



09 May 2019

## **Environmental Impact Classification for Preliminary Exploration and Survey Activities in South Australia – Environmental Impact Report, April 2019.**

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Pursuant to Section 98 of the *Petroleum and Geothermal Energy Act 2000* (the Act) the Minister must classify the regulated activities covered by a prepared Environmental Impact Report (EIR) as either low, medium or high environmental impact.

The classification must be made on the basis of:

- The prepared EIR;
- Comments received from relevant government agencies in accordance with established Memorandum of Understandings; and
- Criteria established for classifying the level of environmental impact of regulated activities, a copy of which is found on the Department for Energy and Mining (DEM) Energy Resources web page:

[http://www.energymining.sa.gov.au/petroleum/legislation\\_and\\_compliance/environmental\\_register](http://www.energymining.sa.gov.au/petroleum/legislation_and_compliance/environmental_register).

This document summarises the classification made by DEM on the regulated activity of Preliminary Exploration and Survey Activities in South Australia.

This classification is based on information provided in the EIR.

The EIR assessed here was prepared to satisfy the requirement for the preparation and approval of Statement of Environmental Objectives (SEO) under Part 12 of the Act for Preliminary Exploration and Survey Activities in South Australia.

### **ACTIVITY CLASSIFICATION SUMMARY**

1. From an analysis of the environmental significance of various potential impacts associated with these operations against the classification criteria the activity for Preliminary Exploration and Survey Activities in South Australia as described in the EIR has been assessed and classified as **low impact**.
2. The Department for Environment and Water (DEW) and the Environment Protection Authority (EPA) on the 6 and 7 November 2018 respectively agreed with the classification of low potential impact.
3. Of 55 potential environmental events assessed, all (55) were deemed to be of low potential environmental significance.

#### **Energy Resources Division**

Level 7, 11 Waymouth Street, SA 5000 | GPO Box 320 Adelaide SA 5001 | DX452

Tel (+61) 8 8429 2430 | Fax (+61) 8463 3229 | <http://energymining.sa.gov.au/petroleum> | ABN 83 768 683 934

## CONSULTATION

1. For a low potential impact classification, DEM is required to refer the draft significance assessment to DEW and EPA for comment and concurrence in accordance with administrative arrangements dated 11 November 2005 and 25 June 2012 respectively.
2. For the purpose of Section 101(2) of the Act (low impact activities). DEM is required to consult with relevant government agencies. Comments and responses to this consultation have been included in the relevant EIR.

Pursuant to delegated powers, I classify this regulated activity as **low impact**.

A handwritten signature in black ink, appearing to read 'N Panagopoulos', enclosed within a circular scribble.

Nick Panagopoulos  
**A/Executive Director**  
**Energy Resources Division**  
**Department for Energy and Mining**  
**Delegate of the Minister for Energy and Mining**

