



WNG.2372-PL-HSE-0005

**NORTHERN GOLDFIELDS INTERCONNECT
GAS PIPELINE SYSTEM**

OPERATIONS ENVIRONMENT PLAN SUMMARY

This document is an Environmental Management Plan Summary and defines the requirements for the Northern Goldfields Interconnect Gas Pipeline System

This document is owned by the relevant APA Business Unit and must be approved by APA's Environment Manager.

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2.0	31/01/2023	Issued for Use	S. Franceschini	L.Graham	T. Yelverton	A. Rawlinson
			Environment Advisor	Environment Lead	Regional Manager	Environment & Heritage Manager
					<i>AB Yelverton</i>	
1.0	11/11/2022	Issued for Use	D.Richter	S. Allen	T. Yelverton	A. Rawlinson
			CDM Smith Principal Environmental Scientist	Environment Lead	Regional Manager	Environment & Heritage Manager
0.1	03/11/2022	Issued for Review	R. Bibby	S. Allen	T. Yelverton	A. Rawlinson
			CDM Smith	Environment Lead	Regional Manager	Environment & Heritage Manager

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1. Executive Summary

The Northern Goldfields Interconnect Gas Pipeline System (NGI) comprises approximately 580 km steel buried pipeline, access track and associated pipeline facilities, including:

- Offtake Station;
- Compressor Station;
- Main Line Valve;
- Scraper Station; and
- Delivery Station.

All of the above assets that make up the NGI are owned and operated by APA Northern Goldfields Interconnect Pty Ltd (APA Group (APA)).

The NGI gas pipeline is a new buried natural gas pipeline of approximately 580 km in length, commencing in Ambania near Geraldton and connecting into the existing Goldfields Gas Pipeline near Leinster. The NGI pipeline includes a number of associated aboveground assets and facilities, including a compressor station in Ambania.

Environmental aspects associated with the NGI operational activities have been risk assessed and specific measures identified to ensure that the potential environmental impacts are mitigated to as low as reasonably practicable (ALARP). The overall objective of this OEP is to minimise impacts to the environment and social values as a result of operation and maintenance of the pipeline.

Environmental aspects have been identified with reference to industry codes, standards and other guidelines. The key environmental aspects identified for the operation of the NGI include, but are not limited to:

- Waste management;
- Hydrocarbon emissions;
- Chemical transport, storage and handling;
- Soil erosion;
- Disturbance of native vegetation;
- Weed and disease management;
- Naturally Occurring Radioactive Material (NORM); and
- General disturbance to surrounding landholders and agricultural use.

Refer to Table 1 for a summary of the key values and sensitivities of relevance to the NGI project.

Table 1 Summary of Values and Sensitivities pertaining to the NGI Pipeline

Feature	Values and Sensitivities
Hydrology	<ul style="list-style-type: none"> • The NGI crosses three key watercourses; Tenindewa Creek, the upper reaches of the Irwin River and Salt Creek. In addition, several ephemeral creeks and tributaries are intersected, with flows highly dependent on rainfall.
Flora, vegetation and weeds	<ul style="list-style-type: none"> • Detailed flora and vegetation survey recorded one Threatened and six Priority flora species within the NGI pipeline licence area. <i>Eucalyptus beardiana</i> (VU, EN), <i>Dicrasyllis linearifolia</i> (P3), <i>Gnephosis cassiniana</i> (P3), <i>Petrophile pauciflora</i> (P3), <i>Ptilotus beardii</i> (P3), <i>Acacia speckii</i> (P2), <i>Goodenia neogoodenia</i> (P2). • Thirty-one introduced flora species were identified within NGI pipeline licence area, including three listed as Declared Pests; Paterson’s Curse, Doublegee and Paddy Melon.
Fauna	<ul style="list-style-type: none"> • One Threatened species in NGI pipeline licence area; the Malleefowl. • One Priority 4 species in the pipeline licence area; the Brush-tailed Mulgara

