

Plan

QSN.2373-PL-HSE-0002

**QSN Link Pipeline, QSN
Expansion Pipeline and Moomba
Interconnect Pipeline
Statement of Environmental
Objectives**

Version Control and Authorisation

Version	Date	Status	Originated /Custodian	Checked	Checked	Approved
1.2	29/08/25	Revision based on DEM feedback.	David Geng, Senversa	Alice Skipper, Senversa	Michelle Jennings, APA	
1.1	16/04/25	Draft for APA Review	Victoria Lampe, Senversa	Alice Skipper, Senversa		
1	21/04/20	Issued for use.			-	
			Angela Gamble Environment Lead	Glenn Platt Senior Technical Regulatory Specialist	-	Alice Rawlinson Manager Environment & Heritage
0.7	21/04/20	Finalised following DEM feedback.	Angela Gamble Environment Lead	Glenn Platt Senior Technical Regulatory Specialist		Alice Rawlinson Manager Environment & Heritage
0.6	31/03/20	Updated following DEM Stakeholder Consultation feedback	Angela Gamble Environment Lead	Glenn Platt Senior Technical Regulatory Specialist	-	Alice Rawlinson Manager Environment & Heritage
0.5	6/12/19	Revision based on DEM feedback.	Angela Gamble Environment Lead	Glenn Platt Senior Technical Regulatory Specialist	-	Alice Rawlinson Manager Environment & Heritage
0.4	11/11/19	Revision based on DEM feedback.	Angela Gamble Environment Lead	Glenn Platt Senior Technical Regulatory Specialist	-	Glenn Platt Senior Technical Regulatory Specialist
0.3	05/08/19	Minor changes based on DEM feedback	Angela Gamble Environment Lead	Glenn Platt Senior Technical Regulatory Specialist	Paul Thorley Manager Operations QLD	Alicia Zillman Manager Environment & Heritage
0.2	25/07/19	Incorporation of DEM comments	Angela Gamble Environment Lead	Glenn Platt Senior Technical Regulatory Specialist	Paul Thorley Manager Operations QLD	Alicia Zillman Manager Environment & Heritage
0.1	16/04/19	Updated into current National APA Environment Plan template; Five yearly renewal; new document number.	Lisa Graham	Glenn Platt	Paul Thorley	Alicia Zillman
C (POL 1-16)	17/12/13	Incorporate changes from Govt. Dept.s	M. McLeod	J Bryan	-	M. Cave
B (POL 1-16)	10/9/13	Review and update	B. Jayatilaka & M. McLeod	M. Vine	-	M. Cave
A (POL 1-16)	21/01/13	First Issue	M. Vine	J. Bryan	-	M. Cave

Distribution Record

Version No	Name / Location	Date
1.0	Issued for Use	21/04/2020
2.0	XX	xx/xx/2025

Revision History

Version No	SUMMARY OF AMENDMENT	Date
0.1	Updated in line with APA National Environment Management Template; Construction activities removed; Five-yearly renewal	16/04/2019
0.2	Incorporation of Department for Energy and Mining comments	25/07/2019
0.3	Minor changes based on Department for Energy and Mining feedback	05/08/2019
0.4	Amendments following Department for Energy and Mining feedback	11/11/2019
0.5	Minor edits following Department for Energy and Mining feedback	19/12/2019
0.6	Updates following DEM Stakeholder Feedback	03/04/2020
0.7	Finalised following feedback from DEM	21/04/2020
1.0	Issued for use	21/04/2020
1.1	Draft for APA Review	12/03/2025
1.2	Draft for DEM Review	29/08/2025

Table of Contents

1	Introduction.....	5
1.1	Background.....	5
1.2	Location	5
1.3	Timeframe.....	5
1.4	Purpose.....	10
1.5	Regulatory Definitions.....	10
1.6	Pipeline Operations and Maintenance Activities	11
2	Environmental Objectives	12
2.1	Operations and Maintenance.....	12
2.2	Decommissioning	14
3	Assessment Criteria.....	15
4	Reporting.....	16
4.1	Immediately Reportable Incidents	16
4.2	Reportable Incidents	16
4.3	Other Reporting Requirements.....	17
4.4	Reportable Incident Definitions.....	17
5	Abbreviations.....	19
6	Definitions	20
7	References	21
	Appendix 1 – Objectives, Assessment Criteria and Leading Performance Criteria.....	22
	Appendix 2 - Goal Attainment Scaling Criteria for Borrow Pit Rehabilitation	41

List of Figures

Figure 1 Pipeline Locality Maps.....	4
Figure 2 GAS Criteria Tables for the Rehabilitation of Borrow Pits in the Cooper Basin SA (Jacobs SKM 2014) .	42

List of Tables

Table 1 Pipeline Licence Details	6
Table 2 Operation and Maintenance Objectives	12
Table 3 Decommissioning Objectives	14
Table 5 Reportable Incident Definitions.....	17
Table 6 Abbreviations	19
Table 4 Definitions	20

1 Introduction

This Statement of Environmental Objectives (SEO) is for the operation of:

- Pipeline Licence 18 (PL18) – QSN Link (Ballera Qld to Moomba SA)

This SEO has been prepared by APA Group in accordance with the requirements of Section 99 of the South Australian *Energy Resources Act 2000* (ER Act) and the *Energy Resources Regulations 2013* (ER Regs).

This SEO is based on the previously-approved Epic Energy SEO Q-02-102-LAE-G-002 prepared by RPS Ecos on behalf of Epic Energy, and the previously approved SEO prepared by APA Group QSN.2373-PL-HSE-0002 (Version 1, dated 21/04/2020).

1.1 Background

APA (SWQP) Pty Limited (ABN 67 066 656 219), a wholly owned subsidiary of the APA Group, holds the licence for, and operates the Queensland, South Australia and New South Wales (QSN) Link and the QSN Expansion Gas Pipeline, covered by Pipeline Licence (PL) PL18.

The QSN Link and QSN Expansion Pipeline transport natural gas between APA's Moomba Compressor Station in South Australia (SA) and the South West Queensland Pipeline (SWQP) Ballera Gas Facility in Queensland (Qld). Both pipelines are bi-directional transporting sales quality natural gas between the SWQP at Ballera, the Moomba to Adelaide Pipeline (MAP) and the Moomba to Wilton Pipeline (MWP) at Moomba.

The QSN Link is approximately 182.7 km in length and has a nominal outside diameter of 400 mm. The QSN Expansion is approximately 182.7 km in length and has a nominal outside diameter of 450 mm. The pipelines are contained within a common easement. The pipelines traverse SA for 92.6 km (KP90.1 to KP182.7 measured from Ballera) and are subject to the conditions of PL18.

Also included in PL18 is a section of the 650 mm nominal diameter Moomba Interconnect Pipeline (MIP), approximately 374 m long from the Moomba Compressor Station to the intersection of the PL7 easement. The remaining section of the MIP is within PL7.

The scope of this SEO covers the SA section of the QSN Link, the QSN Expansion Pipeline and the MIP, herein collectively referred to as 'The Pipeline'.

1.2 Location

The South West Queensland Pipeline System is located in rural, regional and remote areas of SA and Qld.

The SWQP traverses 65 Freehold and 43 Leasehold properties in Queensland. The pipeline passes through the Maranoa Regional Council, Murweh Shire Council, Quilpie Shire Council and Bulloo Shire Council areas.

Land use associated with the broader regional area is predominantly for agricultural and grazing purposes, oil and gas production as well as tourism and conservation. Most of the project area is sparsely populated and remote from residential communities with the nearest townships located between 13 km and 32 km north of the existing pipelines.

The QSN is located within the Shire of Bulloo (QLD) and the Pastoral Unincorporated Area (SA) which is managed and governed by the Outback Communities Authority (OCA).

The QSN Link crosses three active pastoral stations, two of which are in the South Australian section of the Pipeline. The region is also used for oil and gas production, and there is significant oil and gas infrastructure crossing or paralleling the pipeline route in numerous locations.

The route passes through the Innamincka Regional Reserve in South Australia for approximately 55 km. This is a multiple use reserve, and is managed under a conservation framework while permitting the sustainable use of resources (i.e. oil and gas production and grazing). The South Australian Department for Environment and Water have specific requirements for operation in this reserve.

1.3 Timeframe

The SWQP was commissioned in 1996 with a design life of 50 years.

The QSN Link was commissioned in 2008 with a design life of 50 years.

The SWQPE and QSNE were commissioned in 2012 with design life of 50 years.

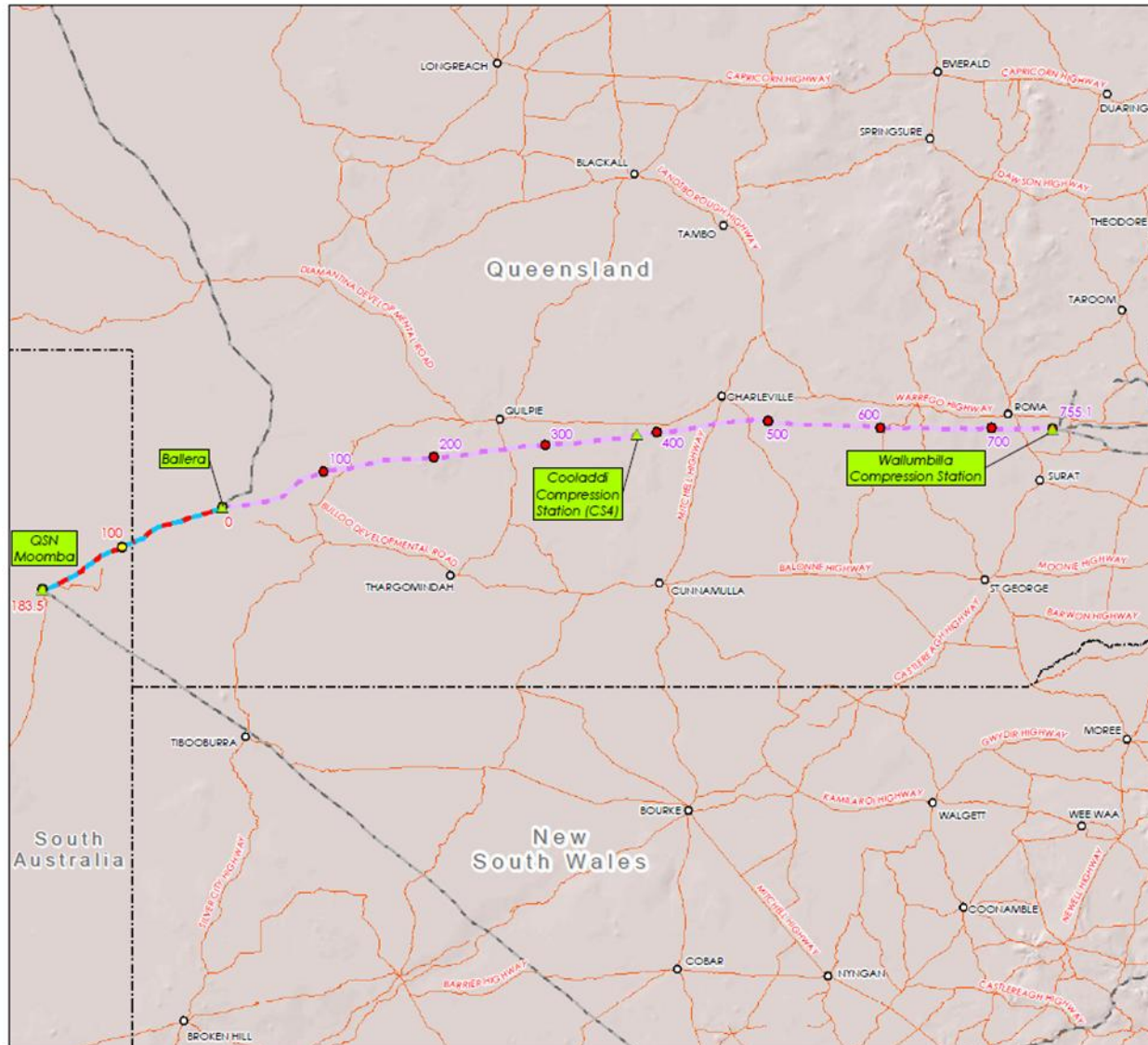
The pipelines were designed to AS 2885 as applicable at the time of design. The pipelines are operated to the current version of AS 2885 and the APA Group pipeline management system. Remaining life reviews are required to be carried out at typically 10-year intervals.

