

Appendix A Environmental Policy

Environment Policy

AGIG's vision is to be the leading gas infrastructure business in Australia by delivering for customers, being a good employer, and sustainably cost efficient. Environmental and social responsibility is a key element of our vision.

AGIG believes that all incidents are preventable and is continually striving to achieve Zero Harm. Environmental stewardship is critical to the success and sustainability of our business.

AGIG believes that we are all individually accountable and empowered to ensure our actions are without undue adverse impact upon the environment.

Our key objectives are to:

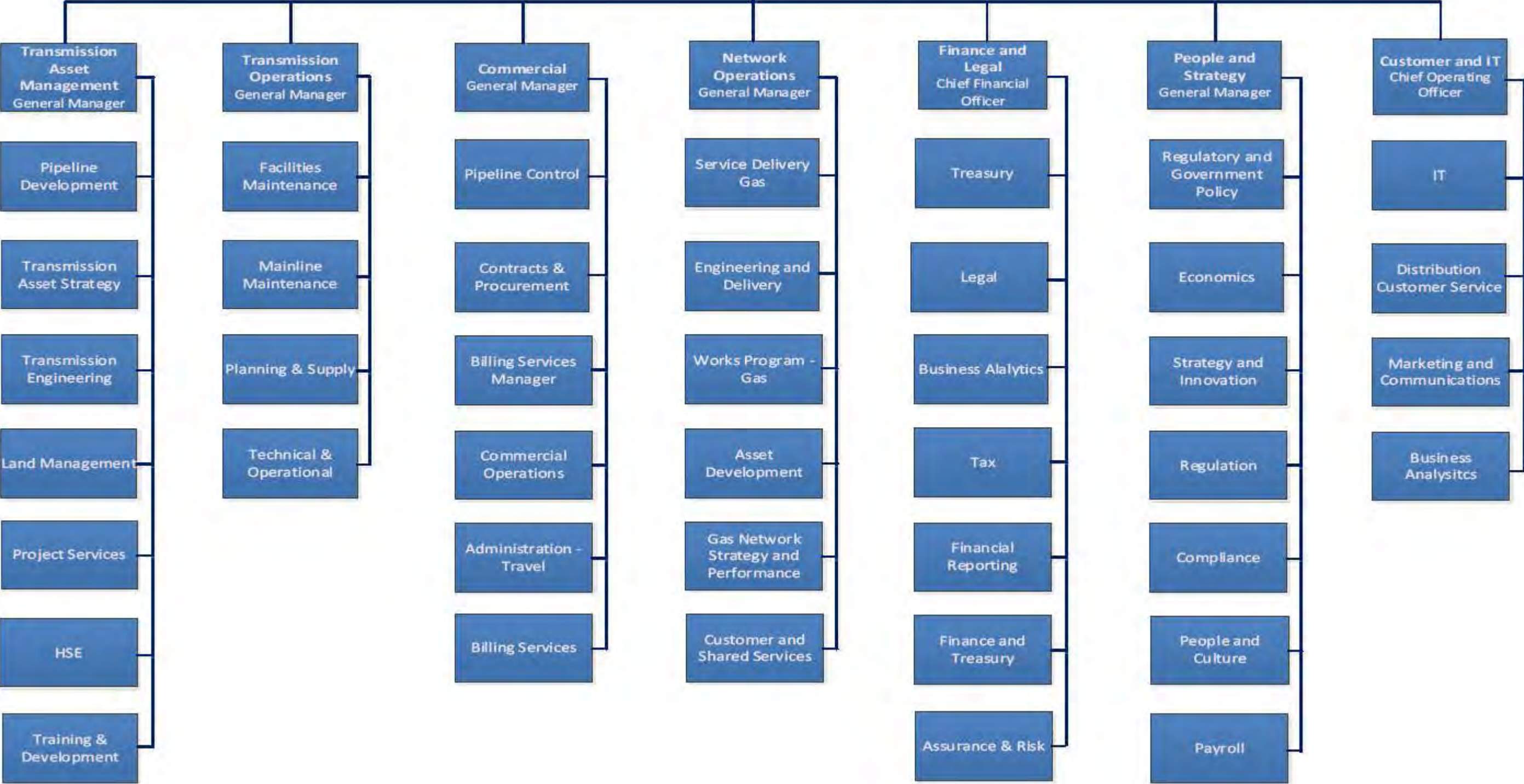
- Conduct environmentally responsible operations and minimise environmental impact wherever possible.
- Ensure our carbon emissions footprint is consistent with national policy and regulations.
- Create a culture and environment where every employee is personally committed to managing impacts to the environment.
- Act consistently with **AGIG's values, including working in a safe and professional manner.**