Feature	Values and Sensitivities
	<ul style="list-style-type: none"> • One 'other specially protected species' under the <i>Biodiversity Conservation Act 2016</i> was recorded; the Peregrine Falcon. • Suitable habitat for other conservation significant fauna including; Carnaby's Cockatoo (limited), Gilled Slender Blue-tongue, Yuna Broad-blazed Slider (limited), Woma (unlikely to occur), Carpet Python and eight locally significant bird taxa. • Seven introduced mammals
Land use	<ul style="list-style-type: none"> • The NGI traverses through a sparsely populated area and does not directly intersect any towns or densely populated residential areas. • The NGI traverses through a range of cleared areas used for agricultural purposes. • Mullewa, Pindar and Yalgoo are the nearest townsites, being less than 2 km from the NGI pipeline area.
Aboriginal heritage	<ul style="list-style-type: none"> • The NGI pipeline licence area intersects with the Yamatji Nation and Darlot Determined Native title claims, and two current Native Title Claims being Mullewa Wadjari (outside of the Yamatji Nation area) and Wajarri Yamatji. • There is also the Badimia claim area which has been determined to not hold Native title, and other prior previous claims which have been dismissed. • Pre-construction Aboriginal heritage surveys on NGI identified the presence of several Registered Sites and Other Heritage Places, as well as a number of isolated artefacts and some newly identified heritage sites within the pipeline Licence area. Three Site boundaries were within the construction right-of-way (CROW) and three remain in the resulting right-of-way (ROW), including KP 114.2 (DPLH ID 20468: Wurarga rockshelters), KP 114.2-143.8 (DPLH ID 18906: Wangara Creek / Salt River (SC03)), KP 139 (DPLH ID 19480: Noorgung Hill – Site 3). There are also multiple river Sites, which will not be impacted during operations.

2. Introduction

This Operations Environment Plan (OEP) Summary provides an overview of the environmental management requirements for the operation of the newly instated Northern Goldfields Interconnect Gas Pipeline System. The NGI pipeline and associated aboveground facilities (herein referred to as NGI) is owned and operated by APA and comprises the following facilities:

- Offtake Station;
- Compressor Station;
- Main Line Valve;
- Scraper Station; and
- Delivery Station.

Construction of the NGI is scheduled to be completed in March 2023, with operations commencing approximately in March/April 2023.

2.1 Purpose and Scope

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

The scope of this OEP Summary is limited to operational works associated with NGI as long as it remains operational.

2.2 Objectives

The overall environmental objectives of the OEP are as follows:

- To minimise environmental impacts resulting from NGI operations;
- To mitigate all identified environmental risks to a level that is As Low As Reasonably Practicable (ALARP);
- To comply with all relevant legal and regulatory environmental requirements;
- To minimise disturbance to surrounding landholders
- To guide field operations in the protection of heritage values; and
- Facilitate continual improvement in environmental performance.

2.3 Corporate Environmental Policy

APA is committed to responsible environmental management and believes that all environmental aspects associated with the operation of the NGI can be effectively managed. 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 Corporate Environment and Heritage Policy.

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

2.4 Definitions

Table 2: Definitions

Acronym	Definition	Acronym	Definition
AHIS	Aboriginal Heritage Information System	HAZOP	Hazard and Operability Study
ALARP	As Low as Reasonably Practicable	HSE	Health Safety and Environment
APA	APA Group	JHA	Job Hazard Analysis
APGA	Australian Pipeline gas Association	OSCP	Oil Spill Contingency Plan
DPIRD	Department of Primary Industries and Regional Development	NGI	Northern Goldfields Interconnect Gas Pipeline System
DWER	Department of Water and Environmental Regulation	PL	Pipeline Licence
DG	Dangerous Good	PTW	Permit to Work
DPLH	Department of Planning, Lands and Heritage	SDS	Safety Data Sheet
EP	Environment Plan	SWMS	Safe Work Method Statement
ERA	Environmental Risk Assessment	Tj/day	Terajoules per day
ERP	Emergency Response Plan	TPC	Third Party Contractor

3. Facility Area and Activity Description

The NGI pipeline and facilities are located within the City of Greater Geraldton and the Shires of Yalgoo, Mount Magnet, Sandstone and Leonora in Western Australia. (Figure 1).