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REFERENCE	TYPE OF IMPACT	EVENT(S)	POTENTIAL CONSEQUENCES	SIZE	SCOPE	DURATION	FREQUENCY	STAKEHOLDERS	SIGNIFICANCE	AVOIDANCE	PROBABILITY	DURATION	SIZE AND SCOPE	CUMULATIVE EFFECTS	STAKEHOLDERS	SIGNIFICANCE	COMMENTS	ENVIRONMENTAL SIGNIFICANCE
Table 2		Bushfire (resulting from activities)	Loss of vegetation and habitat	H	M	H	H	H	2	No	Med	Short	Small	Small	Low	2	Fire fighting equipment available as appropriate for location and use. Fire and Emergency Services Act requirements will be complied with (e.g. permits for 'hot work' on total fire ban days). Ensure all vehicles are fitted with appropriate fire-fighting equipment and spark arrestors. Avoid driving over long dry grass. Procedures are in place to minimise the risk of initiating and propagating fire during periods of high temperatures and high winds. A hazard identification plan is in place for immediate implementation on days of high temperatures and winds. A response plan is in place for the safety of crew personnel should a fire approach, or be initiated by, the field crew. Reporting procedures in place to CFS, DEM Energy and Resources Division and DEW when survey activities undertaken within a DEW reserve. Crews are trained in use of fire fighting equipment. Guides, codes and standards are available to provide appropriate prevention and management measures, as provided by the Fire and Emergency Services Act 2005, APPEA Code of Environmental Practice, local Country Fire Services and forestry codes and rules.	Low
Table 2; 3.2.2; 3.5		Storage and disposal of domestic waste (i.e. campsites)	Damage to vegetation and habitat	H	H	H	H	H	1	Yes	Low	Short	Small	Small	Low	1	Waste removed off-site and disposed of at appropriately licensed waste handling facility. Hazardous wastes (if generated), handled in accordance with relevant legislation and standards. Licensed contractors used for waste transport.	Low
Table 2; 3.5		Campsites	Damage to native vegetation and wildlife habitats	H	H	H	H	H	1	Yes	Low	Short	Small	Small	Low	1	Campsites (if required) are established on clear areas where no impact to vegetation occurs and in locations where the preparation of a new access track is not necessary. Camps are small size, short duration. All appropriate spill cleanup equipment held at campsites.	Low
Table 2; 3.3-3.4		Shallow excavations and soil sampling	Damage to native vegetation and wildlife habitats	H	H	H	H	H	1	No	Low	Short	Small	Small	Low	2	Survey work to be undertaken by appropriately trained and experienced personnel. <u>Native Vegetation and Wildlife Habitats</u> Clearing of native vegetation is avoided except as outlined below. Where clearance / disturbance of very small areas of native vegetation is unavoidable (e.g. for geotechnical or cultural heritage test pits or excavations in the pastoral zone, where native vegetation is ubiquitous), the following must be adhered to: - native vegetation will not be cleared if existing cleared areas can be utilised; - clearance of native vegetation will be limited to the minimum required for the survey activity (expected to be several square metres or less); - trees, large shrubs and flora of conservation significance will be avoided; - naturally clear areas or areas with few long-lived species will be selected where possible; - where vegetation and habitats may be sensitive to disturbance, consultation with relevant government departments must be carried out and a location specific environmental management plan developed and implemented; - any areas of clearance will be rehabilitated where necessary (e.g. by respraying vegetation or reseeding with local seed sources where appropriate). The conservation needs of particular species will be considered and appropriate management strategies implemented where necessary. If flora with significant conservation value is present in the vicinity of survey activities it will be flagged and / or fenced off where necessary to prevent disturbance. Undertake ecological assessment prior to geo-technical and land / cadastral survey and identify any 'no-go' areas.	Low
Table 2; 3.2-3.3		Surveying and pegging	Disturbance to vegetation; Introduction of / or spread of weeds or pathogens	M	M	H	H	H	2	No	Low	Short	Small	Small	Low	2	<u>Native Vegetation and Wildlife Habitats</u> Refer to the Shallow excavations and soil sampling section. <u>Weeds and Pathogens</u> Refer to the Vehicle movement and personnel access section.	Low
<b>Fauna Impacts</b>																		
Table 2; 3.3-3.4		Shallow excavations and soil sampling	Damage to native vegetation and wildlife habitats	H	H	H	H	H	1	No	Low	Short	Small	Small	Low	2	Survey work to be undertaken by appropriately trained and experienced personnel. <u>Native Vegetation and Wildlife Habitats</u> Clearing of native vegetation is avoided except as outlined below. Where clearance / disturbance of very small areas of native vegetation is unavoidable (e.g. for geotechnical or cultural heritage test pits or excavations in the pastoral zone, where native vegetation is ubiquitous), the following must be adhered to: - native vegetation will not be cleared if existing cleared areas can be utilised; - clearance of native vegetation will be limited to the minimum required for the survey activity (expected to be several square metres or less); - trees, large shrubs and flora of conservation significance will be avoided; - naturally clear areas or