Health, Safety and Environment Management System

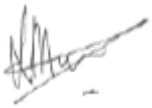
Environment Plan Summary

870-HSE-PL-1002 REV 4.0

GOLDFIELDS GAS PIPELINE SYSTEM

OPERATIONS ENVIRONMENT PLAN SUMMARY

APA safeguard

Version Control and Authorisation						
Rev	**Date**	**Status**	**Originated/ Custodian**	**Checked**	**Approved**	**Approved**
4.0	23/12/2021	Updated with new GGP offtake for KOTHGP				
			S.Franceschini	L.Graham	A.Rawlinson	M.Parker
			Environment Advisor	Environment Lead (WA/SA)	Environment and Heritage Manager	Team Leader (Newman, FIFO)
3.0	07 December 2020	Wiluna Compressor Station upgrade	L.Graham	S.Franceschini	A.Rawlinson	M.Parker
			Environment Lead (WA/SA)	Environment Advisor	Environment and Heritage Manager	Team Leader (Newman, FIFO)
2.0	08 October 2020		L.Graham	S.Franceschini	A.Rawlinson	J.Taylor
			Environment Lead (WA/SA)	Environment Advisor	Environment and Heritage Manager	Team Leader (Newman, FIFO)
1.3	8 May 2020	Updated with new Beyondie Offtake and Meter Station facility as per Bridging Document 1844-PL-HSE-0002	S. Franceschini	A. Gamble	A. Rawlinson	-
			Environment Officer	Environment Lead	Environment Manager	-
1.2	26 February 2018	Updated with DMIRS comments	M. Morel	S. Steyaert	A. Rawlinson	-
			Environment Advisor (WA/SA)	Compliance Support Officer	Environment Manager	-
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			Compliance Manager, WA	Environmental Officer	General Manager WA	-
1	June 2017		Elizabeth Smith	Brynne Jayatilaka	Barrie Sturgeon	-

		Updated in line with OEP 5 yearly review	Compliance Manager, WA	Environmental Officer	General Manager WA	-
0	25/05/2014	Initial version issued for use	Brynne Jayatilaka	A Drummond	A Drummond	-
			Environmental Officer	Manager Field Services WA	Manager Field Services WA	-

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1. Executive Summary

The Goldfields Gas Pipeline System (GGPS) comprises the following pipelines:

Table 1 GGPS Pipeline Licences

Licence	Pipeline	Licensee
PL 24	Goldfields Gas Pipeline including Newman Lateral	Southern Cross Pipelines Australia Pty Ltd Southern Cross Pipelines (NPL) Australia Pty Ltd
PL 25	Mt Keith Lateral	Southern Cross Pipelines Australia Pty Ltd
PL 26	Leinster Lateral	Southern Cross Pipelines Australia Pty Ltd
PL 27	Kambalda Lateral	Southern Cross Pipelines Australia Pty Ltd
PL 28	Parkeston Lateral	Southern Cross Pipelines Australia Pty Ltd

All of the above assets are operated by APA Group (APA).

Environmental aspects associated with the GGPS 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 EP 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. A summary of key environmental aspects identified for the operation of the GGPS includes, but is not limited to: -

- Waste management;
- Hydrocarbon emissions;
- Chemical transport, storage and handling;
- Soil erosion;
- Weed and disease management; and
- General disturbance to surrounding landholders and agricultural use.

The GGPS is located principally within previously disturbed agricultural land which has been largely cleared of native vegetation for pastoral use. The pipeline also traverses two nature reserves; the Wanjarri Nature Reserve and Goongarrie Station, a Department of Biodiversity, Conservation and Attractions (DBCA) reserve, proposed for conservation. However works within these areas is minimised in order to reduce disturbance.

2. Introduction

This Operations Environment Plan (OEP) Summary provides an overview of the environmental management requirements for the operation of the existing GGPS, which comprises the pipelines listed in Section 1 above.