Please refer to Table 1 below for The Pipeline Licence Details.

Please refer to Figure 1 below for The Pipeline Locality Maps.

Table 1 Pipeline Licence Details

Pipeline Licence	Licensee	Date of Issue	Expiry Date
PL 18	APA (SWQP) Pty Limited	7 April 2008	6 April 2029





APA Group
 Phone: +61 1800 941 15
 Web: www.apa.com.au

PROJECT:	SWQP and QSN Pipeline O&M
TITLE:	Overview Map
SUBTITLE:	Revision 0.1
DATE:	8/02/2019
DATA SOURCE:	Geoscience Australia 2016 - Locations

LEGEND:

- SWQP Kilometre Points
- QSN Kilometre Points
- ▲ APA Site
- Town
- APA Asset
- QSN Link (Moomba - Ballera)
- South West Queensland Pipeline (Ballera - Wallumbilla)
- Primary Road
- State Border

DOCUMENT NUMBER: 560-MAP-L-0590

Revision	Drawn	MR	ES	PA	08/02/19

SCALE: 1:3,750,000 @ A3 GCS GDA 1994

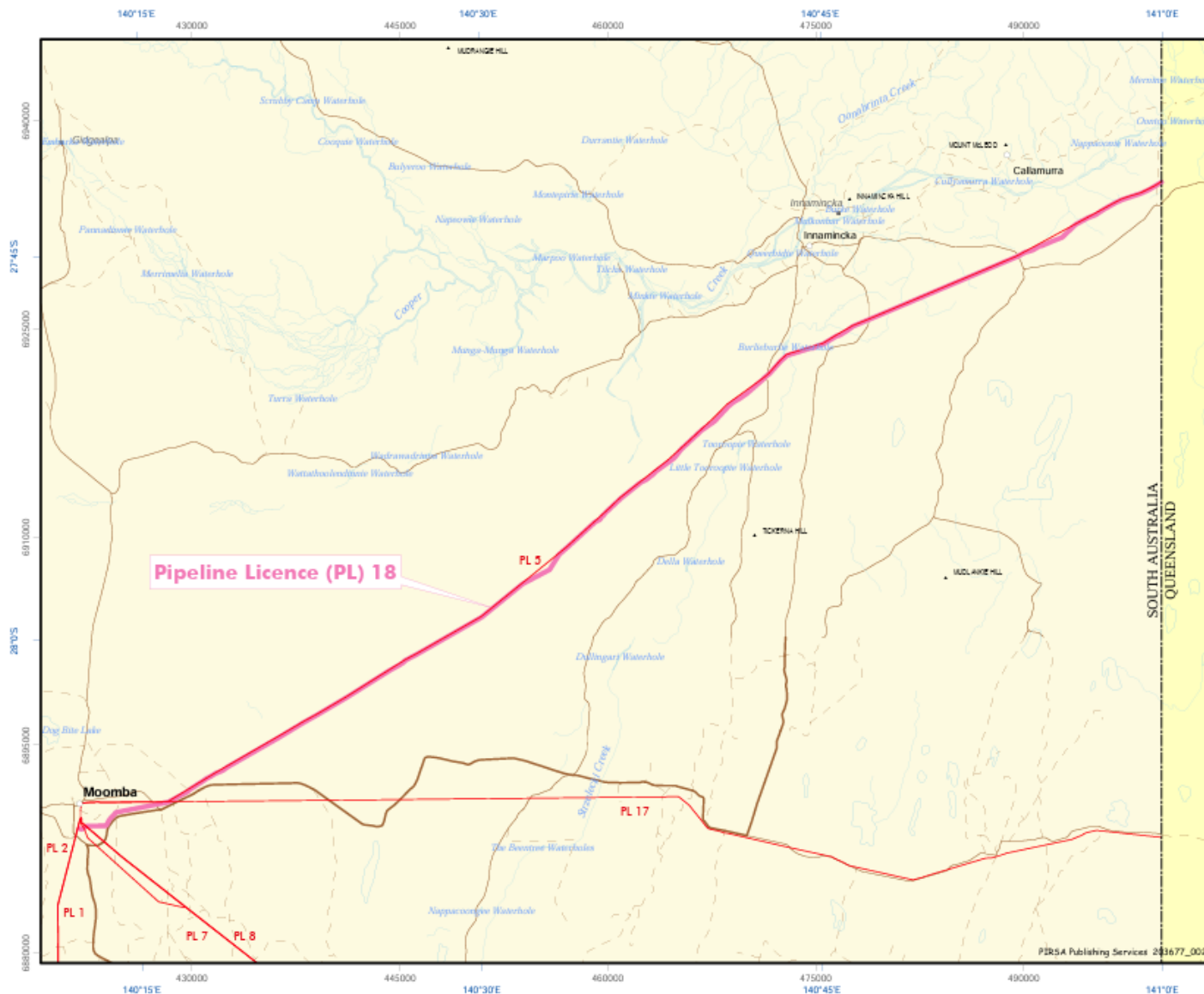
0 50 100 200
Kilometres

LOCATION DIAGRAM



NT
QLD
SA
NSW

APA Group does not guarantee the accuracy or completeness of the map and does not warrant liability for any loss or damage resulting from the use of the map. This map is controlled and the information and data contained in it are the property of APA Group. © APA Group 2019

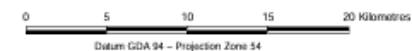


Topography

- Town
- Locality
- Homestead
- ▲ Hill
- Watercourse
- Lake/waterhole
- Highway
- Secondary road
- Minor road
- Track

Petroleum tenements

- Pipeline Licence 18 – Ballera to Moomba
- Petroleum Pipeline Licence (PL)



Petroleum Act 2000 Schedule 2 PIPELINE LICENCE 18 Ballera to Moomba Pipeline

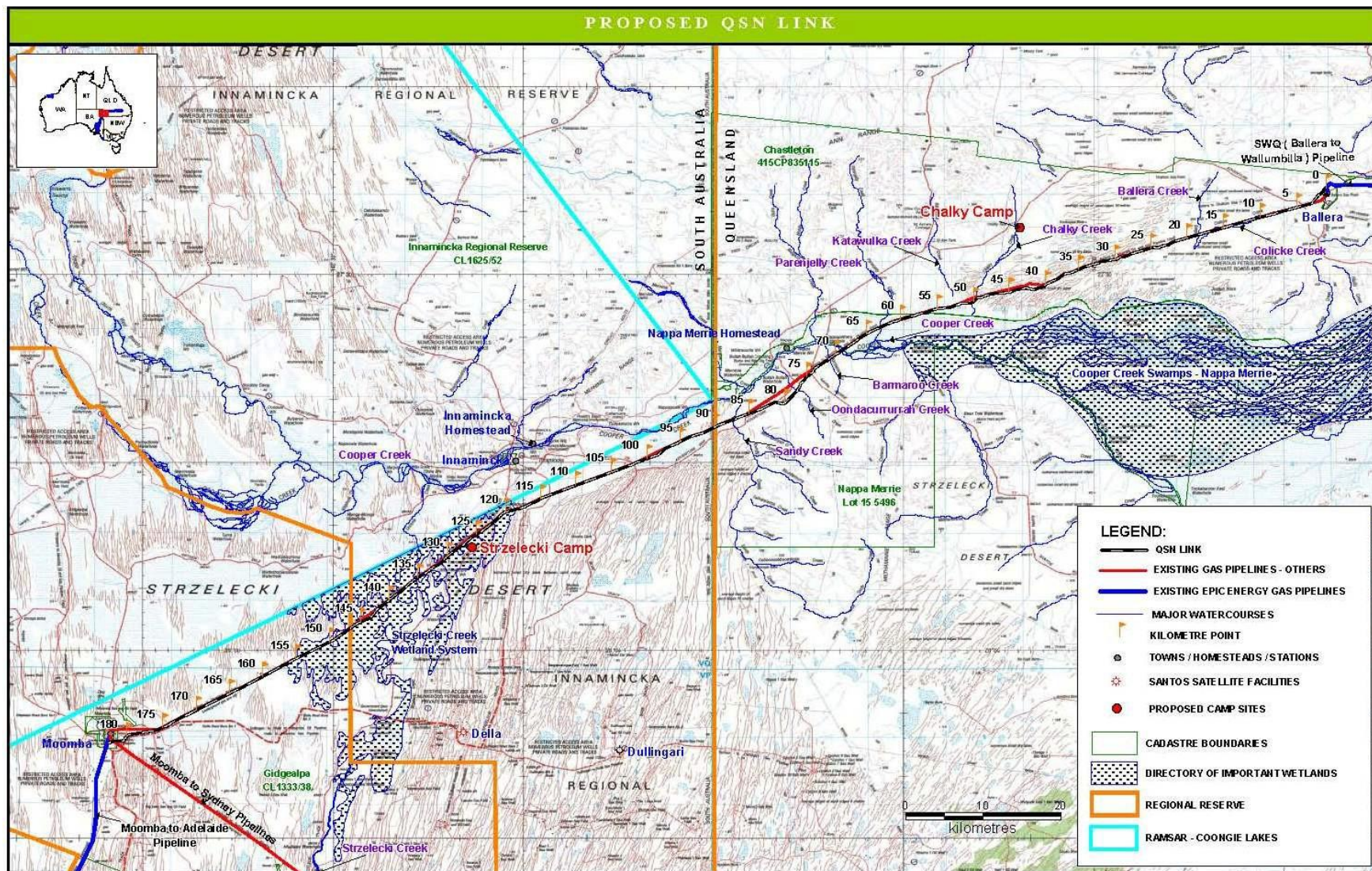


Figure 1 Pipeline Locality Maps

1.4 Purpose

The purpose of this SEO is to outline the environmental objectives to which The Pipeline operation, maintenance and decommissioning activities will conform and the criteria upon which the achievement of these objectives will be assessed.

The objectives of this SEO have been developed on the basis of information and issues identified in the QSN Link Pipeline, QSN Expansion Pipeline and Moomba Interconnect Pipeline Environmental Impact Report (QSN.2373-PL-HSE-0001)(EIR) and are in keeping with the objectives of the ER Act, which include:

- To ensure that regulated activities that may have adverse effects on the environment:
 - Are properly managed to reduce environmental damage; and
 - Are carried out in a way that eliminates or limits the risk of significant long term environmental damage; and
- To ensure that land adversely affected by regulated activities is properly rehabilitated; and
- To establish appropriate consultative processes involving people directly affected by regulated activities including Aboriginal people and the public generally; and
- To protect the public from risks inherent in regulated activities.

In accordance with section 100 of the ER Act this SEO:

- States environmental objectives that must be achieved in carrying out the regulated activity;
- States criteria to be applied to determine whether the stated environmental objectives have been achieved in a particular case; and
- Sets out:
 - leading performance criteria;
 - immediately reportable incidents and reportable incidents; and
 - such other information as prescribed by the regulations.

1.5 Regulatory Definitions

Environment is defined in the ER Act to include:

- Land, air, water (including both surface and underground water and sea water), organisms, ecosystems, flora and fauna; and
- Buildings, structures and other forms of infrastructure and cultural artefacts; and
- Existing and potential land use; and
- Public health, safety or amenity; and
- The heritage, aesthetic or cultural values of an area; and
- The economic or social impact on an area.