areas with few long-lived species will be selected where possible; - where vegetation and habitats may be sensitive to disturbance, consultation with relevant government departments must be carried out and a location specific environmental management plan developed and implemented; - any areas of clearance will be rehabilitated where necessary (e.g. by respraying vegetation or reseeding with local seed sources where appropriate). The conservation needs of particular species will be considered and appropriate management strategies implemented where necessary. If flora with significant conservation value is present in the vicinity of survey activities it will be flagged and / or fenced off where necessary to prevent disturbance. Undertake ecological assessment prior to geo-technical and land / cadastral survey and identify any 'no-go' areas.	Low
Table 2; 3.1-3.2		Vehicle movement and personnel access	Damage to native vegetation and wildlife habitats	H	H	H	H	H	1	No	Low	Short	Small	Small	Low	2	Driver awareness training for all personnel. Existing access roads and turn-arounds used. Drive at appropriate speed to avoid undue disturbance. Wet weather operations are avoided to prevent station track damage. The ability of an area to support the weight of survey vehicles (and potential impacts) should be considered in order to reduce any disturbances, especially in salt lake systems. Areas of sensitive or significant vegetation will be identified and will not be traversed by vehicles. Repeated driving along temporary access routes will be avoided where it is likely to result in long-term damage to vegetation.	Low
Table 2		Bushfire (resulting from activities)	Loss of vegetation and habitat	H	H	H	H	H	1	No	Low	Short	Small	Small	Low	2	Fire fighting equipment available as appropriate for location and use. Fire and Emergency Services Act requirements will be complied with (e.g. permits for 'hot work' on total fire ban days). Ensure all vehicles are fitted with appropriate fire-fighting equipment and spark arrestors. Avoid driving over long dry grass. Procedures are in place to minimise the risk of initiating and propagating fire during periods of high temperatures and high winds. A hazard identification plan is in place for immediate implementation on days of high temperatures and winds. A response plan is in place for the safety of crew personnel should a fire approach, or be initiated by, the field crew. Reporting procedures in place to CFS, DEM Energy and Resources Division and DEW when survey activities undertaken within a DEW reserve. Crews are trained in use of fire fighting equipment. Guides, codes and standards are available to provide appropriate prevention and management measures, as provided by the Fire and Emergency Services Act 2005, APPEA Code of Environmental Practice, local Country Fire Services and forestry codes and rules.	Low
Table 2; 3.2.2; 3.5		Storage and disposal of domestic waste (i.e. campsites)	Damage to vegetation and habitat; Attraction of scavenging animals (native / pest species) and access to contaminants by stock and wildlife	H	H	H	H	H	1	Yes	Low	Short	Small	Small	Low	1	Waste removed off-site and disposed of at appropriately licensed waste handling facility. Hazardous wastes (if generated), handled in accordance with relevant legislation and standards. Licensed contractors used for waste transport. Feeding of wildlife (e.g. dingoes) is not permitted.	Low
Table 2; 3.5		Campsites	Damage to native vegetation and wildlife habitats	H	H	H	H	H	1	Yes	Low	Short	Small	Small	Low	1	Campsites (if required) are established on clear areas where no impact to vegetation occurs and in locations where the preparation of a new access track is not necessary. Camps are small size, short duration. All appropriate spill cleanup equipment held at campsites. Feeding of wildlife (e.g. dingoes) is not permitted.	Low
Table 2; 3.2-3.3		Surveying and pegging	Disturbance to wildlife habitats	H	H	H	H	H	1	No	Low	Short	Small	Small	Low	2	<u>Native Vegetation and Wildlife Habitats</u> Refer to the Shallow excavations and soil sampling section.	Low
<b>Social Environment</b>																		
<b>Community Resource Impacts</b>																		
Table 2; 3.1-3.2		Vehicle movement and personnel access	Noise generation; Damage to landowner and third party infrastructure	H	H	H	H	H	1	No	Low	Short	Small	None	None	2	Landowners consulted prior to survey activities to advise them of the scope, schedule and duration of survey activities and discuss any specific requirements. Where practical, avoid periods critical to the agricultural business cycle such as lambing, mustering, harvesting and sowing operations. Driver awareness training for all personnel. Existing access roads and turn-arounds used. Wet weather operations are avoided to prevent station track damage. Traffic and journey management procedures followed. Survey traverses are planned or deviated in the field to avoid homesteads, associated buildings, dams, and bores and tanks etc. Leave gates as found. All fences are restored to a level satisfactory to the landowner. System is in place for logging landowner complaints to ensure that issues are recorded, addressed as appropriate and complaints are resolved in a timely manner. Induction for all employees and contractors covers pastoral, conservation, tourism, legislation and infrastructure issues. Properties accessed only sufficiently to acquire data.	Low