The NGI pipeline, a 10 inch steel buried gas pipeline, commences at the Rosewick offtake station in Ambania (approximately 50 km east of Geraldton) and connects into the GGP (approximately 40 km south of Leinster)

The pipeline route includes a crossing of a major road and three key water courses.

Land tenure along the route comprises Freehold land, Pastoral, Reserve and Crown Land/Other Purposes. Landholder approval must be obtained prior to using any alternate private access roads not previously agreed.

The approximate Pipeline co-ordinates are listed below:

- NGI commencement point: -28.624038, 115.133516
- NGI termination point: -28.235337, 120.81126.

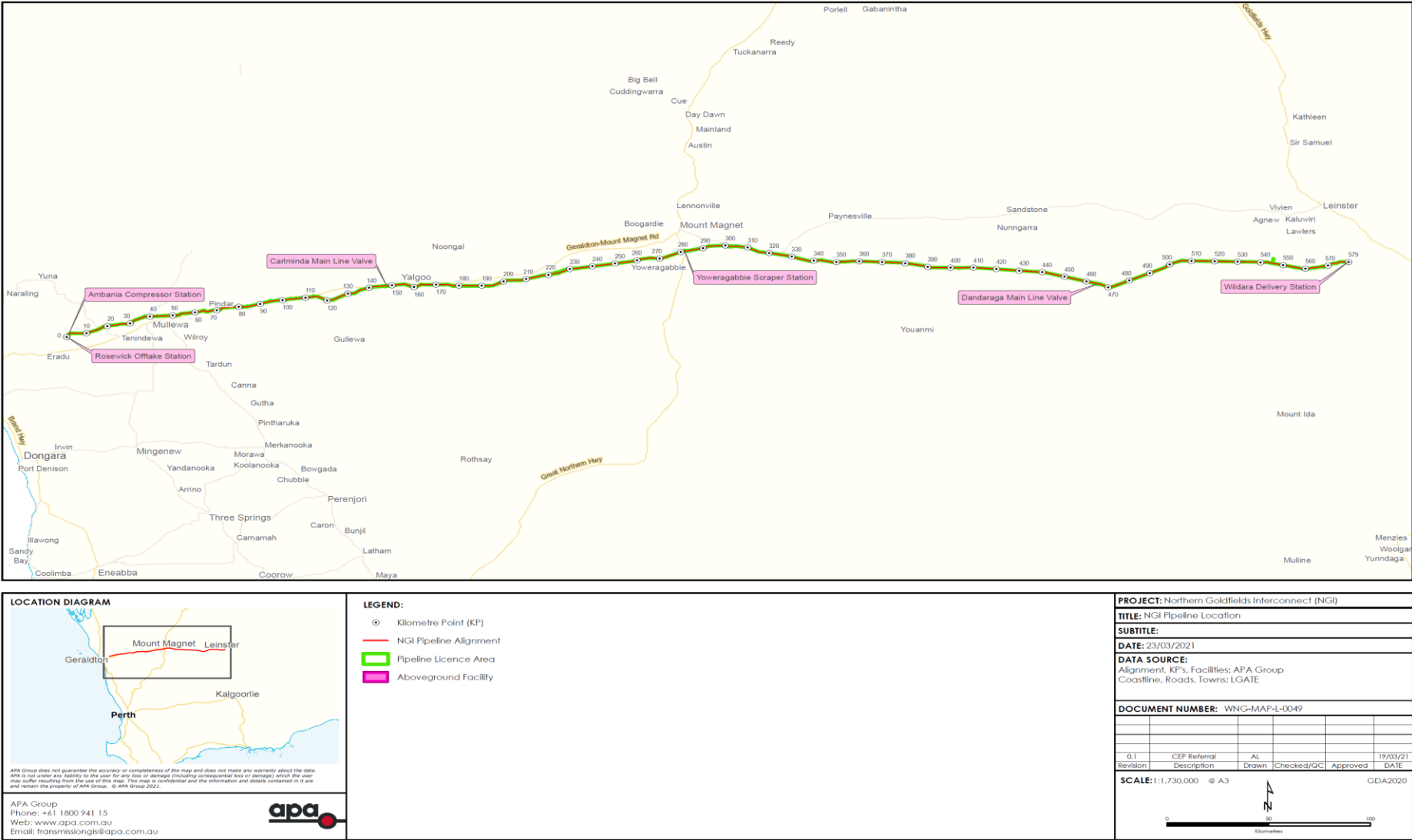


Figure 1 NGI Locality Map



3.1 Pipeline Operations and Maintenance

The NGI is managed under both the Western and Goldfields Region Field Service Teams. Specific pipeline operations and maintenance activities to which the OEP applies are covered in the following sections.

