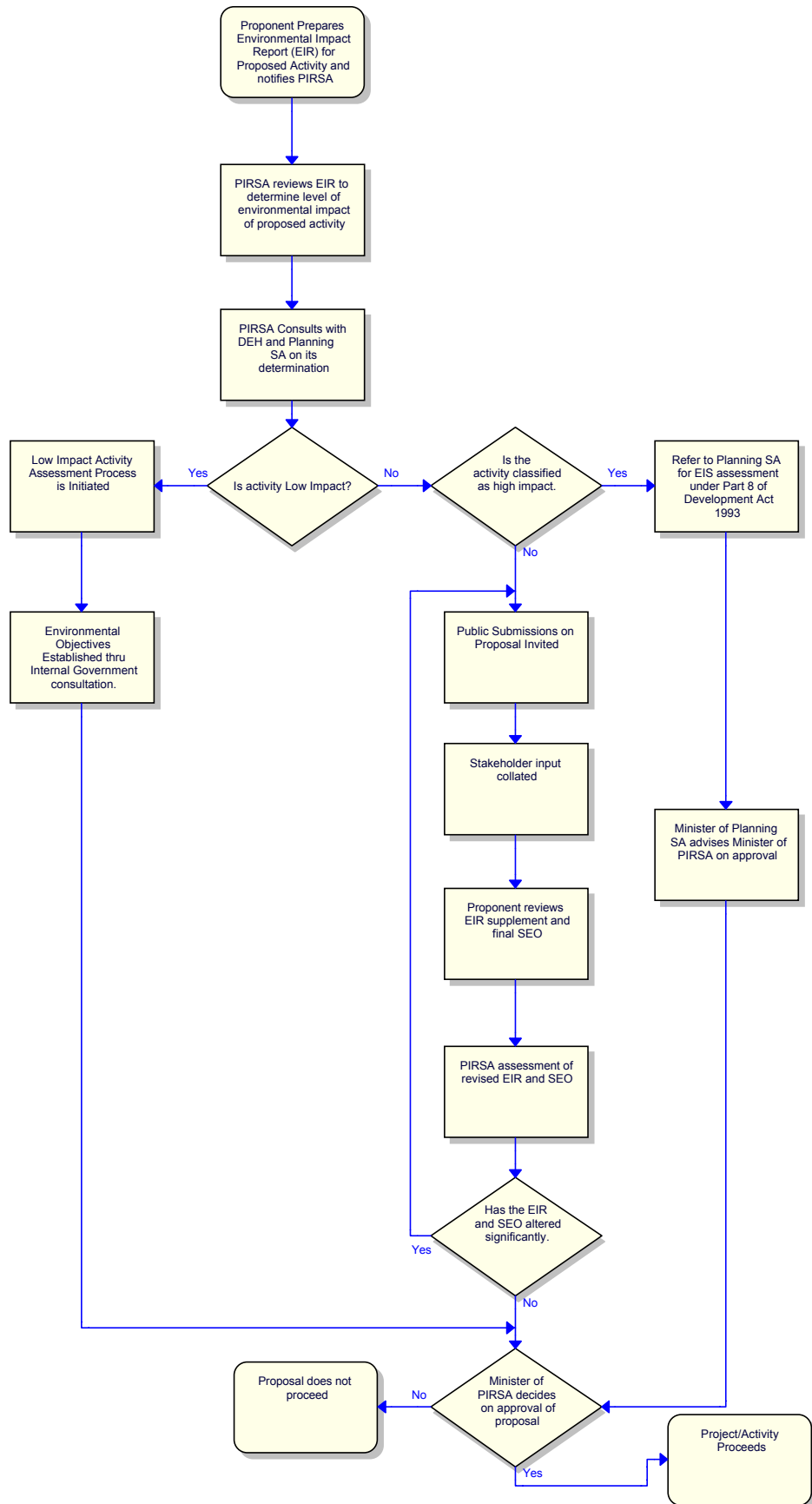


Activity Assessment and Approval Process Under the Petroleum Act



Introduction

One of the key features of the *Petroleum Act 2000* (the Act), is that no activity under a licence can be carried out unless there is an approved Statement of Environmental Objectives (SEO) for the area or land system in which the activity is to be carried out. For the purposes of the Act environment includes the natural, social, cultural and economic aspects of the area, locality or region. The SEO must include:

- The environmental objectives relating to the relevant activity; and
- The criteria to be used to measure and assess the achievement of the environmental objectives.