REFERENCE	TYPE OF IMPACT	EVENT(S)	POTENTIAL CONSEQUENCES	SIZE	SCOPE	DURATION	FREQUENCY	STAKEHOLDERS	SIGNIFICANCE	AVOIDANCE	PROBABILITY	DURATION	SIZE AND SCOPE	CUMULATIVE EFFECTS	STAKEHOLDERS	SIGNIFICANCE	COMMENTS	ENVIRONMENTAL SIGNIFICANCE
Table 2		Bushfire (resulting from activities)	Damage to infrastructure; Disruption to land use	M	H	H	H	M	2	No	Med	Short	Small	Small	Low	2	Fire fighting equipment available as appropriate for location and use. Fire and Emergency Services Act requirements will be complied with (e.g. permits for 'hot work' on total fire ban days). Ensure all vehicles are fitted with appropriate fire-fighting equipment and spark arrestors. Avoid driving over long dry grass. Procedures are in place to minimise the risk of initiating and propagating fire during periods of high temperatures and high winds. A hazard identification plan is in place for immediate implementation on days of high temperatures and winds. A response plan is in place for the safety of crew personnel should a fire approach, or be initiated by, the field crew. Reporting procedures in place to CFS, DEM Energy and Resources Division and DEW when survey activities undertaken within a DEW reserve. Crews are trained in use of fire fighting equipment. Guides, codes and standards are available to provide appropriate prevention and management measures, as provided by the Fire and Emergency Services Act 2005, APPEA Code of Environmental Practice, local Country Fire Services and forestry codes and rules.	Low
Table 2; 3.2.2; 3.5		Storage and disposal of domestic waste (i.e. campsites)	Litter / loss of visual amenity	H	H	H	H	H	1	Yes	Low	Short	Small	Small	Low	1	Waste generation minimised (e.g. reduce, reuse and recycle). Waste streams segregated on site where practicable to maximise opportunities for waste recovery, reuse and recycling. Waste removed off-site and disposed of at appropriately licensed waste handling facility. High standards of 'housekeeping' implemented. Secure systems used for storage and transport of waste (e.g. covered bins in designated area for waste collection and storage prior to transport). Hazardous wastes (if generated), handled in accordance with relevant legislation and standards. Licensed contractors used for waste transport.	Low
Table 2; 3.5		Campsites	Damage to landowner and third party infrastructure; Disturbance to landowners; Visual impact	H	H	H	H	H	1	Yes	Low	Short	Small	Small	Low	1	Obtain landowner consent prior to setting up a camp. All rubbish removed from camps and worksites. No domestic pets allowed at camps or worksites. Camps are small size, short duration. Personnel remain within the vicinity of the camp area. Campsites should have a low visibility from likely public viewpoints.	Low
Table 2; 3.3-3.4		Shallow excavations and soil sampling	Visual impact; Damage to crops and pasture	H	H	H	H	H	1	No	Low	Short	Small	Small	Low	2	Survey work to be undertaken by appropriately trained and experienced personnel. Restore excavations as soon as practicable. Sensitive landforms (e.g. salt lakes) avoided. Conduct excavations in areas away from general public view, where practicable. Avoiding areas of inundation which may result in bogging, or creation of heavy wheel track rutting (more than 200 mm deep). Restrict the area utilised for excavation to the smallest practicable. The soil profile and contours are restored to as near as possible to their undisturbed state as soon as practicable and to the landowners satisfaction.	Low
Table 2; 3.2-3.3		Surveying and pegging	Visual impact	H	H	H	H	M	2	No	Low	Short	Small	Small	Low	2	All temporary pegs and flagging tape removed at end of survey. Limit the use of marker pegs to those essential for identifying the proposed alignment. Install marker pegs on fence lines, where practicable. Conduct excavations in areas away from general public view, where practicable. Restore excavations as soon as practicable. Proposed survey traverses have been appropriately located to minimise visual impacts.	Low
Table 2; 3.4		Accessing groundwater bores	Damage to existing infrastructure	H	H	H	H	H	1	No	Low	Short	Small	Small	Low	2	Water bore monitoring / temperature logging to be undertaken by appropriately trained and experienced personnel. Bore owner's approval is obtained for each bore accessed. Bore infrastructure is not altered without the owner's permission. Operations that access or alter bores are authorised by a relevant permit/licence. Bores are left in a condition satisfactory to the owner.	Low
<b>Cultural &amp; Heritage Impacts</b>																		
Table 2; 3.1-3.2		Vehicle movement and personnel access	Disturbance to cultural heritage sites	H	H	H	H	M	2	No	Low	Short	Small	None	None	2	Cultural and heritage site registers have been consulted in relation to proposed survey traverse / activity location and if required, survey traverse or locations adjusted accordingly. A cultural heritage clearance report has been undertaken by qualified and experienced personnel and is available for audit upon request. (Note: A cultural heritage survey / report may not be required in some areas where the risk can be demonstrated to be low e.g. in cleared cropping land where there is no ground disturbance). Known heritage sites are identified and protected from operations. Where necessary, cultural heritage sites or exclusion zones in the vicinity of the activities are flagged and / or fenced off to prevent disturbance. Proponents and their contractors have a reporting system in place for cultural sites discovered during activities.	Low
Table 2; 3.5		Campsites	Disturbance to cultural heritage sites	H	H	H	H	H	1	Yes	Low	Short	Small	Small	Low	1	<u>Cultural Heritage</u> Refer to the Vehicle movement and personnel access section.	Low