The NGI will be operational 24hrs per day. Planned operation and maintenance activities as described in this Section will occur during daylight hours.

3.1.1 General Equipment & Facility Maintenance

General equipment and facility maintenance typically includes but is not limited to the following:

- Line of sight vegetation clearing
- Servicing and overhauls of machinery and equipment, including servicing and changing water of Water Bath Heater (WBH);
- Equipment inspections and testing;
- Erosion management and remediation (inclusive of import of fill)
- Subsidence and compaction remediation;
- Monitoring;
- Safety inspections and follow up;
- Filter inspections and replacement;
- Repairing / installing pipeline liner posts;
- Small-scale facility works;
- Odorant tank swap out / injection;
- Modification of fencing, include minor concreting for footings;
- Maintenance of temporary site offices, ablutions, laydown and parking areas and;
- General housekeeping (i.e. as per safety requirements and the OEP).

The above-mentioned activities involve various mechanical and electrical tasks which are undertaken by appropriately qualified Technicians. Regular monitoring and safety inspections are undertaken to identify maintenance requirements as they arise.

Pipeline warning signs are in accordance with AS 2885 and are double-sided. Warning signs are located at all road, rail, river and watercourse crossings, all bends, fences, drains and tracks. Signs are strategically placed so that they are inter-visible and may require replacement.

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

A WBH consists of a high pressure gas coil immersed in water that is heated by an electric immersion heater. A WBH contains water which is treated with biocide or a corrosion inhibitor. These chemicals are stored at the maintenance base and brought to site when required.

Changing of the odorant tanks is a manual process where tanks are swapped out at the odorant injection system. The disconnecting and reconnecting of the new tank is done within a bunded area. Empty tanks are freighted to International Chemicals Engineering.

Erosion and subsidence management requiring the import of fill, ground/surface compaction and the mobilization 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 may be required intermittently to allow for increased services or changes in pipeline requirements. Works may include minor concreting for footings and 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.

General housekeeping includes numerous tasks typically associated with health, safety and/or environmental management. Specific items may include general tidying/cleaning, waste management, maintenance of fire breaks, spraying of weeds.

3.1.2 Cathodic Protection Surveys

Cathodic Protection (CP) refers to the use of electrical current to assist with the protection of steel pipework against corrosion. Detailed CP surveys are undertaken annually to monitor pipeline integrity and ensure the CP system itself remains functional. Routine spot checks are conducted six monthly by accessing CP test points at approximately 15 km intervals along the pipeline and connecting to a meter which measures corrosion.

3.1.3 Pipeline Excavation & Protection

Pipeline excavations are undertaken periodically typically for pipeline repairs and crossing/protection installations. Pipeline excavations are strictly controlled for safety reasons via risk assessment, work permits and procedures. The scale of excavations can vary from single defect dig-ups of a few metres, to trenching of over a kilometre to access multiple defects in close proximity.

Pipeline excavations are managed through Gas Transmission Excavation and Trenching Procedure (320-PR-OM-00067). This document states that top soil removed shall be kept separately from any backfill materials taken from the trench. The pipe is covered with a minimum of 150 mm of clean bedding material/sieved natural backfill before any un-sieved natural backfill material can be used. After padding the trench, the backfilling can be undertaken using previously excavated material. Once backfilling is complete the segregated top soil is re-spread over the area.

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 poly ethylene) plastic or pre-fabricated concrete (slabs can be laid over and/or under the pipeline underground at the crossings to protect the asset from external interference. In order to test the integrity of the pipeline, hydro-testing may be required. Potable water is used for hydro-testing.

During pipeline maintenance and repair activities, temporary crib/site offices and ablutions may be mobilised for pipeline repairs, excavations and crossing work as required.