These are the features of the SEO that provide transparency to stakeholders on what is required of the licensee in terms of its environmental performance, including, the measurement criteria for assessing and measuring the achievement of the objective. Under the Act a SEO will be reviewed every five years. The SEO may relate to:

- a) a specific activity carried out at a specific location; or
- b) a particular activity type (eg drilling, seismic, production facility construction/operation, or pipelines) carried out within a specific region or land system.

The SEO will be prepared on the basis of the information provided in an Environmental Impact Report and internal government agency and public consultation. Subject to the outcome of these consultations, the SEO may then be approved by the Minister. The need for public consultation will be determined by the level of environmental impact of the proposed activity on the basis of a set of publicly developed and disclosed criteria for making such a determination. The SEO upon approval, becomes a publicly available document open for the use and scrutiny of all stakeholders.

The following outlines the assessment process in the Act for preparing and approving an activity SEO.

1. Proponent Prepares EIR for Proposed Activity and notifies PIRSA

For any activity within a region or land system not covered by a Statement of Environmental Objectives (SEO) the proponent prepares an Environmental Impact Report (EIR) and a draft SEO (prepared by the proponent on the basis of the environmental risks identified in the EIR). The proponent then submits these to PIRSA for environmental assessment and approval.

The EIR provides the following information (Regulation 10, *Petroleum Regulations 2000*):

- 1) a description of the activities to be carried out.
- 2) a description of the specific features of the natural, social/cultural and economic aspects of the environment which may be affected by the activities.
- 3) a description of the actual and potential events associated with the activities that could pose a threat to the various aspects of the environment defined under 2) above. Including their likelihood and the level of certainty in their prediction.

- 4) an assessment of the potential consequences of the above defined events on the various aspects of the environment.
- 5) detailed information on the extent to which the above potential consequences can be managed including information on their duration, size and scope.
- 6) information on any consultation undertaken with the relevant land owner or occupier, relevant government agencies or other interested groups or individuals.

The information and material provided by the EIR must:

- be balanced, objective and concise;
- state any limitations that apply, or should apply, to the use of the information and material;
- identify any area or issue in relation to which there is a significant lack of relevant information or a significant degree of uncertainty;
- identify the sensitivity to change of any assumption that has been made and any significant risks that may arise if an assumption is later found to be incorrect;
- be presented in a way that allows a person assessing the information or material to understand how conclusions have been reached and allows the information or material to be used to make an informed decision on the level of environmental impact of a particular activity without the need to obtain additional technical advice.

2. PIRSA reviews EIR to determine level of activity environmental impact

PIRSA reviews the Environmental Impact Report to determine the level of environmental impact of the proposed activity. In making this determination PIRSA addresses the following issues in light of the information provided in the EIR and on the basis of PIRSA's publicly developed and disclosed criteria for making such a determination (see "Criteria for Classifying the Level of Environmental Impact of Regulated Activities: Requirement under Part 12 of the Petroleum Act2000".

(<http://www.pir.sa.gov.au/dhtml/ss/section.php?sectID=437&templID=8>)

- 1) the actual and potential events associated with the activities that could pose a threat to the environment;
- 2) the potential consequences of those events on the environment;
- 3) the degree of confidence in the accuracy of any assessment in the EIR in relation to the:
 - a) occurrence of the events and their consequences;
 - b) size and scope of the consequences;
 - c) frequency of the events;
 - d) duration of the consequences;
 - e) extent to which the consequences can be managed; and
 - f) any cumulative effects of the consequences considered in conjunction with existing impacts.
- 4) the actions or measures proposed to be taken to reduce or avoid these consequences;
- 5) the interests and views of any interested parties or stakeholders.

3. PIRSA Consults with DEH and Planning SA

PIRSA will consult on its preliminary determination of the level of environmental impact of the proposed activity with the South Australian Department of Environment and Heritage

(DEH) and Planning SA of the Department of Transport and Urban Planning (through administrative arrangements made with these agencies).