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 GGPS.

2.2 Objectives

The overall environmental objectives of the OEP are as follows:

- To minimise environmental impacts resulting from GGPS 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; and
- To minimise disturbance to surrounding landholders.

2.3 Corporate Environmental Policy

APA is committed to responsible environmental management and believes that all environmental aspects associated with the operation of the GGPS 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 Corporate Health Safety and Environment (HSE) Policy.

All contractors and sub-contractors must comply with the 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 the OEP.

2.4 Definitions

Table 2 Definitions

AHIS	Aboriginal Heritage Information System	GGPS	Goldfields Gas Pipeline System
ALARP	As Low as Reasonably Practicable	HAZOP	Hazard and Operability Study
APA	APA Group	HSE	Health Safety and Environment
APT	APT Parmelia Pty Ltd	JHA	Job Hazard Analysis
CS	Compressor Station	OEP	Operations Environment Plan
DPIRD	Department of Primary Industries and Regional Development	OSCP	Oil Spill Contingency Plan
DBNGP	Dampier to Bunbury Natural Gas Pipeline	PL	Pipeline Licence
DWER	Department of Water and Environmental Regulation	PTW	Permit to Work
DG	Dangerous Good	SDS	Safety Data Sheet
DPLH	Department of Planning, Lands and Heritage	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 pipeline commences at the Dampier to Bunbury Natural Gas Pipeline (DBNGP) CS1 located south west of Dampier on the Mardie Pastoral lease. From DBNGP CS1 the GGPS diverts directly to The Yarraloola Compressor Station (CS), then follows the Ashburton River Valley in a south easterly direction through to south of Newman. At this point the GGPS tracks south-south east through the Gascoyne and Goldfields regions, terminating at a receiver facility located south of Kalgoorlie.

The GGPS includes a spur pipeline to Newman power station, and gas laterals to Leinster, Mt Keith, Parkeston and Kambalda (see Figure 1 for locality map).

The GGPS has numerous other lateral pipelines, all of which have independent OEPs and are not addressed in this document.

Table 3 outlines the location of the GGPS pipelines and Figure 1 shows this in a map.

The facility area covered by the OEP comprises the pipeline easements, various facilities such as compressor stations, scraper stations, metering stations and delivery stations as well as communication systems. The easement provides for access to the pipeline for maintenance and operation. Temporary access or work areas outside the easement require landholder consent and appropriate regulatory approvals.

The GGPS traverses the following land tenures:

- Pastoral leases;
- Crown reserves;
- Wanjarri Nature reserve;
- Goongarrie Station (a DBCA reserve for proposed conservation); and
- Road and Rail reserves.

The pipeline crosses a number of major and minor roads and many services and watercourses. The GGP mainline passes through two Nature Reserves. No facilities are present and works will be minimised within these areas. The locations of the Wanjarri Nature Reserve and Goongarrie Station are highlighted on the following locality map (Figure 1).

Goongarrie Station has been highlighted by APA as a priority area as it is a DBCA reserve for proposed conservation due to its proximity to the transition zone between the eucalypt and mulga woodlands.

Approximate GIS latitude / longitude coordinates for the operational area of the GGPS are as follows:

- GGPS commencement point: -21.446745°, 115.953409°
- GGPS termination point: -31.193242°, 121.673797°