The environmental objectives outlined in this SEO incorporate these aspects.

Leading Performance Criteria means criteria used to give an early warning that a control or other strategy necessary for compliance with a statement of environmental objectives is absent or may fail or be failing.

Natural gas means petroleum that is, or would be, gaseous, at Standard Temperature and Pressure.

Pipeline means a pipe or system of pipes for conveying a regulated substance from place to place and includes:

- Tanks, machinery and equipment necessary for, or associated with, its operation; and
- A part of a pipeline.

Petroleum refers to a naturally occurring substance consisting of a hydrocarbon or mixture of hydrocarbons in gaseous, liquid or solid state.

Regulated Activity has the same meaning as defined in Section 10 of the ER Act.

1.6 Pipeline Operations and Maintenance Activities

This SEO applies to all APA Group pipeline operation, maintenance and decommissioning activities relating to PL18. Operational and maintenance activities that are covered by this document include:

- Easement maintenance including:
 - Patrolling / inspections (including aerial inspections) – easement access.
 - Weed control.
 - Line-of-sight clearance.
- Pipeline operations including:
 - Cathodic protection surveys.
 - Testing and inspection of relief valves.
 - Erosion events.
 - Emissions (methane gas release).
- Pipeline maintenance including:
 - Pigging and integrity testing.
 - Excavations, including coating refurbishment, installation of anode beds, emergency response exercises and new tie-ins.
 - Replacement of pipeline section.
 - Welding.
 - Coating.
 - Hydro-testing.
- Facility operation and maintenance including:
 - Metering and gas delivery stations.
 - Weed control.
 - Production of hazardous waste.
 - Waste disposal.
 - Station blow downs.
 - Upgrades.

These activities are described in detail in Pipeline Licence 18 and Section 3.3 of the QSN Link Pipeline, QSN Expansion Pipeline and Moomba Interconnect Pipeline EIR.

2 Environmental Objectives

Potential environmental hazards and consequences associated with the operation and maintenance of The Pipeline and associated facilities have been identified in the EIR.

2.1 Operations and Maintenance

Regulation 12(3)(a) of the ER Regs requires that objectives be included in this SEO that relate to dealing with impacts on various elements of the environment, associated with carrying out the regulated activity.

The objectives for the environmental management of The Pipeline, during operations and maintenance, are provided below in Table 2. These objectives have had the Assessment Criteria, outlined in Section 3 below, applied to them to determine whether or not they can be achieved in a particular case. The full environmental impact assessment is detailed in the EIR.

Note that the construction of the QSN Expansion Pipeline was completed in 2011 and no further pipeline construction activities are anticipated in the foreseeable future, therefore, the objectives for environmental management during Pipeline construction have been removed.

To ensure the overall objectives are achieved, specific goals have also been prepared for each objective, to ensure the objectives can be achieved.

Table 2 Operation and Maintenance Objectives

Objective	Goal
1. To avoid or minimise adverse impacts on soils and terrain during operation and maintenance and to maintain soil stability / integrity on the easement	1.1 To minimise soil erosion and sedimentation as a result of pipeline maintenance and to remediate in a timely manner when due to operations
	1.2 To reinstate soil and terrain as near as practicable to pre-maintenance contours and conditions
	1.3 To prevent soil inversion
	1.4 To remediate erosion or subsidence as a result of pipeline operations in a timely manner
2. To minimise and manage impacts to water resources, including aquatic ecosystems	2.1 To minimise short term, and prevent long-term, interruption or modification to surface drainage patterns
	2.2 To minimise the amount of sediment entering surface water features
	2.3 To minimise disruption to third party use of surface waters
	2.4 To maintain current surface drainage patterns
3. To avoid land or water contamination and minimise impacts to terrestrial and aquatic ecosystems	3.1 To prevent spills occurring and if they occur minimise their impact
	3.2 To ensure that rubbish and waste material are disposed of in an appropriate manner
	3.3 To prevent impacts as a result of hydro test water, trench water and waste water (e.g. wash-down water) disposal
	3.4 To ensure the safe and appropriate disposal of facility wastewater (grey water, sewage)
4. To minimise adverse impacts to vegetation and fauna	4.1 To minimise clearing of remnant vegetation
	4.2 To minimise disturbance to fauna
	4.3 To appropriately rehabilitate the easement to pre-maintenance condition, as reasonably practical
	4.4 To achieve a significant environmental benefit for native vegetation clearance
	4.5 To promote and maintain regrowth on the easement to be consistent with surrounding area
	4.6 To minimise additional clearing of native vegetation as part of operational activities
	4.7. To ensure operation and maintenance activities are planned and conducted in a manner that minimises impacts on native fauna

Objective	Goal
5. To avoid the spread of weeds and pathogens	5.1 To avoid the introduction or spread of weeds and pathogens and undertake control where required
6. To minimise and manage impacts to heritage sites and values during operations and maintenance	6.1 To ensure that identified heritage sites are not disturbed
7. To minimise noise due to operation and maintenance activities	7.1 To minimise noise impacts associated with the movement and operation of vehicles and equipment
8. To minimise atmospheric emissions	8.1 To minimise the generation of dust
	8.2 To eliminate uncontrolled atmospheric emissions
	8.3 To comply with air quality requirements
9. To minimise disturbance to third party infrastructure, landholders and land use	9.1 To minimise disturbance or damage to infrastructure / land use and remediate where disturbance cannot be avoided
	9.2 To minimise disturbance to landholders
	9.3 To appropriately reinstate and rehabilitate the easement to allow continuation of current land use activities post-maintenance
10. To minimise the risk to public health and safety	10.1 To prevent injury to general public and adequately protect public safety during operations
	10.2 To avoid fires associated with pipeline maintenance activities
	10.3 To prevent unauthorised activity on the easement that may adversely impact on the pipeline integrity
11. To minimise risk to the public from wastewater	11.1 To ensure that all wastewater (not from industrial processes) is collected, treated and disposed of to not adversely impact on health or the environment.
	11.2 To ensure that there is no untreated wastewater exposed to the open environment or discharged directly into the ground.
12. To ensure that security of natural gas supplies are maintained to gas consumers.	12.1 To minimise the potential for significant disruption of gas supply to customers in line with contractual agreements.

2.2 Decommissioning

A natural gas transmission pipeline can potentially have an indefinite operational lifespan; however as The Pipeline ages the level of maintenance required will increase. The original design life of The Pipeline was 50 years. Ongoing condition assessments are conducted on the pipeline in accordance with the requirements outlined in the most recent revision of *AS 2885.3-2001: Pipelines – Gas and liquid petroleum – Operation and maintenance* (AS2885).

Fitness for Purpose assessments, under the requirements of Section 30 of the ER Regs are also conducted. These assessments involve engineering investigation of the design, operating conditions, integrity assessments and the history of The Pipeline to determine the condition and any limits for continued safe operation.

In the event that the utility is no longer required, The Pipeline will be decommissioned in accordance with AS 2885 and the regulatory requirements and accepted current environmental best practices of the day.

Please refer to Table 3 for the decommissioning objectives.

Table 3 Decommissioning Objectives

Objective	Goal
13. To appropriately decommission the pipeline in accordance with regulatory requirements and accepted best practice environmental management	13.1 To safely decommission the pipeline and associated above-ground infrastructure in accordance with appropriate regulatory requirements
	13.2 To minimise disturbance to landholder and other third party stakeholders

3 Assessment Criteria

The environmental objectives, outlined in Section 2 above, are subject to an assessment to measure the level of achievement. The full environmental impact assessment is detailed in the EIR.

The assessment criteria (used to undertake the environmental impact assessment) have been prepared in accordance with:

- DEM's Environmental Impact Assessment Criteria (EIAC) (Energy Information Sheet 014, July 2024); and
- DEM's EIAC Guidelines (ERG 015, June 2024) prepared by DEM (dated June 2024).

Assessment Criteria – the *Assessment Criteria* in this SEO have been detailed to outline the criteria used by APA to inform the effectiveness of their management measures. Assessment criteria for each item have been developed in line with one of the following:

- Defined conditions – objectives for activities that can only be managed through the prevention of unacceptable actions (e.g. “No new outbreak or spread of weeds or pathogens as a result of pipeline activities”); and
- Defined requirements – the achievement of an objective can be assessed against the implementation of specific procedures or actions required for an activity (e.g. “Demonstrated compliance with AS2885”).

Goal Attainment Scaling (GAS) Criteria – objectives requiring visual assessment can be prone to uncertainties of subjective judgement. To minimise this occurring, GAS is used to measure such objectives against a series of criteria described by a written description and/or photographically. In this SEO, GAS is applied to measuring construction and restoration of borrow pits where applicable.

Leading Performance Criteria – The Leading Performance Criteria outlined in this SEO have been developed to ensure they give an early warning that a control or other strategy necessary for compliance with the SEO is absent, may fail or is failing, and the environmental objective is at risk of not being achieved, allowing time to respond accordingly.

Appendix 1 below outlines:

- *Impact ID* – a code corresponding to the Impact ID in the EIR;
- *Potential Impact Event* – a combination of the source, pathway and environmental receptor;
- *Environmental Objectives* – objectives that must be achieved for the Operations and Maintenance of the Pipeline (as identified in the EIR);
- *Assessment Criteria* – measures used to assess whether the proposed environmental objective has been achieved;
- *Leading Performance Criteria* – criteria used to give an early warning that a control or other strategy necessary for compliance with the SEO is absent, may fail or be failing;
- *Guide to Achieving Objectives* – which are controls that will be implemented by APA Group to ensure that environmental objectives are achieved. These controls are not intended to be a mandatory regulatory requirement, but are provided to give an indication of the measures that can be implemented to ensure compliance.

4 Reporting

Section 85 of the *Energy Resources Act 2000* classified incidents that must be reported to DEM as either **immediately reportable incidents** or **reportable incidents**.

4.1 Immediately Reportable Incidents

Immediately reportable incidents are defined in Section 85 of the Act as:

- (a) an incident arising from activities conducted under a licence specified in the relevant statement of environmental objectives to be an immediately reportable incident; or*
- (b) any other matter brought within the ambit of this definition by the regulations.*

As per Regulation 32(1) of the *Energy Resource Regulations 2013*, the following are classified as *reportable incidents*:

- (a) an escape of a regulated substance, a processed substance, a chemical or a fuel that affects an area that has not been specifically designed to contain such an escape;*
- (b) an incident identified as a reportable incident under the relevant statement of environmental objectives.*

Immediately reportable incidents must be reported to DEM by telephone ((08) 8463 6666) or email (DEM.Engineering@sa.gov.au) within 24 hours after the licensee becomes aware of the occurrence of the incident (email notification is preferred).

An **immediately reportable incident** initial report should be emailed to DEM and must include (in accordance with Regulation 32(3) of the *Energy Resources Regulations 2013*):

- (a) the name and business address of the licensee;*
- (b) the name and telephone number of a person who can be contacted about the matter;*
- (c) the time and date of the occurrence of the incident;*
- (d) the place where the incident occurred (using GDA 2020 co-ordinates or distances from significant topographical features);*
- (e) in a case involving a spillage — the approximate quantity of the spillage;*
- (f) the approximate size of any area affected by the incident (if relevant);*
- (g) the nature and extent of any injury to a person and, if death has occurred, the cause and place of death;*
- (h) the steps that have been taken to control, minimise or address any damage to any area affected by the incident.*

A comprehensive report must be submitted within three months, including, as per Regulation 32(4) of the *Energy Resources Regulations 2013*:

- (a) the results of any assessment or investigation of the conditions or circumstances that caused or contributed to the occurrence of the incident, including an assessment of the effectiveness of the design, procedures and management systems that were in place to prevent the incident occurring;*
- (b) the nature and extent of any damage to the environment that occurred as a result of the incident;*
- (c) the steps that have been taken, or are proposed to be taken, to clean up and rehabilitate any area affected by the incident;*
- (d) the steps that have been taken, or are proposed to be taken, to prevent a recurrence of the incident.*

4.2 Reportable Incidents

Reportable incidents are defined in Section 85 of the Act as:

- (a) an incident (not being an immediately reportable incident) arising from activities conducted under a licence specified in the statement of environmental objectives to be a reportable incident; or*
- (b) any other matter brought within the ambit of this definition by the regulations.*

As per Regulation 32 of the *Energy Resource Regulations 2013*, the following are classified as reportable incidents:

- (a) an escape of a regulated substance, a processed substance, a chemical or a fuel that affects an area that has not been specifically designed to contain such an escape;
- (b) an incident identified as a reportable incident under the relevant statement of environmental objectives.