The consultation will be focussed on the integrity of the professional and value judgements made on the basis of the information provided in the EIR and against the PIRSA criteria for making such judgements.

Attachments 1 and 2 give examples of the type of information generated by PIRSA in its assessment of an activity's environmental impact against PIRSA's criteria where, attachment #1 summarises the assessment for a small production facility and attachment #2 summarises the assessment of a transmission pipeline. On the basis of these preliminary PIRSA assessments and in light of the information provided in the EIR the consultation with DEH and Planning SA is undertaken.

4. Determine Whether Activity is Low Impact

The outcome of the consultation with DEH and Planning SA on the environmental impact of the proposed activity will deliver the final determination by PIRSA of the classification of the level of environmental impact (section 98 in the Act; low, medium or high).

Low Impact Activity Assessment Process

In the case where an activity is classified as low environmental impact, it will be assessed internally by government between PIRSA, DEH, Planning SA and other relevant agencies prescribed in the Regulations.

Environmental Objectives Established through Internal Government consultation.

In consultation with DEH and Planning SA, the environmental objectives and criteria for assessing the achievement of the environmental objectives which include conditions of approval will be established and approved by PIRSA.

These objectives and assessment criteria will be established on the basis of the environmental risks of the proposed activity identified through the assessment of the EIR.

Example of Low Impact Activity

For example, in the case of the proposed temporary production facility activity outlined in attachment #1 the various impacts or events of the proposal (eg disturbances on soil, groundwater, native flora and fauna, nearby conservation parks, aboriginal sites, livestock and existing land use) were for most cases, as assessed on the basis of the information provided in the EIR, as being highly predictable in terms of their size, scope, duration, frequency and stakeholder concern.

In all cases the consequences of these events were assessed as being either totally avoidable, highly unlikely, of short duration, small in size and scope, no cumulative effects and/or absent of any stakeholder concern.

As a result of this assessment each event associated with the proposed activity was assessed as being of low environmental impact. Overall this lead to "low impact" classification of the activity.

5. Medium impact activity assessment process

Where an activity is classified as "medium impact" it will follow the public assessment process described under section 101 in the Act. This process is equivalent to the PER process under the Development Act 1993 of SA.

Example Of Medium Impact Activity

In the case of the proposed major pipeline activity outlined in attachment #2 the various impacts or events of the proposal (eg disturbances on soil, groundwater, native flora and fauna, nearby conservation parks, aboriginal sites, livestock and existing land use) were for most cases, as assessed on the basis of the information provided in the EIS, as being of medium to high predictability in terms of their size, scope, duration, frequency and stakeholder concern.

In the case of some of the events it was found that potential cumulative effects and/or stakeholder concerns of the consequences existed. As a result, these events were assessed as being of medium environmental impact. Despite these events only amounting to 5 out of the total 31, these events were considered of sufficient importance by PIRSA from its consultation with DEH to warrant the overall activity being classified as a "medium impact" activity.

Public Submissions on Proposal Invited

Public submissions on the EIR and the draft SEO for a medium impact activity are invited through a notice in a newspaper circulating generally throughout the state. Also, the Minister of PIRSA may invite submissions from organisations and/or persons who have a particular interest in the area or region which is likely to be affected by the proposed activity.

Closing date for public submissions is at least 30 business days after the publication of the notice.

Stakeholder input collated

All submissions to the EIR and draft SEO are made to PIRSA and kept available for public inspection at PIRSA's public office, and/or on the web.

Proponent reviews EIR supplement and final SEO

Proponent addresses issues raised by public submissions and revises EIR and SEO as required.

Revised versions of EIR and SEO provided to PIRSA for review.

PIRSA assessment of revised EIR and SEO

PIRSA reviews revised version of the EIR and SEO. If EIR and draft SEO have been amended substantially, as a result of the public submissions, PIRSA will require the consultation process to be repeated.

Otherwise, PIRSA will consider the SEO for approval.

6. High Impact Activity Assessment Process.

In the case where an activity is classified as high impact, it will be referred to Planning SA for an environmental impact statement (EIS) level assessment under the Development Act 1993 (section 103 in the Act).

Minister of Planning SA advises Minister of PIRSA on approval

The Minister of Department of Transport and Urban Planning will advise the Minister of PIRSA on approval of proposal on the basis of the outcome of the EIS process.