We will achieve this by:

- Embedding environmental considerations into business decisions and processes.
- Promoting environmental awareness and fostering a culture of respect for ecological values.
- Effectively consulting with our employees, contractors and key stakeholders on environmental matters and establishing an escalation mechanism for matters requiring management intervention.
- Driving a culture where employees and contractors take ownership and are accountable for environmental performance.
- Developing processes and systems to identify, assess and control environmental risks and to ensure the management of risk to as low as reasonably practicable.
- Establishing and maintaining pragmatic and flexible environmental management systems that are tailored to our risks, drives achievement of our vision and are regularly reviewed for currency, relevance and effectiveness.
- Allocating the appropriate resources and providing the necessary information, instruction, training and supervision to enable implementation of the environmental management systems.
- Effectively reporting, recording and investigating environmental incidents and near misses in the workplace and taking proactive measures to prevent recurrence.
- Maintaining preparedness to respond promptly to environmental incidents to mitigate the nature and scale of unintended impacts.
- Setting, monitoring and communicating meaningful performance measures to drive continuous improvement.
- Regularly auditing our operations to monitor compliance with statutory obligations and conducting accurate and transparent reporting on any findings.
- Complying with all applicable laws, regulations and standards for the protection of the environment.

Appendix B Organisational Structure

Chief Executive Officer




Appendix C Risk Management Policy and Model

RISK MATRIX		Consequence				
		Trivial	Minor	Severe	Major	Catastrophic
Frequency	Frequent	Low	Intermediate	High	Extreme	Extreme
	Occasional	Low	Low	Intermediate	High	Extreme
	Unlikely	Negligible	Low	Intermediate	High	High
	Remote	Negligible	Negligible	Low	Intermediate	High
	Hypothetical	Negligible	Negligible	Negligible	Low	Intermediate

Consequence	Financial impact	People	Environment	Reputation/ Outage	Supply
Catastrophic	Would threaten DDG's survival Greater than \$10M	Two or more fatalities	Permanent, irreparable off site impact	International media	Long term interruption of supply
Major	Would threaten the effective operation of DDG for a substantial period \$5m - \$10m	Less than two fatalities More than four LTIs or MTIs	Long term, off-site impact or medium term impact within ESA	National media	Prolonged interruption; long term restriction of supply
Severe	Exposes DDG to unacceptable cost consequences \$2.5m - \$5m	Less than four LTIs or MTIs	Medium term offsite impact or short term impact within ESA	State media Widespread complaints	Short term interruption, prolonged restriction of supply
Minor	Issues are dealt with internally \$0.5m to \$2.5m	Injuries requiring first aid treatment	Short term offsite effect	Local media and complaints	Short term interruption; restriction of supply with shortfall met by other sources
Trivial	No significant impact on DDG Less than \$0.5m	Injuries not requiring first aid or other treatment	No offsite effect	Internal complaints and minor public nuisance	No impact; no restriction of pipeline supply

Frequency	Definition
Frequent	Event could reasonably be expected to occur eg manual handling injury, vehicle fauna strike and heat overexposure
Occasional	Event may occur from time to time eg vehicle accidents and snake bites
Unlikely	Event is not likely to occur eg diesel tank storage failure, fall from height
Remote	Event is not anticipated to occur eg vehicle collision causing pipeline rupture
Hypothetical	Event is theoretically possible but highly improbable eg. a sudden lightning strike (on an otherwise clear day) striking a communications tower when an officer is working from it causing electrocution.

Risk	Definition
Extreme	Modify the threat, the frequency, or consequence so that the risk is reduced to 'Intermediate' or lower. For an in-service pipeline the risk shall be reduced immediately.
High	Modify the threat, the frequency or consequence so that the risk is reduced to 'Intermediate' or lower. For an in-service pipeline the risk shall be reduced as soon as possible, typically within a timescale of not more than a few weeks.
Intermediate	Modify the threat, the frequency or consequence to reduce the risk rank to 'Low' or 'Negligible', if practicable (ie anything else that can reasonably be done to reduce the risk). Risk is tolerable if we have done all that can be reasonably called upon to further reduce the risk, but the risk remains largely the same. Document reasoning for the ALARP conclusion. For an in-service pipeline, the reduction to 'Low' or 'Negligible' or demonstration of ALARP shall be completed as soon as possible and typically within a timescale of not more than a few months.
Low	Determine the management plan for the threat to prevent occurrence and to monitor changes that could affect the classification.
Negligible	Review at the next review interval. Manage by routine procedures – reassess at next review.