Table 2; 3.3-3.4		Shallow excavations and soil sampling	Disturbance to cultural heritage sites	H	H	H	H	H	1	No	Low	Short	Small	Small	Low	2	<u>Cultural Heritage</u> Refer to the Vehicle movement and personnel access section.	Low
Table 2; 3.2-3.3		Surveying and pegging	Disturbance to cultural heritage sites	H	H	H	H	H	1	No	Low	Short	Small	Small	Low	2	<u>Cultural Heritage</u> Refer to the Vehicle movement and personnel access section.	Low
<b>Community Health &amp; Safety</b>																		
Table 2		Bushfire (resulting from activities)	Danger to health and safety of employees, contractors and possibly the public	M	H	H	H	M	2	No	Low	Short	Small	Small	Low	2	Fire fighting equipment available as appropriate for location and use. Fire and Emergency Services Act requirements will be complied with (e.g. permits for 'hot work' on total fire ban days). Ensure all vehicles are fitted with appropriate fire-fighting equipment and spark arrestors. Avoid driving over long dry grass. Procedures are in place to minimise the risk of initiating and propagating fire during periods of high temperatures and high winds. A hazard identification plan is in place for immediate implementation on days of high temperatures and winds. A response plan is in place for the safety of crew personnel should a fire approach, or be initiated by, the field crew. Reporting procedures in place to CFS, DEM Energy and Resources Division and DEW when survey activities undertaken within a DEW reserve. Crews are trained in use of fire fighting equipment. Guides, codes and standards are available to provide appropriate prevention and management measures, as provided by the Fire and Emergency Services Act 2005, APPEA Code of Environmental Practice, local Country Fire Services and forestry codes and rules.	Low
<b>Economic Environment</b>																		
<b>Existing Land Use Impacts</b>																		
Table 2; 3.1-3.2		Vehicle movement and personnel access	Disturbance to stock or fauna; Damage to crops and pasture	H	H	H	H	M	2	No	Low	Short	Small	None	None	2	Landowners consulted prior to survey activities to advise them of the scope, schedule and duration of survey activities and discuss any specific requirements. Where practical, avoid periods critical to the agricultural business cycle such as lambing, mustering, harvesting and sowing operations. Driver awareness training for all personnel. Existing access roads and turn-arounds used. Wet weather operations are avoided to prevent station track damage. Traffic and journey management procedures followed. Survey traverses are planned or deviated in the field to avoid homesteads, associated buildings, dams, and bores and tanks etc. Leave gates as found. All fences are restored to a level satisfactory to the landowner. System is in place for logging landowner complaints to ensure that issues are recorded, addressed as appropriate and complaints are resolved in a timely manner. Induction for all employees and contractors covers pastoral, conservation, tourism, legislation and infrastructure issues. Properties accessed only sufficiently to acquire data.	Low
Table 2; 3.1-3.2		Vehicle movement and personnel access	Introduction and / or spread of weeds or pathogens	M	M	H	H	M	2	No	Low	Short	Small	Small	Low	2	Strictly comply with quarantine restrictions. Management procedures in place to prevent the spread of identified weeds / diseases / pathogens. Equipment that has been operating outside the State or in areas of known weed infestation must be cleaned (washed down where appropriate) before arrival at the survey location. All vehicles and equipment should generally be cleaned before arrival at site, and between properties where required, unless it is demonstrated that the risks are not significant. Cleaning of equipment must be carried out in accordance with pre-determined company procedures and/or industry standards (e.g. accepted APPEA standards). Details or logs of equipment cleaning are kept and are available for audit upon request. Weeds, in particular those of National Significance, will not be disturbed unless for their control. Records of detection (whether introduced by an operator or not), monitoring, eradication or control of introduced species are kept and are available for audit upon request. Liaison with the animal and plant control officer of applicable local councils and regional NRM boards and landowners can provide important information on local issues to factor into planning.	Low
Table 2		Bushfire (resulting from activities)	Damage to infrastructure; Disruption to land use; Disturbance, injury or death of fauna	M	H	H	H	M	2	No	Low	Short	Small	Small	Low	2	Fire fighting equipment available as appropriate for location and use. Fire and Emergency Services Act requirements will be complied with (e.g. permits for 'hot work' on total fire ban days). Ensure all vehicles are fitted with appropriate fire-fighting equipment and spark arrestors. Avoid driving over long dry grass. Procedures are in place to minimise the risk of initiating and propagating fire during periods of high temperatures and high winds. A hazard identification plan is in place for immediate implementation on days of high temperatures and winds. A response plan is in place for the safety of crew personnel should a fire approach, or be initiated by, the field crew. Reporting procedures in place to CFS, DEM Energy and Resources Division and DEW when survey activities undertaken within a DEW reserve. Crews are trained in use of fire fighting equipment. Guides, codes and standards are available to provide appropriate prevention and management measures, as provided by the Fire and Emergency Services Act 2005, APPEA Code of Environmental Practice, local Country Fire Services and forestry codes and rules.	Low