Reportable incidents must be reported to DEM on a quarterly basis within 1 month of the end of the quarter, as per Regulation 32 of the *Energy Resources Regulations 2013*.

4.3 Other Reporting Requirements

Other reporting requirements are contained within the *Environment Protection Act 1993* as per below.

Any environmental incidents causing or threatening serious or material environmental harm, or site contamination of underground water must also be reported to the EPA, as per Section 83 and 83A of the *Environment Protection Act 1993*.

4.4 Reportable Incident Definitions

Table 4 sets out the definitions of **immediately reportable** and **reportable incidents** for the purposes of this SEO.

Table 4 Reportable Incident Definitions

Immediately Reportable Incidents	Reportable Incidents
<ol style="list-style-type: none"> 1. A person is seriously injured¹ or killed. 2. An imminent risk to public health or safety arises. 3. Serious environmental damage occurs or an imminent risk of serious environmental damage arises. For example: <ol style="list-style-type: none"> a) Disturbance to sites of cultural and/or heritage significance without appropriate permits and approvals². b) An escape of a regulated substance (including petroleum), a process substance, a chemical or a fuel to a water body, or to land in a place where it is reasonably likely to enter a water body by seepage or infiltration, or onto land that affects the health of native flora and fauna species. c) Detection of a declared weed, animal/plant pathogen or plant pest species that has been introduced or spread as a direct result of activities. d) Any removal of rare, vulnerable or endangered flora and fauna without appropriate permits and approvals³. 4. Security of natural gas supply is prejudiced or an imminent risk of prejudice to security of natural gas supply arises⁴. 5. An event that results in a rupture of a pressure containing asset or facility. 6. A regulated activity⁵ being undertaken in manner that involved or will involve a serious risk to the health and safety of a person emanating from an immediate or imminent exposure to a hazard⁶. 	<ol style="list-style-type: none"> 1. An escape of petroleum⁸, a processed substance, a chemical or a fuel that affects an area that has not been specifically designed to contain such an escape⁷ (other than an immediately reportable incident). 2. An event that has the potential to compromise the physical integrity of an asset or facility. For example: <ol style="list-style-type: none"> a) Activity on a pipeline easement with equipment that has been identified⁷ as exceeding the pipeline's penetration resistance, determined in accordance with Australian Standard (AS) 2885. b) Identification of a through-wall defect on a pipeline⁹ or place component (other than an immediately reportable incident). c) Identification¹⁰ of a partial through wall defect (e.g. through visual inspection, inline inspection, non-destructive testing) that requires repair or replacement action, or a reduction of the Maximum Allowable Operating Pressure to maintain safe operation (other than an immediately reportable incident). d) Activity on a pipeline easement with equipment or vehicles that have been identified⁷ as exceeding allowable stress limits, determined in accordance with AS2885.

Immediately Reportable Incidents	Reportable Incidents
<p>7. Activity on a pipeline easement where the pipeline is contacted and repair action is required⁷.</p> <p>8. An uncontrolled gas release resulting in the activation of emergency response and/or evacuation procedures of an area in or adjacent to the gas release, and or fire or explosion.</p>	<p>e) An unapproved¹¹ excursion outside of critical design or operating conditions/parameters.</p> <p>f) Failure of a critical procedural control in place to reduce a credible threat to low or as low as reasonably practicable (ALARP)¹²</p> <p>3. Unauthorised activity on a pipeline easement where the pipeline is contacted by repair action is not required.</p> <p>4. Malfunction or failure of critical plant or equipment that had (or still has) potential to cause an immediately reportable incident.</p> <p>5. Any event where an incursion outside a culturally cleared area has occurred or the conditions of a cultural heritage clearance have not been complied with (other than an immediately reportable incident)¹³</p> <p>6. Any non-compliance with SEO objectives.</p>

¹ Includes an immediately notifiable work-related injury pursuant to Part 6 of the *Work Health and Safety Regulations 2012* that results in the issuing of a Prohibition Notice by SafeWork SA.

² Pursuant to *Aboriginal Heritage Act 1988* and *Heritage Places Act 1993*.

³ Pursuant to *Native Vegetation Act 1991* (flora) and *National Parks and Wildlife Act 1972* (fauna).

⁴ That is, after taking into account relevant factors on a day and rights and obligations under contracts, a significant curtailment of firm service that detrimentally impacts or is likely to impact upon the security of electricity supply to South Australia or to gas supplies to a significant number of commercial and/or domestic gas users in SA.

⁵ Regulated activity as defined in Section 10 of the *Energy Resources Act 2000*.

⁶ Resulting in the issuing of a prohibition notice by SafeWork SA pursuant to Section 195 the *Work Health and Safety Act 2012*.

⁷ An area assigned during a HAZOP study as a hazardous area for the purpose of gas venting, and designed as such, is considered to be an area specifically designed to contain a gas escape.

⁸ In gaseous, liquid or solid state, as per *Energy Resources Act 2000* definition.

⁹ As per the *Energy Resources Act 2000* definition, the term 'pipeline' includes task, machinery and equipment necessary for, or associated with operation of the pipeline.

¹⁰ For reporting purposes, the incident is considered to have occurred at the time that a decision is made to repair or replace the defect, or reduce the Maximum Allowable Operating Pressure.

¹¹ "Approval" as per AS2885 definition - Note that there may be situations where excursions are allowable under AS2885.

¹² As per the Safety Management System process articulated in Australian Standard (AS) 2885.1-2007, or similar risk assessment process.

¹³ Cultural clearance undertaken by Aboriginal heritage representatives or 'approved' by a Native title organisation does not provide protection to a proponent from a potential breach of the *Aboriginal Heritage Act 1988* (SA). Only authorisation granted by the Minister under section 21 and 23 of the *Aboriginal Heritage Act 1988* (SA) enables a proponent to damage, disturb or interfere with an Aboriginal site, object or remains.

5 Abbreviations

Refer to Table 5 for abbreviations used within this SEO.

Table 5 Abbreviations

Abbreviation	Expansion
ALARP	As Low As Reasonably Practicable
ANZECC	Australian and New Zealand Environment and Conservation Council
AS 2885	Australian Standard AS 2885.3-2001: Pipelines - Gas and liquid petroleum – Operation and maintenance
DEM	Department for Energy and Mining
DEW	Department for Environment and Water
EIA	Environmental Impact Assessment
EIAC	Environmental Impact Assessment Criteria
EIR	Environmental Impact Report
EMP	Environmental Management Plan
EMS	Environmental Management System
EP	Environment Procedures
EPA	Environment Protection Authority
KP	Kilometre Point (measured from Ballera)
MAP	Moomba to Adelaide Pipeline
MIP	Moomba Interconnect Pipeline
MWP	Moomba to Wilton Pipeline
PL	Pipeline Licence
QSN	Queensland-South Australia- New South Wales
ROW	Right Of Way
SA	South Australia
SEB	Significant Environmental Benefit
SEO	Statement of Environmental Objectives
SWQP	South West Queensland Pipeline

6 Definitions

Definitions of the terms used in the SEO are provided below in Table 6.

Table 6 Definitions

Term	Definition
Approval	Refers to approval under the relevant legislation.
Consistent with surrounding land/area	A qualitative assessment of land condition on the easement to determine if condition of the easement is similar to that of adjacent land (i.e. soil, vegetation, landform).
Easement	<p>An easement is a section of land registered on a property title that gives an authority or third party the right to use the land for a specific purpose even though they are not the land owner.</p> <p>Easements acquired are registered on the property title in the name of the acquiring authority. Future landowners remain subject to these easement conditions.</p> <p>The easement document explains the easements obligations and any land-use restrictions that apply to the landowner and anyone else with an interest in the land.</p> <p>The easement allows the acquiring authority (or an authorised third party) to take all actions required to construct, operate and maintain infrastructure in the easement.</p> <p>Note that previously the term Right of Way was used.</p>
Infrastructure	Physical assets which are built on the land (e.g. roads, power poles, fences, railway, troughs, gates, dams, other services).
Landholder	Owner or occupier of the land.
Land use	Use of land e.g. grazing, mining, oil and gas production, access, industrial, residential, environmentally sensitive area, recreational.
Line of sight clearance	Clearing of large vegetation between pipeline markers to maintain a clear line of site between each pipeline marker (e.g. for trees on easement where large trees cannot be retained, vegetation trimmed to height of 1m over pipeline and to 3m either side of centreline). This is to satisfy the operational obligations to ensure pipeline integrity and personnel safety cannot be compromised (i.e. any objective is subservient to these requirements).
Minimise	To reduce as far as possible, considering all other factors (e.g. requirements for safe operations and accessibility).
Pipeline Operation and Maintenance	Refer to Section 1.6 for Pipeline operation and maintenance activities.

7 References

- Department for Energy and Mining, (DEM), South Australia: *Incident Definitions for Facilities and Pipelines Regulated under the Petroleum and Geothermal Energy Act 2000*, SA DEM website http://www.energymining.sa.gov.au/petroleum/legislation_and_compliance/compliance_and_monitoring Access October 2019.
- Epic Energy (2003) *Statement of Environmental Objectives Pipeline Licence No.1*. Prepared by Ecos Consulting for Epic Energy, March 2003.
- Jacobs SKM, (2014) *Review of Current Goal Attainment Scaling (GAS) criteria for borrow pit construction, use and rehabilitation within the Cooper Basin*. Report prepared for the Department for Manufacturing, Innovation, Trade, Resources and Energy, March 2014.
- McDonough, R. (1999). *Goal attainment scaling: a tool for evaluating pipeline environmental performance*. Primary Industries and Resources, South Australia.
- Origin Energy (2005) *SESA Pipeline Statement of Environmental Objectives*. Prepared by Ecos Consulting for Origin Energy, February 2005.
- South Australian Government, Native Vegetation Council, *Guide for a Significant Environmental Benefit for the clearance of native vegetation associated with the Minerals and Petroleum Industry* (2017), SA Department of Environment and Water website <https://www.environment.sa.gov.au/topics/native-vegetation/developers-major-projects-mining>, accessed 13 March 2025.
- South Australian Government, *Energy Resources Act 2000*, SA Government Legislation website <https://www.legislation.sa.gov.au/lz/path=%2FC%2FA%2FEnergy%20Resources%20Act%202000>, accessed 21st February 2025.
- South Australian Government, *Energy Resources Regulation 2013*, SA Government Legislation website <https://www.legislation.sa.gov.au/lz/path=%2FC%2FR%2FEnergy%20Resources%20Regulations%202013>, accessed 21st February 2025.

Appendix 1 – Objectives, Assessment Criteria and Leading Performance Criteria

Operations and Maintenance Objectives, Assessment Criteria and Leading Performance Criteria

The Assessment Criteria shown have been developed to be “black and white”. Professional judgement is required to assess whether non-compliance is minor or major. It is necessary to ensure that adequate information is available to enable this judgement to be made.

The Guide to Achieving Objectives column below is provided for information only. Under the ER Act, only Objectives, Assessment Criteria and Leading Performance Criteria are approved.