<p>GRAVITY</p> <p><i>e.g. WAH, falls, dropped objects, suspended loads, unstable structures</i></p>	<p>TEMPERATURE</p> <p><i>e.g. open flame and ignition sources, hot or cold surfaces, extreme weather</i></p>	<p>CHEMICAL</p> <p><i>e.g. toxins, corrosives, combustibles, unsafe atmospheres, asbestos and dust</i></p>
<p>MOTION</p> <p><i>e.g. manual handling, awkward/ sustained postures, repetitive actions, vehicle movements and mobile plant</i></p>	<p>  Australian Gas Infrastructure Group </p> <p>HAZARD FINDER</p>	<p>BIOLOGICAL</p> <p><i>e.g. insects, animals, bacteria, viruses, contaminated water</i></p>
<p>MECHANICAL</p> <p><i>e.g. rotating or vibrating stationary equipment</i></p>	<p>PSYCHOLOGICAL</p> <p><i>e.g. stress, fatigue, distraction, excessive workload</i></p>	<p>RADIATION</p> <p><i>e.g. sun exposure, welding arcs, lighting issues, X-rays</i></p>
<p>ELECTRICAL</p> <p><i>e.g. energised equipment, overhead and underground power lines, batteries</i></p>	<p>PRESSURE</p> <p><i>e.g. live pipework, compressed cylinders, hoses, pneumatics, hydraulics</i></p>	<p>SOUND</p> <p><i>e.g. equipment noise, high pressure release, impact noise, vibration</i></p>



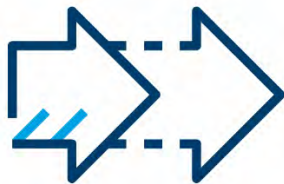
GRAVITY



TEMPERATURE



CHEMICAL



MOTION



**HAZARD
FINDER**



BIOLOGICAL



MECHANICAL



PSYCHOLOGICAL



RADIATION



ELECTRICAL



PRESSURE



SOUND

Appendix D Environmental Aspects and Impacts Risk Register

ID	ACTIVITY	ASPECT		IMPACT / CONSEQUENCE	Inherent			Physical Safeguards	Procedural Safeguards	Residual		
		Hazard	Source	Environmental Effect	CONSEQUENCE	LIKELIHOOD	RISK			CONSEQUENCE	LIKELIHOOD	RISK
1	Waste Disposal: Domestic waste	Leachate; Solid Domestic Waste; Liquid Domestic Waste; CO ₂	Inadequate management of domestic waste generated on site.	Odour, Pests, Aesthetics/Visual, Attracts feral animals, Hazard to livestock	3. Severe	D. Occasional	Intermediate	Covered skip bins Designated waste management area	Licenced rubbish removal	1. Trivial	C. Unlikely	Negligible
2	Waste Disposal: Sewage and Grey water to on-site septic tank or BioMax WWTP; treatment prior to disposal onsite	Sewage	Inadequate containment of sewage	Soil, groundwater and/or surface water contamination, Increase in nutrient levels entering natural water systems	2. Minor	D. Occasional	Low		Adequate containment volume, Septic pump out as required by licenced contractor. Adequately sized leach drains meeting Department of Health requirements. Onsite treatment and disposal monitoring (i.e. irrigation)	1. Trivial	C. Unlikely	Negligible
3	Waste disposal: RO by-product	Salt	Discharge of saline by product of RO to ground	Creating saline ground, vegetation death, contributing to salinity of shallow groundwater, impacting offsite groundwater users.	3. Severe	D. Occasional	Intermediate		Minimise our need to produce water on site. Import water for compressor wash. Characterise receiving environment to ensure negligible likelihood of offsite migration of impacts (if any). Localised containment of saline discharge. Appropriate disposal based on site specific risk assessment outcome.	1. Trivial	C. Unlikely	Negligible
4	Waste Oil storage (underground)	Waste Oil	Leaching of oil through storage tank walls or floor. Spill during transfer to/from tank.	Soil, groundwater and/or surface water contamination	4. Major	D. Occasional	High	Located away from surface water	Adequate storage (double skin) and / or bunding (AS1940), Spill contingency procedures, Standard handling and safety procedures, Monitoring (where warranted) of soil adjacent to UST, Monitoring of groundwater quality at relevant locations. High level alarms - monthly inspections.	2. Minor	C. Unlikely	Low
5	Fuel / Oil storage	Oil spill	Inadequate containment of failed tank	Soil, groundwater and/or surface water contamination	3. Severe	E. Frequent	High		Adequate storage (double skin) and / or bunding (AS1940), Spill contingency procedures, Standard handling and safety procedures, Monitoring (where warranted) of soil adjacent to UST, Monitoring of groundwater quality at relevant locations. High level alarms, periodic inspections, Validate waste storage is sufficient to contain entire contents of tank.	2. Minor	B. Remote	Negligible
6	Waste Oil Storage (Above ground)	Waste Oil	Inadequate bund capacity or leaching of oil through bund walls or floor	Soil, groundwater and/or surface water contamination	3. Severe	C. Unlikely	Intermediate	Double skin tanks	Spill contingency procedures, Standard handling and safety procedures, reduce the quantity & period of oil storage. High level alarms - monthly inspections. 5 yrly tank monitoring. Adequate bunding (AS1940),	2. Minor	C. Unlikely	Low
7	Waste Oil sump	Waste Oil	Failure of pump out system leading to overflow	Soil, groundwater and/or surface water contamination	2. Minor	C. Unlikely	Low	Design of sumps over large for planned quantity	Monthly inspections.	2. Minor	B. Remote	Negligible
8	Transfer by vacuum truck	Waste Oil	Spill during transfer from tank	Soil, groundwater and/or surface water contamination	2. Minor	D. Occasional	Low	Tank design	Use of drip trays, licenced removalist, spill kits	1. Trivial	C. Unlikely	Negligible