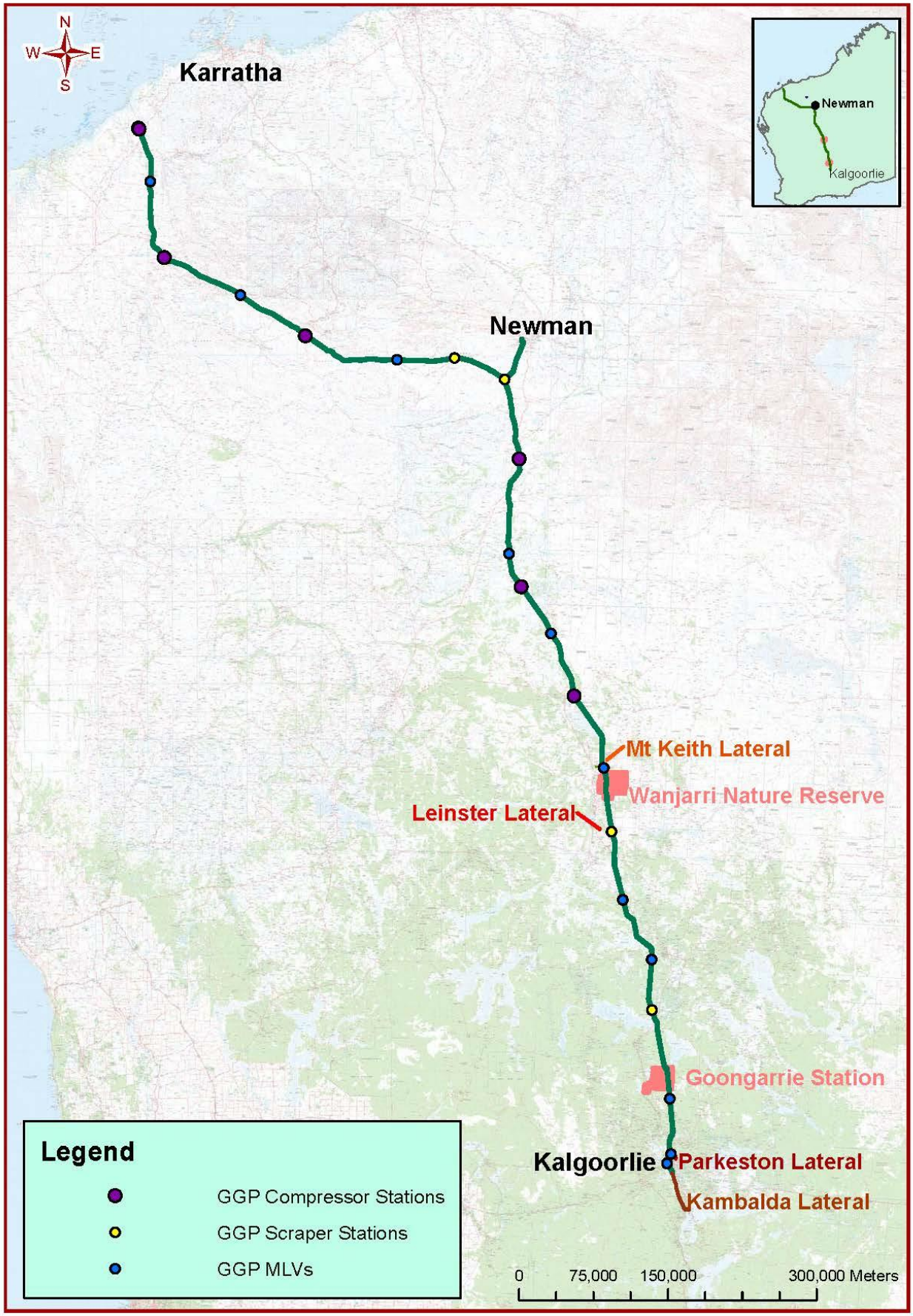
Table 3 Location of the GGPS Laterals

Facility	Location	Resources
Apache inlet facility	Mardie Station GGT KP0	Isolation Joint
Yarraloola CS	Mardie Station, GGT KP1.4	Compressor Station
DBNGP Interconnect	Mardie Station, Yarraloola CS (GGT KP1.4)	Pipeline Tie-in
Red Hill MLV	Red Hill Station, KP57	MLV
Wyloo West CS	Mt Stuart Station, KP139	Compressor Station
Wyloo East MLV	Wyloo Station, KP226	MLV