7. Minister of PIRSA decides on approval of proposal

Finally regardless of the level of assessment undertaken, the Minister of PIRSA will be advised on the outcome of the assessment of the proposal by either PIRSA for low or medium impact activities or by the Minister of the Department of Transport and Urban

Planning of SA for high impact activities on whether to approve the proposal. The Minister will then decide on whether or not to approve the SEO.

8. Proposal does not proceed

In the case where the Minister decides against approving the activity SEO the proposal will not proceed. However, an appeal against such a decision can be made under Part 15 of the Act.

Attachment 1

KILLANOOLA #1 TEMPORARY PRODUCTION FACILITY - ENVIRONMENTAL SIGNIFICANCE ASSESSEMENT

DEF Sections	IMPACT	PREDICTABILITY					MANAGEABILITY					COMMENTS	ENVIRONMENTAL SIGNIFICANCE OF IMPACT			
		SIZE	SCOPE	DURATION	FREQUENCY	STAKEHOLDER CONCERNS	SIGNIFICANCE SCORES	AVOIDANCE	PROBABILITY	DURATION	SIZE & SCOPE			CUM EFFECTS	STAKEHOLDER CONCERNS	SIGNIFICANCE SCORES
6.1	Natural Environment Impacts Soil	High	High	High	High	High	1	No	High	Short	Small	None	None	2	Existing pad will be used as the facility site, new access track will be built using old pad material. Potential oil leaks onto soil will be managed using drip trays and any contaminated soil will be removed.	Low
6.2	Groundwater	Med	Low	Low	Low	Low	4	Yes						1	Even though the size, scope etc of a spill cannot be predicted accurately steps have been taken to avoid any consequence of a spill on the groundwater.	Low
7.1	Water ways	Med	Low	Low	Med	Low	4	No	Low					1	Even though the predictability significance score is high, it is considered that the probability of a spill into the water way occurring during the time of the year in which this test will be carried out is very unlikely due to the low average expected rainfall.	Low
6.6	Native flora	High	High	High	High	High	1	Yes						1	No disturbance to native flora will occur.	Low
6.6	Native fauna	Med	Med	Med	Med	Med	3	No	Low					1	No disturbance to native fauna is very likely and not considered to be a serious issue.	Low
6.4 & 7.2	Air impact	High	High	High	High	High	1	No	High	Short	Small	Unlikely	Low	2		Low
2.1 & 7.1	Social Environment Impacts Bool Lagoon Conservation Park	Low	Low	Low	Low	Low	5	No	Low					1	Despite there being no knowledge of the potential consequences to the Bool Lagoon conservation park in case of a spill into the adjacent water way to the facility site. The fact that the test is being run during the dry period and that for oil to escape into the water will require a spill event to occur at the same time as a very unlikely flood event, makes any impact on the Bool Lagonn highly unlikely.	Low
2.1 & 7.1 3.0 & 6.8	Mary Seymour conservation Park Aboriginal sites	Low	Low	Low	Low	Low	5	No	Low					1	Same argument as for the Bool Lagoon Conservation Park.	Low
		High	High	High	High	High	1	Yes						1		Low
6.3 & 7.3	Noise	High	High	High	High	High	1	Yes						1	Consequence of any noise creating discomfort to community is avoided due to location of the site being 2 km away from the nearest home.	Low
6.7	Traffic increase	High	High	High	High	High	1	No	High	Short	Small	None	None	2		Low
6.5	Economic Environment Impacts Livestock disturbance	High	High	High	High	High	1	Yes						1	Facility site is fenced off, thus keeping livestock out.	Low
2.3	Existing land use	High	High	High	High	High	1	Yes						1	Existing land use (pasture) not affected at all by the activity as it is confined to existing Killanoola #1 lease.	Low