9	DEA use	NAI	See Item #5									
10	Hazardous waste disposal	Hazardous Waste including lead acid batteries, Asbestos, Oily filters, Oil soaked coalescer	Inappropriate disposal of hazardous waste	Soil, groundwater and/or surface water contamination	2. Minor	E. Frequent	Intermediate		Standard handling and safety procedures, use of licenced waste disposal contractors.	1. Trivial	C. Unlikely	Negligible
11	Weed control	Herbicide	Overspray	Damage to native vegetation, damage to agricultural crops	4. Major	C. Unlikely	High		Use of approved herbicides, Use correct application procedure and equipment. Register of land owners specific requirements in LMS. Targeted weed management	1. Trivial	C. Unlikely	Negligible
12	Weed control	Herbicide	Spillage	Soil contamination	2. Minor	C. Unlikely	Low		Use of approved herbicides and, Use correct application procedure and equipment. Register of land owners specific requirements in LMS. Review weed management processes on corridor.	1. Trivial	C. Unlikely	Negligible
13	Venting Purging (e.g. automatic valve operations pressure relief valves compressor casing compressor station start-up/shut down)	Methane CO ₂	Venting, Purging, (Controlled release of gases)	Increase in greenhouse gas emissions, Decrease in local air quality.	3. Severe	E. Frequent	High		Normal operational management (pressure management), minimise starts and stops.	1. Trivial	E. Frequent	Low
14	General operations and venting (pigging)	Noise	Noise	Increase in noise levels at residential locations	3. Severe	E. Frequent	High		Standard maintenance procedures (AMP), appropriate equipment	1. Trivial	E. Frequent	Low
15	Flaring of odorised gas	Smell	Smell	Residential complaints of odour.	4. Major	C. Unlikely	High		Standard operating procedures (AMP), manned operation.	2. Minor	B. Remote	Negligible
16	Failure of relief valve	Methane	Uncontrolled release, noise	Increase in greenhouse gas emissions and noise disturbance. Decrease in local air quality.	4. Major	C. Unlikely	High		Standard maintenance procedures (AMP), alarms for all significant PRV	2. Minor	C. Unlikely	Low
17	General Compressor Operation	Air pollution	Exhaust emissions	Increase in greenhouse gas emissions, Decrease in local air quality	2. Minor	E. Frequent	Intermediate		Adhere to licence conditions, standard maintenance procedures (AMP)	1. Trivial	E. Frequent	Low
18	General Compressor Operation	Air pollution	Excessive Fuel Consumption as a result of inefficient configuration/operation	Increase in greenhouse gas emissions, Decrease in local air quality	2. Minor	E. Frequent	Intermediate		Standard operating procedures (AMP), pipeline efficiency modelling.	1. Trivial	D. Occasional	Low
19	Major Maintenance (Venting)	Methane, noise	Venting major pipeline section for repairs of third party damage	Increase in greenhouse gas emissions, Decrease in local air quality	3. Severe	D. Occasional	Intermediate		Standard operating procedures (AMP), manned operation.	2. Minor	C. Unlikely	Low