ID	Impact Event	Objectives	Goal	Guide to Achieving Objectives	Assessment Criteria	Leading Performance Criteria
Native Vegetation and Fauna Management						
NV1	Clearing and / or works off easement. Scope not clearly defined, new contractor, overspray.	4.0 To minimise adverse impacts to vegetation and fauna	4.1 To minimise clearing of remnant vegetation	<ul style="list-style-type: none"> Retain trees on Easement, where possible. Trim vegetation in lieu of removal, where possible. Restrict disturbance to the Easement and approved access and work areas. Obtain any permits / clearance consent required. 	<ul style="list-style-type: none"> Vegetation and fauna surveys must be carried out by a suitably qualified person and in accordance with relevant regulatory survey standards / guidelines. Vegetation clearing is in accordance with the <i>Native Vegetation Act 1991</i> (NV Act). Vegetation clearance minimised. No unauthorised vegetation clearing. 	<ul style="list-style-type: none"> Prior to commencing an activity that will impact native vegetation / fauna, relevant project / operational manager must ensure necessary statutory approvals, exemptions or agreements obtained and relevant requirements communicated to party responsible for undertaking the works. Work supervisor must ensure that during clearing and land disturbance activities a regular check of compliance with the authorised disturbance boundaries is completed and recorded. Work supervisor must ensure relevant vegetation and fauna management requirements and responsibilities are communicated to relevant workers as part of job prestart / site induction. Potential impacts to protected vegetation and fauna must be assessed in accordance with <i>APA HSE GP 40.00 Environment and Heritage Approvals</i>.

ID	Impact Event	Objectives	Goal	Guide to Achieving Objectives	Assessment Criteria	Leading Performance Criteria
NV2	Vehicle strike (single), equipment or plant interaction and general activities.	4.0 To minimise adverse impacts to vegetation and fauna	4.2 To minimise disturbance to fauna	<ul style="list-style-type: none"> Implement previous measures to minimise impacts to native vegetation. Provision of fauna ramps at regular intervals in open trench. Daily inspection of open trenches and removal of trapped fauna by appropriately trained personnel. Prompt reinstatement of easement. No domestic pets allowed at camps or worksites. No feeding of wildlife (e.g. dingoes). 	<ul style="list-style-type: none"> Native fauna casualties associated with operations restricted to as low as reasonably practical. 	<ul style="list-style-type: none"> Prior to commencing an activity that will impact protected vegetation and fauna, the relevant project or operational manager must ensure necessary statutory approvals, exemptions or agreements have been obtained and relevant requirements communicated to the party responsible for undertaking the works. The work supervisor must ensure relevant vegetation and fauna management requirements and responsibilities are communicated to relevant workers as part of the job prestart, site induction or equivalent. The work supervisor must ensure any exclusion or restricted zones are physically demarcated or otherwise defined prior to and during work.
NV3	Excavation / dig-up leading to impacts to fauna.	4.0 To minimise adverse impacts to vegetation and fauna	4.3 To appropriately rehabilitate the easement to pre-maintenance condition, as reasonably practical	<ul style="list-style-type: none"> Implement reinstatement requirements specified in Environmental Management Plan (EMP) and Environmental Protocols (EPs). 	<ul style="list-style-type: none"> Vegetation on the easement is reasonably consistent with the surrounding areas. Note: assessment of the consistency with surrounding areas will take into account that regrowth is a time and rainfall dependent process. No reasonable complaints received from landholders in relation to regrowth of vegetation on the easement. 	<ul style="list-style-type: none"> Prior to commencing an activity that will impact protected vegetation and fauna, the relevant project or operational manager must ensure necessary statutory approvals, exemptions or agreements have been obtained and relevant requirements communicated to the party responsible for undertaking the works. The work supervisor must ensure that during clearing and land disturbance activities a regular check of compliance with the authorised disturbance boundaries is completed and recorded. The work supervisor must ensure relevant vegetation and fauna management requirements and responsibilities are communicated to relevant workers as part of the job prestart, site induction or equivalent.

ID	Impact Event	Objectives	Goal	Guide to Achieving Objectives	Assessment Criteria	Leading Performance Criteria
NV1	Clearing and / or works off easement. Scope not clearly defined, new contractor, overspray.	4.0 To minimise adverse impacts to vegetation and fauna	4.4 To achieve a significant environmental benefit (SEB) for native vegetation clearance	<ul style="list-style-type: none"> Clearance of native vegetation is undertaken in accordance with Regulation 14 of the <i>Native Vegetation Regulations 2017</i> (NV Regs) (i.e. it is undertaken in accordance with a management plan approved by the Native Vegetation Council (NVC) that results in a SEB; or payment is made into the Native Vegetation Fund of an amount considered by the Council to be sufficient to achieve a significant environmental benefit. <p>SEB requirement either:</p> <ul style="list-style-type: none"> Determined using methodology outlined in NVC's <i>Guide for a Significant Environmental Benefit for the clearance of native vegetation associated with the Minerals and Petroleum Industry</i>; or Negotiated with NVC where SEB calculation differs from standard methodology in Guidelines. (Note: Guidelines have provision for case-by-case assessment of SEB by NVC in some circumstances e.g. where SEB capping or additional mitigation measures apply). 	<ul style="list-style-type: none"> SEB approved by DEM (where delegated authority applies) or Native Vegetation Council (NVC). SEB obligation satisfied / implemented. 	<ul style="list-style-type: none"> Prior to commencing an activity that will impact protected vegetation and fauna, the relevant project or operational manager must ensure necessary statutory approvals, exemptions or agreements have been obtained and relevant requirements communicated to the party responsible for undertaking the works. The work supervisor must ensure that during clearing and land disturbance activities a regular check of compliance with the authorised disturbance boundaries is completed and recorded. The work supervisor must ensure relevant vegetation and fauna management requirements and responsibilities are communicated to relevant workers as part of the job prestart, site induction or equivalent.
NV1	Clearing and / or works off easement. Scope not clearly defined, new contractor, overspray.	4.0 To minimise adverse impacts to vegetation and fauna	4.5 To promote and maintain regrowth on the easement to be consistent with surrounding area	<ul style="list-style-type: none"> Annual land survey to assess vegetation rehabilitation and look for evidence of disturbance to vegetation on easement (apart from access tracks) Follow-up rehabilitation work undertaken where natural regeneration is inadequate 	<ul style="list-style-type: none"> Species abundance and distribution on the easement is reasonably consistent with surrounding areas. Note: assessment of the consistency with surrounding areas will take into account that regrowth is a time and rainfall dependent process. 	<ul style="list-style-type: none"> Vegetation clearing within the easement or on land adjacent to the easement is limited to previously disturbed areas, unless prior regulatory approval obtained under the NV Act.

ID	Impact Event	Objectives	Goal	Guide to Achieving Objectives	Assessment Criteria	Leading Performance Criteria
NV1	Clearing and / or works off easement. Scope not clearly defined, new contractor, overspray.	4.0 To minimise adverse impacts to vegetation and fauna	4.6 To minimise additional clearing of native vegetation as part of operational activities	<ul style="list-style-type: none"> Annual land survey to look for evidence of disturbance to vegetation on easement (apart from access tracks) Vegetation trimmed rather than cleared, where possible Consideration of sensitive vegetation, including large old trees, during vegetation trimming and / or clearing activities Obtain any clearance consent required 	<ul style="list-style-type: none"> Vegetation clearing is in accordance with the <i>Native Vegetation Act 1991</i> (NV Act). Vegetation clearance minimised. No unauthorised vegetation clearing. 	<ul style="list-style-type: none"> Vegetation clearing within the easement or on land adjacent to the easement is limited to previously disturbed areas, unless prior regulatory approval obtained under the NV Act. Potential impacts to protected vegetation and fauna must be assessed in accordance with <i>APA HSE GP 40.00 Environment and Heritage Approvals</i>.
NV2	Vehicle strike (single), equipment or plant interaction and general activities.	4.0 To minimise adverse impacts to vegetation and fauna	4.7. To ensure operation and maintenance activities are planned and conducted in a manner that minimises impacts on native fauna	<ul style="list-style-type: none"> In the event of excavations, open trenches monitored regularly and left open for the minimum time practical. Provision of fauna ramps at regular intervals in open trench. Daily inspection of open trenches in areas adjacent to remnant vegetation. Prompt reinstatement of easement. 	<ul style="list-style-type: none"> Native fauna casualties associated with operations restricted to as low as reasonably practical. 	<ul style="list-style-type: none"> The work supervisor must ensure control measures are implemented to minimise fauna entrapment and / or injury in open excavations and pipework.

ID	Impact Event	Objectives	Goal	Guide to Achieving Objectives	Assessment Criteria	Leading Performance Criteria
Soil Management						
S1	Inadequate or poorly maintained erosion control devices/ re-habilitation / general weathering.	1. To avoid or minimise adverse impacts on soils and terrain during maintenance and operation and to maintain soil stability / integrity on the easement	1.1 To minimise soil erosion and sedimentation as a result of pipeline maintenance and to remediate in a timely manner when due to operations	<ul style="list-style-type: none"> Pipeline Environmental Management Plan (EMP) and Environmental Procedures (EP) that specify soil management and reinstatement requirements Implementation of specific requirements based on soil type and erosion risk e.g. in gibber, minimise gibber disturbance, roll areas rather than clearing where traffic levels will not be high, carefully stockpile gibber and replace in reinstatement Preventative measures implemented and monitored in susceptible areas Erosion and sedimentation control structures installed and maintained in susceptible areas Records of induction/training regarding EMP/EP requirements Regular inspections of easement undertaken to look for evidence of erosion 	<ul style="list-style-type: none"> The extent of soil erosion on the easement is consistent with surrounding land 0, +1 or +2 GAS criteria are obtained for borrow pit construction and restoration, as listed in Appendix 2 	<ul style="list-style-type: none"> An erosion hazard assessment must be completed prior to undertaking soil disturbance that: <ul style="list-style-type: none"> Will disturb more than >1000m² of land at any one time Is within or adjacent to a watercourse, or Is on a slope >10% gradient and >30m in length. The assessment must be completed using APA HSE EP 13.06 T3 Erosion Hazard Assessment Template or equivalent regulatory or industry accepted framework. When undertaking soil disturbance, reasonable and practical measures must be implemented to control erosion and protect watercourses from sediment runoff and pollution. This includes both during and following the works, until such time as the site has been stabilised. When undertaking soil disturbance, sufficient topsoil must be preserved for reuse as part site reinstatement and stabilisation. Erosion and sediment controls must be periodically inspected to validate their effectiveness, and to identify maintenance requirements.
S1	Inadequate or poorly maintained erosion control devices/ re-habilitation / general weathering.	1. To avoid or minimise adverse impacts on soils and terrain during maintenance and operation and to maintain soil stability / integrity on the easement	1.2 To reinstate soil and terrain as near as practicable to pre-maintenance contours and conditions	<ul style="list-style-type: none"> Implement reinstatement requirements specified in EMP and EP Records of induction/training regarding EMP/EP requirements Regular inspections undertaken of easement 	<ul style="list-style-type: none"> Surface contours consistent with adjacent land 0,+1 or +2 GAS criteria are obtained for borrow pit restoration 	<ul style="list-style-type: none"> When undertaking soil disturbance, reasonable and practical measures must be implemented to control erosion and protect watercourses from sediment runoff and pollution. This includes both during and following the works, until such time as the site has been stabilised. When undertaking soil disturbance, sufficient topsoil must be preserved for reuse as part site reinstatement and stabilisation.

