SG management systems, provide further instruction to workers on performing activities.

SG is supported by a database, referred to as SG+. SG+ is used for functions such as incident reporting, auditing, action tracking and reporting.

The APA business tools and system used to manage and maintain all information relating to asset operations required for the implementation of management include:

- Maximo – Asset maintenance system (Work Oder / Job Plan / Work Instruction)
- SG+ - Risk, actions, auditing and incident reporting system
- XIC – Landholder Contact Program, landholder information, access conditions, stakeholder consultation
- Learning Management System (LMS) – Training system used to capture APA staff information and learning materials
- SkillPASS – Contractor training, competency and accreditation system (under LMS)

SG defines the requirements for environmental management under APA's Environmental Corporate Framework. Procedures, forms and other guidance materials for environmental management is available to all personnel via APA intranet Empower.

One Environmental Risk Assessment workshop per management region was conducted to assess environmental risks associated with the operation of the TBX. The Environmental Risk Assessment is conducted in accordance with APA's 'Risk Management System – Group Procedure' which "aligns with the principles in the international risk standard ISO 31000:2018 - Risk Management".

A summary of the primary environmental hazards, control measures and mitigating factors identified for the pipelines have been provided in Table 3.

It is important to note that Table 3 is intended to be indicative of major hazards and controls only and is not comprehensive of all commitments made by APA in the OEMP.

Table 3: Primary Operations Environmental Hazards and Controls / Mitigating Factors

Summary of risks and impacts	Control Measures and Mitigation Factors
Overarching	• Regular legislation reviews • Toolbox talks • Works Environmental Assessment Process • Environmental audits • Site inspection • Inductions • Environment Procedures

Summary of risks and impacts	Control Measures and Mitigation Factors
Aspect: Contamination Activity: transport, handling, waste disposal Impact: Ground and water contamination	• Site inspected for leaks/spill during periodic site inspections • Vehicle prestart • OSCP testing • Drip trays • Licenced controlled waste carrier engaged for all controlled waste transport on public roads • Spill kits • Cathodic protection • Reportable spills reported to relevant regulator verbally within 2 hours and via report within 3 days. • No refuelling on TBX • Documented mobile plant pre-start checks completed before mobilisation • Regular documented light vehicle pre-start checks completed • Capture in place to cover ground during coating • Spill kit inspections conducted in accordance with Maximo regime • Spill response equipment appropriate to the type and amount of chemical must be available at point of use or transport
Aspect: Waste Activity: controlled, general, hydrocarbon, NORM waste storage, handling, transport and disposal Impact: Ground contamination, unauthorised discharge or community nuisance	• Licenced controlled waste carrier engaged for all controlled waste transport on public roads. Tracking receipts retained for seven years. • Abrasive blasting activities not to occur within close proximity to watercourses without sufficient capture in place. • Spent garnet is wrapped up and disposed of in hydrocarbon bin for Class III landfill disposal • Pigging waste screened for radioactivity to determine waste stream • Identify/label as NORM contaminated waste • Arrange for APA approved (licensed) NORM waste contractor for management/ disposal • Designated temporary concrete wash-down bay set up to contain liquid waste where significant volumes of concreting and equipment wash-down is required • Concrete wash-down and waste shall be captured, tested and disposed of in accordance with Landfill Waste Classification and Waste Definitions 1996 • Concrete tanker utilised wherever possible to minimise mixing of concrete on site • Bags of dry concrete to be stored in a designated, dry undercover area • All waste to be removed from site and stored at MB or CS
Aspect: Heritage Activity: Driving, vegetation clearing, excavation Impact: unauthorised impact to heritage	• Mulcher with GIS capabilities (geofencing or similar) or heritage boundaries flagged prior to clearing through heritage areas • Knowledge Holders contacted prior to any ground disturbing works inside heritage areas • Works Environmental Assessment Form completed prior to clearing or excavation • Spotter/guide engaged during LOS clearing • If heritage values or suspected human remains are unexpectedly discovered, or suspected to exist in the activity area, the activity must immediately cease in the vicinity (10m from extent) of the heritage discovery and be reported as per current APA HSE GP 07.01 Incident Reporting