20	Draining cooling systems, water bath heaters, radiators etc.	Chemically treated water	Inadequate containment of drained material	Soil, groundwater and/or surface water contamination	2. Minor	C. Unlikely	Low	Design specifications	Standard handling and disposal procedures (S-PRO-016 Hazardous Materials Handling and Storage Procedure).	1. Trivial	B. Remote	Negligible
21	Storage of Hazardous materials / Dangerous Goods e.g. chemicals hydrocarbons, aviation fuel	Oil, chemical, or aviation fuel	Spill of oil, chemical, or aviation fuel	Soil, groundwater and/or surface water contamination. Loss of vegetation / crops. Odour, Increased risk of fire.	3. Severe	D. Occasional	Intermediate	Bunding	Adequate containment and bunding (AS1940), spill contingency procedures, standard handling and safety procedures (S-PRO-016 Hazardous Materials Handling and Storage Procedure) Minimise quantities of oil and hazardous materials stored.	1. Trivial	C. Unlikely	Negligible
22	Injection and handling of Odorant e.g. Mercaptan	Odorant	Spill of odorant	Soil contamination. Loss of vegetation / crops. Detrimental effect on native fauna and livestock, odour, Public alarm and complaints	4. Major	E. Frequent	Extreme	Bunding	Adequate containment and bunding (AS1940), spill contingency procedures, standard handling and safety procedures (S-PRO-016 Hazardous Materials Handling and Storage Procedure). Trained personnel	1. Trivial	D. Occasional	Low
23	Transport and handling of Hazardous material / Dangerous Goods e.g. chemicals hydrocarbons, aviation fuel, radioactive sources	Oil, chemical, or aviation fuel	Spill of oil, chemical, or aviation fuel	Soil, groundwater and/or surface water contamination. Loss of vegetation / crops. Odour, Increased risk of fire.	2. Minor	C. Unlikely	Low	Vessel design and specifications	Adequate Transport equipment, spill contingency procedures, standard handling and safety procedures (S-PRO-016 Hazardous Materials Handling and Storage Procedure).., Use of competent contractors and staff. Licenced Dangerous Goods Transport - where required.	2. Minor	B. Remote	Negligible
24	Transport of Odourant e.g. Mercaptan	Odorant	Major spill of odorant	Odour. Soil, groundwater and/or surface water contamination.	3. Severe	C. Unlikely	Intermediate	Vessel design and specifications	Adequate Transport equipment, Licenced Dangerous Goods Transport, spill contingency procedures, standard handling and safety procedures (S-PRO-016 Hazardous Materials Handling and Storage Procedure)..	3. Severe	A. Hypothetical	Negligible
25	Airstrip maintenance	Native Vegetation	Impact from maintenance – clearing covered under #53	NCC								
26	Use of airstrip	Aircraft	Impact through taxi, take-off and landing	NCC								
27	Pigging	Waste Material from inside pipeline	Waste material is not contained, is spilled or is incorrectly disposed of	Soil, groundwater and/or surface water contamination	2. Minor	E. Frequent	Intermediate		Adequate facilities, define waste disposal method (E-PRO-015 Waste Management Procedure), standard maintenance procedures (AMP)	1. Trivial	B. Remote	Negligible
28	Filter changes	Oil and Gas Filter	Waste oil and filter is not contained, is spilled or is incorrectly disposed of.	Soil contamination	2. Minor	E. Frequent	Intermediate		Adequate facilities, define waste disposal method, standard maintenance procedures	1. Trivial	B. Remote	Negligible
29	Construction and use of water bores	Abstraction	Use of groundwater for compressor station operations	Decrease in ground water level, Decrease in ground water available to other landowners	3. Severe	E. Frequent	High		Obtain permit and adhere to conditions, identify and implement water use minimisation measures.	1. Trivial	B. Remote	Negligible
30	Failure of pipeline	Methane	Unplanned release of methane	Increase in greenhouse gas emissions, Decrease in local air quality.	3. Severe	C. Unlikely	Intermediate		Standard maintenance procedures, monitoring of pipeline, emergency response	2. Minor	A. Hypothetical	Negligible
31	Pipeline maintenance resulting in release e.g. Filter Change	Methane	Release of Methane	Increase in greenhouse gas emissions,	2. Minor	E. Frequent	Intermediate		Standard maintenance procedures (AMP)	1. Trivial	E. Frequent	Low