Attachment 2

Berri - Mildura Pipeline - Environmental Significance Assessment																		
REF	EVENT	IMPACT	CONSEQUENCES	PREDICTABILITY					MANAGEABILITY					COMMENTS	Environmental significance			
				SIZE	SCOPE	DURATION	FREQUENCY	STAKEHOLDERS	SIGNIFICANCE	AVOIDANCE	PROBABILITY	DURATION	SIZE AND SCOPE			CUMULATIVE EFFECTS	STAKEHOLDERS	SIGNIFICANCE
<p>Note: A Y in the stakeholder column for manageability indicates that the concerns have been raised during company consultation not that they are necessarily major concerns (the concerns were listed not rated). The company commitment to ongoing consultation with stakeholders on the timing and route of the pipeline to avoid or minimise any impacts was why the stakeholder concerns were not considered to have pushed the significance of the issue to a high environmental significance score.</p>																		
Natural Environment Impacts																		
Soil																		
7.1 App. 5	Removing vegetation, grading, removing soil, exposing soil on slopes	Erosion (wind and water)	Loss of valuable soil, dust problems, sedimentation	M	M	M	M	M	3	N	Medium	short	confined	N	Y	2	Erosion issues raised by stakeholders are addressed by the commitment of the company to ensure that erosion potential is managed and the size and scope is small enough to be manageable	M
7.1 App.5	Grading and removing soil for trench	Removal of top soil	Loss of nutrients and organic matter, loss of seed	H	H	H	H	M	2	N	High	short	confined	N	Y	2	The concerns of stakeholders on the loss of topsoil is addressed by the commitment of the company to separately stockpile top soil, minimise storage time of top soil, and respreading of topsoil on completion and erosion control efforts to reduce any losses.	L
7.1 App. 5	Heavy vehicle use and drill pads on soils susceptible to compaction	Compaction	Reduction of water infiltration, prevents regeneration of vegetation, increases potential for water erosion	H	H	M	H	M	2	N	High	short	confined	N	N	2		L
7.1 App. 5	Water filling in trench in areas with highly saline sub-soils	Salinity	Making soil non-productive due to mobilisation of salts in the soil profile	H	H	M	L	L	4	Y	Low	Long	confined	Y	N	1	Can be prevented by pumping out saline groundwater from the trench	L
Water Resources																		
7.2 App.5	Trenching, stockpiling soil, drill pads	Interrupt surface drainage	Change direction of water flow, reduce quantity of water flow	M	M	M	M	M	3	N	High	short	confined	Y	N	2		M
7.2 App.5	Trenching, stockpiling soil, drill pads	- Lyrup Forest - wetland disturbance	Disturbance to ecological processes of wetlands	M	M	M	M	M	3	N	High	short	confined	N	Y	2	Short term flow changes may be experienced, essential to ensure that long term effects do not occur. Stakeholder concerns were raised, particularly for Lyrup Forest wetlands but the company is working closely with stakeholders to ensure any disturbance is temporary.	M
7.2 App.5	Pipelaying across the River	- River Murray	Disturbance to the flow of the River, ecological effects, disturbance to movement of water vehicles and recreational activities	H	H	H	H	H	1	Y	low	short	confined	N	N	1	Directional drilling option prevents any flow interruptions	L
7.2 App.5	Removing soil, machinery use or accidents, drilling	Contaminate surface water	Reduced water quality due to sediment loads or pollution from hydrocarbons or other substances	H	H	H	H	H	1	Y	Low	short	small	N	N	1	Any oil, fuel, chemical spills would be very minor and unlikely to occur. Sediment is the main concern and relates to erosion management	L
7.2 App.5	Trenching, Drilling	Interrupt groundwater	Interfere with groundwater flow patterns, bores affected, groundwater moving between aquifers	M	M	H	M	M	3	N	High	short	confined	N	N	2	Only the Parilla sand aquifer is likely to be intercepted which is a highly saline aquifer.	M
7.2 App.5	Trenching, Drilling, Using machinery,	Contaminate groundwater	Reduce groundwater quality due to pollution	H	H	H	H	H	1	Y	Low	short	small	N	N	1	Any oil, fuel, chemical spills would be very minor and unlikely to occur. Sediment is the main concern and relates to erosion management	L
Air																		
7.7 App.5	Clearing vegetation, grading, trenching, stockpiling soil, driving, machinery	Dust	Dust clouds, loss of topsoil, increase sediment in water flows, smother vegetation, reduce visual amenity, affect public health	H	H	H	H	H	1	N	moderate	short	small	Y	N	3		L
7.7 App.5	Vehicles and machinery use	Vehicle emissions	contributing to greenhouse gases, affect health of people in near vicinity	H	H	H	H	H	1	N	low	short	small	Y	N	3	Vehicle emissions are considered insignificant	L
7.7 App.5	Purging gas pipeline	Other emissions	Contributing small amount to greenhouse gases, loss of gas	H	H	H	H	H	1	N	low	short	small	N	N	2	The amount of gas to be purged is considered to be insignificant	L
Flora																		