Abrasive blasting is undertaken as part of Operational activities on NGI. Painting and coating will follow the activity of abrasive blasting. These activities are conducted on an ad-hoc basis (likely once every ten years, based on similar APA pipelines).

3.1.4 Maintenance Clearing

The *Petroleum Pipelines Act 1969* (PPA) requires high pressure gas pipelines to be clearly marked and that upstream and downstream pipeline warning markers are visible to maintain line of sight (LOS). In some areas, plant regrowth may obscure LOS between pipeline warning markers and/or inhibit vehicle access for maintenance purposes and emergency response (see Section 6.5). In these instances, vegetation pruning becomes necessary. Vegetation clearing methods used to maintain LOS avoid compromising vegetative rootstock and soil disturbance to ensure soil quality and stability is maintained.

Vegetation disturbance associated with minor excavations/dig-ups may also be required within the pipeline corridor to facilitate maintenance of the pipeline.

Vegetation management is a direct requirement through the Pipeline Licence and AS2885 for pipeline safety and integrity.

3.1.5 Venting

Venting of gas from the NGI pipeline is undertaken to purge the pipeline and/or facilities for maintenance or emergency response purposes. Venting for maintenance purposes, including instrument gas and relief systems, varies depending on the activity being performed. Volumes of gas released for any of these purposes is expected to be minimal. The Integrated Operations Centre Controller (IOC Controller) assists to monitor and respond to any unplanned/uncontrolled venting or gas release incidents via information provided on the on the operator interface (SCADA).

3.1.6 Pigging

Pipeline pigging is undertaken for the purposes of either pipeline cleaning or integrity assessment (intelligent pigging). Intelligent or In line inspection (ILI) pigging for the purpose of pipeline integrity assessment is completed in accordance with the requirements of AS2885.3 Section 6 – Pipeline Structural Integrity. The frequency of ILI is determined by the latest pigging data and integrity assessment available. ILI pigging runs on the NGI pipeline are undertaken at a frequency that satisfies the requirements of AS2885.3. Pigging programs involve thorough planning by specialist Engineering, Operations and Safety personnel.

Pigs are run between pipeline scraper stations containing pig launching and receiving facilities. Gas condensate and particulate matter separated from the gas stream are often common by-products of pigging (removal of which is the ultimate goal in the case of a cleaning pig run). Pig runs for the NGI pipeline do not generate condensate (dry gas); however, the particulate matter is caught in the pig receiver trap along with the recovered pig. The waste is contained for appropriate offsite disposal. Prior to disposal this waste is assessed for naturally occurring radioactive materials (NORMs) and handled accordingly.

3.1.7 Hot Tapping

“Hot Tapping” is the process of safely drilling a hole into an operating gas pipeline, to allow a connection to be made. Once the operating pipeline has been excavated at the hot tap point, a hot tap fitting is welded onto it. A valve is installed onto the fitting, and a hot tap machine installed onto the valve. The valve is opened, allowing access to the top of the operating pipeline, and the inside of the hot tap machine is pressurised to the same pressure as the operating pipeline.

Hot tapping may occur in very rare emergency circumstances.

3.1.8 Right of Way (ROW) patrols

Pipeline easement patrols of the NGI pipeline are conducted as aerial or vehicle patrols as detailed below. The scope of these patrols aim to identify issues such as:

- Third Party encroachments;
- Vegetation growth;
- Indicators if gas leaks (indicators nuclide, dead or dying vegetation in a circular shape directly over the pipeline, odorant or hydrocarbon smells, flies collecting over the pipeline, frozen ground, moisture, sink holes, hissing sound, discolouration of soil);
- Line of sight;
- Presence of weed infestation greater than land immediately adjoining the corridor;
- Erosion, subsidence or stability issues;
- Exposed pipe;
- Condition of signage and aerial markers.

Vehicle patrols are completed by Pipeline Technicians on a six-monthly basis. This work is conducted from light vehicles and managed through APA’s maintenance management system MAXIMO with work orders being generated for completion. Any issues identified are documented and where necessary additional work orders raised for corrective action to be completed.