Summary of risks and impacts	Control Measures and Mitigation Factors
Aspect: Native Vegetation Activity: driving, vegetation clearing, excavation, weed spraying Impact: Loss of biodiversity, fire	• Spotter/guide engaged during LOS clearing • Fire response equipment inspections in accordance with Maximo regime • Fire awareness to be reinforced during toolbox meeting • Works Environmental Assessment Form completed prior to clearing or excavation • Vehicles travelling on easement must have a fire extinguisher
Aspect: PWD Activity: Driving, vegetation clearing, excavation Impact: Introduction of new and /or spread of PWD	• APA vehicle washdowns bay maintained in good working order • All vehicle washdowns recorded in Washdown Register or similar • Vehicles and equipment kept clean and free of weeds and seeds • Clearing and excavation: equipment clean upon arrival
Aspect: Fauna Activity: Driving, vegetation clearing, excavation Impact: Negative or unauthorised impact to biodiversity	• Ramps for excavations left overnight • Fauna inspections undertaken in excavations and trenches that are left open overnight prior to work commencing • Works Environmental Assessment Form completed prior to clearing or excavation
Aspect: Gas, Light and Dust Activity: controlled and uncontrolled gas release, rupture Impact: Contribution to global warming	• NGER reporting in accordance with *National Greenhouse and Energy Reporting Act 2007* • NGI reporting in accordance with Environmental Protection (NEPM-NPI) Regulations 1998 • ERP is triggered for significant unplanned gas emission incidents • Site personnel are trained in the ERP
Aspect: Noise, Vibration, Amenity Activity: facility operation Impact: Stakeholder nuisance	• Fire response equipment inspections in accordance with Maximo regime • Fire awareness to be reinforced during toolbox meeting • Landowner notification prior to excavation and clearing • PTW for hot works in hazardous area • Vehicles travelling on easement must have a fire extinguisher

Summary of risks and impacts	Control Measures and Mitigation Factors
Aspect: Soil and Watercourse Activity: Excavation, dewatering/discharge, vegetation clearing Impact: acidification, erosion, unauthorised dewatering, unauthorised impact to beds and banks	• Where ASS/PASS cannot be avoided, APA will manage in-line with DWER treatment and management of soil and water in acid sulphate landscape guidelines • ASS desktop assessment completed prior to excavations • Topsoil must be stripped and stockpiled prior to, or at the commencement of, land disturbance activities • Vegetation/mulch to be respread following reinstatement • Easement patrols completed in accordance with maintenance regime (Maximo) • Dewatering conducted inline with DWER Water Quality Protection Note 13 • No disturbance to watercourse without Permit to Interfere with Beds and Banks • No discharge to watercourse permitted • Works Environmental Assessment Form completed prior to excavation and dewatering

6. Stakeholder Consultation

Stakeholders are identified by looking at the underlying land parcel and other layers of tenure or constraints intersecting each parcel. Stakeholder consultation is managed in the APA XIC database, maintained by the Infrastructure Protection Team. XIC stores all contact details, communications, land parcel details, APA access, risk level of each parcel, requirements for access and any documentation associated with the parcel. APA completes annual updates of the parcel information stored in XIC. XIC is used in conjunction with ARGO (Assets, Resources and GIS Online) to show the geometry for each parcel.

The main form of planned ongoing stakeholder consultation for APA pipelines is via the Third-Party Awareness Program (TPA) and the Landholder Contact Program (LCP) to achieve compliance with AS2885. Consultation is also done on an ad hoc basis for maintenance programs. Table 4 below shows the main forms of consultation that APA performs.

The following stakeholders have been identified as having an interest in TBX operations:

- NSR (Mine and Pipeline Owner)
- Weebo Station
- Leinster Downs Pastoral Station
- District Emergency Management Committee.
- Knowledge Holders (Darlot)
- Clean Energy Regulator
- DCCEEW

6.1 Third Party Awareness Program

The TPA is used to contact relevant industry, local government and utilities. The types of consultation for the TPA is in the form of meetings, emails, materials (i.e. toolbox, engagement letters, emails, calendar), multimedia (i.e. CodeSafe and e-learning), personal (i.e. meeting, face to face group presentations, conference or industry group presentation), and promotion (i.e. advertising, text message or email message, industry event, social media post). The TPA is used for providing these stakeholders with the location of the pipeline, safety and emergency requirements and APA contact if they propose to do any works in the vicinity of the pipelines. Response from recipients is not mandatory.

6.2 Landholder Contact Program

The LCP alerts landowners to the pipeline location, safety and emergency requirements, ongoing landholder contact processes and details during APA operations. Landholders are visited annually each financial year.

For rural or remote landholders, contact will be made via phone / email prior to APA travelling to them. There will be at least three attempts to contact the landholder to arrange a visit. If a face-to-face meeting is not desired by the landholder, the meeting will be conducted via phone. Recorded stored in X-Info.

LCP also conducts annual notification and APA branded promotional materials. APA does not require a response from the LCP recipients. The notifications are letter form.

6.3 Routine Maintenance Works

Ad hoc consultation to notify landholders of routine works that will be carried out. APA endeavours to provide advanced notice of easement works to landholders and affected stakeholders. This is via letter or email. The notifications will outline the type, duration, date works are scheduled, APA's right of access and APA contact information. If the landholder has particular access requirements, they will also be reiterated on the notification.