Facility	Location	Resources
Paraburdoo CS	Minniner Station, KP304	Compressor Station
Boonamichi Well MLV CTMS	Turee Creek Station, KP405.5	Meter Station MLV
Turee Creek CS	Prairie Downs Station, KP464	Compressor Station
Newman SS	Prairie Downs Station, KP520	Scraper Station Newman Lateral
Limestone Springs Offtake (connecting Karlawinda Gas Pipeline)	KP 529.57	Hot-Tap Connection Hot-Tap Valve Buried Piping to Karlawinda Gas Pipeline KP0 (MIJ Weld)
Yarnima CTMS	Mt Whaleback mine site, Newman – adjacent to the Yarnima Power Station	Meter Station
Ilgarari CS	Bulloo Downs, KP603	Compressor Station Scraper Station
Beyondie Offtake	Beyondie Road, KP 637.74	Meter Station
Three Rivers MLV	Three Rivers Station, KP703.5	MLV Plutonic Lateral
Neds Creek CS	Neds Creek Station, KP740	Compressor Station
Cunyu MLV	Cunyu Station, KP796	MLV
Wiluna CS	Millbillillie Station, GGT KP864.4	Compressor Station Scraper Station Magellan Offtake Wiluna Offtake Jundee Offtake Reciprocating compressor Brackish Water Reverse Osmosis Plant Evaporation pond
Wongawol Road Offtake (connecting Lake Way Gas Pipeline)	KP 869.93	Hot-Tap Connection Hot-Tap Valve Buried Piping to Lake Way Pipeline KP 0 (MIJ Weld)
Mt Keith Offtake	Mt Keith Station, KP946	MLV Mt Keith lateral
Cosmos Offtake	Yakabindie Station KP987.7	Cosmos Lateral
Leinster Offtake	Leinster Downs Station, KP1011.5	Scraper Station Leinster Lateral

Facility	Location	Resources
Kyara Offtake	KP 1035.5, approximately 12km southeast of Leinster	Agnew Gas Pipeline
Thunderbox Offtake	Leinster Downs Station and Weebo Station KP 1051.1	Thunderbox Lateral
Jaguar Offtake	Sturt Meadows Station KP1080	Jaguar Lateral
Sturt Meadows MLV	Sturt Meadows Station, KP1082	MLV
Leonora Offtake	Clover Downs Station, KP1154	MLV Leonora Lateral Murrin Murrin Lateral
Jeedamya SS	Jeedamya Station, KP1205	Scraper Station
Mt Vetters MLV	Mt Vetters Station, KP1298	MLV Cawse Lateral
Kalgoorlie North MLV	KP1355, ~ 6 km north of central Kalgoorlie	MLV
Kalgoorlie West MLV	KP1366, ~ 6 km south west of central Kalgoorlie	MLV
Kalgoorlie South Receiver	KP1377, ~9 km south of Boulder	Receiver Kambalda Lateral
KOTHGP Offtake (connecting King of the Hills Gas Pipeline)	KP 1131, approx. 27km northwest of Leonora	Hot-Tap Connection Hot-Tap Valve Buried Pipeline to King of the Hills Gas Pipeline KP 0 (MIJ weld)

Figure 1 GGPS Locailty map with Environmentally Sensitive Areas



3.1 Pipeline Operations and Maintenance

Due to the distances involved, the GGPS is broken into 3 regions for operational purposes: -

- Pilbara Region
  - Karratha Base; which maintain from KP 0 – KP 304
- Central Goldfields Region
  - Newman Base; which maintains from KP 304 – 740, as well as the Newman Lateral.
  - Leinster Base; which maintain from KP 740 – KP 1082, as well as the Leinster and Mt Keith Laterals.
- Goldfields Region
  - Kalgoorlie Base; which maintain from KP 1082 – KP 1377, as well as the Parkeston and Kambalda Laterals.
- Routine maintenance of the GGPS is undertaken as determined by the Field Services Manager, Team Leaders and plans which are implemented via a dedicated maintenance management system (MAXIMO).