				Decrease in local air quality.								
32	Cathodic Protection Deep well anode drilling	Drilling - soil contamination	Soil and Ground Water table pollution	Cross contamination of water table.	3. Severe	C. Unlikely	Intermediate		Standard design procedures (Basis of Design), appropriate assessment prior to installation	1. Trivial	B. Remote	Negligible
33	Vehicle usage	Weed or pathogen infected soil	Soil build up on vehicle	Introduction or spread of dieback disease in native forests / remnant vegetation potentially reducing quality of the forest, causing species loss Introduction or spread of weed species.	3. Severe	E. Frequent	High		COE Procedure. Landholder liaison prior to visit, Use of buses instead of private vehicles for transport of large workgroups. ACV process for clearing includes weed and dieback review. Stick to existing tracks	2. Minor	D. Occasional	Low
34	Vehicle usage	Vehicle	Driving vehicle on corridor	Compaction of topsoil, Loss of vegetation cover. Formation of erosion channels, Sedimentation resulting in a decrease in water quality, Decrease in depth of cover or exposure of pipeline.	2. Minor	D. Occasional	Low		Corridor not to be used as general thoroughfare When use cannot be avoided, standard operating procedures – stick to existing track, landowner liaison if required.	1. Trivial	D. Occasional	Low
35	Vehicle usage	Vehicle	Accidental collision with native fauna or livestock	Death or injury of animal struck by vehicle	2. Minor	E. Frequent	Intermediate		Driver training, avoid driving at dusk and dawn if possible, speed limits	1. Trivial	E. Frequent	Low
36	Vehicle usage	Access /Interference	Gates left open	Escape of livestock and entry of other animal species.	2. Minor	D. Occasional	Low		Minimise stock crossing points Landholder liaison prior to visit Driver training Gates in left in position found	1. Trivial	D. Occasional	Low
37	Pipeline maintenance - Slashing and clearing	Slasher / mulching	Slashing of non-target vegetation	Damage or loss of protected flora species or habitat areas. Soil erosion, Sedimentation resulting in a decrease in water quality. Disturbance to known or unidentified aboriginal site.	3. Severe	D. Occasional	Intermediate		Environment Plan, Regular inspection and monitoring, Authorisation to Clear Vegetation (ACV), Landholder liaison. Clearing permit. Restrict/minimise activity in waterways.	3. Minor	C. Unlikely	Low
38	Pipeline excavation	Open excavation	Excavation left open overnight	Native fauna and or livestock fall into the excavation resulting in injury and death. Decrease in population of protected species.	2. Minor	D. Occasional	Low		Fence excavation in sensitive areas, Environment Plan, Identify potential sites, Continual liaison with landholders and include in all project aspects. Trench management controls	1. Trivial	D. Occasional	Low
39	Excavation	Degradation of top soil and impact flora	Machinery used for clearing and excavation	Scouring of water course bank, loss of species	3. Severe	D. Occasional	Intermediate		ACV, Top Soil and subsoil stockpiled separately. Rehabilitation of non-operational areas, Native Vegetation	2. Minor	C. Unlikely	Low

									Clearance Procedure. Stormwater Management Plan and design. Infiltration basin.			
40	Excavation for inspection	Disturbance to Unearth cultural heritage artefacts or site	Machinery used for clearing and excavation	Disturbance of and / or damage to cultural heritage site or artefacts	3. Severe	C. Unlikely	Intermediate		Cultural Heritage Site listed on GIS - standard operating procedures, staff training and awareness.	3. Severe	B. Remote	Low
41	Pipeline excavation	Potentially acid forming soils at depth Fill introduces weeds	Excavation through Acid Sulphate Soil	When exposed to air formation of sulphuric acid, Groundwater and / or surface water contamination, Damage to aquatic organisms and ecosystems, Corrosion of pipeline. Weeds	3. Severe	C. Unlikely	Intermediate		Assess potential ASS Impacts and if required investigate or develop an Acid Sulphate Soil Management Plan (ASSMP), Treatment in line with DWER guidelines Minimise exposure time to less than 18 hours where practicable. Fill certified weed and seed free	2. Minor	B. Remote	Negligible
42	Pipeline watercourse crossings	Erosion, Flora, Heritage	Clearing of riparian vegetation	Scouring of water course bank, loss of species and habitat area. Disturbance within aboriginal site of ethnographic significance.	3. Severe	C. Unlikely	Intermediate		Don't clear / trim riparian zone unless essential - consider relocation of signs. Stick to existing tracks. Route selection. Only drainage lines located on route	2. Minor	B. Remote	Negligible
43	Pipeline watercourse crossings	Vehicle	Vehicles drive through watercourse	Damage to watercourse banks and bed, Damage to riparian vegetation, introduction or spread of waterborne weeds	3. Severe	D. Occasional	Intermediate		Stick to existing tracks	2. Minor	B. Remote	Negligible
44	Pipeline watercourse crossings	Erosion	Bank re-contoured and restored post flood	Inadequate revegetation of riparian zone, Erosion of bank, Sedimentation resulting in a decrease in water quality, Decrease in depth of cover or exposure of pipeline, Loss of pipeline integrity.	3. Severe	C. Unlikely	Intermediate		Regular patrol, particularly post cyclones	2. Minor	B. Remote	Negligible
45	Pipeline operation / maintenance grit blasting/painting	Noise, Grit, Paint, Thinners	Dust and Noise emission	Disturbance of landowner.	2. Minor	D. Occasional	Low		Use of wire brush technique, Adequate equipment, Enclose operations, Conduct operations during daylight hours, Standard Operating Procedures, Landholder liaison	1. Trivial	C. Unlikely	Negligible
46	Pipeline operation / maintenance grit blasting/painting	Grit, paint or thinners	Spill or overspray of grit, paint or thinners	Soil contamination, Detrimental effect on native flora.	2. Minor	D. Occasional	Low		Standard procedures, JHA (Job Hazardous Analysis), capture of waste material (overspray) Training and competency of operators.	1. Trivial	C. Unlikely	Negligible