Responses to these communications are not required by APA due to APA's right of access.

6.4 Third Party Works

Third party works are when an external party contacts APA as they have a project that will impact an APA pipeline. These can be activities that involve excavations, vertical and horizontal boring / drilling or installation of power lines. It may also be a connection into the APA pipeline. Third party works cannot proceed until APA has completed the necessary protection works.

The main communications to the impacted stakeholders will include description, date and duration of works. Government approvals may also be required for works, APA shall arrange approvals prior to works.

If responses are required by APA, this will be noted in the correspondence with an initial period of one month to reply. For individuals (freehold landowners), that don't reply, then APA will communicate again via the same method as well as others. If there is still no response, site visits will be made to attempt to make contact with the individual. The more time from the initial contact, the more frequent the ongoing contact is made.

For companies and government departments, when there is no reply, then alternative contacts will be used. If still no response, then the client may get involved until a determination is made. As above, the timing of the contact attempts shall become more frequent overtime.

There may be times where the client takes the lead for stakeholder consultation due to wider commitments, APA will still be a part of the process. These communications shall be recorded in XIC.

6.5 Emergency Services

The APA emergency management team aims to consult with the district emergency management committee biennially, where possible. This is usually via a presentation at the committee meeting. The purpose of this consultation is to increase awareness of APA assets, emergency management plans and processes.

6.6 Emergency Works

Emergency works are completed when the emergency response plan is enacted.

For the consultation during an emergency, the impacted stakeholders are contacted, usually via phone with a follow up email, however APA doesn't always wait for a response. At the end of emergencies, there will be a closeout notification with the impacted parties.

Table 4: Consultation Programs

Program	Communication Methods / Materials	Frequency
TPA	Face to face meetings Letters Emails Phone calls Promotional materials Multimedia materials Presentations	Annual. The frequency of each group will be determined through the AS2885 safety management study, with high-risk groups contacted annually.
LCP – Rural / Remote	Face to face meetings Letters Emails Phone calls Promotional materials	Annual contact as a minimum, however maybe more frequent if determined through the AS2885 safety management study.

Program	Communication Methods / Materials	Frequency
Routine Works	Letters Emails Phone calls	Ad hoc basis
Third Party Works	Face to face meetings Letters Emails Phone calls Risk assessments Permits / Approvals	Ad hoc basis
Emergency Services Consultation	Committee meeting Presentation Phone call Email	Biennially
Emergency works	Emails Phone calls	Ad hoc basis

6.7 Five yearly EMP Renewal Consultation

Those stakeholders that manage sensitivities which TBX intersect (Mine Site, Knowledge Holders) were contacted during the five-yearly renewal. This was to ensure all guidance information regarding the sensitivities were up to date.

NSR was provided an opportunity to review the EMP in December 2023. Knowledge Holders Watarra Aboriginal Corporation RNTBC (Darlot) were consulted via letter in December 2023 regarding the EMP revision. Darlot conducted a site visit in February 2024.

Table 6 shows additional ad hoc consultation as part of the ongoing stakeholder consultation outside the abovementioned programs for the TBX.

Table 5 Stakeholder consultation for five yearly EMP renewal

Stakeholder	Method	Detail	Date
NSR	Email	Emailed NSR Contracts Manager the OEMP and requested that they review the OEMP, provide decommissioning information and site contacts.	19/10/2023, 11/12/2023
	Email	NSR reviewed the EMP and returned minor comments.	11/12/2023
Watarra Aboriginal Corporation RNTBC (Darlot)	Letter	NSR to Darlot: • Provided background regarding the pipeline • Provided EMP Summary • Detailed EMP five-yearly renewal	15 December 2023
Knowledge Holders (Darlot)	Site visit	Three representatives for the Darlot Native Title Group conducted a site visit to a section of the Thunderbox Pipeline and discussed the pipeline EMP, no concerns were raised.	16 February 2024

Table 6: Ongoing Stakeholder Consultation

Stakeholder	Detail	Method	Frequency
DEMIRS	Updates to OEMP Changes to activity Reporting as per Section 9 Clearing referrals/permit applications	Email Telephone Meetings	As required
DWER	Permits/approvals/licences Controlled waste transport / contaminated sites		As required
DPLH	Heritage assessments		As required
DPIRD	Report declared weeds		As required
Clean Energy Regulator	NGER reporting		Annual
DCCEEW	NPI reporting		Annual
Local Knowledge Holder	Contacted prior to conducting ground disturbance works in registered and other sites		As required

7. APA Contact Details

For further queries regarding the TBX Operations EP please contact the APA Environment Lead on (08) 6189 4300 or via the APA website at https://www.apa.com.au/contact/.

8. References

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