ID	Impact Event	Objectives	Goal	Guide to Achieving Objectives	Assessment Criteria	Leading Performance Criteria
S3	Spills and over clearing vegetation	1. To avoid or minimise adverse impacts on soils and terrain during maintenance and operation and to maintain soil stability / integrity on the easement	1.3 To prevent soil inversion	<ul style="list-style-type: none"> • EMP/EP requirements include separate stockpiling of topsoil and sub-surface material during excavation • Records of induction/training regarding EMP/EP requirements • Reinstatement of stockpiles in appropriate order during backfill • Annual land survey to look for soil discolouration, success of vegetation return as an indicator. • 	<ul style="list-style-type: none"> • No evidence of subsoil on surface (colour). Vegetation cover consistent with surrounding land • No reasonable landholder complaints • Vegetation cover is consistent with surrounding land • No evidence of subsoil on surface (colour) • No reasonable landholder complaints 	<ul style="list-style-type: none"> • When undertaking soil disturbance, reasonable and practical measures must be implemented to control erosion and protect watercourses from sediment runoff and pollution. This includes both during and following the works, until such time as the site has been stabilised. • When undertaking soil disturbance, sufficient topsoil must be preserved for reuse as part site reinstatement and stabilisation.
S2	Excavation / dig-up leading to impacts to erosion, impacts to landholders, inadequate re-habilitation.	1. To avoid or minimise adverse impacts on soils and terrain during maintenance and operation and to maintain soil stability / integrity on the easement	1.4 To remediate erosion or subsidence as a result of pipeline operations in a timely manner	<ul style="list-style-type: none"> • Inspections undertaken as part of regular patrols, following specific works, following significant storm events • Preventative measures implemented and monitored in susceptible areas 	<ul style="list-style-type: none"> • No un-remediated subsidence • The extent of soil erosion on the easement is consistent with surrounding land • No excessive erosion on areas adjacent to corridor as a result of easement • No reasonable landholder complaints 	<ul style="list-style-type: none"> • When undertaking soil disturbance, reasonable and practical measures must be implemented to control erosion and protect watercourses from sediment runoff and pollution. This includes both during and following the works, until such time as the site has been stabilised. • When undertaking soil disturbance, sufficient topsoil must be preserved for reuse as part site reinstatement and stabilisation.

ID	Impact Event	Objectives	Goal	Guide to Achieving Objectives	Assessment Criteria	Leading Performance Criteria
Water Management						
S1	Inadequate or poorly maintained erosion control devices/ re-habilitation / general weathering.	2.0 To minimise and manage impacts to water resources, including aquatic ecosystems	2.1 To minimise short term, and prevent long-term, interruption or modification to surface drainage patterns	<ul style="list-style-type: none"> • Management requirements specified in EMP/EP • Records of induction/training regarding EMP/EP requirements • Installation and subsequent removal of appropriate temporary watercourse crossing measures • Regular inspections undertaken of easement • No new water affecting activities as defined under the <i>Landscape South Australia Act 2019</i> (without prior approval). Any water discharged to a watercourse of more than 1 ML will require a water affecting activity permit • 	<ul style="list-style-type: none"> • No adverse impacts (for example to downstream ecology or land use) resulting from watercourse flow reductions or diversions as a result of pipeline operation and maintenance activities • No evidence of altered watercourse flows following reinstatement • No evidence pipeline related erosion of watercourses intersecting or adjacent to The Pipeline easement • Surface drainage profiles restored • Drainage is maintained to pre-maintenance conditions or better 	<ul style="list-style-type: none"> • An erosion hazard assessment must be completed prior to undertaking soil disturbance that: <ul style="list-style-type: none"> • Will disturb more than >1000m² of land at any one time • Is within or adjacent to a watercourse, or • Is on a slope >10% gradient and >30m in length. • The assessment must be completed using APA HSE EP 13.06 T3 Erosion Hazard Assessment Template or equivalent regulatory or industry accepted framework. • When undertaking soil disturbance, reasonable and practical measures must be implemented to control erosion and protect watercourses from sediment runoff and pollution. This includes both during and following the works, until such time as the site has been stabilised. •
S1	Inadequate or poorly maintained erosion control devices/ re-habilitation / general weathering.	2.0 To minimise and manage impacts to water resources, including aquatic ecosystems	2.2 To minimise the amount of sediment entering surface water features	<ul style="list-style-type: none"> • EMP/EP specify management requirements including: • No stockpiling of materials in watercourses/ flow-lines (note: trench spoil may be stockpiled in dry watercourse beds for very short periods e.g. less than a day) • Use of appropriate sediment and silt capturing devices • Installation of permanent berms on slopes, as required • Stabilisation and reinstatement of watercourses and drainage lines • Records of induction/training regarding EMP/EP requirements • No new water affecting activities as defined under the <i>Landscape South Australia Act 2019</i> (without prior approval). 	<ul style="list-style-type: none"> • Compliance with <i>EPA Environment Protection (Water Quality) Policy 2015</i> 	<ul style="list-style-type: none"> • When undertaking soil disturbance, reasonable and practical measures must be implemented to control erosion and protect watercourses from sediment runoff and pollution. This includes both during and following the works, until such time as the site has been stabilised.

ID	Impact Event	Objectives	Goal	Guide to Achieving Objectives	Assessment Criteria	Leading Performance Criteria
S2	Excavation / dig-up leading to erosion, impacts to landholders, inadequate re-habilitation	2.0 To minimise and manage impacts to water resources, including aquatic ecosystems	2.3 To minimise disruption to third party use of surface waters	<ul style="list-style-type: none"> No new water affecting activities as defined under the <i>Landscape South Australia Act 2019</i> (without prior approval). Any water discharged to a watercourse of more than 1 ML will require a water affecting activity permit Liaison with third party users regarding potential disruptions Minimising period of disturbance and prompt reinstatement in sections of easement intersecting or adjacent to water bodies Installation and subsequent removal of appropriate temporary watercourse/water body protection measures to prevent flow interruptions Minimising period of disturbance for any excavation or land disturbance and prompt reinstatement of easement in sections of easement intersecting or adjacent to water bodies 	<ul style="list-style-type: none"> No reasonable complaints received from landholders or third party users in relation to use of surface waters 	<ul style="list-style-type: none"> When undertaking soil disturbance, reasonable and practical measures must be implemented to control erosion and protect watercourses from sediment runoff and pollution. This includes both during and following the works, until such time as the site has been stabilised.
S1	Inadequate or poorly maintained erosion control devices/ re-habilitation / general weathering.	2.0 To minimise and manage impacts to water resources, including aquatic ecosystems	2.4 To maintain current surface drainage patterns	<ul style="list-style-type: none"> Regular patrols and survey undertaken to look for evidence of erosion, windrow development, abnormal vegetation growth or death or any changes to the easement which could change surface hydrology conditions, particularly in the Strzelecki Creek wetland area Observations also to be undertaken following significant storm events No new water affecting activities as defined under the <i>Landscape South Australia Act 2019</i> (without prior approval). Any water discharged to a watercourse of more than 1 ML will require a water affecting activity permit 	<ul style="list-style-type: none"> For existing easement, drainage is maintained to pre-maintenance conditions or better. 	<ul style="list-style-type: none"> When undertaking soil disturbance, reasonable and practical measures must be implemented to control erosion and protect watercourses from sediment runoff and pollution. This includes both during and following the works, until such time as the site has been stabilised. When undertaking soil disturbance, sufficient topsoil must be preserved for reuse as part site reinstatement and stabilisation.

ID	Impact Event	Objectives	Goal	Guide to Achieving Objectives	Assessment Criteria	Leading Performance Criteria
Heritage Management						
H1	Excavation / dig-up leading to disturbance of cultural heritage site / material.	6. To minimise and manage impacts to heritage sites and values during operations and maintenance	6.1 To ensure that identified heritage sites are not disturbed	<ul style="list-style-type: none"> Measures undertaken to protect heritage sites on or near the easement Implement appropriate protocols for dealing with accidental discovery of cultural heritage material during operations; If suspected cultural heritage material is discovered during operations, immediately stop any further work in the area, secure the site and ensure no further ground disturbing activity takes place in the immediate area. Any Aboriginal heritage sites, objects and remains discovered during operations will be appropriately reported and responded to, consistent with the <i>Aboriginal Heritage Act 1988</i>. Obtain all necessary approvals in the event of an accidental/unavoidable site disturbance, including contact Yandruwandha Yawarrawarka Traditional Owners (YY) to identify an appropriate course of action. Options include risk managing the area with YY's assistance or applying for a section 23 authorisation under the <i>Aboriginal Heritage Act 1988</i> if the discovery is not already covered by one. Where damage, disturbance or interference to Aboriginal heritage has occurred, report the discovery to the relevant authority as soon as practicable and contact YY to identify an appropriate course of action. Induction/training to include heritage management requirements Incident management system 	<ul style="list-style-type: none"> No impact to non-Aboriginal heritage places and related objects protected under the <i>Heritage Places Act 1993</i> unless approval has been obtained under the <i>Heritage Places Act 1993</i> Any breaches (damage, disturbance or interference) to Aboriginal sites, objects and remains (as defined under the <i>Aboriginal Heritage Act 1988</i>) are appropriately reported, investigated and remediation in consultation with the relevant Aboriginal heritage group If sites, remains or objects are discovered during operations, the discovery is reported to appropriate authority and recorded, consistent with the <i>Aboriginal Heritage Act 1988</i>. If suspected remains are discovered, the SA Police will be notified immediately. 	<ul style="list-style-type: none"> The potential for an activity to impact on heritage must be assessed prior to activity commencement in accordance with APA HSEH GP 47.00 T04 Heritage Management Flow Chart, with a record of the assessment retained by the relevant business area. Control measures to mitigate heritage impacts must be developed in consultation with external heritage stakeholders unless the activity is subject to a statutory exemption that does not require consultation. Prior to work, the work supervisor must be provided with a copy of, and complete a review of, the heritage obligations applicable to the work. The work supervisor must ensure any relevant heritage obligations are communicated to relevant workers as part of the job prestart, site induction or equivalent. The work supervisor must ensure any exclusion or restricted zones are appropriately marked out or otherwise defined prior to and during work. A record of completed heritage management actions and controls must be maintained.

ID	Impact Event	Objectives	Goal	Guide to Achieving Objectives	Assessment Criteria	Leading Performance Criteria
				<ul style="list-style-type: none"> • Consultation with relevant heritage groups if operations occurring outside known surveyed areas • Site examined for cultural heritage material prior to work involving disturbance outside known surveyed areas by appropriately qualified personnel (eg. NT group, anthropologist, relevant Aboriginal heritage group) • Records of site locations in Operations GIS • Non-Aboriginal heritage sites identified and avoided 		
Pest, Disease and Weed Management						
P1 P2	<p>Spread of weeds on and off easement. Breach of property biosecurity controls (sign in, clean down records, etc). Weed infestations / spread.</p> <p>Incorrect pest management.</p> <p>Overspray of chemical - APA personnel generally only spraying within facilities. Contractors utilised for ROW.</p>	5. To avoid the spread of weeds and pathogens	5.1 To avoid the introduction or spread of weeds and pathogens and undertake control where required	<ul style="list-style-type: none"> • Identification of weeds and pathogens on easement and adjacent land • Implementation of control measures of weeds and pathogens on easement • Records of outbreaks found recorded in Safeguard+ • Vehicle cleaning/wash-down register • Regular patrols undertaken to look for evidence of weeds on easement and adjacent land (if weeds on easement but not adjacent land must implement control to prevent spread) 	<ul style="list-style-type: none"> • The presence of weeds on the easement is consistent with or better than adjacent land • No new outbreak or spread of weeds or pathogens as a result of pipeline activities 	<ul style="list-style-type: none"> • A register of known and potential pests, weeds and diseases (PWD risks) must be established for locations (e.g. operational regions, project areas) within which APA undertakes activities. • Individual PWD must be risk assessed to identify priority PWD applicable to the activity area.