Aerial patrols are completed on a monthly frequency. Aerial patrols are undertaken via a contractor as per Surveillance Procedure 560-PR-QM-0006 and any issues identified during the flight are uploaded into Field Maps directly by the contractor for APA to action.

4. Receiving Environment

NGI is located within the several IBRA bioregions (Department of the Environment, 2012), and sub-regions as summarised in Table 3 below.

Table 3: Summary of IBRA Bioregions Intersecting the NGI Pipeline Licence Area

Bioregion	Sub-region	Description
Geraldton Sandplains	Geraldton Hills	Consists mainly of Proteaceous scrub-heaths, often with mallees, on sandy soils on an extensive, undulating lateritic sandplain, with many endemic species of flora. Extensive York gum (<i>Eucalyptus loxophleba</i>) and acacia woodlands occur on outwash plains associated with drainage (McKenzie et al., 2002).
Avon Wheatbelt	Merredin	Consists of a gently undulating landscape of Proteaceous scrub-heaths, rich in endemics on lateritic uplands, and mixed eucalypt, <i>Allocasuarina huegeliana</i> , and York gum woodlands on alluvial and eluvial sandplains (Beecham, 2001).
Yalgoo	Tallering	Is situated at an interzone between the Southwest and Eremaean botanical provinces. The bioregion is characterised by Gimlet (<i>Eucalyptus salubris</i>), Callitris and mulga woodlands over herb rich understorey on red sandy soils on open plains (McKenzie et al., 2002).
Murchison	Eastern Murchison	The bioregion covers a large geographical area and, as such, is dissected into eastern and western regions. The eastern region, which is relevance to this project, consists of salt lake systems associated with paleodrainage systems and sandplains with breakaways. Vegetation is dominated by mulga woodlands, generally over grasslands and ephemeral herbs, and alluvial and eluvial soils, with hummock grasslands on sandplains, saltbush shrublands on calcareous soils, and <i>Tecticornia</i> low shrublands on saline soils (McKenzie, 2002).

The presence of the Eucalypt Woodlands TEC/PEC (Critically Endangered (under the EPBC Act) and Priority 3 (DBCAs)) was confirmed during pre-construction ecological surveys at four discrete locations.

The extent of the Eucalypt Woodlands TEC/PEC within the NGI pipeline licence area was mapped as approximately 31 ha, of which approximately 0.28 ha occurs within the ROW. Disturbance to the widest patch of this TEC/PEC (at approximately KP 86.79 to 86.69 and 90.48 to 90.57) was avoided via horizontal directional drilling (HDD), and establishing a ‘no go zone’ for operations.. In other areas (approximately KP 87.65 and KP 105.2) a reduced ROW width of 15m has been incorporated into the pipeline design to avoid operations disturbing this vegetation.

The NGI does not intersect any freshwater lakes. However, a number of ephemeral creeks and tributaries are intersected, with flows highly dependent on rainfall. Low-lying salt lakes systems (and the associated fringing shrublands) occur in broader surrounds and intermittently intersect the NGI pipeline. The NGI pipeline crosses three key watercourses;

Tenindewa Creek (approximately KP 18.5), the upper reaches of the Irwin River (approximately KP 59) and Salt Creek (approximately KP 141.5).

The NGI pipeline does not fall within any Public Drinking Water Supply Areas.

There are no wetlands of international importance (Ramsar Wetlands), national importance (Australian Nature Conservation Agency (ANCA) Wetlands) or conservation category wetlands within or near the NGI.

5. Heritage

A Cultural Heritage Management Plan (CHMP) (20199-PL-LH-0005) was developed, where possible, avoid and otherwise minimise direct and indirect impacts to social, cultural, heritage and archaeological values within and surrounding the development envelope.

Heritage surveys were conducted as part of a cultural heritage impact assessment to identify potential impacts to known heritage places within the NGI pipeline corridor and specific risk-based strategies and management actions were identified to mitigate against the risk of heritage site disturbance. In total, 11 heritage sites are located within the pipeline ROW.

HDD was undertaken under the majority of these areas (where possible) to install the pipeline and these will continue to be no-go zones during NGI operations.