3.1.1 General Equipment & Facility Maintenance

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

- Servicing and overhauls of machinery and equipment;
- Equipment inspections and testing;
- Monitoring;
- Erosion management and remediation (inclusive of import of fill);
- Subsidence and compaction remediation;
- Modification of fencing, include minor concreting for footings
- Maintenance of temporary site offices, ablutions, laydown and parking areas;
- Safety inspections and follow up;
- Filter inspections and replacement; and
- General housekeeping (i.e. as per safety requirements and the EP).

The above activities involve various mechanical and electrical tasks which are undertaken by appropriately qualified trade's people. Regular monitoring and safety inspections are also undertaken to identify unplanned maintenance requirements as they arise.

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 offsite disposal facilities.

Erosion and subsidence management requiring the import of fill, ground/surface compaction and the mobilization and 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. Erosion and subsidence management will be managed as per Section 5 and 5 of this EP.

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 and numerous other duties.

3.1.2 Cathodic Protection Surveys

Cathodic protection (CP) refers to the use of electrical current to protect steel pipework against corrosion. CP surveys are undertaken on a regular basis to monitor pipeline integrity and ensure the CP system itself remains functional. CP surveys involve accessing CP test points at approximately 5 km intervals along the pipeline and connection to a meter which measures corrosion.

3.1.3 Pipeline Excavation & Protection

Pipeline excavations are undertaken periodically typically for pipeline repairs and crossing 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^3 to trenching of a kilometre of more in length to access multiple defects in close proximity. 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 concrete (either poured in situ or pre-fabricated) slabs can be laid over and/or under the pipeline underground at the crossing to protect the asset from external interference. Dewatering is sometimes required where the water table is present at less than a few metres from the ground surface however this is rare.

3.1.4 Venting

Venting of gas from the GGPS is undertaken to purge pipelines and / or facilities for maintenance or emergency response purposes. Venting for maintenance purposes under normal operating pressure could typically release approximately 10 m^3 of gas. Quantities of vented gas are recorded by the APA Integrated Operations Center (IOC) and contained in the quarterly emissions and discharges reporting to DMIRS Environment Branch.

3.1.5 Pigging

Pipeline pigging is undertaken for the purposes of either pipeline cleaning or integrity assessment (intelligent pigging). Intelligent pigging is completed in accordance with the requirements of AS2885.3 Section 6 – Pipeline Structural Integrity. Pigging programs involve thorough planning involving specialist Engineering, Operations and Safety personnel.

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 ultimate 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 offsite disposal. Small amounts of general purpose grease and degreaser may be used during the pigging process which is managed as per the chemical requirements specified in the EP.

3.1.6 Right of Way (ROW) patrols

The pipeline owner has a gazetted easement registered under the *Land Administration Act 1997* which allows for legal access for maintenance, operation and emergency response.

Pipeline ROW patrols of various sections of the GGPS are conducted as aerial or vehicle patrols as detailed below. Patrols may identify issues such as:

- Third Party encroachments;
- Vegetation growth;
- Line of sight;
- Presence of weeds;
- Erosion, subsidence or stability issues;
- Exposed pipe; and
- Condition of signage and aerial markers.

Aerial patrols are completed monthly and are undertaken through a contractor who records and reports any issues observed to APA to investigate and action. The contractors follow the APA Aerial Surveillance Procedure.

3.1.7 Hot Tapping

"Hot Tapping" is the process of safely drilling a whole 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 incised of the hot tap machine is pressurised to the same pressure as the operating pipeline.

4. Receiving Environment

The GGPS traverses four major natural regions in Western Australia, the Pilbara, Gascoyne, Murchison and Coolgardie regions.