ID	Impact Event	Objectives	Goal	Guide to Achieving Objectives	Assessment Criteria	Leading Performance Criteria
Third Party and Public Safety						
S2	Excavation / dig-up leading to erosion, impacts to landholders, inadequate re-habilitation	9. To minimise disturbance to third party infrastructure, landholders and land use	9.1 To minimise disturbance or damage to infrastructure / land use and remediate where disturbance cannot be avoided	<ul style="list-style-type: none"> Formal easement agreements outlining the legal responsibilities of APA Group and landholders Management requirements specified in EMP/EP Restrict disturbance to the easement and approved access and work areas Identification of utilities present on or near the easement on EMP Records of communications with landholders / third party maintained Incident management system Compliance with the <i>National Parks and Wildlife Act 1972</i> and Regulations pertaining to correct conduct in a Regional Reserve No pets or firearms brought into Regional Reserve Management of fuel, oil and spills (if they occur) to meet landholder requirements for Quality Assurance programs (e.g. Cattlecare) Landholder contact records database Measures undertaken to minimise third party use right-of-way where necessary 	<ul style="list-style-type: none"> Where disturbance is unavoidable or accidental, infrastructure or land use is restored to the satisfaction of the landholder/owner or as near as practicable to undisturbed condition Duration of disturbance does not exceed agreed timeframe No disturbance outside the easement and approved access and work areas No reasonable complaints received Adverse impacts to Innamincka Regional Reserve operations or conservation values are minimised 	<ul style="list-style-type: none"> APA's third party consultation and engagement procedures are up to date and documented. Emergency response training has been conducted and logged.
S2	Excavation / dig-up leading to erosion, impacts to landholders, inadequate re-habilitation	9. To minimise disturbance to third party infrastructure, landholders and land use	9.2 To minimise disturbance to landholders	<ul style="list-style-type: none"> Restrict disturbance to the easement and approved access and work areas Landholder activities not restricted as a result of pipeline activities Records of communications with landholders / third party maintained Landholder contact records database 	<ul style="list-style-type: none"> No reasonable landholder complaints Landholder activities not restricted or disturbed as a result of pipeline activities unless by prior arrangement 	<ul style="list-style-type: none"> APA's third party consultation and engagement procedures are up to date and documented.

ID	Impact Event	Objectives	Goal	Guide to Achieving Objectives	Assessment Criteria	Leading Performance Criteria
S2	Excavation / dig-up leading to erosion, impacts to landholders, inadequate re-habilitation	9. To minimise disturbance to third party infrastructure, landholders and land use	9.3 To appropriately reinstate and rehabilitate the easement to allow continuation of current land use activities post-maintenance	<ul style="list-style-type: none"> • Management requirements specified in EMP and property line list • Reinstatement of easement in accordance with EMP/EP • Records of communications with landholders maintained • 	<ul style="list-style-type: none"> • Species abundance and distribution on the easement is reasonably consistent with surrounding areas. Note: assessment of the consistency with surrounding areas will take into account that regrowth is a time and rainfall dependent process 	<ul style="list-style-type: none"> • APA's third party consultation and engagement procedures are up to date and documented.
TP1	Pipeline rupture.	12. To ensure that security of natural gas supplies are maintained to gas consumers.	12.1 To minimise the potential for significant disruption of gas supply to customers in line with contractual agreements.	<ul style="list-style-type: none"> • Pipelines are subjected to ongoing pipeline integrity management through such activities as Direct Current Voltage Gradient (DCVG) surveys, pigging, dig-ups and patrols, Before You Dig Australia (BYDA), pipeline markers, facility signage, education of and liaison with stakeholders (e.g. landholders, local governments, other utility companies, etc.), patrols and aerial surveys are activities conducted to manage third party encroachment and minimise/prevent damage from third parties to pipelines. • All works on the pipeline easement are controlled and managed through appropriate procedures. • Emergency Response Exercises carried out to determine prompt and effective procedure and response. • In the event of an emergency where gas supplies are disrupted, ensure that the pipeline system is returned efficiently to a safe, operational state with minimum customer and environmental impact. • No pipeline "failure" as defined under clause 1.6.16 of AS2885.1. 	<ul style="list-style-type: none"> • No unplanned interruption to gas supply that impacts the public. • Achieve compliance with Energy Resources Act 2000 requirements for Fitness-for-purpose assessments. • Pipeline repaired in a timeframe that represents good industry practice. • Emergency response procedures are effectively implemented in the event of an emergency to reinstate gas supply in a timeframe consistent with good industry practice, as assessed by post incident debrief. 	<ul style="list-style-type: none"> • Emergency response training has been conducted and logged. • Regular site inspections are conducted and documented.

ID	Impact Event	Objectives	Goal	Guide to Achieving Objectives	Assessment Criteria	Leading Performance Criteria
TP1	Pipeline Rupture	10. To minimise the risk to public health and safety	10.1 To prevent injury to general public and adequately protect public safety during operations	<ul style="list-style-type: none"> Records of communications with adjacent landholder maintained Use of signage or bunting to identify all potentially hazardous areas Site induction program for all personnel/visitors Adequate implementation of traffic management practices Records of Annual Reports, Fitness for Purpose Reports, Risk Assessments and inspections Records demonstrating compliance with AS2885 Records of Emergency Response Plan Induction/training for personnel Incident management system Job Hazard Analysis A Pipeline Integrity Management Plan has been prepared and implemented in line with the requirements of AS2885.3, to ensure continued pipeline integrity. 	<ul style="list-style-type: none"> No injuries or incidents involving the public 	<ul style="list-style-type: none"> APA's third party consultation and engagement procedures are up to date and documented. Emergency response training has been conducted and logged.
F1	Welding and Grinding.	10. To minimise the risk to public health and safety	10.2 To avoid fires associated with pipeline maintenance activities	<ul style="list-style-type: none"> Records of regular fire safety and emergency response training Established procedures for minimising fire risk Appropriate fire prevention/control equipment on site Incident management system 	<ul style="list-style-type: none"> No fires related to pipeline activities 	<ul style="list-style-type: none"> Fire ban requirements are checked and documented daily. Fire response equipment are within service life.
TP1	Pipeline rupture.	10. To minimise the risk to public health and safety	10.3 To prevent unauthorised activity on the easement that may adversely impact on the pipeline integrity	<ul style="list-style-type: none"> Inspection/Patrol reports and records Comprehensive landholder liaison program and records of all communications with landholders Community education program and Dial Before You Dig (DBYD) number and web page available and widely advertised Clear identification of the pipeline by signs installed in accordance with AS2855. All reports of unauthorised activity are reported and investigated 	<ul style="list-style-type: none"> No unauthorised activity on the easement that has the potential to impact on the pipeline integrity 	<ul style="list-style-type: none"> Emergency response training has been conducted and logged. Regular site inspections are conducted and documented.

ID	Impact Event	Objectives	Goal	Guide to Achieving Objectives	Assessment Criteria	Leading Performance Criteria
Noise, Dust and Odour Emissions						
N1 N2 N3 N4	Release of gas emissions - NOx and CH4 from exhaust gases (SWQP), general plant operations, emergency shut downs and venting.	7. To minimise noise due to operation and maintenance activities	7.1 To minimise noise impacts associated with the movement and operation of vehicles and equipment	<ul style="list-style-type: none">Regular maintenance of vehicles and equipmentIncident management systemFacilities designed to meet the noise requirements under the <i>Environment Protection Act 1993</i>	<ul style="list-style-type: none">Activities comply with noise regulations under the <i>Environment Protection (Noise) Policy 2007</i>.No reasonable complaints received.	<ul style="list-style-type: none">Infrastructure, plant and equipment are operated and maintained in accordance with manufacturer's specifications.
	Release of gas emissions – Methane from general venting.	8. To minimise atmospheric emissions	8.1 To minimise generation of dust	<ul style="list-style-type: none">Management requirements specified in EMP/EP including use of water trucks and sprayers, if necessaryRecords of induction/training regarding EMP/EP requirementsIncident management system	<ul style="list-style-type: none">Compliance with <i>Environment Protection Act 1993</i> or to the satisfaction of the EPA.No reasonable complaints received.	<ul style="list-style-type: none">Infrastructure, plant and equipment are operated and maintained in accordance with manufacturer's specifications.
	Coating defect repairs could include buffing, sand/grit blasting, rewinding, use of epoxy resins resulting in dust, blasting material, coating removal media and chemical waste.		8.2 To eliminate uncontrolled atmospheric emissions	<ul style="list-style-type: none">Maintenance proceduresA Pipeline Integrity Management Plan has been prepared and implemented in line with the requirements of AS2885.3, to ensure continued pipeline integrity.Incident management system	<ul style="list-style-type: none">No uncontrolled atmospheric emissions (e.g. due to malfunction or mis-operation).	<ul style="list-style-type: none">Infrastructure, plant and equipment are operated and maintained in accordance with manufacturer's specifications.
	Release of gas emissions - FM200 - fire suppression system.		8.3 To comply with air quality requirements	<ul style="list-style-type: none">Compliance with <i>Environment Protection (Air Quality) Policy 2016</i>	<ul style="list-style-type: none">Compliance with <i>Environment Protection (Air Quality) Policy 2016</i>.No non-compliances noted or received.	<ul style="list-style-type: none">Infrastructure, plant and equipment are operated and maintained in accordance with manufacturer's specifications.
Chemical and Contamination Management						
C1 C2 C3 C4	Uncontained chemical spill (hose, or oil < 10L) from light vehicles, heavy equipment, etc.	3. To avoid land or water contamination and minimise impacts to terrestrial and aquatic ecosystems	3.1 To prevent spills occurring and if they do occur, minimise their impact	<ul style="list-style-type: none">Regular inspections for evidence of soil or water discolouration, vegetation or fauna deathUse of spill protection methods where work is completed within or adjacent to environmentally sensitive areas	<ul style="list-style-type: none">No soil or water contamination as a result of spills during pipeline activities.Compliance with Environment Protection Act 1993	<ul style="list-style-type: none">Stored chemicals are segregated in accordance with the Australian Dangerous Goods (ADG) Code, and the requirements of their SDSs.Flammable and combustible liquids are stored in accordance with AS1940

ID	Impact Event	Objectives	Goal	Guide to Achieving Objectives	Assessment Criteria	Leading Performance Criteria
C5 C6	<p>Chemical spill, loss of containment of water from waterbath heaters.</p> <p>Chemical Spill from hazardous materials storage and facility fuel storage tanks.</p> <p>Loss of containment / potential for release of coolant through the separator in oily water collection systems.</p> <p>Chemical release / uncontained chemical spill from compressor units and Gas Engine Alternators</p> <p>Chemical spill from insufficient maintenance / inspections or incorrect waste disposal.</p> <p>Transport of Chemicals along ROW - generally less than 20L accepting fuel up to 400L</p>			<ul style="list-style-type: none"> • APA HSE EP 13.04.01 Chemical Spill Management, requiring spills to be reported, contained, cleaned-up, cause investigated, corrective action implemented • Spills/contamination remediated in consultation with regulatory agencies and landholder, as required • Personnel trained in spill response procedures • Compliance with fuel and hazardous waste standards • Containment of all fuel, oil, hazardous substances and liquid waste in appropriate vessels/containment areas (e.g. polythene lined, bunded areas or on bunded pallets) • Uncovered bunded areas must have sufficient freeboard (e.g. to hold a 1:100 year, 24hr rainfall event) • Stored chemicals are segregated in accordance with the Australian Dangerous Goods (ADG) Code, and the requirements of their SDSs. • Flammable and combustible liquids are stored in accordance with AS1940 (Storage and handling of flammable and combustible liquids). • Secondary containment bunding and the control and management of chemical (including flammable and combustible liquid) spills is in accordance with EPA Guideline EPA 080/16 • Incident reporting <p>A Pipeline Integrity Management Plan has been prepared and implemented in line with the requirements of AS2885.3, to ensure continued pipeline integrity.</p>	<ul style="list-style-type: none"> • Any escape of petroleum, processed substance, chemical or fuel is either immediately contained and removed or assessed in accordance with the National Environmental Protection Measure (NEPM) guidelines and remediated in accordance with relevant SA EPA guidelines in a timely manner • Pipeline integrity actions as defined in the Pipeline Integrity Management Plan, are completed in line defined timeframes / frequencies. 	<p>(Storage and handling of flammable and combustible liquids).</p> <ul style="list-style-type: none"> • Secondary containment bunding and the control and management of chemical (including flammable and combustible liquid) spills is in accordance with EPA Guideline EPA 080/16 and APA HSE EP 13.04.01 Spill Preparedness and Response. • Waste material is contained and disposed of at an EPA licenced facility or via an approved process under the <i>Environment Protection Act 1993</i>.