Attachment 2

Berri - Mildura Pipeline - Environmental Significance Assessment																		
REF	EVENT	IMPACT	CONSEQUENCES	PREDICTABILITY					MANAGEABILITY						COMMENTS	Environmental significance		
				SIZE	SCOPE	DURATION	FREQUENCY	STAKEHOLDERS	SIGNIFICANCE	AVOIDANCE	PROBABILITY	DURATION	SIZE AND SCOPE	CUMULATIVE EFFECTS			STAKEHOLDERS	SIGNIFICANCE
<p>Note: A Y in the stakeholder column for manageability indicates that the concerns have been raised during company consultation not that they are necessarily major concerns (the concerns were listed not rated). The company commitment to ongoing consultation with stakeholders on the timing and route of the pipeline to avoid or minimise any impacts was why the stakeholder concerns were not considered to have pushed the significance of the issue to a high environmental significance score.</p>																		
7.3 App.1 App.5	Removal / damage of native vegetation for ROW	Vegetation removal	Exposing soil to erosion, reducing habitat for fauna, reducing visual amenity	H	H	H	H	H	1	N	High	medium	medium	Y	Y	3	Concerns over vegetation removal were raised by stakeholders during consultation. Medium significance was deemed appropriate as the company aims to use existing cleared areas and to work closely with those concerned in order to pick the best possible ROW to minimise clearance.	L
7.3 App.1 App.5	Vehicles, machinery use, people movements	Weeds	Allowing foreign plants to establish, reduction in quality of vegetation and habitat for native fauna reduction in native visual amenity, spread of weeds into agricultural areas	M	M	M	H	M	2	Y	Moderate	medium to long term	Medium to large impact	Y	Y	2	Can be totally avoided, or totally managed. A commitment to addressing any weed infestations on a continual basis addresses the concerns raised by stakeholders.	L
7.3 App.1 App.5	Vegetation removal, damage	significant flora species	Reduction in the population of a species already under threat or small population base. May contribute to species under increased stress	H	H	M	H	H	2	Y	Moderate	medium to long term	small size but large scope possible	Y	Y	2	By working with conservation agencies in recognition of species and minor realignment of pipeline can avoid impacting on species. As this can be avoided the concerns raised by stakeholders can be prevented.	L
7.3 App.1 App.5	Vegetation removal / disturbance, human activity, grading, removal of vegetation litter	Loss or disturbance of habitat	Fauna may die, need to reestablish foraging, living areas, reduced area for foraging, living, increased access for feral animals	M	M	M	M	M	3	N	High	medium	moderate	Y	Y	3	Further fragmentation of habitat adds to risks to native fauna survival	M
7.3 App.1 App.5	Use of vehicles and machinery, human activity	Noise	Cause fauna to relocate or interrupt behavioural patterns (ie. may not breed)	H	M	H	H	H	2	N	High	short	small area	N	N	2	Temporary impact	L
7.3 App.1 App.5	Vegetation removal / disturbance, human activity, grading, removal of vegetation litter	Significant fauna species	Fauna already threatened becomes further stressed,	M	M	H	H	M	2	N	moderate	short	small area but possible wide implications for the species	Y	Y	2	The short duration of disturbance and a commitment to reinstating vegetation and habitat addresses stakeholder concerns.	L
7.3 App.1 App.5	Trenching, backfilling, vehicle movements	Direct fauna mortality	mortality of fauna	H	H	H	H	H	1	N	moderate	short	small	N	N	2	Provisions in the EMP to walk the trench to remove animals trapped prior to backfilling should significantly reduce the likelihood of fauna mortalities	L
Social																		
Sensitive Areas																		
		Lyrup Forest	Loss of environmental values, disturbance of native fauna, reduced amenity for visitors														Covered under water resources, - Lyrup Forest Wetland	
	River crossing, using directional drilling to avoid consequences	River Murray	Loss of environmental values, disturbance of native fauna, reduced amenity for visitors, reduced leisure options	H	H	H	H	H	1	Y	low	short	confined	N	N	1		L
7.5 App.3 App.5	Grading, trenching, drilling, vehicle and machinery movement	Aboriginal Heritage Sites	Loss of heritage values, damaging impact on cultural needs	H	H	H	H	H	1	Y	low	short	small	N	Y	2	An issue which stakeholders are concerned about. Efforts by the company to avoid all known sites and training for operators in site recognition should enable the ROW to avoid sites.	L
	Grading, trenching, drilling, vehicle and machinery movement	European Heritage Sites	Loss of heritage values, damaging impact on cultural needs														No mention of this in the DEF, assumed that there were no sites on or near the proposed pipeline route ("This was confirmed by company representative)	
Community Resources																		
7.4 App.5	Vegetation removal, trenching, vehicle and machinery use	Damage to infrastructure	Roads, pipelines, overhead cables etc damaged	H	H	H	H	M	2	Y	low	short	confined	N	Y	1	Concerns raised by stakeholders were met by a commitment to avoid all existing infrastructure.	L