Disruption to heritage areas and/or artefacts as a result of operational activities is not expected, provided works do not extend beyond the previously disturbed easement boundary and vehicles remain within designated areas and access routes at all times. In the event that ground disturbing works are required, interrogation of the AHIS will be undertaken prior to works commencing, and if required, DPLH and Traditional Owners consulted.

6. Implementation Strategy

Implementation of the OEP is via the APA Safeguard Health, Safety, Environment and Heritage (HSEH) Management System and in compliance with the Petroleum Pipelines (Environment) Regulations 2012 requirements, namely:

- Communication of policies, objectives and roles and responsibilities;
- Inductions, training and competency of personnel;
- Monitoring, auditing, record keeping and reporting, including a dedicated hazard and incident reporting system
- Management of non-conformances and corrective actions;
- Development, tracking and ongoing maintenance of documentation; and
- Emergency preparedness and response.

A risk based approach has been adopted to manage potential threats to the environment as a result of NGI Operation. This process involved initial identification of environmental interactions (aspects) resulting from operational activities followed by an environmental risk assessment (ERA) workshop attended by personnel from a range of backgrounds. The ERA process involved:

- Assessment of environmental risks in terms of likelihood and consequence;
- Identification of mitigating factors and management measures to reduce environmental risks to ALARP; and
- Risk ranking according to severity

A summary of the primary environmental hazards, control measures and mitigating factors identified for the NGI Operations has been provided in Table 4.

Note: Table 4 is intended to be indicative of major hazards and controls only and is not comprehensive of all commitments made by APA in the OEP.

Table 4: Primary Operations Environmental Hazards and Controls / Mitigating Factors

Environmental Hazard	Control Measures and Mitigation Factors
All hazards	<ul style="list-style-type: none"> • HSE / Environment inductions communicating Environment requirements • Competent personnel – training and procedures / guidance materials provided • Hazard and incident reporting via APA Incident and Hazard Management System • Management, PTW*, maintenance and emergency response systems in place • Regular audits, inspections and other OEP compliance checks • TPC* compliance with OEP commitments via contractual requirements • JHA's* for tasks presenting specific environmental hazards • Strict controls on vehicles and access implemented via Operations Manuals • Reporting as per Regulatory requirements • Compliance with all relevant legislation and regulatory requirements
Air emissions	<ul style="list-style-type: none"> • HAZOP* undertaken specifically addressing uncontrolled gas release • Assets designed as per standards of the day (failure prevention) • Physical protection (i.e. cordoning and signage) of live pipework
Chemical use	<p>ALL</p> <ul style="list-style-type: none"> • Procedures for chemical use • Chemical register and SDS* maintained for all hazardous substances at maintenance bases <p>Storage & handling</p> <ul style="list-style-type: none"> • Storage of hazardous substances as per SDS and safety specifications • Storage receptacle sizes and types defined and controlled • Use of bunds and drip trays • Capacity of bunds sufficient to contain quantity of largest stored container • Minimise onsite chemical storage and use via off-site storage where possible <p>Transport</p> <ul style="list-style-type: none"> • Use of licensed contractors as required <p>Spill prevention and response</p> <ul style="list-style-type: none"> • Spill response equipment available at site • ERP* and OSCP* to ensure adequate preparedness for spill response • Regular checks and maintenance of machinery, plant and equipment • Use of self bunded equipment where practicable <p>Chemical waste</p> <ul style="list-style-type: none"> • Chemical waste treated as per other chemicals for management purposes • Waste chemicals clearly marked and disposed of in accordance with regulations
Weed introduction and / or spread	<ul style="list-style-type: none"> • Vegetation clearing and earthworks limited where possible (disturbed areas prone to weed proliferation) • Strict hygiene measures for digging equipment • Access and vehicle controls imposed; as per existing roads and tracks • Weed identification information available to personnel • Timely response to declared weed occurrences as per DPIRD * recommendations
Disturbance to local vegetation	<ul style="list-style-type: none"> • Native vegetation clearing limited and in compliance with WA Environmental Protection (Native vegetation Clearing) Regulations 2004