ID	Impact Event	Objectives	Goal	Guide to Achieving Objectives	Assessment Criteria	Leading Performance Criteria
W2 W3	Incorrect disposal of batteries. Incorrect disposal of filter elements - covered in oil residue.	3. To avoid land or water contamination and minimise impacts to terrestrial and aquatic ecosystems	3.2 To ensure that rubbish and waste material are disposed of in an appropriate manner	<ul style="list-style-type: none"> Covered bins for the collection, storage and transport of wastes Waste disposal at an approved waste facility Regular inspection to look for evidence of rubbish, spills (soil discolouration) Waste disposal records, chemical manifests Appropriately licensed contractors used for any hazardous waste disposal and records are maintained for all hazardous waste disposal 	<ul style="list-style-type: none"> No pipeline related rubbish or litter on easement or at facilities or on surrounding land Waste material is contained and disposed of at an EPA licenced facility or via an approved process under the Environment Protection Act 1993 	<ul style="list-style-type: none"> Waste material is contained and disposed of at an EPA licenced facility or via an approved process under the <i>Environment Protection Act 1993</i>. Waste water disposal system must comply with the <i>South Australian Public Health (Wastewater) Regulations 2013</i> or be to the satisfaction of the Department for Health and Wellbeing.
W1	Leaching to ground from compressor stations, septic systems and water treatment / drainage.	3. To avoid land or water contamination and minimise impacts to terrestrial and aquatic ecosystems	3.3 To prevent impacts as a result of hydro test water, trench water and waste water (e.g. wash-down water) disposal	<ul style="list-style-type: none"> Water disposed of in a manner that prevents discharge or runoff to watercourses or environmentally sensitive areas Water discharged onto stable ground, with no evidence of erosion as a result of discharge Records on source of water and discharge method/location Investigation of water quality prior to release/disposal of trench water and wastewater. Testing of hydro-test water if potentially harmful chemicals added Inspection of water disposal sites for evidence of water entering a watercourse or environmentally sensitive area No new water affecting activities as defined under the <i>Landscape South Australia Act 2019</i> (without prior approval). Any water discharged to a watercourse of more than 1 ML will require a water affecting activity permit 	<ul style="list-style-type: none"> Compliance with the Environment Protection (water quality) Policy Discharge water meets appropriate ANZECC and EPA criteria for point of disposal No evidence of impacts to soil, water and vegetation as a result of water disposal (e.g. soil erosion, dead vegetation, water discoloration) 	<ul style="list-style-type: none"> Waste material is contained and disposed of at an EPA licenced facility or via an approved process under the <i>Environment Protection Act 1993</i>. Waste water disposal system must comply with the <i>South Australian Public Health (Wastewater) Regulations 2013</i> or be to the satisfaction of the Department for Health and Wellbeing.

ID	Impact Event	Objectives	Goal	Guide to Achieving Objectives	Assessment Criteria	Leading Performance Criteria
W4 W5	Loss of containment / control of pigging waste potentially including NORMS. Chemical spill from insufficient maintenance / inspections or incorrect waste disposal.	3. To avoid land or water contamination and minimise impacts to terrestrial and aquatic ecosystems	3.4 To ensure the safe and appropriate disposal of facility wastewater (grey water, sewage)	<ul style="list-style-type: none"> All wastewater disposed in accordance with the South Australian Public Health (Wastewater) Regulation 2013 The method of disposal for wastewater must: Comply with the South Australian Public Health (Wastewater) Regulations 2013; or Be to the satisfaction of the Department for Health and Wellbeing Treated sewage wastewater disposed of onto land, well away from any place from which it is reasonably likely to enter any waters in accordance with the Environment Protection (water quality) Policy. 	<ul style="list-style-type: none"> Compliance with the Environment Protection (water quality) Policy Discharge water meets appropriate ANZECC and EPA criteria for point of disposal No evidence of impacts to soil, water and vegetation as a result of water disposal (e.g. soil erosion, dead vegetation, water discoloration) 	<ul style="list-style-type: none"> Waste water disposal system must comply with the <i>South Australian Public Health (Wastewater) Regulations 2013</i> or be to the satisfaction of the Department for Health and Wellbeing.
C2 W5	Chemical spill, loss of containment of water from waterbath heaters. Chemical spill from insufficient maintenance / inspections or incorrect waste disposal.	11. To minimise risk to the public from Wastewater	11.1 To ensure that all wastewater (not from industrial processes) is collected, treated and disposed of to not adversely impact on health or the environment.	<ul style="list-style-type: none"> All wastewater disposed in accordance with the <i>South Australian Public Health (Wastewater) Regulation 2013</i>. The method of disposal for wastewater must: Comply with the South Australian Public Health (Wastewater) Regulations 2013; or Be to the satisfaction of the Department for Health and Wellness, see Objective 11 below as well. Approval must be given by the Department for Health and Wellness or relevant authority (within a Local Government area) 	<ul style="list-style-type: none"> Waste water disposal system must comply with the <i>South Australian Public Health (Wastewater) Regulations 2013</i> or be to the satisfaction of the Department for Health and Wellness or relevant authority 	<ul style="list-style-type: none"> No non-compliance with disposal requirements Prior to any disposal, Supervisor must ensure disposal is in accordance with waste water regulations including any approvals that are required

ID	Impact Event	Objectives	Goal	Guide to Achieving Objectives	Assessment Criteria	Leading Performance Criteria
W1	Leaching to ground from compressor stations, septic systems and water treatment / drainage.	11. To minimise risk to the public from Wastewater	11.2 To ensure that there is no untreated wastewater exposed to the open environment or discharged directly into the ground.	<ul style="list-style-type: none"> All wastewater disposed in accordance with the <i>South Australian Public Health (Wastewater) Regulation 2013</i> The method of disposal for wastewater must: Comply with the <i>South Australian Public Health (Wastewater) Regulations 2013</i>; or Be to the satisfaction of the Department for Health and Wellness Approval must be given by the Department for Health and Wellness or relevant authority (within a Local Government Area) 	<ul style="list-style-type: none"> Waste water disposal system must comply with the <i>South Australian Public Health (Wastewater) Regulations 2013</i> or be to the satisfaction of the Department for Health and Wellness or relevant authority 	<ul style="list-style-type: none"> No non-compliance with disposal requirements Prior to any disposal, Supervisor must ensure disposal is in accordance with waste water regulations including any approvals that are required

Decommissioning Objectives and Assessment Criteria

ID	Potential Impact Event	Objectives	Goal	Guide to Achieving Objectives	Assessment Criteria	Leading Performance Criteria
De-commissioning						
N/A	N/A	13. To appropriately decommission the pipeline in accordance with regulatory requirements and accepted best practice environmental management	13.1 To safely decommission the pipeline and associated above-ground infrastructure in accordance with appropriate regulatory requirements	<ul style="list-style-type: none"> Records of consultation with appropriate regulatory authorities and industry associations Incident management system No above-ground infrastructure evident As and when the QSN pipeline is to cease operation, a decommissioning plan will be developed in accordance with AS2885 (Part 3) As and when the QSN pipeline is to be abandoned, an abandonment plan, including an environmental rehabilitation plan, will be developed in accordance with AS2885 (Part 3) and the APGA Code of Environmental Practice 	<ul style="list-style-type: none"> Pipeline and associated above-ground infrastructure decommissioned to an appropriate standard as required by the legislation and standards of the day Land rehabilitated to surrounding landscape 	<ul style="list-style-type: none"> APA's third party consultation and engagement procedures are up to date and documented.
N/A	N/A		13.2 To minimise disturbance to landholder and other third party stakeholders	<ul style="list-style-type: none"> Records of communications with adjacent landholders / third parties prior to and during maintenance work Landholder activities not restricted as a result of pipeline activities 	<ul style="list-style-type: none"> No reasonable landholder complaints Landholder activities not restricted or disturbed as a result of pipeline activities unless by prior arrangement 	<ul style="list-style-type: none"> APA's third party consultation and engagement procedures are up to date and documented. Emergency response training has been conducted and logged.

Appendix 2 - Goal Attainment Scaling Criteria for Borrow Pit Rehabilitation

Objectives	Goals	Goal Exceeded +2	Goal Exceeded +1	Goal Attained 0	Minor Shortfall - 1	Significant Shortfall -2
Minimise water retention in pit	<u>Predictive</u> Minimal or no water retention in pit footprint	-	-	Measures to minimise water retention implemented (e.g. upslope runoff diverted by contour banks or bunds, rip base, etc.)	-	No measures to minimise water retention evident
	<u>Ongoing</u> Minimal or no water retention in pit footprint	No evidence of water retention	-	Minor retention - pit retains water for less than 1 month following rainfall event or drawdown of floodwaters (as a guide - max. water depth up to 0.2 metres) or Water retention in pit consistent with surrounding land	Pit retains water for up to 3 months following rainfall event or drawdown of floodwaters (as a guide - max. water depth < 1 metre)* and Water retention in pit inconsistent with surrounding land	Pit holds water for more than 3 months following rainfall event or drawdown of floodwaters (as a guide - max water depth > 1.0 metre)* and Water retention in pit inconsistent with surrounding land
Minimise impacts on soil	<u>Predictive</u> Minimise soil erosion	-	-	Measures to minimise erosion implemented (e.g. upslope runoff diverted by contour banks or bunds)	-	No measures to minimise erosion evident
	<u>Ongoing</u> Minimise soil erosion	Soil surfaces stable No accelerated erosion	-	Minor erosion of pit sides or up-slope from pit*	Moderate erosion* Areas of pit footprint unstable with some uncontrolled runoff	Active severe erosion* Large areas of pit footprint unstable Uncontrolled run-off
Minimise impacts on vegetation	Pit footprint revegetated with indigenous species (subject to time and preceding climatic conditions)	Vegetation community re-established with species and cover typical for land unit	Pit footprint revegetated with perennial species mix and cover levels typical for land unit	Pit footprint revegetated with species mix similar to surrounding area, some bare patches still present	Revegetation confined to base of pit, pit sides bare, species mix differs from surrounding area, annual species dominate	No revegetation evident
	No weed** infestations on pit footprint	No weeds on pit footprint	-	Presence of weeds** on pit footprint consistent with pre-disturbance conditions and adjacent land	Weeds** present on pit footprint which is inconsistent with pre-disturbance conditions and adjacent land	Declared weeds*** present on pit footprint which is inconsistent with pre-disturbance conditions and adjacent land

Objectives	Goals	Goal Exceeded +2	Goal Exceeded +1	Goal Attained 0	Minor Shortfall - 1	Significant Shortfall -2
Minimise visual impacts	Borrow pit effectively contoured and ripped	Pit contours indistinguishable from surrounding landscape Access tracks ripped	Pit contours blend in with surrounding landscape, although still evident	Pit sides battered and ripped along contours but pit still highly visible Topsoil and vegetative material re-spread over disturbed area	Pit sides battered but not ripped	No re-contouring of pit has occurred – pit sides very steep Topsoil and vegetative material not re-spread
Site to be left in a clean and tidy condition	Litter and other foreign materials removed	-	-	No litter and other foreign materials on pit footprint or surrounds	Scattered litter and/or other foreign materials on pit footprint or surrounds	Litter and/or other foreign materials common on pit footprint or surrounds

Figure 2 GAS Criteria Tables for the Rehabilitation of Borrow Pits in the Cooper Basin SA (Jacobs SKM 2014)