47	Pipeline borrow pits	Erosion	Inadequate restoration of borrow pit area, Inappropriate excavation of materials	Inadequate revegetation, cave in. Unstable ground, Soil Erosion, weeds, Changes to natural drainage. Aesthetics visual.	2. Minor	D. Occasional	Low		Erosion procedure Rehabilitation non-operational areas Stick to existing tracks Native Vegetation Procedure including stockpile management	1. Trivial	C. Unlikely	Negligible
48	Clear and grade	Impact to native vegetation and fauna	Over clearing, clearing of threatened species	Inadequate survey, inadequate pegging, lack of onsite approval process, failure to follow ground disturbance permit	3. Severe	d. Occasional	Intermediate		Native Vegetation Procedure Clearing Approvals Ground Disturbance permit (or equivalent) Survey review – pegging of clearing locations Prestart reviews with personnel on approved clearing area Operator competency	2. Minor	C. Unlikely	Low
49	Corridor Maintenance	Access /Interference	Third party access	NCC – outside of DBP control (environmentally) Safety Awareness completion – Third party approval process								
50	Waste incineration, including odorant waste	NAI										
51	Construction Planning	Pre planning	Construction	Disturbance to infrastructure, nearby residents and land use activities. Increase public risk from site of project.	4. Major	C. Unlikely	High		Engage in early consultation with land users regarding proposed works Identify and obtain all necessary approvals	2. Minor	C. Unlikely	Low
52	ESA impacts	Activities associated with Environmentally Sensitive Areas	Clearing of vegetation	Clearing of vegetation and flora in environmentally sensitive areas.	3. Severe	C. Unlikely	Intermediate		Minimise clearing footprint Avoid ESAs where possible Obtain approvals where required	2. Minor	B. Remote	Negligible

53	Clearing	Clear and Grade Vegetation maintenance	Clearing of vegetation	<p>Impacts on vegetation and flora</p> <p>Disturbance to declared rare flora (DRF)</p> <p>Impacts on fauna</p> <p>Spreading of weeds to detriment of native vegetation</p> <p>Impacts on watercourses, wetlands, ground or surface water</p> <p>Spread of dieback to detriment of native vegetation</p> <p>Cultural Heritage disturbance</p> <p>Noise</p> <p>Dust generation</p>	4. Major	C. Unlikely	High		<p>Native Vegetation Clearance Procedure</p> <p>ACV process</p> <p>Minimise clearing footprint</p> <p>Maintain GIS database</p> <p>Conduct pre-clearing checks</p> <p>Obtain approvals as required</p> <p>Where possible, avoid disturbance to trees with large hollows</p> <p>Inspection of habitat trees prior to felling</p> <p>Brush down soil material prior to entry to COE areas</p> <p>Avoid construction near surface waters and wetlands where possible</p> <p>Maintain within DBNGP or gain cultural heritage approvals as required</p> <p>Stop work and create buffer zones if cultural material found</p> <p>Use and maintain proper equipment</p> <p>Trained and competent operators</p> <p>Plan to avoid noisy work during sensitive times or close to sensitive receptors</p> <p>Minimise earthworks in windy conditions</p> <p>Use water spray or other suppressants to manage dust.</p>	3. Severe	B. Remote	Low
54	Construction	<p>Trenching and Excavation (incl dewatering)</p> <p>Erosion, clearing, water diversion, fauna impacts</p> <p>ASS, Heritage</p>	Trenching excavation and	<p>Alteration to hydrological regimes (surface drainage) and sedimentation.</p> <p>Soil erosion</p> <p>Fauna impacts (death / injury by falling into excavation or by trenching)</p> <p>Damage to other land uses</p> <p>Disturbance to ASS</p> <p>Cultural Heritage disturbance</p>	3. Severe	C. Unlikely	Intermediate	Pipeline design (including depth) and route	<p>Fauna Interaction Procedure</p> <p>Fauna handlers prior to any clearing</p> <p>Daily fauna inspections of trench and excavations</p> <p>Trench Management Controls</p> <p>Soil stockpiles segregate topsoil and subsoil and vegetation stockpiled separately</p> <p>Soil stockpiles inspected for erosion and controls applied as required</p> <p>ASSMP implemented as required</p> <p>ACV reviews cultural heritage impacts</p> <p>Notification to other stakeholders / service providers</p> <p>Erosion Procedure</p> <p>Dewatering managed to minimise erosion as per DWER guidelines</p> <p>Dewatering volumes measured</p> <p>Dewatering process inspected every two hours while in operation</p>	2. Minor	B. Remote	Negligible
55	Construction	Drilling/boring	HDD boring or drilling for anodes / foundations	<p>Soil erosion.</p> <p>Sedimentation</p> <p>Disturbance to ASS</p> <p>Contamination of surface and/or ground water</p> <p>Noise</p>	3. Severe	C. Unlikely	Intermediate	Pipeline design (including depth) and route	<p>Erosion Procedure</p> <p>Erosion controls and monitoring of mud collection areas</p> <p>Approvals for any hazardous chemicals in place prior to use</p> <p>ASS investigation conducted if required</p> <p>Daily fauna inspections of mud pits</p> <p>Stockpiles segregated and separated as required under Native Vegetation Clearance Procedure</p>	1. Trivial	D. Occasional	Low