4.1.1 The Pilbara Region

The main topographic features of the Pilbara Region are the Hamersley Ranges and the Fortescue River valley floodplain. The surficial geology consists of a granite and greenstone base, overlain by Achaean sediments and volcanics of the Fortescue Group, capped by Proterozoic sediments of the Hamersley Group. Tertiary and quaternary deposits are common in water courses as well as colluvium at the base of scarps and hills. Soils include plastic clays, brown red clays and red brown earths as well as areas of calcareous soils associated with hardpans.

4.1.2 The Gascoyne Region

The main topographical features of the Gascoyne Region include the Ashburton valley and the Ashburton river floodplains. Over geological time sedimentary surfaces have eroded forming mesas and buttes while granite has remained forming hills and ridges in the area surrounding Newman.

The surficial geology of the Gascoyne consists of Middle Proterozoic sandstones and conglomerates with tertiary and quaternary deposits present in water courses. Soils range from alluvial sandy soils in water courses, shallow stony soils on hills and scarps, to red sands, clayey red sands and red earths on Sandplains. Calcareous soils may also be present associated with hardpans.

4.1.3 The Murchison Region

The topography of the Murchison Region largely consists of gently undulating Aeolian sandplains with areas of lateritic caprock and calcrete hardpan. Granite outcrops may also form sheets and tors. The surficial geology of the Murchison Region includes Proterozoic sediments of Glengarry Sub-basin and Archaean Yilgarn Craton of granites and metamorphosed greenstones. Soils consist mainly of shallow red earthy loams over red brown hardpans and large areas of sheet calcrete. Colluvial and alluvial deposits are often present in watercourses, while hills are capped with weathered bedrock and colluvial quartz based soils.

4.1.4 The Coolgardie Region

The topography of the Coolgardie Region consists of large areas of sandplain and numerous salt playa. Outcropping granites and greenstones form scattered hills. Surficial geology includes the Achaean Yilgarn Craton of granites and metamorphosed greenstones with patches of Archaean clastic sediments. Soils of the Coolgardie Region vary with neutral red earths on sand plains, saline soils around playas, calcareous loams and earths associated with hardpans and sheet wash gravels, silts and laterite.

5. Heritage

Heritage surveys of the PL24 easement were undertaken prior to construction of the GGPS. Subsequent reports were lodged with the Department of Aboriginal Affairs (DAA) in 1993. At this time the pipeline route was redirected to avoid areas of Aboriginal and European cultural significance identified during the heritage surveys.

A search of the Department of Planning, Lands and Heritage (DPLH; formerly the Department of Aboriginal Affairs) Aboriginal Heritage Inquiry System (AHIS) for Registered Aboriginal sites and other Heritage places traversed or within close proximity to the GGPS was undertaken June 2017. Over 67 sites were found to intersect the pipeline route (38 Registered Sites and 29 'Other' Heritage Sites).

Operation of the GGPS through these areas predominantly consists of vehicle patrols and access to sites. In addition, excavation requirements are small and managed on a case by case basis. To date, operations have not caused damage to any sites. Notwithstanding this, the risk of disturbance to these sites as a result of operational activity was specifically addressed during the Environmental Risk Assessment (ERA) and appropriate mitigation/management measures identified for implementation (Section 6).

In addition, consultation with the DPLH has established that pipeline activities such as access through a site (excluding ground disturbing works or alike) does not constitute impact to heritage sites and therefore is unlikely to breach section 17 of the *Aboriginal Heritage Act 1972*.

This being the case, disruption to heritage areas and/or artifacts as a result of ongoing 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.

6. Implementation Strategy

Implementation of the EP is via the APA Safeguard Environmental 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
- emergency preparedness and response
- toolbox talks

A risk based approach has been adopted to manage potential threats to the environment as a result of GGPS Operation. This process involved initial identification of environmental interactions (aspects) resulting from operational activities followed by an 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
- risk ranking according to severity

A summary of the primary environmental hazards, control measures and mitigating factors identified for the GGPS 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 Operations EP.