Environmental Hazard	Control Measures and Mitigation Factors
(both native and other desirable plants i.e. feedstock)	<ul style="list-style-type: none"> • Vegetative material from clearing retained for use during site remediation <p>Disturbed (by APA) areas to be remediated as follows:</p> <ul style="list-style-type: none"> • Stockpiled topsoils re-spread evenly • Surfaces re-profiled and scarified to assist seed and water trapping • Stockpiled vegetative material spread over topsoils to aid vegetation re-establishment
Soil erosion	<ul style="list-style-type: none"> • Strict controls on vehicles and access imposed • Topsoil removal limited and controlled • Topsoils removed for construction reused during post construction remediation • Topsoil stockpiles maintained to minimise erosion • Remediation of disturbed areas as described above
Ignition source for Fire	<ul style="list-style-type: none"> • Fire response equipment maintained at site and in vehicles and machinery • Operations sites maintained to minimise fuel availability and fire risk • Localised fire emergency response covered in ERP • Emergency contact details available to all operations personnel • Dedicated containers for chemicals classed as flammable • Smoking within designated areas only • Fire awareness to be reinforced at toolbox meetings
Waste generation	<ul style="list-style-type: none"> • All wastes to be removed from site and disposed of to the appropriate class landfill facility • Adequate waste receptacles maintained onsite and waste segregated as appropriate
Dust generation	<ul style="list-style-type: none"> • Strict controls on vehicles and access • Dust suppression assistance to be sought as required
Disturbance to local fauna	<ul style="list-style-type: none"> • Fauna movement not restricted – can move away from sources of disturbance • Trenching and excavation activities controlled • Escape ramps for fauna installed in open trenches and morning visual trench inspections undertaken • Trained and competent handlers engaged for fauna removal from site if required
Third party disturbance	<ul style="list-style-type: none"> • Regular landholder consultation undertaken • Lighting at site to be concentrated in required areas only • Strict controls on Operations vehicle movement imposed
Disturbance to heritage values	<ul style="list-style-type: none"> • Works to cease and DPLH to be notified immediately if suspected heritage artefacts identified • Strict controls on Operations vehicle movement imposed • All site works contained within easement boundary

*Acronyms as per Table 2.

7. Stakeholder Consultation

A summary of ongoing Operations Stakeholder consultation undertaken by APA is provided in Table 5.

Table 5: Stakeholder Consultation

Stakeholder	Consultation to date	Ongoing commitment
Shires and Local Governments	<ul style="list-style-type: none"> Regular contact with the Shire via third party works process 	<ul style="list-style-type: none"> Consultation as necessary as part of pipeline operations consultation program
Landholders	<ul style="list-style-type: none"> Ongoing liaison since prior to NGI construction Operations specific consultation ongoing 	<ul style="list-style-type: none"> Notification of activities planned for sites Kept updated throughout the course of the Operations
DFES: Local emergency services provider	<ul style="list-style-type: none"> Liaison throughout ERP development and implementation 	<ul style="list-style-type: none"> Ongoing liaison throughout site operations
DMIRS: Regulator	<ul style="list-style-type: none"> Liaison ongoing throughout Operations 	<ul style="list-style-type: none"> Reporting monthly, 3 monthly, annually and at Operations close out; General liaison as required i.e. due to Operations changes
DWER: Regulator	<ul style="list-style-type: none"> Liaison / advice ongoing throughout Operations 	<ul style="list-style-type: none"> DWER to be contacted prior to works being undertaken within managed reserves
DPLH : Regulator	<ul style="list-style-type: none"> Liaison / advice ongoing throughout Operations 	<ul style="list-style-type: none"> DPLH to be contacted if heritage area's / artefacts encountered during Operations
Traditional Owner Groups	<ul style="list-style-type: none"> Liaison / advice ongoing throughout Operations 	<ul style="list-style-type: none"> Liaison between Traditional Owner Groups and monitoring teams during ground disturbing activities.

8. APA Contact Details

For further queries regarding the NGI Operations please contact Sean Allen on: PH: (08) 9224 7253; or

Email: sean.allen@apa.com.au

APA Northern Goldfields Interconnect Pty Ltd
 Level 12, 141 St Georges Terrace,
 Perth WA 6000
 P: +61 8 6189 4300