56	Bushfire	Hot works and vehicle movements Smoking	Hot work, ignition source use	Potential to cause fire that will impact on flora, fauna and other land uses.	4. Major	D. Occasional	High	Spark arrestors, diesel fuel vehicles	Native Vegetation Clearance Procedure No hot works next to or on vegetation Knowledge of local fire bans and inclusion of risk in JHA Fire equipment as required Emergency Response Plan Gas testing PTW Designated smoking areas Fire response training for selected personnel Trained and competent operators	3. Severe	B. Remote	Low
57	Chemical use in testing phases (including disposal of hydrotest water)	Testing and Commissioning	Abrasives, corrosives and cleaning and paint products	Erosion Contamination of local environment	3. Severe	C. Unlikely	Intermediate	Avoid chemical use in hydrotesting where possible	Water testing Approved chemicals only to be used in hydrotesting Management for collection of waste prior to disposal NATA accredited lab for water testing Biodegradable chemicals if possible Reuse of water for other sections if possible Erosion controls in place for any onsite or offsite disposal Waste products disposed of licensed contractor Hazardous waste managed as per Hazardous Materials Storage and Handling Procedure	2. Minor	B. Remote	Negligible
58	Trench backfill Pipe installation	Lowering-in, padding and backfilling	Pipeline construction	Trapping of fauna in trench. Dust	2. Minor	E. Frequent	Intermediate		Inspections prior to backfill, trained and licensed fauna handlers Minimise open trench time Where possible do not leave open over night Capping of open pipes Inspection of pipes prior to lowering in Dust suppression	2. Minor	B. Remote	Negligible
59	Rehabilitation	Lack of clean-up and poor rehabilitation success	Post construction	Lack of vegetation can lead to erosion, Sedimentation, Visual amenity and alterations in hydrological regimes. Disturbance to existing vegetation. Dust	3. Severe	C. Unlikely	Intermediate		Maintenance of drainage lines and culverts/drains as required for projects and DBP access roads and tracks Monitoring of rehabilitation success Signage of rehabilitation areas Induction Dust suppression	2. Minor	B. Remote	Negligible
60	Hot works and vehicle use	Vehicle Use Hot works Ignition sources	Vehicle use and access to sites, hot works	Destruction to native vegetation Bushfire Fauna death / injury	3. Severe	C. Unlikely	Intermediate	Vehicle specifications	Do not drive over vegetation, stick to access tracks Maintenance of access tracks No hot works adjacent to or on vegetation Hot Works Procedure Firebreaks at facility compounds Bushfire controls	3. Severe	B. Remote	Low
61	Water use	Groundwater abstraction	Water needs for project including dust suppression and construction water	Hydrological changes Groundwater drawdown Impact to groundwater dependent ecosystems,	3. Severe	D. Occasional	Intermediate	Abstraction monitoring	Monitoring of water abstraction to license conditions GWL / SWL in place Consultation with local landholders / pastoral leases No abstraction without permit in place	2. Minor	C. Unlikely	Low

				Impact to other groundwater users.						
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