Table 4 Primary Operations Environmental Hazards and Controls / Mitigating Factors

Environmental Hazard	Control Measures and Mitigation Factors
All hazards	• HSE inductions communicating Environment requirements • Competent personnel – training and procedures / guidance materials provided • Hazard and incident reporting via APA hazard and incident database • Management, PTW*, maintenance and emergency response systems in place • Regular audits, inspections and other EP compliance checks • TPC* compliance with EP 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 • Evaporation pond level will be monitored remotely by APA IOC with high-level alarms • Evaporation pond liner monitoring points between the primary and secondary liner installed to detect perforation of the primary liner layer. Liner wear strip installed to monitor integrity.
Air emissions	• HAZOP* undertaken specifically addressing uncontrolled gas release • Assets designed as per standards of the day (failure prevention)

Environmental Hazard	Control Measures and Mitigation Factors
	• Physical protection (i.e. cordoning and signage) of live pipework
Chemical use	ALL • Procedures for chemical use • Chemical register and SDS* maintained for all hazardous substances onsite Storage & handling • 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 Transport • Use of licensed contractors for (large quantities) DG* Transport • Strict access controls and maintenance of road condition • Double skinned tank on diesel transport vehicles Spill prevention and response • 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 Chemical waste • 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	• Vegetation clearing and earthworks limited where possible (disturbed areas prone to weed proliferation) • Strict hygiene measures for digging equipment and • 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 (both native and other desirable plants i.e. feedstock)	• Native vegetation clearing limited and in compliance with WA Environmental Protection (Native vegetation Clearing) Regulations 2004 • Vegetative material from clearing retained for use during site remediation • Disturbed (by APA) areas to be remediated as follows: • Stockpiled topsoils re-spread evenly to a maximum depth of approx. 10 cm • Surfaces reprofiled and scarified to assist seed and water trapping • Stockpiled vegetative material spread over topsoils to aid vegetation re-establishment
Soil erosion	• 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	• 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

Environmental Hazard	Control Measures and Mitigation Factors
	• Dedicated containers for chemicals classed as flammable • Smoking within designated areas only • Fire awareness to be reinforced at toolbox meetings
Waste Generation (excluding chemicals – see above)	• 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	• Strict controls on vehicles and access • Dust suppression assistance to be sought as required
Disturbance to local fauna	• 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 • Evaporation pond fenced with ground level mesh and egress ramp
Third party disturbance	• 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	• 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

*Definitions provided in Table 1

7. Stakeholder Consultation

A summary of Operations Stakeholders and consultation undertaken by APA is provided in Table 5.

Table 5 Stakeholder Consultation

Stakeholder	Consultation to date	Ongoing commitment
Shires and Local Governments	• Regular contact with the Shire via third party works process	• Consultation as necessary as part of pipeline operations consultation program
Landholders	• Ongoing liaison since prior to GGPS construction • Operations specific consultation ongoing	• Notification of activities planned for sites • Ongoing liaison throughout the course of the Operations.
Main Roads	• Operations specific consultation ongoing • Pipeline Awareness	• Notification of activities planned for the easement / road reserves • Ongoing liaison throughout operations
DFES: Local emergency services provider	• Liaison throughout ERP development and implementation	• Notification of risk activities as agreed (i.e. venting) • Ongoing liaison throughout site operations
DMIRS : Regulator	• Liaison ongoing throughout Operations	• Reporting monthly, 3 monthly, annually and at Operations close out • General liaison as required i.e. due to Operations changes, audits etc.
DWER: Regulator	• Liaison / advice ongoing throughout Operations	• General liaison regarding vegetation, flora and fauna management as required
DPLH: Regulator	• Liaison / advice ongoing throughout Operations	• DPLH to be contacted if heritage area's / artefacts encountered during Operations

8. APA Contact Details

For further queries regarding the GGPS Operations please contact Lisa Graham on:-
Ph.: (08) 6189 4512; or
Email: Lisa.Graham@apa.com.au