REFERENCE	TYPE OF IMPACT	EVENT(S)	POTENTIAL CONSEQUENCES	SIZE	SCOPE	DURATION	FREQUENCY	STAKEHOLDERS	SIGNIFICANCE	AVOIDANCE	PROBABILITY	DURATION	SIZE AND SCOPE	CUMULATIVE EFFECTS	STAKEHOLDERS	SIGNIFICANCE	COMMENTS	ENVIRONMENTAL SIGNIFICANCE
Table 2; 3.3.5		Campsites	Disturbance of stock or fauna; Damage to landowner and third party infrastructure; Disturbance to landowners; Damage to crops and pasture	H	H	H	H	H	1	Yes	Low	Short	Small	Small	Low	1	Obtain landowner consent prior to setting up a camp. All rubbish removed from camps and worksites. No domestic pets allowed at camps or worksites. Camps are small size, short duration. Personnel remain within the vicinity of the camp area. Campsites should have a low visibility from likely public viewpoints.	Low
Table 2; 3.3-3.4		Shallow excavations and soil sampling	Damage to crops and pasture	H	H	H	H	H	1	Yes	Low	Short	Small	Small	Low	1	Survey work to be undertaken by appropriately trained and experienced personnel. Restore excavations as soon as practicable. Sensitive landforms (e.g. salt lakes) avoided. Conduct excavations in areas away from general public view, where practicable. Avoiding areas of inundation which may result in bogging, or creation of heavy wheel track rutting (more than 200 mm deep). Restrict the area utilised for excavation to the smallest practicable. The soil profile and contours are restored to as near as possible to their undisturbed state as soon as practicable and to the landowners satisfaction.	Low