Attachment 2

Berri - Mildura Pipeline - Environmental Significance Assessment																		
REF	EVENT	IMPACT	CONSEQUENCES	PREDICTABILITY						MANAGEABILITY						COMMENTS	Environmental significance	
				SIZE	SCOPE	DURATION	FREQUENCY	STAKEHOLDERS	SIGNIFICANCE	AVOIDANCE	PROBABILITY	DURATION	SIZE AND SCOPE	CUMULATIVE EFFECTS	STAKEHOLDERS			SIGNIFICANCE
7.4 App.5	Laying of pipeline	Land use options	Opportunities foregone for alternative uses of the land (ie. buildings, excavations etc)	H	L	H	H	H	4	N	high	long	confined to ROW	N	N	1	A long term issue but with little stakeholder concern is really of low significance	L
7.4 App.5	Vehicles and machinery, reduced access	Recreation pursuits	Reduced opportunities for leisure pursuits, restricted access, disturbed leisure time	H	H	H	H	M	2	N	low	short	small	N	N	2		L
7.9 App.5	Removal of vegetation, stockpiling soil, machinery, waste	Public amenity	Reduced 'beauty' of scenery, landscape	H	H	H	H	M	2	N	moderate	medium	confined	N	Y	3	Use of screening vegetation and enhanced regeneration will keep these impacts to reasonably short time frames.	L
7.8 App.5	Machinery and vehicle use, human activity	Noise	Inconvenience to public	H	H	H	H	H	1	N	moderate	short	small	N	N	2	Localised and temporary	L
7.6 App 4 App.5	Removal of vegetation, trenching, pipeline laying, backfilling, existance of pipeline	Public safety	Death, injury or illness of members of the public	H	H	H	H	H	1	N	low	life of pipeline	small	N	N	3		L
7.4 App.5	Vegetation removal, grading, pipe stringing, pipe laying, trenching, access restrictions	Economic Short term agricultural production loss	loss of income, loss of opportunity, inconvenience	H	M	H	H	H	2	N	high	short	small	N	Y	2	Stakeholder concerns are being addressed by compensation discussions with landholders and close working arrangements with individual land owners.	L
7.4 App.5	Vehicle, machinery use, restricted access	Disturbance to stock	stress to stock, loss of income	H	H	H	H	H	1	Y	moderat	short	small	N	Y	1	Managed by consultation with each land owner	L
7.4 App.5	trenching, backfilling, access, vehicle and machinery movement	Disturbance to irrigation infrastructure	loss of crop, loss of income, inconvenience	H	H	H	H	H	1	N	high	short	small	N	Y	2	Managed by consultation with each land owner and ways of meeting irrigation requirements while interruptions occur or compensation	L

Note: A Y in the stakeholder column for manageability indicates that the concerns have been raised during company consultation not that they are necessarily major concerns (the concerns were listed not rated). The company commitment to ongoing consultation with stakeholders on the timing and route of the pipeline to avoid or minimise any impacts was why the stakeholder concerns were not considered to have pushed the significance of the issue to a high environmental significance score.